



## ITALY



## **Pipeline of projects**

### **A. Knowledge, SMEs and the digital economy**

Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/m)	Investment in 2015 – 2017 (€/m)	Barriers/solutions
A. Knowledge, SMEs and the digital economy	ICT Infrastructure	Electronic invoice and payment by public administration and Management System of Administrative Proceedings	Agency for Digital Italy	The program supports the adoption of digital payments and electronic invoice in the Business-to-Government economic transactions in accordance with in the European strategy for growth and development Europe 2020, the establishment of the Italian Civil Status Registry ( a centralized data base that concentrates the 8057 Italian municipality Civil Status registries and the Registry of Italians Resident Abroad), and an organizational and technological reference model with the aim to: i) map services for citizens and enterprises; ii) reverse engineer, standardize and digitize the main administrative proceedings	Yes	Most components of the program are under implementation	0.240	0.240	Barriers: 1) businesses and governments suffer for digital divide, e-invoice could be a driver for a massive adoption of digital technologies; 2) lack of financial resources for innovation of business processes by businesses and PA; 3) coordination problems more than 5M businesses involved. 4) system adaptation in accordance with the European Directive 55/2014; 5) low adoption electronic payment in Italy and few on line government services available ready for e-payment. Solution: 1) e-invoice to public administration started he electronic invoice to the PA started, within one year e-invoice will be adopted by all businesses; 2) strong partnership between government and business PA; 3) strong expertise on e-invoice owned by government task force (AglD, Ministry of Economy and Finance).
A. Knowledge, SMEs and the digital economy	Public R&D	National Aerospace Plan	ASI - Italian Space Agency	VEGA (space rocket project), ISS (contribution to international space station), CSG (COSMO second generation)	yes	negotiation/development	1100	1100	Risky investments for high R&D activities and developments of high technologies and Lack of long term finance + coordination and permitting problems, leading to possible delays / Risk sharing mechanism - A combination of EC grants, EIB and MS finance as well as private capital is envisaged. A project management unit will supervise the project's planning and implementation under the close supervision of the promoter and the relevant Ministries.
A. Knowledge, SMEs and the digital economy	A.2. SMEs, Private R&D	ABS	CDP, EIB, EIF	Development of the covered bond market related to receivables from SMEs, to ease Bank's capital constraint, which limits access to credit for SMEs	Yes, national law (Stability Law 2014)	to be implemented (waiting for the issuing of the operative decree by the MEF)	200 *	200	Barriers: ABS market is characterized by high placement costs and difficulties in the placement of the junior tranches at specialized investors; Solutions: providing State Guarantee and access to the resources of the Central Guarantee Fund established by the Italian Government to allow the intervention of CDP, in connection with EIB/EIF
A. Knowledge, SMEs and the digital economy	A.2. SMEs, Private R&D	SMEs Financial Instruments Fund-of-Funds (Minibond, Venture Capital, ...)	CDP, Private promoters	Fostering the creation, through a selective process, of minibond and private equity funds and leveraging the resources deployed in support of SMEs	No	implemented	700	300	Lack of innovative financial instruments to support SMEs Solutions: setting up a Fund-of-funds instrument to co-invest with the EIF and other private international investors
A. Knowledge, SMEs and the digital economy	Public R&D	Construction of a Divertor Tokamak Test Facility for fusion energy research	ENEA and Ministry of economic development	The Divertor Tokamak Test facility will foster the development of fusion energy being devoted to provide the solution for one of the main issue impacting on the operation of fusion reactor, i.e. the efficient power handling.	no	The Divertor Tokamak Test facility design is currently under finalization at European level.	500	250	Necessary to guarantee properly skilled Team during the entire project period, which would last for at least 25 years (7 of which for construction). However, international involvement reduce substantially this risk. No issues concerning the technology required to build the facility which are well developed even though quite complex.
A. Knowledge, SMEs and the digital economy	Public R&D	SKA - Industrial Astronomy	INAF - Italian National Institute for Astrophysics+ LEs, SMEs	SKA (square Kilometer Array) is a new approach to radio-astronomy, with thousands of antennae distributed in the Southern Hemisphere by an International Collaboration. INAF has developed a strategy for the Italian presence in SKA based on our capacity for industrial design and production of a number of antennae, in part already built and qualified at prototype level. We also plan to work on the ICT dimension of the project, a challenge for dimensions and throughput.	no	The SKA collaboration consists of 4 European and 6 extra European countries organized as a UK Ltd company. The project development for each country is moving from the concept to the design state and Italy joins the development phase with an eye to the future.	500	20	Several technical design and construction problems

