SPECIAL TASK FORCE (MEMBER STATES, COMMISSION, EIB) ON INVESTMENT IN THE EU

ANNEX 2 - Project lists from Member States and the Commission

PART 2

DISCLAIMER:

A mention of the EIB or the European Commission in any of the project lists provided by the Member States and/or the Commission does not necessarily imply there has been any previous contact with the EIB or the European Commission on the project in question, nor that it will become a project receiving financing from the EIB or the European Commission in the future. All projects submitted to the EIB for funding will be subject to normal due diligence in line with existing EIB procedures and guidelines and/ or the European Union legislation should they be considered for finance. Co-financing by ESI Funds or other EU programmes of any project is subject to the respect of all applicable European Union and national rules.

POLAND

Country : POLAND

Project list*

* The following project list illustrates only investment potential and is not binding for implementation.

Sector	*Subsector*	*Private[1] /Public / PPP* [1] *includes investment by state-owned*	*Project name*	*Implementing agency*	*Description*	*Included in national investment plan (Yes/No)*	*Status*	*Total invest-ment cost (EUR bn)*	*Investment in 2015 – 2017 (EUR bn)*	*Barriers/solutions*
Transport	Corridors and missing links	private	Construction of high-speed railway lines Warsaw – Łódź – Poznań/Wrocław	PKP Polskie Linie Kolejowe S.A.	Construction of high-speed railway lines Warsaw – Łódź – Poznań/Wrocław	Yes	Feasibility study on the construction of a high-speed railway line Warsaw – Łódź – Poznań/Wrocław ready.	7.50000	0.75000	Lack of financing
Transport	Corridors and missing links	public	Upgrading of the Odra Waterway (OW) at least to navigation class 4.	KZGW (National Water Management Authority) and competent RZGW (Regional Water Management Authority).	Upgrading OW to meet parameters of a class 4 waterway at least, thus becoming part of the TEN-T (Trans-European Transport Network).	Yes	TDS (Transport Development Strategy)	5.00000	0.30000	Lack of funding
Transport	Corridors and missing links	public	Border Modernisation Programme	Ministry of Interior	Comprehensive programme of border infrastructure modernisation (including rail border crossing points) and required transport corridors, to increase accessability and efficiency of functioning of the external border of the European Union.	No	In conceptual phase.	4.03500	0.50000	Lack of financing dissallowing to comprehensivly develop border infrastructure and transnational transport corridors connecting border crossing points on external European Union border; Necessity to allow implementation of selected investments also on teritory of third countries (RU,BY,UA)
Transport	Corridors and missing links	public	S19 Białystok – Lublin	Ministry of Infrastructure and Development	construction of 238.6 km of an expressway corridor as part of the TEN-T comprehensive network	No	one section close to Lublin - awaiting approval - will be on the reserve list	2.40123	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S19 Rzeszów – national border	Ministry of Infrastructure and Development	construction of 85.4 km of an expressway corridor as part of the TEN-T comprehensive network	No	one section in the Rzeszów agglomeration - awaiting approval - will be on the reserve list	2.22010	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S6 Słupsk - Gdańsk	Ministry of Infrastructure and Development	construction of 133.7 km of an expressway corridor as part of the TEN-T comprehensive/core network	No	awaiting approval – will be placed on the priority list (implementation)	2.18348	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	Construction of the Silesian Canal.	KZGW and competent RZGW	Construction of an East-West connection between the canalised Upper Vistula waterway and the Odra Waterway	Yes	TDS	2.00000	0.10000	Lack of funding
Transport	Corridors and missing links	public	S74 Kielce – Nisko	Ministry of Infrastructure and Development	construction of 127.3 km of an expressway corridor as part of the TEN-T comprehensive network	No		1.53678	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S17 Lublin – Hrebenne	Ministry of Infrastructure and Development	construction of 113.3 km of an expressway corridor as part of the TEN-T comprehensive network	No		1.43013	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	private	Construction of the Podłęże – Szczyrzyc –Tymbark/Mszana Dolna railway line and modernisation of the existing railway line no. 104 Chabówka – Nowy Sącz as part of the project Construction of the Podłęże – Szczyrzyc – Tymbark/Mszana Dolna railway line and modernisation of a section of the Nowy Sącz – Muszyna – national border and Chabówka – Nowy Sącz railway line	PKP Polskie Linie Kolejowe S.A. (Polish State Railways Joint Stock Company)	The project will improve the Poland's railway connection with Slovakia. The new line Podłęże – Szczyrzyc – Tymbark is part of the TEN-T comprehensive network.	Yes	Feasibility study and environmental impact assessment report in progress.	1.41867	0.01200	Lack of financing

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Transport	Corridors and missing links	public	S61 Ostrów Mazowiecka – ring road of Augustów	Ministry of Infrastructure and Development	construction of 153 km of an expressway corridor as part of the TEN-T core network – Baltic-Adriatic Corridor	No	awaiting approval – will be placed on the priority list (implementation)	1.36700	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding. // Project included in ID on the CEF list. The call is competitive and obtaining funding is not certain.
Transport	Corridors and missing links	public	S11 Kępno – Katowice	Ministry of Infrastructure and Development	construction of 165.8 km of an expressway corridor as part of the TEN-T comprehensive network	No		1.34215	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S7 Gdańsk – Warsaw, the Płońsk – Warsaw section	Ministry of Infrastructure and Development	construction of a missing section of the expressway corridor measuring 238.2 km The section itself measures 57 km. It is a part of the TEN-T core network – Baltic-Adriatic Corridor	No	awaiting approval – will placed on the reserve	1.20000	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S2/A2 Siedlce – national border	Ministry of Infrastructure and Development	construction of 86.7 km of an expressway corridor as part of the TEN-T core network	No		1.16595	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S10 Płońsk – Toruń	Ministry of Infrastructure and Development	construction of 137.4 km of an expressway corridor as part of the TEN-T comprehensive network	No		1.15955	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; private sector lacking trust and not ready to take risks; lack of funding
Transport	Corridors and missing links	public	S11 Poznań – Kępno	Ministry of Infrastructure and Development	construction of 109 km of an expressway corridor as part of the TEN-T comprehensive network	No		1.05000	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	1st stage of construction of the Dunaj-Odra-Łaba waterway: the Koźle-Ostrawa border-adjacent section	KZGW and competent RZGW	Construction of a waterway of international importance (at least class 4) from Kędzierzyn-Koźle to Ostrawa, by-passing meanders of the Odra, which currently cannot be used for transport purposes.	Yes	TDS	1.00000	0.10000	Lack of funding
Transport	Corridors and missing links	private	Construction of a high-speed railway - project documentation and land purchase	PKP Polskie Linie Kolejowe S.A.	Missing section of the TEN-T core passenger network, belonging to the TEN-T core network corridor Noth Sea – Baltic.	Yes	Feasibility study and environmental impact assessment report ready; timetable agreed.	1.00000	0.02000	Lack of financing
Transport	Corridors and missing links	public private	A1 Tuszyn - Pyrzowice, Tuszyn-Częstochowa-section	Ministry of Infrastructure and Development	construction of 81.6 km of a motorway (the north part) as part of the TEN-T core network – Baltic-Adriatic Corridor	No	awaiting approval – will be on the reserve list (the south part)	1.00000	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; private sector lacking trust and not ready to take risks; lack of funding // Project included in ID on the Operational Programme Infrastructure and Environment (OPIE) list. Included in Annex 5 to the National Roads Construction Programme (NRCP) for 2007–2013 and in the draft NRCP for 2014–2020 Consequently, the project should be first and foremost submitted to OPIE.

Sector	Subsector	Private[1] /Public / PPP [1] includes investment by state-owned	Project name	Implementing agency	Description	Included in national investment plan (Yes/No)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
Transport	Corridors and missing links	public private	Expansion of port infrastructure at Ostrow Grabowski and Ostrow Mielenski	Zarząd Morskich Portów Szczecin i Świnoujście S.A (Szczecin and Świnujście Seaports Authority)	The project encompasses the development of the land in the area of Miedzyodrze and adapting it to port and industrial functions in the Maritime Port of Szczecin by: increasing its ordinate up to 2,5 m over sea level, deepening the adjacent port basins down to 12,5 m, piling, building and expansion of port infrastructure (including: quays with rail tracks; storage as well as waiting-manoeuvre yards; onshore power supply to vessels and ferries; construction of rail tracks and rail side tracks at the central part of the area; construction of roads enabling road transport, construction of two crossings (ex. a dike or a bridge) across the Dunczyca River connecting Ostrow Grabowski with Ostrow Mieleński Isle and across the Parnica River to Gornoslaska Street, together with fitting the grounds with power grid, heating network, teletechnical/water supply/fire fighting/sanitary and drainage system networks. The Ostrow Grabowski area will be adopted to enable performing transhipment and storage services for break bulk cargos, including ones in intermodal units (semitrailers, containers, rail wagons) and project cargos. The central part of Ostrow Grabowski will be used as a logistic support area for break cargo berths. The Ostrow Mieleński area will be designed for handling bulk cargos and for construction of industrial objects together with their technical support background (ex. for the needs of the energy sector). The investment is possible to be realised in co-operation with an external investor. In the scope of the above mentioned investments there are two investment tasks which have been submited within the EU new financial perspective 2014-2020: - Improvement of water baset port access in Dębicki Canal area in Szczecin port.	No	In conceptual phase.	1.00000	1.00000	Lack of financing in the long time perspective
Transport	Corridors and missing links	public	S11 Piła – Poznań	Ministry of Infrastructure and Development	construction of 94.3 km of an expressway corridor as part of the TEN-T comprehensive network	No		0.94750	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S12 Lublin – Dorohusk	Ministry of Infrastructure and Development	construction of 75.3 km of an expressway corridor as part of the TEN-T comprehensive network	No		0.92100	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S1 Pyrzowice – Bielsko Biała	Ministry of Infrastructure and Development	construction of 56.1 km of an expressway corridor as part of the TEN-T core network – Baltic-Adriatic Corridor	No	awaiting approval – will placed on the reserve	0.91743	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S12 Piotrków Tryb. – Radom	Ministry of Infrastructure and Development	construction of 91.5 km of an expressway corridor as part of the TEN-T comprehensive network	No		0.88175	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S74 Sulejów – Kielce	Ministry of Infrastructure and Development	construction of 72,3 km of an expressway corridor as part of the TEN-T comprehensive network	No		0.84920	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S7 Warsaw – Kraków. the Kraków (Igołomska) – border region section	Ministry of Infrastructure and Development	construction of a missing section of the expressway corridor The section itself is 55 km long and is part of the TEN-T comprehensive section	No	awaiting approval – will placed on the reserve	0.80000	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S3 Legnica – Lubawka, the Bolków-Lubawka section	Ministry of Infrastructure and Development	construction of a missing section of the corridor, measuring 67,2 km. The corridor itself is 31.4 km long as is part of the TEN-T core network; trans-border project to be implemented with the Czech Republic	No	awaiting approval – will placed on the reserve	0.80000	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding. // Project included in ID on the CEF list. The call is competitive and obtaining funding is not certain.

Sector	Subsector	Private[1] /Public / PPP [1] includes investment by state-owned	Project name	Implementing agency	Description	Included in national investment plan (Yes/No)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
Transport	Corridors and missing links	public	S19 national border – Białystok (S8)	Ministry of Infrastructure and Development	construction of 83.7 km of an expressway corridor as part of the TEN-T comprehensive network	No		0.79853	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S10 Piła – Szczecin	Ministry of Infrastructure and Development	construction of 114.1 km of an expressway corridor as part of the TEN-T comprehensive network	No		0.78638	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S10 Bydgoszcz - Piła	Ministry of Infrastructure and Development	construction of 71.8 km of an expressway corridor as part of the TEN-T comprehensive network	No		0.71668	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S11 Koszalin - Piła	Ministry of Infrastructure and Development	construction of 80.5 km of an expressway corridor as part of the TEN-T comprehensive network	No		0.61880	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S12 Radom – Lublin	Ministry of Infrastructure and Development	construction of 75 km of an expressway corridor as part of the TEN-T comprehensive network	No		0.60660	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	private	Works covering the Białystok – Suwałki – Trakiszki (national border) section of railway line E 75	PKP Polskie Linie Kolejowe S.A.	Trans-border section of a railway line belonging to the TEN-T core network, connecting Poland and Lithuania. An element of Rail Baltica and the North Sea – Baltic (NSB) corridor	Yes	Procedure of selecting contractor to prepare a feasibility study (FS).	0.59111	0.01478	Project included in the implementation document (ID) on the Connecting Europe Facility (CEF) list. The call is competitive and obtaining funding is not certain.
Transport	Corridors and missing links	public	S3 Świnoujście - Szczecin	Ministry of Infrastructure and Development	construction of 53.3 km of an expressway corridor as part of the TEN-T core network – Baltic-Adriatic Corridor	No		0.56388	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S10 Toruń - Bydgoszcz	Ministry of Infrastructure and Development	construction of 50.4 km of an expressway corridor as part of the TEN-T comprehensive network	No		0.51290	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S6 Słupsk – Koszalin	Ministry of Infrastructure and Development	construction of 66.1 km of an expressway corridor as part of the TEN-T comprehensive network	No	awaiting approval – will be placed on the priority list (implementation)	0.48148	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S2/A2 Warsaw – Siedlce, the Mińsk Mazowiecki-Siedlce section	Ministry of Infrastructure and Development	construction of a missing section of the corridor, measuring 79.4. The section itself is 31.9 long km and is part of the TEN-T core network	No	awaiting approval – will placed on the reserve	0.48000	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; private sector lacking trust and not ready to take risks; lack of funding
Transport	Corridors and missing links	public	S17 Warsaw – Lublin, the Warsaw - Eastern Warsaw section, the Drewnica-Zakręt section	Ministry of Infrastructure and Development	construction of a missing section of the corridor, measuring 126.4 km. The section itself is 15 km long and is part of the TEN-T core network	No	awaiting approval – will be placed on the priority list (implementation)	0.44600	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S69 Bielsko - Biała - national border	Ministry of Infrastructure and Development	construction of a missing section measuring 8.5 km (tunnels) as part of the TEN-T core network – Baltic-Adriatic Corridor	No	reserve list	0.42046	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding. // Project included in ID on the CEF list. The call is competitive and obtaining funding is not certain.
Transport	Corridors and missing links	public	S7 Warszawa – Kraków. The Warsaw - Grójec section	Ministry of Infrastructure and Development	construction of a missing section of the expressway corridor The section itself is 29.1 km long and is part of the TEN-T comprehensive network	No	awaiting approval – will be on the priority list (implementation	0.42000	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	S14 Western ring road of Łódź (A2-S8)	Ministry of Infrastructure and Development	construction of 29 km of an expressway corridor as part of the urban node on TEN-T core network	No		0.41408	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; private sector lacking trust and not ready to take risks; lack of funding
Transport	Corridors and missing links	private	Works covering the Poznań Główny – Szczecin Dąbie section of the railway line E 59 STAGE 2	PKP Polskie Linie Kolejowe S.A.	Section of a railway line belonging to the TEN-T core network, providing access to the Szczecin-Świnoujście port complex which also belongs to the TEN-T core network, from Poland and the Czech Republic. Part of the core network corridor Baltic – Adriatic.	Yes	Feasibility study and environmental impact assessment report ready; preparations to announce a tender for project documentation.	0.40000	0.05000	Lack of financing

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Transport	Corridors and missing links	public	Construction of the North ring road of the Tricity Agglomeration	The Gdynia City Commune		Yes	TDS	0.37500	*TBD*	Lack of funding
Transport	Corridors and missing links	public	A18 Olszyna - Golnice	Ministry of Infrastructure and Development	construction of 70.9 km of a motorway as part of the TEN-T comprehensive network	No	awaiting approval – will be on the reserve list	0.29410	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; private sector lacking trust and not ready to take risks; lack of funding
Transport	Corridors and missing links	private	PKP Intercity SA stock renewal for connections between the Łódź and Warsaw agglomerations.	PKP Intercity S.A.	PKP Intercity SA stock renewal for connections between the Łódź and Warsaw agglomerations.	NO	Preparatory stage. In the letter dated 10.09.2013 r. PKP Intercity SA presented a list of projects planned for implementation in the 2014-2020 financial perspective.. On 31.08.2013 announcement of the tender procedure.	0.28542	*TBD*	Lack of financing
Transport	Corridors and missing links	private	Works covering primary passenger transport routes (E 30 and E 65) in Silesia, stage 3: line E 30, section Chorzów Batory – Gliwice Łabędy	PKP Polskie Linie Kolejowe S.A.	The line is an important element of the Baltic – Adriatic Corridor and is part of the TEN-T core network.	Yes	Regarding the Katowice Node: feasibility study (ready) and decision on environmental requirements (expected in Dec. 2014)	0.26009	*TBD*	Project included in the implementation document (ID) on the Connecting Europe Facility (CEF) list. The call is competitive and obtaining funding is not certain.
Transport	Corridors and missing links	public	S2/A2 Warsaw – Siedlce, the Warsaw - Mińsk Mazowiecki section	Ministry of Infrastructure and Development	construction of a missing section of the corridor, measuring 79.4 km. The section itself is 14.6 km long and is part of the TEN-T core network	No	awaiting approval – will be placed on the priority list (implementation)	0.23500	*TBD*	institutional and legal conditions not determined when preparing and implementing the investment; lack of funding.
Transport	Corridors and missing links	public	Modernisation of the Vistula waterway from kilometre 0+000 to 92+600 and improvement of hydrotechnical structures' safety	KZGW and RZGW in Kraków		Yes	TDS	0.22750	*TBD*	due to lack of funding it is impossible to rebuild hydrotechnical structures necessary to keep the waterway navigable
Transport	Corridors and missing links	private	Works covering the Malbork – Elbląg – Bogaczewo – Braniewo section of railway line no. 204	PKP Polskie Linie Kolejowe S.A.	Trans-border section of a railway line belonging to the TEN-T core network, connecting Poland and Russia, and providing access to the ports of Gdańsk and Gdynia, also belonging to the TEN-T core network, from Russia. (Kaliningrad Oblast) Project includes electrification.	No	Initial conceptual work.	0.20000	0.05000	Lack of financing
Transport	Corridors and missing links	private	Works covering the Szczecin Dąbie – Świnoujście section of railway line no. 401	PKP Polskie Linie Kolejowe S.A.	Section of a railway line belonging to the TEN-T core network and providing access to the Świnoujście port, part of to the Szczecin-Świnoujście port complex which also belongs to the TEN-T core network, from Poland, Germany, and the Czech Republic. Part of the core network corridor and Rail Freight Corridor (RFC) Baltic – Adriatic. Adaptation to meet the TEN-T core network requirements, in particular handling 750-metre long trains.	No	Initial conceptual work.	0.20000	0.05000	Lack of financing
Transport	Corridors and missing links	private	Works covering the Kościerzyna – Gdynia Główna section of railway line no. 201	PKP Polskie Linie Kolejowe S.A.	Section of a railway line belonging to the TEN-T and providing access to the Gdynia port complex, which is part of the TEN-T core network, from Poland, the Czech Republic, and Slovakia. Part of the Rail Freight Corridor Baltic – Adriatic. The project covers the development of two tracks and electrification.	Yes	Advanced works on a feasibility study.	0.20000	0.05000	Lack of financing
Transport	Corridors and missing links	private	Works covering the Grodzisk Mazowiecki - Zawiercie section of railway line no. 4 to make adaptations necessary to handle trains travelling over 200 km/h.	PKP Polskie Linie Kolejowe S.A.	Section of the TEN-T core passenger network, belonging to the core network corridor Baltic – Adriatic. Constitutes a connection between Warsaw, Poland's capital city, and GOP (Upper Silesian Industrial Region), the country's largest agglomeration, as well as Kraków, second largest city in Poland. It is a key element of the railway network connecting Warsaw with the south of Poland, and handles traffic to Vienna, Prague, Bratislava, and Budapest.	Yes	In the course of the implementation, works on the adaptation of selected sections to handle trains travelling over 200 km/h.	0.20000	0.10000	Lack of financing
Transport	Corridors and missing links	private	Construction of a ring railway of Zbąszynek as part of E20	PKP Polskie Linie Kolejowe S.A.	Missing section of the TEN-T core network that would enable by-passing the Zbąszynek station and part of core network corridor and Rail Freight Corridor North Sea - Baltic.	No	Feasibility study and environmental impact assessment report ready; timetable agreed.	0.20000	0.05000	Lack of financing

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Transport	Corridors and missing links	private	Works covering the Bydgoszcz Główna - Piła Główna - Krzyż section of railway line no. 18 and 203; stage 2: works covering the Piła Główna - Krzyż section, incl. electrification	PKP Polskie Linie Kolejowe S.A.		Yes	The feasibility study tender is to be announced in the first half of 2015.	0.15369	*TBD*	Lack of financing
Transport	Corridors and missing links	private	Works covering the Skawina – Sucha Beskidzka – Chabówka – Zakopane section of railway lines no. 97, 98 and 99, including the construction of line connecting Sucha Beskidzka and Chabówka	PKP Polskie Linie Kolejowe S.A.		Yes	Procedure of selecting contractor to prepare a feasibility study (FS).	0.14281	*TBD*	Lack of financing
Transport	Corridors and missing links	public	Construction of the Niepołomice barrage on upper Vistula	KZGW and RZGW in Kraków		Yes	TDS	0.12500	*TBD*	due to lack of funds, it is impossible to build the barrage, which would extend the existing class 4 waterway on upper Vistula.
Transport	Corridors and missing links	private	Works covering the Oleśnica / Łukanów – Krotoszyn – Jarocin – Września – Gniezno section of railway lines no. 281 and 766	PKP Polskie Linie Kolejowe S.A.		Yes	Initial conceptual work.	0.09458	*TBD*	Lack of financing
Transport	Corridors and missing links	private	Works covering the Czechowice Dziedzice – Bielsko Biała – Zwardoń (national border) section of railway line no. 139	PKP Polskie Linie Kolejowe S.A.	The line is part of the core network and an element of the Baltic – Adriatic Corridor	Yes	Initial conceptual work.	0.08323	*TBD*	Project included in the implementation document (ID) on the Connecting Europe Facility (CEF) list. The call is competitive and obtaining funding is not certain.
Transport	Corridors and missing links	private	Works covering the Bydgoszcz Główna - Piła Główna - Krzyż section of railway line no. 18 and 203; stage 1: works covering the Bydgoszcz Główna - Piła Główna section	PKP Polskie Linie Kolejowe S.A.		Yes	The feasibility study tender is to be announced in the first half of 2015.	0.08276	*TBD*	Lack of financing
Transport	Corridors and missing links	private	Works covering the Stalowa Wola Rozwadów - Przeworsk section of railway line no. 68	PKP Polskie Linie Kolejowe S.A.		Yes	Initial conceptual work.	0.08110	*TBD*	Project included in ID on the Operational Programme Development of Eastern Poland (EPD OP) list. Obtaining funding is not certain. Yet, the project should first and foremost be financed from EPD OP.
Transport	Corridors and missing links	private	Works covering the Kamieniec Ząbkowicki – Międzylesie section of railway line C-E 59	PKP Polskie Linie Kolejowe S.A.	Trans-border section of a railway line belonging to the TEN-T com*prehensive network, connecting Poland and the Czech Republic*	Yes	The feasibility study tender is to be announced in the first half of 2015.	0.07566	*TBD*	Lack of financing
Transport	Corridors and missing links	private	Construction of a deepwater quay in the external harbour in Świnoujście	Szczecin and Świnoujście Seaport Authority S.A.		Yes	TDS	0.07500	*TBD*	Lack of funding

Sector	Subsector	Private[1] /Public / PPP [1] includes investment by state-owned	Project name	Implementing agency	Description	Included in national investment plan (Yes/No)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
Transport	Corridors and missing links	public	Modernisation of hydrotechnical structures on canalised lower Noteć from kilometre 38.9 to 176.2	KZGW and RZGW in Poznań		Yes	TDS	0.05950	*TBD*	due to lack of funding it is impossible to rebuild hydrotechnical structures necessary to keep this waterway navigable. Quotation from OPIE: "In terms of activities concerning the construction or upgrading of water facilities co-inanced can only only be projects specified in the Annexes to Master Plans for the river basin of the Oder and Vistula, which do not adversely affect the achievement of good water status or do not impair the status of water (note: Projects identified in the Lists 1 - Investments that do not adversely affect the achievement of good water status or do not impair the status of water). the co-financing of projects identified in the Annexes to the Master Plans, as likely to result in failure to achieve good status or deterioration / potential of water bodies (footnote: Projects indicated in the Lists No. 2 - Investments that may lead to failure to achieve good status or deterioration / potential and which should be considered for exemptions) will not be allowed until the present sufficient evidence to meet the conditions laid down in art. 4.7 water Framework Directive in the update Waste plans for the river basin.Filling the condition will depend on confirmation by the European Commission of compliance of the prepared updates of Plans for Water Managemnt in River Basins with the requirements of Water Framework Directive. In selecting projects to improve flood safety, also flood risk management plans will be taken into account."
Transport	Corridors and missing links	private	Works covering the Kraków Płaszów – Skawina – Oświęcim section of railway line no. 94	PKP Polskie Linie Kolejowe S.A.	Improved infrastructure will make it possible to reduce traffic on line E30 (between Kraków and Katowice), which is now the primary connection with Ukraine	Yes	Procedure of selecting contractor to prepare a feasibility study (FS).	0.05911	*TBD*	Lack of financing
Transport	Corridors and missing links	private	Works covering the Szczecin Główny - Szczecin Gumieńce - PL/DE border section of railway lines no. 408 and 409	PKP Polskie Linie Kolejowe S.A.	Trans-border section of a railway line belonging to the TEN-T core network, connecting Poland and Germany, and providing access to the Szczecin-Świnoujście port complex, also belonging to the TEN-T core network, from Germany. Project includes electrification:	No	Initial planning works. An international agreement was signed by Poland and the Federal Republic of Germany on the project's preparation and implementation.	0.05000	0.05000	Lack of financing
Transport	Corridors and missing links	private	Works covering the Parczew - Łuków section of railway line no. 30	PKP Polskie Linie Kolejowe S.A.		Yes	Initial conceptual work.	0.04776	*TBD*	Project included in ID on the Operational Programme Development of Eastern Poland (EPD OP) list. Obtaining funding is not certain. Yet, the project should first and foremost be financed from EPD OP.
Transport	Corridors and missing links	private	Works covering the Kutno – Płock section of railway line no. 33	PKP Polskie Linie Kolejowe S.A.		Yes	Initial conceptual work.	0.04729	*TBD*	Lack of financing
Transport	Corridors and missing links	private	Works covering the Kielce – Żelisławice section of railway lines no. 61 and 567	PKP Polskie Linie Kolejowe S.A.	The line is part of the TEN-T comprehensive network. Alternative connection between Katowice (important node of the Baltic – Adriatic corridor) and Warsaw (a node of the North Sea – Baltic corridor)	Yes	Initial conceptual work.	0.04729	*TBD*	Lack of financing
Transport	Corridors and missing links	private	Works covering the Czerwieńsk – Gubin (national border) section of railway line no. 358	PKP Polskie Linie Kolejowe S.A.	Railway section connection PL and DE. Improved infrastructure will make it possible for trains to travel along a route alternative to the North Sea – Baltic corridor. What is more, the railway is used for the purposes of trans-border movement between Cottbus (German network) and lines CE-59 and E-20. This is suggested as an alternative course for freight corridor no. 8.	Yes	Initial conceptual work.	0.04658	*TBD*	Lack of financing

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Transport	Corridors and missing links	private	Works covering the Końskie - Skarżysko section of railway line no. 25	PKP Polskie Linie Kolejowe S.A.		Yes	Initial conceptual work.	0.04374	*TBD*	Project included in ID on the Operational Programme Development of Eastern Poland (EPD OP) list. Obtaining funding is not certain. Yet, the project should first and foremost be financed from EPD OP.
Transport	Corridors and missing links	public	Upgrading of the Bydgoszcz Canal and canalis*ed lower Noteć shipping line (from kilometre 14.8 to 176.2) to meet parameters of a class 2 waterway*	KZGW and RZGW in Poznań		Yes	TDS	0.04350	*TBD*	due to lack of sufficient funding it is impossible to rebuild regulating structures necessary to keep this waterway navigable
Transport	Corridors and missing links	public	Construction of a barrage on the Vistula below Włocławek, a lock	KZGW and RZGW in Gdańsk		Yes	TDS	0.04250	*TBD*	Lack of financing
Transport	Corridors and missing links	private	Works covering the Krusze / Tłuszcz – Pilawa section of railway lines no. 13 and 513	PKP Polskie Linie Kolejowe S.A.	A by-pass line serving the Warsaw agglomeration. This is suggested as the primary course of freight corridor no. 8.	Yes	Initial conceptual work.	0.03547	*TBD*	Lack of financing
Transport	Corridors and missing links	public	Rebuilding of regulating structures and regulating works on the Warta from kilometre 0.0 (the town of Kostrzyn nad Odrą) to 68.2 (the town of Santok) and on free-flowing lower Noteć (from kilometre 176.2 to 226.1) to restore parameters of a class 2 waterway	KZGW and RZGW in Poznań		Yes	TDS	0.03000	*TBD*	due to lack of sufficient funding it is impossible to rebuild regulating structures necessary to keep this waterway navigable
Transport	Corridors and missing links	private	Works covering the Padew - Mielec - Dębica section of railway line no. 25	PKP Polskie Linie Kolejowe S.A.		Yes	Initial conceptual work.	0.02908	*TBD*	Project included in ID on the Operational Programme Development of Eastern Poland (EPD OP) list. Obtaining funding is not certain. Yet, the project should first and foremost be financed from EPD OP.
Transport	Corridors and missing links	public	Better access to the port of Kołobrzeg from land. Stage 3	The City of Kołobrzeg Commune		Yes	TDS	0.02500	*TBD*	Lack of funding
Transport	Corridors and missing links	public	Rebuilding of regulating structures on the Lower Vistula, between kilometre 847 and 772	KZGW and RZGW in Gdańsk		Yes	TDS	0.02400	*TBD*	due to lack of funding it is impossible to rebuild regulating structures necessary to keep the waterway navig*able*
Transport	Corridors and missing links	public	Rebuilding of regulating structures on the Lower Vistula, between kilometre 772 and 718	KZGW and RZGW in Gdańsk		Yes	TDS	0.02400	*TBD*	due to lack of funding it is impossible to rebuild regulating structures necessary to keep the waterway navig*able*
Transport	Corridors and missing links	public	Rebuilding of regulating structures on the Lower Vistula, between kilometre 933 and 847	KZGW and RZGW in Gdańsk		Yes	TDS	0.01700	*TBD*	due to lack of funding it is impossible to rebuild regulating structures necessary to keep the waterway navig*able*
Transport	Corridors and missing links	public	Modernisation of hydrotechnical structures on the Bydgoszcz Canal between kilometre 14.8 to 38.9, including the locks of Okole, Czyżkówko, Prądy, Osowa Góra, Józefinki, Nakło Wschód, and the Józefinki weir	KZGW and RZGW in Poznań		Yes	TDS	0.01480	*TBD*	due to lack of funding it is impossible to rebuild hydrotechnical structures necessary to keep this waterway navigable

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Transport	Corridors and missing links	private	Construction of port infrastructure for collecting sanitary sewage and providing ships with electric power.	Port of Gdynia Authority S.A.		Yes	TDS	0.01250	*TBD*	Lack of funding
Transport	Corridors and missing links	public	Revitalisation of canalised Brda and rebuilding of the infrastructure of the Bydgoszcz Waterway Node	KZGW and RZGW in Gdańsk		Yes	TDS	0.01000	*TBD*	Due to lack of funding it is impossible to rebuild hydrotechnical structures necessary to keep the waterway navigable
Transport	Corridors and missing links	public	Modernisation of locks on the Nogat, Szkarpawa, and Martwa Wisła waterway	KZGW and RZGW in Gdańsk		Yes	TDS	0.00500	*TBD*	due to lack of funding it is impossible to rebuild hydrotechnical structures necessary to keep the waterway navigable and improving inland navigation
Transport	Business enablers	public	Laying of optical fibre cables on the route between Warszawa and Kraków (310km)	TK Telekom Sp. z o.o.	Aim of the project is to grow the optical fibre cable web in order to improve market competitive position and increase the sales potential	No	To be started	0.00450	0.00450	lack of financing
Transport	Business enablers	public	ROSCO (Rolling Stock Company)	Ministry of Infrastructure And Development	Purchase of new passenger and modernization of old vehicles and long term lease to carriers.	Yes	Project expected in 2015.	3.00000	1.50000	Lowering the costs for carriers, resulting in higher capacity of acquiring new cars. More flexible and quicker possibility of acquiring rolling stock by carriers. Consolidation of purchasing – the scale effect. Unification of the carrier's stock – lower maintenance costs. Higher performance quality due to specialization in managing rolling stock. High costs of purchasing and/or modernizing stock and the difficult financial situation of carriers forces them to look for alternative sources of financing investments. Finally, the carriers will not only lower their purchasing costs of new stock, but also, due to the use of leasing, will be able to spread their costs through time.
Transport	Business enablers	public	Laying of optical fibre cables on the route between Warszawa and Łowicz (80km), and between Kutno and Konin (80km)	TK Telekom Sp. z o.o.	Aim of the project is to grow the optical fibre cable web in order to improve market competitive position and increase the sales potential	No	To be started	0.00240	0.00240	lack of financing
Transport	Business enablers	public	Modernization of optical fibre cables on the route between Tczew, Bydgoszcz and Inowrocław (140km)	TK Telekom Sp. z o.o.	Aim of the project is to grow the optical fibre cable web in order to improve market competitive position and increase the sales potential	No	To be started	0.00210	0.00210	lack of financing
Transport	Business enablers	public	Laying of optical fibre cables on the route between Częstochowa and Katowice (90km)	TK Telekom Sp. z o.o.	Aim of the project is to grow the optical fibre cable web in order to improve market competitive position and increase the sales potential	No	To be started	0.00135	0.00135	lack of financing
Transport	Business enablers	public	Laying of optical fibre cables on the route between Piotrków, Radomsko and Częstochowa (85km)	TK Telekom Sp. z o.o.	Aim of the project is to finalise the fibre optic ring and to build a mesh network. As a result an alternative connection between Warszawa and Kraków will be created and the sales potential will be increased.	No	To be started	0.00128	0.00128	lack of financing
Transport	Business enablers	public	Laying of optical fibre cables on the route between Gdynia and Hel (77km)	TK Telekom Sp. z o.o.	Aim of the project is to increase the sales potential	No	To be started	0.00122	0.00122	lack of financing
Transport	Business enablers	public	Laying of optical fibre cables on the route between Katowice and Kraków (80km)	TK Telekom Sp. z o.o.	Aim of the project is to grow the optical fibre cable web in order to improve market competitive position and increase the sales potential	No	To be started	0.00120	0.00120	lack of financing

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Transport	Business enablers	public	Laying of optical fibre cables on the route between Legnica and Wrocław (60km)	TK Telekom Sp. z o.o.	Aim of the project is to finalise the Silesian fibre optic ring and to build a mesh network. As a result the sales potential and service quality will be increased.	No	To be started	0.00090	0.00090	lack of financing
Transport	Business enablers	public	Laying of optical fibre cables on the route between Wałbrzych and Świdnica (47km)	TK Telekom Sp. z o.o.	Aim of the project is to increase the sales potential	No	To be started	0.00066	0.00066	lack of financing
Transport	Business enablers	private	Purchase of 30 electric multiple units to operate trains TLK	PKP Intercity S.A.	Purchase of 30 electric multiple units to operate trains TLK	NO	Preparatory stage. In the letter dated 10.09.2013 r. PKP Intercity SA presented a list of projects planned for implementation in the 2014-2020 financial perspective.	0.39246	*TBD*	Lack of financing
Transport	Business enablers	private	MUZa II (Modernisation of Power Systems)	PKP Energetyka S.A.	Construction or replacement of high voltage power lines (HV) and medium voltage (MV); Upgrading or construction of high- and medium voltage switchgear for alternating current and 3 kV; Construction or replacement of rectifier units, control and protection automation equipment and inclusion of traction substations and sectioning the remote control system.	NO	Planned project	0.23000	0.07000	Lack of financing
Transport	Business enablers	private	Development of the S-Bahn system (improved throughput at section Rumia - Wejherowo) Expansion of the Gdańsk-Gdynia-Sopot agglomeration rail system in the direction of the Metropolitan Area Wejherowa	PKP SKM w Trójmieście Sp. z o. o.	The investment is recommended for close cooperation (partnership) with PKP PLK SA Due to the preparation of the national rail infrastructure managers to the investment project "Modernization of railway line No 202 on the section of Gdynia Chylonia - Slupsk" (Feasibility Study in preparation), we see a strong link between projects. The project involves the elimination of bottlenecks in the corridor of the railway line No. 202 (motion separation, agglomeration for the S-Bahn in the Tri-City and the extension of the railway line No. 250 to Wejherowa). The variant Indicated in the pre-study, recommended for implementation , envisages an extension of railway line No 250 of Rumia, through Reda, to Wejherowo, as a double-track electrified line, with separation of two tracks to handle the agglomerationtraffic, also at the stations. On the basis of the throughput analysis it is clear that such a solution will be characterised by a similar capacity to the capacity of the existing railway line No. 250, and therefore, will cease to be a bottleneck in the S-Bahnsystem . The technical solutions proposed in the draft are based on proven technologies in Poland and Europe. It is anticipated to use the superstructure that has a favourable ratio of stability and its price. There are no prerequisites for the use of another type of unconventional surfaces. In terms of subgrade, the proposed solutions include the construction of embankments and dredging of the slopes generally not reinforced. The designed speed on the lengthened line No. 250 will reach 120 km / h and at a converted railway line No 202, the speewill be 160 km / h.	NO	In 2014 development of a Pre-Feasibility Study. Envisaged implementation period 2015-2023	0.16200	*TBD*	Lack of financing
Transport	Business enablers	private	Modernisation of 250 passenger coaches for the TLK trains	PKP Intercity S.A.	Modernisation of 250 passenger coaches for the TLK trains	NO	Preparatory stage. In the letter dated 10.09.2013 r. PKP Intercity SA presented a list of projects planned for implementation in the 2014-2020 financial perspective.	0.14866	*TBD*	Lack of financing

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Transport	Business enablers	private	Purchase of 10 new electric multiple units to operate in agglomeration transport and reconstruction of Gdynia Cisowa Parking Station towards modernisation and expansion of the track, catenary, power and railway traffic control facilities and modernizing of rolling stock maintenance and construction of departure to the north (Rumia)	PKP SKM w Trójmieście Sp. z o. o.	The project involves in the rolling stock part: Purchase 10 brand new electric multiple units to operate transport within the region, with a particular designation to handle the agglomeration traffic in the rail corridor Pruszcz Gdansk - Lębork. Due to the specific requirements of the urban area traffic it is assumed to acquire vehicles that meet the following minimal requirements: - Multiples (minimum five wagons) - Undivided interior, - Interior layout and the number and width of the entrance door allowing for quick movement of passengers at stations and stops , - Accelerating at the start at least at the level of 1 m / s2, - The maximum speed min. 130 km / h, - Air Conditioning in driver cab and the passenger compartments, - The floor at the level of 960 mm with a sliding out step at the height of 760 mm above the rail head. The project in the infrastructure part involves preparation of project documentation and implementation of tasks: - Rehabilitation and modernisation of the substructure and the superstructure (including the track and turnouts), energy infrastructure (power, supporting structures, catenary), traffic control devices; - Modernisation of objects (buildings and structures), equipment and installations for the implementation of the maintenance of the rolling stock by maintenance levels of P1 - P4 and other activities related to the service (car wash, lathes, specialist workshop equipment); - Construction of the northern exit from the Gdynia Cisowa Parking Station in the direction of Rumia with plugging into the	No	In 2015 afeasibility study to be developed, envisaged implementation period 2015-2023	0.07600	*TBD*	Lack of financing
Transport	Business enablers	private	Modernisation of technical infrastructure for rolling stock (workshop facilities and parking rolling stock), to adapt to the requirements of environmental protection and new rolling stock.	PKP Intercity S.A.	Modernisation of technical infrastructure for rolling stock (workshop facilities and parking rolling stock), to adapt to the requirements of environmental protection and new rolling stock.	NO	Preparatory stage. In the letter dated 10.09.2013 r. PKP Intercity SA presented a list of projects planned for implementation in the 2014-2020 financial perspective.	0.04757	*TBD*	Lack of financing
Transport	Business enablers	private	Purchase of 10 electric dual system locomotives	PKP Intercity S.A.	Purchase of 10 dual system electric locomotives.	NO	Preparatory stage. In the letter dated 10.09.2013 r. PKP Intercity SA presented a list of projects planned for implementation in the 2014-2020 financial perspective.	0.03806	*TBD*	Lack of financing
Transport	Business enablers	private	Modernisation of 30 diesel shunting locomotives, to adapt to the requirements of environmental protection	PKP Intercity S.A.	Modernisation of 30 diesel shunting locomotives, to adapt to the requirements of environmental protection	NO	Preparatory stage. In the letter dated 10.09.2013 r. PKP Intercity SA presented a list of projects planned for implementation in the 2014-2020 financial perspective.	0.02497	*TBD*	Lack of financing

Sector	Subsector	Private[1] /Public / PPP [1] includes investment by state-owned	Project name	Implementing agency	Description	Included in national investment plan (Yes/No)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
Transport	Business enablers	private	Construction of an integrated system of safety monitoring and information management on the railway line No. 250 in the Gdańsk-Gdynia-Sopot agglomeration, together with modernisation of the Suburban Station building in Gdynia Main Station and platforms on the railway line No. 250	PKP SKM w Trójmieście Sp. z o. o.	The project concerns modernisation of the railway infrastructure on line 250 operated by the Company PKP SKM in the Gdańsk Gdynia Sopot agglomeration. Under the the project it is planned to design documentation and implement tasks a) Adaptation of the platform at SKM Gdynia Main for the check in of travelers with reduced mobility and modernisation of the Suburban Station Gdynia Główna, c) Creation of an integrated safety monitoring system and establishment of Monitoring Centre in the Suburban Station building at Gdynia Main, d) Modernisation of platform infrastructure located on the railway line No. 250: Gdańsk Shipyard (passenger stop), Gdynia Orłowo (station) Redłowo Gdynia, Gdynia Shipyard (passenger stop), Gdynia Grabowek (passenger stop), Gdynia Leszczynki (passenger stop), Gdynia Chylonia (become), in Rumia Janowo (passenger stop).The works involve inter alia: - modernisation of the track, along with modernisation of railway surface and other infrastructure, - modernization of the platform (the elements of construction, resurfacing) - construction of a new / upgrade existing shelters with lighting, - modernization of infrastructure of the entrance to the platform, - application of solutions for persons with disabilities or persons with reduced mobility to access the platform (including the construction of lifts, paths lead to the blind and visually impaired and markings for the blind and visually impaired) - assembly of passenger information system,	NO	In 2015 planned preparation of project documentation for the location of: Gdynia Chylonia Rumia Janowo In 2015 plans to prepare project documentation to adapt the platform of the Gdynia Main Station, modernise Suburban Station, and the space in front of the Station and to create ZSI Envisaged implementation period 2015-2023	0.02300	*TBD*	Lack of financing
Transport	Business enablers	private	Acquisition of locomotives	PKP Linia Hutnicza Szerekotorowa Sp. z o.o.	The acquisition of diesel locomotives with a capacity of more than 3 000 hp that meet the emission requirements of the environment.	NO	Consideration of alternative options for locomotives acquisitionm.	0.01784	0.01784	Lack of financing
Transport	Business enablers	private	Expansion and management of Hrubieszów Station LHS (Metallurgic-Sulphuric Railway Line)	PKP Linia Hutnicza Szerekotorowa Sp. z o.o.	Realizacja zadania obejmuje: 1) the construction of two additional main track of a minimum length of 792 mb to 111 mb 1, 2) the construction of two sidings with a minimum construction length from 504m to 592m, located at the phytosanitary ramp 3) the construction of two sidings with a minimum construction length of 692 meter to 792 mb, necessary for withdrawal of wagons, 4) construction of bilateral phytosanitary ramps length 383 m with shelter for inner track track No. 21 and No. 23, and with dehydration, 5) development of electric heating for 16 pcs. Of newly-built turnouts, 6) the inclusion of newly-built turnouts in control of a computer system EBILOCK 950, 7) the construction of track lighting pole, 8) the construction of an access road to the ramp phytosanitary.	NO	Preliminary concept works	0.01186	0.00866	Lack of financing
Transport	Business enablers	private	Installation of ERTMS in 45 EP09 locomotives, to operate on lines upgraded and outfitted with ERTMS	PKP Intercity S.A.	Installation of ERTMS in 45 EP09 locomotives, to operate on lines upgraded and outfitted with ERTMS	NO	Preparatory stage. In the letter dated 10.09.2013 r. PKP Intercity SA presented a list of projects planned for implementation in the 2014-2020 financial perspective.	0.01070	*TBD*	Lack of financing

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Transport	Business enablers	private	Installation of computer equipment at the station SRK Slawkow LHS (Metallurgic-Sulphuric Railway Line)	PKP Linia Hutnicza Szerekotorowa Sp. z o.o.	Execution of the task includes: 1) development of documentation for reconstruction of signaling devices, 2) development of computer traffic control devices, 3) construction of a storey building provided with the control room, 4) construction of the CCTV system, 5) construction of stationillumination, 6) construction of fiber-optic cable linking the building of a new control room the administration building.	NO	Preparation of project documentation.	0.00775	0.00737	Lack of financing
Transport	Business enablers	private	Expansion of the LCS at the station Zamosc Bortatycze LHS with development path for emergency withdrawal of damaged wagons carrying dangerous goods	PKP Linia Hutnicza Szerekotorowa Sp. z o.o.	Execution of the task includes: 1) the construction of the track for the emergency withdrawal of damaged rail cars carrying dangerous goods, 2) development of computer traffic control devices in the station and trail Zamosc Bortatycze LHS - Szczebrzeszyn LHS 3) the construction of the CCTV system to monitor passing cat. And at km 58.950 and both stations heads 4) construction of a building storey control room for the needs of the Local Control Center station Zamosc Bortatycze LHS 5) construction of a new station lighting.	NO	Preparation of project documentation.	0.00535	0.00523	Lack of financing
Transport	Business enablers	private	Construction of fiber optic cable section at Zamość Bortatycze LHS - Zwierzyniec LHS and passsing place at Zwierzyniec LHS - Wola Baranowska LHS (Metallurgic-Sulphuric Railway Line)	PKP Linia Hutnicza Szerekotorowa Sp. z o.o.	Execution of the task includes: 1) Construction of the fiber optic cable connector ayt the section Headquarters LHS Zamosc - Zamosc Bortatycze with a control room - turnout Zwierzyniec LHS - Will Baranowska LHS 2) an analysis of the occurrence of "bottlenecks" on communications at the Company, ultimately up to Slawkow	NO	Continuation of investment	0.00476	0.00352	Lack of financing
Transport	Business enablers	private	Developing documentation and SRK construction equipment at passing places Raczyce LHS and Drozdów Łączyn LHS (Metallurgic-Sulphuric Railway Line)	PKP Linia Hutnicza Szerekotorowa Sp. z o.o.	Execution of the task includes: 1) budowę przekaźnikowych urządzeń srk wraz z systemem monitorowym na mijance, 2) zabudowę urządzeń zasilających oraz stacyjnych, 3) budowę systemu liczników osi, 4) zabudowę półsamoczynnej blokady liniowej Eap, 5) budowę instalacji elektrycznej w kontenerze oraz w nastawni, 6) zabudowę oświetlenia zewnętrznego terenu, 7) instalację urządzeń elektrycznego ogrzewania rozjazdów EOR, 8) budowę urządzeń TVU do Skp, urządzeń TVU w kontenerze, 9) zabudowę innej infrastruktury towarzyszącej, 10) dostarczenie i montaż kontenerów pod potrzeby oferowanych urządzeń	NO	Preliminary concept works.	0.00285	0.00285	Lack of financing
Transport	Business enablers	private	Development of documentation and construction of transhipment base at Zamość Bortatycze Station, LHS	PKP Linia Hutnicza Szerekotorowa Sp. z o.o.	Execution of the task includes: 1) The dehydration and hardening the area and of internal roads, 2) equipping the terrain with power equipment, water and sewage disposal, 3) construction of a crossover in track No. 4 with building the track into the lease area of about 450,00 m 4) construction of a high ramp at the internal track 5) lighting and monitoring of land 6) the construction of an office building - social, 7) the construction of a warehouse with dimensions of 90.00 x 12.00 m, 8) the construction of the side ramp at the planned track with dimensions of 80.00 x 6.00 m.	NO	Plan for 2015	0.00198	0.00190	Lack of financing

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Energy Union	Connections and production	private	Nuclear Power Plant	N/A - responsible authority: Minister of Economy in cooperation with the Minister of State Treasury.	Launching new sector of the Polish economy - nuclear power. Investment project: construction of a nuclear power plant with approx. 3000MWe capacity. The project is included in the following national strategies: • Energy Policy for Poland until 2030, • Middle-term development strategy: Poland 2020, • Long-term development strategy: Poland 2030, • Energy Security and Environment Strategy, • Polish Nuclear Power Programme, • draft Energy Policy for Poland until 2050.		The project is included in the following national strategies: • Energy Policy for Poland until 2030, • Middle-term development strategy: Poland 2020, • Long-term development strategy: Poland 2030, • Energy Security and Environment Strategy, • Polish Nuclear Power Programme, • draft Energy Policy for Poland until 2050. Planned start of works TBD.	12.00000	0.60000	The implementation of the project is impeded by a number of barriers and failures, including: - lack of market incentives for the investment implementation (common for all new investments in the power sector). Need for a support mechanism. - market failures linked to the lack of long-term economic predictability for investments in new capacity, affecting in particular capital-intense investments characterized by long investment cycles; - regulatory barriers linked to highly restrictive licencing requirements as regards nuclear safety, which elongate the investment process in comparison with conventional power investments. Detailed characteristics , costs and timetable of the investment is to be found in the Polish Nuclear Power Programme.
Energy Union	Connections and production	private	Gubin lignite mine and power plant	PGE Polska Grupa Energetyczna S.A.	The project aims at developing new lignite mine (based on strategic Gubin deposit) and new mine-mouth power plant.	No	Planning and permitting in early stage aiming at obtaining the mining licence.	5.00000	0.01000	Taking into account the large capital expenditure, long project lead-time and imperfection of electricity market (so called “market failure”), there is high risk that without appropriate support mechanisms, financial closure and investment implementation may not be feasible. Numerous stakeholders (especially environmental organizations) to managed.
Energy Union	Connections and production	private	OffShore wind farms development programme	PGE Polska Grupa Energetyczna S.A.	Programme provide offshore investment project in early stage of development situated in three parts of Baltic See Economic Zone (3 locations; total capacity 1 050 MW)	No	Planning and permitting in early stages.	3.75000	0.19000	Significant regulatory barriers. Implementation of government support for renewables is necessary.
Energy Union	Connections and production	private	Construction of power unit of about 1000 MW in Łaziska.	TAURON Polska Energia S.A.	Supercritical, coal powered, power unit replacing eliminated 4 blocks of 200 MW class each.	No	Concept is currently being prepared. The launch of 2018.	1.50000	0.01000	The barrier is the ratio of Debt / EBITDA of the TAURON Group which does not allow to increase the debt. The solution is to get involved partner (s) to form entities that are not consolidated in the TAURON balance sheet and will not affect the debt / EBITDA ratio.
Energy Union	Connections and production	private	Construction of the Power Unit No. 11 1075 MWe in Kozienice Plant	ENEA Wytwarzanie	Power Station Unit will be designed and constructed with highly efficient pulverized coal fired boiler with supercritical steam parameters, meets the most recent requirements of the BAT, with efficiency 45,6%. Power Station Unit will be equipped with close cooling system with a cooling tower. The new Power Unit is designed as a “capture-ready” installation and is adopted for future cooperation with CO2 capture installation. Main goal and expected benefits - increasing the production capacity of the company and to improve market position of the ENEA Capital Group. Currently, the ENEA Capital Group has a “short” position on the market for the sale of electricity market.	No	Realization ongoing – completion date of project 21th July 2017	1.50000	0.80000	Legal (at local level) and financial constraints (own resources and internal bonds issuance)
Energy Union	Connections and production	private	Construction of power unit with a capacity of about 850 MW in Blachownia.	TAURON Polska Energia S.A.	Gas power unit of 850 MW capacity.	No	Concept is currently being prepared. The launch of this can take place in 2018.	0.83000	0.01000	The barrier is the ratio of Debt / EBITDA of the TAURON Group which does not allow to increase the debt. Another barrier is the uncertainty in the access and the price of gas and the risk of energy prices on the market. This risk results in difficulties in obtaining financing.
Energy Union	Connections and production	private	Construction of wind power plants	TAURON Polska Energia S.A.	Purchase and realization of investment projects in wind farms with a total capacity of about 500 MW in various locations in Poland.	No	By the end of 2015 the implementation of the first 200 MW. Currently,review of possible project is being made. Next execution of another 300 MW to 2023.	0.75000	0.30000	The barrier is the ratio of Debt / EBITDA of the TAURON Group which does not allow to increase the debt. The solution is to get involved partner (s) to form entities that are not consolidated in the TAURON balance sheet and will not affect the debt / EBITDA ratio.

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Energy Union	Connections and production	private	OnShore wind farms development programme	PGE Polska Grupa Energetyczna S.A.	Programme includes dozen of onshore investment projects in various stages of development situated in different parts of Poland (12 locations; total capacity 993 MW)	No	Planning and permitting in middle stages.	0.60000	0.07000	Significant regulatory barriers, lack of (government) support, uncertainty disabling final investment decisions and leading to possible delays.
Energy Union	Connections and production	private	Pipeline infrastructure development on the Gdańsk-Płock route	PERN «Przyjaźń» S.A.	Project important for safe functioning of the energy sector in Poland and European Union. Infastructure include both crude-oil pipeline and product pipeline. Crude-oil pipeline will transport about 30 mln ton per year, its length – 240 km, diameter – 800 mm. Product pipeline with a total capacity 4.3 mln ton per year will connect Naftoport and PERN's storage depot in Gdańsk with bases in central part of Poland. Key benefit is providing main rafineries (Lotos, BP, Shell, etc.) more efficient distribution of fuels to another parts of Poland where the pipeline is reaching. The investment is strategic project in PERN.	No	Design and preparation work will be last till 2016.	0.41953	0.14126	High investment risk compared to costs. Legal barriers – mainly land without legal regulation of its ownership leading to difficulties in investment preparing. Solution can be accelerate legislation works.
Energy Union	Connections and production	private	CCGT Płock	Private promoter PKN ORLEN	Implementation of the most efficient technology for gas utilization in power and heat production – combined cycle gas turbine with net power output up to 600 MW	No	End of business case analysis and procurement process.	0.40000	0.40000	Lack of (government) support for the gas fuel cogeneration. Introduction of "yellow certificates" is necessary.
Energy Union	Connections and production	private	Coogeneration power plant with capacity of 135 MWe and 180 Mwt in Katowice.	TAURON Polska Energia S.A.	Cogeneration unit using coal or gas necessary to cover the heat demand. Increased heat demand results from the implemented measures for the liquidation of the so-called low emissions (home furnaces and small local heating plants).	No	Concept is currently being prepared. The launch of 2018.	0.35000	0.02500	The barrier is the ratio of Debt / EBITDA of the TAURON Group which does not allow to increase the debt. The solution is to get involved partner (s) to form entities that are not consolidated in the TAURON balance sheet and will not affect the debt / EBITDA ratio.
Energy Union	Connections and production	private	Incineration plant with a capacity of about 300,000 tons / year in Katowice.	TAURON Polska Energia S.A.	Incineration plant producing electricity and heat.	No	Concept is currently being prepared. The launch of 2018.	0.25000	0.02500	The barrier is the ratio of Debt / EBITDA of the TAURON Group which does not allow to increase the debt. The solution is to get involved partner (s) to form entities that are not consolidated in the TAURON balance sheet and will not affect the debt / EBITDA ratio. Comment: As part of the OPIE it is possible to support such facilities if they will be considered in the investment plans, which are likely to be created only in 2016. Such a project is to be implemented under the responsibility local governments units.
Energy Union	Connections and production	private	Crude Terminal in Gdańsk	PERN «Przyjaźń» S.A.	Crude Terminal is a link in the system ensuring the country's energy security, creating possibilities for storing and handling products for refining. The Terminal, as a modern HUB, will provide a broad scope of services within the logistics of crude oil and petroleum products, including: storage, composition, blending, enrichment. In the case of crude oil the Terminal will allow to perform (import and export) sea handling via Naftoport as well as overland handling via Friendship pipeline to refineries in Płock, Gdańsk and to German refineries of Leuna and PCK Schwedt. In the case of fuels, it will be possible to load onto railway and road tankers. Technologically, the Terminal will be integrated with Naftoport's quay, allowing us to handle vessels with a displacement up to 300 thous. DWT. During the project 20 tanks for storage crude oil and other products will be built (6 of them for crude oil). Total capacity of tanks – 697 000m^3. The investment is strategic project in PERN, it will be realised in two parts (first concerns crude-oil, second – oil-based products).	Yes	Documentation for the first part of investment is made; work has begun and will be continued till 2015; second part of investment will be last to 2018, now is in planning stage.	0.20659	0.09818	Lack of long term finance for second part of the project.
Energy Union	Connections and production	private	Construction of the cogeneration plant in Radom City 39MWt, 33 MWe	ENEA Wytwarzanie	Realizatin of GK ENEA strategy related to development of cogeneration	No	Conception	0.07520	0.07520	Legal and administrative barriers.Lack of (government) support for combined heat and power plants.
Energy Union	Connections and production	private	Wind farm Taczalin 45 MW	ENEA Wytwarzanie	The purchase of 100% of the campany shares. Realization of Enea Group strategy.	No	Planned signing of the purchasing agreement in December 2014	0.07110	*TBD*	Legal and administrative barriers

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Energy Union	Connections and production	private	Wind farm Skoczykłody 36 MW	ENEA Wytwarzanie	The purchase of 100% of the campany shares. Realization of Enea Group strategy.	No	Planned signing of the initial purchasing agreement in March 2015	0.06943	0.06943	Legal and administrative barriers
Energy Union	Connections and production	public private	Flue gas desulfurization system 800MW no. IV in Kozienice Plant	ENEA Wytwarzanie	Adaptation of boilers to the SO2 emission standards specified in the IED Directive	No	Expected completion of construction in June 2015	0.06833	0.01780	Administrative and regulatory barriers
Energy Union	Connections and production	private	Wind farm Wróblew 36 MW	ENEA Wytwarzanie	The purchase of 100% of the campany shares. Realization of Enea Group strategy.	No	Planned signing of the purchasing agreement in March 2015	0.06564	0.06564	Legal and administrative barriers
Energy Union	Connections and production	private	Modernization of power unit No. 9	ENEA Wytwarzanie	Increase in efficiency and life extension	No	Realization in 2018	0.04805	0.04776	Lack of government regulatory support
Energy Union	Connections and production	private	Reworking of the high-pressure gas network as part of the "Łódź bypass – Stage 1" project ("Obwodnica Łodzi – Etap I") at a segment of 46 km in order to improve the supply conditions for the Łódź agglomeration	Polska Spółka Gazownictwa sp. z o.o.	An investment supporting the objectives of the national energy policy. The implementation of the project will enable to adjust the parameters of the distribution system for receiving gas from new sources of supply from the west and the LNG terminal. A key objective of the project is to remove bottlenecks in the natural gas infrastructure. The project will positively influence the development of the gas market in the region.		The project is being prepared for implementation	0.04000	*TBD*	- legal – access to grounds -Obtaining rights to land often requires negotiation with local governments and / or private property owners. Negotiations may cause an increase in the value of investments, extend the time of its preparation and implementation ; - economic - Providing sufficiently large capital, guaranteeing timely, on-schedule implementation of the investment. Without financial support from EU funds, the investment may not be realized, or will be implemented to a limited extent.; - regulatory - Gas distribution services are subject to the tariff, the tariff change by an administrative decision may affect the profitability of the investment and the business.
Energy Union	Connections and production	private	Modernization of power unit No. 10	ENEA Wytwarzanie	Increase in efficiency and life extension	No	Realization in 2018	0.03257	0.01120	Lack of government regulatory support
Energy Union	Connections and production	private	HV_Power_Line_Morzyczyn - Drawski Młyn	ENEA Operator	HV power line modernization	Yes	2012-2019 (ongoing)	0.03102	0.01130	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	CCGT Trzebinia	Private promoter PKN ORLEN	Implementation of the most efficient technology for gas utilization in power and heat production – combined cycle gas turbine with net power output up to 12 MWe (and ca. 80 MWth)	No	Ongoing business case analysis and procurement process	0.02500	0.02500	Lack of (government) support for the gas fuel cogeneration. Introduction of "yellow certificates" is necessary.
Energy Union	Connections and production	private	Flue gas desulfurization system (FGD) for the boilers K7 i K8 (in Bialystok Plant)	ENEA Wytwarzanie	Adaptation of boilers to the SO2 emission standards specified in the IED Directive	No	Commencement of the project in 2015. The expected ompletion in September 2017	0.02500	0.02500	Administrative and regulatory barriers
Energy Union	Connections and production	private	Wind farm Baczyna 15 MW	ENEA Wytwarzanie	The construction of 15 MW wind farm in Baczyna Realization of Enea Group strategy.	No	Planned completion of the project in March 2016.	0.02457	0.02315	Administrative barriers Lack of goverment support system dedicated to renewables.

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Energy Union	Connections and production	private	Modernization of power unit No. 1	ENEA Wytwarzanie	Increase in efficiency and life extension	Yes	Realization in 2016	0.02388	0.02388	Lack of government regulatory support
Energy Union	Connections and production	private	DeNOx installation for boiler 9 In Kozienice Plant	ENEA Wytwarzanie	Adaptation of the boiler to the Nox emission standards specified in the IED Directive	No	Planned realization in 2017	0.02133	0.02133	Administrative and regulatory barriers
Energy Union	Connections and production	private	DeNOx plant for boiler 10 In Kozienice Plant	ENEA Wytwarzanie	Adaptation of the boiler to the Nox emission standards specified in the IED Directive	No	Planned realization in 2018	0.02133	0.02133	Administrative and regulatory barriers
Energy Union	Connections and production	private	Modernization of power unit No. 5	ENEA Wytwarzanie	Increase in efficiency and life extension	Yes	Realization in 2016	0.02104	0.02068	Lack of government regulatory support
Energy Union	Connections and production	private	Modernization of power unit No. 2	ENEA Wytwarzanie	Increase in efficiency and life extension	Yes	Realization in 2015	0.01901	0.01901	Lack of government regulatory support
Energy Union	Connections and production	private	DeNOx installation for boiler 1 In Kozienice Plant	ENEA Wytwarzanie	Adaptation of the boiler to the Nox emission standards specified in the IED Directive	No	Expected completion of construction in June 2015	0.01160	0.01045	Administrative and regulatory barriers
Energy Union	Connections and production	private	DeNOx installation for boiler 2 In Kozienice Plant	ENEA Wytwarzanie	Adaptation of the boiler to the Nox emission standards specified in the IED Directive	No	Expected completion of construction in June 2015	0.01160	0.01045	Administrative and regulatory barriers
Energy Union	Connections and production	private	DeNOx installation for boiler 3 In Kozienice Plant	ENEA Wytwarzanie	Adaptation of the boiler to the Nox emission standards specified in the IED Directive	No	Planned realization in 2017	0.01010	0.01010	Administrative and regulatory barriers
Energy Union	Connections and production	private	DeNOx installation for boiler 4 In Kozienice Plant	ENEA Wytwarzanie	Adaptation of the boiler to the Nox emission standards specified in the IED Directive	No	Planned realization 2017	0.00966	0.00966	Administrative and regulatory barriers
Energy Union	Connections and production	private	DeNOx installation for boiler 5 In Kozienice Plant	ENEA Wytwarzanie	Adaptation of the boiler to the Nox emission standards specified in the IED Directive	No	Expected completion in August 2016	0.00966	0.00966	Administrative and regulatory barriers
Energy Union	Connections and production	private	DeNOx installation for boiler 7 In Kozienice Plant	ENEA Wytwarzanie	Adaptation of the boiler to the Nox emission standards specified in the IED Directive	No	Expected completion in January 2015	0.00966	0.00557	Administrative and regulatory barriers
Energy Union	Connections and production	private	Modernization of power unit No. 4	ENEA Wytwarzanie	Increase in efficiency and life extension	Yes	Realization in 2017	0.00817	0.00782	Lack of government regulatory support
Energy Union	Connections and production	private	Modernization of power unit No. 6	ENEA Wytwarzanie	Increase in efficiency and life extension	Yes	Realization in 2018	0.00792	0.00035	Lack of government regulatory support
Energy Union	Connections and production	private	HV_Power_Line_Kluczewo - Barlinek	ENEA Operator	HV power line modernization	Yes	2012-2017 (ongoing)	0.00786	0.00368	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	Main_Substation_220/110/15_Pomorzany	ENEA Operator	Substation construction	Yes	2011-2018 (ongoing)	0.00761	0.00406	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Main_Substation_220/110/15_Leszno Gronowo	ENEA Operator	Substation construction	Yes	2012-2017 (ongoing)	0.00758	0.00757	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Recław - Goleniów	ENEA Operator	HV power line modernization	Yes	2014-2018 (ongoing)	0.00730	0.00261	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Modernization of power unit No. 3	ENEA Wytwarzanie	Increase in efficiency and life extension	Yes	Realization in 2017	0.00719	0.00719	Lack of government regulatory support
Energy Union	Connections and production	private	Modernization of power unit No. 8	ENEA Wytwarzanie	Increase in efficiency and life extension	Yes	Realization in 2017	0.00676	0.00676	Lack of government regulatory support
Energy Union	Connections and production	public private	Construction of a power plant using alternative energy sources	ARP S.A., Cemex Polska Sp. z o.o., EURO-EKO Sp. z o.o.	Construction of an electric power plant using waste heat recovery and thermal recovery from alternative fuels.	No	Project planned for the years 2015-2017	0.06	0.06	As a new technology, it entails many operational risks. Thermal processing of waste (RDF as the energy source) may prove to be a sensitive subject among the society – there is a risk of potential protests of the local residents.
Energy Union	Connections and production	private	HV_Power_Line_Drawski Młyn - Wronki	ENEA Operator	HV power line modernization	Yes	2012-2017 (ongoing)	0.00534	0.00497	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Gorzów-Witnica	ENEA Operator	HV power line modernization	Yes	2012-2018 (ongoing)	0.00528	0.00093	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Modernization of power unit No. 7	ENEA Wytwarzanie	Increase in efficiency and life extension	Yes	Realization in 2015	0.00506	0.00083	Lack of government regulatory support
Energy Union	Connections and production	public private	DeNOx installation for boiler K8 in Bialystok Plant	ENEA Wytwarzanie	Adaptation of boilers to the NOx emission standards specified in the IED Directive	No	Expected completion of construction in June 2015	0.00491	0.00154	Administrative and regulatory barriers
Energy Union	Connections and production	private	HV_Power_Line_Śrem HCP - Śrem Helenki - Leszno Gronowo	ENEA Operator	HV power line modernization	Yes	2012-2017 (ongoing)	0.00488	0.00422	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Pakość - Żnin	ENEA Operator	HV power line modernization	Yes	2012-2017 (ongoing)	0.00453	0.00382	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Pniewy - Wronki	ENEA Operator	HV power line modernization	Yes	2014-2018 (ongoing)	0.00409	0.00122	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	Main_Substation_110/15_Jachcice	ENEA Operator	Subsation modernization and construction	Yes	2013-2017 (ongoing)	0.00389	0.00308	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	New_Customer_Connection	ENEA Operator	New customer connection	No	2016-2017 (initiation)*	0.00387	0.00387	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Walcz-Mirosławiec	ENEA Operator	HV power line modernization	Yes	2013-2017 (ongoing)	0.00373	0.00288	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Main_Substation_110/15_Dąbie	ENEA Operator	Main substation modernization	No	2014-2017 (ongoing)	0.00365	0.00351	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Wronki - Czarnków ZPP	ENEA Operator	HV power line construction	Yes	2012-2018 (ongoing)	0.00357	0.00296	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Dolna Odra - Chlebowo	ENEA Operator	HV power line construction	No	2012-2015 (ongoing)	0.00352	0.00236	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Rawicz-Góra	ENEA Operator	HV power line modernization	No	2013-2018 (ongoing)	0.00332	0.00100	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Wschowa - Włoszakowice - Leszno Gronowo	ENEA Operator	HV power line modernization	Yes	2013-2017 (ongoing)	0.00320	0.00208	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Międzychód-Sieraków	ENEA Operator	HV power line modernization	Yes	2011-2015 (ongoing)	0.00318	0.00129	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Zielomyśl-Międzychód	ENEA Operator	HV power line modernization	Yes	2014-2015 (ongoing)	0.00309	0.00262	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	Main_Substation_110/15_Łobez	ENEA Operator	Subsation modernization	No	2014-2017 (ongoing)	0.00304	0.00262	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Łobez-Resko	ENEA Operator	HV power line modernization	Yes	2013-2015 (ongoing)	0.00302	0.00190	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	Main_Substation_110/15/6_Srem_HCP	ENEA Operator	Main substation modernization	Yes	2012-2015 (ongoing)	0.00302	0.00294	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_ Pniewy - Sieraków	ENEA Operator	HV power line modernization	Yes	2011-2017 (ongoing)	0.00299	0.00247	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Morzyczyn - Żydowce	ENEA Operator	HV power line modernization	Yes	2013-2018 (ongoing)	0.00292	0.00086	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Śmigiel-Leszno	ENEA Operator	HV power line modernization	Yes	2013-2017 (ongoing)	0.00291	0.00255	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	Main_Substation_110/15_Pakość	ENEA Operator	Subsation modernization and construction	Yes	2013-2017 (ongoing)	0.00285	0.00238	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Nowogród Bobrzański-Żary Zakładowa	ENEA Operator	HV power line construction	No	2014-2017 (ongoing)	0.00270	0.00270	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Glinki-Żelechowo	ENEA Operator	HV power line modernization	Yes	2014-2018 (ongoing)	0.00270	0.00075	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Bema - Żegrze	ENEA Operator	HV power line construction	No	2015-2019 (initiation)*	0.00270	0.00003	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Skwierzyna - Międzyrzecz	ENEA Operator	HV power line modernization	Yes	2013-2018 (ongoing)	0.00266	0.00078	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Załom - Goleniów	ENEA Operator	HV power line modernization	No	2012-2015 (ongoing)	0.00255	0.00248	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_ Międzyrzecz - Zielomyśl	ENEA Operator	HV power line modernization	Yes	2013-2018 (ongoing)	0.00255	0.00084	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Main_Substation_110/15_Krobia	ENEA Operator	Main substation construction	No	2014-2017 (ongoing)	0.00244	0.00244	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Kostrzyn-Górzyca	ENEA Operator	HV power line modernization	Yes	2014-2015 (ongoing)	0.00238	0.00182	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Main_Substation_110/15_Zalom	ENEA Operator	Main substation modernization	Yes	2012-2016 (ongoing)	0.00235	0.00158	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Zdroje-XSZ	ENEA Operator	HV power line construction	Yes	2016-2018 (initiation)*	0.00230	0.00070	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Main_Substation_110/15_Tanowska	ENEA Operator	Main substation modernization	Yes	2012-2016 (ongoing)	0.00208	0.00195	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Wschowa - Huta Głogów	ENEA Operator	HV power line modernization	Yes	2013-2017 (ongoing)	0.00203	0.00202	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Main_Substation_110/15_Tarnowo Podgórne	ENEA Operator	Main substation construction	No	2015-2016 (initiation)*	0.00195	0.00195	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Resko - Łobez	ENEA Operator	HV power line construction	No	2012-2017 (ongoing)	0.00191	0.00104	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Gostyń - Pępowo	ENEA Operator	HV power line construction	No	2014-2017 (ongoing)	0.00182	0.00182	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Górzyca-Słubice	ENEA Operator	HV power line modernization	Yes	2011-2017 (ongoing)	0.00181	0.00152	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Main_Substation_110/15_Krzywiń	ENEA Operator	Main substation construction	No	2013-2016 (ongoing)	0.00164	0.00160	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	Main_Substation_110/15_Niemierzyn	ENEA Operator	Main substation modernization	Yes	2012-2016 (ongoing)	0.00151	0.00135	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Wind_Farm_connection	ENEA Operator	New customer connection	No	2014-2015 (ongoing)	0.00149	0.00143	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	HV_Power_Line_Leśniów - Przylep	ENEA Operator	HV power line modernization	Yes	2016-2018 (initiation)*	0.00142	0.00043	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	HV_Power_Line_Dąbie - Morzyczyn	ENEA Operator	HV power line modernization	Yes	2012-2018 (ongoing)	0.00129	0.00038	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.

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Energy Union	Connections and production	private	Substation_110_Czarnków ZPP	ENEA Operator	Main substation modernization	No	2015-2016 (initiation)*	0.00126	0.00126	There are many risks affecting planning and investment process in distribution networks. Risks affect deadlines and costs of projects. The most important problems are complicated procedures and legislative – particularly obtaining formal approvals and permissions which are necessary in the process of energy infrastructure modernization and construction. Existing laws and lack of permission to use the property for construction purposes extend the duration of energy infrastructure projects. Moreover the cost of permission to use the property for construction purposes is often much bigger than market price. Investments are blocked and cancelled in extreme cases. Another problem is lack of Law of transmission corridors. Power line investments must fulfill the environmental criteria. Proving that the investment is not harmful to the environment takes time and requires special studies and permissions.
Energy Union	Connections and production	private	Czeczott Power Plant Construction Plan	Kompania Węglowa S.A.	1.KW S.A. plans to build a coal-fired, supercritical power plant (together with a business partner) with a capacity of up to 1,000 MW 2. The investment is to ensure KW S.A. the demand for coal with a calorific value of about 19 MJ/kg. Location of the plant is associated with a very convenient transportation of coal from mines Piast and Ziemowit thus minimizing its cost of delivery.	No	Analytical and design phase	*TBD*	*TBD*	
Energy Union	Connections and production	private	The project to build a mine in the Lublin Coal Basin	Kompania Węglowa S.A.	1. Achieving the stability of production in subsequent years. 2. Magnification of the resource base. 3. Acquisition of cheaper coal, improving the company's competitiveness on the markets.	No	Analytical and design phase	*TBD*	*TBD*	
Energy Union	Connections and production	private	Construction of the fluidized bed boiler in the coal mine Zofiówka.	Jastrzębska Spółka Węglowa S.A.	One of the goals of the project is the use of coal slurry and eliminating its negative environmental effect by avoiding future market sale of this type of by-products of coal production that are affecting the low emissions.	No	The project is in the initial phase of operation.	*TBD*	*TBD*	
Energy Union	Connections and production	private	Construction of power plants based on use of alternative fuels (garbage, waste coal etc.).	Jastrzębska Spółka Węglowa S.A.	The economic use of waste to generate energy.	No	Currently the project is in the phase of conceptual analysis and preparation of documentation.	*TBD*	*TBD*	Procurement procedures, all problems recognized for investment projects -ensuring financial engineering, long lasting administrative procedures (obtaining building permits, public consultation, social and NGO resistance), need to update strategic documents
Energy Union	Connections and production	private	Construction of tar processing plant.	Jastrzębska Spółka Węglowa S.A.	1. The final product will include soot used in the tire industry. 2. Tar is an intermediate product yield by the group JSW coking plants.	No	Currently the project is in the phase of conceptual analysis and preparation of documentation.	*TBD*	*TBD*	
Energy Union	Connections and production	private	Energy use of methane from old mines	Jastrzębska Spółka Węglowa S.A.	Increasing the efficient use of methane from coal.	No	Analytical and design phase	*TBD*	*TBD*	
Energy Union	Connections and production	private	Construction of the power plant (fluidized bed boiler) fed by a low calorific value coal dust (as coal dust that is difficult to be placed on the market).	Katowicki Holding Węglowy S.A.	Management of coal dust in an efficient manner.	No	Analytical and design phase.	*TBD*	*TBD*	
Energy Union	Connections and production	private	The use of methane as an energy carrier through the construction of a ground drainage.	Katowicki Holding Węglowy S.A.	The use of methane from coal (Coal bed methane)	No	Analytical and design phase.	*TBD*	*TBD*	

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Energy Union	Connections and production	private	Methane removal from coal to the surface (before exploatation phase) using directional drilling techniques in conjunction with the recovery of methane and its economic use.	Katowicki Holding Węglowy S.A.	The use of methane from coal. Increase in the safety of miners by a partial removing methane from the operational area.	No	Analytical and design phase.	*TBD*	*TBD*	
Energy Union	Energy efficiency in buildings	public private	Smart Grid Programme		An area of investing in energy efficiency, better use of available capacities, possibility of managing the energy demand structure for households. A relative reduction in energy demand means more economical consumption of resources, less emissions and less pressure on the natural environment. The smart grid programme could trigger a modernisation of more than 500 thousand km of power networks in Poland, which are depreciated in more than 50%.			5.00000	*TBD*	
Energy Union	Energy efficiency in buildings	public private	Infrastructure for alternative fuels		Construction and deployment of charging points for electric vehicles and refueling stations for natural gas vehicles in the form of CNG or LNG. Thanks to realization of the project there will be possible to reduce the emission in transportation sector. In addition, the problem of absence of the trans-European infrastructure for alternative fuels in transport will be solved. The increase energy security through diversification of transport fuels. Implementation of the program of infrastructure development for alternative fuels is indicated in the Directive of the European Parliament and of the Council 2014/94 / EU of 22 October 2014 on the development of infrastructure for alternative fuels.		concept phase	*TBD*	*TBD*	Lack of financing
Energy Union	Energy efficiency in buildings	private	Gas Smart Grid Development	Gaz - System S.A. PGNiG S.A. Polska Spółka Gazownictwa Sp. z o.o.	The overall concept of the Smart Grid plays an important role in transforming the functionality of the current energy market. The future energy market is consumer-oriented market and will support the achievement of the objectives of the energy policy of the European Union in 2020 (3x20). Gas grids, due to the fact that they store large amounts of energy, have a high flexibility to changes in power demand. The concept of smart gas networks is based on the future convergence and interoperability of gas systems and power systems as well as facilitating the "intelligent" use of energy.		In an embodiment	*TBD*	*TBD*	
Energy Union	Connections and production	private	DeNOx installation for boiler 8 In Kozienice Plant	ENEA Wytwarzanie	Adaptation of the boiler to the Nox emission standards specified in the IED Directive	No	Expected completion in September 2017	0.00966	0.00966	Administrative and regulatory barriers

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Resources and Environment	Natural resources: efficient and secure availability	public private	petroPROJECT	Grupa LOTOS S.A.	New petrochemical complex with a steam cracker unit as a basic unit and chemicals processing plants at the premises of Grupa LOTOS and Grupa AZOTY. It will be the 2nd PetChem complex in Poland and it will reduce the need for importing chemicals/polymers.	Yes	Feasibility phase -2014	3.25000	0.50000	A main barrier for this project is the very high TIC and lack of long term financing. Current members: the consortium of polish companies (Grupa LOTOS S.A. and Grupa Azoty S.A.)) are unable to raise adequate equity to secure financing of the project. There is too low attractiveness IRR for private banking or investment fund comparing to similar projects arranged in other part of world such as USA (cheap shale gas).The project is profitable and very attractive due to a very huge of NPV and will have a significant part in creating future GDP. One of the solution to assure financing of the project is a combination of EC grants, EIB and MS finance as well as private capital and contribution of international business partners as members of the consortium. There are certain risks related to big volumes of products to be imported from countries outside EU mainly US - areas where there are no so stringent environmental requirements . A project management will supervise the project and seek business partners.
Resources and Environment	Natural resources: efficient and secure availability	private	North - South Gas Corrodor	Gaz System S.A.	North - South Gas Corridor will connect the LNG terminal in Swinoujscie through southern Poland, the Czech Republic, Slovakia and Hungary to the proposed Adria LNG terminal in Croatia. The corridor consists of a number of bidirectional interconnections and domestic gas pipelines. The main benefits of the project are increase of the integration of regional gas markets, increase of security of supply, access to new sources of supply (LNG, Norway) for Eastern Europe and the coordination of regional infrastructure projects.		In an embodiment	2.66000	0.86300	
Resources and Environment	Natural resources: efficient and secure availability	public private	Water and soil quality protection	Voivodship Funds for Environmental Protection and Water Management	Support for investments in individual households wastewater treatment systems / sewage disposal in the areas of scattered settlements in the surroundings of urban areas or close to water reservoirs	NO	Conceptual phase +technical/environmental documentation for some single small projects	1.00000	1.00000	Project preparation phase (documentation for scattered projects)
Resources and Environment	Natural resources: efficient and secure availability	public private	Project Wisła	-	Phase I investment preparation: Feasibility studies for construction of second barrage with hydro power plant on the Vistula River including Enviromental Decisions obtaining. Phase II investment realization: Construction of the barrage. Economic viability for Phase II of the project is dependent on the positive completion of Phase I and provided that majority of the cost of hydro engineering works is covered by public funds.	No	Phase I In progress. Phase II This phase of project will be started after taking of the investment decision.	0.83400	*TBD*	• Lack of public funds for realization of the project, • Project long-term financing problems, • Regulatory barriers i.e. lack of inclusion of the Lower Vistula Cascade in national strategies, lack of special act for the flood protection, • European Agreement on Main Inland Waterways of International Importance (AGN Convention) was not adopted by Poland, • Potential engagement of ecological communities.
Resources and Environment	Natural resources: efficient and secure availability	public private	Waste-to-energy plants	National Fund for Environmental Protection and Water Management,	Building 3 waste-to-energy plants	YES	Conceptual phase	0.50000	0.02000	Procurement procedures, all problems recognized for investment projects, state aid
Resources and Environment	Natural resources: efficient and secure availability	public private	Geothermal heating	National Fund for Environmental Protection and Water Management,	Investments using the heat from geothermal sources, providing the sufficient infrastructure	Yes	Conceptual phase	0.50000	0.10000	Lack of environmental and geological documentation

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Resources and Environment	Natural resources: efficient and secure availability	private	Bioethanol production of second generation with biogas plant and boiler house on lignin		Production of bioethanol from cellulosic feedstocks is an innovative technology that will be working in a commercial installation of an integrated system of plant producing first generation ethanol . This will allow the production of second generation ethanol by 98% GHG reduction potential and first generation ethanol of potential reduction exceeding 60%. This technology should be integrated with the existing plant producing ethanol from starch raw materials so as to maximize the benefits of logistics and energy.	Yes	The investor does not make progress with the investment or procurement procedures related to the present project. Planned date of obtaining a building permit is 2015., and expected date of implementation of the investment the years 2016 - 2020. In the years 2015-2017 the cost of the investment will be up to 10% of the total value of the project. For the purpose of the investment was selected location, which is located in the immediate vicinity of the existing Ethanol Production Plant. The land is owned by the investment company BIOAGRA SA. Additionally, the Company proceeds to purchase another adjoining parcel, which will allow for the development of its directly to the objectives of the project. Lot adjacent to the existing Ethanol Production Department were chosen deliberately so that it was possible to logistics-energy integration of the plant. The company has a staff qualified in terms of knowledge production processes, quality control, law duty etc. which will be responsible for the conduct of the investment process. At present, the Company has a fully prepared and equipped laboratory for	0.23000	0.02300	1. Due to the very high investment costs, the investment in question without external support is not justified for implementation. The project is cost-effective to implement the level of funding in the amount of PLN 315 million (EUR 0.7 billion), which will result in profitability at the level of IRR 9 - 10% and NPV of 17 million PLN with a payback period 16 years. 2. The need to notify the measure, which is associated with prolongation of the procedure. 3. Lack of directional decisions at EU level. At present, work is underway on the amendment of Directive 2009/29 / EC on the promotion of energy from renewable sources, in which planned mandatory target for biofuels of second generation - until the end of the work of the lack of clear regulations in this respect (formal barrier) .
Resources and Environment	Natural resources: efficient and secure availability	private	Construction of bioethanol production unit of second generation		PKN ORLEN SA intends to expand its current activities in the field of refinery segment bioethanol production based on non-food raw materials and waste, the so-called second-generation bioethanol. Produced by PKN ORLEN SA ethanol will be used for the production of gasoline E5, E10 is a partial substitute for the currently used first-generation bioethanol supplied to the market, which is produced from cereals and root crops, and so these categories of biomass, which is used for food production. PKN ORLEN SA has taken action to implement the project for the construction of production units of second generation bioethanol capacity of 60 000 tonnes / year based on raw materials such as straw, wood waste and other. Technology of production of bio-EOH is based on enzymatic fermentation technology. The raw material is a non-food biomass from agriculture and forestry (straw, energy crops, forest biomass, etc.).	Yes	The investor did not start the investment phase of procurements related to the present proposal. Planned date of obtaining a building permit is 2016.and expected date of implementation of the investment is the years 2017 - 2020. In the years 2015-2017 will be implemented in the initial phase of the investment, the cost of which will amount to 5% of the total value of the project. Currently, efforts to project evaluation has been made the details available in the world of technology for the possibility of adopting in Poland due to the nature of use of the contribution of raw materials. In order to obtain the best knowledge of the field of second generation bioethanol production has been carried out discussions with potential technology providers and reference visits took place in units of commercial / pilot / demonstration / production of second generation bioethanol, among others, visit the reference to the installation of commercialized (60 thous. tons / year of bioethanol) - Crescentino - Italy - installation launched in September 2013. It was made a qualitative assessment of the finished product - second-generation bioethanol for	0.14000	0.00700	1. Technology of production of second generation bioethanol is not an innovation in the world, in Poland, however, the units producing biofuels on the basis of the said technology is not yet available Due to the very high investment costs of second-generation bioethanol unit compared to a comparable unit, the first-generation bioethanol production the investment in question without external support is not justified for implementation. PKN ORLEN SA based on RFI obtained from the market assessed the profitability of the investment. Presented below investment efficiency evaluation indicators suggest that the project is cost-effective to implement only the assumption of obtaining external funding In the absence of co-financing investment internal rate of return IRR is - 0.45% and indicates a lack of profitability However, when obtaining financing at 50% of eligible costs IRR is 6.55%. The size of the grant will be crucial in the decision to implement the project. 2. The need to notify the measure, which is associated with prolongation of the procedure. 3. Lack of directional decisions at EU level. At present, work is underway on the amendment of Directive 2009/29 / EC on the promotion of energy from renewable sources, in which planned mandatory target for biofuels of second generation - until the end of the work of the lack of clear regulations in this respect (formal barrier)

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Resources and Environment	Natural resources: efficient and secure availability	public private	Syngas Generating Plant Trzebinia/Chrzanow	ORLEN Eko Co. Ltd. Memeber of ORLEN group	Syngas Generating Plant out of MSW and industrial waste based on gasification technology and/or gasification with use of plasma. Product in form of syngas planned to be utilizedas the fuel as substitute of natural gas or other natural resources. No emission and na waste technology (remains after process in form of vitrificate is bulding material) Technology environment friendly (contrary to classical waste incineration plants).	No	Performed Feasibility Study, received Environmental Decision and and Decision of Public Goal Investment. Actually detailed economical analisys are undertaken. Internal corporate decisions are proceeded.	0.07500	0.07500	Considerable investment risks resulting from: Innovative technology in world scale (few installations of comparable scale and solutions all over the world - only one in Europe). High cost of investment at long term return period and necessity to provide uninterrupted stream of waste in long period of time.
Resources and Environment	Natural resources: efficient and secure availability	public private	Syngas Generating Plant Plock	ORLEN Eko Co. Ltd. Memeber of ORLEN group	Syngas Generating Plant out of MSW and industrial waste based on gasification technology and/or gasification with use of plasma. Product in form of syngas planned to be utilizedas the fuel as substitute of natural gas or other natural resources. No emission and na waste technology (remains after process in form of vitrificate is bulding material) Technology environment friendly (contrary to classical waste incineration plants).	No	Feasibilty study performed. Prepared application for Environmental Decision. Detailed economical analisys in progress	0.07500	0.07500	Considerable investment risks resulting from: Innovative technology in world scale (few installations of comparable scale and solutions all over the world - only one in Europe). High cost of investment at long term return period and necessity to provide uninterrupted stream of waste in long period of time.
Resources and Environment	Natural resources: efficient and secure availability	public private	Extension of the value chain for biodiesel products	Trzebinia Refinery	Building new plant for bio-products production	No	Preparing pre-feasibility study for investment	0.03500	*TBD*	Lack of financing for building plants for implemented technology. Financing available only for building plants for non-implemented technology
Resources and Environment	Natural resources: efficient and secure availability	public private	Recovery of rare earth metals	National Fund for Environmental Protection and Water Management, Ministry of Env.		No	Conceptual phase	0.00200	0.00200	
Resources and Environment	Resilience to Climate Change	public private	EU steel industry revitalisation program	Minister of Economy /Agencja Rozwoju Przemysłu SA	The EU steel industry is in retreat. More and more blast furnaces are closed. The high-emission blast furnace production is replaced by even more high-emission imports. The modernisation programme for the EU's steel industry could reverse this unfavourable process. At the same time, a complementary industrial use of blast-furnace gas and coke-oven gas would be possible, along with the development of the related industries. The European automotive industry would be improved by a stronger base of competitive development in relation to Asian and American industry.	No	Analytical and design phase	2.00000	0.33000	
Resources and Environment	Resilience to Climate Change	public private	Ecological heating	Ministry of the Environment, National Fund for Environmental Protection and Water Management, Voivodship Funds for Environmental Protection and Water Management	Replacing the conventional coal-fired stoves by environmental friendly and safe (to lower the level of pollution). One element of the project will support the production of such installations in Poland using best practice and technology and research on innovation in this area.	No	Conceptual phase and experiences from programmes financed by NFEPWM	1.00000	1.00000	
Resources and Environment	Resilience to Climate Change	public private	Ecological vehicles in cities	Ministry of the Environment, National Fund for Environmental Protection and Water Management, Voivodship Funds for Environmental Protection and Water Management	Set up the sufficient urban infrastructure for ecological fleet (charging stations, the rental system, hybrid and electric vehicles, public transportation using such power sources as gas, hybrid, electricity)	YES	Conceptual phase and experiences from foreign projects (know-how transfer from e.g. Paris)	1.00000	1.00000	Biurocratic burdens
Resources and Environment	Resilience to Climate Change	private	Building new waste water treatment plant	Trzebinia Refinery	Building new waste water treatment plant with division wastes on process wastewater and raining wastewater.	No	Administrative permits, contractor selection procedure (EPC)	0.00750	0.00750	A lack of possibility for financing for building plants for implemented technology

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Social Infrastructure	Built environment and urban services	public private	Post-industrial land revitalisation	Minister of Economy /Agencja Rozwoju Przemysłu SA	Most EU countries have entered a post-industrial phase. A result of this process is the growing size of the areas once occupied by old factories and mine heaps or workings. The accumulated waste pollutes the environment, is being treated, or further processed. It often occupies land suitable for construction. Rehabilitation of that land would create an attractive investment area, contributing to the further development of cities and various areas of low-emission services and industry. In the case of Poland , it would be a great opportunity for revival in the Upper and Lower Silesia.	No	Conceptual phase	15.00000	3.00000	
Social Infrastructure	Built environment and urban services	public	Comprehensive offer of care and activities for seniors		The main goal of the project is to develop centres providing 24-hour and day care for seniors at local levels. Such a centre would provide a broad range of services, depending on the required level of specialist care services of welfare and medical nature. The centre would serve as a welfare and medical service point for seniors inhabiting a municipality/a poviat/a region. A centre would include: 1. A retail part: a. A senior activity facility b. A day care facility 2. A co-housing part – apartments for seniors enabling them to live independent lives with small support provided by the retail part of the centre e.g. in relation to food, interesting leisure activities, social integration or rehabilitation services. The offer of the centre would be coordinated by an interdisciplinary team analysing: a) regular geriatric assessment – senior's demand for medical and rehabilitation services b) the offer of day-time activities c) diet d) hobbies' pursuit e) availability, by means of ensuring transport to and from the activity facility	yes		0.35190	*TBD*	Currently, no funds are available to be allocated for this objective
Social Infrastructure	Built environment and urban services	public	Developing accommodation for people requiring support, including sheltered housing		Developing a system of sheltered/supported/assisted/training apartments for adult individuals and families requiring temporary or permanent support, together with a system of services adjusted to individual needs and aimed at making these individuals or families independent or ensuring them dignified life. Possible beneficiaries include individuals and families requiring temporary or permanent support aimed at enabling them to participate in social life, which will contribute to their liberation from the zone of social exclusion or protect them against falling into it.	yes		0.24882	*TBD*	Currently, no funds are available to be allocated for this objective

Sector	Subsector	Private[1] /Public / PPP [1] includes investment by state-owned	Project name	Implementing agency	Description	Included in national investment plan (Yes/No)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
Social Infrastructure	Built environment and urban services	public	TCreating child care institutions for children under the age of 3		Due to a highly insufficient number of child care institutions for children under the age of 3 (crèches, children's clubs, day carers) and an insufficient number of places in them, the project's objective is to support municipalities in their creation (this is the role of municipalities). It is planned to allocate funds for the creation of new care facilities (e.g. space adaptation, renovation, furnishing) and their everyday operation.	yes		0.20853	*TBD*	Organising infant/toddler care systems is the responsibility of municipalities financed from their budgets. Nevertheless, municipalities are not very active in this field. In spite of the implementation of several editions of the Departmental programme of development of child care institutions for children under 3 "Maluch" ["Toddler"] (subsidised from the state budget), the current increase in the number of care facilities is insufficient. Moreover, funds allocated to the programme funds are determined on a yearly basis (it is not a multiannual programme) and are related to budgetary constraints – since 2012, every year PLN 101 million has been planned. In fact, in 2013, the total expenditure (from state and municipal budgets) amounted to PLN 573.8 million and in 2014 will amount to PLN 631.6 million (estimate).
Social Infrastructure	Education and training	public private	Support fund for the development of dual vocational training systems – creation of clusters composed of vocational schools and local employers		The project's objective will be to provide financial support for created vocational education clusters, encompassing cooperation agreements concluded between vocational schools and/or vocational training centres and employers operating in a given field/industry; owing to the cooperation of cluster partners, students will acquire both high-level up-to-date theoretical knowledge, and practical skills during classes run in working conditions, and employers will gain access to graduates of vocational schools with qualifications suited to their needs. The project will provide financial support for cluster partners: - to create/equip simulation workstations for vocational training practice, - to create/equip training workstations at employer's companies enabling vocational training practice (without occupying actual workstations), - to train vocational school teachers at employers' companies in terms of practical aspects of the taught profession and/or placement mentors (instructors) assigned by employers in terms of teaching theory and methodology. - for employers organising workstations for vocational training practice (e.g. tax reliefs, subsidies, bonuses for taking care of a trainee), - for people who study during vocational training and the first 12 months of employment (e.g. covering the costs of travel and accommodation, co-financing employment, additional vocational training sessions and other courses aimed at developing soft skills).	no		0.23294	*TBD*	Currently there are no incentives for cooperation between vocational schools and employers, what results in too little commitment from both sides in developing such cooperation. The Fund will allow for actions leading directly to the cooperation between education and training sectors, which in consequence will reduce the mismatch between skills and qualifications and the labour market needs. Investment in the skills of teachers and profession trainers will improve the quality of education and training process on various levels of attaining the education.

Sector	Subsector	Private[1] /Public / PPP [1] includes investment by state-owned	Project name	Implementing agency	Description	Included in national investment plan (Yes/No)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
Knowledge and the Digital Economy	ICT Infrastructure	public private	Data-driven economy		Creation of the main data warehouse and building of a network of gauges covering all EU countries, which will allow for continuous monitoring of key parameters, e.g.: •motorway traffic information, weather conditions, •water levels and river flows, •info about natural disasters, road and rail accidents etc. In each EU country – creation of a national data warehouse and building of local gauges networks, used in specific projects, e.g. 'smart cities' Financial support for investments using intelligent data processing in EU large cities ("smart cities"): •intelligent energy management systems, •intelligent transport management systems. The core element of the project is designing and building a common sensor network (M2M) covering all EU countries, responsible for collecting and transmitting data. Some data, e.g. satellite and spatial data, will have to be purchased. All data collected in warehouses, should be, as far as possible, available free of charge, implementing the principle of re-use. Data are an economy driver in many areas, including energy, transport, the environment. The results of intelligent data processing are: • innovative products, • efficient use of existing energy infrastructure, communications, water supply, • saving energy and water, • lower pollution. The idea of the project encapsulates the message of the 2014 Communication from the Commission "Towards a thriving data-driven economy".	No	Conceptual phase	4.00000	0.50000	
Knowledge and the digital economy	ICT Infrastructure	private	Deployment of FTTH access network in Greater Poland other than POPC (with possible replication to other voivodships)	INEA	Development of backhaul and FTTH access networks in NGA "white areas" which will not be covered by the projects implemented under Operational Programmes 2007-2013 and the Operational Programme Digital Poland (POPC) 2014-2020. The project includes the construction of ducts and fiber infrastructure in order to provide broadband in areas where NGA infrastructure is not currently available, and there are no reliable operators' investment plans.	No	The project at the stage of pre-investment studies	0.25000	0.05000	Barrier: NGA infrastructure deficit in the "white areas" due to the high cost of network construction and the lack of return on investment. Solution: Co-financing of infrastructure by the European Union, open up networks for all operators under equal conditions.

Sector	Subsector	Private[1] /Public / PPP [1] includes investment by state-owned	Project name	Implementing agency	Description	Included in national investment plan (Yes/No)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
Knowledge and the digital economy	ICT Infrastructure	private	Construction of transmission corridors in rural areas in Greater Poland (with possible replication to other voivodships)	INEA/ WSS	In accordance with Directive 2014/61/EU of the European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of deploying high-speed electronic communications networks hereinafter referred to as the Directive on the reduction of the cost of building broadband networks, it is advisable to create a common infrastructure in large areas, particularly rural areas and in public roads, in which it will be possible to place multiple public infrastructure, including energy, telecommunications and infrastructure serving traffic lights, including e -call. Passive infrastructure accounts for over 80 % of the cost of building infrastructure. Combination of these investments and giving the infrastructure an open nature will let achieve synergies and address the needs of many infrastructures, including those related to future services. Capex calculation: Technical ducts construction in urban areas Construction includes: 2 x DVK 160 pipes 4 x HDPE 40 pipes (primary material) 4 x prefabricated pipe of 7 microducts SKO-2 manhole every 50 m SKMP-2 manhole every crossroads Technical documentation Labour	No	In no region of Poland, due to the legal terms but primarily due to costs, are conducted construction works including a common technical infrastructure for various transmission networks , including technical sewage for extended use.	0.18000	*TBD*	Barrier: No act on transmission corridors, inadequate regulations of the law on supporting telecommunication networks and services - the lack of implementation by the empowered authority. Lack of funds for communication conduits for extended use. Solution: The approaching completion of the draft of the law and the implementation of the directive on the reduction of the cost of building broadband networks arranges legal basis but does not settle funds..
Knowledge and the digital economy	ICT Infrastructure	private	Upgrade of HFC network to FTTH (step change) in Greater Poland (with possible replication to other voivodships)	INEA	In HFC networks, there is a trend to shorten coaxial cable links and to extend optical cable links (fiber deep). Consequently, this should lead to an evolutionary transformation of the HFC network to FTTH. The process can be long and it may turn out that operators incur higher overall expenditures upgrading the HFC network in the evolutional way than if it is modernized by leaps and bounds. In addition, the gradual modernization still maintains all the disadvantages of HFC network in relation to FTTH, particularly to passive network (i.e. higher operating costs, higher failure rates, weaker prospects for meeting the requirements for the network in the future). Modernization of all HFC resources to FTTH is a very big financial effort for the operator and for this reason the operator carry a long-term scenario of its network upgrade. The gradual upgrade is unfavourable for both the operator and the end users. In order to break the investment barrier, additional financement should be involved in the project that will enable shortening of the process. The project will trigger a step change in technology and the transformation of the network. Although HFC network is able to meet the requirements of EAC2020 , FTTH network is at the moment the highest technology in the field of telecommunication networks.	No	None of the operators in Poland has yet made attempts to modernize HFC network to FTTH.	0.05700	0.03500	Barrier: modernization costs, Solution: external financement
Knowledge and the digital economy	ICT Infrastructure	private	Regional deployment of LTE in 3,4-3.8 GHz band.	INEA	Polish regional and national availability of 3,4-3.8 GHz band creates compelling scenario for deployment of wireless LTE networks. Especially Greater Poland is willing to provide LTE coverage in this band, but the same applies to other polish voivodships as well	No	Pending	0.00600	*TBD*	High technology cost when compared with low service ARPU Lack of support of LTE in 3,4 – 3,8GHz band on majority of mobile subscriber modules

Sector	Subsector	Private[1] /Public / PPP [1] includes investment by state-owned	Project name	Implementing agency	Description	Included in national investment plan (Yes/No)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
Knowledge and the Digital Economy	Private R&D	private	Continuation of research on industrial application of graphene, and launching its production on an in dustrial scale	Warsaw University of Technology (Politechnika Warszawska), Nano Carbon Sp. z o.o. and Institute of Electronic Materials Technology(Instytut Technologii Materiałów Elektronicznych)	Graphene: is a e form of a very thin, nearly transparent sheet of hexagonal structure of carbon atoms. It is remarkably strong for its very low weight and it conducts heat and electricity with great efficiency as well as displays other special electrical characteristics. The fields of its appliucation can be indicated basing on related patent activity, which include: automotive industry (16 patents), chemical sensors (7 patetnts) , composite materials (158 patents), batteries (57 patents), fuel cells (47 patents), integrated circuits (35 patents), LED diodes (17 patents), liquid crystal devices (13 patents), Li-Ion cells (54 patents), memory (56), solar cells (38 patents), touchscreens (12 patents), supercapacitors (24 patents), transistors (62 patents), polarisation of light (4 patents), medical devices (D sequencing – 1 patent), molecular sensors (1 patent), spintronics (2 patents) or thermoplastic materials (31 patents).	no	ongoing	0.05000	0.02500	World leading reserach institutes and big enterprises operating in electronic sector that compete in starting the production of high quality graphene.
Knowledge and the Digital Economy	Private R&D	private	Saule Technologies/Wroclaw Research Centre EIT+ (Wrocławskie Centrum Badań EIT+)	Perovskites - similarly to silicon - absorb visible light (300-800 nanometer long) in a way, that electrical energy can be produced. It can be linked to another material - clothes, a synthetic fibers or even wood. Moreover, its layer can be even up to 10 times thinner that the layer of silicon (e.g. 200-300 nm) and can be applied with spray. The production of perovskite cells - contrary to traditional cells - is very fast and cheap.				*TBD*	*TBD*	
Knowledge and the Digital Economy	Public R&D	public	IFMIF/ELA-MAT Laboratory	Ministry of Science and Higher Education / Rzeszow University of Technology	Building in Poland an international research infrastructure IFMIF/ELA-MAT will be a crucial step for Poland to increase its position in the field of advanced technology materials in the world. The infrastructure will be complementary to ITER and DEMO projects which, to gain their research and commercial goals, require construction of an unique research infrastructure in Europe dedicated to development of advanced materials.	No	Planning in preparatory phase	1.00000	0.50000	High risk related to the research activities and lack of long term finance, low propensity of private sector to co-fund research infrastructures, compliance with the EC requirements for the financial perspective 2014-2020 (smart specialization, commercial use of the infrastructure, state aid rules), long standing public procurement processes and unknown level of financial involvement of international partners (currently negotiated). To overcome these barriers the project management team to supervise the project's implementation will be established and the continuous monitoring will be carried out by the implementing agency.

Sector	Subsector	Private[1] /Public / PPP [1] includes investment by state-owned	Project name	Implementing agency	Description	Included in national investment plan (Yes/No)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
Knowledge and the Digital Economy	Public R&D	public	KCIKiS - National Center of Space and Satellite Engineering	Ministry of Science and Higher Education / Military University of Technology	The mission of the Centre is to support innovation activities of the national authorities concerning space sector development and training of engineers and researchers. The main objective of NCSSE is to become the country's leading center for the development of space technologies and satellite techniques and to be recognized as an important partner in the European space program. The National Center of Space and Satellite Engineering aims at creating conditions for effective cooperation in science, research and teaching in the field of aerospace engineering and satellite applications. The consolidation and strengthening of the research potential of the network members will result in a faster development, implementation and commercialization of solutions in the area of aerospace engineering, satellite manufacturing, application services, and research.	Yes	Planning in preparatory phase	0.11000	0.05000	High risk related to the research activities and lack of long term finance, low propensity of private sector to co-fund research infrastructures, compliance with the EC requirements for the financial perspective 2014-2020 (smart specialization, state aid rules, limited EU funds for Mazovia region) and long standing public procurement processes. To overcome these barriers the project management team to supervise the project's implementation will be established and the continuous monitoring will be carried out by the implementing agency.
Knowledge and the Digital Economy	Public R&D	public	CERAD - Center of Design and Synthesis of Radiophar-maceuticals for Molecular Targeting	Ministry of Science and Higher Education / National Centre for Nuclear Research	The main objective of the CERAD project is to improve and expand the research infrastructure located at the National Centre for Nuclear Research (NCBJ), utilized in research programs oriented at design and pre-clinical evaluation of new drugs carrying the radioactive probe (radiopharmaceuticals) and other multimodality probes, suitable for diagnostic or therapeutic application, with the particular focus on the biologically active carrier molecules which can be traced at the cellular and molecular level.	Yes	Planning in preparatory phase	0.04000	0.02000	High risk related to the research activities and lack of long term finance, low propensity of private sector to co-fund research infrastructures, compliance with the EC requirements for the financial perspective 2014-2020 (smart specialization, state aid rules, limited EU funds for Mazovia region) and long standing public procurement processes. To overcome these barriers the project management team to supervise the project's implementation will be established and the continuous monitoring will be carried out by the implementing agency.
Knowledge and the Digital Economy	Public R&D	public	SeCuRe - Strain and Culture Resources, Polish Virtual Bioresource Centre	Ministry of Science and Higher Education / Institute of Agricultural and Food Biotechnology	SECURE initiative, will provide grounds for a long-term, core funding to centres that will qualify as biological resource centres and ensure an integrated approach to development, technology transfer and - compliant to law - access to bioresources and their commercial exploitation. It will also boost research in strategic areas encompassed by Poland's National Research Programme. SECURE network will result in setting up a unique virtual bioresource centre providing open access to the data and allowing for distribution via web-based interface.	Yes	Planning in preparatory phase	0.04000	0.02000	High risk related to the research activities and lack of long term finance, low propensity of private sector to co-fund research infrastructures, compliance with the EC requirements for the financial perspective 2014-2020 (smart specialization, state aid rules, limited EU funds for Mazovia region) and long standing public procurement processes. To overcome these barriers the project management team to supervise the project's implementation will be established and the continuous monitoring will be carried out by the implementing agency.
Knowledge and the Digital Economy	Public R&D	public	IN-MOL-CELL -Research Infrastructure of Molecules and Cells	Ministry of Science and Higher Education / International Institute of Molecular and Cell Biology	The rationale behind this research infrastructure proposal involves the extension of the IIMCB premises along with the extension of the Institute's areas of interest towards biomedical problems, with a greater focus on translational research. To this end six new research groups will be recruited and core facilities will be expanded to provide cutting edge technology support. By expanding the present infrastructure and expertise IIMCB will be able to create an integrated multidisciplinary research platform to span the spectrum from molecules to organisms, aiming to decipher the molecular basis of diseases and provide preclinical therapeutic options.	Yes	Planning in preparatory phase	0.02500	0.01200	High risk related to the research activities and lack of long term finance, low propensity of private sector to co-fund research infrastructures, compliance with the EC requirements for the financial perspective 2014-2020 (smart specialization, state aid rules, limited EU funds for Mazovia region) and long standing public procurement processes. To overcome these barriers the project management team to supervise the project's implementation will be established and the continuous monitoring will be carried out by the implementing agency.

Sector	Subsector	Private[1] /Public / PPP [1] includes investment by state-owned	Project name	Implementing agency	Description	Included in national investment plan (Yes/No)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
Knowledge and the Digital Economy	Public R&D	public	Industrial Property Centre for Analyses, Consultations and Trainings.	Patent Office of the Republic of Poland	IP Centre for Analyses, Consultation and Trainings will provide the following services: A) Patent landscape analyses for supporting strategic governmental decisions conducted in a broad context to identify key sectors for economic growth of national/EU economy. Analyses of patent landscapes to facilitate valuation of Key Enabling Technologies (KETs) and identification of key sectors with highest investment potential (including patenting activity of e.g. Polish and foreign applicants, market leaders, market niches, development directions, R&D, monetization of patents etc.) and thus increasing high socio-economic returns. Size and Scalability: The analyses can be conducted on both macro (EU/MS) as well as micro-level (business intermediaries, sectors, entities such as companies etc.) Patent landscape analyses/studies could be used across all areas of Task force. Currently pilot project is being prepared by the Polish Patent Office, in the fields of energy (in particular renewable sources of energy) and health (nanomedicine, bio-food). Exemplary areas to be analysed include for instance: big data, eco-innovation, synthetic biology, regenerative and medicine, agro-science, nanotechnology, commercial solutions for aeronautics and space administration, design in innovative processes, as well as more detailed studies on e.g. Polish graphene, technology of coal gasification, technology of shale gas excavation etc. Timeframes: Proposed project can within 3 years (depending solely on funding granted). Goal: Supporting strategic decisions on the EU as well as Member State's level. B) Industrial Property for effective co-operation between		Project in the concept phase prepared for pilot project.	0.00600	0.00300	Lack of long term funding and human resources to implement the project from national budget, structural funds and EU funds as well as international institutions such as WIPO or the European Patent Office (EPO). Identified need to finance advanced commercial patent databases, finance and/or train skillforce with advanced knowledge in analytics, patents, IT and statistics. Identified need to change institutional regulations as well as internal organization scheme to provide the services in the proposed projects. dentified need to develop administrative potential.
Knowledge and the Digital Economy		public	NLEJ - National Laboratory for Nuclear Energy	Ministry of Science and Higher Education / National Centre for Nuclear Research	NLEJ will provide a European-class infrastructure in nuclear research, with a high level of scientific and engineering expertise and with open access for national and European collaboration. The introduction of nuclear power in Poland has created a new situation requiring strengthened research support for the Polish Nuclear Energy Programme.	Yes	Planning in advanced phase, the consortium is ready to prepare the feasibility study	0.13000	0.06000	High risk related to the research activities and lack of long term finance, low propensity of private sector to co-fund research infrastructures, compliance with the EC requirements for the financial perspective 2014-2020 (smart specialization, state aid rules, limited EU funds for Mazovia region) and long standing public procurement processes. To overcome these barriers the project management team to supervise the project's implementation will be established and the continuous monitoring will be carried out by the implementing agency.
Knowledge and the Digital Economy		public	POLFEL - Polish free electron laser	Ministry of Science and Higher Education / National Centre for Nuclear Research	Polish contribution to the EurFEL consortium including participation in the research and technology development works performed at the existing and planned European facilities as well as the design and development studies of the infrastructure in Poland. The terahertz and ultraviolet range FEL facility named PolFEL is planned to be built at Świerk, near Warsaw.	Yes	Planning in advanced phase, the consortium is ready to prepare the feasibility study	0.10000	0.05000	High risk related to the research activities and lack of long term finance, low propensity of private sector to co-fund research infrastructures, compliance with the EC requirements for the financial perspective 2014-2020 (smart specialization, state aid rules, limited EU funds for Mazovia region) and long standing public procurement processes. To overcome these barriers the project management team to supervise the project's implementation will be established and the continuous monitoring will be carried out by the Ministry.
								132.8	**17.5**	

POLAND: ILLUSTRATIVE PROJECTS

The following examples illustrate the groups of investment projects in Poland which would particularly contribute to an increase of the European competitiveness and to enhancing growth potential in Europe by addressing key objectives on the current European agenda.

These projects were included on the list prepared by Poland as an input to the Task Force's works on the project pipeline.

1) Land transportation

Sector/ sub-sector: Transport/Corridors and missing links

Description: Good land transport connections and fully developed border infrastructure located on external border of the European Union are crucial to sustain long-term growth and boost employment through increasing mobility and accessibility, removing major barriers and enhancing competitiveness. In order to promote efficient freight and passengers transport services, corridors and missing links should be addressed and the interoperability and safety of national networks should be increased.

Improving territorial accessibility in Poland requires the integration of major modes of transport in order to overcome geographical barriers and to allow for interaction between citizens and business. It will also help to tap the economic potential of cross-region and transnational cooperation. Therefore, improvement of transnational connections, as a part of TEN-T core network, is of vital importance. Improving transport connections with neighbouring countries (Germany, Slovak Republic, Czech Republic, Lithuania, Russia and Ukraine) will be fundamental for robust development of the whole region. The projects in this area will mainly focus on network of motorways, expressways and bypasses, modernization of railway lines and replacement of rolling stock.

Financing Needs: Projects' costs range from €35 mn to €7.5 bn.

Involved Parties: Public and private sector (including investments by state-owned companies).

Main project barriers: Lack of financing, high investment risk compared to costs, legal barriers (institutional and legal conditions not determined when preparing and implementing the investment), private sector lacking trust and not ready to take risks. Some projects are included in the implementation document on the Connecting Europe Facility (CEF) list. However, the call is competitive and obtaining funding is not certain.

Socio-Economic Benefits: Promotion of mobility, improvement of accessibility and safety of networks, promotion of safer and more environmentally friendly technical standards, enhancing competitiveness, boosting regional and transnational development and creating new business opportunities.

European Value Added: Implementation of land transport projects contribute to creating a single European transport area by facilitating the transport of passengers and freight, reducing costs and enhancing the sustainability and competitiveness of European transport with the aim of retaining the ability of European regions to remain fully integrated. This also serves the aims of the Internal Market.

Project examples:

Railway transport:

- Construction of high-speed railway lines Warsaw – Łódź – Poznań/Wrocław (€7.5 bn);
- Construction of the Podłęże – Szczyrzyc –Tymbark/Mszana Dolna railway line and modernisation of the existing railway line no. 104 Chabówka – Nowy Sącz as part of the project Construction of the Podłęże – Szczyrzyc – Tymbark/Mszana Dolna railway line and modernisation of a section of the Nowy Sącz – Muszyna – national border and Chabówka – Nowy Sącz railway line. The project will improve the Poland's railway connection with Slovakia. The new line Podłęże – Szczyrzyc – Tymbark is a part of the TEN-T comprehensive network; (€1.4 bn);

Road transport:

- Motorway: A1 Tuszyn – Pyrzowice, Tuszyn-Częstochowa section as a part of the TEN-T core network – Baltic-Adriatic Corridor (€1 bn);
- Construction of expressway missing links located on TEN-T base corridor - Baltic-Adriatic Corridor:
  - S7 the Płońsk-Warszawa section (€1.2 bn);
  - S1 Pyrzowice - Bielsko-Biała : section Kosztowy - Bielsko-Biała (€900 mn);
  - S69 Bielsko-Biała, national border: section of Węgierska Górka bypass (€400 mn).
- Construction of expressway corridors: S19 Białystok-Lublin (€2.4 bn), S19 Rzeszów – national border (€2.2 bn) as a part of the TEN-T network.

Border infrastructure

- Comprehensive programme of border infrastructure modernisation (including rail border crossing points) and required transport corridors, to increase accessibility and efficiency of functioning of the external border of the European Union (€4 bn).

2) Inland waterway transport

Sector/ sub-sector: Transport/Corridors and missing links.

Description: Inland water transport - with its much lower external costs - is an effective and competitive alternative to road and rail transport. Given its relatively low energy consumption, low gas emission and overall relatively low air pollution, inland transport is also more environmentally friendly compared to the above-mentioned modes. The potential for increasing share of inland waterway transport in Poland is still untapped. The projects in this field aim to promote and strengthen the role of inland waterway transport in the transport system, facilitate its integration into the intermodal logistic chain, improve access to seaports and improve safety by rebuilding regulation structures. The projects in this area will also help to address a flooding problem severely affecting the whole region, therefore actions taken by neighbouring countries should be compatible.

In particular, projects in this area are aimed at upgrading existing waterways, construction of new connections (a waterway, canal, barrage), rebuilding of regulating structures and modernization of hydrotechnical structures.

Financing Needs: Projects' costs range approximately from €5 mn to €5 bn.

Involved Parties: Public institutions (Ministry of Infrastructure and Development, National Water Management Authority).

Main project barriers: Lack of financing, high investment risk compared to costs, institutional and legal barriers. Some projects are included in the Implementation Document, but beyond the allocation from the EU funds under Operational Programme Infrastructure and Environment 2014-20.

Socio-Economic Benefits: Promotion of more environmentally friendly and relatively cheaper mode of transport, promotion of regional and transnational development by creating jobs and new business opportunities, addressing a flooding problem.

European Value Added: Implementation of inland water transport projects will help to achieve EU targets aimed at reduction of transport related greenhouse gas emission, while at the same time will help to meet the increasing needs in terms of passengers and freight transport. Tapping inland water transport potential is a vital part of the EU's transport policy mix.

Project examples:

- Upgrading the Oder Waterway (to meet parameters of a class 4 waterway at least, thus becoming part of the TEN-T) (€5 bn);
- Construction of the Silesian Canal (an East-West connection between the canalised the Upper Vistula waterway and the Oder Waterway) (€2 bn);
- 1st stage of construction of the Danube-Oder-Elbe waterway: the Koźle-Ostrawa border-adjacent section (€1 bn).

3) Smart cities - intelligent energy and transport management systems

Sector/Subsector: Energy Union / Energy efficiency in buildings; Knowledge and the Digital Economy / ICT Infrastructure; Resources and Environment / Resilience to Climate Change.

Description: The underlying idea behind the concept of smart cities is the usage of ICT technologies to address urban problems. The concept embraces also better use of resources and generates positive impact on the environment. By creating new demands it promotes economic growth. It addresses objectives of Europe 2020.

The main areas of development are technologies and solutions allowing for improved energy and transport management. However the concept of smart city ultimately envisioned by the EU is even broader and encompasses upgraded water supply and waste disposal facilities, and more efficient ways to light and heat buildings. And it also covers a more interactive and responsive city administration, safer public spaces and meeting the needs of an ageing population.

Development of infrastructure necessary for implementation of the smart city concept - including transmission networks, district heating, environment friendly municipal transportation, intelligent data processing systems - is one of the key policy priorities in Poland.

Financing needs: Projects' costs range from €110 mn to €5 bn.