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A. Knowledge, SMEs and the digital economy	Private R&D	Silicon Technologies	Industry (LE & SMEs), Universities, Public and Private Research	Development of electronic systems integration on silicon; Technologies for photovoltaic applications; Technologies for alternative materials to silicon; integration of heterogeneous technologies; Technologies for sensors; Technologies for "Silicon Photonics"	no	project of national table for microelectronics (Ministry of Economic Development)	800	800	Lack of long term finance / Risk sharing mechanism The EIB presently requires sovereign recourse for considering financing
A. Knowledge, SMEs and the digital economy	Private R&D	SMEs R&D	Ministry of economic development	"Key enabling technologies" public support incentive scheme in order to promote R&D projects (admissible expenditures: 800.000<X< 3mln euro) oriented to the production of new or significantly improved products, processes or services	yes	Active	300	300	Private firms under-investment due to positive spillovers associated to R&D activities, to uncertainty of developing high technologies, to lack of long term finance due to the reduction of investor payback period , in a time of economic crisis, in the R&D Kets private market. A combination of EC grants, EIB - through the Banking System - and MS finance as well as private capital is envisaged
A. Knowledge, SMEs and the digital economy	Private R&D	Smart and Sustainable Manufacturing	Ministry of economic development	Public support incentive scheme related to "Smart Manufacturing" aiming to promote KETS projects (admissible expenditures: 5mln<X<40 mln euro) able to achieve a significant technological advancement and that are strategic in the national industrial context and to "Italian digital agenda" for ICT R&D /Kets projects of relevant scale (investments between 5 and 40 mln euro), initiative in line and coherent with Horizon2020 and European Digital Agenda	yes	Approved , but to be implemented	400	400	Private firms under-investment due to positive spillovers associated to R&D activities, to uncertainty of developing high technologies, to lack of long term finance due to the reduction of investor payback period, in a time of economic crisis, in the R&D Kets private market. A combination of EC grants, EIB - through Banking System - and MS finance as well as private capital is envisaged.
ICT Infrastructure	ICT Infrastructure	Ultrabroadband National Plan	Ministry of Economic Development	Ultrabroadband NGA Networks compliancy to the European Digital Agenda. Scope of the project is investment in access network in FTTB architecture to be opened at the operator for the 100 Mbits services	Part of the investment is envisaged in structural european funds	Project is ready to the public consultation to the stakeholders (operator, Agcom, european commision etc..)	12300 and 1200 for the migration to the new 100 mbits services (demand migration)	7200	At the moment Italian telecommunication operators have not any investment plan on NGA infrastructure for 100 Mbits connection. Without public investment the NGA infrastructure cannot be available in Italy. At moment public finance cannot assure the total investment in NGA ultra Broadband infrastuctures. The total plan is 12 Bn of euros with a participation of 50% of private investment. Partnership of public and private operator can guarantee the development of this project.
A. Knowledge, SMEs and the digital economy	SMEs	Access to finance	Ministry of economic development, banking system, Regional Entities	"Smes National Guarantees Fund" public support incentive scheme aiming to grant Smes access to finance (up to a maximum of 80% on a 2,5 mln euro loan cut-off level)	yes	Active	30000	2000	Access to finance (credit crunch), Basel III constraints, Streamlining of EC regulation, Deleveraging, Actual business economic cycle, Lack of confidence and risk taking in the private sector, Smes under-investment. To be coinvested by Structural Funds.
A. Knowledge, SMEs and the digital economy	SMEs	Finance for machinery investments	Ministry of economic development, CDP	"New Sabatini" public support incentive scheme oriented to promote Smes fixed instrumental investments (among the others investments on hardware, software and digital technologies are included)	yes	Active	7500	7500	Smes under-investment in the fixed capital asset market due to access finance barriers and lack of domestic demand. The EIB presently requires sovereign recourse for considering financing

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A. Knowledge, SMEs and the digital economy	Private R&D	SMEs R&D and Innovation investments	Ministry of economic development, EIB	"Risk Sharing Facility" public/private support incentive scheme for promoting industrial relevant innovative projects (from 7,5 mln euro to 50 mln euro) oriented to the production of goods, services or processes. EIB will provide credit lines for 500 mln euro, on the base of a first lost guarantee issued to EIB by the "Smes National Guarantees Fund" that will cover 20% of the loan (max. 100 mln euro guaranteed)	yes	Signed the general agreement between Ministry of Economic Development and EIB, ongoing the adoption of ministerial decree	500	500	Access to finance (credit crunch), Actual business economic cycle, Lack of confidence and risk taking in the private sector, Firms under-investment.
A. Knowledge, SMEs and the digital economy	SMEs	Innovative startups development	Ministry of economic development, Invitalia	"Smart & Start" public support incentive scheme oriented to promote new entrepreneurial activities and to support technological (or knowledge) transfer for innovative start-up	yes	Active	220	220	Startups financing gaps, Barriers to market entry; solutions: potential EIF intervention to solve the financing gap
A. Knowledge, SMEs and the digital economy	Public R&D	USSP	Ministry of economic development, Ministry of Education, University and Research	Development of a multipurpose submarine supportship	yes		500	500	Risky investments for high R&D activities and developments of high technologies and Lack of long term finance + coordination and permitting problems, leading to possible delays / Risk sharing mechanism. The EIB presently requires sovereign recourse for considering financing A project management unit will supervise the project's planning and implementation under the close supervision of the promoter and the relevant Ministries.
A. Knowledge, SMEs and the digital economy	A.2. SMEs, Private R&D	Social Economy Fund	Ministry of Labour, Private promoters, EIB, EIF, CDP	Supporting the initiatives in the social economy sector by fostering and promoting the activity of specialized funds and by financing specific investment	Yes	to be implemented	500	500	Lack of financial instruments dedicated to social economy. Solutions: provision of a first loss facility from the government or EU instruments to attract private investors and long term support from CdP and the EIB
A. Knowledge, SMEs and the digital economy	Private R&D	National Technological Clusters Programme	MIUR	CLUSTER Initiative was founded in line with the objectives of the Europe 2020 Strategy and Horizon 2020 to relaunch competitiveness in research, development and innovation, in line with the Communication COM (2008) 652 def, the project includes the "Internet of things" initiative	Yes	Planning and investment decision taken, activities partially started, average duration 3 years. The Programme is currently partially financed	409	359	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors. 4) public budgetary constraints; 5) investment risk profile and credit rationing Solution: potential EIB financing through Banking System

Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/m)	Investment in 2015 – 2017 (€/m)	Barriers/solutions
A. Knowledge, SMEs and the digital economy	Public R&D	Research Infrastructures Programme	MIUR	Financing initiatives of international relevance and research infrastructures and projects implemented by CNR and CONSORZIO AREA RICERCA TRIESTE including the establishment of a national central repository of organic chemicals and The European Spallation Source ESS Infrastructure, the most intense neutron source operating in the world. The projects are all included in the National Plan for Research Infrastructures, due to be delivered to the European Commission by the end of November 2014.	Yes	Planning and investment decision taken, on going activities	3278	178	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors The EIB presently requires sovereign recourse for considering financing
A. Knowledge, SMEs and the digital economy	Private R&D	National Technological Clusters Programme	MIUR	Italian Cluster for Aerospace Technology (CTNA is the Italian acronym) synthesizes and focus all needs and priorities that the national aerospace stakeholders have developed over the last years based on global market trends and sector policies at European and international level. The initiative includes the CTA (Cerenkov Telescope Array) project.	No	The Programme is currently partially financed and is included in the national Cluster Initiative	4271	4221	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors 4) public budgetary constraints; 5) investment risk profile and credit rationing Solution: potential EIB financing through Banking System
A. Knowledge, SMEs and the digital economy	Public R&D	Smart cities and Social Innovation	MIUR	Public support incentive scheme oriented to promote Smart Cities and Communities, and Social Innovation. Among the research areas there are: Materials and Sustainable Architecture, Cloud computing technologies, Water Resources Management, Justice, Health, School, Transport and mobility, Waste and others field of strategic activities	Yes	Planning and investment decision taken, on going activities	329	329	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors The EIB presently requires sovereign recourse for considering financing
A. Knowledge, SMEs and the digital economy	Private R&D	National Technological Clusters Programme	MIUR	SmartCommunitiesTech is the National Technology Cluster dedicated to "Technologies for Smart Communities". It develops advanced technological solutions to implement innovative models for solving social challenges on a urban and metropolitan scale. The Cluster is participated by 100 subjects (medium and large enterprises, research bodies). <a href="http://smartcommunitiestech.it/">http://smartcommunitiestech.it/</a>	Yes	The Programme is currently partially financed and is included in the national Cluster Initiative	188	188	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors 4) public budgetary constraints 5) investment risk profile and credit rationing The EIB presently requires sovereign recourse for considering financing

Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/m)	Investment in 2015 – 2017 (€/m)	Barriers/solutions
A. Knowledge, SMEs and the digital economy	Private R&D	National Technological Clusters Programme	MIUR	The main issues placed at the core of the Cluster strategy are Biotech, Pharma, Nutraceutical and food chain, Diagnostic and robotic technologies, Technologies for quality of life (domotic and assisted living), Telemedicine and E-Health. The objectives coincide with the new concept of Smart Specialization Strategies, flexible and dynamic innovations in the direction of entrepreneurial discovery, cross fertilization, and aggregation of persons in possession of the key skills to meet the technological challenges of the future. The cluster aggregates different subjects on a national scale, in particular there are 2 entrepreneurial associations, 4 national research institutions, 12 Regions.	Yes	The Programme is currently partially financed and is included in the national Cluster Initiative	450	450	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors 4) public budgetary constraints; 5) investment risk profile and credit rationing The EIB presently requires sovereign recourse for considering financing
A. Knowledge, SMEs and the digital economy	Private R&D	National Technological Clusters Programme	MIUR	The National Technology Cluster of "Green Chemistry" SPRING – Sustainable Processes and Resources for Innovation and National Growth, has the objective of triggering the development of biobased industries in Italy, through an holistic approach to innovation, aimed at revitalising Italian chemistry in the name of environmental, social and economic sustainability. The purpose is to stimulate research and investments in new technologies, in constant dialogue with the actors of local areas, and to pursue the European	No	The Programme is currently partially financed and is included in the national Cluster Initiative	1685	1685	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors 4) public budgetary constraints; 5) investment risk profile and credit rationing The EIB presently requires sovereign recourse for considering financing
A. Knowledge, SMEs and the digital economy	Public-Private R&D (included investments by state owned companies).	Research Infrastructures Programme	MIUR	The Programme will finance research infrastructures of international relevance implemented by the national research actors, among them CNR and CONSORZIO AREA di RICERCA di TRIESTE. The Programme will support, among others, the establishment of a national central repository of organic chemicals and the European Spallation Source (ESS) infrastructure, the most intense neutron source to be operating in the world (see below for details since ESS is one of the projects for which details are provided in this document). The information is coherently extracted from the PNIR (the National Research Infrastructure Programme) that is currently under a very advanced state of definition. By offering high quality research services to users from different countries, by attracting young people to science and by networking facilities, research infrastructures help structuring the scientific community and play a key role in the construction of an efficient research and innovation environment. Research Infrastructures, including RI of pan-European interest such as the European Strategy Forum on Research Infrastructures (ESFRI) roadmap projects, represent also an essential component of a genuine European Research Area since they are the "trading posts" where Research, Education and Industry, as	Yes	Planning and investment decision taken, on going activities	3278	1780	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors The EIB presently requires sovereign recourse for considering financing

Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/m)	Investment in 2015 – 2017 (€/m)	Barriers/solutions
A. Knowledge, SMEs and the digital economy	Public R&D	Smart cities and Social Innovation	MIUR, Regions, Private promoters	Public support incentive scheme oriented to promote Smart Cities and Communities, and Social Innovation. Among the research areas there are: Materials and Sustainable Architecture, Cloud computing technologies, Water Resources Management, Justice, Health, School, Transport and mobility, Waste and others field of strategic activities. The scheme is strategic in the national context and to "Italian digital agenda" for ICT R&D, and is in line with Horizon2020 and European Digital Agenda.	Yes	Planning and investment decision taken, on going activities	329	329	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors The EIB presently requires sovereign recourse for considering financing
A. Knowledge, SMEs and the digital economy	Public-Private R&D	National Technological Clusters Programme	MIUR, Regions, Private promoters	The National Technological Cluster Programme was launched in 2012 in line with the objectives of the Europe 2020 Strategy and Horizon 2020, to relaunch competitiveness in research, development and innovation, in line with the Communication COM (2008) 652 def. The call was aimed at the creation and strengthening of technological clusters focused in 12 specialization sectors: 1. Aerospazio, 2. Agrifood 3. Blue growth, 4. Green Chemistry, 5. Design, creativity and made in Italy, 6. Energy, 7. Smart Manufacturing, 8. Mobility, 9. Life Science, 10. Smart, Secure and Inclusive Communities, 11. Life environment Technologies, 12. Cultural Heritage Technologies. The reported financial need includes the "Internet of Things" initiative and the "Smart Manufacturing" initiative, which aims at addressing the transformation of the Italian manufacturing sector towards new systems product, processes/technologies, production systems.	Yes	Planning and investment decision taken, activities partially started, average duration 3 years. The Programme is currently partially financed	409	359	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors. 4) public budgetary constraints; 5) investment risk profile and credit rationing Solution: potential EIB financing through Banking System
A. Knowledge, SMEs and the digital economy	Public-Private R&D	AEROSPACE- National Technological Clusters Programme	MIUR, Regions, Private promoters	Italian Cluster for Aerospace Technology (CTNA is the Italian acronym) synthesize and focus all needs and priorities that the national aerospace stakeholders have developed over the last years based on global market trends and sector policies at European and international level. The initiative includes the CTA (Cerenkov Telescope Array) project.	No	The Programme is currently partially financed and is included in the national Cluster Initiative	4271	4221	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors 4) public budgetary constraints; 5) investment risk profile and credit rationing Solution: potential EIB financing through Banking System
A. Knowledge, SMEs and the digital economy	Public-Private R&D	GREEN CHEMISTRY - National Technological Clusters Programme	MIUR, Regions, Private promoters	The National Technology Cluster of "Green Chemistry" SPRING – Sustainable Processes and Resources for Innovation and National Growth, has the objective of triggering the development of biobased industries in Italy, through an holistic approach to innovation, aimed at revitalising Italian chemistry in the name of environmental, social and economic sustainability. The purpose is to stimulate research and investments in new technologies, in constant dialogue with the actors of local areas, and to pursue the European	No	The Programme is currently partially financed and is included in the national Cluster Initiative	1685	1685	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors 4) public budgetary constraints; 5) investment risk profile and credit rationing The EIB presently requires sovereign recourse for considering financing



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A. Knowledge, SMEs and the digital economy	Public-Private R&D	Life Science (ALISEI) - National Technological Clusters Programme	MIUR, Regions, Private promoters	The main issues placed at the core of the Cluster strategy are Biotech, Pharma, Nutraceutical and food chain, Diagnostic and robotic technologies, Technologies for quality of life (domotic and assisted living), Telemedicine and E-Health. The objectives coincide with the new concept of Smart Specialization Strategies, flexible and dynamic innovations in the direction of entrepreneurial discovery, cross fertilization, and aggregation of persons in possession of the key skills to meet the technological challenges of the future. The cluster aggregates different subjects on a national scale, in particular there are 2 entrepreneurial associations, 4 national research institutions, 12 Regions.	Yes	The Programme is currently partially financed and is included in the national Cluster Initiative	450	450	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors 4) public budgetary constraints; 5) investment risk profile and credit rationing The EIB presently requires sovereign recourse for considering financing
A. Knowledge, SMEs and the digital economy	Public-Private R&D	SMART COMMUNITIES TECH - National Technological Clusters Programme	MIUR, Regions, Private promoters	SmartCommunitiesTech is the National Technology Cluster dedicated to "Technologies for Smart Communities". It develops advanced technological solutions to implement innovative models for solving social challenges on a urban and metropolitan scale. The Cluster is participated by 100 subjects (medium and large enterprises, research bodies). <a href="http://smartcommunitiestech.it/">http://smartcommunitiestech.it/</a>	Yes	The Programme is currently partially financed and is included in the national Cluster Initiative	188	188	1) extreme fragmentation of small investments; 2) barrier due to the current rules of public accountability 3) delays due to multiple actors 4) public budgetary constraints 5) investment risk profile and credit rationing The EIB presently requires sovereign recourse for considering financing
A. Knowledge, SMEs and the digital economy	A.3. ICT Infrastructure	Metroweb	Private	Metroweb is the owner of the licence connected to the implementation of the broadband infrastructure in the main Italian cities (i.e.150). One fifth of the total investment amount will be placed in the Convergence Regions.	Yes	to be implemented	4000	1500	Barriers: 1) significant investments needs; 2) private operators usually decide to invest only in larger cities' networks; 3) existence of a partial market failure in the Convergence Regions; Solutions: 1) provision of a tax break; 2) potential eligibility to the Project Bond Initiative; 3) possible use of Structural Fund in the Convergence Regions' cities;