Involved parties: Public institutions (Ministry of Economy, Ministry of Treasury, Ministry of Administration and Digitization, Ministry of the Environment, National Fund for Environmental Protection and Water Management, Voivodship Funds for Environmental Protection and Water Management) and private sector (e.g. PSE S.A., ENERGA S.A., ENEA S.A., PGE S.A., TAURON Polska Energia S.A.).

Main project barriers:

- Very high project costs (Polish grid is significantly less developed than Western European grids and additionally there are large differences between grid development and depreciation between various Polish regions),
- Financing constraints (there is currently lack of funding (public and private) for most of the projects),
- Administrative burdens (e.g. in getting permissions for new grid lines),
- Numerous stake holders to be involved during the investment process.

Socio-economic benefits: The employment of digital technologies and intelligent management systems will effectively translate into better public services, better mobility solutions and less congestion, better use of resources and more reliable energy distribution, improved energy efficiency as well as lower air pollution and cleaner environment. Moreover, the projects will fuel the development of ICT sector. Additionally, a relative reduction in energy demand resulting from the introduction of smart grid means more economical consumption of resources, less emissions and less pressure on the natural environment. It is also a chance to improve the position of the electricity end-customers and sustain the economic growth.

European Value Added: Through accelerated investments in the ICT, energy and urban infrastructure, the projects related to smart cities will improve the quality of life of citizens and make cities more sustainable. Additionally, the development of the smart grid (which will be a key enabler for the development of smart cities) will help to

enhance cross border electricity trade, improve the role of the electricity end-consumer, and broaden the access to diversified sources of energy.

Project examples:

- Smart grid programme (€5bn);
- Ecological heating (€1bn);
- Smart ecological vehicles in cities (€1bn);
- Creation of the main data warehouse and building a network of gauges covering all EU countries, which will allow for continuous monitoring of key parameters, e.g.: motorway traffic information, weather conditions, water levels and river flows; info about natural disasters, road and rail accidents etc. (€200 mn);[1]
- Creation of a national data warehouse in each EU Member State and building of local gauges networks, used in specific projects, e.g. 'smart cities' (each EU country €110 mn);[2]
- Post-industrial revitalization of Nowa Huta (€2 bn).[3]

[1] Cross-sector project appearing also within the "Development of data transfer and management systems" project class.

[2] Cross-sector project appearing also within the "Development of data transfer and management systems" project class.

[3] Cross-sector project appearing also within the "Post-industrial land revitalization" project class.

4) More efficient and clean coal energy

Sector/Subsector: Energy Union / Connections and production

Description: To reduce import dependence of the European energy sector and increase its energy safety, Europe aims to produce 70% of energy from its own resources by 2030. Depending on country-specific characteristics, Member State will aim to achieve this goal by relevant adjustments of their energy mix.

Energy production in Poland is based mainly on coal. While efforts are being undertaken to increase the share of RES generation and to construct a nuclear power plant, for Poland coal will still remain the main energy source in the medium-term. Hence, many projects are planned in order to replace old inefficient coal-fired power units (co-generation units) with new, highly efficient and environmentally friendly ones or increase the efficiency of the old units.

This will also help to achieve the EU goals of increasing the share of energy generated from internal resources. Simultaneously, the more efficient and clean use of coal for energy production will help Poland to address the EU environmental goals.

Financing needs: Projects' costs range from €50mn to €5 bn.

Involved parties: Public institutions (e.g. Ministry of Economy, Ministry of Treasury) and power sector (e.g. ENERGA S.A., ENEA S.A., PGE S.A., TAURON Polska Energia S.A.).

Main project barriers:

- Very high costs (of the biggest projects),
- Financing constraints (private players have limited debt taking capabilities, no public funds devoted to the projects yet),
- Legal and administrative constraints,
- Numerous stake holders to be involved during the investment process.

Socio-economic benefits: More efficient coal based production will result in a reduction of the greenhouse gases emissions levels. Additionally, more efficient coal-based generation will allow energy companies to reduce the variable costs component in the energy production process (i.a. less coal needed, lower emission charges, lower need for emission allowances), which in a long term should positively affect the end-customer electricity prices and fuel the economic growth.

Furthermore, maintaining a core of efficient coal-based energy generation plays an important role from the national energy security perspective and it is vital for the performance of the polish mining sector.

European Value Added: The projects is in line with EU's efforts to reduce the greenhouse emission levels while at the same time maintaining a high level of national energy security.

Project examples:

- Construction of the Power Unit No.11, 1075 MWe, in Kozienice Plant (€1.5 bn);
- Cogeneration power plant, capacity: 135 MWe and 180 Mwt in Katowice (€350 mn);
- Modernization of numerous units (€50-300 mn);
- In a longer term, Gubin lignite mine and power plan (€5 bn).

5) Data collection, transfer and management systems

Sector/ sub-sector: Knowledge and digital economy/ ICT Infrastructure; Social infrastructure/Built environment and urban services.

Description: Data become as important "natural resource" for the economy as oil. Data are a key economy driver in more areas. Human activities, industrial processes and research all lead to data collection and processing on an unprecedented scale, spurring new products and services as well as new business processes and scientific methodologies. This global trend holds enormous potential in various fields, ranging from health, food security, climate and resource efficiency to energy, intelligent transport systems and smart cities, which Europe cannot afford to miss. Yet the European digital economy has been slow in embracing the data revolution compared to the USA and also lacks comparable industrial capability. However, significant new opportunities exist in a number of sectors (from health and smart factories to agriculture) where the application of these methods is still in its infancy and global dominant players have not yet emerged.

The main project area are technologies and solutions offering high- quality, reliable data, coming from large, interoperable datasets, including open data (e.g. Earth observation and other geospatial data, language resources, scientific data, transport data, healthcare data, financial data, digitisation of cultural assets) - made available for the development of new products and services.

The transfer, processing and storage of data, including the analysis of large data sets for big data applications, require interoperable, accessible and scalable services, platforms and infrastructures that can be provisioned rapidly. The efficiency of data management systems would be highly dependent on efficiency of transmission networks. The availability of high-speed, secure internet access and digital services is essential for development of data management systems.

In the years to come data transfer and management systems will be one of major competition fields between key global players. Development data management systems and broadband infrastructure is one of the top priorities for Poland in ICT sector. It should be fully compatible and integrated with the EU system.

Financing Needs: The individual projects' costs range from €6 mn to €4 bn.

Involved Parties: Public administration and private sector.

Main project barriers:

- Financing constraints (currently no financing for some projects, private players have limited debt taking capabilities);
- Currently smooth development of data management system in number of the EU Member States, including Poland, has been impeded by some political factors (lack of will to open up data, to arranging it legally, technically and organizationally), by legal constraints (licenses, competition law, copyright and database right) or by privacy questions;
- High- speed broadband infrastructure deficit is constrained by high cost of network construction and lack of return on investment in low density areas.

Socio-Economic Benefits: Data management systems are an important enabler for development for citizens, businesses and public administrations in all sectors of the European economy, including the data value chain. A rapid deployment of high-speed broadband networks is crucial for the development of productivity and for the

emergence of new and small enterprises that can be leaders in different sectors such as health care, manufacturing and the service industries.

European Value Added: Development of intelligent data processing will support building a single digital market in Europe. It would also address priority actions identified in the Communication of the Commission on data driven economy "*Towards a thriving data-driven economy*" (COM(2014)442).

Project examples:

- Creation of the main data warehouse and building a network of gauges covering all EU countries, which will allow for continuous monitoring of key parameters, e.g.: motorway traffic information, weather conditions, water levels and river flows; info about natural disasters, road and rail accidents etc. (€200 mn); [4]
- Creation of a national data warehouse in each EU Member State and building of local gauges networks, used in specific projects, e.g. 'smart cities' (each EU country €110 mn);[5]
- Regional deployment of LTE networks (€6 mn);
- Deployment of high speed and ultra high speed broadband networks (€570 mn);
- Construction of transmission corridors in rural areas (€180 mn).

[4] Cross-sector projects, which also appear within the "Smart cities - intelligent energy and transport management systems" project class.

[5] Cross-sector projects, which also appear within the "Smart cities - intelligent energy and transport management systems" project class.

6) Development of new R&D centres

Sector/Subsector: Knowledge and the digital economy/Public R&D

Description: The mission of the R&D Centres is to support innovation activities of the national authorities in many areas of science and provide training of future engineers and researchers. Investment needs in an innovation and research area, especially in the infrastructure located in Mazovia Region and in the infrastructure necessary to implement the European research projects, are estimated at 2.9 bn EUR till 2022. These undertakings will be implemented under Strategy for Innovation and Efficiency of Economy – Dynamic Poland 2020.

Financing needs: Projects' costs range from €25 mn to €110 mn.

Involved parties: Public institutions (e.g. Ministry of Science and Higher Education, Military University of Technology, International Institute of Molecular and Cell Biology etc.).

Main project barriers: High risk related to the research activities and lack of long term finance, low propensity of private sector to co-fund research infrastructures, compliance with the EC requirements for the financial perspective 2014-2020 (smart specialization, state aid rules, limited EU funds for Mazovia region) and long standing public procurement processes.

Socio-economic benefits: Faster development, implementation and commercialization of solutions in the area of science, creating conditions for effective cooperation of public institutions in science, research and teaching.

European Value Added: The consolidation and strengthening of the research potential of the network members, creating databases providing open access to the data and allowing for distribution via web-based interface.

Project examples:

- KCIKiS - National Centre of Space and Satellite Engineering (€110 mn);
- IN-MOL-CELL -Research Infrastructure of Molecules and Cells (€25 mn);
- CERAD - Centre of Design and Synthesis of Radiopharmaceuticals for Molecular Targeting (€40 mn);
- SeCuRe - Strain and Culture Resources, (€40 mn);
- NLEJ – National Laboratory for Nuclear Energy (€130 mn);
- PolFEL – Polish free electron laser (€100 mn).

7) Development of production processes of new materials

Sector/Subsector: Knowledge and the digital economy/ Private and public R&D.

Description: European Union is one of the global leaders in this field with many international projects for instance "graphene flagship"- project with a budget of over €1 bn and over 140 partnership organizations from 23 European countries including universities, research institutes and private companies. The proposals of new projects aim at strengthening this position via establishment of new laboratories, higher spending on research activities and deeper cooperation between member countries in the area of science.

Projects will also make possible implementation of important EU and international undertakings (ELA-MAT – ITER, graphene – graphene flagship).

Continuation of research on industrial application of new, revolutionary materials, and launching their production on an industrial scale is one of the priorities of the Polish R&D policy.

Financing needs: Projects' costs range from €50 mn to €1 bn.

Involved parties: Public and private institutions (e.g. Warsaw University of Technology, Nano Carbon Sp. z o.o. and Institute of Electronic Materials Technology, Wroclaw Research Centre EIT+).

Main project barriers: Lack of long-term financing, low propensity of private sector to co-fund research infrastructure, unknown level of financial involvement of international parties (in the process of negotiation).

Socio-economic benefits: The numerous fields of application of the new materials could contribute to faster development of different industries e.g. automotive industry, electric power industry, medicine industry etc.

European Value Added: European Union may become a global leader in development and production of new, revolutionary materials. Taking into consideration their multiple fields of application projects can be financially beneficial for the European Union in the long term.

Project examples:

- Research on industrial application of graphene, and launching its production. (€50 mn);
- Development and production of perovskites;
- Building in Poland IFMIF/ELA-MAT Laboratory (€1 bn).

8) Post-industrial land revitalization

Sector/Subsector: Social Infrastructure / Built environment and urban services

Description: Most EU countries have entered a post-industrial phase. A result of this process is the growing size of the areas which have been previously used for military, mining, industrial or commercial purposes and are now often beset by soil and water contamination. However, the land itself is often suitable for regeneration. The type of regeneration is project dependent and can include revitalizing old sites into residential/recreational/commercial areas, roads or new industrial area, but focusing on more sustainable production.

Financing needs: ~ € 15bn.

Involved parties: Public (e.g. Ministry of Economy, Agencja Rozwoju Przemysłu SA) and private (e.g. Katowicki Holding Węglowy SA).

Main project barriers:

- Complexity and the need to prepare unique strategy for each brownfield to be regenerated (each revitalization project is different);
- High project costs (revitalizations requiring soil, surface and ground-water remediation, and on the top of that development of the new infrastructure);
- Financing constraints (no public funds devoted to the projects yet, high risk for private investors);
- Legal and administrative constraints.

Socio-economic benefits: Brownfields regeneration is helping old industrial areas generate new economic activity, contributing to the further development of cities, creating jobs for the nearby communities, promoting innovation and creating various areas of low-emission services/ industry.

European Value Added: Rejuvenating brownfield sites falls under the umbrella of "green" and innovate solutions for economic growth which are supported heavily by the EU. Additionally, it is fully coherent with EU recommendations for the Member States to take integrated actions for sustainable urban development.

Project examples:

- Multiple brownfield areas in the Upper and Lower Silesia;
- Post-industrial revitalization of Nowa Huta (€2 bn).[6]

[6] Cross-sector project appearing also within the "Smart cities - intelligent energy and transport management" project class.

9) Social investments for employment and growth

Sector/ sub-sector: Social Infrastructure/Built environment and urban services

Description: Broadening of care services as well as investments in housing and dual education are of great importance for the return to long-term growth, limiting social exclusion and increasing employment.

In the EU there are significant differences in the quality and availability of social infrastructure providing care functions to support or replace the family care. Comparative studies indicate that good quality, accessible and affordable forms of care services translate into a positive impact on the employment opportunities of people of working age, particularly women. In Poland there is still a need to increase good quality care services for children and elderly.

Developing the accommodation for people requiring support is a first step for social integration of those excluded or at risk of exclusion. Possible beneficiaries include individuals and families requiring temporary or permanent support aimed at enabling them to participate in social life and gain independence. Main aim of the project together with a system of services adjusted to individual needs would result in employment increase (including silver economy and construction sector) and decrease of social exclusion.

The financial support for creation of vocational education clusters, encompassing cooperation agreements concluded between vocational schools and/or vocational training centers and employers operating in a given field would help students to acquire both high-level up-to-date theoretical knowledge, and practical skills during classes run in working conditions. On the other hand, employers will gain access to graduates of vocational schools with qualifications suited to their needs.

All indicated projects are designed to support government's efforts in the crucial fields of employment and social policies and are corresponding with the Europe 2020 targets.

Financing Needs: Projects' costs range from €210 mn to €350 mn.

Involved Parties: Public and private sectors.

Main project barriers:
- Complexity of social problems,
- Financing constraints,
- Stereotyped approach to institutional care,
- Lack of care institutions.

Socio-economic benefits: Support and services provided in social infrastructure units give a chance for individuals and families to become independent. Moreover, the creation of these units can help to protect people from the risk of social exclusion so that they can actively participate in the local community. Surely, this fact will have a positive impact on the local labour markets. It will allow users of the social infrastructure or their families to work. The investment in social infrastructure would also create jobs for local residents.

European Value Added: Social infrastructure units are part of a wide range of measures to improve the competitiveness of the economy, including the increase of competitiveness and growth potential of the EU. Additionally, it is fully coherent with EU recommendations for the Member States to take integrated actions for sustainable and

inclusive growth.

Project examples:

- Developing accommodation for people requiring support, including sheltered housing (€250 mn);
- Comprehensive offer of care and activities for seniors (€350 mn);
- Support fund for the development of dual vocational training systems – creation of clusters composed of vocational schools and local employers €240 mn);
- Creating child care institutions for children under the age of 3 (€ 200 mn).

PORTUGAL

Country : Portugal

Project list

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Sector	Subsector	Private/Public /PPP	Project name	Implementing national agency	Description	Included in national investment plan (yes/no)	Status	Total invest-ment cost (EUR bn)	Investment in 2015 – 2017 (EUR bn)	Barriers/solutions
1. Knowledge and Digital Economy	i. Public R&D	3. Public	E-Gov Research	AMA, I.P.	E-Gov research; impact assessment; reducing administrative burden.	No	Not Applicable	0.005	0.005	Funding
1. Knowledge and Digital Economy	i. Public R&D	2. Public and private	Roteiro Nacional de Infraestruturas de I&D	Ministry of Education and Cience	Integrated in the European Network ESFRI (Strategic Forum for Research Infrastructure), identified and selected/ 40 R&D infrastructure to be built and supported until 2018. Promotes the use of combined sources of financing and responds to the different needs of the different stakeholders involved in R&D + I	Yes	Assessment complete	0.320	0.250	Funding
1. Knowledge and Digital Economy	iii. ICT Infrastructure	2. Public and private	Smart systems and sustainable cities	Direção-Geral do Território (DGT)	Channelling investments for the implementation of smart urban solutions and to the implementation of knowledge tools for the sustainable urban development, based on CIT	no	under preparation	0.010	0.005	Funding
1. Knowledge and Digital Economy	iii. ICT Infrastructure	2. Public and private	Broad Band Implementation	Operators/ Ministry of Transports, Infrastructure and Communications	Implementation of broadband infrastructure (fixed and mobile)	Yes	Study/ preparation	0.300	0.150	EU Funding + Private/bank funding
1. Knowledge and Digital Economy	iii. ICT Infrastructure	1. Private	Multiple projects - Electric and Electronics - ICT projects	N.A. Multiple projects/ AICEP	Electric and Electronics - ICT projects - Facilities and infrastructures; R&D; Innovation; Production technologies; Machinery and equipment; New products; Packaging; Certifications	No	Not Applicable	0.054	0.050	Fluctuating demand; cost and terms of funding;
1. Knowledge and Digital Economy	iii. ICT Infrastructure	1. Private	Multiple projects - ICT Facilities and Infrastructure	N.A. Multiple projects/ AICEP	Facilities and infrastructures; Efficiency and optimization; Innovation; New products; Information and communications technologies;	No	Not Applicable	0.145	0.096	Cost and terms of funding
1. Knowledge and Digital Economy	iii. ICT Infrastructure	2. Public and private	Building an innovative digital framework for children and young people	Secretary of State for Culture	Creating a digital framework for archives and management of formation and knowledge in education and culture for ages between 6 and 18 years old	no	Study	0.015	0.008	EU Funding (solution/ enabler)
1. Knowledge and Digital Economy	iii. ICT Infrastructure	3. Public	National court management system information	IGFEJ/Ministry of Justice	National court management information system	no	Study/ preparation	0.020	0.020	Funding
1. Knowledge and Digital Economy	iii. ICT Infrastructure	3. Public	Multiple Projects on Public Training and Employment Centres	Employment and Vocational Training Institute (IEFP)	ICT networks; digital services infrastructures; upgrade&improvement of the layout training workshops, laboratories, scientific teaching equipment, training machinery, computer rooms, fab labs, mobile robots, building drones equipment and 3D printers	Yes	Study/ preparation	0.160	0.120	Funding
1. Knowledge and Digital Economy	iii. ICT Infrastructure	3. Public	digital integration	Employment and Vocational Training Institute (IEFP)	Investments on e-government; e-learning and b-learning; digitalising education; vocational training on digital competences	Yes	Study/ preparation	*0.120*	*0.090*	Funding
1. Knowledge and Digital Economy	iii. ICT Infrastructure	3. Public	Aproximar	Aproximar Team / AMA, I.P.	Provide widespread assisted digital services to the citizens; expand public one-stop-shops network	Yes (partially)	On-going	0.085	0.060	Funding
1. Knowledge and Digital Economy	iii. ICT Infrastructure	3. Public	Digital Strategy for the Public Sector	Cross-sector Strategy / Overseen by the Interministerial Network for Administrative Modernization - RIMA	Digitize all public services that are digitizable, including points of single contact for citizens and businesses.	Yes (partially)	On-going	0.050	0.030	Funding / stakeholders' involvement
1. Knowledge and Digital Economy	iii. ICT Infrastructure	3. Public	PGERRTIC	Cross-sector Programme / Overseen by GPTIC	Optimize the use of ICT in the Public Sector	Yes (partially)	On-going	0.015	0.015	Funding / stakeholders' involvement
1. Knowledge and Digital Economy	iii. ICT Infrastructure	3. Public	eID	AMA, I.P.	Expand the use of digital tools for online secure authentication; promote the use of electronic ID	Yes (partially)	On-going	0.005	0.005	Funding / public awareness

Country : Portugal

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1. Knowledge and Digital Economy	iii. ICT Infrastructure	2. Public and private	Interoperability Platform	AMA, I.P.	Promote and establish a network of interoperability among the public and the private entities.	Yes (partially)	On-going	0.005	0.005	Funding / stakeholders' involvement
2. Energy Union	iv. Connections and production (electricity)	1. Private	Portugal - Spain Interconnection Portugal-Spain	Private Promoter/ Ministry of Environment and Energy	Portugal - Spain interconnection	Yes	Study/ preparation	0.095	0.053	environmental impact assessment
2. Energy Union	iv. Connections and production (electricity)	1. Private	Cluster Capacity Increase at PT/ ES border	Private Promoter/ Ministry of Environment and Energy	New internal lines	Yes	Study/ preparation	0.417	0.269	environmental impact assessment
2. Energy Union	iv. Connections and production (electricity)	1. Private	Phase B and C of wind power tender	Private Promoter/ Ministry of Environment and Energy	Fase B of eolic electric energy public tender launched in 2006 (388 MW) Fase C of eolic electric energy public tender launched in 2008 (150 MW);	Yes	Stand By	0.680	0.680	F+K35unding
2. Energy Union	iv. Connections and production (electricity)	1. Private	Biomass power plants tender	Private Promoter/ Ministry of Environment and Energy	Construction of new biomass plants totalling 80 MW resulting from the tender of biomass released in 2006	Yes	In the licensing process	0.160	0.160	
2. Energy Union	iv. Connections and production (electricity)	1. Private	Large hydro power plants tender	Private Promoter/ Ministry of Environment and Energy	Construction of 78 MW of small hydro power stations that are part of a tender launched in 2010	Yes	In the licensing process	0.160	0.160	
2. Energy Union	iv. Connections and production (electricity)	1. Private	Large hydro power plants	Private Promoter/ Ministry of Environment and Energy	7 new hydroelectric projects with 815 MW up to 2018	Yes	Stand By	1.210	0.605	Lack of risk taking willingness from private sector, lack of investment funding, lack of social awareness
2. Energy Union	iv. Connections and production (electricity)	1. Private	Connection to Special Regime Production	Private Promoter/ Ministry of Environment and Energy	Reinforcement of the transmission network for integration of new Special Regime Production (renewables and cogeneration)	Yes	Study/ preparation	0.223	0.148	Environmental impact assessment
2. Energy Union	iv. Connections and production (electricity)	1. Private	Binding Distribution	Private Promoter/ Ministry of Environment and Energy	Strengthening of supply conditions	Yes	Study/ preparation	0.370	0.164	
2. Energy Union	iv. Connections and production (electricity)	1. Private	Refurbishment of facilities	Private Promoter/ Ministry of Environment and Energy	Replacement of equipment at end of life	Yes	Study/ preparation	0.159	0.143	
2. Energy Union	iv. Connections and production (electricity)	1. Private	Connecting to final consumers	Private Promoter/ Ministry of Environment and Energy	Connection to the transport network of clients in high voltage	Yes	Study/ preparation	0.022	0.000	
2. Energy Union	iv. Connections and production (electricity)	1. Private	Reactive Compensation, Information Systems and Socio-environmental Constraints	Private Promoter/ Ministry of Environment and Energy	Improve reactive management conditions in the transport network, information systems and the environment	Yes	Study/ preparation	0.268	0.110	
2. Energy Union	iv. Connections and production (electricity)	1. Private	Security of Supply	Private Promoter/ Ministry of Environment and Energy	Ensure the reception and delivery of electricity in accordance with the safety standards and regulations	Yes	Study/ preparation	0.095	0.057	
2. Energy Union	iv. Connections and production (electricity)	1. Private	Technical Service Quality	Private Promoter/ Ministry of Environment and Energy	Maintain current levels of technical quality of service. Increasing the resilience of networks in areas most exposed to exceptional weather events. Improved continuity of power supply.	Yes	Study/ preparation	0.208	0.125	
2. Energy Union	iv. Connections and production (electricity)	1. Private	Operational efficiency / Network and Environment	Private Promoter/ Ministry of Environment and Energy	Enhance the reduction of operating costs. Improve the levels of losses in the distribution network	Yes	Study/ preparation	0.252	0.155	

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2. Energy Union	iv. Connections and production (electricity)	1. Private	Hydro Pump Storage Girabolhos	Private Promoter/ Ministry of Environment and Energy	Hydro Pump Storage Project, located in one of the poorest regions of the country, in the municipalities of Seia, Gouveia, Mangualde and Nelas. This project is relevant to fulfil the purpose of accommodating further non manageable renewable energies avoiding fossil consumption. Relevant also for water storage. Direct creation of 1.000 jobs during peak construction period.		In Preconstruction Stage (construction of access and setup works)	0.434	0.187	
2. Energy Union	iv. Connections and production (natural gas)	1. Private	3rd interconnection Portugal-Spain	Private Promoter/ Ministry of Environment and Energy	Construction of a new interconnection between Portugal and Spain.	Yes	Study/ preparation	0.266	0.135	E+K51nvironmental impact assessment
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Smart grids	Private Promoter/ Ministry of Environment and Energy	Smart grids and smart meters	Yes	Under study	0.600	0.600	
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Carregado Compression Station	Private Promoter/ Ministry of Environment and Energy	Construction of a compression station with 14 MW, capable of handling flow rates of the order of 650 000 m3/h. Will enhance the ability of the transportation section of the main pipeline between Sines and Leiria, in order to allow the flow of a stream of higher gas originating in Sines LNG Terminal.	Yes	Study/ preparation	0.025	0.019	
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Pipeline Carriço Cantanhede	Private Promoter/ Ministry of Environment and Energy	Construction of a 60km gas pipeline between Carriço underground storage and Cantanhede will increase the security of gas supply to the combined cycle natural gas power plants in the central region of Portugal, will provide the gas transport network of a second alternative access to Carriço underground storage.	Yes	Study/ preparation	0.045	0.001	Environmental impact assessment
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Delivery Points and other projects	Private Promoter/ Ministry of Environment and Energy	Construction of new GRMS and other delivery points	Yes	Study/ preparation	0.016	0.010	
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Underground Storage	Private Promoter/ Ministry of Environment and Energy	Construction of the 6th cavity at the Carriço Complex	Yes	In the commissioning phase	0.044	0.003	
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Underground Storage	Private Promoter/ Ministry of Environment and Energy	Construction of the 8th cavity at the Carriço Complex. Optimization and upgrade of the gas station for injection / extraction and gas safety improvements	Yes	Study/ preparation	0.049	0.019	Environmental impact assessment
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Underground Storage	Private Promoter/ Ministry of Environment and Energy	Construction of the 7th and 9th cavity at the Carriço Complex	Yes	Study/ preparation	0.073	0.017	Environmental impact assessement
2. Energy Union	iv. Connections and production (natural gas)	1. Private	LNG Terminal	Private Promoter/ Ministry of Environment and Energy	Frequency inverters, adaptation of the jetty to accommodate vessels up to 40.000m3 and other safety improvements.	Yes	Study/ preparation	0.029	0.008	
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Natural Gas Distribution Network	Private Promoter/ Ministry of Environment and Energy	Development of the natural gas distribution network	Yes	Study/ preparation	0.105	0.062	
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Natural Gas Distribution Network	Private Promoter/ Ministry of Environment and Energy	Other projects	Yes	Study/ preparation	0.023	0.014	
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Natural Gas Distribution Network	Private Promoter/ Ministry of Environment and Energy	Development of the natural gas distribution network	Yes	Study/ preparation	0.014	0.004	
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Natural Gas Distribution Network	Private Promoter/ Ministry of Environment and Energy	Development of the natural gas distribution network	Yes	Study/ preparation	0.013	0.008	
2. Energy Union	iv. Connections and production (natural gas)	1. Private	Natural Gas Distribution Network	Private Promoter/ Ministry of Environment and Energy	Development of the natural gas distribution network	Yes	Study/ preparation	0.098	0.062	

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2. Energy Union	iv. Connections and production (natural gas)	1. Private	Natural Gas Distribution Network	Private Promoter/ Ministry of Environment and Energy	Other projects	Yes	Study/ preparation	0.021	0.010	
2. Energy Union	v. Energy efficiency in buildings	1. Private	Efficiency in Buildings Program	Private Promoter/ Ministry of Environment and Energy	Energy efficiency rehabilitation of buildings	Yes	Stand By	0.500	0.500	Lack of risk taking willingness from private sector, lack of investment funding, lack of social awareness
2. Energy Union	v. Energy efficiency in buildings	2. Public and private	Efficiency in Public Administration Program	Ministry of Environment and Energy	Implementation of the Public Administration Energy Efficiency Program	Yes	Stand By	0.200	0.200	Lack of risk taking willingness from private sector, lack of investment funding, lack of social awareness
2. Energy Union	v. Energy efficiency in buildings	2. Public and private	Program for Energy Efficiency in Buildings	Ministry of Environment and Energy	Implementation of Energy Efficiency Programme in Buildings	Yes	Under implementation	0.050	0.050	Lack of risk taking, lack of investment funding, lack of social awareness
2. Energy Union	v. Energy efficiency in buildings	1. Private	Multiple projects - Buildings Energy Efficiency, machinery, others	N.A. Multiple projects/ AICEP	Facilities and infrastructures; Efficiency and optimization; R&D; Innovation; Production technologies; Machinery and equipment; new products	No	Not Applicable	0.022	0.021	Cost and terms of funding; Requirements to access State Aid
2. Energy Union	v. Energy efficiency in buildings	3. Public	Multiple Projects on Public Training and Employment Centres	Employment and Vocational Training Institute (IEFP)	Efficiency and optimization; Improvement industrial machinery and equipment; Energy efficiency of buildings	Yes	Study/ preparation	*0.210*	*0.140*	Funding
3. Transport	Private Transportation and Logistics, Miscellaneous Industry and Other Services	1. Private	Multiple projects - Transport Efficiency; Equipment	N.A. Multiple projects/ AICEP	Facilities and infrastructures; Efficiency and optimization; R&D; Machinery and equipment; Information and communications technologies; Shared services centre (SSC)	no	Not Applicable	4.045	1.235	Cost and terms of funding; Requirements to access State Aid; Bureaucracy accessing IEFP support
3. Transport	vi. Corridors and missing links - Airport	1. Private	Lisbon Airport	ANA/ Ministry of Transports, Infrastructure and	Improvement&upgrade of airport infrastructures	Yes	Construction undergoing	0.150	0.150	Funding
3. Transport	vi. Corridors and missing links - Airport	1. Private	Oporto Airport	ANA/ Ministry of Transports, Infrastructure and	Improvement&upgrade of airport infrastructures	Yes	Construction undergoing	0.030	0.030	Funding
3. Transport	vi. Corridors and missing links - Airport	1. Private	Faro+Beja Airport	ANA/ Ministry of Transports, Infrastructure and	Improvement&upgrade of airport infrastructures	Yes	Study/ preparation	0.070	0.070	EU Funding (Solution/ enabler)
3. Transport	vi. Corridors and missing links - maritime	3. Public	Coastal VTS - mainland Portugal	Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos (DGRM)	Adaptation, maintenance and upgrade of the coastal Vessel Traffic Service(VTS) of mainland Portugal	Yes	Stand By	0.009	0.009	Funding
3. Transport	vi. Corridors and missing links - maritime	3. Public	VTS coverage - Azores	Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos (DGRM)	Implementing Vessel Traffic Service (VTS) in the Azores and Madeira area	Yes	Stand By	0.100	0.065	Funding
3. Transport	vi. Corridors and missing links - maritime	3. Public	Meteo radar network	Instituto Português do Mar e da Atmosfera, I. P.	Coverage of the Azores and Madeira weather - better forecast and motorization	Yes	Stand By	0.008	0.008	Need to combine regional and national funds

Country : Portugal

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3. Transport	vi. Corridors and missing links - Road	3. Public	Road Last-Mile Proximity Plan 2014-2019	Estradas de Portugal/ Ministry of Transports, Infrastructure and Communications	Construction of several last-mile road projects, completing missing links between key road infrastructure.	Yes	Construction undergoing	0.440	0.290	Budget constraints is slowing implementation. EU funding can help to overcome existing barrier
3. Transport	vi. Corridors and missing links - Road	2. Public and private	IP3 - Coimbra-Viseu	Estradas de Portugal/ Ministry of Transports, Infrastructure and Communications	New road construction, connecting a vast area of Portugal to Spain.	Yes	Study/ preparation	0.600	0.300	EU Funding (Solution/ enabler)
3. Transport	vi. Corridors and missing links - Road	3. Public	IP4 - Túnel do Marão	Estradas de Portugal/ Ministry of Transports, Infrastructure and Communications	New tunnel construction connecting 2 auto routs separated by a mountain system.	Yes	Construction undergoing	0.170	0.170	EU Funding (Solution/ enabler)+K72
3. Transport	vi. Corridors and missing links - Road	3. Public	IC35	Estradas de Portugal/ Ministry of Transports, Infrastructure and Communications	New road construction.	Yes	Study/ preparation	0.020	0.010	EU Funding (Solution/ enabler)
3. Transport	vi. Corridors and missing links - Road	3. Public	IC33	Estradas de Portugal/ Ministry of Transports, Infrastructure and Communications	Upgrade of existing road	Yes	Study/ preparation	0.040	0.020	EU Funding (Solution/ enabler)
3. Transport	vi. Corridors and missing links - Road	3. Public	EN14	Estradas de Portugal/ Ministry of Transports, Infrastructure and Communications	Upgrade of existing road	Yes	Study/ preparation	0.020	0.010	EU Funding (Solution/ enabler)
3. Transport	vi. Corridors and missing links - Road	3. Public	IP5	Estradas de Portugal/ Ministry of Transports, Infrastructure and Communications	New road construction. Short distance highway connecting A25 (Portugal) to the border and Spanish highway	Yes	Study/ preparation	0.010	0.005	EU Funding (Solution/ enabler)
3. Transport	vi. Corridors and missing links - Road	3. Public	IP8	Estradas de Portugal/ Ministry of Transports, Infrastructure and Communications	Upgrade of existing road	Yes	Study/ preparation	0.020	0.010	EU Funding (Solution/ enabler)
3. Transport	vi. Corridors and missing links - Road	3. Public	IC16	Estradas de Portugal	New road construction.	Yes	Construction undergoing	0.010	0.010	EU Funding
3. Transport	vi. Corridors and missing links - Road	3. Public	Constancia Bridge	Estradas de Portugal	Upgrade of existing bridge	Yes	Construction undergoing	0.010	0.005	EU Funding
3. Transport	vii. Business enablers - Ports	2. Public and private	Leixões Port	APDL/ Ministry of Transport, Infrastructure and Communications	New container terminal + Upgrade of existing terminal + logistic platform to connect port to Spain through railway.	Yes	Construction undergoing	0.400	0.200	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Ports	2. Public and private	Lisbon Port	APL/ Ministry of Transport, Infrastructure and Communications	New container terminal + upgrade of existing terminal + improvement of maritime conditions	Yes	Study/ preparation	0.800	0.400	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Ports	2. Public and private	Sines and Algarve Ports	APS/ Ministry of Transport, Infrastructure and Communications	Upgrade of existing terminal + improvement of maritime conditions (capacity improvement)	Yes	Construction undergoing	0.150	0.150	EU funding can help to overcome existing barrier
3. Transport	vii. Business enablers - Ports	2. Public and private	Douro Inland Waterway	APDL/ Ministry of Transport, Infrastructure and Communications	Inland waterway improvement	Yes	Study/ preparation	0.070	0.035	EU Funding (Solution/ enabler)

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3. Transport	vii. Business enablers - Ports	3. Public	Aveiro Port	APA/Ministry of Transports, Infrastructure and Communications	Upgrade&improvement of terminal, infrastructure and maritime conditions	Yes	Study/ preparation	0.100	0.050	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Ports	3. Public	Setubal Port	APSS/ Ministry of Transports, Infrastructure and Communications	Upgrade&improvement of terminal, infrastructure and maritime conditions	Yes	Study/ preparation	0.030	0.015	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Ports	3. Public	Figueira Foz Port	APA/Ministry of Transports, Infrastructure and Communications	Upgrade&improvement of terminal, infrastructure and maritime conditions	Yes	Study/ preparation	0.030	0.015	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Railway	2. Public and private	Railway forest logistics platform	REFER	Railway forest logistics platform upgrade & improvement aiming at increasing the economic competitiveness of the forest sector.	No	Study/ preparation	0.035	0.035	Funding
3. Transport	vii. Business enablers - Railway	3. Public	Lisbon/Sines/Setúbal - Madrid Railway Line	Ministry of Transport, Infrastructure and Communications	New freight railway line construction connecting Lisbon and Sines ports to Madrid.	Yes	Study/ preparation	0.800	0.400	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Railway	3. Public	Lisbon - Oporto - Vigo Railway Line	Ministry of Transport, Infrastructure and Communications	Railway line upgrade&improvement in the main railway line of Portugal, connecting Lisbon to Oporto and Vigo (Spain)	Yes	Construction undergoing	0.600	0.300	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Railway	3. Public	Leixões Railway Line	REFER/ Ministry of Transport, Infrastructure and Communications	Railway line upgrade&improvement.	Yes	Study/ preparation	0.020	0.010	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Railway	3. Public	Beira Baixa Railway Line	REFER/ Ministry of Transport, Infrastructure and Communications	Railway line upgrade&improvement.	Yes	Study/ preparation	0.080	0.040	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Railway	3. Public	Algarve Railway Line	REFER/ Ministry of Transport, Infrastructure and Communications	Railway line upgrade + new connection to Algarve airport.	Yes	Study/ preparation	0.050	0.025	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Railway	3. Public	Oeste Railway Line	REFER/ Ministry of Transport, Infrastructure and Communications	Railway line upgrade&improvement.	Yes	Study/ preparation	0.150	0.075	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Railway	3. Public	Sul Railway Line	REFER/ Ministry of Transport, Infrastructure and Communications	Railway line upgrade&improvement.	Yes	Study/ preparation	0.030	0.015	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Railway	3. Public	Douro Railway Line	REFER/ Ministry of Transport, Infrastructure and Communications	Railway line upgrade&improvement.	Yes	Study/ preparation	0.060	0.030	EU Funding (Solution/ enabler)
3. Transport	vii. Business enablers - Railway	3. Public	Oporto/Aveiro - Vilar Formoso - Europe Railway Line	REFER/ Ministry of Transport, Infrastructure and Communications	Railway line upgrade&improvement.	Yes	Study/ preparation	0.900	0.450	EU Funding (Solution/ enabler)
3. Transport	viii. Urban Transport	3. Public	Lisbon underground connection to Reboleira	Metro de Lisboa (Lisbon)/ Ministry of Transports, Infrastructure and Communications	Construction of new undergroung section, adding Reboleira (high pop. Density zone) in the outskirts of Lisbon to the metro	Yes	Construction undergoing	0.060	0.020	EU funding can help to overcome existing barrier

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3. Transport	viii. Urban Transport	2. Public and private	Urban Public Transport Systems	Metro de Lisboa / Metro do Porto / Metro do Mondego / Other urban public transport systems / Ministry of Transports, Infrastructure and Communications	Expansion, improvement & upgrade of existing systems	Yes	Study/ preparation	0.600	0.300	EU Funding (Solution/ enabler)
3. Transport	viii. Urban Transport	2. Public and private	Cascais Railway Line	REFER/ Ministry of Transport, Infrastructure and Communications	Railway line upgrade&improvement on a major urban railway line. One of the most intensively used in Portugal	Yes	Study/ preparation	0.150	0.075	EU Funding (Solution/ enabler)
4. Social Infrastructure	ix. Education and training	3. Public	Arts Academy	Casa Pia de Lisboa,IP	Facilities and infrastructures to develop a new approach based on Education and Training through art for children and young people, essentially in vulnerable condition. This project is designed and supported on partnerships with recognized artists and all the art community	No	Study/ preparation	0.030	0.030	Cost and terms of funding; Bureaucracy accessing support
4. Social Infrastructure	ix. Education and training	3. Public	High specialized training centre	Casa Pia de Lisboa,IP	Facilities and infrastructures to create a vocational and educational training centre for young people, essentially in vulnerable condition, specialized on IT, mechatronics and other industrial sectors, supported on close partnerships with higher education institutions and enterprises, on a sharing perspective of knowledge, human resources and infrastructures, including research	No	Study/ preparation	0.045	0.025	Cost and terms of funding; Bureaucracy accessing support
4. Social Infrastructure	ix. Education and training	3. Public	National Infrastructure Investment for Education and Higher Education regarding Portugal2020	Ministry of Education and Science	The assortment investments identified, result from the need to update and adapt the supply of options, equipment and infrastructure in order to be more aligned with the current trends and dynamics of the labour market, particularly in the VET system and regarding the new short cycle programs in tertiary education. It is targeted at reducing the job supply/ demand mismatch of present day labour market, increasing the percentage of the Portuguese population with a higher education and optimizing the use of training resources available within the higher education system, namely polytechnic.	Yes	Assessment complete	0.411	0.300	Funding
4. Social Infrastructure	x. Health	2. Public and private	HLO hospital	Ministry of Health	New central Hospital in Lisbon, replacing several dispersed infrastructure.	Yes	Stand By	0.383	0.383	Financial markets shortcomings due to (i) access of private partners to international financial markets is very limited, and
4. Social Infrastructure	x. Health	3. Public	Centro Hospitalar de Vila Nova de Gaia-Espinho	Ministry of Health	Renewal of Centro Hospitalar de Vila Nova de Gaia-Espinho	No	Stand By	0.073	0.073	Funding
4. Social Infrastructure	x. Health	3. Public	Medical Equipment	Ministry of Health	Substitution of medical equipment in public hospitals (e.g. Gama Camera, magnetic resonance, Linear accelerator)	Yes	Stand By	0.160	0.160	Funding
4. Social Infrastructure	x. Health	3. Public	Centro Hospitalar de Coimbra restructuring - Obstetrics and Gynaecology	Ministry of Health	Centralization of the Gynaecology ,Reproduction, Obstetrics e Neonatology services in the Centro Hospitalar de Coimbra	No	Stand By	0.015	0.015	Funding
4. Social Infrastructure	x. Health	3. Public	Mobility Project	Ministry of Health	Closing local small healthcare facilities with low utilization with mobile better equipped and more intense utilization	No	Stand By	0.020	0.020	Funding

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4. Social Infrastructure	x. Health	3. Public	HFAR - Armed Forces Hospital	Ministry of Defence	New central Hospital in Lisbon, replacing several dispersed infrastructure.	No	Partially started	0.018	0.011	Public funding; Bureaucracy
4. Social Infrastructure	xi. Built environment and urban services	1. Private	Smart Cities	Private Promoter/ Ministry of Environment and Energy	Implementation of smart grids in Portuguese cities	Yes	Stand By	0.100	0.050	Funding
4. Social Infrastructure	xi. Built environment and urban services	2. Public and private	Implementation of PERSU 2020 (Strategic Plan for Urban Waste Management Services)	Urban Wastes management bodies (public and private) and municipalities/ Ministry of Environment and Energy	Implementation of the PERSU 2020 which seeks the valorisation of the waste as a resource promoting strongly the application of principles of the waste management hierarchy. This strategy is perfectly is in accordance with the Community strategies and obligations in what concerns urban wastes management and will meet the targets established for 2020, providing the following major investment categories: -Increase of the renewables reversals by means of selective collection; -Increase of the efficiency and productivity of the existing plants; -Converting the existing plants: adaptation of TMs into TMBs and new preparation facilities for urban waste reuse and recycling , including the organic waste; -Other measures (I&D, pilot-projects, capacity, studies, by-products runoff, such as the biogas)	Yes	Assessment completed	0.330	0.250	Counterpart of the projects national guarantee
4. Social Infrastructure	xi. Built environment and urban services	2. Public and private	Implementation of “PENSAAR 2020 – A new strategy for the Water Supply and Sanitation	Management Bodies of Water Supply and Sanitation Urban Waste Water services (Public and private) and Municipalities/	PENSAAR 2020 include the following major categories of investment: - Protection of environment, improvement of the quality of water bodies; - Improvement of the quality of services provided	Yes	Assessment completed	3.700	2.000	Financing the national compensation of projects; Financing Gap; Cost of funding
4. Social Infrastructure	xi. Built environment and urban services	2. Public and private	Implementation of the National Strategy for Housing	Instituto da Habitação e da Reabilitação Urbana	Implement measures related to housing and urban regeneration, revitalizing cities, through the investments planned in the National Housing Strategy for 2020	yes	In preparation	1.500	0.200	Funding
4. Social Infrastructure	xi. Built environment and urban services	2. Public and private	Urban Contraction	Instituto da Habitação e da Reabilitação Urbana	Investments for the elaboration and implementation of urban contraction plans, through projects that allow for optimization in the management of urban space, combating dispersed urban areas, together with the revitalisation of central urban areas	no	In preparation	1.000	0.100	Funding
4. Social Infrastructure	xi. Built environment and urban services	2. Public and private	Building Care	Instituto da Habitação e da Reabilitação Urbana	Rehabilitation of the common areas of buildings, including roofs and façades, in order to improve the condition of the buildings for a better quality of life	no	In preparation	0.500	0.100	
4. Social Infrastructure	xi. Built environment and urban services	2. Public and private	MOBI.E	Private Promoter/ Ministry of Environment and Energy	Upgrade of electric charging points, increase of number of electric charging points per user, network development.	Yes	Under study	0.030	0.030	Funding

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4. Social Infrastructure	xi. Built environment and urban services	3. Public	Electric mobility in the Public Administration	Ministry of Environment and Energy	Replacement of the existing public administration fleet, by electric vehicles.	Yes	Pre-implementation.	0.030	0.030	Funding
4. Social Infrastructure	xi. Built environment and urban services	1. Private	GNV	Private Promoter	Increase of the LNG and CNG refuelling stations.	Yes	Under implementation	0.020	0.020	Funding
5. Resources and Environment	xii. Natural resources: efficient and secure availability	3. Public	Irrigation Projects	Direção-Geral de Agricultura e Desenvolvimento Rural	Óbidos; Xévora; Vale da Vilariça; Macieira; Lezíria Grande; Cela; Cabanelas; Lis; Benaciate; Baixo Mondego; others	Yes	Stand By	0.335	0.173	Public funding;; long lead time of the projects due to the number of studies required.
5. Resources and Environment	xii. Natural resources: efficient and secure availability	1. Private	Lis Swine Wastewater treatment Plant	Private promoters	Swine Wastewater treatment Plant needed to reduce environmental impact of the activity. Public contribution of 9MEUR through PRODER	Yes	Study/preparation	0.020	0.020	uncertainty regarding economic viability
5. Resources and Environment	xii. Natural resources: efficient and secure availability	2. Public and private	Implementation of River Basin Management Plans (RBMP)	Environment Portuguese Agency; Municipalities; Private Entities; Ministry of Environment and Energy	Implementation of investments and actions arising from the management of Portuguese river basins, which result from the measures identified in the RBMP, framed by the Water Framework Directive (WFD) and the Water Act and supplemented by specific sectorial plans and programs program. The RBMP also ensure coordination with other EU policies, such as the Urban Waste Water (DARU) Policy.	Yes	Assessment completed	1.900	0.500	Financing the national compensation of projects; Studies on-going to assess contamination
5. Resources and Environment	xii. Natural resources: efficient and secure availability	2. Public and private	Recovery of environmental liabilities from industries	Environment Portuguese Agency/ Ministry of Environment and Energy	Implementation of projects for the restoration of contaminated sites resulting from industrial activities, geographically defined, that contain risks for public health and for the environment, requiring urgent resolution, which consist on environmental liabilities. The priority sites for intervention that were identified are: - Complexo Químico de Estarreja - EX-SIDERURGIA NACIONAL (Seixal) - QUIMIPARQUE (Barreiro) - Estaleiro da Margueira - Fábrica de Explosivos da SPEL - Areeiro de J. Caetano - Areeiro de Fernando Branco	Yes	Assessment completed	0.560	0.300	Financing the national compensation of projects; Studies on-going to assess contamination
5. Resources and Environment	xii. Natural resources: efficient and secure	3. Public	Environmental Remediation in 26 Mining Areas -	EDM SA/ Ministry of Environment and Energy . MAOTE	Development of studies, projects and remediation works regarding the mentioned mining area, under the Decree-Law no.192-A/2001, that established the legal regime for granting the	Yes	Assessment completed	0.053	0.026	Funding
5. Resources and Environment	xii. Natural resources: efficient and secure availability/ xiii. Resilience to Climate Change	3. Public	Amphibious firefighting aircraft	Autoridade Nacional de Proteção Civil (National Authority for Civil Protection)	Acquisition of two amphibious firefighting aircraft intended to operate at national level and also in the context of the EU Civil Protection Mechanism	No	Stand By	0.070	0.070	Access to EU funds is critical.

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5. Resources and Environment	xiii. Resilience to Climate Change	3. Public	Primary Network for Fuel Breaks Management	Instituto da Conservação da Natureza e Florestas	The Primary Network for Fuel Breaks Management (RPFGC) is a fundamental tool for a controlled prevention in Forest defence against Fires (DFCI). With the reordering of the landscape with fuel breaks, the development of major fires is prevented, promoting the easier access to the combat vehicles and interrupting the fire progression. Is also ensures a risk management environment that is crucial for forest investment promotion and attractiveness. The RPFGC is part of the DFCI Regional Networks and due to its importance and cost, it is assumed as a national priority.	Yes	Construction undergoing	0.035	0.025	Funding
5. Resources and Environment	xiii. Resilience to Climate Change	3. Public	Coastal defence and Protection	Environment Portuguese Agency and Municipalities/ Ministry of Environment and Energy	On-going consolidation of the Portuguese coast line through the fight of coastal erosion, progressively decreasing the need of reactive interventions to protect the coast line and their populations and economic activities facing coastal erosion. Two major categories of investments are highlighted: - Hard coastal defence works (groins and breakwaters, etc.) - Constant sediments supply	Yes	Assessment completed	1.200	0.300	Lack of projects national co-financing technical complexity of the projects and solutions

ROMANIA

Sector	Sub-sector	Private / Public/	Project Name	Implementing	Description	Included in national investment plan	Status	Total investments cost (EUR	Investment 2015-2017 (EUR million)	Barriers/solutions
TOP PRIORITIES										
Energy Union	Connections and production	Public	The development of the NTS on the Romanian territory along the route Bulgaria – Romania – Hungary – Austria	Transgaz	The project shall connect Podi to the Gas Metering Station – Horia (Arad county).According to TRANSGAZ' envisaged development plan, the project shall ensure the possibility for permanent physical bi-directional flows through the interconnections with Bulgaria and Hungary as well as the completion of the Giurgiu – Nădlac corridor aiming to materialize the supply of Caspian gas to Romania and Europe. The project envisages the achievement of the following:- Podişor-Corbu pipeline, 81 km;- Băcia-Haţeg-Jupa-Recaş pipeline, 167 km; three compressor stations (CS Corbu, CS Haţeg I and CS Horia I) with a total installed power of Pinst = 33 MW, and amplification up to 49.5 MW- Corbu–Hurezani–Hateg pipeline, 250 km;- Recaş–Horia pipeline, 47 km;After the project commissioning, a maximum gas transmission capacity of 1.5 m bcm/year towards Bulgaria and of 4.4 bcm/year towards Hungary will be possible.	yes	ongoing feasibility study	560	168	validation of the Funding Request by the EC
Energy Union	Connections and production	Public	The NTS development project for taking over Black Sea gas by means of the extension of the Southern Corridor in the East –West direction.	Transgaz	The project implies the construction of a new gas transmission pipeline in the area of the town Tuzla (Constanta county) up to the technological node Podişor (Giurgiu county) to connect the offshore gas to be available at the Black Sea shore and the Bulgaria – Romania – Hungary – Austria corridorThe Tuzla – Podişor pipeline of approximately 247 km shall be designed for 55 bar maximum pressure and 48" diameter (Dn 1200) and 40" (Dn 1000)..	yes	ongoing feasibility study	254	38	validation of the Funding Request by the EC , this project is related to the actual exploitation of the off-shore Black Sea gas
Energy Union	Connections and production	Public	Project for the development of the Central corridor in the East-West direction for taking over Black Sea gas	Transgaz	The achievement of the project entails the following : - the use of the existing transit pipelines T1/T2; - the use of the existing NTS pipelines of approximately 210 km; - the upgrading of the existing NTS pipelines of approximately 400 km; - the replacement of the existing NTS pipelines or the construction of new pipelines up to a total length of approximately 430 km. The gas pipeline system shall be equipped with 4 new compressor stations with a total installed power of approx. 66 MW: - CS Oneşti, located in Bacău county; - CS Coroi, located in Mureş county; - CS Ha ţeg II, located in Hunedoar - CS Horia II, located in Arad county.	yes	pre-feasibility study	550	0	nomination as PCI under the second PCI list this project is related to the actual exploitation of the off-shore Black Sea gas
Energy Union	Connections and production	Public	the project for the development of NTS interconnection with the dedicated pipelines part of the international gas transmission corridor	Transgaz	The project implementation is based on the following rationale and involves works such as:- The building of a connection between the dedicated pipelines currently transiting Russian gas across Romania towards the Balkan corridor and the National Gas Transmission System; This project is part of the first list of European projects of common interest. A feasible technical solution for this project is presently under analysis.	yes	A feasible technical solution for this project is presently under analysis.	0.7	0.7	the compliance with the relevant applicable EU Regulations , coordination with the validity terms of the relevant contracts
Energy Union	Connections and production	Public	National Transmission System development in North East Romania for enhancing gas supply to the region and ensuring gas transmission capacity to Moldavia	Transgaz	The project consists of the development of the following objectives: New compressor station at Oneşti - New compressor station at Gherăieşti - New transmission pipeline, Dn 700, Oneşti – Gherăieşti, 103 km long - New transmission pipeline, Dn 700, Gherăie km	yes	ongoing feasibility study	110	55	validation of the Funding Request by the Romanian funding entities
Energy Union	Connections and production	Public	Reverse flow at the Medieşu Aurit Gas Metering Station (Satu Mare County)	Transgaz	The works aim at creating the technical conditions enabling gas filtration and commercial metering in both flow directions.The project will enable bidirectional flows between the Romanian and Ukrainian gas transmission systems.	yes	A feasible technical solution for this project is presently under analysis	0.7	0	this project depends upon the implementation of the above-mentioned projects

Resources and Environment	Natural resources efficient use and secure availability (Water management)	public	The rehabilitation of land consolidation infrastructure owned by the state with direct effects in terms of defending the population, settlements and biodiversity conservation from drought risk in the most exposed areas in Romania (south and east) on an area of 823 000 ha	Ministry of Agriculture and Rural Development	The rehabilitation of land consolidation infrastructure owned by the state with direct effects in terms of defending the population, settlements and biodiversity conservation from drought risk in the most exposed areas in Romania (south and east) on an area of 823 000 ha , corresponding to a total of 56 irrigation systems economically viable, 16 counties (38 % of the total), is a measure that helps achieve the specific objective mentioned above, while being a strategic component for sustainable development at national level contributing to the sustainable conservation of natural heritage. The **impact** of environmental rehabilitation and the foreseeable **effects** regarding the defense from drought risk of population, settlements and biodiversity conservation are the following: A population of 1.097.433 inhabitants from 190 settlements will no longer be affected by draught, therefore lowering the population vulnerability to this phenomenon. The project will also solve the problems related to the lack of water on: an area of 823 000 ha, 56 industry plants, 12.382 households, 162 schools and kinder-gardens, 57 medical facilities, 32 churches and monasteries, 329 other social facilities, 3.529 km national and county roads, 290 km electrical networks over 20kv. The water supply for Romania's ecosystems would have a large impact on preserving the biodiversity, especially in the current situation, where large surfaces of land in the southern and eastern part of Romania are at high risk of drought and are arid or even affected by desertification. The dissolution of the soil vegetation as a result of the drought leads to the soil degradation. In some areas of Romania, mostly in the southern and eastern part, natural habitats, flora and fauna are severely affected by the water scarcity, caused mainly by the low level of precipitation and high soil and air temperature. As the water imbalance is already present on approximately 7.1 mil. hectares, representing 48% of the total	Yes		982	982	Long-term budgetary constraints Getting more funding sources such EC grants, EIB, public-Privatee partnership.is also envisaged
Resources and enviroment	Natural resources efficient use and secure availability	PUBLIC	PROGRAM I Ensuring new water sources by completion of reservoirs within hydrographic basins in Romania	ANAR	Runcu Reservoir, Seinel Reservoir, Poiana Reservoir, Corbesti Reservoir, Mihoiesti Reservoir, Isalnita Reservoir, Pecineagu Reservoir, Varfu Campului Reservoir, Mihaileni Reservoir, Moneasa Reservoir, Ogrezeni Reservoir, Golesti Reservoir, Bilciuresti Reservoir, Mihoveni Reservoir.	YES	-	121.15	121.15	Lack of funding sources./ Inclusion of the project in foreign grants or loans
Resources and enviroment	Natural resources efficient use and secure availability	public	PROGRAM II Strengthening flood protection capacity by securing existing reservoirs in the hydrographic basins in Romania	ANAR	Calinesti Reservoir, Cuca Reservoir, Gilau Reservoir, Colibita Reservoir, Surduc Reservoir, Sanminaiul Roman hydrotechnic knot, Albesti Reservoir, Lesu Reservoir, Valea de Pesti Reservoir,	NO	-	176.41	176.41	Lack of funding sources.
Resources and enviroment	Natural resources efficient use and secure availability	public	PROGRAM III Danube dykes rehabilitation, according with the National Strategy in flood protection in Romania	ANAR	Dyke reinforcement, waterproofing dykes, increased dykes, breaches closing, new dykes, nonpermanent accumulations	NO	-	420	420	Lack of funding sources.
Resources and enviroment	Natural resources efficient use and secure availability	public	PROGRAM IV Rehabilitation and flood protection works completion within hydrographic basins in Romania	ANAR	In each hydrographic basin in Romania will be realized: - New dykes; - Increased dykes; - Bank reinforcements; - Nonpermanent accumulations	NO	-	385	385	Lack of funding sources.

Resources and enviroment	Natural resources efficient use and secure availability	public	PROGRAM V Ecological and economical resizing in the Romanian sector of the lower Danube meadow	ANAR	Works and developments within the premises: - suitable for agriculture, suitable for mixed uses (polders), suitable for revegetation. Works types: dyke reshaping and increasing; dyke reinforcement in the sectors with possible soakings and suffusion, maintenance and intervention roads on the crests of dykes, forrest curtains ; protection dykes, perimeter dykes and horseshoe dykes, weirs.	NO	Study	392	392	Lack of funding sources.
Transport	Cooridors and mission links	public	Construction of the road corridor connection between Rep Moldova / Ukraine and Hungary / Central Europe by motorway 'Montana' on the route Ungheni - Iasi - Tg. Mures - Turda - Gilau - Bors. (Annex 1)	MT / CNADNR	The 'Montana' motorway longitudinally crosses Romania in the northern part. It completely overlaps with the TEN-T Core Network, connecting Hungary and Western Europe with the north of Romania, Republic of Moldova (Chisinau) and Central Ukraine (Kiev). The motorway is 584 km long (between Bors and Ungheni), from which 52 km have been built (Gilau – Campia Turzii), 8 km are under construction (Gilau – Nadasel) and 37 km in preparation (Campia Turzii – Tg. Mures). At national level, the motorway connects regions of high economic and touristic appeal (North of Transilvania, Bucovina and North of Moldavia). It connects first rank economic growth poles at national and European level (Oradea, Zalau, Cluj Napoca, Targu Mures, Iasi).	Yes	Works carried out (52 km), Works in progres (37 km), Feasibility study prepared for 495 km	**7515**	**7515**	Barrier no. 1: Limited implementation time of the project during the 2015-2017 period Solution: Dividing the motorway works into sections of approximately 50-100 km. This solution will allow the execution in the 2015-2017 period. Barrier no. 2: Organizing the procurement procedure for attributing the works contract Solution: Elaboration of the public procurement documentation and implementation of the procedure by the use of contracted experts. Barrier no. 3: Constructors' poor technical capacity for performing the works Solution: Setting criteria for the selection of constructors able to prove that they have the necessary resources for performing the works Barrier no. 4: Reduced administrative capacity of the beneficiaries Solution: Procurement of consultancy services for experts specialized in project implementation
Transport	Cooridors and mission links	public	Construction of the road corridor connection between the Black Sea and the neighboring countries (Serbia, Bulgaria, Hungary) by Highway Danubis - Black Sea on the route Constanta Port - Constanta - Bucharest - Alexandria -Craiova - Drobeta Tr. Severin - Lugoj - Timisoara - Arad - Nadlac with important branches to Moravita (SRB), Calafat and Giurgiu (BG) and to Pitesti (important center of car engineering industry). (Annex 1)	MT / CNADNR	The 'Danubius – Black Sea' motorway is part of the southern branch of the IVth Corridor Orient East-Med and mostly overlaps with the TEN-T Core Network. The Corridor features two connectivity components, both at national and international level: a connection between Central/Western Europe and the largest port at the Black Sea – Constanta, and with the southern (Sofia, Atena), south-eastern part of Europe (Istanbul) and Asia Minor. The motorway has a length of 1209 km (between Nadlac and Constanta Port), from which 286 km in operation (Arad-Izvin and Bucharest-Constanta Port) and 74 km under construction (Nadlac-Arad and Izvin-Lugoj). At national level, the motorway connects regions which are attractive from a touristic and economic perspective (Banat, Oltenia and Dobrogea), and important socio-economic centres such as Arad, Timisoara, Dobreta Tr. Severin Port, Craiova, Pitesti, Giurgiu, Bucharest, Constanta and Constanta Port. As a result, Bucharest would become a first size road junction at European level and a link between the north and south and between the west and east in road transport. It features four connections with neighbouring countries (Hungary, Serbia and two with Bulgaria) and a connection with the largest Black Sea port.	Yes	Works carried out (286 km), Works in progress (74 km), Feasibility study prepared for 310 km Preparation of feasibility study for 539 km	**6289**	**6289**	Barrier no.1: Limited implementation time of the project during the 2015-2017 period Solution: Dividing the motorway works into sections of approximately 50-100 km. Barrier no.2: Long period of time in organizing the procurement procedure for attributing the works contract Solution: Elaboration of the public procurement documentation and implementation of the procedure by the use of contracted experts. Barrier no.3: Constructors' poor technical capacity for performing the works Solution: Setting criteria for the selection of constructors able to prove that they have the necessary resources for performing the works Barrier no.4: Reduced administrative capacity of the beneficiaries Solution: Procurement of consultancy services for experts specialized in project implementation

Transport	Cooridors and mission links	public	Creating a fast road connection between 5 motorways which converge with the capital Bucharest, by implementing the project 'Bucharest Ring' Motorway (Annex 1)	MT / CNADNR	The Bucharest Bypass at motorway profile represents a vital investment for the largest urban centre in Romania and South-Eastern Europe, with a very high economic potential. The Bucharest ring road is situated on the TEN-T Core Network and it will connect five motorways, being at the junction of corridors with important flows (North-South and East-West). The motorway bypass of a urban and economic centre of the size of Bucharest would have a positive economic impact, with perspectives for the multiplication of major benefits. The project encompasses two motorway sectors (North Ring 53 km and South Ring 48 km) with a total length of 101 km.	Yes	Preparation of feasibility study for 101 km	**1560**	**1560**	Barrier no. 1: Relatively short time for preparing the feasibility study Solution: Elaboration of terms of reference for the study and selection of a consultant Barrier no. 2: Long period of time in organizing the procurement procedure for attributing the works contract Solution: Elaboration of the public procurement documentation and implementation of the procedure by the use of contracted experts Barrier no.3: Constructors' poor technical capacity for performing the works Solution: Setting criteria for the selection of constructors able to prove that they have the necessary resources for performing the works Barrier no.4: Reduced administrative capacity of the beneficiaries Solution: Procurement of consultancy services for experts specialized in project implementation
Transport	**Cooridors and mission links**	public	Upgrading the rail corridor connection between Europe and Ukraine / Rep. Moldova by modernizing the railway 'Euro Transylvania Rail' at a European standard, on the route Episcopia Bihor - Oradea - Cluj Napoca - Dej – Vatra Dornei - Suceava - Pascani - Iasi – Ungheni with the branch to Vicsani. (Annex 2)	MT / CN CFR	The railway is part of the northern link which connects two old Romanian provinces: Transilvania and Moldavia. It represents and old route connecting major economic centres of Romania such as Oradea, Cluj Napoca, Suceava and Iasi, with high economic development potential and with high human potential specialized in the above mentioned university centres. The railway is electrified on two thirds of its 655 km length and double track on aproximately one third of its length. It overlaps with the TEN-T Comprehensive Network between Ep.Bihor and Cluj Napoca with the TEN-T Core Network between Cluj Napoca and Iasi.	Yes	Preparation of feasibility study for 655 km	**4315**	**4315**	Barrier no.1: Reduced time for the implementation of projects and preparing of the technical – economical documents Solution: Dividing the railway works into sections of approximately 50-100 km and elaboration of terms of reference with expert assistance Barrier no. 2: Long period of time in organizing the procurement procedure for attributing the works contract Solution: Elaboration of the public procurement documentation and implementation of the procedure by the use of contracted experts Barrier no.3: Constructors' poor technical capacity for performing the railway works Solution: Setting criteria for the selection of constructors able to prove that they have the necessary resources for performing the works Barrier no.4: Reduced administrative capacity of the beneficiaries Solution: Procurement of consultancy services for experts specialized in project implementation
Transport	**Cooridors and mission links**	public	Upgrading the railway corridor connecting southern Europe with Ukraine / Rep. Moldova to European standards by modernizing the railway 'North - South Rail' on the route Vicsani - Suceava - Bacau - Focsani - Buzau - Ploiesti - Bucharest - Giurgiu, overlapping with the Pan European Corridor IX. (Annex 2)	MT / CN CFR	The railway is part of the IXth PanEuropean Corridor which connects the North of Europe with the South-East of the continent. At European level, it connects Ukraine and Moldavia with Bulgaria, Greece and Turkey, via Romania. The railway corridor services urban centres of both economic and socio-human importance, with high development potential. The existing rail track is double and electrified between Suceava North and Bucharest – 450 km from the total of 579 km. The entire Corridor between Vicsani and Giurgiu is situated on the TEN-T Core Network.	Yes	Rehabilitated railway sector Bucuresti – Ploiesti (59 km) Preparation of feasibility study for 520 km of rehabilitation	**2800**	**2800**	Barrier no.1: Lack of technical – economical documents necessary for the implementation of the project Solution: Elaboration of terms of reference for the technical – economical documents and immediate organization of consultant procurement Barrier no. 2 -: Reduced time for the implementation of projects Solution: Dividing the railway works into sections of approximately 50-100 km Barrier no. 3 Organizing the public procurement for the works Solution: Elaboration of procurement documents and implementation of procedure through specialized consultancy Barrier no.4: Constructors' poor technical capacity for performing the railway works Solution: Setting criteria for the selection of constructors able to prove that they have the necessary resources for performing the works Barrier no.5: Reduced administrative capacity of the beneficiaries Solution: Procurement of consultancy services for experts specialized in project implementation
Transport	**Cooridors and mission links**	public	Closing the gap in the road connection corridor between the Black Sea and the northern part of the continent and between the Port of Constanta / Romanian Black Sea coast and Moldavia, Rep. Moldova and Ukraine through the construction of the Danube road bridge at Braila - Galati. (Annex 1)	MT / CNADNR	The road bridge links Constanta Port with the IXth Pan European Corridor, through the connection between the Expressway Constanta – Tulcea – Braila and the Expressways Braila – Buzau and Braila – Focsani which are situated on the TEN-T Comprehensive network. The bridge will have 4 traffic lanes on a length of 2500 m, with a span of 1500 m over the Danube.	Yes	Feasibility study prepared for the construction of the bridge	**496**	**496**	Barrier no.1: Organizing the public procurement for works Solution: Elaboration of procurement documents and implementation of procedure through specialized consultancy Barrier no .2: Constructors' poor technical capacity for performing the railway works Solution: Setting criteria for the selection of constructors able to prove that they have the necessary resources for performing the works Barrier no. 3: Reduced administrative capacity of the beneficiaries Solution: Procurement of consultancy services for experts specialized in project implementation

Transport	**Cooridors and mission links**	public	Increasing the mobility of the population and business environment between the TEN – T networks of Romania and neighboring states by construction of connecting road bridges over natural boundaries (Danube, Tisza and Prut), located as follows: Turnu Magurele - Nicopole, Calarasi - Silistra, Ungheni, Sighet Marmatiei. (Annex 1)	MT / CNADNR	The proposed road bridges facilitate the road mobility of people and goods between neighbouring countries, connecting the TEN-T Networks.	Yes	Pre-feasibility study has been elaborated Preparation of feasibility study	**1500**	**1500**	Barrier no.1: Reduced time for the elaboration of technical – economical documents necessary for the implementation of the project Solution: Elaboration of terms of reference for the technical – economical documents and organizing of specialized consultancy procurement. Barrier no.2 Organizing the public procurement for works Solution: Elaboration of procurement documents and implementation of procedure through specialized consultancy Barrier no.3: Constructors' poor technical capacity for performing the railway works Solution: Setting criteria for the selection of constructors able to prove that they have the necessary resources for performing the works Barrier no.4: Reduced administrative capacity of the beneficiaries Solution: Procurement of consultancy services for experts specialized in project implementation
Transport	**Cooridors and mission links**	public	Improvement of navigation conditions on the Danube by increasing the number of navigable days on the common Romanian – Bulgarian sector. (Annex 3)	MT/ ACN	The Danube is part of the XIIth Pan European Corridor which connects the Black Sea with the North Sea through the Main and Rhine waterways. Navigation on the Danube is affected by clogging as well as low water depth or frost. The conditions will be improved by dredging the waterway as well as by the procurement of icebreaker ships.	Yes	Feasibility study for the project	**207**	**207**	Barrier no. 1: Long period of time in organizing the procurement procedure for attributing the works contract Solution: Elaboration of the public procurement documentation and implementation of the procedure by the use of contracted experts Barrier no.2: Constructors' poor technical capacity for performing the railway works Solution: Setting criteria for the selection of constructors able to prove that they have the necessary resources for performing the works Barrier no.3: Reduced administrative capacity of the beneficiaries Solution: Procurement of consultancy services for experts specialized in project implementation.
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Vrancea** county	S.C. Compania de Utilităţi Publice Focşani S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	On-going technical assistance for the preparation of the Financing Application and Tender Documents.	94.76	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructurein **Valea Jiului region (Hunedoara county)**	S.C. Apa Serv Valea Jiului S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	On-going technical assistance for the preparation of the Financing Application and Tender Documents.	58.09	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Turda- Câmpia Turzii region**	S.C. Compania de Apă Arieş S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	On-going technical assistance for the preparation of the Financing Application and Tender Documents.	70.7	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Teleorman county**	S.C Apă Canal Alexandria S.A	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	108.84	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Galati county**	S.C.Apă Canal S.A. Galaţi	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	78.77	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Iasi county**	S.C. Apavital Iaşi S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	195.45	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Dolj county**	S.C. Compania de Apă Oltenia S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	254.54	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Dâmboviţa county**	S.C. Compania de Apă Târgovişte - Dâmboviţa S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	144.56	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Olt county**	S.C. Compania de Apă Olt S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	133.1	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged

Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Timis county**	S.C. AQUATIM S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	134	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Cluj-Salaj counties**	S.C Compania de Apă SOMEŞ S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plans of the counties	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	249.64	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Ilfov county**	S.C. Compania de Apa – Canal Ilfov S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	261.76	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Calarasi county**	S.C. ECOAQUA CALĂRAŞI S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	168.9	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Giurgiu county**	S.C. APA SERVICE GIURGIU S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	120.77	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Alba county**	S.C. APA C.T.T.A ALBA S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	80.86	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Braila county**	S.C. Compania de Utilităţi Publice Dunărea Brăila S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	139.19	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Gorj county**	S.C. Aparegio Gorj S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	152.88	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Sibiu-Brasov counties**	S.C. Apa Canal S.A. Sibiu	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plans of the counties	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	110.9	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Arad**	S.C. Compania de Apă Arad S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	109.71	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Sibiu county, Medias, Agnita and Dumbraveni**	S.C. Apa Târnavei Mari S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	84.5	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in the operating area of **SC**	S.C. RAJA S.A. Constanţa	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plans of the counties	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	290.15	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in the operating area of **SC**	S.C. EUROAPAVOL	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	194.97	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Caras-Severin county**	S.C. AQUACARAŞ S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	112.64	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Bistrita-Nasaud county**	S.C. AQUABIS S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	144.4	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Buzau county**	S.C. Compania de Apa Buzău S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	160.35	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Botosani county**	S.C. Nova Apaserv S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	159.71	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged

Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Bacau county**	S.C. Compania Regională de Apă Bacău S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	149.64	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Covasna county**	S.C. Gospodărire Comunală S.A. Sfântu Gheorghe	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	70	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Satu Mare county**	S.C. ApaServ Satu Mare S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	98.82	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Hunedoara county (Deva)**	S.C. APA PROD S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	104.06	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Tulcea county**	S.C. AQUASERV S.A. Tulcea	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	63.58	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Mures county**	S.C. AQUASERV S.A. Tulcea	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	132.31	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Suceava county**	S.C. ACET Suceava S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	On-going technical assistance for the preparation of the Financing Application and Tender Documents.	165.8	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Neamt county**	S.C. ApaServ S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	185.95	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Arges county**	S.C. APA CANAL 2000 S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	103.74	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure	Public	Regional project for the development of water and wastewater infrastructure in **Mehedinti county**	S.C. SECOM S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	65.93	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Brasov county**	Compania de Apă Braşov	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	103.17	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Valcea county**	S.C. APAVIL S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	130.56	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Maramures county**	S.C. VITAL S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	166.02	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Prahova county**	S.C. HIDRO PRAHOVA S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	209.44	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Harghita county**	S.C. HARVIZ S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	85.57	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged

Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Bihor county**	Compania de Apă Oradea	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	74.76	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Regional project for the development of water and wastewater infrastructure in **Vaslui county**	S.C. AQUAVAS S.A.	Extension/rehabilitation of water and wastewater networks, construction/extension of water and wastewater treatment plants, pumping stations, equipments.	Included in the Master Plan of the county	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	161.45	-	Insufficient funds available through Operational Programme to support all the investments/Other financing sources to be envisaged
Resources and environment	Natural resources: efficient and secure availability	Public	Completion of Glina wastewater treatment plant, rehabilitation of main sewerage collectors and of Dambovita water main (Caseta) in **Bucharest**	Bucharest City Hall	Completion of Glina wastewater treatment plant, rehabilitation of main sewerage collectors and of Dambovita water main (Caseta) in Bucharest municipality	Included in the Master Plan of the county	Supporting documents of the Financing Application under revision	158.5		
PRIORITIES										
Social Infrastructure	Education and training	Public	Education, research, conference and accommodation spaces; International Conference Center in Constanţa, FN3 Bucovinei str., plot 1, Constanţa county	Ministry of National Education/ National School of Political and Administrative Studies	In order to facilitate the preparation of students from the provinces, NSPAS has created territorial centers which carry out their activity in areas more or less compliant with the activity of a higher and research-based education, which it does not own and burden the university's funds. In Constanţa municipality, the university holds a land area, under ownership, where one could build a premises with the above functions. Considering the dynamics of this center, by increasing the number of programs and the number of students, as well as the fact that there is available land, there are grounds to erect a building which would host those spaces required to carry out specific higher education and research activities. This building would benefit from a triple purpose, serving the Constanţa Territorial Center, but also operating as a NSPAS regional research and conference center. The Research and Conference Center shall be used during the entire year for research activities involving academia, Ph.D. students, MA students and regular students. In addition to these, it shall organize activities such as: science communication sessions, national and international conferences, themed summer/winter schools. The building shall host accommodation and cafeteria areas.	Yes	A feasibility study exists	8.45	8.45	The regularity of funding assurances; Changes subsequently occurred in the systematic planning of the area influencing the investment site and requiring modifications in its layout; Legislative changes on investment funding and execution.
Social Infrastructure	Education and training	Public	Consolidation and extension of education and research premises in Bucharest, 6 Povernei Str., district 1	Ministry of National Education/ National School of Political and Administrative Studies	The building no longer ensures operational safety on A1 and A2 sections, as was ascertained by the competent institutions according to Laws 10/1995 and 50/1991. In this case, sections A1 and A2 must be urgently reinforced. In accordance with the feasibility study, provisions also include the extension of the building hosting sections B1 and B2 so that all the academic activities may be performed.	No	A pre-feasibility study exists	6.8330	6.8330	The regularity of funding assurances; Legislative changes on investment funding and execution, as well as the achievement of investments in the vicinity of monuments.
Social Infrastructure	Education and training	Public	Sports Hall Building and Swimming Pool, University campus, Pantelimon town, no 25 Biruinţei Blvd., Ilfov County	Ministry of National Education/ National School of Political and Administrative Studies	The educational process also includes attending sports classes. The university does not possess a sports base for either carrying out the sports-related didactic process or having the students practice leisure sports. The campus comprises the land required to erect a sports and a professional swimming pool to host the learning process and the harmonious development of the youth attending the NSPAS academic courses..	No	There is a case study and the approval of NSPAS management	0.362	0.362	The regularity of funding assurances; Legislative changes on investment funding and execution.
Social Infrastructure	Education and training	PUBLIC	EXTENSION–MODERNI SATION OF TUCN build, 15 C Daicoviciu str.	Technical University of Cluj-Napoca	building wing with a height regime 2B(basement levels)+GF(ground floor)+2S(storeys)+RF(receding floor), intended for Education and administration spaces. Spaces shall be created for seminar halls, laboratories, classrooms, offices for the academia, administrative spaces, business and public food service spaces, whereas the two basements shall outfitted for the archive. The built area shall be 220 sm and the developed built area shall be 1485 sm	No	design	0.922	0.922	lack of funding from own sources/ request of community funds and a close supervision and coordination of their use

Social Infrastructure	Education and training	PUBLIC	Multipurpose building in Cluj Napoca, 2 Observator str.	Technical University of Cluj-Napoca	Educational building with a height regime SB(semi-basement)+GF+6S, the built area shall be 1100 sm, the developed built area will be around 8800 sm • the semi-basement houses the power plant, halls for multiplication, printing works and UTC-N archive issues • the ground floor houses the library and the reading hall, the technical books library and the academic records archive • the 1st floor has two amphitheatres with 200 seats each, bathrooms, two staircases, the elevator shaft • the 2nd floor has 2 conference halls with 200 seats each, bathrooms, two staircases, the elevator shaft • the 3rd and the 4th floors host the offices of Ph.D students, research laboratories • the 5th and the 6th floors host seminar halls and didactic laboratories	No	design	2.95	2.95	lack of funding from own sources/ request of community funds and a close supervision and coordination of their use
Social Infrastructure	Education and training	PUBLIC	CONFERENCE AND EXHIBITION MINIHALL in Cluj Napoca, 28-30 Rene Descartes str.	Technical University of Cluj- Napoca	Building with a height regime GF+1S and the following characteristics: • the ground floor houses a 120-seat conference room, lounge, staircase, bathroom • the 1st floor hosts an exhibition area, bathrooms, the staircase The built areas shall be 200 sm, the developed built area shall be around 400 sm, and the Building shall comply with the norms by employing facilities for people with disabilities.	No	design	0.55	0.55	lack of funding from own sources/ request of community funds and a close supervision and coordination of their use
Social Infrastructure	Education and training	Public	The Faculty of Geography building	BabeşBolyai University of Cluj-Napoca	The future monoblock wing shall have a height regime of 2B+GF+2S. One of the main goals is ensuring the space necessary to refit the library as per the regulations in force: reading halls, book warehouse, rare book warehouse, a hall where maps and periodicals may be referred to. Theoretical courses are reserved the theatre, 8 course classes, a multimedia hall, test paper halls, seminars, offices for the academia. The building system has insulated reinforced concrete foundations under the pillars, reinforced concrete strip foundation, reinforced concrete frames + diaphragms, partition walls made of ACC or similar materials (Ytong), terrace roof. The developed area of the new building is set to 3585.6 sm.	Yes	drawn	2.5580	2.558	
Social Infrastructure	Education and training	Public	The Faculty of European Studies and the Theatre and Television Faculty	BabeşBolyai University of Cluj-Napoca	The new extension building of the Faculty of European Studies shall have a height regime of 2B+GF+3S. the two basements shall host warehouses/technical room, the lower one also operating as a civil protection shelter. The ground floor houses the coffee shop with the related extensions. Each of the 3 floors shall have one classroom, bathrooms and hallways. The extension building of the Theatre Faculty shall have a height regime of B+GF+1S+R2F(receding 2nd floor). The basement shall host the space required to preserve and display the stronghold wall. Next to it there shall be a warehouse, a civil protection shelter, related spaces and performance halls, a carpenter's and a mechanic's workshop, the technical room and a secondary staircase. The ground floor shall host the performance hall, whose height shall cover two floors. At the 1st floor – the technical cabin reserved for the performance hall, which is reached via a catwalk that perimetrally surrounds the lounge. In the opposite corner – a classroom. At the 2nd receding floor there shall be a coffee shop cu extensions. One shall place in the receded area a photo studio and a video studio. The recess at the 2nd floor shall house offices and bathrooms. The total developed	Yes	drawn	3.552	3.552	
Social Infrastructure	Education and training	Public	The simulation and clinical skills centre of MPU Craiova	Medicine and Pharmacy University of Craiova	The project aims at achieving a material base designed to implement a new study concept dedicated to the students and residents' acquiring the practical clinical skills necessary to ensure a smooth transition towards the European healthcare labour market. The healthcare services system shall benefit from human resources with solid practical training since as early as their studentship, the wish here being to lower the risk of occurring medical errors during the graduates' first years of employment with various European healthcare systems (considering the elevated mobility rate of young physicians).	No	Project	6	6	The necessity that MPU Craiova enter among medical higher education institutions whose learning is focused on the students and the practical these have acquired. Students will have access to a perfectly simulated hospital outpatient, both in terms of layout, as well as the inclusion of intensive care and emergency medicine and, following the activities to be carried out, they shall increase their practical training level, in accordance with the European standards. Additionally, residents and young academia shall benefit from the new infrastructure, thus a bridge being created between the theoretical and the practical training.
Social Infrastructure	Education and training	Public	Modernisation of C2 Hostel - UASVM Iași	University of Agricultural Sciences and Veterinary	The restoration of operational capacities as a result of the new sanitary norms	Yes	Elaboration of FS and TP in 2015, the works may commence in 2016	2	1	The risks which might occur during project implementation can be both financial and technical in nature
Social Infrastructure	Education and training	Public	Modernisation of A4 Hostel - UASVM Iași	University of Agricultural Sciences and Veterinary	The restoration of operational capacities as a result of the new sanitary norms	Yes	Elaboration of FS and TP in 2015-2016, the works may commence in 2017	2	1	The risks which might occur during project implementation can be both financial and technical in nature
Social Infrastructure	Education and training	Public	Modernisation and overhaul of veterinarian clinics (p2, p3, p4, p5, p6, p7)	University of Agricultural Sciences and Veterinary	The necessity of creating a new flow and a new functionality imposed by the necessity of accrediting the Faculty of Veterinary Medicine	Yes	Elaboration of FS and TP in 2015, the works may commence in 2016	5	2	The risks which might occur during project implementation can be both financial and technical in nature

Social Infrastructure	Education and training	Privat / Public	"Gr. T. Popa" Iași University Museum, with adequate presentation areas and underground parking	Medicine and Pharmacy University of Iași	Underground parking areas spread over two levels for around 230 cars Cultural premises with luminary areas covering around 1000 sm. Exhibition areas and cafeteria available to students	Yes	FS has been contracted - in progress	9.637	6.465	
Social Infrastructure	Education and training	Privat / Public	The Fundamental Skills Center MPU Iași	Medicine and Pharmacy University of Iași	The centre for increasing the students' practical training level in the use of specific outpatient instruments	Yes	FS has been contracted - in progress	1.523	1.523	
Social Infrastructure	Education and training	Privat / Public	Extension of "Gr. T. Popa" Iași University Library	Medicine and Pharmacy University of Iași	Doubling the capacity of study halls, increasing the storage capacity of library stocks and encouraging the use of said library stocks in printed format	Yes	investment approved in the university's strategic plan	1.137	1.137	
Social Infrastructure	Education and training	Privat/ Public	"1 Decembrie 1918" Medical Recovery and Physical Education Center - MPU Iași	Medicine and Pharmacy University of Iași	The practical training clinical base for students enrolled in the balneo-physio-kinetotherapy specialization	Yes	FS has been contracted - in progress	2.506	2.506	
Social Infrastructure	Education and training	Privat / Public	Stomatological Hospital MPU "Gr. T. Popa" Iași	Medicine and Pharmacy University of Iași	The clinical base fitted to European standards, designed to be the launch platform of future doctor of dental surgery	Yes	Ongoing project	3.580	3.580	
Social Infrastructure	Education and training	Privat / Public	"Gr. T. Popa" University Campus	Medicine and Pharmacy University of Iași	Diminishing the issues related to the insufficient number of accommodation spaces	Yes	investment approved in the university's strategic plan	7.47	0.2567	
Social Infrastructure	Education and training	Privat/ Public	Modern Languages Center "Gr. T. Popa" Iași University	Medicine and Pharmacy University of Iași	The creation of a centre in which foreign students are to study Romanian, and Romanian students English, French and German	Yes	ongoing procurement procedure for the execution of the works	1.865	1.865	
Social Infrastructure	Education and training	Privat / Public	Conference Center "Gr. T. Popa" Iași University	Medicine and Pharmacy University of Iași	The construction of a multipurpose complex with an exhibition area and a conference hall with 1000 seats, an area covered by hotels and an area with open service restaurants	Yes	investment approved in the university's strategic plan	9.875	2.546	
Social Infrastructure	Education and training	Privat / Public	Methodical and didactic spaces by means of overhauling the Main Body of MPU Iași	Medicine and Pharmacy University of Iași	Acquiring optimal capacity for the laboratory and practical works areas and ensuring the quality of the educational and medical activities	Yes	ongoing procurement procedure for the execution of the works	3.016	3.016	
Social Infrastructure	Education and training	Privat/ Public	Assessment and Examination Centre "Gr. T. Popa" Iași University	Medicine and Pharmacy University of Iași	Increasing the quality of the assessment process and carrying it out under a maximum objectivity environment	Yes	investment approved in the university's strategic plan	2.455	2.455	
Social Infrastructure	Education and training	Privat / Public	E1 Hostel MPU Iași	Medicine and Pharmacy University of Iași	Rehabilitation and repartitioning of accommodation spaces	Yes	There are a project and a building permit	1.478	1.478	
Social Infrastructure	Education and training	Privat / Public	1 Mai A Hostel MPU Iași	Medicine and Pharmacy University of Iași	Rehabilitation, consolidation, repartitioning and garret works	Yes	Ongoing project	1.478	1.478	
Social Infrastructure	Education and training	Privat / Public	1 Decembrie Hostel - wing 9 MPU Iași	Medicine and Pharmacy University of Iași	Rehabilitation, consolidation, repartitioning and garret works	Yes	Ongoing project	1.478	1.478	
Social Infrastructure	Education and training	Privat / Public	C9 Physicians' hostel MPU Iași	Medicine and Pharmacy University of Iași	Rehabilitation, repartitioning of accommodation spaces	Yes	There are a project and a building permit	1.478	1.478	
Social Infrastructure	Education and training	Public	Building rehabilitation/consolidation/mode misation. The premises at 29 Cuza Vodă str., Iași	University of Arts Iași	The works consist in reinforcing supporting structures, rehabilitating and modernising study areas	Yes	FS and TP may be elaborated in 2015, the works may commence in 2016	4.50	4.50	The risks which might occur during project implementation can be both financial and technical in nature:
Social Infrastructure	Education and training	public	Modernisation and extension of Sports Base no. 1	Politehnica University Timișoara	Improvement of sport center no 1 (handbal, football, parking)	Yes	Pre-feasibility study	3.201	3.201	Lack of funding
Social Infrastructure	Education and training	public	Erection of a car garage and storage and administrative spaces	Univ. Politehnica Timișoara	Car garage, storage spaces, administrative spaces	Yes	Feasibility study	0.567	0.567	Lack of funding

Social Infrastructure	Education and training	Public	Foundation of tha National Center of Excellence , Differentiated and Specialized Training - Valcea	MEN	The building no longer ensures operational safety on A1 and A2 sections, as was ascertained by the competent institutions according to Laws 10/1995 and 50/1991. In this case, sections A1 and A2 must be urgently reinforced. In accordance with the feasibility study, provisions also include the extension of the building hosting sections B1 and B2 so that all the academic activities may be performed.	No	Intention	50	50	Lack of funding
Social Infrastructure	Education and training	Public	Land-based education, providing a chance to many young people	MEN	Revitalization of 12 land-based high schools, from different development regions, from different landforms and from areas with different agricultural particularities. Such revitalization would involve, in addition to creating modern learning conditions (mending and refitting study areas, hostels, cafeteria, as the case may be), especially the purchase of specialization-specific agricultural equipment and machinery, both for carrying out training stages, as well as for one's own production.	No	Intention	50	50	The risk of investing in educational units which might have difficulties reaching the number of student places – solution: financial support during study years, and after graduation, so that students choosing these high schools may find employment
Social Infrastructure	Education and training	Public	Didactic and conference spaces within the premises	Medicine and Pharmacy University of Tg.Mures	Increasing the educational and the research results dissemination capacities by erecting a building with didactic areas and conference rooms. Such an investment could soon become the center of meetings and debates with educational and medical purposes, thus contributing to a better visibility of the Romanian education and research in the world and the development of international collaborations to a truly competitive level .	No	F.S.	4.34	4.34	Lack of funding
Social Infrastructure	Education and training	Public	Accommodation spaces within the premises of MPU Tg.Mures	Medicine and Pharmacy University of Tg.Mures	The increase of life quality for the persons involved in the educational process, respectively, regular students, Ph.D. students, resident physicians and researches by reducing the accommodation space deficit and improving dwelling conditions. The construction of a university hostel in this area would have the following advantages: - placement of the accommodation areas within the University campus premises where the didactic and research activity takes place. - the existence in the area of an institution micro-cafeteria. - the existence of sports fields - the assurance of all necessary conditions for carrying out educational activities. - the existence abroad of the conditions required by educational activities - the existence of all the necessary conditions for educational activities. - the existence of the County Emergency Clinical Hospital in the vicinity .	No	F.S.	3.9	3.9	Lack of funding
Social Infrastructure	Education and trainingU/niversities	Public	Central University Library,*Biblioteca Centrala Universitara* , 23, Marinescu St., 4-6 Pasteur St.	Ministry of National Education	Due to the existing narrow premises, and to the fact that the activitiy is split into several locations, the desire is to have a new building which would provide the necessary environment to access, use and preserve the pool of books.	Yes	2015-2016 elaboration of SF and PT Building of objective may start in 2017	5.5	3.5	Potential risks include financial and technical risks: financial risks consist in the financing being delayed or suspended, which would require finding other sources of funds, including own sources, to prevent the interruption in execution. Technical risks, such as design errors or delays in obtaining authorizations or permits, which could be managed by selecting consulting teams with expertize in this field which can check the documents and select suppliers/implementators with a technical and financial potential so that the services/works may be at the required standards. A close cooperation of the management team with the representatives of IB, the ministries in charge of providing
Social Infrastructure	Education and training/Universities	Public	Amfitheatre Building, 8 V. Babes St. (Cluj)	Ministry of National Education	Improve the education infrastructure by creating new education halls is a must. Given that the number of UMF students is growing, the existing halls are insufficient.	Yes	2015-2016 elaboration of SF and PT Building of objective may start in 2017	12	3	Potential risks include financial and technical risks: financial risks consist in the financing being delayed or suspended, which would require finding other sources of funds, including own sources, to prevent the interruption in execution. Technical risks, such as design errors or delays in obtaining authorizations or permits, which could be managed by selecting consulting teams with expertize in this field which can check the documents and select suppliers/implementators with a technical and financial potential so that the services/works may be at the required standards. A close cooperation of the management team with the representatives of IB, the ministries in charge of providing
Social Infrastructure	Education and training	Public /Private	Training Centre for Children and Young People in the town of Comarnic	Ministry of Regional Development and Public Administration	The completion stage of the training centre started in 2010		The project has been frozen due to the lack of funds from the state budget	10.00	6.00	Project to be transferred from under the authority of SNN to the Ministry of Development, as the project is not specific to the SNN line of business
Social Infrastructure	Built environment and urban services	Public	National Center for Improving the protection and conservation of genetic resources of freshwater aquaculture.	RSFD Nucet	The Center aims to develop breeding programs, protection and conservation of genetic resources for both the crop species and the rare species, threatened and endangered. Carried out specialized labs for investigations and specific facilities to ensure reproduction and growth controlled progenies maintaining genetic purity. Designing modernization of existing capacities within the unit for fish reproduction and selection in order to achieve agreement with the built in project activities and EU requirements. Realization of the project will ensure necessary biological material popular fish aquaculture development and maintaining biodiversity in natural and artificial ecosystems.	No	Proposal	1.5	1	Insufficient funds / Acceptance to finance an objective of national and European interest that contribute to increasing the competitiveness of the fisheries sector.
Social Infrastructure	Built enviroment and urban services	Public	Mass engraftment complex for nucifers	Ministry of Agriculture and Rural dDevelopment	Construction of a hall with 4 compartments used as CA storage cells, other storage and sorting rooms. Se urmărește obținerea pomilor de nuc altoit, deficitar pe piata europeană.	No	Provide the material needed to establish the nucifers plantations, with new homologated species	0.78	0.78	Insufficient funds/ Sale market and high demand for seeding material

Social Infrastructure	Built enviroment and urban services	Public	Pilot regional center of relaunching mountain economy (agro-silvo-pastoral) according to the E.U. requests	ICDM Cristian-Sibiu	1. Designing, modernising the existant capacities within our unit, having in view the achievement of the frame built in accordance with the activities of the project and the requirements of the E.U. 2. Acquiring valuable genetic material (vegetal and animal) having in view the establishment of a bank of vegetal and animal genetic resources for the mountain area. 3. Conservation of the biodiversity of the mountainous envirnment and protection of the envirnment by applying good practice. 4. Applying some innovative technologies and prcesses in order to obtain high quality mountainous products, in accordance with the European Carta of High Quality Mountainous Products 5. Promoting a net of valuing the mountainous products by developing new instruments and by the integration into the unique market. 6. Developing the human capital by creating new working places in	No	2015-2018	1	1	Changes of the law and of the organisation, absence of financing/ norms which are supposed to support the financing of the research.
Social Infrastructure	Built enviroment and urban services	Public	Excellence Center for horticultural resources management regarding the climatic changing within S- E Europe	ICDMPH Horting București	The project follows the development of a performing center regarding the researches for monitoring, analyzing and solution development for decreasing effects of climatic changings of horticultural sector from S-E Europe for increasing the alimentary safety and security of area The propused project creates by modernizing, endowment and infrastructure development a integrated researching platform, consisted from two laboratories able to develop new technologies in production-consumer branch for horticultural products, completing with a biochemical and microbiological laboratory, which realize with accuracy measurements for alimentary safety of fresh and processed horticultural products and experimental identification for new active biochemical compounds. Quantifiable results will be: -decreasing the climatic effects; - decreasing the energetic consumption; - decreasing the morbidity of population and increasing the life hope -increasing the research and development capacity regarding the integration in high scientific level consortia for development of specific UE policies	No	In patrimony of the institute exists the necessary infrastructure for development of the project during the 2015 – 2017 period when the project can became operational from 2018	5	5	Financial risks: This category includes the risks related to lack of cash at payment time for the suppliers / This type of risk can be totally decreased by elaboration of adequate strategies for acquisition contract and exact estimation of financial plan of investment. Economical risks: The main risk category is the inflation/ This risk is medium and for this the working costs and the future incomes was estimate in EURO. Human risk: In research field the human resource is the determination factor for the quality of results. Human risk includes : Difficulty/impossibility regarding the qualified personnel hiring for research activity (legislative restriction and poor pay for young researchers)/ Hugh personnel fluctuation/ This risk type is major and will be decreased by adequate politics of recruitment and a motivating salary
Social Infrastructure	Built enviroment and urban services	Public	Consolidation of Administrative building of Academy for Agriculture and Forestry Sciences	Academy for Agriculture and Forestry Sciences	Strengthening administrative building (Heritage Site) whose resistance structure was affected by successive earthquakes in 1940, 1977, 1990	No	Proposal	6	2.5	Barriers: Lack of funding Solution: Structural and national funds
Social Infrastructure	Other	Public	Capacity building for reducing response time and increasing resilience in emergency situation	Ministry of Internal Affairs	Infrastructure	No	The project will by applied to be funded from FESI	116	100	The project will be financed only if the management authority agrees the project
Social Infrastructure	Health	Public	Modernizing MAI health infrastructure	Ministry of Internal Affairs	Infrastructure	No	The project will by applied to be funded from FESI	19	10	The project will be financed only if the management authority agrees the project
Social Infrastructure	Health	Public	Modernization of health by equipping with diagnostic equipment and treatment of high performance	Ministry of Internal Affairs	Infrastructure	No	The project will by applied to be funded from FESI	18	10	The project will be financed only if the management authority agrees the project
Social Infrastructure	Health	Public	Modernization of health by equipping with diagnostic equipment and treatment of high performance	Ministry of Internal Affairs	Infrastructure	No	The project will by applied to be funded from FESI	20	10	The project will be financed only if the management authority agrees the project
Social Infrastructure	Education and training	Public	Modernization and development of Police Academy for providing higher education according European standards (upgrading accommodation, sports, shooting range)	Ministry of Internal Affairs	Infrastructure	No	The project will by applied to be funded from FESI	12	1	The project will be financed only if the management authority agrees the project
Social Infrastructure	Education and training	Public	Modernization and development of ISOP in order to ensure continuous training according European	Ministry of Internal Affairs	Infrastructure	No	The project will by applied to be funded from FESI	10	1	The project will be financed only if the management authority agrees the project
Social Infrastructure	Education and training	Public	Modernization school by developing the training Centre	Ministry of Internal Affairs	Infrastructure	No	The project will by applied to be funded from FESI	10	1	The project will be financed only if the management authority agrees the project
Social Infrastructur	Built enviroment	Public	Restoration of historic buildings under the	Ministry of Internal Affairs	Developing the infrastructures	No	The project will by applied to be funded	11	5	The project will be financed only if the management authority agrees the project

Social Infrastructure	Built enviroment and urban services	Public	The objective is the consolidation, restoration and improvement of the functionality of The National History Museum of Romania	Ministry of Culture - Project Management Unit	The works to be performed on the building of the National History Museum of Romania are complex and will result in the creation of a modern European space, adequate to its assigned role of depositary of our country's cultural heritage. In a nutshell, these works include: building consolidation; waterproofing renewal and internal and external aeration of the foundation; restoration of façades and interiors; replacement of the exterior carpentry; partial replacement or restoration of the interior carpentry; renewal of the floors; replacement and modernization of electrical installations (normal lighting and plugs, safety lighting, façade lighting); replacement and modernization of sanitary installations; replacement and modernization of fire warning and theft proof installations; replacement and modernization of air conditioning and ventilation installations; endowment; heating station, electric generator set, house water supply plant, air conditioning chillers, general electric board. In addition of these works necessary for the rehabilitation of the building of The National History Museum of Romanian, such building also requires specific works for the arrangement of the museum's storage, exhibition and administrative spaces, so that such spaces, of the spaces meant for heritage storage, furniture - storage shelves and display stands for exhibit presentation, etc., furniture and equipment necessary to the laboratories for the preservation and restoration of the cultural heritage etc.)	No	Pre-fesability study	40	20	The Project Management Unit already established in the Ministry of Culture will coordinate and implement all the necessary activities within this project.
Social Infrastructure	Built enviroment and urban services	Public	The objective is the consolidation, restoration and functionality enhancement of The National Theatre „Lucian Blaga"	Ministry of Culture - Project Management Unit	The works intends to be an aesthetical and functional reconsideration of the entire edifice. The facades will be renewed using the initial solution to apply artistic components cast in moulds or drawn at the working bench and fixed on the walls. The capacity of certain rehearsal rooms will be increased according to the real necessary of air and natural light. The sanitary groups will be reconsidered, both in the public area, and in the area of the technical and artistic staff. Also, the heating installation will be functionally structured by changing the location of the heating station. The area destined to the public will benefit from hot air heating, and there will be an increase in the capacity to handle the heating agent in the rehearsal or administrative spaces, by means of distributing frames on separate circuits. The number of the production spaces will increase by givind up certain storage spaces and by creating rehearsal rooms. The visibility curbe of the auditorium will be modified. The building will be updated accordin to the requirements of the firefighting norms (the actual wooden roof structure will be replaced by a metallic structure and an own water resource will be created - underground water tank).	No	The existing project needs to be updated	20	20	The Project Management Unit already established in the Ministry of Culture will coordinate and implement all the necessary activities within this project.
Social Infrastructure	Built enviroment and urban services	Public	The rehabilitation of the main 30 cinema halls in Romania	Ministry of Culture - Project Management Unit	The cinema halls in Romania are at the moment coordinated by a body underneath the Ministry of Culture. Most of them are old building, some are hystorical monuments, the majority are located in the centre of the biggest cities in Romania. Most of the cinema halls are not adequate for film projection and they are needed because many cities in Romania lack a cinema hall. For the most part, investments will focus on improving the structural stability of the buildings and modernising their installations and equipment in order to provide satisfactory and safe operation conditions of the venues and ensure comfort (lighting, sound, ventilation, sanitation etc.) and security (acces, including for disabled, fire protection) for the audience and the administration. Depending on the edifice concerned, original functional and aestetic qualities may be restored or updated, additional construction done and interiors refurbished accordingly. All envisaged investment for structural consolidation and modernisation of installations and equipment will comply with current technical norms and standards - in particular those for public assembly buildings - and for construction in earthquake prone areas. In addition to the above, the project will finance the update or elaboration of feasibility studies, technical design, supervision of works, authorizations and permits and the provision of equipment of goods, as well as project administration cost (such as staff salaries and consultants fees, supplies, goods and equipment, communications and travel costs etc.)	No	Pre-fesability study ongoing	300	100	The Project Management Unit already established in the Ministry of Culture will coordinate and implement all the necessary activities within this project.
Social Infrastructure	Built enviroment and urban services	Public	Restoration, conservation and valorization of the historic monument building "Tobacco Warehouse – Cigarette Factory in Iasi" in order to found the Museum of Industrial Archaeology of	Ministry of Culture	The project intends to save from destruction an industrial heritage building on the site of the Cigarette Factory, found on the List of historic monuments at the position 1140 IS-II-m-B-03953 and its transformation into the first Romanian Museum of Industrial Archaeology	No	Making the necessary preparations and initiating the works in 2015 and finalizing the project in 2018	6	6	The Project Management Unit already established in the Ministry of Culture will coordinate and implement all the necessary activities within this project.

Social Infrastructure	Built enviroment and urban services	Public	The "Prison of silence" Memorial in Râmnicu Sărat and the Educational Center on communism in Romania	The Institute for the Investigation of Communism Crimes and Memory of the Romanian Exile	IICCMRE aims to transform a former place of isolation into one of reflection about the criminal nature of Communism. **The "Prison of silence" Memorial in Râmnicu Sărat** consist of the restoration of the prison and its opening to the public, setting up exhibition spaces inside the prison to commemorate the personalities imprisoned here. **The Educational Center on Communism in Romania** is a permanent exhibition space inside the former prison in Râmnicu Sărat	No	Planning	6	6	Obtaining the funds
Social Infrastructure	Built enviroment and urban services/Education and training	Public	Business Incubator Program	Department for SMIs, Business enviroment and tourism	Establishing and development of incubators centers	Yes		50	50	The main barrier is financing. Solution is finding sources of financing.
Social Infrastructure	Health	Public	Extension of the oncology units with radiotherapy wards from the Emergency Universitary Hospital Bucharest	Ministry of Health	Oncology units of the hospital will be extended with a new radiotherapy ward buitl betwee two wings of the buildings partially underground . The technic- economic indicators approved.	Yes	The technical design required to obtain the construction permits is under preparation and it will be followed by the launching the procurement for the works execution. The works are expected to start în 2015 and completed within 24 months subject to getting	34	34	Lipsa finantare
Social Infrastructure	Health	Public	Demolishing of the existing zoo base and in its place build of a hematology building - Oncology Institute (Prof. Dr.Ion Chiricuta-Cluj Napoca)	Ministry of Health	The building of the Hematology Ward on the same site of Zoobase	Yes	Technic – economic indicators are under approval. The works are expected to start în 2015 and to be completed whithin 36 months, subject to getting financing.	7	7	
Social Infrastructure	Health	Public	Emergency regional hospital Cluj	Ministry of Health	The hospital will provide medical care for the Cluj county, as well as the neighbour counties, and will host the activity of the current Emergency County Hospital (multi block buildings).	Yes	These are included in the Partnership Agreement 2014 – 2020 under Regional Operational Programme 2014 – 2020, Tematic Objective 9- Promote the social inclusion and proverty mitigation, Axis 8 – Health and social Infrastructure, financing for the entire axis amounting to EUR 400	200	200	
Social Infrastructure	Health	Public	Emergency regional hospital Iasi	Ministry of Health	The hospital will provide medical care in Iasi county, as well as for the neighbour counties, and will host the activity of the current Emergency County Hospital (multi block buildings).	Yes		200	200	
Social Infrastructure	Health	Public	Emergency regional hospital Craiova	Ministry of Health	The hospital will provide medical care for Dolj county, as well as the neighbour counties, and will host the activity of the current Emergency County Hospital (the current building needs consolidation)	Yes		200	200	
Social Infrastructure	Health	Public	Regional Oncology Institute Timisoara	Ministry of Health	Establishment of the Regional Oncology Institute to provide specific medical care in the western region of the country	Yes	Technic – economic indicators are under approval. The works are expected to start în 2015 and to be completed whithin 36 months, subject to getting financing.	115	115	
Energy Union	Connections and production	Private	Refurbishment and modernization of Iernut power plant, Mures County	SNGN Romgaz SA	Replace the low power generation technology with a high co-generation technology, with a high power, taking into account the market conditions. The process involves building a new power unit with installed capacity of 400 MWe, equipping two generators with a capacity of 200 MWe, with the possibility for co-generation and resilient operation through an easy adjustment to the market needs.	Yes	The feasibility study was developed.	300.00	200.00	Need for market research, because of the low predictibility in the electricity sector.
Energy Union	Connections and production	Private	Increase the storage capacity of the pit gas underground storage unit in Ghercesti, Dolj County	SNGN Romgaz SA	Improve the capacity of the storage unit from 150 mil. cm/cycle to 600 mil. cubic meters/cycle to secure the supply to household consumers, especially during peak consumption times. The works needed to reach this target are: build a compression station, interlinking with high pressure SNTs, gas treatment installations, a gas measurement unit and a SCADA system to transfer data and orders.	No	The feasibility study was developed.	140.00	140.00	Link to the investment policy of SNTGN TRANSGAZ SA in the area

Energy Union	Connections and production	Private	New thermal power production capacity based on natural gas within SE Craiova II stage CT black oil to provide the thermal power after the closure of [illegible]	Energy Complex Oltenia	Establishing of a database for National Fund of Geological data and Information from existing records and digital information on oil and gas and mineral resources (energetic and non-energetic), in an international standard open system, and support software	No	Develop the design documentation	25.60	14.50	Cash-flow deficit
Energy Union	Connections and production	Private	Limestone grinding plant	Energy Complex Oltenia	The investment is required to comply with the environment requirements of the European legislation	No	About to be initiated	20.00	20.00	Cash-flow deficit
Energy Union	Connections and production	Private	Jilt - Turceni Coal Conveyor Belt	Energy Complex Oltenia	The investment is required to comply with the European Community Energy Policy	No	About to be initiated	100.00	100.00	Cash-flow deficit
Energy Union	Connections and production	Private	Flue Gas Desulphurisation Plant - Power Unit No. 5 - S.E. Rovinari	Energy Complex Oltenia	The investment is required to comply with the environment requirements of the European legislation	No	In course of being started	41.00	41.00	Cash-flow deficit
Energy Union	Connections and production	Private	Rehabilitation and modernization of energy block 5 of 330 MW, on lignite - SE Rovinari	Energy Complex Oltenia	The investment is needed to comply with the environment requirements of the European legislation	Yes	Investment is underway	168.25	168.25	Cash-flow deficit
Energy Union	Connections and production	Private	NOx Reduction Plant at Power Units No. 4,5 and 6 - [illegible]	Energy Complex Oltenia	The investment is needed to comply with the environment requirements of the European legislation	No	About to be initiated	26.50	26.50	Cash-flow deficit
Energy Union	Connections and production	Private	Rehabilitation and Modernisation of Power Units No. 3 and 6, 330 MW - S.E. Turceni	Energy Complex Oltenia	The investment is needed to comply with the environment requirements of the European legislation	No	About to be initiated	446.35	446.35	Cash-flow deficit
Energy Union	Connections and production	Private	Reduction of nitrogen oxide emissions at 1035 t/h Boilers No. 3, 4 and 5 S.E. Turceni	Energy Complex Oltenia SA	The investment is needed to comply with the environment requirements of the European legislation	No	About to be initiated	26.90	26.90	Cash-flow deficit
Energy Union	Connections and production	Private	Rehabilitation and modernization of energy block 7 lignite SE Işalnita	Energy Complex Oltenia SA	The investment is needed to comply with the environment requirements of the European legislation	Yes	Investment is underway	32.35	25.15	Cash-flow deficit
Energy Union	Connections and production	Private	Reduce NOx emissions at blocks 7 and 8, SE Işalnita	Energy Complex Oltenia SA	The investment is needed to comply with the environment requirements of the European legislation	No	About to be initiated	26.00	26.00	Cash-flow deficit
Energy Union	Connections and production	Private	Modernize the system used to reduce nitrogen oxides emissions (NOx) SE Craiova II	Energy Complex Oltenia SA	The investment is needed to comply with the environment requirements of the European legislation	No	About to be initiated	10.00	10.00	Cash-flow deficit
Energy Union	Connections and production	Private	Put the technological load- free land plots of the Mining Division Branch back into the economic circuit	Energy Complex Oltenia SA	The investment is needed to comply with the environment requirements of the European legislation	No	About to be initiated	3.80	3.80	Cash-flow deficit
Energy Union	Connections and production	Private	Mining technological equipment to enable the extraction of hard coal from Jiu Valley to increase the availability and efficiency under safety conditions	Energy Complex Hunedoara	The intention is to purchase high-performing equipment to allow the development, the safe use and the efficiency improvement. Work flows will be provided starting with prospection - development, use, transport and sorting of coal. Another equipment category helps improving the safety and efficiency by capturing the pit gas (CH_4), recovering the coal from dumps and sludge beds.	No	Procurement documents are being drafted	60.00	60.00	Cash-flow deficit
Energy Union	Connections and production	Private	Mining technological equipment to enable the extraction of hard coal from Jiu Valley to increase the availability and efficiency under safety conditions	Energy Complex Hunedoara	The purpose is to purchase performing equipments to allow the generation of gas by the distillation of underground coal.	No	Procurement documents are being drafted	60.00	60.00	Cash-flow deficit
Energy Union	Connections and production	Private	Photovoltaic Park with installed capacity of **1.723 MW, in Chiscani, Braila County"; Priority project**	Electrocentrale Grup	Installed Power: 1,723 MW; Power output: 2.140 MWh/year; Net updated income (NAI): 1,893 thousand EUR; Internal Rate of Return: (IRR): 12.23 % Updated Recovery Time: (URT): 9.33 years; Investment cost: 2,594.352 thousand EUR, exclusive of VAT; Specific value/MWh: 1.505,718 thousand	No	Works have been started to execute the photovoltaic park, including the two stages: design/engineering and cosntruction, assembling and commissioning	3.220	3.220	The main reason why the project implementation has not been completed so far is that Electrocentrale Grup S.A. started operating in March 2013, and the decision regarding the investment objective was enforced in October 2013. In addition, the development vision so far has not considered a new production capacity with a new and modern technology and specifically low costs.

Energy Union	Connections and production	Private	Carrying out of new power units located on Titan Power Plant site, belonging to "Electrocentrale Titan" S.A.- Trigeneration capacities;	Electrocentrale Grup	Select investors for the purpose of building new power groups, with a tri-generation technology and an installed capacity which will be determined by a feasibility study; Installed power: 1 MW Efficiency on a tri-generation contour: 90% specific investment value (network included):1200 Euro/kWi Number of operating hours: 8000 ore/an Review time: 21 years Useful life: 20 years Total realization time: 1 year Natural gas price: 325 $ / 1000 cubic meters Electricity sale price: 45(yr 1)÷60(yr 20)EUR/MWh Thermal energy sale price: 40(yr 1)÷45(yr	No	The main reason why the project has not been implemented so far is that Electrocentrale Titan S.A. was established in September 30, 2014, and the final decision on this investment project was applied after the presentation of the feasibility study	1.20	0.90	The main reason why the project implementation has not been completed so far is that Electrocentrale Titan S.A. was set up on September 30,2014, and the final decision on the investment project will be enforced after the presentation of the feasibility study approved according to legal requirements. In addition, the development vision so far has not considered a new production capacity with a new and modern technology and specifically low costs.
Energy Union	Connections and production	Private	Match the electricity and thermal power output to the consumption needs in the context of reducing own consumption and production expenses;	Electrocentrale Galati Company SA	Investments in the plant consisting in performing co-generation installations, formed of gas-turbin, reservoir and steam turbin aimed at boosting economic efficiency and improving the environment conditions by improving the plant's operating efficiency. The feasibility study shows an optimal equipping version for a new energy capacity formed of: 1 gas-turbin of 30 MW; 1 steam producing reservoir for recovery (60 bar(a); 470 °C); 1 steam-turbin of 10 MW.	Yes	At this time, the feasibility study and and the bancable document are ready.	62.50	62.50	The lack of financing and of an investor / find funding, partners and a firm contract for the supply of thermal power with the municipality at least for the time of recovering the investment.
Energy Union	Connections and production	Private	Reengineering of hot water boiler (CAF) nr. 1 – 100 Gcal/h of CTE Bucharest West and the hot water boiler nr. 4 – 100 Gcal/h of CTE Grozăveşti.	Societatea Electrocentrale Bucureşti S.A.	Purpose: the need to have ELCEN units equipped with state-of-the-art thermal power producig installations working on gas, complying with the polluting emissions regulations under the legislation in force, including Directive 2010/75/UE to become effective in 2016, introduced in the Romanian legislation by the adoption of Law 278/2013 on industrial emissions. Objective: provide the thermal power needed by the Centralized Thermal Power Supplier System (SACET) of Bucharest Municipality under safe circumstances, conitnuity of supply and compliance with the environment requirements, in particular to cover the maximum thermal power needed in wintertime. •Duration: 12 months. •Implementation: QI 2015 – QII 2016. •Other feasibility indicators: a)CAF nr. 1 – CTE West IRR (internal rate of return): 14.66% RT (recovery time): 9.31 years. b)CAF nr. 4 – CTE Grozăvesti	No	The feasibility study was developed.	10.00	10.00	Difficulties in getting the financing.
Energy Union	Connections and production	Private	Co-generation unit in a mixed cycle with gas generator engine in CTE Grozăvești	Electrocentrale Bucuresti S.A.	•Purpose: the need to comply with the European and MS policy and strategy on the need to cover the electricity demand with a market in process of liberalization, which involves the increase of energy efficiency, economic efficiency, as well as reduced greenhouse gas emissions by promoting highly efficient cogeneration systems. •Objective: cover the thermal power demand for the Centralized Thermal Power Supplier System (SACET) of the Bucharest Municipality under safe circumstances, provided the continuity of supply and compliance with the environment requirements. •Time of completion: cca. 36 months. •Implementation time: 2015-2017. •Other feasibility indicators: -IRR(internal rate of return): 15.46% -RT (recovery time): 9 years.	Yes	The feasibility study was developed.	64.48	64.48	The legislation in the field of highly efficient co-generation is not attractive enough to investors involved in the project implementation together with ELCEN
Energy Union	Connections and production	Private	LEA 400 kV double circuit Smardan - Gutinas	Transelectrica	A new line 400 kV double circuit (equipped circuit) between the existing stations - Smardan and Gutinas - with a length of around 140 km. Transport capacity increase between the western coast of the Black Sea (Dobrogea Region) and the rest of the inter-connected system.	Yes	With the feasibility study endorsed by the Directorate Decision 260/2013, the project is now in the stage of obtaining the necessary permits. Estimated time of commencement: 2016. Estimated	65.00	8.00	The lack of funds may lead to delays in the project implementation. A mix of European financial assistance in the form of a grant or in financial instruments may be considered.
Energy Union	Connections and production	Private	LEA 400 kV simplu circuit Suceava - Gadalin	Transelectrica	A new line 400 kV cimple circuit between existing stations - Suceava and Gadalin - of around 260 km. Increase of the transport capacity between the production centre coming from wind energy in the Eastern Region of Romania and the rest of the inter- connected electric and enrgy system.	Yes	The feasibility study approved by the decison of the board nr.7/2010, the project is in the stage of obtaining the necessary permits. estimated time of commencement – 2017. estimated time of	95.00	12.00	The lack of funds may lead to delays in the project implementation. A mix of European financial assistance in the form of a grant or in financial instruments may be considered.