\* Initial phase

**Pipeline of projects**  
**B. Energy Union**

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Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/m)	Investment in 2015 – 2017 (€/m)	Barriers/solutions
B. Energy Union	Security of supply	Gas Storage Cugno Le Macine - Basilicata Region	Private promoter - Geogastock	The project consists in expanding the capacity of the Italian gas storage by means of an underground gas storage in a depleted field with a capacity of 1000 million cubic meter and a withdrawal peak capacity of 10 million cubic meter per day	Yes - Storage activities are operated under a regulatory regime according EU Directives for	Multiple project in different phases: Planned	600	600	Permitting problems, leading to possible delays. Budget restrictions. Remuneration under regulatory regimes unsatisfactory
B. Energy Union	Security of supply	Gas Storage Bordolano - Emilia Romagna Region	Private promoter - STOGIT	The project consists in expanding the capacity of the Italian gas storage by means of an underground gas storage in a depleted field with a capacity of 1200 million cubic meter and a withdrawal peak capacity of 20 million cubic meter per day	Yes - Storage activities are operated under a regulatory regime according EU Directives for the Energy Market. The gas	Multiple project in different phases: - Under realization - Planned	560	560	Permitting problems, leading to possible delays. Budget restrictions. Long term finance needed. Insufficient remuneration under regulatory regime
B. Energy Union	Security of supply	Gas Storage Cornegliano - Lombardia Region	Private promoter - Italgas Storage	The project consists in expanding the capacity of the Italian gas storage by means of an underground gas storage in a depleted field with a capacity of 1300 million cubic meter and a withdrawal peak capacity of 27 million cubic meter per day	Yes - Storage activities are operated under a regulatory regime according EU Directives for	Multiple project in different phases: Planned	600	600	Permitting problems, leading to possible delays. Budget restrictions. Remuneration under regulatory regimes unsatisfactory
B. Energy Union	B.1 Connection and Production	Elettrodotto HVDC di interconnessione Italia – Francia	Terna TSO	Cross- border Interconnection	Yes	The project is included in the company's 2014-18 business plan and the authorization procedure has been already completed.	-	-	Regulatory issues for the crossborder allocation of cost and environmental authorizations. Long term finance needed. EU-EIB financing support would allow to boost its realization compared to the scheduled work plan, with a beneficial impact on employment and socio-economic recovery.
B. Energy Union	B.1 Connection and Production	Interconnessione HVDC Italia – Montenegro	Terna TSO	Cross- border Interconnection	Yes	The project is included in the company's 2014-18 business plan and the authorization procedure has been already completed.	-	-	The EU financing support would allow to boost its realization compared to the scheduled work plan, with a beneficial impact on employment and socio-economic recovery.
B. Energy Union	B.1 Connection and Production	Sardegna-Corsica-Italia	Terna TSO	Cross-border Interconnection	Yes		-	-	This is a relevant project, included in the National Transmission Grid Development Plan, but not yet considered in the 2014-18 business plan, mainly due to a lack of adequate financing resources in the short-medium term, and authorization procedure issues. The EU financing support would allow the inclusion of the project in Terna's business plan and, thus, boosting its realization, with a beneficial impact on employment and socio-economic recovery.
B. Energy Union	B.1 Connection and Production	LNG infrastructure development	Ministry of economic development, Ministry of Infrastructures and transport, Agency for electric energy and gas	Development and implementation of a national infrastructure for LNG fuel distribution at main TEN-T ports, and on main road nodes, for heavy transport	no	Under cost benefit analysis for a National Plan for LNG, committed by the Italian Parliament	500	500	Establishment of a specific fund for supporting dedicated investments
B. Energy Union	B.1 Connection and Production	Bio-refineries	Mossi & Ghisolfi	Development of 3 bio refineries for the production of 80.000 ton a year (for each biorefinery) bioethanol from lignocellulosic biomasses TPG Capital (Texas Pacific Group). The technology is Italian and it has been developed by Biochemtex - Gruppo Mossi e Ghisolfi (M&G)	no	cost/benefit analysis	900	900	Risky investment related to R&D content and administrative complexity risk sharing mechanism /project bonds and simplification
B. Energy Union	B.2 Energy efficiency	EE in public buildings	ESCOs/Demanio	EE interventions in public buildings to comply with the 3% obligation foreseen under the EED 2012.	No	to be launched	2000	1000	(i) budget constrains and limited development of the ESCO market in Italy; (ii) lack of a stable and long term energy policy; (iii) Projects are financed and supported by a variety of sources and incentives are usually inconsistent and overlapping

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B. Energy Union	B.2 Energy efficiency	EE initiatives supported by TA instruments (ELENA)	private/public promoters and ESCOs	EE interventions in public buildings, including cooling/heating systems and other investments with different PB periods	No	Feasibility studies/permitting/tendering	220	220	(i) budget constrains for the local administration and limited development of the ESCO market in Italy; (ii) lack of a stable and long term energy policy; (iii) projects are financed and supported by a variety of sources and incentives usually characterized by contradiction and overlapping.
B. Energy Union	B.2 Energy efficiency	EEEF	EC / EIB / CDP	EEEF contributes with a layered risk/return structure to enhance EE and foster RE in the form of a targeted private public partnership, primarily through the provision of dedicated financing	No	Operative / Promoters' commitment period expiring / going to expire in short time frame	300	300	(i) too short ramp up period; (ii) limited duration of Promoters' commitment periods; (iii) wide geographical span / very diverse underlying; (iv) fund manager organisational plan vs actual fund ramp up  Future development depends, inter alia, on the availability of First Loss Piece from EU
B. Energy Union	B.2 Energy efficiency	Energy Efficiency	private/public promoters and ESCOs	Energy efficiency interventions on public lighting systems spread throughout Italy	No	Feasibility studies/permitting/tendering	1000	200	(i) budget constrains for the local administration and limited development of the ESCO market in Italy
B. Energy Union	B.2 Energy efficiency	energy efficiency for steel production	ILVA	Improvement of energy efficiency and the implementation of the BAT, such as the following revampings: - one entire blast furnace; - several coke batteries; - the power plants.	yes	planned in the framework of table for crisis	670	670	risky investment related to R&D content and administrative complexity risk sharing mechanism /project bonds and simplification
B. Energy Union	Security of supply	LNG Terminal to export gas towards EU	Api nova Energia	LNG Terminal is a facility located in Falconara Marittima at which liquified natural gas is turned back into a gaseous state. It has a regasification capacity of 4 bcm/year	No - the national Energy Strategy foresees an increase of regasification capacity for security of supply	project Fully authorised	700	580	Lack of long term finance in uncertain market and regulatory framework (strategic infrastructure)
B. Energy Union	Security of supply	LNG Terminal to export gas towards EU	LNG Med Gas	LNG Terminal is a facility located in Gioia Tauro - Calabria at which liquified natural gas is turned back into a gaseous state. It has a regasification capacity of 12 bcm/year	No - the national Energy Strategy foresees an increase of regasification capacity for security of supply	Project fully authorised	1000	500	Lack of long term finance in uncertain market and regulatory framework (strategic infrastructure)
B. Energy Union	Security of supply	LNG Terminal to export gas towards EU	Enel Produzione	LNG Terminal is a facility located in Sicily (near Agrigento) at which liquified natural gas is turned back into a gaseous state. It has a regasification capacity of 8 bcm/year	No - the national Energy Strategy foresees an increase of regasification capacity for security of supply	Project fully authorised Construction started in 2011 with preliminary works and site preparation. Estimated completion end 2019.	1000	500	Lack of long term finance in uncertain market and regulatory framework (strategic infrastructure)

Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/m)	Investment in 2015 – 2017 (€/m)	Barriers/solutions
B. Energy Union	B.1 Connection and Production	Magenta (IT) substation Upgrade	TERNA + SWISSGRID	<u>PCI Project (#2_15_2 )</u> . New 400 k V DC/AC link between Airolo, Bappanzeno and Baggio of about 160 k m and with a capacity of over 2.000 MW/1500 MVA between Italy and Switzerland (onshore), including the following network items: 1. 400k V AC connection between Airolo (CH) and Pallanzeno (IT); 2. HVDC connection between Pallanzeno (IT) and Baggio (IT) Re enforcement with new 400 k V section in Magenta substation (IT)	n.a.	Permitting	-	-	
B. Energy Union	B.1 Connection and Production	HV interconnector Villanova (IT) and Lastva (ME)	TERNA + CGES (ME)	<u>PCI Project (#3_19_1)</u> . New HVDC interconnection line with a capacity of 1000 MW between Italy and Montenegro via 375 km of 500 kV DC subsea cable and converter stations at both ending points in Villanova (IT) and Lastva (ME) (offshore)	n.a.	Construction	-	-	1. Strengthen of interconnection capacity among Balkan countries. 2. Lack of electricity surplus to be exported to Italy could result in a lower utilisation for the cable till 2020.
B. Energy Union	B.1 Connection and Production	Internal line Foggia and Villanova	TERNA	<u>PCI Project (#3_19_3)</u> , north-south electricity interconnection in Central Eastern and South Eastern Europe. New 400 kV AC double circuit overhead line (OHL) with a length of 178 km and a capacity of 3.000 MVA. The project located in the Adriatic backbone is aimed at removing bottlenecks and increasing market integration as well as at improving integration of RES in the EU interconnected system.	Yes	Construction (2015-2019)	-	-	1. Delay in the authorization process; permitting phase of the second part still on-going. 2. final investment decision subject to completion of permitting phase
B. Energy Union	B.1 Connection and Production	HV interconnector between Lienz (AT) and Veneto region (IT)	TERNA + Austrian Power Grid	<u>PCI Project (#3_2_1)</u> . The reconstruction of the existing 220 kV interconnection line between Soverzene and Lienz as a 400 kV AC insulated tie-line of about 100-150 km (approximately 35 km on AT and the rest on IT side) and with a capacity of 1500 MVA between Lienz and Veneto region substations, along an optimized route, which minimizes the environmental impact (onshore).	n.a.	Feasibility / FEED	-	-	
B. Energy Union	B.1 Connection and Production	Pilot battery storage systems in Central South Italy	TERNA	<u>PCI Project (#3_25)</u> . Installation of 250 MW of storage systems (Batteries) on critical 150 kV transmission network in South Italy. Batteries are characterized by removable, modular and flexible installations; these characteristics allow installations in a wide variety of sites and the possible replacement depending on the needs that could arise in the medium / long term. Permitting has already started for the first experimental stage concerning 35 MW, while the remaining part of the project is under prefeasibility studies.	Yes	Construction	-	-	
B. Energy Union	Environment management	primary ore stockyards coverage	ILVA	Projects are related to: - primary ore stockyards coverage (relevant reduction of diffuse dust emissions due to wind erosion); - steelworks slag treatment (internal material recovery maximization with a lowering of the waste production); - deployment of a sludge and dust reuse plant (sludge and dust from steelworks and blast furnaces) in order to lower material usage and resulting emissions.	yes	planned in the framework of table for crisis	526	526	
B. Energy Union	B.2 Energy efficiency	National Energy Efficiency Fund	Ministry of economic development	The National Fund for Energy Efficiency has been established by Article 15 of Legislative Decree 102/2014. Fund aimed at stimulating larger energy efficiency investments. To this end, Fund provides guarantees and soft loans to projects aimed at improving energy efficiency of public buildings (including social housing), implementing district heating networks, improving energy efficiency of public infrastructure (including lighting). Italian government has allocated up to 70 million Euros per year (2014-2020) for the National Fund for Energy Efficiency.	Yes The establishment of the Fund was carried out by Legislative Decree 102/2014.	In the next few months is expected to be published a implementing decree to kick off disbursement of financial facilities. The program will be activated with the resources currently available, since 2015.	2250	700	Barriers are the following: - Difficulty in obtaining loans and financial support; - High rates of interest charged and the lack of low-interest loans; - Separation of concerns: the economic benefits and costs of investment compete in different subjects; - In the case of interventions financed by ESCo, there is a high risk of default, which tends to discourage the same ESCo due to possible problems in the recovery of credit resulting from the energy savings achieved.

Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/m)	Investment in 2015 – 2017 (€/m)	Barriers/solutions
B. Energy Union	B.1 Connection and Production	Urban Networks and smart cities	Ministry of economic development, Municipalities	The project aim at: a) realizing large scale urban smart grids in order to integrate renewable production, prompt demand side management and diffuse electric vehicles; b) diffusing smart home technologies; c) modernizing public lighting and traffic lighting; d) diffusing district heating from renewables	Yes, indirectly: all activities are considered and supported in national legislation as important tools to reach the targets on energy and climate	A comprehensive feasibility study has been conducted. More detailed intervention projects, referred to specific territories, have been developed	8400	2000	
B. Energy Union	B.1 Connection and Production	Support to the North West market and bidirectional cross-border flows	Snam Rete Gas	The project continues on from the previous empowerments and integrates the expansions to facilitate an increase in export capacity by 2018. The capacity at the exit point of Passo Gries will increase to up to 40 MSm3/d, or up to 22 MSm3/d with a simultaneous exit flow at the Tarvisio exit point of up to 18 MSm3/d.	Yes - Snam Rete Gas Ten Years Network Development Plan	Multiple projects in different phases: - Under realization - Planned	-	-	Permitting problems, leading to possible delays.
B. Energy Union	B.1 Connection and Production	ItBioreref: Third generation Biorefineries integrated in the Italian territories dedicated to the production of added value products, such as chemicals, bioplastics, etc	Private Promoter (Novamont) (complete value chain from agro players to end-users. It should be envisaged that a critical mass of SMEs both in agro sectors and in manufacturing sectors (especially plastic converters and new start up in bio-based chemicals sectors have been, and will be more and more, engaged)	The project in details: Recovery of abandoned land due to desertification, pollution, salinity, etc. through innovative dry crops able to produce oil, feed, active molecules and biomass. 100000 ha of abandoned land, according to the research results already achieved and tested by means of the build-up of first demonstrators and flagships, it is possible to produce: Proteins for animal feed (26%): 110.000 -200.000 ton/year (only Sardinia imports 140000 ton/year of soy) (one key aspect of CAP); Vegetable oil: 40000 – 80000 ton/anno (Italy imports more than 50% of the total vegetable oils used); Active molecules: 3000 – 5000 ton/year ; Lignocellulosic biomass: 1,5Ml ton/year (about 1Ml ton for energy and the rest for sugars); second generation sugars for proprietary new chemicals obtained by means of chemical and biotechnological processes: 370000-500000 ton/year Bioplastics/biolubricants and other added value products: 250000 -350000 ton/anno. The direct turnover produced will be of about 1Bl € with about 20000 new jobs all over the chain. The use of biolubricants, bioplastics from natural origin, polymeric plasticizers as replacement for	No	Part of the project is in the construction phase. An important part of the initiative will start in 2015 and minor part are still in investment decision phase. It is important to underline that about 0,5 billion have been already invested by Novamont and its partners in 3 flagships and 1 demo plant, with research and innovation activities closely linked. Start-up of specific and low impact agricultural value chains, not competing with food production; Reindustrialization of 6 deindustrialized sites, for a total of more than 1.500 employees: Terni, Tetrica (Fr), Porto Torres (Ss), Novara, Adria (Ro). New bioproducts at eu level: a virtuous chain of high quality compost with extraordinary cases of excellence (Milan champion in quantity and quality of organic waste )	1200	700	Barriers: uncertainty of policies and legislative framework, lack of quality standards protecting innovative products developed in the territories, market measures to pull innovative products; need to promote, according to the Bioeconomy Strategy, Sustainable Regions programs to orient education, research, structural funds; promote ways to reduce the cost of energy for a limited period of time in case of innovative investments as in the case of added value products: the purpose is to avoid that private companies, already risking their capital in innovative initiatives in Italy, had to pay the costs of subsidies given to not competitive realities. Access to structural funds, connection between Structural Funds and PSR Funds as well as energy efficiency funds should be explored
B. Energy Union	B.1 Connection and Production	Development for new imports from the South	Snam Rete Gas	The project will create new transmission capacity of approximately 24 MSm3/d to facilitate gas from future entry points in the South of the country. The project includes the construction of an approximately 430 km new pipeline DN1200 and a compression plant of approximately 33 MW, along the South – Nord line, known as the "Adriatica Line".	Yes - Snam Rete Gas Ten Years Network Development Plan	Multiple projects in different phases: - Under realization - Planned	-	-	Permitting problems, leading to possible delays.
B. Energy Union	B.1 Connection and Production	Bio-gas and Bio-chemicals	NOVAMONT and Public private partnership at regional level	Zero organic waste in landfill with full reuse as compost for soil fertility, biogas and chemicals	no	cost/benefit analysis	1500	700	
B. Energy Union	B.1 Connection and Production	"CAR fluff" valorization (resulting from end of life vehicles)	Car makers, suppliers, steel sector, Ministry of Environment and Ministry of Economic Development		no	Under cost benefit analysis by national framework program for end of life vehicles (car manufacturers, supply chain, steel sector)	1000	1000	Fees for production of energy from recycled materials (car fluff) not sufficient to attract investments; support to investments by project bonds or dedicated investment fund (or PPP)