Energy Union	Connections and production	Private	Reengineering of the 400 kV unit in Isaccea	Transelectrica	Replace low efficiency equipment with modern, highly efficient equipment.	Yes	Feasibility study. estimated time of commencement – 2016. estimated time of completion -2020.	25.00	6.00	The lack of funds may lead to delays in the project implementation. A mix of European financial assistance in the form of a grant or in financial instruments may be considered.
Energy Union	Connections and production	Private	LEA 400 kV simple circuit Suceava (RO) – Balti (Republic of Moldova)	Transelectrica	A new line of 400 kV, 139 km long, which helps improving the exchange capacity through the eastern interface, with the Moldovan Republic.	Yes	The feasibility study approved by the decison of the board nr.7/2010, the project is in the stage of obtaining the necessary permits. estimated time of commencement – 2018 and estimated time of completion -2022. There are high pressures to start this project sooner than announced in the RET development plan.	23.00	4.00	The lack of funds may lead to delays in the project implementation. A mix of European financial assistance in the form of a grant or in financial instruments may be considered.
Energy Union	Connections and production	Private	Shift Portile de Fier – Resita – Timisoara – Sacalaz – Arad axis to 400 kV oltage – Stage I: LEA 400 kV Portile de Fier – Resita + 400 kV station inResita + expansion of existing units.	Transelectrica	In order to improve the interchange capacity through the western and South-Eastern Romanian interface, the netwrok in the area is considered for reinforcement: LEA 400 kV Portile de Fier – Resita and the expansion of the station 220/110 kV Reşiţa by building a new unit of 400 kV+shift to 400 kV of LEA 220 kV d.c. Reşiţa –Timişoara – Săcălaz – Arad, including building the units of 400 kV Timişoara and Săcălaz. This project improves the interchange capacity at the RO-HU-RS border; intensifies the N-S Corridor from N-E Europe to S-E Europe via Romania and in conjunction with other European projects it could help creating the 400 kV electricity transport corridor from Romania to Italy (via the submarine cable ME-IT).	Yes	Feasibility study endorsed by the decision of the board nr.2/2012, the project is in the stage of obtaining the necessary permits. estimated time of commencement – 2014. estimated time of completion -2017.	47.00	46.00	The main problem relates to the purchase and the ownership of the land on the electric line corridor and to obtaining the licenses/permits. The lack of funds may lead to delays in the project implementation. A mix of European financial assistance in the form of a grant or in financial instruments may be considered.
Energy Union	Connections and production	Private	Heavy water clastic installation	Nuclearelectrica National Company	The purpose of the installation is to remove the tritium form the moderating agent and the cooling agent and to store it in special containers.	No	The project is in its final stage. The feasibility study was revised, and it will be approved by the end of this year by SNN Board, and by the end of January by the General Shareholder Meeting. Licensing in process, documentation ready to obtain a comfort letter from CNCAN. The procurement documents for the selection of an IPC contractor will be prepared by mid-2015.	166.00	36.00	The first project of this kind in Europe. Insufficient staff with expertize for such a porject; to go around this obstacles, a number of actions are underway to appoint an Owners' Engineer (of the beneficiary) formed of experts in this field.
Energy Union	Connections and production	Private	Post Fukushima modifications of Unit 5 existing buildings to accommodate the facilities required for severe accidents management and interventions as set up in „Romania – National Action Plan post Fukushima".	Nuclearelectrica National Company	Set-up a new seismically qualified location on-site for hosting the On-site Emergency Control Center&Fire Fighters Facility as well as to to shelter the most important intervention equipment including: mobile diesel generators, mobile diesel engine driven pumps, firefighter's engines, radiological emergency cars, heavy equipment to unblock roads. This facility will be set up in unit 5 - for which a decision has been taken that it will be used for such purposes and not as a nuclear unit anymore.	No	The procurement documentation for an IPC contract has been completed. SNN Board will approve the IPC contract by the end of 2014. The contract will be signed by March 31, 2015.	30.00	30.00	Complete the approval procedure and have the contract signed within the foreseen deadline (any postponment caused by delays in the procurement process will directly impact the foreseen time).
Energy Union	**Others /Operational programme under the 'Investment for growth and jobs' goal/ Smart, sustainable and inclusive growth and the achievement of economic, social and territorial cohesion/ Enhancing institutional capacity and an efficient public administration (E-governance)**	Public	Classification and evaluation of mineral resources/ reserves of solid minerals	National Agency for Mineral Resources	Update of existing mineral resources contracts information system "Mining Cadastre and Titles Registry" with development of classification and evaluation of mineral resources/ reserves of solid minerals	No	Planning	0.8	0.8	Lack of funds/
Energy Union	**Other /Clean Energy and Energy Efficiency/** Investment in institutional capacity	Public	Permanent Register for Carbon Capture and Storage Sites in Romania	National Agency for Mineral Resources	Development of a permanent register containing all closed storage sites and surrounding storage complexes, including maps and sections of their spatial extent and available information relevant to assess whether carbon dioxide is stored definitively and permanently retained. The system has to be complemented by a geological and geographical monitoring module of the parameters of CO2 associated risk storage	No	The specifi-cations are finalized and ready for a call of proposal	0.9	0.9	Lack of funds/ Lack of information, especially for the data needs analysis, due to incipient promoted legislation and new developed CCS technology in Romania/ Solutions - a close cooperation with similar Norway agency, with expertise in CCS/ An experienced project management team in NAMR

Energy Union	**Other /Operational programme under the 'Investment for growth and jobs' goal/ Smart, sustainable and inclusive growth and the achievement of economic, social and territorial cohesion/ Enhancing institutional capacity and an efficient public**	Public	Development of "National Fund of Geological data" Information System	National Agency for Mineral Resources	Establishing of a database for National Fund of Geological data and Information from existing records and digital information on oil and gas and mineral resources (energetic and non-energetic), in an international standard open system, and support software/ hardware/ training, in order to develop and promote oil/ gas/ mineral resources concessions under a system which facilitates Privatee sector development of natural resources, to efficient disseminate quality and timely data to public and sector agencies/ companies and to serve the data and information needs of the NAMR Conversion, scanning, digitizing and vectorization of historical physical oil and gas data (geological, geochemical, wells, seismic lines, well logs, to electronic form to allow managing and secure access to a wide range of data in a variety of different industry standard formats; and audit of the historical data Quality to enable accurate forecasts of the effort required to assess the final volumes, types of media conservation, state of the media, level of quality control desired, time constraints etc.	No	Planning	5	5	Lack of funds; Most of the data are classified as confidential / In NAMR exists a powerful project management team with more than 15 year experience in World Bank projects and over two years experience in European Funds projects; Cooperation/ partnership with a specialized company that provide software and technology services and data storage solutions
Energy Union	**Other/ Operațional programme under the'Investment for growth and jobs' goal/ Smart, sustainable and inclusive growth and the achievement of economic, social and territorial cohesion/** Investment in institutional capacity and in the efficiency of public administrations and public services at the national, regional and local levels with a view to reforms better	Public	Integrated electronic archiving systems of "National Fund of Geological data" documents	National Agency for Mineral Resources	5.000 linear meters of existing archive historical documents of all types (geological, geophysical, geochemical, magnetometrical, reports, maps, etc.) gathered from all over the country, from the former state owned geological/ geophysical companies have to be scanned and digitally converted with proper indexing and archival for easy retrieval and referenced for graphical search. Development of a tool for the management of documents providing important features for storing, searching and analyzing documents of different kinds	No	Planning	6.5	6.5	Lack of funds; **Most of the documents are classified as confidential/Solutions- an experienced project management team in NAMR**
Energy Union	Energy efficiency în Buildings	Public	Improving the thermal rehabilitation of MAI buildings and increase cost efficiency	Ministry of Internal Affairs	Infrastructure	no	The project will bw applied to be funded from FESI	447	100	The project will be financed only if the management authority agrees the project
Energy Union	Connections and production	Public	Implementation of renewable energy and updating or replacing the existing ones in order to ensure a proper and safety	Ministry of Internal Affairs	Infrastructure	no	The project will bw applied to be funded from FESI	20	10	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	Public R&D	public	Extension of education and research areas at the Faculty of Industrial Chemistry and Environmental Engineering	Politehnica University Timişoara	Spaces for research, laboratory halls, amphitheatres, presentation areas	yes	Feasibility study, technical project	10.920	10.920	Due to ADR vest exceeding the funds – ROP 2007-2014, axis 3, area 3.4, the objective funding request has been placed in stand-by.
Knowledge and the Digital Economy	Public R&D	public	Research Institute for Intelligent Transportation Systems	Politehnica University Timişoara	The development of the available capacities to research and operate the smart transportation systems present in the Western region	yes	Feasibility study	7.174	7.174	A partnership agreement between PUT, Timisoara Mayorship and RATT (Timisoara Transportation Autonomous Public Service Undertaking).
Knowledge and the Digital Economy	Public R&D	Public	FoodBiotech	IBA Bucuresti	Large-scale agrifood waste&residues integrated bio-refineries to develop a range of value-added products (food, food supplements, food ingredients, non- food, cosmetics, as well as third-generation biofuels) and to unlock the potential of residues, industrial by-products,	No	Proposal	100	50	Barriers: Lack of funding, optimal coordination and feasible management through implementing authority. Solutions: Structural and national funds and Privatee capital will be envisaged. Efficient monitoring and supervising by Implementing Authority
Knowledge and the Digital Economy	Public R&D	Public	Nutrition and Animal Pathology Institute of Transilvania (INPAT)	USAMV Cluj Napoca	Increase the research capacity of USAMC Cluj Napoca for a better integration with the European area of research in the medical and veterinary sector and compared medicine, increase of competitiveness in the farming sector by boosting the environment and health of livestock, and improve the food quality and safety, by the fact of ensuring: 1)modernization/expansion of existing research premises which are not suited anymore or have become insufficient to the current research needs; 2) building new research premises to finalize and develop the research capacity; and 3) purchase of modern research equipment to replace the current obsolete equipment and cover the whole range of specific interdisciplinary investigations – nutrition, welfare, etology and animal pathology, experimental and compared pathology, control of fodder, the quality, safety and security of foods.	Yes	Feasibility Study	13.50	13.50	Lack of financing

Knowledge and the Digital Economy	Public R&D	Public	Increased sanogenous capacity of food	SCDVV Murfatlar	Developing new food with high nutritional capacity and antioxidant effect.	No	Proposal	3	3	Lack of long term finance and investments in sub-sector. Need to combine public with Privatee actors.
Knowledge and the Digital Economy (agriculture)	Public R&D	Public	"Research on expanding rice cultivation in excessive view climatic conditions, and world population growth "	SCDA Braila	Rice can be considered the strongest cereal in the future, because that ecological plasticity allows the cultivation of beyond the limits of 50° N and 40° S latitude, and because resistance to biotic and abiotic stress factors. The globalization of economic activities and the opening of markets, the expected climate changes and increasing world population, the main factors that influence the dynamic trends in major mode agriculture, will open favorable prospects in orizicol field in the world and in Romania. In Europe, 430,000 ha are cultivated with rice, the surface on which it makes an average production of about 6.5 t / ha. EU produced 2.8 million tons of rice, but is forced to import 1.4 million tons. It follows that the requirement of rice for Europe is 4.2 million tons, which provide an average consumption of rice of 5.0 kg / inhabitant. In this context, the European countries with tradition in orizicol are interested to reduce rice imports by increasing and developing its own production. In Romania, rice is not a traditional culture, but is useful in feeding the population, creating jobs, and in the context of diversification of agricultural production. In Romania, the minimum investment and modernization in land reclamation works, now is possible to insert in orizicultura 55,000 ha. Romania's rice requirement is of 65,000 tons at an average consumption of 3.2 kg / inhabitant. At an average production of rice 6 t / ha production that can be obtained routinely in our country, the domestic demand for rice may be covered by cultivation of 11,000 ha. In the context presented, if Romania would put into operation on surfaces that worked rice fields (50,000 ha), could carry about 260,000 tons of rice for export, which amount would cover 19% of EU imports. Thus, Romania could become one of the leading producers of rice in the EU. The project must establish conditions in which rice-producing countries in the EU can contribute to meeting their own union and rice for export and which are specific conditionality on extending this culture in order to achieve this	Yes	Planning and organizing project started in 2015. The project will open in 2018.	2	0.8	Barriers -Lack of a uniform and centralized databases which to base the necessity of creating conditions for expanding rice at European level and the lack of a common strategy of action. -Lack of state agricultural policies differentiated but complementary that encourage and support the culture of rice depending on the specific capabilities of each area of culture, to increase yield and decrease cost. -Development necessity of a domestic industry with processing plants and storage centers in good condition to rice. Solutions -Providing financial incentives for restoration and establishment of new rice fields, for the purchase of specific equipment for setting up the rice domain and for establishment rice processing factories. -Encouraging the expansion unit rice culture through subsidies in the EU. -Develop technologies adapted rice culture natural and social conditions in the area where it is grown. -Acceleration and expansion strategy of irrigation water use in gravitational mode at the expense of irrigation by pumping
Knowledge and the Digital Economy (agriculture)	Public R&D		**"Research on increasing the share of** windbreak **forest in farmland protection solutions for improving climatic conditions"**	SCDA Braila	Forestry solution of establishing windbreaks crop has several very important benefits for both agriculture and the environment. In this context it can be estimated as: -windbreaks forest for crop protection contributes to improving microclimatic conditions for growth and development of crops up to a distance of 25 times the height of the windbreaks forest in the sheltered and 5 times in the exposed, due to reduced wind speed by 31-55% in the shelter and by 10-15% in the exposed. -windbreaks crop protection forest shrinks diurnal amplitude of air temperature in the culture zone of 1-4 0C and the annual 1-2 0C; -windbreaks forest increase humidity and degree of ionization of the air at ground level, fertility and soil conservation protected area (pH change); -windbreaks forest reduce to stop deflation on sands and light soils, reduces the depth and duration of frost, evapotranspiration decreases; -windbreaks forest reduce the toxic gases from the atmosphere, storing the biomass 40 t / ha / year of carbon dioxide and producing 30 t / ha / year oxygen - agricultural production is a priority, and the forest is secondary; crops that are suitable for this system are cereals, soybean, sunflower, vegetables, meslin and other varieties of fodder and horticultural crops; -due to the reduction of evapotranspiration of plants, grain production in the protected area is larger by about 20%, even if a portion of the land is occupied by curtains. The project aims to increase the share of forest protection belts of farmland especially in EU countries that are or will be affected by aridity and drought phenomena	yes	Planning and organizing project started in 2015. The project will open in 2018.	2	0.8	Barriers -Lack of firm policies in legislative and financially supported. -Lack of pilot blocks that promote technical and economic advantages of using protective forest curtain of farmland. - The lack of specific scientific and technical advice and activities on the design, size and spatial location of windbreaks networks of agricultural fields, identification of technical characteristics and effectiveness, in relation to environmental, social and economic. Solutions -Specification improver effect of windbreak forrest about climate protection curtains on the stage framework for growth and development of plants. -Completion of protective benefits of the farm by harnessing the perimeters with degraded soils that can establish forest plantations.
Knowledge and the Digital Economy (agriculture)	Public R&D	Public	Upgrading wines experimental bases as main support implementation scientific for R & D in order to align with European standards	SCDVV Bujoru	This project comes Instead, let us solve a de facto state of research Romanian agricultural sector. By investing in machinery and equipment, rehabilitation of damaged buildings will be timely and quality all tillage and maintenance of vineyards responding to the needs in research vines; - To exploit the potential of solar; -to exploit the potential of the soil; -to exploit the potential of cultivated varieties. Investments in modernization / set up of new plantations of vines will create the experiment that answers the demands of quality wine	No	Being a project duration, start proposal investment plan in 2015 and its completion in 2019	2	1	Stimulating investment across the EU; -development infrastructure technology transfer; - Strengthening the innovation chain; -realization clusters and European network connection profile.
Knowledge and the Digital Economy (agriculture)	Public R&D	Public	Developing a milk processing center for research and development activities	Research and Development Station for Cattle Breeding dancu-Iaşi,	The project will develop a new center, a modern for collecting of milk produced in own farm for processing and direct commercialization to various beneficiaries in accordance with the requirements and European regulations. The space created will be provided with equipment for quality control and sanitation of raw milk, which will be useful for the research and	Yes	The start of center construction start expected in 2015 and will open in 2018	1.5	1	Deficiencies in providing long-term financing could lead to delays in achieving the objectives of this project. A combination of EC grands, EIB and MS Finance as well as Privatee capital is envisaged.
Knowledge and the Digital Economy (agriculture)	Public R&D	Public	Development of a pilot center for the production of renewable energy (biogas) of manure from cattle	Research and Development Station for Cattle Breeding dancu-Iaşi,	The project has as main objective the development of a Biogas pilot station for anaerobic treatment of manure and vegetable waste for obtaining renewable energy. Considering the environmental problematics and specific activity of research and development of own units, the building a biogas pilot station represents an efficient solution to resolve current environmental problems, a good pilot center for demonstration of the feasibility of such a project, training specialized personnel in the operation of such production units, as well as a source of revenue growth.	Yes	The start of center construction start expected in 2015 and will open in 2018	1.5	1	Deficiencies in providing long-term financing could lead to delays in achieving the objectives of this project. A combination of EC grands, EIB and MS Finance as well as Privatee capital is envisaged.

Knowledge and the Digital Economy (Animal	Public R&D	Public	Developing a growth sector of young cattle breeding females of high genetic value	Research and Development Station for Cattle Breeding dancu-	The project will develop a modern sector for breeding of young cattle female with high genetic value. It envisages the construction of a new space for young cattle, that it would provide the optimal conditions for achievement of growth and development indices and genetic potential.	Yes	The start of center construction start expected in 2015 and will open in 2018	2.5	2	Deficiencies in providing long-term financing could lead to delays in achieving the objectives of this project. A combination of EC grands, EIB and MS Finance as well as Privatee capital is envisaged.
Knowledge and the Digital Economy	Public R&D (oenology)	Public	Developing the available **CDI infrastructure** in the field of viticulture and wine-making	ICDVV Valea Calugareasc	Investments in vineyards; Modernizing the research-development buildings and laboratories	Yes	Planning and analysis stages The expected start of the project in 2015. The project will	2	1	Lack of financing Involvement of the relevant Ministries in the implementation of project
Knowledge and the Digital Economy (Agriculture)	Public R&D (oenology)	Public	Development of grafted material sector in viticulture	ICDVV Valea Calugareasc a	The project will provide a gradual develompent of grafted material sector in accordance with the national development strategy of viticulture and the EU regulations in order to avoid grapevine virus proliferation in EU. It will contribute also to spred the genuine Romanian varieties.	Yes	Planning and permitting in final stages. The expected start of the project in 2015. The project will open in 2018	1	0.8	Lack of long term finance. For this reason a contribution of Privatee capitals envisaged. A project management unit will supervise the project's planning and implementation în accordance with the financial resources under the close supervision of the Ministry of Agriculture and Rural
Knowledge and the Digital Economy	Public R&D (oenology)	Public	Laboratory for ecological of wines and juices evaluation and production using innovative technologies	ICDVV Valea Calugareasc	Building and putting into operation the high performance laboratory for ecological wines production using innovative technologies	Yes	Planning and analysis stages The expected start of the project in 2015. The project will	1.5	0.7	Lack of financing Involvement of the relevant Ministries in the implementation of project.
Knowledge and the Digital Economy (Agriculture)	Public R&D (Fishing and aquaculture)	Public	Center for research, diagnostics and conservation of living aquatic resources from fishing and aquaculture sector	ICdaPE Galati	Research Centre aims to develop collaborative, multidisciplinary research programs for development of complex systems of assessment and examination of the state of ecosystems and aquatic products and to assist technological processes from aquaculture. Systems will ensure the transfer of know-how in the field of biological quality assessment of aquatic ecosystems and their products and will support developing policies that ensure sustainable development of the fisheries sector.	No	Proposal	0.5	0.3	Insufficient funds / Acceptance to finance an objective of national and European interest that contribute to increasing the competitiveness of the fisheries sector
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Efficiency of potato seed storage of the superior biological categories through building a performance deposit	SCDC Targu Secuiesc	Modernization of existing research to improve the preservation of biological material with a capacity of 2000 tonnes potato seed	No	Planning and permitting in final stages - construction start expected in 2015. The projects will open in	0.45	0.45	Lack of long term finance + coordination and permitting problems, leading to possible delays.
Knowledge and the Digital Economy	Public R&D	Public	Production of seedling and seedling material in protected specialized environments aimed for droughty areas	CCDCPNdabuleni	Greenhouses specialized in producing engraftments and virus-free seeds of fruit trees and vines, aimed for the producers in the droughting areas.	No	Proposal	0.5	0.3	Lack of long-term funding/National and Structural Funds Planning for the project implementation and an efficient monitoring and oversight by the Contracting Authority.
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Build a system to allow the use of sandy soil likely to go arid for farming or forestry purposes by a reengineered irrigation	CCDCPNdabuleni	Retechnologization of the irrigation system adjusted to the climate change and the type of farming operation.	No	Proposal	1	0.5	Lack of long-term funding/National and Structural Funds Planning for the project implementation and an efficient monitoring and oversight by the Contracting Authority.
Knowledge and the Digital Economy (Agriculture)	Public R&D (Horticultu re - Fruit Growing)	Public	Increase of technical and economic competitiveness in the rural area of South Muntenia Regional Development by fruit growing developing	ICDP Pitesti Măräcineni Regional Operational Programme -ROP	Implementation of research results (varieties, new technologies and / or upgraded) in order to obtain a high technological level in the small and medium fruit growing farms. South-Muntenia Region includes the counties of Arges, dambovita, Prahova, with tradition and favorable soil and climate conditions for most spreaded fruit growing species; The project include investment in orchards, storage and infrastructure for fruit processing.	Yes	Planning and permiting in the regional strategy	0.5	0.25	Lack of long-term funding (especially for perennial species). Credit mechanisms for farmers and possibilities of financing for small farmers to support cofinacing of the project.
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Integrated system to control the harmful agents in cereal and horticultural crops by reducing the pesticides	Development Institute for Plant Protection	Develop sustainable plant protection systems by ecological management of pests in cereals and horticultural crops to reduce the pesticides use and ensure a safe yield, both quantitatively and qualitatively. The project will promote the EU requirements and legislation on sustainable agriculture and food safety.	No	Waiting for the investment decision	4	2.5	Lack of the financing of the project / A contribution of EC , national budget and Privatee capital is envisaged.
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Developing Low Input Sheep Composite Breeds in Eastern and Southern Europe	Research and Development Station for Sheep and Goats from Caransebes, Romanian Academy for Agricultural and Forestry Sciences, Ministry of Agriculture and Rural	Project aims to develop new low-input sheep composite breeds. Genotypes that are well adapted to the local conditions and which to outperform the local unimproved, rustic breeds found in E and S Europe. Dual purpose genotypes are to be developed (meat and dairy), making full use of the modern biotechnological tools for the genomic selection (e.g. for scrapie, ß-lactoglobulin from milk, parasitism resistance). The Caransebes R&D station has developed recently two such composite breeds, that are kept under experimental production conditions.	No	Planning for large scale project Small scale trials implemented since 2012 Start expected date 2015	1.2	1.2	In E and S Europe, over 85% of the sheep are being reared in Less Favoured Areas (LFAs) as defined in Dir.75/268/EEC. Breeds used are generally unimproved and well adapted to the environment. However, production levels (meat and milk) are significantly lower, compared to ones registered in C and W Europe. Making thus the industry noncompetitive in the region. Development and introduction of new composite breeds would have an important economic and social impact on the sheep industries from E and S Europe.
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	SEVSSE	INMA Bucharest	Complex evaluating system of security and safety level and environment impact on technologies and technical equipment used in agriculture, transport and food industry, will allow to increase the technical and economic efficiency of companies in the field for Romania as well as for riverside countries BG, HU, MD, Ucraina	No	According to INMA strategy the project will start in 2015	1.5	1	Lack of rhythmic financing of project stages

Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Development and implementation of an program to increase and improve meat production of sheep in Dobrogea.	ICDCOC Palas Constanța	Aim of the project is to redirect the sheep growth towards meat production given the requirements for mutton in the EU and potential of Romanian sheep breeds .	No	The project builds on the results of scientific research of the specialized research units and is expected to start in 2015 with a duration of three years.	200	200	**Barriers:** **The emergence of epizooty (such as bluetongue) that can stop in 2015 the beginning of the project** **Unclear situation on the organization and financing of the specialized research units which are a key factor in the project.** **Solutions:** Core funding (salaries and utilities) of the specialized research units Strengthening the cooperation between research units and National Agency for Animal Breeding and Reproduction, Ministry of Agriculture and Rural Development ,breeders associations.
Knowledge and the Digital Economy	Public R&D	Public	Investments in increased capacity of CDI	INCDCSZ Braşov	A. Laboratory equipment	No	The domains for investment have been established and proposed for approval	0.6	0.6	Lack of medium and long term financing structure of CDI can cause shortages and delays in solving problems involved in agri-food chain. Making the investment value and the required deadline ensures overcome barriers mentioned above.
Knowledge and the Digital Economy	Public R&D	Public	Investments in increased capacity of CDI	INCDCSZ Braşov	B. Field equipment for precision agricultureand experimental fields	No	The domains for investment have been established and proposed for approval	0.6	0.6	Lack of medium and long term financing structure of CDI can cause shortages and delays in solving problems involved in agri-food chain. Making the investment value and the required deadline ensures overcome barriers mentioned above.
Knowledge and the Digital Economy	Public R&D	Public	Investments in increased capacity of CDI	INCDCSZ Braşov	C. Rehabilitation sorting hallsand deposit researchfor the experimental material	No	The domains for investment have been established and proposed for approval	0.625	0.625	Lack of medium and long term financing structure of CDI can cause shortages and delays in solving problems involved in agri-food chain. Making the investment value and the required deadline ensures overcome barriers mentioned above.
Knowledge and the Digital Economy	Public R&D	Public	Investments in increased capacity of CDI	INCDCSZ Braşov	D. Rehabilitation ofexperimental animal selection infrastucture	No	The domains for investment have been established and proposed for approval	0.75	0.75	Lack of medium and long term financing structure of CDI can cause shortages and delays in solving problems involved in agri-food chain. Making the investment value and the required deadline ensures overcome barriers mentioned above.
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Securing environment, food and seed value chains by upgrading vegetable research. Vegetable Research and Development Station Buzau	Vegetable Research and Development Station Buzau	The project aims to develop new technology in order to ensure adaptation to climate changes, to reduce the negative impact of agricultural inputs and to enhance food security by strengthening the sustainable management of plant for food and agriculture.	No	Planning	0.5	0.5	**Barriers** Limited financial resources (in present) **Solutions** The main ***innovation potential of project*** is connected to its inter-disciplinary methodological approach addressed to work in-chain **Solutions** The main ***innovation potential of project*** is connected to its inter-disciplinary methodological approach addressed to work in-chain
Knowledge and the Digital Economy	Public R&D	Public	Investments in increased capacity of CDI	Vegetable Research and Development Station Buzau	Rehabilitation ofexperimental infrastucture and research laboratory	No	Planning	0.45	0.45	Lack of medium and long term financing structure of CDI can cause shortages and delays in solving
Knowledge and the Digital Economy	Public R&D	Public	Research in horizontal and vertical greenhouse who utilize neconventional energy	Vegetable Research and Development Station Buzau	Multiplication of breeding material; 5000 sqm divided in 10 compartments with possibility of control for climatic factors (temperature, relative air humidity, light) for breeding and plant protection purposes; cover with	No	Planning	1	1	**Barriers** Limited financial resources (in present) **Solutions** The main ***innovation potential of project*** is connected to its inter-disciplinary methodological
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Glasshouse complex for research-development activity	ICDLF Vidra	Total area – 1 ha; 5000 sqm for multiplication of breeding material; 5000 sqm divided in 10 compartments with possibility of control for climatic factors (temperature, relative air humidity, light) for breeding and plant protection purposes; cover with polycarbonate; height 4,5 – 5 m; heating source: GAS. This objectiv will include also a chamber with refrigerating system for storage of genetic resources and a special Laboratory for	No	Construction start expected in 2015; the project will open in 2016	25	15	In order to avoid the deley, a project management unit will supervise the project´s planning and implementation
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Securing environment, food and seed value chains by upgrading vegetable research	Vegetable Research and Development Station Bacau	The project aims to develop new genotypes and specified technology in order to ensure adaptation to climate changes, to reduce the negative impact of agricultural inputs and to enhance food security by strengthening the sustainable management of plant genetic resources for food and agriculture.	No	Planning	3.9	2.8	Barriers Limited financial resources (in present) Solution**s** The main ***innovation potential of project*** is connected to its inter-disciplinary methodological Approach addressed to work in-chain Main outcomes: - economical routes to develop sustainable PGR-based food and seed systems, taking into account consumers' perceptions and local farmers needs; - the creation of thematic networks aimed at promoting the durable use of local PGR.
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Laborator for the mainetenance of mushroom strain collection and experimental spawn testing	ICDLF Vidra	At the moment, in Romania, there is no research unit with advanced ecquipment destinated for preserving and propagateing pure cultures of mushroom strains. The purpose of the project is to set up a modern laborator for maintenance of the cultivated mushroom straines (germoplasm bank) and for producing experimental spawn. The lab will have a sterile zone (clean room) for Collection and the work with stock-, and mother- pure cultures. Microtrials with experimental spawn will be conducted in a separate distinctive section of the lab, a small mushroom unit with three cubicles well equipped for incubation and fruiting tests	No		3	3	Problems are possible to appear from the authorities bureaucratic way of solving different administrative and financial aspects dealling with full implementation of this proposal. We have specialists with good expertise and experience in developing this kind of projects at our institute and we have a strong commitment to overcome all the difficulties

Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Upgrading buffalos farm in relation with precision livestock farming and buffalo welfare	SCDCB Şercaia	It will upgrade the farm of the Research Institute in order to ensure the welfare and efficiency of the activity. It will implement precision livestock farming system. All technologies will be modernized so that it can control all technical and economic indicators of the farm	No	Proposal	2.5	1.5	
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Increasing the research and development capacity in production and maintenance of horticultural propagating material of superior	NRDIBH Stefanesti-Arges	Developing an integrated system for producing and maintaining of the horticultural propagating material from superior biological categories in order to achieve the excellence in horticulture field	Yes		3.5	2	Ensuring the technical and material basis required to implementing the national/regional strategies for horticulture development
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Modernization of the farming vehicle park and equipment.	Ministry of Agriculture SCDA Suceava.	Investment plan to equip the unit with highly performing farming machinery needed in the biologic material generation process (seed) from higher biological chain links	No		0.5	0.2	The modernization of the farming vehicle and equipment park of the unit creates the premises for obtaining the seeds and planting material from superios biological links for the ecologic area served by SCDA Suceava.
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Study of grain biotypes with high ecological plasticity in conditions of heat stress and high fluid in central Transylvania	SCDB Tg. Mures	Comparative crops setting lines and varieties of cereals (wheat, triticale, maize) and study on resistance to major stressors: illness, heat and drought.	Yes	Variety testing 2015-2017	0.25	0.25	
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Testing and analyzing of new species of fooder plant applying in beef cattle and milking cow feeding (sorghum grain	SCDB Tg. Mures	Set up of lots of young females and males to feed on corn silage and concentrates in parallel batches of soybean silage and concentrates.	Yes	Variety testing 2015-2017	0.35	0.35	
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Research on special skills for harnessing meat production technology "Simmental Romanian Spotted breed " cow exploited	SCDB Tg. Mures	Technology development operation "cow meat" by synchronizing calving in February-March period, the use of grazing for cows with calves in the period from May to October and exploitation for meat and cows reformed youth gained during November-December.	Yes	Year 2015: Founding a cultivated pastures Year 2016 : Acquisition of animals Year 2017 : Arranging shelter on pasture	1.6	1	
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Extensive development of technologies for the production of bovine meat for Gallowai breed in climatic conditions in central	SCDB Tg. Mures	Development of mining technologies for meat by simple solutions for housing and feeding the capitalization of secondary resources and mountain pastures for Gallowai breed.	Yes	Year 2015 : Arranging shelters Year 2016 : Acquisition of animals Year 2017 : Purchase of agricultural machinery	1.5	1	
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Preservation of genetic fund local of breed Pinzgau of Transylvania	SCDB Tg. Mures	Creating a core of Transylvania Pinzgau cows by tracking and acquisition of households and growth plan development and conservation of the nucleus.	Yes	Year 2015 : Detection and acquisition of animals Year 2016 : Arranging sheltersYear 2017 : Purchasing agricultural machinery	2	0.9	
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Referential laboratory for molecular genetics of microorganisms, agricultural plants and domestic animals	Academy for Agriculture and Forestry Sciences	Large scale molecular selection and GMO transformation to obtain resistant and efficient germoplasm to the climatic change impact, with high productivity potential in low inputs resources	No	Proposal	6	2.5	Barriers: Lack of funding Solution: Structural and national funds
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Green house to testing soil microorganism efficiency in conservation of soils fertility	Academy for Agriculture and Forestry Sciences	Selection of the most efficient specialize microorganisms responsible for the fertility of soils under climatic change impact	No	Proposal	2	0.5	Barriers: lack of large scale research concerning the soil microorganism that improve/conserve the soil fertility in different climatic region of Romania; special high-protected green house for efficiency testing Solution: Structural and national funds Efficient monitoring and supervising by Implementing Authority
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Green house to pest management considering the climate changes.	Research Development Academy for Agriculture and Forestry Sciences	Dynamics of the crops pest of agricultural interest is strongly influenced by climate change. Developing monitoring systems for the pest in these conditions is of major interest to ensure effective protection of crops from both economically and environmentally point of view. The study of the pest will be provided by experimenting different climatic scenarios, under controlled greenhouse conditions.	No	Proposal	2	0.5	Barriers: Lack of funding Solution: Structural and national funds
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Upgrading wines experimental bases as main support implementation scientific for R & D in order to align with European standards	Academy for Agriculture and Forestry Sciences SCDVV Dragasani	This project comes Instead, let us solve a de facto state of research Romanian agricultural sector. By investing in machinery and equipment, rehabilitation of damaged buildings will be timely and quality all tillage and maintenance of vineyards responding to the needs in research vines; - To exploit the potential of solar; -to exploit the potential of the soil; -to exploit the potential of cultivated varieties.	No	Being a project duration, start proposal investment plan in 2015 and its completion in 2019	2	1	Stimulating investment across the EU; -development infrastructure technology transfer; - Strengthening the innovation chain; -realization clusters and European network connection profile. Barriers: Lack of funding Solution: Structural and national
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Improvement of the research& development infrastructure concordant with EU standards	SCda Şimnic	Allow the elaborate of some competitive research projects at European level also contacts of European partners interested in specific topics of the homegrown climatic condition. This has to consolidate also the existent infrastructure that is vital condition inside the competition with Universities and Agricultural Research Institute with higher financial, material and human resources	No	Partially Expectative for POSCCE-Az-0.2.2.1-2013- 1 competition	2	2	Financially sources are created based on the approved lows representing reallocated sums of state resources, external support and local money if is possible. Actual tendency of financial contraction at agricultural research inside public institutions is a major factor leading to significant modifications of objectives, mission and actual strategy of the Romanian research activity.

Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	Modernisation and upgrading research infrastructure to maintain genetic background vegetable species in	S.C.D.L. Iernut	Sustainable growth of competitiveness of research in the area of improving, maintaining gene pool and producing new varieties of vegetable species in the Central Region of the country.			0.95	0.95	Modernization research laboratories in accordance with European standards of research, provision of high performance equipment.
Knowledge and the Digital Economy (Agriculture)	Public R&D	Public	The increase of research – development capacity through research – development infrastructure modernization at ARDS Secuieni	SCDA Secuieni	The extension and modernization of research laboratories, equipment acquisition for the experimental fields, primary processing of yields in order to expand the research area and to deepen the existing researches, cooperation development with Research – Development institutions from EU. The increase of research capacity by develop the research – development infrastructure will contribute to the researches extension in breeding domain in order to obtain new varieties and hybrids of textile plants, cereals, medicinal and aromatic plants so as to conserve biodiversity, soil fertility and agro ecosystems protection.	No		3.2	3.2	
Knowledge and the Digital Economy	Public R&D	Public	Development of the research infrastructure through the operationalizing of the Research Development Centre – for the specific field	Ministry of Internal Affairs	Developing the infrastructures of R&D in the specific field	No	The project will by applied to be funded from FESI	20	8	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	Public R&D	Public	Development of the research infrastructure through the operationalizing of the National Operational Center	Ministry of Internal Affairs	Developing the infrastructures of R&D in the specific field	No	The project will by applied to be funded from FESI	20	8	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	Implementing a national unitary system for issuing documents for the asylum applicants, for the tolerate foreigners and management of the files in order to ensure efficient public services	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will by applied to be funded from FESI	10	3	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	InfoPOL- proactive and reactive IT solution ensuring a bidirectional communication for citizens and businesses with the Romanian	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will by applied to be funded from FESI	11	3	The project will be financed only if the management authority agrees the project
Knowledge and the Digital	ICT Infrastructure	Public	Privatee Cloud and Businesses Continuity to the Romania Police	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will by applied to be funded from FESI	40	9	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	Implementing a national on line system to registration of the foreigners to the Romanian territory and a Backup solution and Businesses Continuity, in order to ensure a	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will by applied to be funded from FESI	10	2	The project will be financed only if the management authority agrees the project
Knowledge and the Digital	ICT Infrastructure	Public	Implementing an ERP solution to the Ministry of Internal Affairs level	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will by applied to be funded from FESI	25	8	The project will be financed only if it passes the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	Implementing a master data management solution designed for informational flow of the intelligence products	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will by applied to be funded from FESI	14	8	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	Modernization and extension of the PKI platform in order to ensure a high level e-government services and authentication in all IT system at MAI level	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will be applied to be funded from FESI	10	8	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	Implementing a data Center (Centre for proving IT services), with Backup &Disaster Facility Recovery&	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will by applied to be funded from FESI	50	10	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	Developing of the Tetra subsystem within the Common Tetra Platform and increasing the interoperability of the	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will by applied to be funded from FESI	16	10	The project will be financed only if the management authority agrees the project

Knowledge and the Digital Economy	ICT Infrastructure	Public	Increase the operational capacity of the public order and safety structures through the extension of the DIPI IT system and ensuring their interoperability with similar EU	Ministry of Internal Affairs	Developing the IT&C infrastructeres	No	The project will bw applied to be funded from FESI	20	10	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	Developing the IT&C infrastructures, use of modern electronic services in order to simplified the process and speeds the	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will byapplied to be funded from FESI	12	3	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	Improving the public services provided by IGI through the interconnection of the SIMS system with MAE	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will by applied to be funded from FESI	11	3	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	Modernization of the integrated Communication network Voce date-Video at MAI level (RCIVDV) in order to ensure the transport capacity and availability reguired by MAI IT systems in order to increase administrative efficiency and effective	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will by applied to be funded from FESI	22	10	The project will be financed only if the management authority agrees the project
Knowledge and the Digital Economy	ICT Infrastructure	Public	Implementing a e-learning system at the MAI and its structures	Ministry of Internal Affairs	Developing the IT&C infrastructures	No	The project will bw applied to be funded from FESI	28	10	The project will be financed only if the management authority agrees the project
Knowledge and the digital economy	ICT Infrastructure	Public	Support system for Enterprise Architecture Unit - National Registry of Information Systems(NRIS), Registry of Data and Metadata	Ministry for Information Society	The NRIS will hold information such as: Implementing Unit, Description, Financing Sources, Technical Components, Provider, Integration points with other National Systems, Status in Project Lifecycle, Public Services Portfolio etc.	Included in Digital Agenda for Romania Strategy	Planning Stage	13	13	Barriers: - Understanding the Romanian Government IT ecosystem - Having the necessary information to understand impact of strategies - Having the necessary information for decision making entities (Enteprise Architecture Unit, Technical-Economical Committee) **Solutions:** - Active Knowledge Management database that will be filled with information at the pace of new systems or upgrades projects are revised by Technical-Economical Committee / EAU
Knowledge and the digital economy/Social Infrastructure	ICT Infrastructure /Health	Public	Medical Information Exchange Hub	Ministry of Health in partnership with Ministry for Information Society	Information exchange system that provides semantic integration and interoperability and acts as an information broker for all actors in health system	Included in Digital Agenda for Romania Strategy	Planning Stage	15	15	Barriers: - Fragmented ecosystem (Health Insurance Systems, Telemedicine, etc.) **Solutions:** - Information Broker that acts as a service registry between hospital information systems, central systems and private
Knowledge and the digital economy	ICT Infrastructure	Public	Big Data implementation	Ministry for Information Society in partnership with Romanian Information Services, Ministry of Finance and , Ministry of Health, Ministry of	Systems that use Big Data techniques and procedures for structured and unstructured data in the following domains: Fiscal, Health, Culture, Education	Included in Digital Agenda for Romania Strategy	Planning Stage	30	30	Barriers: - Low credibility of Big Data solutions over structured and un- structured data **Solutions:** - Systems that can prove the feasibility of Big Data on big data sets and create awareness on the information that can be extracted from Big Data techniques
Knowledge and the digital economy	ICT Infrastructure	Public	e-Inclusion Platform	Ministry for Information Society in partnership with Ministry of Education and Ministry of Labour	e-Inclusion Platform for developing digital skills, creating collaborative content and sharing experiences for teachers, volunteers and excluded communities. This platform may be accessed through developing PAPI (public point of access of Information) or other points of access (local libraries etc.)	Included in Digital Agenda for Romania Strategy	Planning Stage	25	25	
Knowledge and the digital economy	ICT Infrastructure	Privat	Development of e-government services using the Romanian Post network	National Company Romanian Post	Supplying an informatics platform to be used for e-government services through the Romanian Post network	Included in Digital Agenda for Romania Strategy	Planning stage	30	30	The National Company Romanian Post is during the privatization process. The proposed project will help increase the Romanian Post value in the privatization process. Lack of short term finance + lack of extended support from the administrations part. The extended, unique, alternative platform for offering e-government services will make the transition to the digital economy in the rural area and will help the administration come closer to the citizens and the businesses. The proposed poject will benefit in time

Knowledge and the digital economy	ICT Infrastructure	Privat	Developing e-commerce by increasing online accessibility and removing delivery barriers (In accordance with the European Commission Green paper no 698 from	National Company Romanian Post	Integrated solution for the Romanian Post to adhere to the E-commerce Interconnected Platform services and for the Romanian Post to supply quality services of parcel delivery	Included in Digital Agenda for Romania Strategy	Planning stage	60	60	Lack of finance on short term A combination of EC grants EIB would be the best financing solution. A project management unit will supervise the project's planning and implementation.
Knowledge and the digital economy	ICT Infrastructure	Public	Implementing multiple payment facilities for eGovernment Services and bringing a number of life events to 5th level of sophistication	Ministry for Information Society	Offering the possibility to citizens and business environment to pay required taxes for eGovernment Services by diverse means - such as SMS, mWallet, online payments, credit lines etc.	Included in Digital Agenda for Romania Strategy	Planning Stage	15	15	
Knowledge and the digital	ICT Infrastructure	Public	Cybersecurity systems for Critical Information Systems	Ministry for Information Society	Implementing the required cybersecurity systems (both from a protection and from an analytics perspective) in order to meet the strategic objectives as stated in the Digital Agenda	Included in Digital Agenda for Romania Strategy	Planning Stage	35	35	
Knowledge and the digital economy	ICT Infrastructure	Public	Cloud Computing in Romania	Ministry for Information Society	Implementing the required systems (integration layer, marketplace, cloud orchestration, PaaS, IaaS and SaaS) for datacenter consolidation strategy, as stated in the Digital Agenda	Included in Digital Agenda for Romania Strategy	Planning Stage	20	20	
Knowledge and the digital economy	ICT Infrastructure	Public	OER and Web 2.0 Curricula Systems	Ministry for Information Society in partnership with Ministry of	Project for developing OER resources and Web 2.0 on learning and evaluation for pupils and students	Included in Digital Agenda for Romania Strategy	Planning Stage	30	30	
Knowledge and the digital economy/Social	ICT Infrastructure/Educati on and Training	Public	Extra-curricula systems for innovation in learning in pre-universitary education	Ministry for Information Society in partnership with Ministry of	Project for developing the resources used as support for extracurricular networking activities (creation camps, experience exchange, visits of international study and e-Holiday project)	Included in Digital Agenda for Romania Strategy	Planning Stage	20	20	
Knowledge and the digital economy/ Social Infrastructure	ICT Infrastructure /Health	Public	Extension of medical information systems and developing of an integrated system for medical data	National House for health insurances, Ministry of Health in partnership with Ministry of Interior and Ministry for Information Society	Create the interoperability between databases and systems from all medical units/entities	Included in Digital Agenda for Romania Strategy	Plannin g Stage	20	20	
Knowledge and the digital economy/ Social	ICT Infrastructure /Health	Public	Telemedicine for the emergency units	Ministry of Health in partnership with Ministry of Interior and Ministry for Information Society	Integrated project for emergency units and healthcare providers using telemedicine	Included in Digital Agenda for Romania Strategy	Planning Stage	18	18	
Knowledge and the digital economy/ Social	ICT Infrastructure /Health	Public	Teleimaging system	Ministry of Health in partnership Ministry for Information Society	Integrated project for gathering and exposing medical image data	Included in Digital Agenda for Romania Strategy	Planning Stage	15	15	
Knowledge and the digital economy/ Social	ICT Infrastructure /Health	Public	Teleconsulting system	Ministry of Health in partnership Ministry for Information Society	Integrated project for teleconsultation from medical specialists	Included in Digital Agenda for Romania Strategy	Planning Stage	15	15	
Knowledge and the digital economy/ Social	ICT Infrastructure /Health	Public	Telemedicine for home care	Ministry of Health in partnership Ministry for Information Society	Integrated project for gathering home care data and using it to improve medical services	Included in Digital Agenda for Romania Strategy	Planning Stage	50	50	
Knowledge and the digital	Public R&D	Public	Libraries as a focal point for community development	Ministry of Culture in partnership with Ministry for Information Society	Developing services for libraries so that they form a central information hub (knowledge centers)for the development of communities.	Included in Digital Agenda for Romania Strategy	Planning Stage	15	15	
Knowledge and the digital economy	Public R&D/ICT Infrastructure	Public	Support systems for virtual clusters for research and development in smart specialization domains	Ministry for Information Society	Support systems for virtual clusters (collaboration, integration, common development environment etc.) for introduction of ICT innovative products and services in smart specialization domains	Included in Digital Agenda for Romania Strategy	Planning Stage	20	20	
Knowledge and the digital economy	ICT Infrastructure	Public	Fast and ultrafast Broadband infrastructure development (NGN)	Ministry for Information Society Local administrations Communications infrastructure	Ensure access to Internet at 30 Mbs per each Romanian household	Included in Digital Agenda for Romania Strategy	Planning Stage	500	500	
Knowledge and the digital	Public R&D/Privat e R&D	Public/Private	Seed capital program	Department for SMIs, Business enviroment and	Development of programs to suport inovative spin-of and start up	Yes		20	20	The main barrier is financing. Solution is finding sources of financing.
Knowledge and the digital	Public R&D/Privat e R&D	Public/Private	Venture capital Program	Department for SMIs, Business enviroment and	Development of programs to suport inovative spin-of and start up	Yes		20	20	The main barrier is financing. Solution is finding sources of financing.
Knowledge and the digital economy	ICT Infrastructure	Public	Data Centres	Ministry of Transport – represented by Telecomunicatii CFR	The project will developing a data centre for ensure safe communications for all public authority, company and public institution, which are under the coordination and authority of Ministry of Transport and backup for railway communications.	No	Planning and permitting in final stages – construction start expected in 2015. The projects will open in	2.9	2.9	Lack of long term finance and coordination, leading to possible delays. A combination of EC grants. A project management unit will supervise the project's planning and implementation under the close supervision of the promoter and the relevant Ministries

Knowledge and the digital economy	ICT Infrastructure	Public	Broadband	Ministry of Transport – represented by Telecomunicatii CFR	The project will developing broadband services for passenger and freight trains as well as railway stations, such as internet service, information for passenger, emergency call, video surveillance, control of trains	No	Planning and permitting in final stages – construction start expected in 2015. The projects will open in 2018.	90	70	Lack of long term finance + coordination and permitting problems, leading to possible delays. A combination of EC grants. A project management unit will supervise the project's planning and implementation under the close supervision of the promoter and the relevant Ministries
Knowledge and the digital economy	Public R&D	Public	Romanian mulți annual programme of micro industrialization	Department for SMIs, Business enviroment and tourism	It is a minimum scheme for supporting investments în production/IT în order to increase workload and competitiveness SMEs în this sectors. The minimis aid is maximum 100.000 euro /SMEs for purchaising equipments . 833 SMEs will be supported . The access to the programme is online. The applicants fill online their investment plan. The main condition for approving financing is creation at least 3 new jobs / SME means at least 2500 new jobs /year. The teams from territorial offices introduce online the results of evaluation, sign the agreements and monitore SMEs. The team from General Directorate for antreprenorial politics centralize evaluation data, , follow implementation and payments and report to the Competition Council.The total budget includes 100000 euro costs for implementiung programme on 2015-2017	not yet	Proposal	250	250	The main barrier is financing. Solution is finding sources of financing.
Knowledge and the digital economy	ICT Infrastructure	Public	Integrated electronic information systems – ERP	Național Office for Gambling	Integrated information system including all information flow at NOG level	No	Implemention system în 2015	2	2	A blend of subsidies of EC, EBRD and other states membre. An PMU will monitor the poject planning and implementation under the supervision of the beneficiary and the General Secretariat of the Government
Transport	Corridors and missing links	Public	Cross border links	Ministry of Transport – represented by Telecomunicatii CFR	In order to improve the interchange capacity through the western and South- Eastern Romanian interface, the netwrok in the area is considered for reinforcement: LEA 400 kV Portile de Fier – Resita and the expansion of the station 220/110 kV Reșița by building a new unit of 400 kV+shift to 400 kV of LEA 220 kV d.c. Reșița –Timișoara – Săcălaz – Arad, including building the units of 400 kV Timișoara and Săcălaz. This project improves the interchange capacity at the RO-HU-RS border; intensifies the N-S Corridor from N-E Europe to S-E Europe via Romania and in conjunction with other European projects it could help creating the 400 kV electricity transport corridor from Romania to Italy (via the submarine cable ME-IT).	No	Planning and permitting in final stages – construction start expected in 2015. The projects will open in 2018.	14.7	9.5	Lack of long term finance + coordination and permitting problems, leading to possible delays. A combination of EC grants. A project management unit will supervise the project's planning and implementation under the close supervision of the promoter and the relevant Ministries.
Transport	Other	Public	Increasing traffic safety by developing a system of regional centers video monitoring in areas with high crime on thefts of railway infrastructure	Ministry of Internal Affairs	Infrastructure	No	The project will by applied to be funded from FESI	100	100	The project will be financed only if the management authority agrees the project
Transport	Other	Public	Increasing traffic safety through the establishment of the Regional Center for Video Monitoring of the road traffic on TEN-T	Ministry of Internal Affairs	Infrastructure	No	The project will by applied to be funded from FESI	100	100	The project will be financed only if the management authority agrees the project
Transport	Urban Transport	Public	Metro Line 5. section I Drumul Taberei-Universitate. Ext. I 1991, HG 1259/1990, HG 1114/2003 (EIB IV), HG 1419/2008	MINISTRY OF TRANSPORT S Metrorex	The Project is related to the execution of a new metro line for urban public transport under safety and comfortable conditions. The Project will increase the mobility and the use of public urban transport. The Project will bring significant non-financing benefits, such as: reduced travel time, reduced stress due to road traffic jams, reduced number of accidents in traffic by decreasing the number of vehicles running at surface level, reduced carbon gas emissions since the number of vehicles running at surface will decrease etc. Length: 9 km, No. of stations: 14	Yes	2011 – 2016	774	645	
Transport	Urban Transport	Public	Metro Line 5. Section II. Universitate - Pantelimon. Ext. II 2010, HG 525/2008 (EIB IV)	MINISTRY OF TRANSPORT S Metrorex	The Project is related to the execution of a new metro line for urban public transport under safety and comfortable conditions. The Project will increase the mobility and the use of public urban transport. The Project will bring significant non-financing benefits, such as: reduced travel time, reduced stress due to road traffic jams, reduced number of accidents in traffic by decreasing the number of vehicles running at surface level, reduced carbon gas emissions since the number of vehicles running at surface will decrease etc. Length: 8 km, No. of stations: 13, 1 Depot	Yes	2015 – 2020	1028	1028	

Transport	Urban Transport	Public	Extensions to Bucharest metro network, Section I Nicolae Grigorescu 2 - Anghel Saligny and Section II Gara de Nord 2 - Basarab - Laminorului - Lac Straulesti Extension Parc Bazilescu - Lac Străulești Metro Line IV - extensions Ext.IV	MINISTRY OF TRANSPORTS Metrorex	The Project is related to the execution of a new metro line for urban public transport under safety and comfortable conditions. The Project will increase the mobility and the use of public urban transport. The Project will bring significant non-financing benefits, such as: reduced travel time, reduced stress due to road traffic jams, reduced number of accidents in traffic by decreasing the number of vehicles running at surface level, reduced carbon gas emissions since the number of vehicles running at surface will decrease etc. Length: 1,3 km, No. of stations: 2 + 1 Depot + Park & Ride Intermodal Node	Yes	2012-2016	203.9	86	
Transport	Urban Transport	Public	Bucharest International Airport Rail Access Link Project (Metro Line 6. 1 Mai - Otopeni) (Financed under Loan Agreement signed with JICA - Proposed to be financed under EU non-reimbursable financing program 2014-2020), HG 1030/2009	MINISTRY OF TRANSPORTS Metrorex	The Project will bring significant non-financing benefits, such as: reduced travel time, reduced stress due to road traffic jams, reduced number of accidents in traffic by decreasing the number of vehicles running at surface level, reduced carbon gas emissions since the number of vehicles running at surface will decrease etc. Length: 16 km, No of stations: 19 + 1 Depot. JICA financing: around Euro 332 milion (JPY 41.870 million) State Budget co-financing: Euro 723 million, no VAT included	Yes	2015 – 2020	1308.2	1308.2	
Transport	Urban Transport	Public	Modernisation of installations on Metro Lines I,II,III,TL, Ext.III 2004, HG 461/2004 (EIB III)	MINISTRY OF TRANSPORTS Metrorex	The modernisation of ventilation and control access installations are proposed to be financed under this Project. Proposed to be financed under non-reimbursable financing, namely to be included in the SOP-T 2007-2013. The Project will bring significant non-financing benefits, such as: reduced energy consumption by installations modernisation, increased safety and amenities conditions for passengers, reduced maintenance and repair costs etc	Yes	2015	341.88	50.3	
Transport	Urban Transport	Public	New metro trains	MINISTRY OF TRANSPORTS Metrorex	Procurement of 51 metro trains necessary to be put into operation on Metro Line 5. Drumul Taberei - Pantelimon.	No	2015-2020	434	434	
Transport	Urban Transport	Public	Improvement of urban public transport services with metro Stage I Improvement of urban public transport services with metro on Metro Line 2 BERCENI PIPERA - FS preparation (About to be approved	MINISTRY OF TRANSPORTS Metrorex	The modernisation of Metro Line 2 stations are proposed to be financed under this Project. Proposed to be financed under non-reimbursable financing, namely to be included in the SOP-T 2007-2013. The Project will bring significant non-financing benefits, such as: reduced energy consumption by installations modernisation, increased safety and amenities conditions for passengers, reduced maintenance and repair costs etc. Length: 18 km, No of stations: 14, No of new metro trains: 24.	No	2015-2017	497.33	497.33	
Transport	Urban Transport	Public	Metro Line 4. Gara de Nord - Gara Progresu	MINISTRY OF TRANSPORTS Metrorex	Technical characteristics: Length - 14 km, No. of stations: 14. The procurement of designing services for the preparation of the Pre- Feasibility Study and Feasibility Study is about to be launched. The PFS and FS preparation was proposed and approved by the State Secretariat for Economic Affairs (SECO) of Swiss Confederation and included on the list of objectives about to be financed under Swiss- Romanian Cooperation Programme to reduce economic and social disparities within the enlarged European. Completion period: to be agreed after studies financing.	No	2015	9.95	9.95	

Transport	Urban Transport	Public	Metro Line 7. BRAGADIRU-VOLUNTARI	MINISTRY OF TRANSPORTS Metrorex	This metro line will be executed in order to increase the passengers' mobility currently travelling on SW-NW direction. This line will inter-connect two of the most populated and crowded areas of the city, crossing the downtown. Also, will serve the SW residential neighbourhoods and the trade nearby Alexandriei ring road, and also Rahova and Ferentari neighbourhoods, connecting the downtown and NS area, Colentina – Voluntari. The execution of this line is proposed to be achieved under PPP solution. Route length: around 25 Km / no. of stations: 30, depot: 1. The execution period: to be agreed after studies financing. On 07.06.2012, further identification of certain contradictory aspects in the applicable legislation for PPP projects, the contract no. 56/2011 "Designing, consulting and technical assistance, legal and financial assistance services to prepare and carry out the bidding procedure to award the PPP contract for Metro Line 7 Bragadiru – Voluntari" (Line 7 PPP Project) ceased, until the PPP Law will be modified.	No		3100	3100	
Transport	Urban Transport	Public	Metro Line 2. Extension PIPERA	MINISTRY OF TRANSPORTS	Technical characteristics: Length - 1,6 km, No of stations 2.	No	2015-2020	168.64	168.64	
Transport	Corridors and missing links/Business enablers	Privat	Purchase of 50 bi-system 5600- 6000 kW electric locomotives (15 kV/16,7 Hz, 25 kV/50 Hz) fitted with ERTMS equipment	SNTFM "CFR - MARFĂ" S.A.	Interoperable locomotives able to run on electrified railway networks in system 15 kV/16,7 Hz (e.g. Austria) or 25 kV/50 Hz (e.g. Hungary).	No		200	140	
Transport	Corridors and missing links/Business enablers	Privat	Upgrading of 50 electric locomotives of 5100 kW in what concerns auxiliary services and power circuits	SNTFM "CFR - MARFĂ" S.A.	Interoperable locomotives able to run on 25kV/50 Hz system electrified railway networks (e.g. Hungary).	No		40	28	
Transport	Corridors and missing links/Business enablers	Privat	Purchase of 50 Diesel electric locomotives of 2400-3000 hp	SNTFM "CFR - MARFĂ" S.A.		No		170	119	
Transport	Corridors and missing links/Business enablers	Privat	Upgrading 50 Diesel electric locomotives of 2100 hp by replacing the Diesel–generator unit and the electric traction engine	SNTFM "CFR - MARFĂ" S.A.		No		78	54.6	
Transport	Corridors and missing links/Business enablers	Privat	Purchase of 30 Diesel hydraulic locomotives of 1250-1500 hp	SNTFM "CFR - MARFĂ" S.A.		No		60	40	
Transport	Corridors and missing links/Business enablers	Privat	Upgrading of 30 Diesel hydraulic 1250 hp locomotives by replacing the Diesel engine and the hydraulic transmission	SNTFM "CFR - MARFĂ" S.A.		No		21.6	14.4	
Transport	Corridors and missing links/Business enablers	Privat	Purchase of 200 Facnps type wagons for transport of rocks and stones (aggregates)	SNTFM "CFR - MARFĂ" S.A.		No		64	64	
Transport	Corridors and missing links/Business enablers	Privat	Purchase of 100 Laes type wagons for automotive transport	SNTFM "CFR - MARFĂ" S.A.		No		11.4	11.4	
Transport	Corridors and missing links/Business enablers	Privat	Upgrading 100 Rmms wagons and conversion into Shimmns type wagons for transport of coils	SNTFM "CFR - MARFĂ" S.A.		No		1.9	1.9	
Transport	Corridors and missing links/Business enablers	Privat	Equipment and laboratory for calibration of tank wagons	SNTFM "CFR - MARFĂ" S.A.		No		0.01	0.01	
Transport	Corridors and missing links/Business enablers	Privat	Equipment for sanding and painting freight railcars	SNTFM "CFR - MARFĂ" S.A.		No		0.01	0.01	

Transport	Corridors and missing links/Business enablers	Privat	eST	SNTFM "CFR - MARFĂ" S.A.	• Implementing the IT system related to the electronic consignment note at the level of the entire railway network in Romania, in around 100 railway stations with freight traffic, i.e. in the concerned offices in the branches and head office of CFR Marfă. • The electronic consignment note is required by the TAF- TSI interoperability standards. Also, in the latest version of the Convention on international railway transports (COTIF), currently under preparation and approval, it is specified that the electronic consignment note will become mandatory and the paper hard-copy transport documents can only be used in exceptional cases and if the parties to the transport contract shall agree thereupon. • The project requires the development of basic application and of applications allowing data transmission with other railway operators or customers, purchase of hardware andl multifunctional printers, purchase of basic software licenses (operating systems, antivirus software, browsers etc.), staff training and expenses resulted from the transition from paper consignment notes system to the	Nu	ongoing R&D	2	2	Lack of major investments as a result of the lack of financial resources and prioritization of other projects. Grants from the European Commission as well as company's own funds can be considered. The project is coordinated by a commission setup for that purpose and it is supervised by a project manager
Transport	Corridors and missing links	Privat	Modernization of the ferry- boat Eforie	SNTFM "CFR - MARFĂ" S.A.				8	8	
Transport	Corridors and missing links	Privat	Modernization of the ferry- boat Mangalia	SNTFM "CFR - MARFĂ" S.A.				8	8	
Transport	Corridors and missing links/Bussiness	Privat	Modernization of the transcontainer terminal of Bucureştii Noi	SNTFM "CFR - MARFĂ" S.A.	purchase of 40 tf transtainer crane, concrete platform of minimum 750 mm, Kalmar			5	5	
Transport	Corridors and missing links/Bussiness	Privat	Modernization of the transcontainer terminal of Bucureşti Sud	SNTFM "CFR - MARFĂ" S.A.	purchase of 40 tf transtainer crane, concrete platform of minimum 750 mm, Kalmar			5	5	
Transport	Corridors and missing links/Bussiness	Privat	Modernization of the transcontainer terminal of Bacău	SNTFM "CFR - MARFĂ" S.A.	purchase of 40 tf transtainer crane, concrete platform of minimum 750 mm, Kalmar			5	5	
Transport	Corridors and missing links/Bussiness	Privat	Modernization of the transcontainer terminal Turda	SNTFM "CFR - MARFĂ" S.A.	purchase of 40 tf transtainer crane, concrete platform of minimum 750 mm, Kalmar			5	5	
Transport	Corridors and missing links/Bussiness	Privat	Modernization of the transcontainer terminal of Bascov	SNTFM "CFR - MARFĂ" S.A.	purchase of 40 tf transtainer crane, concrete platform of minimum 750 mm, Kalmar			5	5	
Transport	Corridors and missing links/Bussiness	Privat	Modernization of the transcontainer terminal of Semenic	SNTFM "CFR - MARFĂ" S.A.	purchase of 40 tf transtainer crane, concrete platform of minimum 750 mm, Kalmar			5	5	
Transport	Corridors and missing links/Bussiness enables	Privat	Managing the wagon fleet assets	SNTFM "CFR - MARFĂ" S.A.	Developing a wagon fleet monitoring management system for the control of operations costs and improvement of asset performance	No	Feasibility study	3	2	
Transport	Passenger railway transport	Public	Renewal of EMU rolling stock fleet & EMU facility	Ministry of Transport SNTFC "CFR Calatori" SA	Renewal of the EMU & Hall EMU rolling stock fleet by purchasing 120 EMUs	Yes	Pre-feasibility study by the prudent private investor test, included in the General Transport Master Plan	612.16	312.16	Continues after 2017 from POIM funds (eventually CEF for the cross border area)
Transport	Passenger railway transport	Public	Renewal of DMU rolling stock fleet by purchasing 120 DMUs	Ministry of Transport SNTFC "CFR Calatori" SA	Renewal of DMU rolling stock fleet by purchasing 120 DMUs	Yes	Pre-feasibility study by the prudent private investor test, included in the General Transport Master Plan	420.27	210.00	Continues after 2017 from POIM funds (eventually CEF for the cross border area)
Transport	Passenger railway transport	Public	Modernized electric locomotives to increase efficiency and reliability and to achieve interoperability requirements & Rebuilt and modernized passenger coaches for long and medium route trains, including double-	Ministry of Transport SNTFC "CFR Calatori" SA	Modernization of 20 locomotives LE Co-Co 5100 kW including equipment and implementation of ETCS system and simultaneously 120 coaches: series 1980, 2180 (38 pcs), series 1950, 2050, 3950 (44 pcs), series 2626 (10 pcs), series 2047/2057 (28 pcs). The resulting train set shall have 6 coaches.	No	Pre-feasibility study by the prudent private investor test	90.18	63.56	Continues also after 2017, following to be modernized 20 locomotives LE Co-Co 5100 kW including equipment and implementation of ETCS system and simultaneously 120 coaches: series 1980, 2180 (38 pcs), series 1950, 2050, 3950 (44 pcs), series 2626 (10 pcs), series 2047/2057 (28 pcs). The resulting train set shall have 6 coaches.
Transport	Passenger railway transport	Public	Modernization LE (BoBo), implementing the equipment for push-pull system and ETCS & Modernization of passenger coaches equipped with electropneumatic brake and push – pull	Ministry of Transport SNTFC "CFR Calatori" SA	Modernization of 20 locomotives LE Bo-Bo 3400 kW including equipment and implementation of ETCS system and simulatenously 98 coaches: series 1980, 2180 (32 pcs), series 1950, 2050, 3950 (36 pcs), series 2626 (8 pcs), series 2047/2057 (22 pcs). The resulting train set shall have 5 coaches.	No	Pre-feasibility study by the prudent private investor test	80.87	56.63	Continues also after 2017, following to be modernized 20 locomotives LE Bo-Bo 3400 kW including equipment and implementation of ETCS system and simultaneously 98 coaches: series 1980, 2180 (32 pcs), series 1950, 2050, 3950 (36 pcs), series 2626 (8 pcs), series 2047/2057 (22 pcs). The resulting train set shall have 5 coaches.

Transport	Passenger railway transport	Public	Procurement of second- hand DMUs with guaranteed lifespan of minimun	Ministry of Transport SNTFC "CFR Calatori" SA	Procurement of 100 second-hand DMUs second-hand with minimum guaranteed lifespan of 12 years	No	Pre-feasibility study by the prudent private investor test	100.00	80.00	Continues also after 2017. 100 second-hand DMUs shall be purchased, with minimum guaranteed lifespan of 12 years.
Transport	Passenger railway transport	Public	Modernization of 30 passenger coaches from different series for day and night trains, including for the car transport on the route Bucharest-Vienna and back	Ministry of Transport SNTFC "CFR Calatori" SA	Modernization of 30 passenger coaches from different series for day and night trains, including for the car transport on the route Bucharest-Vienna and back	No	Pre-feasibility study by the prudent private investor test	12.00	8.00	Continues also after 2017
Transport	Railway Passenger Transport	Public	Equipping about 80 LDE locomotives with installation for reducing time and increasing efficiency of traction diesel engine	Ministry of Transport SNTFC "CFR Calatori" SA	Equipping about 80 LDE locomotives with installation for reducing time and increasing efficiency of traction diesel engine	No	Pre-feasibility study by the prudent private investor test	5.20	5.20	The investment is recovered by reducing the consumption of fuel and oil in less than a year
Transport	Railway Passenger Transport	Public	Application to monitor the locomotives and passenger trains' position	Ministry of Transport SNTFC "CFR Calatori" SA	Application to monitor the locomotives and passenger trains' position	No	Pre-feasibility study by the prudent private investor test	1.50	0.90	Continues after 2017 in the context of applying the provisions of EC Regulation 454/2011 (TAP-TSI) and Regulation (EC) NO. 1371/2007
Transport	Railway Passenger Transport	Public	Dynamic passenger information system during the train journey	Ministry of Transport SNTFC "CFR Calatori" SA	Dynamic passenger information system during the train journey	No	Pre-feasibility study by the prudent private investor test	1.01	0.61	Continues after 2017 in the context of applying the provisions of EC Regulation 454/2011 (TAP-TSI) and Regulation (EC) NO. 1371/2007
Transport	Railway Passenger Transport	Public	Equipping electric locomotive with permanent control system of train traffic type ETCS / ERTMS level 2	Ministry of Transport SNTFC "CFR Calatori" SA	Equipping electric locomotive with permanent control system of train traffic type ETCS / ERTMS level 2	No	Pre-feasibility study by the prudent private investor test	45.56	34.21	Continues after 2017 in the context of applying the provisions of EC Regulation 454/2011 (TAP-TSI) and Regulation (EC) NO. 1371/2007
Transport	Railway Passenger Transport	Public	Extendin the pilot system for issuing tickets in domestic traffic at ticket machines - xSellKiosk	Ministry of Transport SNTFC "CFR Calatori" SA	Extending the pilot system for issuing tickets in domestic traffic at ticket machines - xSellKiosk	No	Pre-feasibility study by the prudent private investor test	21.11	18.81	Continues after 2017 for harmonizing systems with the European ones
Transport	Railway Passenger Transport	Public	IT data exchange between issuing and reservation system in Romania being consisting with systems used by European railway operators & Extension of issuing system in international traffic - online sale & Redesigning RoTicket system to implement the new European interface OSI of selling international tickets type NRT	Ministry of Transport SNTFC "CFR Calatori" SA	IT data exchange between issuing and reservation system in Romania being consisting with systems used by European railway operators & Extension of issuing system in international traffic - online sale & Redesigning RoTicket system to implement the new European interface OSI of selling international tickets type NRT	No	Pre-feasibility study by the prudent private investor test	4.40	3.85	Continues after 2017 for harmonizing systems with the European ones
Transport	Railway passenger transport	Public	Extending the pilot information system and electronic sale of tickets in domestic traffic through on board portable devices – iMTk	Ministry of Transport SNTFC "CFR Passengers" S.A.	Extending the pilot information system and electronic sale of tickets in domestic traffic through on board portable devices – iMTk	No	Pre-feasibility study by the prudent private investor test	6.97	4.77	Continues beyond 2017 in order to harmonise the systems with those from Europe

Transport	Railway passenger transport	Public	Developing a software solution allowing electronic recording and settling the requests to ensure specific services for people with reduced mobility	Ministry of Transport SNTFC "CFR Passengers" S.A.	Developing a software solution allowing electronic recording and settling the requests to ensure specific services for people with reduced mobility	No	Pre-feasibility study by the prudent private investor test	0.40	0.40	The liability context of applying the provisions of Regulation 454/2011 /EC (TAP-TSI) and Regulation 1371/2007(EC).
Transport	Railway passenger transport	Public	Replacement programe of the specific equipment of electronic systems for issuance of tickets in domestic and international traffic	Ministry of Transport SNTFC "CFR Passengers" S.A.	Replacement programe of the specific equipment of electronic systems for issuance of tickets in domestic and international traffic	No	Pre-feasibility study by the prudent private investor test	16.55	16.55	Continues beyond 2017 in order to harmonise the systems with the European ones
Transport	Railway passenger transport	Public	Achieving a program on issuance and management of special type of passes (authorizations, tickets, passes and FIP)	Ministry of Transport SNTFC "CFR Passengers" S.A.	Achieving a program on issuance and management of special type of passes (authorizations, tickets, passes and FIP)	No	Pre-feasibility study by the prudent private investor test	1.00	1.00	Continues beyond 2017 in order to harmonise the systems with the European ones
Transport	Railway passenger transport	Public	Increasing the exploitation efficiency of available resources	Ministry of Transport SNTFC "CFR Passengers" S.A.	Increasing the exploitation efficiency of available resources	No	Pre-feasibility study by the prudent private investor test	0.70	0.70	Own funds
Transport	Railway passenger transport	Public	Purchasing equipment for drop in pressure / pressure of wheels from / on the axle shaft	Ministry of Transport SNTFC "CFR Passengers" S.A.	Purchasing equipment for drop in pressure / pressure of wheels from / on the axle shaft	No	Pre-feasibility study by the prudent private investor test	0.80	0.80	Own funds
Transport	Railway passenger transport	Public	Purchasing automatic lathe bandages at Cluj and Timisoara depots	Ministry of Transport SNTFC "CFR Passengers" S.A.	Purchasing automatic lathe bandages at Cluj and Timisoara depots	No	Pre-feasibility study by the prudent private investor test	2.82	2.82	Own funds
Transport	Corridors and missing links	Public	Craiova – Calafat	National Company for Roads		Yes		581.00	5.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	Ploiesti – Buzau- - Focsani – Bacau – Pascani – Siret	National Company for Roads		Yes		3,199.00	36.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	Bucuresti – Giurgiu	National Company for Roads		Yes		420.00	4.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	Sibiu – Fagaras	National Company for Roads		Yes		635.00	7.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	Braşov – Bacau	National Company for Roads		Yes		1,190.00	14.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	Sibiu Pitesti	National Company for Roads		Yes		2,410.00	14.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**

Transport	Corridors and missing links	Public	Buzau – Braila – Galati	National Company for Roads		Yes		552.00	6.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	Sebes – Turda	National Company for Roads		Yes		631.00	631.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	Dumbrava – Deva	National Company for Roads				648.00	648.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	DN 76	National Company for Roads				210.00	210.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	DN 56	National Company for Roads				74.00	74.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	DN 66	National Company for Roads				89.00	89.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	DN 73	National Company for Roads				109.00	109.00	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion.**
Transport	Corridors and missing links	Public	By pass Targu Mures	National Company for Roads				47	47	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in its completion**
Transport	Corridors and missing links	Public	By pass Targu Jiu	National Company for Roads				49	49	**possible insufficient budget allowances, in order to ensure co-financing from the State Budget.Any possible unforeseen scenarios occurred during project implementation, which may lead to delays in**
Resources and Environment	Other	Public	Capacity building protection and conservation areas of Romanian Gendarmerie for tourism development ecotourism (sites Nature 2000 ,natural parks, national parks, danube Delta Biosphere Reserve)	Ministry of Internal Affairs	Developing the infrastructures	no	The project will by applied to be funded from FESI	10	5	The project will be financed only if the management authority agrees the project
Resources and environment	Natural resources: efficient and secure	Public	Installation for energy recovery with high efficiency cogeneration of municipal waste in **Bucharest**	Bucharest City Hall	Installation for energy recovery with high efficiency cogeneration of municipal waste in Bucharest		Tender documents for selection of the Consultant and technical assistance for PIU under	250	250	
Resources and	Natural resources: efficient and	Public	Integrated waste management system in **Galati county**	Galati County Council	Extension of waste collection and recycling system	Included in the Master Plan of the	Institutional analysis and CBA under	58.28	58.28	
Resources and	Natural resources: efficient and	Public	Integrated waste management system in **Ilfov county**	Ilfov County Council	Extension of waste collection and recycling system	Included in the Master Plan of the	Supporting documents of the Financing Application under	31.7	31.7	
Resources and	Natural resources: efficient and	Public	Integrated waste management system in **Brasov county**	Brasov County Council	Extension of waste collection and recycling system	Included in the Master Plan of the	Supporting documents of the Financing Application under	20.8	20.8	
Resources and environment	Natural resources: efficient and	Public	Rehabilitation of historical contaminated petroleum sites in	MECC - Directorate for Investments, Public Procurement and Internal Service	Rehabilitation of contaminated sites	-	Financing Application under preparation	60.87	60.87	

Resources and environment	Resilience to climate change	Public	Protection and rehabilitation of coastal area - Phase II	National Administration Romanian Waters	Works for rehabilitation and protection of the beaches	Included in Master Plan for coastal area	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	500	500	
Resources and environment	Resilience to climate change	Public	Ensuring the safety of the water works on Dâmboviţa River, downstream accumulation Lacul Morii - N.H.	National Administration Romanian Waters	Construction or rehabilitation of the infrastructure to reduce the impact of extreme weather	Included in the Flood Risk Management Plan	Technical Assistance for preparation of Financing Application approved.	20	20	
Resources and	Resilience to climate change	Public	Trotus River and tributaries improvement - Phase II	National Administration Romanian	Construction or rehabilitation of the infrastructure to reduce the impact of extreme weather	Included in the Flood Risk Management Plan		70	70	
Resources and environment	Resilience to climate change	Public	Flood protection of Babadag locality, Tulcea county	National Administration Romanian Waters	Construction or rehabilitation of the infrastructure to reduce the impact of extreme weather	Included in the Flood Risk Management Plan	Technical assistance for the preparation of the Financing Application and Tender Documents to be started in 2015.	15	15	
Resources and	Natural resources: efficient and	Public	Rehabilitation of the heating system in Iasi municipality -	Iasi Municipality	Rehabilitation of existing infrastructure and refurbishment	Included in the Master Plan of the	Financing Application under	22.52	22.52	
Resources and environment	Natural resources: efficient and secure	Public	Rehabilitation of the heating system in Timisoara municipality - Phase II	Timisoara Municipality	Rehabilitation of existing infrastructure and refurbishment	Included in the Master Plan of the county	Financing Application under preparation	31.89	31.89	
Resources and	Natural resources: efficient and	Public	Rehabilitation of the heating system in Bacau municipality -	Bacau Municipality	Rehabilitation of existing infrastructure and refurbishment	Included in the Master Plan of the	Financing Application under	25.39	25.39	
Resources and	Natural resources: efficient and	Public	Rehabilitation of the heating system in Oradea municipality -	Oradea Municipality	Rehabilitation of existing infrastructure and refurbishment	Included in the Master Plan of the	Financing Application under	28.22	28.22	
Resources and environment	Natural resources: efficient and secure	Public	Rehabilitation of the heating system in Rm. Valcea municipality - Phase II	Rm. Valcea Municipality	Rehabilitation of existing infrastructure and refurbishment	Included in the Master Plan of the county	Financing Application under preparation	16.15	16.15	
Resources and	Natural resources: efficient and	Public	Rehabilitation of the heating system in Focsani municipality -	Focsani Municipality	Rehabilitation of existing infrastructure and refurbishment	Included in the Master Plan of the	Financing Application under	33.66	33.66	
Resources and environment	Natural resources: efficient and	Public	Rehabilitation of the heating system in Botosani municipality -	Botosani Municipality	Rehabilitation of existing infrastructure and refurbishment	Included in the Master Plan of the county	Financing Application under preparation	9.74	9.74	
Resources and environment	Natural resources: efficient and secure availability	Public	Pilot program for rehabilitation of hot-spot area Zlatna - „Extension of water network on the administrative territory of Zlatna, Alba county" and „ Rehabilitation and extension of sewerage network in Zlatna, Alba county"	Local Council Zlatna	Extension of water network, rehabilitation and extension of sewerage netwok	Included in the Master Plan of the county	Financing Application under preparation	15.23	15.23	
Resources and environment	Natural resources: efficient and secure	Public	Rehabilitation of water supply system, of sewerage system and of wastewater treatment plants in Vaslui, Bârlad,	County Council Vaslui	Rehabilitation of water supply system, of sewerage system and of wastewater treatment plants	Included in the Master Plan of the county	Financing Application under preparation	3.4	3.4	
Resources and	Natural resources: efficient and	Public	Rehabilitation of sewerage system in Hateg town, Hunedoara	Local Council Hateg	Rehabilitation of sewerage system	Included in the Master Plan of the	Financing Application under	2.7	2.7	
Resources and environment	Natural resources: efficient and secure	Public	Sewerage system including wastewater treatment plant in Tăuţii-Măgherăuş, Busag and Merişor, Maramureş	Local Council Tautii Magheraus	Sewerage system including construction of wastewater treatment plant	Included in the Master Plan of the county	Financing Application under preparation	6.51	6.51	
								62587.65	**43924.27**	

SLOVAKIA

Annex 2: Pipeline of investment projects as of 14.11.2014

Key Investment Project List – SLOVAK REPUBLIC

1. Knowledge and digital economy

Sector	Subsector	Project Name	Organization – Project Sponsor	Description	Included in National Investment Plan (yes/no)	Project Status	Total Investment Costs (EUR BN)	Investment in 2015 – 2017	Barriers to Implementation
Knowledge and digital economy	Public projects of research and development (research infrastructure, universities)	**Strengthening of research and development capacities and competencies of universities in the field of smart specialization**	Ministry of Education of SR	The project will be funded from the Operation Program Research and Innovation. It entails support for a large joint project of the two largest Slovak research universities - Comenius University in Bratislava and the Slovak University of Technology in Bratislava. Both universities have strong potential in terms of education and research and innovation that has been unused to date; they have both established dozens of research centers over the program period of the years 2007 – 2013 that have led to the internal fragmentation of both institutions in several areas. At the same time, there is a major problem when it comes to the overall education and research infrastructure; not dealing with this problem leads to a situation where universities are unable to create adequate conditions, for	No	Planned	0.1	0.020	n/a

				researchers as well as for students, in terms of the present era and the thematic areas covered by universities and which are also the areas of RIS3 SK specialization.					

Knowledge and digital economy Energy Union	Public research and development projects Private research and development projects Low-carbon energy production and integration into the network	**ALLEGRO** – experimental facility for the development and demonstration of GFR technologies	Consortium for ALLEGRO (initiated by Slovak Academy of Sciences VUJE, a.s. and Slovak University of Technology) .	Research, development, proposal and construction of research and demonstration a 4th generation fast neutron based helium cooled nuclear reactor (GFR). Its aim is to demonstrate and qualify in semi-operational mode the key principles of GFR technologies and to confirm expected features of GFR reactors. The experimental reactor will also be used to perform radiation tests in a fast neutron spectrum environment. Additional circuitry implemented in the primary system will provide pilot test capacities for testing high-temperature components or thermal processes. ALLEGRO is of European-wide significance and the SNETP technological platform included it into the Strategic Research and Innovation Agenda 2013.	No	Project 7RP EU Alliance focuses on the preparatory stage of the ALLEGRO demonstrator development. VUJE is its partner for the Slovak Republic. In Slovakia, Allegro is being prepared by the Slovak Academy of Sciences and Slovak University of Technology as part of the project within the OP Research and Development – ALLEGRO Research Centre. Both projects will be completed in 2015.	1.2	0.3	Especially V4 countries supported by France will participate in the ALLEGRO demonstrator construction. So far however, the establishment of a legal entity (joint undertaking or ERIC) has not yet been solved on the intergovernmental level that would manage the construction and operation of ALLEGRO. During 2015, it will be necessary to ensure the achievement of an intergovernmental agreement and to establish a legal entity to realize the project.

Knowledge and the Digital Economy	Public R&D	**Stabilisation and Integration of Slovak Science into the Basic Research System in the**	Slovak Academy of Sciences	The project is focused on the stabilisation and development of basic/non-commercial research, as well as on the creation of linkages with the European scientific system. This is to be accomplished	No	Under preparation	0.12	0.12	Lack of financial resources; brain drain; the absence of the middle generation within the science and R&D sector; volatile and unreliable financing of systematically important positions within this sector. Solutions: resources invested into

		EU		through the support for systematically important staff positions within the Slovak Academy of Sciences and the Slovak Universities, as well as through support targeted specifically at medium-term and long-term study and research mobility within all scientific disciplines (social sciences and humanities, natural and technical sciences, as well as medical sciences).					appropriate support base as well as the systematically important staff positions, and linked to the support for the mobility of researchers, enabling scientists to undertake international cooperation without the risk of brain drain, leading to more intense development of science and R&D on the national level.
Knowledge and the Digital Economy	Public R&D	**Creation of an International Network of Databases in the Social and Linguistic Sciences**	Slovak Academy of Sciences (in cooperation with a consortium of Slovak Universities and participating institutions from the whole of the EU)	The aim of the project is to allow Slovakia (as well as other Central European countries) to join in with the emerging system of Europe-wide databases of social and linguistic data (CESSDA, language corpuses etc.). This is to be achieved through the creation of a functioning infrastructure for scientific research, which would integrate historical as well as topical documents and databases along with the appropriate protection for sensitive data and with efforts to ensure language compatibility in the European area.	No	Under preparation	0.1	0.1	Lack of financial resources; little to no capacity in terms of working positions in this type of infrastructure projects

Knowledge and the digital economy	Public projects for R&D	**Science, research and technology transfer center at Armed Forces Academy**	Armed Forces Academy Liptovsky Mikulas with cooperation with Ministry of Defense	Restarting the science, R & D in the areas prioritized by AOS LM/ASR/MOSR along with implementation of the results is the main goal of the developed center. We are talking about following areas: distant earth	no	Project is in the stage of detail plan according to areas of R & D. Priorities for R & D have been assigned. Procurement is	0,18	0,13	Working partnership with other ogranizations is crucial to secure successful implementation. The formation of these partnerships is in its initial

		Liptovsky Mikulas (AFA LM)		reconnaissance, big data wireless data transfer, advanced defense technology, CritSit solutions, natural disaster management. Followed by know-how integration into professional and career training in the means of recent paradigms and modern technologies.		ready to start.			stage. We anticipate some issues regarding personal coverage, as we are talking about most advanced technologies where highly competitive conditions must be prepared to attract skilled workforce.

Knowledge and digital economy	Private research and development projects (KETs—key technologies)	**Nanotechnologies – research and development, technologies of large-volume mono-crystal leucosapphire and YAG production**	CEIT, a.s. Žilina, Slovak Academy of Sciences + University of Žilina	The project aims toward research excellence whose globally acceptable outcomes are globally new knowledge, unique technologies and progressive production mass production system of industrially verified mono-crystals. The proposed project focuses on research excellence, building a new industrial sector and supporting Slovak exports. The project's main goal is fast transfer of results of research excellence to industrial applications, while cooperating with research capacities from universities, the Slovak Academy of Sciences, research institutes and industry.	No	Project description completed	0.139	0.139	Method of financing / decision about implementing the project description still unclear
Knowledge and digital economy	Public research and development projects (research infrastructure, universities)	**Green transportation, energy and smart systems**	University of Žilina + other entities	The green energy and transportation project addresses two basic problems of human settlements in the 21st century: - Green transportation – safe and smooth passenger and freight transport infrastructure and provision of services to reduce energy demand. - Renewable energy and efficient use of available	No	Project description completed	0.120	0.088	Method of financing / decision about implementing the project description still unclear

				sources in order to reduce economic and social energy demand and the environmental burden. These interests lead in the long run to building an energy self-sufficient region/city/municipality consisting of energy efficient housing and service facilities with a smart transport system and smart transport road using green materials, green energy and green transport means to be also used by the population and to become a part of ZERO CITY 2020, a unique food safety research project.					
Knowledge and digital economy	Public research and development projects (research infrastructure, universities)	**Company of the future – smart production systems and digital engineering for the industry**	University of Žilina + other entities	The project involves cooperation between the most significant national research institutes and significant industrial partners from various regions. The submitted project focuses on research excellence addressing the issue of reconfigurable smart production systems. Implementation of the project will positively impact employment growth of highly qualified workers, better use of national raw material base for increased industrial production with high added value and significant growth of Slovak exports. In the medium term, implementation of this project will increase the number of innovative small and medium-sized enterprises and start-ups originating in other regions of Slovakia or abroad.	No	Project description completed	0.185	0.150	Method of financing / decision about implementing the project description still unclear

Knowledge and the digital economy	Private R&D - Key Enabling Technologies	**Automation and robotics for intelligent production and service systems**	Cluster ATR /2 RTD and 10 Private companies/	Private innovation companies and R&I Centers-12members of Cluster ATR will implement their own development and innovation in mechatronic components, modules and systems for the field of intelligent production and service robotic systems. Cluster ATR will provide the necessary know-how transfer with partners from ETP MANUFUTURE and euRobotics for cooperation in the production and final delivery of new products and delivery of complex systems.	No	Part of advanced mechatronic components / modules and mobile service robotics are in final stages, start expected in 2015. Intelligent productions and robotics service systems was in preparation of international projects in the field of Human-robot systems, robotics service in the field AAL, Security and diagnosis, monitoring and manipulation. The projects will open in 2016-17. Transfer know-how and training activities are developed as pilot projects of international clusters – CluStrat project. Implementation start expected in 2015 and will supported also by grants the Horizon 2020 from 2016-17.	0.1	0.03	The lack of resources to finance the preparation and implementation of research and innovation projects. Missing resources for co-financing of PPP projects and cluster initiatives. Absence sources of finance common infrastructure for the transfer of new technologies and know-how. Associated financing research and implementation plans of the EC grants and the EIB with private sector manufacturers and users capital will effectively cover the sources and synergy of several projects with higher added value and benefits for competitiveness, employment and international cooperation.

Knowledge and the	Private R&D	**NextGenRailFreight**	Private promoter –	Next generatiion of rail freight - European Center for Rail	no	Feasibility study and project	0,15	0,10	Lack of long term finance + permitting problems, leading to possible delays.

digital economy Or Transport	Or Business enablers		Railway Transport Cluster	Improvement in the Freight field will concentrate critical mass of material, infrastructure and human resources necessary to systematically cover research and innovation activities related to development of rail freight transport of new generation. It includes test circuit, research and testing facilities and longterm systematically research. The Centre will focus on 5 growth factors determined by the 5L initiative: **L**ow noise, **L**ightweight, **L**ong running, **L**CC – oriented and **L**ogistics capable. The research concepts leads to a green rail transport logistic according to targets of EU White Paper on Transport and White paper Innovative Rail Freight Wagon 2030.		proposal is ready			A combination of EC grants, EIB and MS finance as well as private capital is envisaged. Progress from intensive research and innovation activities can for application in practice require an adjustment of some legislative documents, regulations and standards governing the design and operation of rolling stock (eg. ... TSI). It is necessary to involve all stakeholders in rail freight transport. Research is a long-term endeavour; research capacity and reputations may take many years to build. Funding must be excellence-based but significant new initiatives will need nurturing as they move from infancy to maturity.

Key Investment Project List – SLOVAK REPUBLIC

2. Energy Union

Sector	Subsector	Project Name	Organization – Project Sponsor	Description	Included in National Investment Plan (yes/no)	Project Status	Total Investment Costs (EUR BN)	Investment in 2015 – 2017	Barriers to Implementation
Energy Union	Energy efficiency in buildings	**GovCity (government city)**	Ministry of Interior	Building a centralized energy efficient and cost optimized administrative facility for the majority of central state administration bodies located in Bratislava with joint support processes.	No	Planning and modelling of the structure of financing, preparing project description, project plan.	0.225	0.207	n/a
Energy Union	Energy efficiency in buildings (buildings of the public sector – schools, hospitals, administrative centers, other programs)	**Reducing energy intensity of public buildings**	Ministry of Environment of the Slovak Republic	Reducing energy consumption when operating public buildings administered by the Ministry of Interior of the Slovak Republic. The stated project contributes to meeting the annual energy savings objective provided in Article 4 of Directive 2012/27/EU on Energy Efficiency.	No	In line with general principles of project selection, the Slovak Innovation and Energy Agency performed energy audits in selected buildings.	0.42	0.023	n/a
Energy Union	Gas	**Slovak - Polish connection in**	Eustream (Slovak TSO)	The Slovak – Polish gas connection with a length of	yes	Feasibility study and pre-project and	0,346	0,0412	Due to high financial cost, project

		gas	and GAZ SYSTEM (Polish TSO)	approx. 164 km; the project is part of the list of PCI projects No. 6.2.1. (cluster 6.2.)		project preparation realized, building permit in 2017 – 2018, launch of operation in 2019	(SK part of the project EUR 142.2 mil.)		implementation is strongly dependent on external funding (EU grant).

Energy Union	Energy efficiency in buildings	Reducing energy demand of public buildings	MoE SR / SIEA	EA and renewal of buildings of central state administration bodies (pursuant to Article 5 of Directive 2012/27/EU); the priority will be buildings of the central state administration bodies in the Bratislava region.	The strategy of renewal of the fund of residential and non-residential buildings in the Slovak Republic.	EA is prepared for 250 public buildings that will be partially renovated as part of the OP Quality of Environment 2014 – 2020.			- Limited grant resources. - Limited possibilities of funding through loans considering high indebtedness of public administration. - Barriers in budgetary rules for public bodies. - Ineligibility of Bratislava Self-Governing Region when it comes to funding as part of the European Structure and Investment Funds.
Energy Union	Energy efficiency in buildings	Reducing energy demand of family houses	MoE SR / SIEA	EA and building renewal	The strategy of renewal of the fund of residential and non-residential buildings in the Slovak				- Limited grant resources for family houses.

					Republic.				

Energy Union	Energy efficiency in residential buildings	**Increasing energy efficiency of apartment houses**	Slovak Investment Holding (SIH) and, consequently, financial mediator	Through complex renovation of residential houses to achieve maximal energy savings in the housing sector. It will involve systemic renewal of apartment houses above and beyond the limit of the cost-optimal requirements stated in the Directive on Energy Efficiency of Buildings.	No	Considering that the financial instrument JESSICA, which is expected to be used in the housing sector , in the program period 2014 – 2020, also applied in the program period 2007 – 2013, good project readiness can be anticipated	0.14 (0.11 source ERDF)	– (to be added depending on demand and readiness of financial Instruments)	In potential barriers from the aspect of effective use of financial resources through financial instruments, it will show the ex ante analysis for the use of financial instruments in the program period 2014 - 2020“ the results of which will be available in 4Q 2014.

Energy Union	Energy efficiency in buildings (buildings of the public sector)	**Increasing energy efficiency in the Slovak Republic’s prison system**	Ministry of Justice	Modernization of existing prison complexes in the Slovak Republic in order to reduce their energy demand and operational costs	No	2015 – project preparation and public procurement since 2006 – implementation	0.022	0.011	n/a

Energy Union	Interconnections and production	**Underground natural gas reservoir Veľké Kapušany**	NAFTA a.s.	Building of underground natural gas reservoir in close vicinity to the compressor station Veľké Kapušany (intersection of three transit gas pipelines UA-SK, PL-SK and SK-UA) in order to support the gas flow and security of supplies in the strategic location	N/A	Feasibility study preparation	0.21	0.11	Insufficient market support for project implementation. The project brings several benefits which the market cannot currently recognize (contribution to integrated EU´s energy

				at the border of the EU with direct cross-border impact on SK, UA, PL, and Hungary. The benefit afforded by the project is the support of gas transit networks in the region.					market, security of supplies, sustainable distribution, development of EU competition environment). Support from public resources would balance this inadequate market support.
Energy Union	Interconnections and production	**Highly flexible natural gas reservoir in North-South energy corridor of the EU.**	NAFTA a.s.	Expanding the existing complex of the underground natural gas reservoir with additional capacities in order to support natural gas market integration in Central Europe and its linking to existing and new gas transport networks, including their cross-border connections. The project also focuses on increasing the security of natural gas supplies within the region of Central Europe by increasing the flexibility of natural gas supplies to and from the connected gas networks according to immediate requirements of customers and current situation in the market.	N/A	Feasibility study preparation	0.32	0.16	Insufficient market support for project implementation. The project brings several benefits the market currently cannot recognize (contribution to integrated EU´s energy market, safety of supplies, sustainable distribution, development of EU competition environment). A support from public resources would balance this inadequate market support.
Energy Union	Energy efficiency in buildings	**Renewal of TK1-6 compressor station**	NAFTA a.s.	Increased energy efficiency of compressor units by reconstructing them as units run by electricity.	N/A	The study of compressor station renewal has been realized. Preparation of project documentation for building proceeding is underway.	0.055	0.025	Process demanding high investments. Support from public resources of the EU to increase energy efficiency and to improve impacts on the environment would significantly speed up implementation of this project.
Energy Union	Security of supplies	**Pre-Neogene survey**	NAFTA a.s.	Increasing gas mining in the Slovak Republic will reduce the country's dependence on the	N/A	Regional studies of pre-Neogene processed. 3D	0.110	0.110	High investment expenses linked to the

				import of natural gas from third countries. Gas reservoirs were discovered and mined in the pre-Neogene of the Vienna basin in the volume of approx. 1.6 bn. m^3 of natural gas, but reservoirs in dozens of bn m^3 of natural gas were discovered in the pre – Neogene of the Austrian part of the Vienna basin. It is expected that such deposits also occur in the Slovak part of the Vienna basin and in the Eastern Slovak Lowlands. At the beginning of this project, it is necessary to precisely identify and localize hydrocarbon traps using 3D seismic measurements. After interpreting the results of measurements, the identified sites will be opened. At the same time, tendering to drill 10 bore-holes will be prepared. In 2017, the opening of potential sites will take place. Main project lines: - 3D seismic measurement over an area of approx. 300 km^2 - Drilling of 10 bore-holes		reprocessing of seismic data in the Závod area realized in 2006. The study of drill cores from the core warehouse of NAFTA a.s. realized. Measurement of 2 magnetotelluric profiles realized.			risk of initial research.
Energy Union	Low-carbon energy production and integration into the network	**Use of geothermal energy**	NAFTA a.s.	The project aims at using geothermal energy for electricity generation. It will be the first geothermal power plant in Slovakia. In total, the project includes a survey of the area – 3D seismic, magnetotellurics. Drilling of 4 geothermal bore-holes and building of the geothermal power	N/A	Project developed – hydro-geological survey to acquire thermal water	0.053	0.053	High investment expenses linked to the risk of initial research. Insufficient support by the regulator.

				plant itself. Main project lines: - 3D seismic - Magnetotellurics - Power plant building					

Energy Union	Interconnections and production	**Oil pipeline Bratislava - Schwechat**	TRANSPETROL, a.s.	Connecting oil pipeline systems East - West, diversification of routes for transport of oil, increased energy security of Austria and Slovakia in the event of oil crisis	No	Stage of project preparation (realization of studies and project works on routing)	0.1 – 0.2 depending on the selected route (city corridor 0.1 bn. Carpathian corridor 0.2 bn EUR)	0.1 – 0.2	Need for legislative modifications, incorporating the route into AP (area plan), property-rights settlement
Energy Union	Interconnections and production	**Reconstruction and increased transport capacity of oil pipeline** Friendship 1 (Adria)	TRANSPETROL, a.s.	Diversification of transport route of oil to Slovakia, increased energy security of Slovakia	No	Project at stage of realization	0.02	0.02	No barriers are known at the moment restricting project realization
Energy Union	Interconnections and production	**Revitalization and renewal of SWS Vojany complex**	TRANSPETROL, a.s.	Alternative transport of various types of oil by rail	No	Project feasibility study preparation	0.04	0.04	Settling property rights, e.g. agreeing to project implementation by shareholders

Energy Union	Interconnection and Production	**Boiler House Upgrade (B6 & B7)**	U. S. Steel Košice, s.r.o.	Upgrade of the boilers aimed at fuel conservation and supply stability	NA	Building Permit, EIA	0,14	0,14	High capital expenditures; changing regulations: - own resources; following more stringent limits than the required

									minimum
Energy Union	Interconnection and Production	**Energy-efficient Rolling**	U. S. Steel Košice, s.r.o.	Rolling mill drive upgrade; electric power conservation	NA	Study	0,1	0,02	High capital expenditures
Energy Union	Low-carbon Energy Production	**Automotive High-strength Steel Production**	U. S. Steel Košice, s.r.o.	Construction of continuous steel casting facilities to produce high-strength steel grades at the lowest possible energy demand	NA	Study	0,5	0,05	High capital expenditures
Energy Union	Low-carbon Energy Production	**Galvanizing Line Construction**	U. S. Steel Košice, s.r.o.	Construction of facilities producing galvanized sheets as the main product for the automotive industry as well as a substrate for construction industry products to minimize the energy demand of buildings	NA	Study	0,14	0,05	High capital expenditures

Energy Union	More energy-efficient low-carbon economy	**Improving the energy efficiency of electricity and heat generation** PPC DUSLO 67 MWe	DUSLO, a.s.	Support for the use of highly effective combined electricity and heat generation based on demand for usable heat.		The project is at the stage of selecting the general supplier. The general supplier will also secure the project documentation.	0,066		
Energy Union	Connections and production	**Pilot regional intelligent energy schemes**	CLUSTER of Local and regional municipalities, PPP	Model regional priority projects of decentralized energy generation from local renewable sources	No	To be planned. Expented planning and permitting phase:	0.240	0.200	Lack of capacities for regional energy planning + absence of energy strategies / support for this area by EC grants is envisaged +

				(solar, biomass, heat pumps, wind and their combinations) to cover local needs. 3 projects per region (total 24 projects). Each project serves also as a demonstration of principles of intelligent energy: community ownership, energy efficiency, local energy autonomy and environmental sustainability.		in 2015/16. Construction: 2017.			external capacities is available. Coordination and permitting problems, leading to possible delays / a structure for projects advisory and supervision is needed (e.g. covered by SIEA or consortium of government and non-government agencies). Lack of funds for project preparation / costs sharing models with partners to be considered.
Energy Union	Energy efficiency in buildings	**Ultra-energy-effective public buildings: regional penetration of strict EU energy efficiency policy**	CLUSTER of Local and regional municipalities, PPP	Pilot reconstruction of public facilities in regions (especially rural) that respect the following principles: complex thermic insulation combined with effective energy system and operation after reconstruction, low-cost reconstruction based on maximum use of natural materials, optimal utilization of the facility after reconstruction, incorporation of demonstration/education elements to promote buildings reconstructed into ultra-energy-effective standard. Up to 50 public facilities per region: total 400 facilities.	No	To be planned. Expented planning and permitting phase: in 2015/16. Construction: 2017.	0.140	0.140	Lack of experienced designers of buildings that are to meet the criteria / training program for designers + regional/national register of high profile designers and suppliers are recommended. Permitting problems / training for representatives of potential municipal beneficiaries is neede.d. Lack of funds for project preparation / costs sharing models with partners to be considered.

Key Investment Project List – SLOVAK REPUBLIC

3. Transport

Sector	Subsector	Project Name	Organization – Project Sponsor	Description	Included in national investment plan (yes/no)	Project Status	Total investment costs (EUR BN)	Investment in 2015 – 2017	Barriers to implementation
Road infrastructure									
Transportation	Corridors and missing links	**D1 Turany - Hubová**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This difficult section in contact with protected areas and Natura 2000 areas should relieve the burden on Route I/18 with traffic intensity of 20 thousand vehicles a day, over 25 per cent of which is freight transportation. The accident rate in this section is over 0.8 accident per km, there are several black spots, and the section is also unsuitable due to its transverse and longitudinal unevenness. This section is part of the basic TEN-T network and it includes two 4.6 km long tunnels. The section will reduce travel time between Žilina and towns near the High Tatras and in Eastern Slovakia.	Yes	Obtain relevant building permits 01/2016 Launch of tender for main construction work 02/2016 Construction starts 09/2017 Construction ends 12/2020	0.76	TBD	RISK OF COST INCREASE (Depending on the updated selected technical solution) RISKS OF TECHNICAL DESIGN (A Comparative Study, IGHGP and updated technical solution including completion of mitigating measures and a proposed alternative route around a landslide in Kraľovany were prepared) PLANNING RISKS (EIA procedure is in progress based on the results of the Comparative Study and standpoints) LEGAL RISKS (Minimum. Settlement of property rights is in progress (80 per cent), it is necessary to purchase land from unknown and newly discovered owners) – mitigated by: well prepared documentation,

									sufficient communication with the owners, cooperation with the competent bodies, professionalism of the sponsor´s team. RISKS OF PUBLIC PROCUREMENT AND CONTRACT (Potential extension of public procurement if the bidders exercise revision procedures) – mitigated by: well prepared documentation for the tender.
Currently, construction of part of highway bypass of Bratislava – capital city of the Slovak Republic – is being prepared – . Once it has been completed, the highway bypass will connect Austrian highway A6 on the south and to Austrian expressway S8, which is being prepared for the north-west. Once the highway opens, it will take over a major part of traffic transiting from core Baltic - Adriatic and Rhine –Danube TEN-T corridors that go through Bratislava. Highway D4 will be constructed together with the first part of Expressway R7, to be the southern link between western and central parts of Slovakia as one project, since a complex transportation solution is needed in the concerned locality. Construction of the D4 and R7 highways is planned in a form of a DBFOM model public-private partnership The project under preparation consists of the following sections:									
Transportation	Corridors and missing links	**D4 Bratislava Jarovce – Ivanka pri Dunaji North - Rača**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	The Bratislava south-eastern bypass is an essential section of D4 highway to divert transit traffic, relieve the congested D1 section including Prístavný most (bridge) (traffic intensity over 100,000 vehicles a day with assumed increase to 140,000 vehicles in 2020) and improve transport connections to villages in a suburban zone surrounding Bratislava. Construction includes a 2.5 km long bridge over the Danube.	Yes	Obtain relevant building permits 05/2016 Launch tender for concessionaire 12/2014 Construction starts 06/2016 Construction ends 06/2019	1.35	TBD	RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures) – mitigated by: well prepared documentation for the tender. PROPERTY RIGHTS SETTLEMENT RISK (potential extension of the period to obtain building permit due to condemnation, cooperation of appropriate bodies, etc.) – mitigated by: well prepared documentation, sufficient communication with owners, forcing the

									cooperation of appropriate bodies, professionalism of the contracting authority´s team.
Transportation	Corridors and missing links	**R7 Bratislava Prievoz - Bratislava Ketelec**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section should eliminate daily congestion from the direction of Dunajská Streda on Route I/36, which is currently insufficient in terms of capacity and safety, and it should solve the unbearable traffic situation by diverting traffic from this road leading through Bratislava's urban districts.	Yes	Obtain relevant building permits 02/2017 Launch tender for concessionaire 12/2014 Construction starts 03/2017 Construction ends 10/2019	0.19	TBD	RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures) – mitigated by: well prepared documentation for the tender. PROPERTY RIGHTS SETTLEMENT RISK (potential extension of the period to obtain building permit due to condemnations, cooperation of appropriate bodies, etc.) – mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation of appropriate bodies, professionalism of the contracting authority´s team.
Transportation	Corridors and missing links	**R7 Bratislava Ketelec – Dunajská Lužná**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section should eliminate daily congestion from the direction of Dunajská Streda on Route I/36, which is currently insufficient in terms of capacity and safety, and it should solve the unbearable traffic situation by diverting traffic from this road leading through Bratislava's urban	Yes	Obtain relevant building permits 02/2016 Launch tender for concessionaire 12/2014 Construction starts 03/2016	0.16	TBD	RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures) – mitigated by: well prepared documentation for the tender. PROPERTY RIGHTS SETTLEMENT RISK

				districts (traffic intensity 30,000 vehicles a day).		Construction ends 11/2018			(potential extension of the period to obtain building permit due to condemnation, cooperation of appropriate bodies, etc.) – mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation of appropriate bodies, professionalism of the contracting authority´s team.
Transportation	Corridors and missing links	**R7 Dunajská Lužná - Holice**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section should eliminate daily congestion from the direction of Dunajská Streda on Route I/36 , which is currently insufficient in terms of capacity and safety, and it will bypass Šamorín (transit 51 per cent) and several villages through which Route I/36 runs. The traffic intensity is approximately 10-16 thousand vehicles a day and it keeps increasing; share of freight transportation is almost 20 per cent. The section is unsuitable due to transverse and longitudinal unevenness, the accident rate in this region is 0.47 accident per km.	Yes	Obtain relevant building permits 02/2016 Launch tender for concessionaire 12/2014 Construction starts 03/2016 Construction ends 11/2018	0.22	TBD	RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures) – mitigated by: well prepared documentation for the tender. PROPERTY RIGHTS SETTLEMENT RISK (potential extension of the period to obtain building permit due to condemnation, cooperation of appropriate bodies, etc.) – mitigated by: well prepared documentation, sufficient communication with owners , forcing the cooperation of appropriate bodies, professionalism of the contracting authority´s team.
One of the longest and most important Eastern European TEN-T corridors linking Lithuania, Poland, Slovakia, Hungary, Romania, Bulgaria and Greece - corridor S19 Via Carpatia - (Klaipeda-Kaunas–Białystok–									

Lublin–Rzeszów–Košice – Miskolc – Debrecen – Oradea – Lugoj – Calafat/Constanta – Sofija/Svilengrad – Thessaloniki) crosses eastern Slovakia. This road link under preparation has been partially completed and it is a precondition for development of Lithuanian – Polish – Slovak – Hungarian cooperation. Interest in joint development among the regions through the above-mentioned road link, inter alia, has been declared at various international forums (Via Carpatia Conference – 2 October 2012, Brussels) and it is also supported by a cross-border regional association – the Via Carpatia European territorial cooperation grouping of territorial cooperation Via Carpatia between Slovakia and Hungary. Sections of the R2 and R4 expressways and sections of the D1 highway are part of the above-mentioned TEN-T corridor in Slovakia. The following highway sections and expressway sections are currently being prepared:									
Transportation	Corridors and missing links	**R4 Prešov, northern bypass**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section will connect Highway D1 toward Sabinov, Svidník and Vranov nad Topľou and then to Poland, and it will divert all the existing transit traffic - comprising 53 per cent of the traffic in the region – outside Prešov. There are two tunnels in this section.	Yes	Obtain relevant building permits 2015 Launch tender for main construction work 2016 Construction starts 01/2017 Construction ends 01/2020	0.47	TBD	TECHNICAL DESIGN RISKS: (A feasibility study for construction of D1, R2, R4 Prešov – Košice – Bidovce is currently under preparation.) Redesigning the Okruhliak tunnel based on the conclusions of a detailed engineering-geological survey and modification of intersection Prešov north (Dúbrava) in order to increase traffic safety and to comply with Slovak technical standards (STN). PLANNING RISKS (A feasibility study for construction of D1, R2, R4 Prešov – Košice – Bidovce is currently under preparation.) Compliance with the deadline for obtaining the building permit is preconditioned by completion of settlement of property rights to lands, for which finance should be secured. LEGAL RISKS (to be treated in the next level of preparation.) RISK OF PUBLIC PROCUREMENT (Potential extension of

									public procurement if the bidders exercise revision procedures) ; mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team.
Transportation	Corridors and missing links	**D1 Budimír - Bidovce**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section will divert west to east transit traffic from Route III/050201 whose width is insufficient and the condition is unsuitable structurally and in terms of engineering. It will improve the environment in the villages, through which Route III/050201 crosses. The proposed section will fill the missing gap in Highway D1 highway and Route I/50, and it will be part of the basic TEN-T network.	Yes	Obtain relevant building permits 12/2014 Launch tender for main construction work 2015 Construction starts 12/2015 Construction ends 12/2018	0.26	TBD	LEGAL RISKS (Minimum.) Settlement of property rights in progress (78 per cent) - mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team. RISKS OF PUBLIC PROCUREMENT AND CONTRACT (Potential extension of public procurement if the bidders exercise revision procedures) – mitigated by: well prepared documentation for the tender.
Transportation	Corridors and missing links	**D1 Prešov, West - Prešov, South**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section with its 2.5km long tunnel will bypass Prešov to the west and relieve the burden of transit traffic, which is as high as 53 per cent inside the city and runs along roads and	Yes	Obtain relevant building permits 12/2014 Launch tender for main construction work	0.38	TBD	RISKS OF PUBLIC PROCUREMENT AND CONTRACT (Potential extension of public procurement if the bidders exercise revision procedures) – mitigated

				through intersections in the city that are insufficient in terms of capacity, causing regular congestion. The share of freight traffic in this section is 25 per cent. The proposed section is part of the basic TEN-T network. It should improve the environment.		2015 Construction starts 12/2015 Construction ends 12/2019			by: well prepared documentation for the tender.
The following 5 highway sections are currently under construction with co-financing from European Union resources - Operational Programme Transport 2007 – 2013. Since construction has overrun the 2007-2013 programme period, they are considered so-called "phase projects" and will be co-financed also from the Operational Programme Integrated Infrastructure 2014 – 2020.									
Transportation	Corridors and missing links	**D1 Lietavská Lúčka - Višňové - Dubná Skala (2nd stage)**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	The most anticipated highway construction will relieve the burden of 25 - 29 thousand vehicles a day on I/18 road at Strečno, of which the freight transportation is approximately 26 per cent. The exceeded capacity of this road has contributed to the deterioration of two Level VI bridges in this section, so classified due to their structural engineering condition. Black spots are identified in this section of Route I/18 , where the accident rate is 0.96 accident per km in the region and there is a risk of landslide and falling rocks in spite of barriers that have been built. The proposed section is part of the basic TEN-T network. The section will include the 7,5km long Višňové tunnel.	Yes	Obtain relevant building permits 04/2009 Launch tender for main construction work 12/2011 Construction starts 03/2015 Construction ends 12/2019	0.36	TBD	TECHNICAL DESIGN RISKS (Borne by the contractor (Yellow FIDIC)) LEGAL RISKS (Minimum). Settlement of property rights in progress (96 per cent and 85 per cent), it is necessary to settle property rights to lands of unknown and newly discovered owners) - mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team.
Transportation	Corridors and missing links	**D1 Hričovské Podhradie - Lietavská Lúčka**	Ministry of Transport, Construction and Regional Development of the Slovak	This section is the beginning of the southern bypass of Žilina that will	Yes	Obtain relevant building permits 11/2008	0.29	TBD	TECHNICAL DESIGN RISKS (Borne by the contractor (Yellow FIDIC))

		(2nd stage)	Republic	significantly help relieve the burden of traffic transiting Žilina, which is currently 59 per cent inside the town. The proposed section is part of the basic TEN-T network and it includes two tunnels with an overall length of 3 km. Together with the D1 Lietavská Lúčka – Višňové – Dubná Skala section, it will adequately bypass Žilina and replace the section of I/18 road running through Žilina and Strečno, which is insufficient in terms of capacity and has a 26 – 30 per cent share of freight traffic, an accident rate of approximately 0.9 accident per km and several black spots.		Launch tender for main construction work 03/2013 Construction starts 12/2015 Construction ends 12/2017			RISKS OF PUBLIC PROCUREMENT AND CONTRACT (None). A contract with the contractor was signed on 09 December 2013; the 1st stage was completed of the D1 Hričovské Podhradie - Lietavská Lúčka project started on 22 January 2014 after submission of the building site)
Transportation	Corridors and missing links	**D1 Hubová - Ivachnová (2nd stage)**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This project will help in homogenizing the D1 highway, which is part of the basic TEN-T network. This section of the D1 with the 2 km long Čebrať tunnel will alleviate much of transit traffic through Ružomberok, currently as high as 76 per cent of the overall traffic in the town. With 16,000-24,000 vehicles a day, the capacity of sections of Route I/18 that are currently used in lieu of the missing highway is exceeded, and there is often congestion in particular at the section feeding from Ružomberok to the beginning of the D1	Yes	Obtaining relevant building permits 04/2009 Launch tender for main construction work 10/2011 Construction starts 12/2015 Construction ends 06/2017	0.16	TBD	TECHNICAL DESIGN RISKS (Borne by the contractor (Yellow FIDIC)) RISKS OF PUBLIC PROCUREMENT AND CONTRACT (None). A contract with the contractor was signed on 08 November 2013, 1st stage of the "D1 Hubová – Ivachnová" project implementation started on 19 December 2013 after submitting the construction site.)

				highway in Ivachnová. Over 25 per cent of such intensity is caused by freight vehicles. One black spot is on the parallel section of road I/18 and the accident rate in the region is 0.92 accident per km.					
Transportation	Corridors and missing links	**D3 Žilina Strážov – Žilina Brodno (2nd stage)**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	North-western bypass of Žilina is a very expensive project involving a bridge above the Hričov water reservoir and the 2.2 km long Považský Chlmec tunnel . The road is part of the basic TEN-T network and it addresses north-south transit traffic. It will relieve transit traffic in Žilina that comprises 59 per cent of total traffic and also relieve traffic on adjacent sections of Routes I/11 and I/18, where current freight traffic share is over 30 per cent. The accident rate in these sections is high, over 1 accident per 1 km.	Yes	Obtain relevant building permits 08/2009 Launch tender for main construction work 03/2013 Construction starts 03/2015 Construction ends 06/2017	0.17	TBD	TECHNICAL DESIGN RISKS (Borne by the contractor (Yellow FIDIC)) LEGAL RISKS (Minimum). Settlement of property rights in progress (85 per cent), it is necessary to settle property rights to lands of unknown and newly discovered owners and temporary connection with road I/11) - mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team. RISKS OF PUBLIC PROCUREMENT AND CONTRACT (Public procurement for a contractor for the "D3 Žilina, Strážov - Žilina, Brodno" project started on 05 March 2013 and it ended after the Contract for Work was signed on 26 May 2014 – currently no risk

Transportation	Corridors and missing links	**D3 Svrčinovec - Skalité, half-profile (2nd stage)**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section with the two shorter Svrčinovec and Poľana tunnels should create a direct link from Žilina towards Poland for heavy freight transportation as well. Only freight vehicles up to 7.5 t can use the current road I/12 due to unsuitable width, layout and structural engineering condition, and Route I/12 passes in particular through the villages of Svrčinovec, Čierne and Skalité. There is one black spot on Route I/11 and the accident rate is 1.29 accident per km. Poland and Slovakia have undertaken to build such link through an intergovernmental agreement since the proposed section is also part of the TEN-T basic network. The section will reduce travel time between the Žilina region and Bielsko-Biala, Poland. It should improve the environment	Yes	Obtain relevant building permits 01/2011 Launch tender for main construction work 06/2012 Construction starts 01/2015 Construction ends 10/2016	0.17	TBD	TECHNICAL DESIGN RISKS (Borne by the contractor (Yellow FIDIC)) RISKS OF PUBLIC PROCUREMENT AND CONTRACT (None). A contract with the contractor was signed on 28 June 2013, the 1st stage of the "D3 Svrčinovec - Skalité, half section" project implementation started on 25 October 2013 after submission of the site)
The drafted Strategic Plan for Transport Infrastructure Development in Slovakia until 2020 (Master Plan) identifies the following sections of highways, expressways and 1st class roads as necessary:									
Transportation	Corridors and missing links	**D1 Bratislava - Senec, extension to 6 lanes**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Construction involves modification of the section's parameters in compliance with STN standards to become a satisfactory 6-lane highway with emergency lanes that would replace the current temporary road whose	Yes	Obtain relevant building permits 2015 Launch tender for main construction work 2015	0.66	TBD	RISKS OF TECHNICAL PROPOSAL (Construction Permit documentation is currently being prepared with the deadline for handover in February 2015). RISK OF PUBLIC

				capacity is insufficient (50 – 80 thousand vehicles a day, over 20 per cent freight vehicles), while improving accessibility to the surrounding region that are gradually becoming urbanized. The existing road surface will be replaced by cement – concrete surface, along with the construction of a, highway information system and drainage system. The section is part of the TEN-T basic network.		Construction starts 2016 Construction ends 2019			PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures) - mitigated by: well prepared documentation for tender.
Transportation	Corridors and missing links	**D1 Blatné - Trnava, extension to 6 lanes**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Construction involves modification of the section's parameters in compliance with STN standards to become a satisfactory 6-lane highway with emergency lanes that would replace the current temporary situation with insufficient capacity (50 – 80 thousand vehicles a day, over 20 per cent freight vehicles), while improving accessibility to the surrounding region that are gradually becoming urbanized. The existing road surface will be replaced by cement – concrete surface, along with the construction of a highway information system and drainage system. The section is part of the TEN-T basic network.	Yes	Obtain relevant building permits 2015 Launch tender for main construction work 2015 Construction starts 2016 Construction ends 2018	0.36	TBD	RISKS OF TECHNICAL PROPOSAL (Documentation for Building Permit is currently being prepared with the deadline for handover in January 2015). RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures); - mitigated by: well prepared documentation for tender.
Transportation	Corridors and	**D1 feeder**	Ministry of Transport,	The feeder will be	Yes	Obtain relevant	0.13	TBD	TECHNICAL DESIGN

	missing links	**Lietavská Lúčka - Žilina**	Construction and Regional Development of the Slovak Republic	connected to the Porúbka bypass and run outside Lietavská Lúčka. The feeder will link Route I/64 with the D1 highway, i.e. it will link Žilina and the villages of Rajecká Valley, and the industrial area in southern Žilina with the D1 highway so that freight transportation from the area would go directly along the D1 and not through Žilina and Bytčica, an urban district.		building permits 2015 Launch tender for main construction work 2015 Construction starts 01/2016 Construction ends 05/2018			RISKS (Currently, an EIA procedure is in progress and the technical solution is being updated). RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures) - mitigated by: well prepared documentation for tender.
Transportation	Corridors and missing links	**D3 Čadca, Bukov - Svrčinovec**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This is currently the most essential section of the D3 highway that runs through a build-up area and a difficult geological area, from Horelica tunnel to the intersection in Svrčinovec. The section diverts the transit traffic from Čadca that currently travels along the existing Route I/11, whose capacity is insufficient capacity and traffic intensity of approximately 12,000 vehicles a day is almost 50 per cent is the freight transportation. There are black spots on this section of road I/11 and the accident rate is 1.29 accident per km. The section is part of the TEN-T basic network and it will contribute to reducing travel time between the industrial region of Žilina on one side and the industrial Ostravsko	Yes	Obtain relevant building permits 12/2014 Launch tender for main construction work 2015 Construction starts 09/2015 Construction ends 12/2018	0.21	TBD	RISK OF COST INCREASE (Requirements by the owners of building to be demolished since they are too close to the future highway) LEGAL RISKS (Possible. Settlement of property rights in progress (87 per cent), necessary to complete settlements of property rights with approximately 70 owners. Proposal for expropriation of approximately 80 owners was filed and expropriation of unknown owners is in progress) mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team.

				region, Bielsko-Biala, Poland and the adjacent region.					RISKS OF PUBLIC PROCUREMENT AND CONTRACT (Potential extension of public procurement if the bidders exercise revision procedures) – mitigated by: well prepared documentation for the tender.
Transportation	Corridors and missing links	**D3 Kysucké Nové Mesto - Oščadnica**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section will replace the unsuitable road I/11 whose capacity is insufficient and traffic intensity is over 12,000 vehicles a day, where 35 per cent of the traffic is freight traffic, and it will bypass Krásno nad Kysucou. The accident rate of the existing road I/11 is as high as 1.31 accident per km and there are several significant black spots. The section is the part of the basic TEN-T network and it will contribute to reducing travel time between the industrial region of Žilina on one side and the industrial Ostravsko region and Bielsko-Biala, Poland on the other.	Yes	Obtain relevant building permits 2015 Launch tender for main construction work 2015 Construction starts 03/2016 Construction ends 03/2019	0.25	TBD	LEGAL RISKS (45 per cent of property rights settled; settlement will continue in the next level of preparations.) - mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team. RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures) - mitigated by: well prepared documentation for tender.
Transportation	Corridors and missing links	**D3 Žilina, Brodno - Kysucké Nové Mesto**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section will replace the unsuitable Route I/11 whose capacity is insufficient and traffic intensity is 22,000 vehicles a day, where almost 35 per cent of the traffic is freight traffic, and an unsuitable intersection on this road that connects traffic from	Yes	Obtain relevant building permits 2015 Launch tender for main construction work 2015 Construction starts	0.43	TBD	LEGAL RISKS (Possible.) 62 per cent of the property rights are settled. Objections by the concerned entity against legal validity of the zoning decision – action filed) – mitigated by: well prepared documentation, sufficient communication

				Kysucké Nové Mesto. The accident rate is 1.25 accident per km and there are also several black spots. The section is part of the basic network TEN-T and it will contribute to reducing travel time between the industrial region of Žilina on one side and the industrial Ostravsko region and Bielsko-Biala, Poland on the other.		06/2016 Construction ends 06/2020			with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team. RISKS OF PUBLIC PROCUREMENT AND CONTRACT (Potential extension of public procurement if the bidders exercise revision procedures) – mitigated by: well prepared documentation for the tender.
Transportation	Corridors and missing links	**R2 Mníchova Lehota - Ruskovce**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section will replace the unsuitable road I/50 whose capacity is insufficient and traffic intensity of 14,000 vehicles a day, where over 30 per cent is freight traffic, and whose accident rate 0.54 accident per km. The proposed section is part of the TEN-T comprehensive network and it will divert transit traffic from the municipality residential areas that Route I/50 crosses.	Yes	Obtain relevant building permits 10/2015 Launch tender for main construction work 01/2016 Construction starts 10/2016 Construction ends 12/2019	0.26	TBD	TECHNICAL DESIGN RISKS (A feasibility study for the section R2 intersection D1 - Nováky is under preparation.) Limited spatial arrangement of parallel roads R2, I/50, service road and housing development in 1.3 – 1.6 km and in 4.7 – 5.3 km /including taking account of level 1 hygiene buffer zone/) PLANNING RISKS (A feasibility study for section R2 intersection D1 - Nováky is under preparation.) LEGAL RISKS (Settlement of property rights - demolition of 4 houses, 6 garden cottages, foundations of 2

									garden cottages. Detailed taking of lands and exact scope of demolition will be determined during preparation of building permit documentation and then the customer will start negotiating with owners of the concerned properties.) - mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team. RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures) - mitigated by: well prepared documentation for tender.
Transportation	Corridors and missing links	**R2 Rožňava - Jablonov nad Turňou (Soroška)**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	The existing Route I/50 through the Soroška mountain pass is insufficient in terms of its layout and traffic intensity (approximately 8,000 vehicles a day, approx. 23 per cent of freight vehicles), it is a relevant black spot where lorry accidents cause problems, including the closure of this important link for several hours without any existing alternate road. This narrow spot will be	Yes	Obtain relevant building permits 2015/2016 Launch tender for main construction work 2016 Construction starts 12/2016 Construction ends 07/2021	0.45	TBD	RISK OF COST INCREASE (During the planning proceedings, company VVS a.s. raised a requirement for the next level of project documentation to secure potable water for village Jablonov since there is a rather high risk that the existing potable water source of the village will be damaged during the construction of Soroška tunnel. VVS a.s. stated

				replaced by a new section that will be part of the TEN-T comprehensive network and that will make the drive times between the towns of southern and eastern Slovakia shorter. The proposed section includes a 4.7 km long tunnel Soroška.					that the only alternate source is owned by Eustream, which uses it to supply water to a transit gas line compressor station. It is necessary to negotiate with Eustreem about purchasing the water source or to look for another water source.) TECHNICAL DESIGN RISKS (A feasibility study for the R2 Tornaľa – Včeláre section is under preparation.) PLANNING RISKS (A feasibility study for the section R2 Tornaľa - Včeláre is under preparation.) LEGAL RISKS (to be treated in the next level of preparation.) RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures) - mitigated by: well prepared documentation for tender.
Transportation	Corridors and missing links	**R2 Košice, Šaca - Košické Olšany**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	This section bypasses Košice to the south and diverts both north-south and east-west transit traffic from the city The section is part of TEN-T comprehensive network and it links the R2 and R4 expressways with the D1 highway. It will relieve the traffic in Košice,	Yes	Obtain relevant building permits 06/2016 Launch of tender for main construction work 10/2016 Construction starts	0.40	TBD	TECHNICAL DESIGN RISKS (A feasibility study for the section R2, R4 Prešov - Košice - Bidovce and R2 Včeláre - Košické Olšany is under preparation) PLANNING RISK (As required by Košice, the higher territorial unit of the

				where 89 per cent of all traffic is transit traffic.		06/2017 Construction ends 06/2020			Košice self-governing region and Ministry of Transport, Construction and Regional Development, there was a change in the route at US Steel compared to the proposal in the final EIA in the planning permission documentation . This caused issues involving a change to Košice's city zoning plan of and replacing a photovoltaic power plant. LEGAL RISKS (will be solved in the next level of preparation) RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the bidders exercise revision procedures) - mitigated by: well prepared documentation for tender.
Transportation	Corridors and missing links	**I/18 Nižný Hrabovec - Petrovce nad Laborcom, relocation**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Relocating the road will divert traffic away from the residential area of Strážske city and of the municipalities of Voľa, Nacina Ves and Petrovce nad Laborcom. It will help relieve the traffic burden on the existing Route I/18, whose traffic intensity of 8,000 to 9,000 vehicles a day and freight traffic is over 20 per cent. The accident rate in the region is 0.54 accident per km and there are several black spots because the	Yes	Obtain relevant building permits 2015 Launch tender for main construction work 2015 Construction starts 2016 Construction ends 2019	0.15	TBD	LEGAL RISKS (Settlement of property rights 0 per cent) - mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team. RISK OF PUBLIC PROCUREMENT (Potential extension of public procurement if the

				section is also unsuitable due to transverse and longitudinal unevenness.					bidders exercise revision procedures) - mitigated by: well prepared documentation for tender.
Railway infrastructure									
Transportation	Corridors and missing links	**Modernization of railway track Žilina – Košice, section of line Liptovský Mikuláš – Poprad-the Tatras (outside), realization of section Poprad-Tatras - Lučivná**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Upgrading the railway	Yes	Construction documentation. Construction starts 2015	0.18	0.12	The feasibility study is now being prepared for CORE TEN-T corridor Žilina – Košice – Čierna nad Tisou –SK/UA border with expected completion in 2015. Based on its outcomes it will be possible to determine exactly the technical solution of the construction and to identify the potential risks linked to the project implementation.
Transportation	Corridors and missing links	**Modernization of railway track Žilina – Košice, section of line Liptovský Mikuláš – Poprad-the Tatras (outside), realization of section Paludza - L. Hrádok**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Upgrading the railway	Yes	Construction documentation. Construction starts 2015	0.59	0.20	The feasibility study is now being prepared for CORE TEN-T corridor Žilina – Košice – Čierna nad Tisou –SK/UA border with expected completion in 2015. Based on its outcomes it will be possible to determine exactly the technical solution of the construction and to identify the potential risks linked to the project implementation.
Transportation	Corridors and missing links	**Čierna nad Tisou, modernization of a rail node, project documentation +**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Modernizing a rail node	Yes	Binding instructions have been prepared and Contract for Work with project organization signed	0.12	0.06	The feasibility study is now being prepared for CORE TEN-T corridor Žilina – Košice – Čierna nad Tisou –SK/UA border with expected completion

		realization				Construction starts 2017			in 2015. Based on its outcomes it will be possible to determine exactly the technical solution of the construction and to identify the potential risks linked to the project implementation.
Transportation	Corridors and missing connections	**Implementation of ERTMS in corridor No. IV Kúty state border SR/CR - node BA (ETCS L2 + GSM R), realization**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Putting ETCS L2 + GSM R in place	Yes	No underlying documentation Construction starts 2017	0.12	0.04	A feasibility study for CORE TEN-T corridor is being prepared (Orient-East Med). Based on its outcomes it will be possible to determine exactly the technical solution of the construction and to identify the potential risks linked to the project implementation.
Transportation	Corridors and missing links	**ŽSR (Railways of the Slovak Republic), Modernization of railway track Púchov - Žilina, for track speed up to 160 km / hour – 1st stage (Púchov - Považská Teplá)**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Upgrading the railway	Yes	Construction documentation. Construction starts 2015	0.33	0.25	Optimization of costs of construction is in progress, estimated completion of optimizing works: December 2015.
Transportation	Corridors and missing links	**VI. Corridor State border CR / SR - Čadca – Krásno nad Kysucou**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Upgrading the railway	Yes	Documentation for building permit. Construction starts 2017	0.39	0.12	Approval documentation for DSP level (building permit documentation) for the whole Krásno nad Kysucou – Čadca section and consecutively for DRS level (construction documentation) and DVZ level (documentation for selection of contractor)

									must be issued.
Transportation	Corridors and missing links	**Node Bratislava, linking Airport of M.R. Štefánik to ŽSR (Railways of the Slovak Republic) railway network**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Upgrading the railway	Yes	Documentation for building permit. Construction starts 2017	0.26	0.10	A feasibility study for complete Bratislava node should be prepared. The feasibility study estimate: December 2016.
Public passenger Transportation									
Transportation	City Transportation	**Carrier public transport system 1st stage Main station - Janíkov dvor, operational section Bosákova street - Janíkov dvor, 2nd part Bosákova street - Janíkov dvor**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Replacing carrier bus line 95 (interval 5 - 10 min) in urban Bratislava part - Petržalka (population 106,000) with tram transport	Yes	Obtain relevant building permits 2015 Launch tender for main construction work 2015 Construction starts 2016 Construction ends 2017	0.21	TBD	RISK OF COST INCREASE (change of concept, increase of price of building works and materials) TECHNICAL DESIGN RISKS (use of new methods and solutions) PLANNING RISKS (correlation with the project carrier public transport system (NS MHD) – 1st stage, 1st part) LEGAL RISKS (an issue of ownership relations in case of a change of concept or solution) - mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team. RISKS OF PUBLIC PROCUREMENT AND CONTRACT (appeals by unsuccessful bidders) – mitigated by: well prepared documentation

									for tender.
Transportation	City Transportation	**Modernization of tram track - Karloveská, Vajnorská and Račianska radial track**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Improving the quality of rail transportation (removing current section speed limits, creating right-of-ways for trams at intersections, reducing noise levels) to increase use of ecological transportation	Yes	Obtain relevant building permits 2015 Launch tender for main construction work 2015 Construction starts 2015 Construction ends 2016	0.18	TBD	RISK OF COST INCREASE (difference between valid documentation and actual situation, emergency condition of structural parts that are about to be modernized, increase of prices of building works and materials) TECHNICAL DESIGN RISKS (use of new methods and solutions) PLANNING RISKS (correlation with the maintenance base modernization project, missing feasibility study) LEGAL RISKS (property rights to lands) – mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team. RISKS OF PUBLIC PROCUREMENT AND CONTRACT (appeals by unsuccessful bidders) – mitigated by: well prepared documentation for tender.
Transportation	City Transportation	**Carrier public transport system (NS MHD) 1st stage Main station -**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	Linking the main railway station with the city center and railway track to Petržalka	Yes	Obtain relevant building permits 2016 Launch tender for	0.12	TBD	RISK OF COST INCREASE (difference between valid documentation and actual situation, emergency

		Janíkov dvor, operational section Main station - Šafárikovo námestie (square)				main construction work 2016 Construction starts 2016 Construction ends 2017			condition of structural parts that are about to be modernized, increase of prices of building works and materials) TECHNICAL DESIGN RISKS (use of new methods and solutions) PLANNING RISKS (correlation with the maintenance base modernization project) LEGAL RISKS (property rights to lands) – mitigated by: well prepared documentation, sufficient communication with owners, forcing the cooperation with the appropriate bodies, professionalism of the contracting authority´s team. RISKS OF PUBLIC PROCUREMENT AND CONTRACT (appeals by unsuccessful bidders) – mitigated by: well prepared documentation for tender.
Transportation	Air transportation – airport construction	**Completion of building and modernization of Žilina airport infrastructure**	Žilina Self-Governing Region, Ministry of Transport, Construction and Regional Development of the Slovak Republic	The project addresses effective use of Žilina Airport's building area from the aspect of placing required airport infrastructure that respects the surrounding area. The project's key element is expansion of RWY to 2,450 m. The project also addresses	No	Airport building study completed	0.130	0.105	Unsettled land issues – land purchases. No land-use plan exists that takes airport development into account in the stated scope – developing and approving a new land-use plan for Dolný Hričov and Kotešová.

				construction of other access areas for movement in the airport, flight connections at the airport, construction of an inter-modal terminal, facilities for cargo operation, aviation fuel warehouse, hangars, airport technological facilities , hotel, etc.					

Transportation	Corridors and missing links in water transportation	**E 81 Waterway Váh**	Ministry of Transport, Construction and Regional Development of the Slovak Republic	A key development project of the international waterway network – TEN T – waterway of international importance E 81 with connection to E 30 SK-CZ-PL. The project creates a connection between the Baltic and the Black sea. Danube – Vah – Oder	Yes Conception of the water managemen t policy of the Slovak Republic (developme nt of water transportatio n) Part of the European Agreement on Main Inland Waterways of International Importance (AGN) (Helsinki 1997) Rotterdam declaration 2001	Investment project – Váh Phase I – IV Waterway development study Preparation and implementation of Phase III on the territory of the Slovak Republic and preparation of Phase IV in cooperation with the Czech Republic and Poland.	2.192	0.3	Guaranteeing financial resources for the design and construction of a set of buildings Restoration of cooperation with the Czech Republic and Poland
	Conditions for business activity (multi-modal logistic platforms)			The project enables the development of water transportation in the Slovak Republic and creates conditions for related investments into industrial and logistic parks for multi-modal transportation and the growth of business in the region as well.					

Transportation	Corridors and missing links in water transportation	Water work Sereď – Hlohovec	TOP Optimal SK s.r.o.	A key project of Phase II of the Waterway Váh E 81 section Sereď – Púchov Project aims towards opening of the currently unnavigable 26 km of the waterway between the towns of Sereď and Hlohovec and creating conditions for the navigability of the section Komárno – Žilina in its entire length of 250 km	Yes Conception of water management policy of the Slovak Republic (development of water transportation) Part of AGN (Helsinki 1997) E 81	Valid land planning authorization. Running works on the construction preparation for building permit proceeding. Start of construction expected in 10/2015 Completion expected in 10/2020	0.418	0.15	Ensuring of complex financing, especially incited investments into the infrastructure Agreement on the implementation in the PPP form
	Conditions for business activity (multi-modal logistic platforms)			Construction of river ports, commercial and logistic parks Creation of up to 2,000 employment positions The project also has an intensive impact in the sector Energy Union, sub-sector Low-carbon energy production by means of 190 GWh annual production in hydroelectric power plants The project also has an impact in the sector Sources and	Energy policy of the Slovak Republic Conception				

				environment, sub-sector Natural sources: effective utilization and safe availability (water management) – retention of water in the countryside, revitalization of the area, removal of approx. 800 ha of quality arable land from the inundation area. In the sub-sector Resistance to climate change impacts (anti-flood arrangements and protection of inhabitants)	of water management policy of the Slovak Republic until 2015 Program proclamations of several Slovak governments				

Transportation	Corridors and missing links	**Shifting Route I/75 – bypass road around the city of Šaľa**	SSC IV SC Bratislava	Constructing a bypass around the city of Šaľa	Yes	Land-planning authorization was issued	0,1	n/a	n/a

Key Investment Project List – SLOVAK REPUBLIC

4. Social Infrastructure

Sector	Subsector	Project Name	Organization – Project Sponsor	Description	Included in National Investment Plan (yes/no)	Project Status	Total Investment Costs (EUR BN)	Investment in 2015 – 2017	Barriers to Implementation
Social Infrastructure	Creation of environment and urban services (public buildings)	**Public private partnership construction of a prison facility in Rimavská Sobota – Sabová**	Ministry of Justice	Building of a prison facility in order to deal with prison housing capacity deficit in the south-eastern region of the Slovak Republic	No	Feasibility Study for approval, 2015 – selection of a strategic partner, 2015 – implementation	0.015		n/a

Key Investment Project List – SLOVAK REPUBLIC

5. Resources and Environment

Sector	Sub-sector	Project Name	Organization – Project Sponsor	Description	Included in National Investment Plan (yes/no)	Project Status	Total Investment Costs (EUR BN)	Investment in 2015 – 2017	Barriers to Implementation
Sources and Environment	Natural Resources Resistance against climate change impacts.	**Water reservoir Tichý Potok**	MoEnv SR	Purpose of WR Tichý Potok is: • To supply drinking water to Eastern Slovakia • To regulate outflow ratio in extreme hydrological situations (area flood prevention) • Small water power plant	-	Development of documentation for land-planning decision (DAD)	0.27	0.010	Securement of funds
Sources and Environment	Natural Resources Resistance against climate change impacts.	**Water plant Slatinka**	MoEnv SR	Purpose of WP Slatinka is: • To enhance flow capacity in Hron river and ensure sufficient water capacity for all customers • To regulate outflow ratio in extreme hydrological situations (area flood prevention) • Small water power plant	-	Ongoing proceedings for land-planning decision	0.114	0.083	Securement of funds

Sector	Subsector	Project Name	Organization – Project Sponsor	Description	Included in National Investment Plan (yes/no)	Project Status	Total Investment Costs (EUR BN)	Investment in 2015 – 2017	Barriers to Implementation
Sources and Environment	Natural Resources Efficient use and safe accessibility.	**Ammonia4 Duslo, a.s Šaľa**	MoEnv SR	The new manufacturing plant Ammonia 4 will meet all the strictest criteria, including ecological ones, thereby ranking it among TOP manufacturing plants in Europe, i.e. among the 10% most modern facilities operated in the most developed countries of the European Union. The new manufacturing plant will meet all BAT technology criteria for producing ammonia.	-	**Land-planning** decision has not yet been issued. The project is at the stage of completed public assessment of EIA. In December 2013, the final positive position is expected to be taken. Building permit has not yet been issued. Project documentation and (current state of preparation) In cooperation with licensors of ammonia production, technical and economic study for building the new manufacturing plant Ammonia 4 with relevant auxiliary files was developed.	0.447	0.447	Ensuring of funds
Sources and Environment	Natural Resources Efficient use and safe accessibility.	**Manufacture of bioethanol of the second generation ENVIRAL a. s. Leopoldov**	MoEnv SR	Specific activities: • Building capacities for manufacturing bioethanol of the 2nd generation from post -harvest agricultural residues and targeted cultivated biomass to be used as an additive in fuels	-	Ongoing negotiations with possible technology supplier.	0.16541	0.16541	Ensuring of funds

				in line with legislative conditions and technical standards; • Generating green electricity and steam from lignin originating in bioethanol manufacturing; • Project is planned in a good location with good infrastructure; construction of connection required.					
Sources and Environment	Natural Resources Efficient use and safe accessibility.	**New technology of 4- ADFA manufacturing Duslo, a.s Šaľa**	MoEnv SR	Technology of 4-ADFA manufacture in Duslo, a.s. has been in use since 1983. Technology is outdated. Manufacturing costs are significantly higher than with modern technologies. The manufacture burdens the environment by producing a large quantity of emissions, waste as well as waste waters. Chlorine gas is used in the manufacture and, consequently, also hydrogen chloride, increasing the risk-level of the operation. Chlorine is particularly problematic, being supplied by external suppliers via rail. A potential emergency during transportation and consequent leakage of chlorine into the air presents a significant risk of damage to health or death of those affected. In the event of chlorine leakage during operation, its emission beyond the boundaries of the factory is possible. Operating	-	Land-planning decision has not yet been issued. Building permit has not yet been issued. Project documentation: Basic design technology is being currently processed. Deadline for basic design submission is March 2014. According to the statement of the Ministry of Environment of the Slovak Republic dated 5 September 2013, the proposed technology is not subject to assessment pursuant to Section 18 (4) of Act No. 24/2006 Coll. i.e.	0.096	0.096	Ensuring of funds

				old technology is not sustainable in the mid-term. Aims of project: • Reducing production of waste waters while improving their quality. • Significant reduction in gas emissions. • Reduction in solid waste production. • Increased safety by terminating the use of chlorine and end to gas hydrogen chloride and methanolic hydrogen chloride production. • Reduction in own costs of 4-ADFA production and consequently costs of Duslo products produced from 4-ADFA.		EIA assessment is omitted.			
Sources and Environment	Natural Resources Efficient use and safe accessibility.	**Aniline production Duslo, a.s Šaľa**	MoEnv SR	Aniline is used as basic raw material when manufacturing additives for rubber industry compounds. In order to maintain markets and expand sales of its products, Duslo, a.s. is gradually modernizing its production and building new manufacturing units. By modernizing production, it aims to secure sufficient manufacturing capacity for predicted consumption as well as to gradually reduce the ecological burden on the local environment caused by outdated manufacturing facilities. With regard to the above, Duslo, a.s. plans to	-	Land-planning decision has not yet been issued. Building permit has not yet been issued. Project documentation: In association with the project engineer, the introductory study of aniline manufacturing in Duslo, a.s. was developed.	0.084	0.084	Securement of funds

				manufacture aniline, currently imported, in the planned manufacturing unit.					
Sources and Environment	Natural Resources Efficient use and safe accessibility.	**Construction of 3 new technological units for communal waste sorting and recycling into forms suitable for final combined heat and electricity generation including production and use of bio-gas. EVPÚ a.s.**	MoEnv SR	Construction of 3 new technological units for communal waste sorting and recycling will have the following advantages: • improved capacity for communal waste sorting, • process of waste transformation into gas does not take place by incineration, but by a new process of gasification; this possesses advantages over the usual incineration, and at the same time represents the national "know-how", • overall higher efficiency of combined electricity and heat generation, • higher total share of waste recycling in compliance with waste management hierarchy, • technological scheme does not require additional media, inert gases, etc. for its work • technological scheme will represent a complex closed system of waste processing with minimized residues for further storage. • anticipated total costs of project include part of costs relating to construction of infrastructure for the technological entireties (driveways, energy	-	Currently, a pilot project of the relevant technological scheme with lower capacity for waste processed (for an area with about 60 thousand inhabitants), for which documents are in preparation for future land-planning and subsequent building permit is under way. Project documentation is in preparation for this pilot project.	0.051 (VAT excluded)	0.051 (VAT excluded)	Ensuring of funds

				supplies, other utilities, etc.).					

Sources and Environment	Natural Resources	**Complex solution of caring for areas of high natural value**	Department of Environment and Agriculture	The Slovak Republic is characterized by a high share of areas of high natural value. More than 2,300,000 ha represent areas of high natural value in agriculture as well as forestry. The common definition (EC, EEA and JRC) defines three categories of agricultural land of high natural value: •agricultural land with high share of semi-natural vegetation (biotopes of natural and semi-natural grass overgrowth) •agricultural mosaic country with low intensity of agriculture and natural and structural elements (historic structures of agricultural landscape) •agricultural soil supporting the occurrence of rare species or with high share of European or world population (areas of the European network of Natura 2000 protected areas) Two categories have been determined for the areas of high natural value in forestry: • naturally developing forests (wild forests) • semi-natural forests - (forests with long history of maintenance) In connection with the use, any anthropogenic activity is	No It is, however, in line with the Action Plan to implement the updated National Biodiversity Protection Strategy by 2020 approved by the Government (e.g. Task no. 116, 145).	The aim (rapid development of a study from the aspect of content and sources of funding is required)	0,1 (to be specified in the study)	0,1 (to be specified in the study)	n/a

				only forbidden in naturally developing forests. Agricultural or forest activity supports or participates in the change of the quantitative and qualitative state of areas of high natural value. Practical care for areas of high natural value is part of several operational programmes and financial mechanisms, especially the Rural Development Program of the Slovak Republic for the years 2014-2020 and the Operational Programme Environmental Quality. Managing areas of high natural value can thus be divided into areas where resources are invested and areas where a volume of resources needs to be invested. If the existence of biotopes and structures of landscape depends on continued agricultural and forest activity or if it is ensured through agricultural and forest activity, it is necessary to ensure care in all areas of high natural value. It is, however, not sufficient to determine the conditions of management in these locations, but it is also essential to ensure practical care, e.g. through public services of employment; including these activities in the requirements will also be manifested in the ability to face the predicted impacts of					

				climatic changes. As part of the study, existing information on the areas would be collated and those areas determined where it is necessary to invest resources as well as areas with low employment rate where new forms of caring for forests/permanent grass overgrowth would ensure the maintenance of natural values as well as employment levels.					
Sources and Environment / Energy Union	Turning waste into resources / Supporting transition to low-carbon economy	**Production of lignocellulosic ethanol (bio-fuel of second generation)**	ENVIRAL a.s. LEOPOLDOV in association with Výskumný ústav papiera a celulózy a.s. Bratislava (Institute for Research of Paper and Cellulose)	Construction of manufacturing plant for bio-ethanol of second generation made from lignocellulosic materials (mainly agricultural residues – hay and corn husks). The technology of producing cellulosic alcohol is currently moving from the stage of testing and development operations to an industrial launch (especially in the USA) and it is the interests of ENVIRAL to harness this trend and build in Slovakia one of the first facilities of this type in Europe.		Feasibility study development is underway; this will serve as the basis for investment decision.	0.20 –-0.25	0.20 – 0.25	Inadequate and unstable legal definition of the use of bio-fuels on the national as well as on the European level. Availability of loan resources, since there is no referential production launches of this technology to date. The solution is to co-finance the project from returnable and/or non-returnable sources of the European Community / EIB / etc.

Sources and Environment	Natural Resources Effective use and safe availability (water management,	**Electricity generation from waste heat of compressor unit combustion**	NAFTA a.s.	Reasonable use of primary energy by turning waste heat from turbo compression units to electricity in order to increase effectiveness of use of natural resources in the EU.	N/A	Feasibility study developed	0.024	0.024	Insufficient legislative support for electricity generation from unused resources (waste heat). The solution is to introduce legislative support or to directly

	regeneration of industrial places and changing waste to resources)	**gases**							support it from public resources.
Sources and Environment	Natural Resources Efficient use and safe accessibility.	**LDPE4**	SLOVNAFT, a.s.	Building of new effective manufacturing plants of low-density polyethylene (PE) to replace 3 out-dated PE facilities not meeting the stricter regulations concerning environmental protection and which are energy-inefficient. The new technology meets the requirements of the best available techniques (BAT) in the given area.		Project underway. Project termination and start of operations in 2015.	0.3	0.07	The European refining industry is challenged by strong competition on the part of producers from the former Commonwealth of Independent States, Asia and the USA due to lower standards of environmental protection and lower energy prices. The project deals with increasing the energy efficiency and decreasing emissions in line with EU requirements in order to maintain competitiveness with companies from countries with a lower degree of environmental protection (third-party countries, as a rule).
Sources and Environment	Natural Resources Efficient use and safe accessibility.	**Program of reducing emissions of refining and petrochemical manufacturing units and use of renewable**	SLOVNAFT, a.s.	Sub-projects focus mainly on meeting the environmental goals set by the EU and SR: - Reducing NOx and SO2 emissions - Reducing greenhouse gas emissions - Implementation of directive on industrial emissions - Introducing and using biofuel of 2nd generation in		Tender procedure is underway for some of the sub-projects. Assessment of other sub-projects is in final stage.	0.15	0.07	Standards of environmental protection set for the EU in the global competitive environment disadvantage industrial manufacturers from EU countries, including Slovakia. This results in the long-term tendency

		and secondary sources		transportation - Energy revaluation of waste					to relocate production to countries with lower standards of environmental protection, a phenomenon significantly endangering sustainability of economic growth in the EU and Slovakia.
Sources and Environment	Natural Resources Efficient use and safe accessibility.	**Program of increased efficiency of use of fossil materials**.	SLOVNAFT, a.s.	Reconstruction of manufacturing units in the refinery in order to minimize the production of sulphur heating oils. The project leads to increased efficiency of oil processing and increased extraction of light products per unit of processed oil.		Assessment of the project is in the final stage.	0.4	0.06	The European refining industry is challenged by strong competition on the part of producers from the former Commonwealth of Independent States, Asia and the U.S. A. due to lower standards of environmental protection and lower energy prices. Support for increased efficiency of oil processing by introducing new progressive technologies will contribute to increased competitiveness of the European refining industry as well as to reduced emissions of greenhouse gases.
Chemical and petrochemical industry	Power industry / heat supply	**Complete reconstruction and modernization of Central Heating Supply**	SLOVNAFT, a.s.	Exchange of distribution, reconstruction of 80 exchange stations, hydraulic regulation, system of condensate return, measuring and regulation, window replacement, insulation and renewal of 226 buildings	No	2015-2017	0.105	0.105	The project represents a direct fulfilment of the EU policy of increasing energy efficiency set by the Directive of the European Parliament and of the Council. No. 2012/27/EC and the

		SLOVNAFT, a.s.							obligations accepted as part of the climatic and energy aims of the EU by 2030.

Sources and the Environment	Natural Resources	**Waste to Energy**	U. S. Steel Košice, s.r.o.	Construction of waste energy utilization facilities; conservation of sources of primary raw materials	NA	Study	0,25	0,1	High capital expenditures, changing regulations: - own resources; effort to maximize the waste energy utilization
Sources and the Environment	Natural Resources	**Coke Plant Upgrade**	U. S. Steel Košice, s.r.o.	Coke production process upgrade; conservation of the primary raw material for coke production; energy efficient process	NA	Study	0,5	0,5	High capital expenditures
Resources and Environment	Natural resources	**Applied research of new non-traditional methods of treatment of municipal waste with maximizing their recycling and conversion for precious energy.**	EVPÚ, a. s.	The company develops and tested the entire new municipal waste treatment technology with high efficiency of material and energy recovery with minimum impact on the environment. This will greatly help to stop landfill.	Yes	Getting investment decisions for the implementation of the pilot project for complex development and testing of new technology, which ensures energy recovery of waste and encourage the cessation of landfill of waste	0,156	0,075	Sufficient financial resources for the realization of development and testing pilot technology in the projected deadlines.. Changing thinking and awareness of the population of real stopping landfill by 2018 and increase confidence in favor of new technologies disposal of municipal waste with a minimum impact on the environment.
Resources and Environment	Natural resources	**National Centre for Research and Development of Innovative Technologies for**	Klaster AT+R, z. p. o	Research and development of methods for environmentally-friendly industrial disposal of polychlorinated biphenyls (PCBs) in waste, in rivers and reservoirs, sediments and soil degradation through radiation and to build a clean (green) technologies for improvement	Yes	Getting the investment decision for the implementation of the research and development of methods and technologies for industrial disposal	0,110	0,055	Sufficient funds for the implementation of development methods, testing and pilot technology + combination of permit coordination problems and mistrust of the population to radiation

		Reducing (disposal) Environmental Burdens of Exposed Regions of the SR		of the environment. Reducing the concentration of PCB contaminants in the environment should be create conditions for long-term improvement in the health status of the population in the district of Michalovce, clean water and ambient temperature of Zemplinska šírava and thus achieve more intensive development of tourism and industrial use the whole area, including fishing permits, which will ultimately allow creation of new jobs in the region with a high unemployment rate and improve the quality of life in the region. A successful outcome of the project verified at the local level will offer the application of the results anywhere in the world. Disposal of such environmental burdens is not just a local problem but also a global world and open up possibilities for export results at least in Europe.		of polychlorinated biphenyls (PCB), that will ensure reduction in the concentration of PCB contaminants in the environment and thus should be create conditions for long-term improvement of population health and development of the region.			technology, which can lead to possible delays.

Key Investment Project List – SLOVAK REPUBLIC

6. Multi sector - Self governments

Sector	Subsector	Project Name	Organization – Project Sponsor	Description	Included in National Investment Plan (yes/no)	Project Status	Total Investment Costs (EUR BN)	Investment in 2015 – 2017	Barriers to Implementation
Knowledge and digital economy	Public research and development projects	**Science park Mlynská dolina**	Capital city of the Slovak Republic Bratislava, Slovak Technical University, Comenius University, Slovak Academy of Sciences	The project of building a science park with perspective of further development of science and interconnection of individual scientific disciplines from the field of natural sciences, information technologies, communications, energy industry, etc.	Yes	Feasibility study	0.12	0.12	land ownership, land-planning authorizations, building permits
Knowledge and digital economy	Public research and development projects	**Scientific-technical park Cepit**	Capital city of the Slovak Republic Bratislava, Slovak Technical University, Comenius University, Slovak Academy of Sciences	Central European Park for Innovative Technologies CEPIT. Such project is of great importance for Bratislava – Slovak Academy of Sciences and colleges have not responded to all the development requirements of basic research and applied research in cooperation with colleges, and to support partnerships in the third sector. The town wishes to have the scientific park open space for scientific offices, firms and companies from Slovakia and abroad that focus on special	Yes	Feasibility study, EIA	0.45	0.45	land ownership, land-planning authorizations, building permits

				technologies in the field of energy efficiency, environmental protection, alternative sources of energy, rain water conservation technologies in the territory, innovative building technologies, etc. in cooperation with technical colleges. Other areas include innovative communication technologies and creating a space for know-how exchange on national and European level in Bratislava – a conference center.					
Knowledge and digital economy	ICT infrastructure	**Metropolitan network and town data center**	Capital city of the Slovak Republic Bratislava	Building a town data network interconnecting the municipality with local authorities, creating a city-wide network of cameras monitoring and protecting the public space. Creating a data center to operate an integrated information system for the capital city.	Yes		0.15	0.09	land ownership, land-planning authorizations, building permits
Energy Union	Energy efficiency in buildings	**Insulation and decrease of energy demand of school and public buildings**	Capital city of the Slovak Republic Bratislava	Insulation and decreased of energy demand in school and public buildings, including repairs of roofs and insulation, repairs to building exterior walls and insulation including replacement of windows, replacement of heat sources	No	Under preparation	0.1	0.1	Public procurement
Energy Union	Energy efficiency in buildings	**Green town**	Capital city of the Slovak Republic Bratislava	Project for building a model sustainable locality – buildings, offices, transport infrastructure and public	No	Under preparation.	0.1	0.1	land ownership, land-planning authorizations, building permits

				space with zero emissions, green transportation and internal energy self-sufficiency					
Transportation	Conditions for business activity	**Main station – integrated transportation terminal**	Capital city of the Slovak Republic Bratislava	New underground tram, bus and trolleybus stations, underground garages, commercial space, connection to railway track, split level transportation link	Yes	Project documentation	0.2	0.2	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Conditions for business activity	**Modernizing the maintenance base in Bratislava**	Capital city of the Slovak Republic Bratislava	Upgrading and reconstruction of obsolete trams, trolleybuses and bus sheds (Jurajov dvor, Krasňany, Trnávka, Petržalka)	No	Feasibility study	0.1	0.034	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Corridors and missing links	**Linking Bratislava airport with Vienna airport**	Capital city of the Slovak Republic Bratislava	Linking Ivanka pri Dunaji Airport with Schwechat	No	Under preparation	0.3	0.3	land ownership
Transportation	Corridors and missing links	**Northern bypass**	Capital city of the Slovak Republic Bratislava	Completion of a central road transportation circuit between Pražská street and Jarošova street to substantially improve the traffic situation on existing roads. Negative environmental impact of traffic will be reduced. Traffic flow in the existing intersections will be improved after relieving the burden on existing roads and diverting automobile traffic to the northern bypass.	No	Project documentation	0.160	0.160	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Corridors and missing links	**Road link of Galvaniho street – Bojnická**	Capital city of the Slovak Republic Bratislava	Building a road link between urban parts Trnávka - Rača	No	Feasibility study	0.1	0.1	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders

		street							
Transportation	Corridors and missing links	**Town bridge Petržalka – R7**	Capital city of the Slovak Republic Bratislava	Building a link between Petržalka (at Kutlíkova street or Gettingova street) with the planned expressway R7 along the new town bridge	No	Under preparation.	0.2	0.2	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Corridors and missing links	**Relocation of I/502**	Capital city of the Slovak Republic Bratislava	Relocation of a busy road outside the built-up area of Rača – Welding Institute	No	Feasibility study	0.18	0.18	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Corridors and missing links	**Whole Tomášikova street**	Capital city of the Slovak Republic Bratislava	Completion of tram links – Račianska, Vajnorská and Ružinovská radial tracks – by completing tram tracks through Zátišie – Pluhová and Tomášikova Streets, "Račianska – Pluhová (Zátišie) – Vajnorská – Trnavská" route; road reconstruction, building cycling trails, addressing space for pedestrians and public space	No	Under preparation.	0.1	0.05	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Corridors and missing links	**Split level transportation road solution at riverbank – internal town circuit**	Capital city of the Slovak Republic Bratislava	Sinking an underground automobile traffic route at Riverpark – Dostojevského rad Street. Besides an elevated intersection and improved traffic flow and safety, lower noise levels and improved public space is expected.	No	Under preparation.	0.450	0.1	Land-planning authorization, building permits, moving utility lines, difference between valid documentation and actual situation
Transportation	Corridors and missing links	**Road link Rusovská street – Pražská street**	Capital city of the Slovak Republic Bratislava	Building a town bridge and tunnel that will diver transiting traffic through SNP Bridge and Štefánikova Street. Staromestská Street would be covered and become	No	Under preparation.	0.2	0.1	Land-planning authorization, building permits, moving utility lines, difference between valid documentation and actual situation

				public space.					
Transportation	Corridors and missing links	**Carrier public transportation system 1st stage, operational section Main station – Šafárikovo námestie**	Capital city of the Slovak Republic Bratislava	Linking the main railway station with the city center and railway route to Petržalka	Yes	Feasibility study prepared	0.12	0.12	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Corridors and missing links	**Carrier public transportation system – 3rd stage, operational section Bosákova – Janíkov Dvor**	Capital city of the SR Bratislava	Linking the main railway station with the city center and railway route to Petržalka	Yes	Feasibility study prepared	0.208	0.208	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Corridors and missing links	**Extension of tram tracks**	Dopravný podnik Bratislava (Bratislava Transportation Company)	Link between tram and railway infrastructure to improve traffic integration options (Stará Vajnorská - Vajnory; Dunajská - Mlynské Nivy; Saratovská - Eisnerova; Kutlíkova, Šintavská, Smolenická)	No	Under preparation.	0.231	0.231	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Corridors and missing links	**Modernization of tram tracks - Karloveská, Vajnorská, Račianska and Ružinovská radial track**	Dopravný podnik Bratislava (Bratislava Transportation Company)	Improving the quality of railway transportation (removing current section speed limits, creating right-of-ways for trams at crossroads, reducing noise levels) to increase use of ecological transportation	No	Project documentation being prepared.	0.184	0.184	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Corridors and missing links	**Carrier public**	Dopravný podnik	Americké námestie (square) – Ružinov – link	Yes	Under preparation.	0.1	0.1	difference between valid documentation and

		transportation system, operational section Americké námestie (square) – Airport	Bratislava (Bratislava Transportation Company)	with railway track + link with airport + Hornbach transfer terminal					actual situation, land ownership, appeals by unsuccessful bidders
Transportation	Corridors and missing links	**Trolleybus track in Petržalka**	Dopravný podnik Bratislava (Bratislava Transportation Company)	Building an ecological trolleybus track in Petržalka where no track is currently situated (trolleybus track Miletičova - Košická - APOLLO bridge – Bosákova street ...)	No	Project documentation being prepared.	0.1	0.1	difference between valid documentation and actual situation, land ownership
Transportation	City transportation	**Trolleybus tracks**	Dopravný podnik Bratislava (Bratislava Transportation Company)	Trolleybus track (TT) Brnianska - Patrónka - TESCO Lamač; TT Drotárska; TT Trnávka - Zlaté piesky and linking Trnávka with OC AVION; TT Karadžičova - Dostojevského - Pribinova - EUROVEA	No	Project documentation being prepared.	0.1	0.1	
Transportation	City transportation	**Electric buses**	Dopravný podnik Bratislava (Bratislava Transportation Company)	Purchase of electric buses and hybrid electric buses combined with trolleybuses in order to upgrade fleet and cut operating costs significantly	No	Under preparation.	0.1	0.1	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	City transportation	**Upgrading the tram fleet**	Dopravný podnik Bratislava (Bratislava Transportation Company)	Purchase of trams in order to improve the transportation quality and passenger, comfort, while lowering repair and maintenance costs.	Yes	Under preparation.	0.15	0.15	difference between valid documentation and actual situation, land ownership, appeals by unsuccessful bidders
Transportation	City transportation	**Intelligent transportation system**	Capital city	Creating a city-wide interconnected and intelligent intersection traffic management system with the aim to give public transportation right-of-way	No	Under preparation.	0.1	0.1	difference between valid documentation and actual situation

				and to charge fees for dynamic private car transportation in peak hours in order to optimize traffic flow.					
Social infrastructure	Creating environment and municipal services	**Rental apartments**	Capital city of the Slovak Republic Bratislava	Building 30 rental units with approximately 1,200 flats for young families and socially deprived population groups.	No	Under preparation.	0.1	0.1	land ownership, land-planning authorization and building permit
Social infrastructure	Creating environment and municipal services	**Reconstruction and repair of national cultural monuments**	Capital city of the Slovak Republic Bratislava	Reconstruction and repair of national cultural monument facades – Michalská Tower, the former Museum of Arts and Crafts building at Beblavého street, Dom u Dobrého pastiera (House of the Good Shepherd), Hummel´s Birthplace at Klobučnícka Street of Pálffy Palace (GMB) façade, Mirbach Palace, Ancient Gerulata Museum in Rusovce (total reconstruction), building a new common building for town organizations (Bratislava City Museum (MMB), Bratislava City Gallery (GMB), Institute for Monument Preservation (MUOP), City library (MK)), to be used to store and curate collections, as an office and workshop for restorers (it could be also used for commercial services used by other museums, galleries, and for the public). Completion of the area around Devín	No	Under preparation.	0.1	0.1	land ownership, land-planning authorization and building permit

				Castle National Cultural Monument: souvenir shop building, rest rooms, public working space, etc., opening a new entrance with complete infrastructure at eastern gate – entrance linked with port, fencing the whole area.					
Sources and the Environment	Resistance against climate change impacts.	**Adaptation to a climate change**	Capital city of the Slovak Republic Bratislava	Raise Bratislava's ability to prepare for the negative impacts of climate change. Taking specific action toward sustainable rainwater management, microclimate modifications and mitigating summer heat by planting new green areas, increasing the amount of greenery in selected public spaces, planting or revitalizing trees and bushes, building vegetation roofs, increasing water permeability of public space surfaces, building components of a local system for ecological stability green infrastructure), etc.	Yes	Pilot project in progress.	0.1	0.1	Ownership, , opinions of involved parties

Sector	Subsector	Project Name	Organization – Project Sponsor	Description	Included in National Investment Plan (yes/no)	Project Status	Total Investment Costs (EUR BN)	Investment in 2015 – 2017	Barriers to Implementation
Social infrastructure	Education and training	**Kechnec European Integrated School**	Municipality of Kechnec – Košice agglomeration	The proposed project involves the establishment of an EU integrated school ensuring education and acquisition of skills and competence required by modern industry and services for investors at a strategic industrial park in Kechnec and in the Košice industrial zone.	No Note: The project was included in the network of European integrated schools.	Project documentation to land-planning authorization and feasibility study has been completed. Accreditation of the school on the elementary school level with continuation to the 2nd and 3rd education level to be also ensured.	0,035 A part of Local Integrated Project with a total value of EUR 0,148	0.017	So far: lack of financial development resources, difficult accreditation process. Guaranteed financial resources would mean a significant shift in implementation, including accreditation.
Social infrastructure	Healthcare facilities	**Healthcare facility – SANATORIUM and integrated home for seniors Kechnec**	Municipality of Kechnec	Maintaining and improving the health of the population, including active those actively employed in the Kechnec industrial zone, from providing basic healthcare to retirement age	No	Project documentation to building permit has been completed	0,016 A part of Local Integrated Project with a total value of EUR 0,148	0.01	x) Costs so far invested in building: EUR 5.6 mil. for SO Polyclinic
Knowledge-based digital economy	Public research and development projects	**Science and technology park Kechnec, Košice agglomerati**	Municipality of Kechnec	Creation of a science and technology park for hi-tech companies within the existing strategic industrial zone in Kechnec and science parks TECHNICOM at Technical	No	Urban study of the Kechnec Science and Technology Park has been completed;	0,05 A part of Local Integrated Project with a total value of EUR 0,148	0,03	

		on at the border with Hungary with a connection to science parks in Košice and potentially also in Miškolc		University in Košice. The Kechnec Science and Technology Park has significant potential to serve 500,000 people in the area		feasibility study is being prepared as well as the project for land-planning authorization. Note: 300 ha strategic park is operating and connected to Košice via express road R4			
Sources and the Environment	Natural resources, regeneration of industrial places	**Aquapark Kechnec**	Municipality of Kechnec	The use of natural thermal resources from the existing geothermal drill to increase the CR, ensuring regeneration of the population and workers of the industrial zone of Kechnec	No	Project documentation to building permit has been completed	0,047 A part of Local Integrated Project with a total value of EUR 0,148	0,025	

Transportation	Corridors and missing links	**Connecting Route I/64 Novozámocká road with Route III/05137 Dlhá road with a collector road**	City of Nitra	Building an outer by-pass road around the city to divert National Route I/64 from the city center	No	Project for building permit.	0,09 A part of an Local Integrated Project.	n/a	n/a
Social infrastructure	Health	**Reconstruction of stadiums and sporting**	City of Nitra	Reconstruction and expansion of the existing swimming pool for year-round use according to modern, operational and hygienic	No	Study completion and project charter	0,04 A part of an Local	n/a	n/a

		complexes and building of a year-round swimming pool		standards. Reconstruction of stadiums and sporting complexes.			approval by the City Council of the project description.	Integrated Project		
Adaptation of the N-Adova Nitra residential complex	Social infrastructure	Creating environment and municipal services	City of Nitra	Building 212 low-energy and rental apartments in the N-Adova complex		No		0,02 A part of an Local Integrated Project		
Building of a congress center on the site of former military barracks	Social infrastructure	Education and training	City of Nitra	Building of a congress center	No		0,01 A part of an Local Integrated Project			
Modification of municipal waste for energy use	Energy Union	Interconnections and production	City of Nitra	Municipal waste incineration plant	No		0,12 A part of an Local Integrated Project			

SLOVENIA

Country : SLOVENIA

Project list

THE LIST OF PROJECT WAS COMPILED ON A NATIONAL LEVEL AND DOES NOT INCLUDE PROJECT ON A REGIONAL AND MUNICIPAL LEVEL. THE LIST IS INDICATIVE AND WAS NOT APPROVED BY THE GOVERNMENT OR THE PARLIAMENT. IN THE COURSE OF FURTHER STRUCTURING THE INVESTMENT INITIATIVE WE MAY SUGGEST OTHER PROJECTS AS WELL.

Sector	*Subsector*	*Private/Public/ PPP*	*Project name*	*Implementing agency*	*Description*	*Included in national investment plan (yes/no*	*Status*	*Total invest-ment cost (EUR bn)*	*Investment in 2015 – 2017 (EUR bn)*	*Barriers/solutions*
Entrepreneurship	SME's	private	SME's financing	SID banka	Financing of SME's through EIB loan and cohesion fund cofinancing.	No	Ongoing	0.4	0.4	
Entrepreneurship	Culture and creative sectors	public	Promotion of culture and creative sectors	Ministry of Culture	Stimulating the investments in CCI's the projects and programmes in the field of cultural sector are under preaparation.	Yes partially	Defined in National Programme for Culture 2014-2017, it would be possible to start the	0.022	0.007	Due to the budget constraints, Slovenia can not financially addresses its short
Resources and Environment	Resilience to Climate Change	public	Investments to reduce flood risk in Slovenija	Ministry of the Environment and Spatial Planning	In accordance with Directive 2007760/EC Slovenija identified 61 areas with significant flood risk. Investments in needed hydro-technical and ecosystem measures on all river-basins and sub-basins to reduce flood risk are envisaged in the project	Yes	Slovenija is implementing two major subprojects on Savinja and Drava river co-financed by ESI Funds and simultanuisly preparing technical documentation for further sub projects	1.03	0.15	Due to the budget constraints Slovenija can not financially address its short and long term investments in related sector
Energy Union	Energy efficiency in buildings	public private	Energy renovation of public buildings	SID banka	Financing of ESCO or public sector in the framework of energy contracting through EIB loan and cohesion fund cofinancing.	Yes	planning	1.3	0.3	Budget coinstraints of public sector, creditworthiness of ESCOs

Sector	*Subsector*	*Private/Public/ PPP*	*Project name*	*Implementing agency*	*Description*	*Included in national investment plan (yes/no*	*Status*	*Total invest-ment cost (EUR bn)*	*Investment in 2015 – 2017 (EUR bn)*	*Barriers/solutions*
Energy Union	Connections and production	public	Double OHL 400 kV to Hungary with the new 400/110 kV substation Cirkovce	ELES electricity grid of Slovenia	PCI project in North-South East Europe Electricity Priority Corridor; the project establishes first electricity interconnection between Slovenia and Hungary	Yes	Planning and permitting in final stages, construction start expected 2016-2017.	0.115	0.08	Environmental constraints
Energy Union	Connections and production	private	LNG Krk (HR) gas evacuation pipelines towards HU, SI and IT	Plinovodi	PCI projects in North-South East Gas Priority Corridor; gas evacuation pipelines in connection to LNG Krk PCI project (HR)	Yes	planning and permitting stages	0.6	0.035	Realization connected to LNG Krk (HR). Construction could start in 2018, if there are no permitting delays.
Energy Union	Connections and production	private	Hydro power plants on middle Sava river	SRESA d.o.o.	LOW-CARBON ENERGY PRODUCTION necessary for Slovenian CLIMATE-ENERGY GOALS 2020	Yes	planning stages, construction expected to start in 2018	0.4	0.015	Permitting delays, financing uncertainties
Transport	Corridors and missing links	public	Railway connection Adriatic - Alps	Ministry of Infrastructure	Upgrading of the rail infrastructure will be aligned with the TEN-T guidelines concerning core networks (100 km/h speed, 740 m-long trains and 22.5 ton axle load) on the Baltic - Adriatic and Mediterranean corridor. New tracks are foreseen where only single track is operating. Upgrades and new tracks will boost the competitiveness of the entire corridor as the greatest obstacle and load restrictions will be removed.	yes	For the first phase: second track Divača - Koper, upgrading section Zidani - most - Celje and Postaja Pragersko; planning and permitting are in final stages; construction start expected in 2016. The project will open by phases	1.53	0.3	Lack of long term finance. A combination of EC grants (Cohesion fond and CEF), EIB and MS finance is envisaged.

Sector	*Subsector*	*Private/Public/ PPP*	*Project name*	*Implementing agency*	*Description*	*Included in national investment plan (yes/no*	*Status*	*Total invest-ment cost (EUR bn)*	*Investment in 2015 – 2017 (EUR bn)*	*Barriers/solutions*
Transport	Corridors and missing links	public private	Modernization and expansion of Port of Koper	Ministry of Infrastructure, Luka Koper d.d.	Port of Koper needs greater depth of the entrance channel to basins and basins, additional port infrastructure capacities as well as the supporting and connecting public infrastructure because of the increased size of vessels, growing volumes and confirmed new market potentials.	yes	The project is divided into several smaller projects. For some projects permits have already been granted, start of construction is expected next year (2015); for some projects appropriate permits still need to be obtained, start of construction is expected after 2016.	0.2	0.1	Insufficient financial resources and problems in acquiring administrative and other permits may lead to possible delays. Expected source of co-financing: Cohesion fond and CEF, EIB, ERDF
Transport	Corridors and missing links	public private	Missing links on the TEN-T corridors	Ministry of Infrastructure, DARS d.d.	Missing highway section between Maribor - Croatian border (Draženci - Gruškovje);Second tube of the Karavanke tunel; Missing highway section between Jagodje-Lucija and Croatian border, improving road safety and efforts to remove bottlenecks near Brezovica and Ljubljana from toll station Hrušica to Austrian border (8 km in lenght).	Yes	Plannig stage, Confirmation of financial programme; ready for construction; building permit for the first stage Draženci - Gruškovje is granted.	0.594	0.23	Long spatial planning procedure, lack of long term finance. Expected source of co-financing: Cohesion fond and CEF, EIB
Transport	Corridors and missing links	public	3rd development axis	Ministry of Infrastructure, Slovenian Road Agency, DARS d.d.	The third development axis is a high-quality road representing connection between the Mediterranean Corridor and the Baltic-Adriatic Corridor. The project connects regional centres in Austria, Slovenia and Croatia, and thereby provides freight and passenger transport from all regions and connection to the major European transport routes.	yes	Planning stage	1.7	0.1	Lack of long term finance. A combination of EC grants (ERDF), EIB and MS finance is envisaged. Permitting problems.

Sector	*Subsector*	*Private/Public/ PPP*	*Project name*	*Implementing agency*	*Description*	*Included in national investment plan (yes/no*	*Status*	*Total invest-ment cost (EUR bn)*	*Investment in 2015 – 2017 (EUR bn)*	*Barriers/solutions*
Transport	Business enablers	public private	Intermodal Logistic Center Ljubljana	Ministry of Infrastructure, Luka Koper d.d.	The first phase plans a construction of an indoor storage facility of 41,000 m2 and generation of 430 new jobs. At the completion of the investment it is foreseen the Logistic Centre will provide indoor storage areas of 161,000 m2 on 47 hectares of land and generate 890 new jobs.	Yes	Planning stage	0.2	0.1	Lack of long term finance
Social Infrastructure	Health	Public	Emergency Medical Service	Ministry of Health	Upgrade of emergency medical service, which started with the construction of emergency centres and will continue with the following subprojects: '- Dispatch system, i.e. a comprehensive system of communication in crisis situations (natural disasters, mass accidents, accidents with severe injuries, ...) '- Helicopter emergency medical service - 8 heliports with 2 emergency helicopters '- 22 emergency ambulance vehicles	No*	In preparation; The project for Dispatch system is already prepared	0.0245	0.0245	Budgetary limitations
Social Infrastructure	Health	Public	Informatization of Slovene hospitals	Ministry of Health	A unified information system for all Slovene hospitals, covering all aspects of business processes and clinical data	No*	In preparation	0.045	0.002	Budgetary limitations
Social Infrastructure	Health	Public	Modernisation of healthcare facilities (1)	Ministry of Health	Construction of 2 out of several hospitals	No*	Detailed study prepared; Project documentation for one hospital completed	0.1	0.1	Budgetary limitations
Social Infrastructure	Health	Public	Modernisation of healthcare facilities (2)	Ministry of Health	Setting up of the post-stroke rehabilitation centres as part of the integrated care	No*	The project is prepared	0.037	0.012	Budgetary limitations

Sector	*Subsector*	*Private/Public/ PPP*	*Project name*	*Implementing agency*	*Description*	*Included in national investment plan (yes/no*	*Status*	*Total invest-ment cost (EUR bn)*	*Investment in 2015 – 2017 (EUR bn)*	*Barriers/solutions*
Knowledge and the Digital Economy	ICT Infrastructure	public	Teaming for excellence	Ministry of Education, Science and Sport	Teaming projects will establish (a) the scientific and technical basis for new or significantly enhanced centres of research excellence in Slovenia along with the detailed planning for their construction and operation, and (b) the commitment amongst all relevant parties to their development. Achievement of these objectives will lead to the investment of resources from the Cohesion Funds, to finance the necessary infrastructure and make the new centres of excellence a concrete reality. The instrument is based on synergic combination of structural and Horizon 2020 funds and shall provide a new way of strategic partnering between countries and therefore contribute also to synergies between different macro regions.	Yes	Slovenian research community prepared 11 Teaming for excellence applications which were send to EC for an evaluation.- Due to the fact that there will probably be much more excellent proposals than available funds we would like to use other instruments to support these initiatives on the priority areas of RIS3.	0.25	0.1	Budgetary limitations
Knowledge and the Digital Economy	ICT Infrastructure	public	ESFRI infrastructural projects based on National research infrastructure roadmap	Ministry of Education, Science and Sport	The research infrastructures are the precondition for research and simultaneously, medium-sized and large infrastructures in particular, are also of key importance for the excellence of such work and for conducting the most demanding research. With the aim of optimising investments in research infrastructures the collaborative approach is necessary. ESFRI initiatives are therefore in the center of Slovenian National research infrastructure roadmap and due to the strategic documents two medium size research infrastructures (connected with complementary infrastructure from other EU countries) shall be build in Slovenia in next years.	Yes - partialy	Necessary infrastructures are defined in all strategic documents, it would be possible to start the project very soon.	0.29	0.05	Budgetary limitations

Sector	*Subsector*	*Private/Public/ PPP*	*Project name*	*Implementing agency*	*Description*	*Included in national investment plan (yes/no*	*Status*	*Total invest-ment cost (EUR bn)*	*Investment in 2015 – 2017 (EUR bn)*	*Barriers/solutions*
Knowledge and the Digital Economy	ICT Infrastructure	public	Centres of Knowledge	Ministry of Education, Science and Sport	Centres of knowledge aim to introduce and promote interdisciplinary approach to research and innovation and are well suited to the needs of the industry where things are not kept in individual disciplines. They support concentration of resources on technology areas that are crucial for the competitiveness of the economy. They contribute to the efficient flow of knowledge and applications into products and services. With centres the integration of knowledge and competences of companies, and research organisations in certain technological areas is encouraged, namely the areas that show a critical mass of knowledge and capability for development and the use of new technologies. The results of such integration are new products, services and processes with higher added value, and therefore increasing competitiveness.	Yes - partialy	Centres are already established and functioning. They now need upgrading and support for developing the next phase with even more international dimension.	0.1	0.03	Budgetary limitations
Knowledge and the Digital Economy	ICT Infrastructure	public	Research Centres	Ministry of Education, Science and Sport	Research Centres are not established yet. Some are in the planning phase and some concepts already prepared. They should become Regional Reference Centres in priority areas and a part of the existing European reference networks.	Yes - partially	Planning phase / some already prepared	0.15	0.07	Budgetary limitations

Sector	*Subsector*	*Private/Public/ PPP*	*Project name*	*Implementing agency*	*Description*	*Included in national investment plan (yes/no*	*Status*	*Total invest-ment cost (EUR bn)*	*Investment in 2015 – 2017 (EUR bn)*	*Barriers/solutions*
Knowledge and the Digital Economy	Research and inovation infrastructure and investments on the field of culture	public	Improvement of research and inovation infrastructure and promotion in research and inovation investments on the field of culture	Ministry of Culture	Introducing and promoting interdisciplinary approach to research and innovation in the field of culture the projects and programmes that links science, technology and culture are under preparation.	Yes partially	Defined in National Programme for Culture 2014-2017, it would be possible to start the project very soon.	0.019	0, 006	Due to the budget constraints, Slovenia can not financially addresess its short and long term investments in related sector.
Culture infrastructure	Cultural heritage and public cultural infrastructure	public	Restoration and revitalisation of cultural heritage and public cultural infrastructure	Ministry of Culture	Projects for restoration and revitalisation of cultural heritage and public cultural infrastructure aimig to supplement cultural and cretive tourism are under preparation.	Yes partially	Defined in National Programme for Culture 2014-2017, it would be possible to start the project very soon.	0.14	0.06	Due to the budget constraints, Slovenia can not financially addresses its short and long term investments in related sector.

SPAIN

This list is an indicative list of projects in Spain prepared to contribute to the work of the EU Task Force on Developing an Investment Pipeline. It does not represent a comprehensive or exhaustive list of all projects in Spain that could benefit from EU support, be funded by the EIB or any financing vehicle developed in the context or as a result of the European Plan for Growth, Employment and Investment (the so called “Juncker Plan”). This list should not preclude any other projects in Spain from benefitting from these or any EU funds and it does not indicate a commitment by the Spanish Government to fund any of the projects included. The government of Spain reserves the right to add or remove projects from this indicative list at any future time. The information contained in the list should not be published or used without consent of the Spanish government and without inclusion of this disclaimer.

	Investment in 2015 – 2017 (EUR millions)
1. Knowledge and the Digital Economy	**11,181.24**
1.1. Public R&D	1,537.80
1.2. Private R&D	3,787.00
1.3. ICT Infrastructures	3,782.12
1.4. Professional training/employment	2,074.32
2. Energy Union	**25,133.50**
2.1. Connections and Production	14,449.70
Connections Iberian Penisula-outland territories	2,088.30
Connections Iberian peninsula-EU energy market in electricity	10,273.90
Additional investments for unexpected environmental reasons	5,000.00
Connections Iberian peninsula-EU energy market in gas	1,004.00
Other projects	1,083.50
2.2. Energy Efficiency	10,683.80
3. Transport	**6,115.30**
3.1. Corridors and Missing Links	6,115.30
4. Social Infrastructure	**5,163.05**
4.1. Education and Training	4,617.20
4.2. Health	345.00
4.3. Built Environment and Urban Services	200.85
5. Resources and the Environment	**5,351.25**
5.1. Natural Resources: Efficient Use and Secure Availability	2,957.96
5.2. Resilience to Climate Change	875.29
5.3. Environment	1,518.00
6. Agrifood	**27.65**
TOTAL	**52,971.99**

SWEDEN

Task- force on investments: Swedish contribution on question 4

Introduction

European and national policies need to be geared towards promoting competitiveness and structural reforms within the framework of sustainable public finances and compliance with fiscal policy framework at member state- and European level. This would contribute to improved conditions for lower unemployment, more and better jobs as well as the growth potential.

There is a need for increased private and public investments. Measures, mainly at member state level, to improve the investment climate are essential. As needs are not identical and conditions vary considerably between member states it is – with some exceptions linked to mainly the functioning and development of the internal market – important with a tailored approach.

Better conditions should be addressed mainly in the context of the internal market (including its digital components), external trade, functioning of the labour market, research and innovation as well as focusing on a sustainable, green and efficient economy.

In this context Sweden would like to mention the ongoing multi-national investment (in category 1. i KNOWLEDGE AND THE DIGITAL ECONOMY (Public R&D) in building **the European Spallation Source (ESS**) in Lund, to which the Swedish state is the main contributor and which Sweden considers to be one of the most important investments in public R&D infrastructure in Europe at this point in time.

Projects

2. iv Energy union (connections and production):

Cross-border electricity connection infrastructure

– Maintenance, modernisation and up-grading of the **Fenno-Skan DC-cable** between Sweden and Finland. Swedish National Grid (Svenska Kraftnät) and Fingrid.

- Total investment approx. 180 meur. Included in Svenska Kraftnäts investment plan.

- Started within the period 2015-1017.

Barriers: project preparation and partially public financing.

3. Transport

Development of public transport infrastructure provides better conditions to reduce adverse environmental and climate effects in the transport sector.

vii) missing links:

Rail infrastructure southern Sweden:

– Regional and local components of investments in **Söderåsbanan** (Åstorp – Teckomatorp).

Total investment approx. 39 meur. The part of the regional and local authorities (Bjuv och Svalöv municipalities) amounts to approx. 14 meur.

Included in the National plan for transport infrastructure 2014-2025.

Will provide a greater geographic and demographic part of the commuter region in southern Sweden with up-to date rail infrastructure and link those parts with the cross border connection between Malmö and Copenhagen as well as improving the rail-freight corridor in and through the area.

Started in 2019 according to plan.

Barriers: project preparation and partially financing.

viii) urban transport:

Enlargement and development of the **underground system in Stockholm.**

The project involves Stockholm County, Stockholm stad and the adjacent municipalities of Järfälla, Nacka and Solna stad. Agreement between the state and the other actors on the distribution of tasks and the division of financing was reached in 2012.

Total investment approx. 2900 meur.

Regional and local components approx.1275 meur.

Barriers: very complex project preparation and partially public financing.

Started late within in the period 2015-1017.

Other – programme for business financing

– Project **fund- in-fund aiming at strengthening the supply and availability of venture capital** for businesses in an early stage of development.

Financing through the European Regional Fund (approx. 21 meur), co-financing of approx. 21 meur from the Swedish state.

In earlier discussions with the EIB-group (EIF) it has been indicated that the bank is prepared to provide approx. 21 meur in additional capital.

Barriers: financing, finalisation of agreement.

Started: 2015-16

UNITED KINGDOM

UK Indicative Project List

This list is intended only as an indicative list of projects in the UK to inform the work of the EU Task Force on Developing an Investment Pipeline.
It is does not represent a comprehensive list of all projects in the UK that could benefit from EU support, and should not preclude other projects from benefitting from any EU funds or instruments made available as results of this initiative. The list does not indicate a commitment by UK government to fund any of the included projects.
The UK reserves the right to remove projects from this indicative list, and the information contained in the list should not be published or used without further consent of the UK government.

Sector	*Subsector*	*Project name*	*Implementing agency*	*Description*	*Included in national investment plans*	*Status*	*Total investment (£bn)*	*Investment in 2015 – (£bn)*	*Barriers/solutions*
Energy Union	Connections and production	Anglesey Energy Island	Energy Island Programme, Anglesey County Council Welsh Government Horizon Nuclear Power Magnoz National Grid	Integrated suite of investments in low carbon energy (nuclear, wind, tidal, biomass and solar), anchored by an £8bn investment in Nuclear). Gaps exist in terms of connecting infrastructure required to open employment opportunities and the supply chain in the wider region to the developments. Gaps also exist in terms of ensuring the investments in connecting infrastructure have a wider economic impact. Examples would be to develop multipurpose connecting infrastructure. The programme of work will improve the diversity of the UK's energy supply and security. It is also essential to optimise a regionally, economically transformational opportunity at the periphery of Europe.	Yes	Various stages. Main nuclear build possibly 2018-19, but other strategic investments are required from 2015/16 to ensure the Regional and National benefits are optimised.	25.0		Majority of investment expected from private sector (includes £8bn for nuclear plant). Barriers include grid connectivity, capacity and capability of ports, and other transport routes, skills, business readiness, consents and some RD&I for nascent technologies. Range of financing options being explored by the Anglesey Energy Programme, which has been mobilised to develop the underpinning to enable strategic decision making to miximise benefits to the region.

Energy Union	Connections and production	Swansea Bay Tidal Lagoon	Tidal Lagoon (Swansea Bay) Plc a Special Purpose Vehicle created by Tidal Lagoon Power.	Construct a 'proof of concept' tidal lagoon in Swansea Bay between the ports of Swansea and Neath. It could have capacity to produce up to 240MW (possibly up to 320MW) of renewable energy utilising the tidal range. Government has announced it will start closer discussions with Swansea Bay tidal lagoon to establish whether a potential project at Swansea Bay is value for money and affordable for consumers.	Yes	Seeking consents and finalising funding	0.9		Need a Development Consent Order, with the UK Government likely to determine the development in March 2014 and seabed lease, though a leasing round is expected to close in September 2015. Potential financing gap, with options being explored by the implmenting agency. Further gaps around associated development required to ensure Wales optimises the benefits from the project and also positions itself to develop expertise required for future projects in the UK and wider.
Energy Union	Energy Efficiency in Buildings	Industrial energy efficiency	BIS	Support for companies, particularly those that are energy intensive to invest to improve their energy efficiency and environmental standards beyond current minimum legal requirements.	No	Not yet launched	1.0	0.5	Exemptions from carbon taxes for energy intensive industries do not solve the long term issue of maintaining competitiveness while meeting carbon reduction targets. This would encourage investment in longer term, sustainable solutions.
Energy Union	Connections and Production	Security of Supply for Northern Ireland	DETI/Regulator/System Operator	Procurement of generating capacity to secure adequate generation margin between 2016 and 2021	Yes	Scoping options	0.1	0.1	Barriers - Appropriate financing structures. Impact on consumer bills. Isolated market with limited interconnection
Energy Union	Connections and Production	Security of Supply for Northern Ireland - post-2021	DETI/Regulator/System Operator	Delivery of interconnection	Yes	Planning	0.3	0.1	Lack of certainty in government plans. Weak/uncertain regulatory environment. Lack of appropriate financing structures. Impact on consumer bills. Sector specific barriers - opposition to transmission infrastructure
Energy Union	Connections and Production	Smart Grid	DETI/Regulator	Potential support for existing Project of Common Interest seeking substantial funding under Connecting Europe Facility - project is scalable and flexible	No	Project developers awaiting CEF decision	0.1	0.1	Lack of appropriate financing structures
Energy Union	Connections and Production	Fast-start generation	DETI/Regulator/System Operator	Procurement of faster start OCGTs to complement higher wind penetration	No	Understand that discussions are progressing between respective Regulatory Authorities and Transmission System Operators in Single Electricity Market	0.1	0.1	Lack of certainty over demand and revenues from investment. Impact on consumer bills. Investment in fossil fuel plant potentially inconsistent with direction of travel of European Union energy policy ambitions

Energy Union	Energy Efficiency in buildings	Gas conversion	DETI/Regulator	Support mechanism for business and domestic customers switching to gas	No	Not currently under detailed consideration	0.1	0.1	Lack of certainty over demand and revenues from investment. Lack of access to finance for SMEs
Energy Union	Connections and Production	Gas extension to East Down	DETI/Regulator	Extending availability of natural gas supply to parts of Northern Ireland	No	Scoping options	0.1	0.1	Lack of certainty over demand and revenues from investment
Energy Union	Energy Efficiency in buildings	NI Smart Meter programme	DETI/Regulator	Part-financing of NI smart meter rollout programme	No	Initial discussions between DETI and Regulator. Significant concerns about cost of rollout programme in a region with highest level of fuel poverty in UK. Marginal benefit over cost.	0.3	0.1	Lack of certainty over demand and revenues from investment. Sector-specific barrier - the NI market has the highest percentage of pre-payment meters in the UK, with many of the potential efficiencies/benefits offered by smart meter technology already being captured
Energy Union	Connections and Production	Energy Storage	DETI/Regulator	Potential support for existing Project of Common Interest seeking substantial funding under Connecting Europe Facility	Yes - not project specific - NI energy policy references importance of storage in general terms	Project developers awaiting CEF decision	0.3	0.2	Lack of appropriate financing structures. Lack of certainty over revenues.
Energy Union	Connections and Production	Gas Storage	DETI/Regulator	Potential support for existing Project of Common Interest seeking funding under Connecting Europe Facility	Yes	Pre-development stage but has obtained a number of consents	0.4	0.1	Lack of appropriate financing structures. Lack of certainty over revenues.

Energy Union	Energy Efficiency in Buildings	Household Energy and Thermal Efficiency Programme (HEaT)	Department of Social Developmen t (Northern Ireland)	A £140 million investment programme to support domestic energy efficiency measures through a combination of grant and loan payments, and the provision of guidance and support to homeowners, tenants and private landlords. It is estimated that £54 million of public funds will leverage further private investment of £86 million.	At a UK level, the Programme aims to utilise the already announced Financial Transactions Capital facility. The current Investment Strategy for Northern Ireland predates the HEaT proposal. The Strategy is under review and will be updated to reflect developments since its publication.	The development of the Programme is a commitment in the Economic Pact between the UK Government and the Northern Ireland Executive. An economic appraisal is being undertaken to consider detailed options for delivery, including in respect of the levels of support available to different categories of household, and of potential sources of funding.	0.054	0.018	The HEaT Programme is not included in the current Investment Strategy for Northern Ireland. The Strategy is under review which provides an opportunity to address this issue. No confirmed funding is in place for the project. Potential sources of funding are being explored, however each of the identified options is materially constrained in respect of either availability of resource, alignment between the intended timeframe for the programme and the availability of resource, and constraints on the application of funding to the intended purpose - in particular in respect of the appropriateness of available financing structures given the requirement to cover risks associated with loans to private households. Financial support from the EU investment pipeline in the 2015-17 period could provide a secure and stable financial environment for the further development and rollout of the programme.
Energy Union	Electricity Generation: Offshore Wind	Offhsore wind development, including specific projects of around 2667MW (Dudgeon; Burbo Bank Extension; Walney Extension Hornsea, Beatrice)	private sector	The UK remains committed to delivering 15 per cent renewable energy by 2020. In order to meet this target, the government estimated that the UK needs at least 30 per cent of its electricity generation to come from renewable sources by 2020. Offshore wind plays a crucial role in delivery of the target with 3.8GW of installed capacity, 1.4GW under construction and with an aspiration for 10GW installed by 2020. In particular, 5 projects have FIDer contracts in place and are aiming to reach financial close before 2016, with estimated potential additional financing required of up to £7.4bn given market conditions.	Yes	Various. 5 projects FIDer contracts in place.	21.3	10.4	**Barriers:** Future offshore wind project will be installed in deep waters, which considerably increases construction and maintenance costs. There is lack of investment appetite to support high capex projects with not sufficient returns on investment. **Solution:** EIB debt financing or loan guarantees.

Energy Union	Electricity Generation: Biomass	Biomass development including specific projects around 820 MW.	private sector	The UK remains committed to delivering 15 per cent renewable energy by 2020. In order to meet this target, the government estimated that the UK needs at least 30 per cent of its electricity generation to come from renewable sources by 2020. Biomass will play an imprtant role in delivery of the target with over 4GW currently installed. Together with spend under the RO, we expect a further 4.1-5.8GW total biomass to come forward under EMR	Yes	All projects are shovel ready with two looking to close FID by the end of the calendar year	6.3	1.2	**barriers**: lack of investment appetite because of the difficulty of finding industrial partners, lack of understanding of the value of CHP in the UK, concerns over the sustainability of biomass and lack of aopportunity for cost reduction. **Solution:** support for larger projects and an independently developed bionass CHP to drive down costs and demonstrate low carbon nature of biomass
Energy Union	Low Carbon Generation: Marine Electricity Generation	Marine Generation	private sector	Marine is a nascent technology and the UK is at the forefront of its development. Currently there are no commercial-scale projects in operation, however there is a number of demonstration projects in place. There is also 0.5GW of marine projects in the pipeline and it is estimated that the wave and tidal stream sector could see £500mn investment up to 2020.	No		0.5		**Barriers:** Slow progress on development of commercially viable technology, high construction costs, funding shortages due to lack of support from utilities and private investors. **Solution:** Support for larger scale projects to drive down costs. These projects would require capital grants and loans to encourage the industry to pick up.
Energy Union	Electricity Generation: Nuclear	Nuclear development, with three potential projects with a total of 12.2GW capacity (Hinkley Point C, Wylfa, and Moorside) reaching investment decision in the near term.	private sector	Nuclear technology is a low carbon source of energy. In the UK it currently provides 20% of electricity, however the majority of UK nuclear plants is reaching end of their estimated useful would need to shut down by 2023. The industry plans to deliver 16GW of new nuclear capacity.This could support an estimated 29,000-41,000 jobs across the nuclear supply chain at the peak of construction activity.To encourage new build, the UK government developed a strong regulatory framework, however more support is needed to unlock capital and accelerate investment.	Yes	Various stages of development. Investment decisions expected in near-term	46.0	16.0	**Barriers:** High construction cost, long payback period is making debt raising difficult. **Solution:** EIB senior and sub-ordinated debt or guarantees for developers and supply chain.

Energy Union	Energy Efficiency: Demand Side Response (DSR)	Demand Side Response. Potential projects include: Industry DSR Products Demonstrator (£20M), DSR in the Smart Cities Energy Demonstrator (£50M) , Catapult led Smart Heat Demand Demonstrator (£100M)	private sector/ Local Authorities	Demand side response requires “remote access” to demand points to be able to aggregate and monitor the DSR centrally. As the amount of intermittant renewable generation in the UK increases, the need for DSR also increases in order to keep the UK network stable at a reasonable price. DSR and the development of local storage and the smart grid are inevitably linked.	No		0.2	0.2	**Barriers:** Need to fund technology development. **Solution:** Capital grants for technology development and commercial scale demonstration. **Barriers:** Also need local authority plus DNO engagement with private sector to deliver DSR schemes. **Solution:** Partnership models between the players to develop cooperation which will need flexible funding models
Energy Union	Networks: Smart Grid	Smart Grid	private sector	An electricity grid that is fitted with more information and communications technology is integral to our transformation to low carbon economy. The so called "smart grid" gives a better understanding of variations in power generation and demand, and allows us to use that information in a dynamic and interactive way to get more out of the system.	Yes		0.5		**Barriers:** Any increased costs or debt associated with implementing Smart Grid under the current regime does not provide in the short term higher returns to shareholders. In fact it lowers their returns.The delays and no hope of winning bids forces Smart Grid providers to try other countries /purchasers. **Solution:** The Smart Grid companies need funding support during the competitive bidding stage. Smart Grid needs to be a carve out and a process established to encourage utilities to implement long term solutions that will create efficiencies and lower overall costs to consumers in the long term.
Energy Union	Industrial process energy	Industrial Carbon Capture & Storage demo	Partnership: industry, BIS, DECC	As part of the 2050 industrial sector roadmaps, some of the major sectors have identifed industrial CCS as a key technology for their decarbonisation. Especially steel and chemicals. Funding of a one-off capex award of £150m and two years of operation from 2015 to 2017 required: 0.19-0.25bn	Yes. On critical path to decarbonisation according to all models including DECCs and Committee on Climate Changes		<0.25	<0.25	**Barriers:** Capital intensive technology, not yet demonstrated at scale, which increases risk for investor. Energy intensive industries operate in globally competitive markets - no opportunity to pass on costs. Uncertain returns on investment in innovation. **Solution:** Capital grant programme for technology development and commercial scale demonstration (alongside other policy development for supporting low carbon manufacture).

Energy Union	Networks	New Interconnectors	Private sector, (other key bodies include Ofgem, DECC, EU energy regulators, EU energy ministries and EU transmission system operators)	The UK government is committed to increasing interconnection; an additional 6GW has been identified as European Projects of Common Interest under the TEN-E regulation. The pipeline of projects include: Eleclink (to France, 1GW), Greenlink (to Ireland, 500MW), NSN (to Norway, 1.4GW), Project Nemo (to Belgium, 1GW), FAB (to France, 1GW), IFA2 (to France, 1GW), Viking (to Denmark, 1GW), Icelink, (to Iceland, 1.2GW) Scottish Island Links between Lewis (450Mw) Shetland (600MW) and Orkney (200MW). All these projects are looking to reach financial close by end of 2017. The mature projects may benefit from debt finance support provided through EU institutions (potentially with greater risk appetite than EIB), depend on individual project's size and gearing. This will be particularly valuable for independent project financed projects such as FAB or Eleclink. The less mature projects may benefit from feasibility etc study grants.	Yes and the EU Ten Year Network Development Plan		>5	3.9	**Barriers:** i) Interconnectors operating under the "merchant exempt" route are very risky which is causing investment hiatus ii) Regulatory and political coordination between the countries in the two connected regions creates uncertainty for developers iii) Long term visibility on EU's regulatory framework for interconnection iv) access to finance during development and construction of project **Solutions:** i) To mitigate risk and funding costs to developers, EU should provide financial guarantees or debt facilities (e.g. via EIB-like instituions) for key strategic interconnection projects. ii) Greater grant funding for European Projects of Common interest, targetted for elec interconnector projects iii) More visability on medium and long tem regulatory framework for interconnectors in EU.

Energy Union	Industrial process energy; Industrial Energy Efficiency	2050 industrial sector roadmaps	Partnership: industry, BIS, DECC	Industry is responsible for 25% of the UK's total CO2 emissions. The Carbon Plan 2011 identified £18bn of low carbon investment potential to 2027 across businesses and industry (outside the EU ETS). BIS and DECC have been working with eight heaviest energy-using industries (steel, oil refining, food & drink, chemicals, ceramics, cement, paper, glass) to develop action plans to decarbonise and improve energy efficiency. Whole range of proposals expected in reports due March 2015; good opportunity to use EU finding to leverage private sector investment in partnership approach with full support of BIS and industry. More details available. Projects likely to be range of pilot, full scale demonstration, capital funding for equipment and plant, some scope for cross EU working on innovative technologies eg in cement, paper, ultra low-carbon steel. Projects should cover emissions reduction from chemical processes (e.g. in ceramics, steel production) as well as from fossil fuel use. (links to industrial CCS project listed seperately, so those technologies are not included in this line.	Yes. Key part of Carbon Plan. Also in some City Deals (eg Teesside).		18.0	0.1	**Barriers:** Capital intensive technology, not yet demonstrated at scale, which increases risk for investor. Energy intensive industries operate in globally competitive markets - no opportunity to pass on costs. Uncertain returns on investment in innovation. **Solution:** Capital grant programme for technology development and commercial scale demonstration (alongside other policy development for supporting low carbon manufacture). This should focus on focusing on commercial-scale demonstration projects for unproven technologies as well as potentially access to interest free or low-interest finance for deployment of best practice.

Energy Union	Heat networks (district heating)	Heat network development. A number of large scale heat networks projects are under development, including in Stoke-on-Trent, Tees Valley, Manchester, Enfield (London), Exeter, Cardiff and Gateshead.	Local Authorites in England and Wales, working with the private sector, with support from DECC & potential Green Investment Bank involvement	Heat networks are expected to play an important part in cost effectively decarbonising heat in buildings up to 2050. Economic models indicate that up to 20TWh/yr of heat demand could be cost effectively met by heat networks by 2020. DECC's Heat Network Delivery Unit (HNDU) is supporting 122 projects in the feasibility and project development stages across 91 Local Authority areas. Many of these are likely to get to financial close in the next few years and be delivered over the next 10 years.	Yes In Carbon Plan. Also in several City Deals.	Various - early projects are starting to enter procurement stages.	>0.2	0.1	**Barriers:** DECC Heat Network Delivery Unit has been running for 14 months, supporting LAs in overcoming capability and capacity barriers and developing proposals for heat networks especially in urban areas and some on a city-wide scale. However, likely that some strategically important schemes will not be able to offer sufficient returns for private investment while still representing good vfm in terms of decarbonisation **Solution:** A Local Authority capital fund from EU could leverage private investment and get major city-wide projects built, as would loan funds or loan guarantees.
Energy Union	Non Domestic Heat	Large scale renewable heat	private sector	The UK is committed to meeting our obligation to increasing the use of renewable energy by 2020.In the December 2013 Impact Assessment for the Renewable Heat Incentive, DECC estimated a potential renewable heat output of 29-59TWhs per year by 2020, up from 15TWhs in 2012. The large majority of this is expected to be delivered through the non-domestic sector, especially in buildings. Delivery of more large scale projects (eg £20m+) in CHP and Biomethane will be critical to reaching upper ranges of estimated renewable deployment.	Yes In Carbon Plan.	Various	5.0	<2	**Barriers:** Renewable heat projects with long lead times (including biomass CHP, geothermal heat and biomethane production) may be unable to access finance if relying on the RHI. **Solution:** Capital grants for large projects could release new capacity. This may be an alternative or a supplement to a tariff guarantee scheme or loan guarantee scheme,
Energy Union	Energy Efficiency: public sector	Public Sector Energy Efficiency	public sector	Upgrading the energy efficiency of public sector buildings	Yes		0.5	0.1	**Barriers:** Energy efficiency building retrofits in the public sector are funded by those organisations and sometimes through the government funded Salix Finance public sector energy efficiency loan scheme. The cost effective potential for energy efficiency retrofit far exceeds the available funding. **Solution:** ring-fenced fundiing for the public sector.

Energy Union	Electricity Generation: Carbon Capture and Storage	Commercial scale CCS projects [including White Rose, Peterhead]	private sector	Fossil fuels currently provide 60% of the UK's electricity. CCS is one of the key available technologies for cutting CO2 emissions from fossil fuel-based power generation (coal and gas). There are currently 2 commercial scale CCS projects in development in the UK , supported by the UK government and the EU (NER 300) with combined capacity of less than 1GW. The CCS industry could support between 15 000 - 30 000 jobs.	Yes	Various. 2 projects expected to take FID late 2015 / early 2016 as part of CCS Commercialisation Competition.	4.0	2.0	**Barriers:** This is a nascent technology with high construction costs, which has required capital grants to fund construction. Lack of appetite from debt and equity providers to finance CCS projects. **Solution:** EIB senior and sub-ordinated debt or loan guarantees for all projects. EU Capital grants to fund FEED studies and construction costs of non-competition projects and storage and transport infrastructure.
Energy Union	Energy Effciency in buildings	Market Transformation Programme for Building Renovation (Energiesprong)	Private/public Sector Market Developemt Team	Upgrading the energy effciency of domestic properties in the UK. Replicate a successful approach to building renovation from the Netherlands to create market conditions to broker a 100,000 home refurbishment programme with the construction sector based on industrialised product development as opposed to project based refurbishments. Project would operate across France and the Netherlands as well as the Uk	Yes - delivery of building retrofits and energy efficiency improvements is fundamental to the UK Carbon Plan.	First refurbishments to commence by 2017	0.02	0.02	**Barriers:**This represents a new technological solutioon - industrial scale retrofit packages for buildings (a wrap around external product) which requires high volume demand for commercial viability. **Solution:** Development of independent market development teams to match supply and demand working through initial start-up capital funding to support the delivery partners through the initial high-cost stage of the innovation curve to a point when the system becomes commercially viable. At this stage it would be funded via housing associations directly with an option to expand to mortgage holders and PRS landlords,
Energy Union	Connections and production	Cross Border Interconnector		Twining of the Ireland/Scotland gas interconnector at Moffat. Improve cross border security of supply.	No	Planning	0.08	0.08	
Energy Union	Connections and production	Cross Border Interconnector		Interconnector between Republic of Ireland and Northern Ireland. To increase security of supply and market competition.	No	Planning	0.128	0.128	
Knowledge and the Digital Economy	Broadband Infrastructure	Superfast Roll out Programme	DETI	Extend superfast broadband coverage across Northern Ireland to 95% by 2017	N/k	Business case to be prepared			industry capacity and available technical solutions £46.5m

Knowledge and the Digital Economy	Digital Infrastructure (also supports Social Infrastructure: health)	Centre of Excellence/ Living it Up	Scottish Government and NHS 24	Investment to scale up to a national digital platform for the NHS that will empower all citizens and communities to deliver their own care, supported by formal public services and secure sustainable health and care services for the future. The model is a partnership with industry who will provide tools and services. The solution includes R+D space for industry to innovate in partnership with academics, service users and health/care professionals. It will address shared EU societal challenges such as active and healthy ageing, create jobs and promote economic growth. Will allow clustering and private sector inviolvement in significant priority for Horizon 2020.	No	Prototyping carried out with design co produced with 8,000 Scottish citizens. Digital Health Institute established to support R+D activity	0.1	0.05	Largely virtual arrangement, so no planning or legal barriers. Data protection worked through as part of pilot.
Knowledge and the Digital Economy	Private R&D; this project also contributes to social infrastructure and very strongly to the energy union themes	EU 2020 Investment and Innovation Fund (Scottish Development Bank)	Scottish Government, with partners in enterprise agencies, local authorities and private sector	Loan , risk and equity capital investment fund aimed at EU 2020 targets, particularly around innovation investment and low carbon targets in line with Smart Specialisation. Scope of fund covers: (1) low carbon, (2) resource efficiency, (3) innovation (particularly biotech), (4) on-shore infrastructure in support of renewable energy, (5) smart cities technology and potentially (6) access to finance for SME's. Possible for investors to buy into some fund areas and not others, or to come in on individual projects which suit their portfolio. Innovation elements explicitly aim to compete with US on an area of strength - comparative fund at Harvard attracts $5 bn, and there is significant investor appetite in Scotland.	Yes	Ministerial commitment in principle, fund structures in existence which can be built on to launch and expand, existing angel investor network interested. Significant experience in access to finance and JESSICA models in Scotland means this could be launched and investing prior to 2017.	1.00	0.50	Pipelines more developed in some areas (access to finance) than others, but significant project pipeline development work will be supported by EU Structural Funds on low carbon, resource efficiency, smart cities and innovation. Local business angel network well-developed for access to finance; low carbon and on-shore investments backed by extensive infrastructure planning and outline consent for first tranche of priority sites; specific centres of specialism identified as potential investments for innovation (bio-refinery for bio-fules; manufacturing centre for modular/flexible cell therapy; and life sciences therapeutical centre linked to existing expertise at Southern General Hospital in Glasgow - the Harvard comparator)
Knowledge and the Digital Economy	Superfast Broadband	Superfast Broadband Projects Phase 2 - Cornwall	Local Authority	BDUK allocation of £2.96mn. Seeking match funding from EU of £1.86mn	Yes	Target contracting start date 14/11/2014	0.007	0.007	Lack of commercial incentive for industry to roll out broadband in sparsely populated rural areas, and difficulties with placing infrastructure in difficult to reach areas. Government/public sources of 'gap funding' required.

Knowledge and the Digital Economy	Superfast Broadband	Superfast Broadband Projects Phase 2 - Devon and Somerset	Local Authority	BDUK allocation of £22.75mn. Seeking match funding of £4.275mn	Yes	Target contracting start date 09/01/2015	0.05	0.05	Lack of commercial incentive for industry to roll out broadband in sparsely populated rural areas, and difficulties with placing infrastructure in difficult to reach areas. Government/public sources of 'gap funding' required.
Knowledge and the Digital Economy	Superfast Broadband	Superfast Broadband Projects Phase 2 - Durham, North Tyneside, South Tyneside	Local Authority	BDUK allocation of £6.08mn. Seeking match funding from EU of £1.4mn	Yes	Target contracting start date of 15/09/14	0.015	0.015	Lack of commercial incentive for industry to roll out broadband in sparsely populated rural areas, and difficulties with placing infrastructure in difficult to reach areas. Government/public sources of 'gap funding' required.
Knowledge and the Digital Economy	Superfast Broadband	Superfast Broadband Projects Phase 2 - Hereford and Gloucestershire	Local Authority	BDUK allocation of £10.98mn. Seeking EU fuding of £1.957mn	Yes	Target contracting start date of 16/01/15	0.025	0.025	Lack of commercial incentive for industry to roll out broadband in sparsely populated rural areas, and difficulties with placing infrastructure in difficult to reach areas. Government/public sources of 'gap funding' required.
Knowledge and the Digital Economy	Superfast Broadband	Superfast Broadband Projects Phase 2 - North and North East Lincolnshire	Local Authority	BDUK allocation of £1.18mn. Seeking EU match funding of £1.18mn.	Yes	Target contracting start date of 17/10/2014	0.003	0.003	Lack of commercial incentive for industry to roll out broadband in sparsely populated rural areas, and difficulties with placing infrastructure in difficult to reach areas. Government/public sources of 'gap funding' required.
Knowledge and the Digital Economy	Superfast Broadband	Superfast Broadband Projects Phase 2 - North Yorkshire	Local Authority	BDUK allocation of £4.32mn. Seeking EU match funding of £2mn	Yes	Contracting start date TBC	0.01	0.01	Lack of commercial incentive for industry to roll out broadband in sparsely populated rural areas, and difficulties with placing infrastructure in difficult to reach areas. Government/public sources of 'gap funding' required.

Knowledge and the Digital Economy	Superfast Broadband	Superfast Broadband Projects Phase 2 - West Yorkshire	Local Authority	BDUK allocation of £6.9mn. Seeking EU match funding of £6/9mn	Yes	Target contracting start date 09/01/2015	0.018	0.018	Lack of commercial incentive for industry to roll out broadband in sparsely populated rural areas, and difficulties with placing infrastructure in difficult to reach areas. Government/public sources of 'gap funding' required.
Knowledge and the Digital Economy	Public R&D	High Value Manufacturing Catapult	BIS (Innovate UK)	Additional core funding to maintain asset base at the cutting-edge (in accordance with the Hauser criteria) and to extend SME outreach services.	Hauser Review	Extension to existing scheme.	0.1	0.1	Affordability, spillovers, access to finance, coordination failures
Knowledge and the Digital Economy	Public R&D	Formulation Centre	BIS (Innovate UK)	A new Centre within the High Value Manufacturing Catapult to drive innovation in formulated products in a range of sectors. The formulated products market is large and international (>1000bn), and the Centre hopes to anchor investment from internationally mobile companies.	Hauser Review	Extension to existing scheme.	0.1	0.00	Affordability, spillovers, access to finance, coordination failures
Knowledge and the Digital Economy	Public R&D	Composites Centre	BIS (Innovate UK)	A new site for the Composites Centre in the HVM Catapult to enable composite structures to be prototyped and tested at scale.	Hauser Review	Extend existing scheme	0.1	0.1	Affordability
Knowledge and the Digital Economy	Public R&D	Robotics and Intelligent Autonomous Systems	BIS (EPSRC & Innovate UK)	Develop the UK market for robotics and autonomous systems with a demonstrator in Intelligent Mobility, with research funded from basic to innovative through a number of delivery bodies.	No	New proposal	0.5	0.02	Affordability, Positive Spillovers, Coordination Failures
Knowledge and the Digital Economy	Public R&D	Anti Microbial Resistance	BIS (MRC)	New coordinated research approach aimed at uncovering science that may help combat bacteria that become resistant to antibiotics.	No	New proposal	0.1	0.02	Affordability, Positive Spillovers, Risk and Uncertainty
Knowledge and the Digital Economy	Public R&D	Dementia	BIS (MRC)	Establish a new MRC University Unit in dementia research addressing the molecular and cellular mechanisms underlying neurodegeneration and dementia, in order to generate novel targets for drug development.	No	New proposal	0.1	0.02	Affordability, Positive Spillovers, Risk and Uncertainty

Knowledge and the Digital Economy	Public R&D	Launchpads for Local Growth	BIS (Innovate UK)	Expansion of the Launchpad programme supporting high tech clusters of SMEs and to allow LEPs and DAs to bid for new Launchpads in their area, based on their knowledge of local strengths. The programme would help at increasing the link between the national and sub-national innovation systems.	No	New proposal	0.05	0.02	Affordability, Positive Spillovers, Access to finance
Knowledge and the Digital Economy	Public R&D	Emerging technologies and industries	BIS (Innovate UK)	Establishing future industries will have an important role in the delivery of future economic growth. There are three areas of emerging technology industries where further investment is required to help develop and scale up the potential future industries. The three areas are - synthetic biology, non-animal testing, and cyber secure technologies.	No	New proposal	0.05	0.01	
Knowledge and the Digital Economy	Public R&D	UK Centre for Research in Cities and Infrastructure - UKCRIC	BIS (RCUK - tbc)	A set of interlinked laboratories that carry out research on the basic science, technology and engineering that underpins the economic infrastructure sectors.	No	New proposal submitted as part of capital consultation but which has not been shortlisted because insufficient budget available.	0.22	0.05	Affordability
Knowledge and the Digital Economy	Public R&D	A 'Crick Institute' for the Physical Sciences	BIS (RCUK - tbc)	Flagship Institute focused on applying physics, chemistry and engineering to scientific challenges in the Life Sciences	No	New proposal submitted as part of capital consultation but which has not been shortlisted because insufficient budget available	0.31	0.06	Affordability
Knowledge and the Digital Economy	Public R&D; Built environment and urban services	Innovation Partnership Investment Fund	BIS	IPIF will be a £50m competitive fund which will provide funding for new capital equipment and facilities to bodies that support the commercialisation of science and the development of high tech businesses.	No	New proposal	0.1	0.00	Affordability, Positive Spillovers, Access to finance/capital for SMEs, Coordination Failures

Knowledge and the Digital Economy	Space Technology	National Centre for space propulsion systems	BIS (UK Space Agency)	Provide a new centre for the development of space propulsion technologies for satellites (maintaining the satellite in the right orbital location) and for rockets to launch satellites. Would include innovative technologies such as ion-engines	Science capital consultation proposal; Growth strategy for UK space sector	Not yet launched	0.015	0.01	Coordinated national approach required if UK is to take advantage of a signficiant growing market
Resources and Environment	Resilience to Climate Change	Flood and Coastal Erosion Management	Environment Agency, local authorities and internal drainage boards	Pipeline of future capital investment in flood defences in England to meet risk arising from climate change	Yes	Government capital investment committed and significant proportion of projects is shovel-ready.	2.3	1.1	Delivering the full programme requires additional finance from local partners and beneficaries for some projects.
Resources and Environment	Resilience to Climate Change	Flood and Coastal Risk management	Welsh Government, local authorities in Wales, Natural Resources Wales, DWR Cymru, (Potentially Crown Estates, National Rail, other private sector)	Build defences, sustainable urban drainage systems and use land management techniques to prevent flooding, raise awareness of flooding and increase resilience to flooding in Wales. Flood and coastal investment has a benefit to cost ratio of around 8:1 or higher. Beyond protection to life, flood risk management has both short and long-term economic benefits, in particular in reducing business hours lost and providing a safe and attractive place to do business. Multiple benefits and partnership funding can mean that benefits are also realised in regeneration, health, tourism and the wider environment. Investment in flood and coastal risk management ensures that Wales remains resilient to the impacts of climate change.There is an ongoing rolling flood risk management programme. Additional investment means that this programme continues and provides more benefit to more places.	Yes	Ongoing investment to 2017	2.5	0.9	There is clarity in relation to areas at risk and proven delivery programme. (Minimal impact of 2013/14 coastal storms) However, there are significant challenges, particulary to coastal communities as a result of climate change. Research has identified a significant funding gap going forward.

Resources and Environment	Natural resources: efficient and secure availability	Green Growth Fund	Welsh Government	To increase and accelerate projects to deliver green investment in Wales. Primary focus on encouraging investment in resource efficiency, renewable energy generation and waste projects.	Yes	Phase 1 underway for further development. Not in national plan, but will be in next update	0.5	0.05	A number of factors are limiting development for a range of public sector bodies, potential developers and investors. Gaps include capability to bring forward investment ready projects and issues in capital markets, which are constrained. Discussions are ongoing with the European Investment Bank to develop a co-financing model and Elena grand funding for resource efficiency projects. Development work aims to create a recyclable investment fund, with supporting development expertise to bring forward projects and will therefore be seeking a range of investors to create a large and balanced fund. Aim to have fund running by 2016.
Resources and Environment	Natural resources: efficient and secure availability	Environmental Protection Scheme	Welsh Goverr	To contribute to sustainable development by increasing the level of environmental protection, in particular to: protect and enhance the environment; Combat climate change; Promote sustainable and renewable energy and energy efficiency; and to lower ecological footprints	Yes	Registered grant scheme in place	0.1		Has a suite of projects that have significant capex , but funding gaps.
Resources and Environment	Natural Resources: Efficient and Secure Availability	Underground Coal Gasification and Carbon Capture and Storage	BIS	Support to develop offshore underground coal gasification with integral carbon capture and storage	No	Currently pre-qualified for Infrastructure UK guarantees, but at risk of stalling on raising initial finance	1.0	0.023	This project can attract commercial investment if backed by loan guarantees but needs £23m up front in 2015 for pre-commercial testing
Resources and Environment	Resilience to Climate Change	Strategic Drainage Infrastructure for Greater Belfast Area	DRD	Rain and flood water seperation to prevent sewerage and waste water facilities being over whelmed during periods of high rainfall with resulting flooding, polution of water courses and threat to water quality in Belfast Lough	No		0.8		

Social Infrastructure	Built environment and urban services; also Transport - business enablers; and knowledge economy - ICT infrastructure	Major infrastructure development plan	Scottish Government, transport Scotland, Local Authorities	This proposal brings together major infrstructure plans based on agreed and committed planning around a non-profit distributing (NPD) transport infrastructure plan, the Cities Alliance investment plan (sites and projects in 7 cities) and scope for ultra-fast digital networks. The plans collectively aim at better connectivity and mobility for business in particular.	Yes	The project pipeline is mature and in many cases confirmed, with planning and legal frameworks in place. National and local funding for some elements confirmed, but additional external investment required particularly where there is likelihood of revenue generation.	10.0	5.0	Significant planning and commitment to key transport routes under the NPD approach, first projects under this contract structure already let as proof of concept. First £2.5bn phase in construction/moving through procurement. All are identified priority projects which will be privately financed. Around £1.5bn of projects have committed finance (some incl. EIB). Remaining £1bn planned to be ready for investment by 2017, have been structured to attract private investment. Second phase of £1bn being scoped with projects in health, education and justice sectors and plans for digital and / or low carbon. Projects in this phase are likely to be ready for investment in 2017 or soon after and are again drawn from identified investment priorities. Further investment could be scaled depending on scope of EU support available.
Social Infrastructure	Built environment & Urban services	BIM Level 3	BIS	Building Information Modelling (BIM) involves realising the full potential of digital technology in construction and the built environment. It is widely recognised as a game changing technology which will be adopted globally, in which the UK is currently world-leading. This work builds on our Level 2 programme (focused on design and construction of individual buildings) and links construction to improved social outcomes by producing a better designed and managed 'built environment' and use of 'Big Data'.	No	Industry/Government strategy finalised for publication in Nov. 2014	0.13	0.09	Level 3 BIM builds on Level 2 BIM but represents a 'quantum' leap in the technology and its applications. The barriers are both technological and cultural (in a traditionally conservative sector) but if overcome would make the UK and EU the most digitally advanced construction economy in the world - a platform for domestic and international growth.
Social Infrastructure	Education and Training	Growth sector skills capital investment	BIS (LEPs)	Investment to enable growth sectors of the economy to meet skills needs through new learning facilities which provide the right environment and technologies for effective acquisition of vocational skills.	No	New proposal	0.2	0.2	
Social Infrastructure	Education and Training	National Colleges	BIS	Establishing new, employer led, higher level vocational training institutions, aligned to the industrial strategy	Yes	First wave intended for announcement shortly, further proposals in the pipeline - some with affordability or financing issues.	0.8	0.8	At least 50% of the cost of establishing each college is supposed to come from the private sector. BIS has up to £50m to invest in these projects up to 2017. The potential scope for expansion of the programme is significant if additional funding is provided and the private sector engaged.

Social Infrastructure	Education and training	Mental health provision through Adult Community Learning	BIS (SFA)	£20m to support provision of Adult Community Learning to those with low level mental health problems.	No	Not yet launched	0.002	0.002	Affordability
Social Infrastructure	Education and training	HE STEM capital	BIS (HEFCE)	Investment in STEM capital at universities in England to support provision of high cost subjects, with significant economic impact.	No	Paused awaiting further funding	0.4	1.0	Affordability
Social Infrastructure	Health	RVH Childrens's Hospital	DHSSPS - Belfast Trust	New Childrens Hospital	NI ISNI Plan	Design and Enabling Works underway	0.2	0.1	
Social Infrastructure	Health	Craigavon Area Hospital Redevelopment	DHSSPS - Southern Trust	Redevelopment of Acute Hospital	No		0.5	0.1	
Social Infrastructure ix) education and training	Higher Education	Expansion of the University of Ulster's Magee canmpus	Department for Employment and Learning	Expansion of the Magee campus in Derry~Londonderry along the lines outlined in the regeneration plan for the city. This will deliver a 9,400 FTE campus in the city. This will deliver significant economic and social benefits to the nort-west region of Northern Ireland.	No	Some expansion in student numbers has already taken place. Expansion plans at the feasibility stage.	0.5	0.1	Lack of enabling government investment in both capital and recurrent terms.
Transport	Urban Transport	Cardiff Capital Region Metro	Welsh Government	The Metro project is a £3bn integrated transport programme in South East Wales which will deliver much improved levels of mobility, better linking communities and business. The scheme will play an important part in the overall delivery of an efficient modern transport system for the Capital Region. It will improve the reach of the region's public transport network and hence its attractiveness, create additional capacity, potentially with alternative modes that could reduce carbon emissions, new routes and stops and contribute to wider economic development.	Yes	Phase 1 (2013/14 - 2015/16) implementation underway - further phases being planned and developed	3.0	0.5	Requirement for capital funding is a barrier. Technical challenges from the geography, existing infrastructure and technology. Electrification of the Valleys lines proposals developing to enable lower carbon solutions, as will potential alternative technology solutions. Innovative finance solutions are being explored and there is potential for developers' and/or investors' contributions.

Transport	Corridors and missing links	M4 Corridor Around Newport	Welsh Government	New Section of Motorway to address resilience and capacity issues on the M4 motorway the primary economic route into the South Wale City Regions of Cardiff and Swansea. Core Trans-European Transport Networks Route	Yes	In development and seeking consents	1.0		Publication of draft Orders and Environmental Statement (planned Spring 2016), and Public Local Inquiry required (winter 2016/17). Finance to meet cost remains barrier and innovative finance being explored including the use of new borrowing powers.
Transport	Corridors and missing links	A465 Capacity and Resilience Enhancements	Welsh Government	The scheme, part of the A465 Dualling Programme will improve access to the northern part of Blaenau Gwent which will receive significant regeneration/ community benefits. The scheme will include a number of employment sites adjacent to the A465 that have the potential to generate new employment opportunities in the wider area. Trans-European Transport Networks Comprehensive Route. With the completion of the Scheme, the average number of employment opportunities accessible within 30 minutes for residents of the Heads of the Valleys area will increase from approximately 137,100 jobs to 145,700 jobs (+6.3%).	Yes	Phased development. Some elements in construction/due to start construction and in development.	0.5	0.2	Capital Funding Gap 0.300bn Delivered in Phases Start of Works 2014/2015. Finance to meet cost remains barrier and innovative finance being explored including the use of new borrowing powers. Funding Gap up to £0.4bn
Transport	Corridors and missing links	A4232 Eastern Bay Link	Welsh Government in conjunction with Cardiff County Council	Upgrade to existing route to link to Central Cardiff Entreprise Zone to M4. Significant regeneration/community benefits elements provided by the project.	Yes	Phased development. Some elements in construction/due to start construction and in development.	0.3	0.1	Capital - Funding Gap 0.25bn To be delivered in Phases Start of Ist Phase 2015.
Transport	Corridors and missing links	A55 Capacity and Resilience Enhancements	Welsh Government	Removal of missing links to address capacity issues and improve resilience to the A55. Trans-European Transport Networks Route	Yes	In development	0.3		Capital - Funding Gap 0.250bn To be delivered in Phases Ist Phases to Start 2017

Transport	Rail	Station Commercial Project Facility	Network Rail and Train Operating Companies	A programme of infrastructure improvements at stations that improves passenger facilities, increases rail passenger use and creates modal shift to rail while providing a financial benefit to DfT. Project promoters could be expected to provide a private sector contribution to projects.	Existing proposals previous announced: http://www.networkrail.co.uk/aspx/12458.aspx	Would be ready to launch a request for project bids in Dec 14	0.06	0.05	An earlier programme of this type has delivered about 50 projects and is predicted to give a financial return to DfT of £200m by 2024 and ongoing.

Transport	Cycling	Cycling Programme	Local Authorities	A national cycling programme, including: Expanding the cycling ambition programme to a much wider range of towns and cities that sign up to the principles outlined in the CDP (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364791/141015_Cycling_Delivery_Plan.pdf). All authorities that are successful in securing partnerships will have their proposals assessed to ensure they deliver high VfM. Extending our existing cycling ambition programme in eight core cities. Doubling the coverage of Bikeability cycle training in schools. This bid would also extend cycle training for adults. Extend our existing cycle-rail programme providing new and improving cycle parking at rail stations. Cycling projects are typically: • Quick to deliver, with average lead times of 9-18 months; Have cross-government benefits, to health, the environment, economy and transport; Very high VfM, as there are many more schemes offering 'low hanging fruit' than with other modes of transport. Economic case for cycling schemes: https://www.gov.uk/government/publications/economic-case-for-the-cycle-ambition-grants, https://www.gov.uk/government/publications/economic-case-for-large-local-sustainable-transport-fund-schemes.	Extension of existing schemes, public documents highlighted in description	Extension of existing schemes	2.6	0.50	The current plans rely on local authority capacity and funding. With the existing funding streams all short term (either one or two years), few local authorities are able to retain and build cycling strategies or professional development. This bid for long-term dedicated funding would help overcome this barrier.

Transport	Rail	Access for All	Network Rail	Proposals to double our level of funding for a major programme to improve accessibility at rail stations by installing lifts and ramps. Additional funding could allow at least 40 projects which could be announced immediately. This will include a number of stations in the North of England and Scotland, including for example Headingly, Mills Hill, Westerton and Kilmarnock. Strong business case with a high benefits to cost ratio. Improves accessibility and independence for large proportion of society to work, leisure, education and health care facilities.		Schemes already identified	0.10	0.10	Builds upon successful programme of works. Mature delivery mechanisms. Scaleable.
Transport	Multi-modal	Integrated Transport Accessibility Fund	Association of Train Operating Companies working alongside other delivery partners including Sustrans	The UK Department for Transport has an integrated transport policy delivered through the Door to Door strategy and an accessible transport policy delivered through the Accessibility Action Plan. This new Fund would seek to combine the two to deliver integrated accessible transport – an integrated and convenient door to door journey for everyone. This is a new concept, both in government, but also with our transport stakeholders who run separate accessibility projects largely designed around individual modes and not always connected to ensure the best possible accessibility across a whole journey. This would help improve accessibility and independence for large proportion of society to work, leisure, education and health care facilities.		Schemes could be identified rapidly. Association of Train Operating Companies has experience with accessibility projects.	0.10	0.10	

Transport	Environment	Ultra Low Emission Vehicle proposals		A £370m set of proposals for promoting Ultra Low Emission Vehicles in the UK. R+D - £250m Funding for further research and development for ULEVs given the success of existing policies and emerging market pressures, namely: • To expand OLEV funding of Innovate UK's Low Carbon Vehicle Innovation Platform. • To increase advanced R&D activity, build the UK & EU supply chain at a benefits to cost ratio of between 2.35:1 and 5.46:1. London - £50m - £75m Extra funding of £50m - £75m to enable London to become a global exemplar in the uptake of ULEVs and allow the city to continue to address its significant air quality problems. Roads Investment Strategy Rapids - £15m To introduce electric vehicle rapid chargers across the strategic road network (SRN) Bus Scheme - £30m The Bus Scheme – part of the OLEV 2015-2020 £500m programme - will ensure that local authorities and operators are supported in buying the lowest emission alternatives to conventional diesel buses.	Fits Government's priorities for developing a modern transport system while benefitting the environment. Existing funding outlined below: https://www.gov.uk/government/publications/ultra-low-emission-vehicles-in-the-uk-measures-to-support-use-and-development-2015-to-2020		0.370	0.12	

Transport	Local Roads	Reducing the roads maintenance backlog		A second round of the Potholes Fund, following the success of the Potholes Fund announced in the 2014 Budget. To minimise resource implications (on both DfT and local authorities), funding would be allocated using the existing assessment processes. Local authorities will not be asked to submit completely new bids, but to submit bids that reflect changes in circumstances since the last bid submission. Some of the funding could also top-up of the highways maintenance block funding to local authorities and would support local authorities to undertake highway maintenance activities, of which there is widely reported to be a backlog. Funding will help contribute to schemes which have yet to be fixed or future-proofed due to extreme weather.		Top-up of established programmes	12.00	12.00	There is evidence that Local authorities are facing a funding shortfall due to declining revenues and are unable to adequately maintain the road network in their areas. Consequently, the condition of the local road network is in decline. Additional funding would help local authorities plan and fill this maintenance gap.
Transport	Local Transport	Integrated Transport Block	Local Authorities	Top-up of the Integrated Transport (IT) block which provides funding to all Local Transport Authorities for small scale transport improvements (e.g. road safety or traffic management improvements; bus or cycle lanes). These can give improved access to jobs and deal with local congestion problems. Given funding covers the entire country £75m per annum would be a minimum figure. Funding for 2014/15 is £450m and from 2015/16-2020/21 is £458m pa, however £200m per year of this has been top-sliced to the Local Growth fund leaving a DfT direct grant of £258m pa. Funding could be allocated quickly and is likely to offer at least high VfM.	Existing funding provision published on UK Government website: https://www.gov.uk/government/publications/local-transport-capital-block-funding	Top-up of long established programme	0.30	0.30	

Transport	Local Transport	Local Sustainable Transport Fund		Extending the Local Sustainable Transport Fund will enable further delivery of projects that deliver new and enhanced local transport infrastructure which will deliver economic growth and also support the economy by enhancing the role sustainable transport plays in helping people access employment, education and retail facilities. The Fund is the largest investment in sustainable transport the Department has made, and delivers a range of transport improvements, including a number of bus improvement projects, that help to tackle congestion (an issue that is considered to cost the UK around £11bn a year) and make commuter journeys quicker and more reliable. Appraisals of the Fund's large projects places the value for money of this investment at 5:1 as demonstrated in our Value for Money Assessment report published on 6 November. The programme should be extended until 2020/2021 in line with the Local Growth Fund. Sustainable transport projects are considered 'shovel ready' and can be mobilised quickly. Any programme will require matched funding. Based on the success of the previous programme we anticipate there will be a significant contribution from the private sector, local community groups and the local authority.	Existing scheme published online and fits Coalition Government priorities for creating local growth and, cutting carbon emissions: https://www.gov.uk/government/collections/local-sustainable-transport-fund		0.71	0.36	

Transport	Maritime	Promoting Greener Shipping		Encourage shipowners and ports to invest in 'green technologies' – exhaust gas cleaning systems (EGCS) and alternative fuels – to reduce pollution emissions by ships. A small fund (£10-£20m) would be used to help shipowners operating from UK ports in the North Sea and the Channel to purchase this technology, providing a positive boost for UK based ferry services and for UK marine equipment manufacturers supplying this technology. The natural environment is central to economic activity and growth. These are not mutually exclusive; economic and environmental performance must go hand in hand. There will be both opportunities and challenges from the transition to a green economy and businesses will need to adapt to take advantage of benefits and manage costs and risks. By developing the right policies, the Government can support the transition and create opportunities that facilitate investment in green technologies. Done right, this would be a win-win situation, both reducing operational pollution and bringing benefits to industry.			0.32	0.02	
Transport	Multi-modal	South West Road and Rail improvements	Network Rail/Highways Agency	A package of measures to enhance rail and road capacity, connectivity and resilience in the South West of England.These schemes have the potential to boost the economic competitiveness of the region and improve connectivity to major markets.		Additional appraisal and feasibility studies would be required for most of the options.	3.20	TBC	

Transport	High Speed Rail	Euston	DfT	Providing a lasting solution to the existing Euston station that enables oversite development, minimises disruption to existing train services and provides the project with an iconic London terminus. Would create a platform for oversite development which would complement the Hybrid Bill scheme.	Yes		2.5	TBC	
Transport	Corridors and missing links	A6 Dualling from Londonderry to Dungiven	DRD	Upgrading existing single carriageway with a dual carriageway with grade separated junctions limiting access to route. Including bypass at Dungiven	Yes in TransportNI Capital Programme		0.4		
Transport	Urban Transport	Belfast Rapid Transit	Department for Regional Development	Cost of a full North/South/East/West BRT project	Partial inclusion, East/West only		0.2		
Transport	Corridors and missing links	A1 Sprucefield Bypass, hard shoulder running on the M1 and the provision of grade seperated junctions on the A1 along with central safety barrier (phased delivery required	DRD	Upgrading existing single carriageway with a dual carriageway with grade separated junctions limiting access to route.	Yes in TransportNI Capital Programme		0.3		
Transport	Corridors and missing links	Electrification of Belfast to Dublin Railway	DRD	Electrification of rail track from Belfast to Dublin	Yes, Future Railway Investment		0.5	0.0	

Transport	Corridors and missing links	Increase rail network capacity	DRD	Widening of dargan bridge and dualling of track from Bleach Green to Ballymena	Yes, Future Railway Investment		0.3	0.0	
Transport	Corridors and missing links	Improving passenger capacity on existing network	DRD	New halts, additional carriages, upgrade stations	Yes, Future Railway Investment		0.6	0.0	
Transport	Corridors and missing links	Newry Southern Relief Road	DRD	To provide a southern relief road of Newry which would enhance connectivity from the strategic road network to Warrenpoint Harbour	Not currently in TransportNI Capital Programme		0.2		
Transport	Corridors and missing links	maintain present network	DRD	Various track renewals, refurbishment of trains, replacement ticketing & information systems, park & ride facilities	Yes, Future Railway Investment				
Transport	Corridors and missing links	Extension of the existing rail network	DRD	New track laid to north and south of Lough Neagh and electification of NI network.	Yes, Future Railway Investment				
Transport	Business enablers	Belfast Harbour Project	DRD	Cruise facility, replacement cranes, RoRo Ramps and wharfs, and dredging.	Yes in Belfast Harbour Investment Plan				
Transport	Corridors and missing links	Future Connectivity between Northern Ireland and Great Britain	DRD	Feasability study into bridge linking NI and GB			0.2		

Transport	Rail	Gospel Oak - Barking Riverside Extension	Transport for London	An extension of the Gospel Oak to Barking Overground line in London to serve a new station at Barking Riverside, costing £190m overall. The scheme forms part of a combined transport package which includes improvements to the A13 Renwick Road junction, further enhancements to bus services and the development of a local road network, walking and cycling routes. Planning consent would be required which could be submitted by 2015. This would enable scheme construction commence by 2017.			0.19	0.08	
							181.0	**60.43**	