**Pipeline of programs and projects**  
**C. Transport**

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id	Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/bn)	Investment cost in 2014 - 2020 (€/bn)	Investment in 2015 – 2017 (€/bn)	Barriers/solutions
C.1	C. Transport	Cross-border projects-RAILS	Torino-Lione railway line project	Ministry of Transport project promotor: LTF SAS	A flagship TEN T project, connecting countries Italy and France, being both of highest national and international strategic importance, as it connects two Member countries, while at the same time two major economic centres.	Yes	Construction on-going	11,700	1,500	0,700	<p><b>Barriers:</b></p> <ol style="list-style-type: none"> <li>Lack of long term finance + coordination and permitting problems, leading to possible delays.</li> <li>Separation of funding obligation according to national quota might create uncertainty on financing plan and/or implementations delays;</li> <li>Approval processes (especially environmental) carried out by different national authorities</li> </ol> <p><b>Solutions:</b></p> <ol style="list-style-type: none"> <li>A combination of EC grants, EIB and MS finance as well as private capital is envisaged. A project management unit will supervise the project's planning and implementation under the close supervision of the promoter and the relevant Ministries.</li> <li>Streamline approvals</li> </ol>
C.2	C. Transport	Cross-border projects-RAILS	Railway Brenner Base tunnel project IT-AT-crossing (link Fortezza-Verona included )	Ministry of Transport project promotor: BBT SE	A flagship TEN T project, connecting countries Italy and Austria, being both of highest national and international strategic importance, as it connects two Member countries, while at the same time two major economic centres.	Yes	Construction on-going	12,200	2,580	1,378	
C.3	C. Transport	Cross-border projects-RAILS	Trieste-Divaca railway line project	Ministry of Transport	A flagship TEN T project, connecting countries Italy and Slovenia, being both of highest national and international strategic importance, as it connects two Member countries, while at the same time two major economic centres.	Yes	Preliminary project	to be determined			
C.4	C. Transport	Corridors railway projects -RAILS	Rhine-Alpine Corridor (3° valico dei Giovi, technological upgrading of Chiasso-Monza, potenziamento strutturale Voltri-Brignole ) railway projects	Ministry of Transport project promotor: RFI	projects aimed at the implementation of the corridor	Yes		6,200	2,792	1,000	
C.5	C. Transport	Corridors railway projects -RAILS	Mediterranea Corridor (AV/AC Milano-Venezia tratta 1) Treviglio-Brescia, Linea AV/AC Milano-Verona tratta 2) Brescia-Verona-Padova, 3)potenziamento tecnologico Torino-Padova tratta Milano-Padova, 4) cintura di Torino e connessione al collegamento Torino-Lione, 5) PRG e ACC di Lambrate, 6) ripristino linea dei bivi 1^ fase, 7) collegamento ferroviario aeroporto di Venezia) railway project portfolio	Ministry of Transport project promotor: RFI		Yes		8,050	1,800	1,000	
C.6	C. Transport	Corridors railway projects -RAILS	Scandinavian Mediterranean Corridor (potenziamento di linee di accesso al Brennero tratta Fortezza-Verona, potenziamento tecnologico e infrastrutturale del nodo di Roma) railway project portfolio	Ministry of Transport project promotor: RFI		INCLUDED SUB C.2					
C.7	C. Transport	Corridors railway projects -RAILS	Scandinavian Mediterranean Corridor Napoli - Bari (1) variante Napoli-Cancello,2) raddoppio Cancello-Frasso Telesino,3) raddoppio Frasso Telesino-Vitulano, 4) nodo di Bari : Bari sud - Bari c.le-Bari Torre a mare, 5) raddoppio Bovino-Orsara) railway line	Ministry of Transport project promotor: RFI		Yes		6,195	2,580	0,600	
C.8	C. Transport	Corridors railway projects -RAILS	Scandinavian Mediterranean Corridor Messina - Catania - Palermo (1) raddoppio Bicocca-Catenanuova, 2) raddoppio Catenanuova-Raddusa Agira) railway line	Ministry of Transport project promotor: RFI		Yes		5,250	0,740	0,740	
C.9	C. Transport	Corridors railway projects -RAILS	Baltic Adriatic Corridor (1) upgrading tecnologico Bologna-Padova 1^ fase, adeguamento a modulo corridoio baltico, 2) sistemazione nodo di Udine, 3) upgrading infrastruttura ferroviaria del porto di Trieste, 4) nodo di Bologna bretella AV per Venezia) railway project portfolio	Ministry of Transport project promotor: RFI		Yes		0,160	0,108	0,108	



id	Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/bn)	Investment cost in 2014 - 2020 (€/bn)	Investment in 2015 – 2017 (€/bn)	Barriers/solutions
C.10	C. Transport	Other strategic projects-PORTS	Genova ( 1)elettrificazione banchine Genova Voltri 2) accesso stradale Voltri Sampierdarena; 3)Rail plan Sanpiedarena 4) Bacino Sampierdarena studi e lavori 5) prima fase pilota LNG 6) nuova piattaforma ecologica 7)Terminal Ronco Canepa 8) dragaggi)	Ministry of Transport project promotor: Port Authority	Port projects	Yes		0,360	0,360	0,302	<p><b>Barriers:</b> Fragmentation of state contributions not concentrated on core investments for a number of identified strategic ports</p> <p><b>Solutions:</b> 1.Extend duration of concession after retender / to current concessionaries in exchange for new capex. 2. Identify clear strategic ports and increase / make more certain the financial support</p>
C.11	C. Transport	Other strategic projects-PORTS	Ravenna, Trieste, Venezia	Ministry of Transport project promotor: Port Authority	Port projects	Yes		2,500	2,500	1,000	
C.12	C. Transport	Other strategic projects-PORTS	Corridoio Scandinavia-Mediterraneo	Ministry of Transport project promotor: Port Authority	Port projects	Yes		1,200	1,200	0,600	
C.13	C. Transport	Other strategic projects-PORTS	Livorno - "Europa Platform"		Port projects. Flagship TEN-T projects aiming at improving container handling capacity in the Italian west coast.The project together with the planned freight rail accessibility will be part of the Sandinavian -Mediterranean Corridor.	Yes		0,640	0,640	0,250	<p><b>Barriers:</b> Fragmentation of state contributions not concentrated on core investments for a number of identified strategic ports</p> <p><b>Solutions:</b> Regional grants and soft loans, Livorno PA funding, approval of PPP schemes with partial private financing; Long term financing by IFIs</p>
C.14	C. Transport	Other strategic projects-PORTS	Gioia Tauro					INCLUDED SUB C.12			
C.15	C. Transport	Other strategic projects-PORTS	Palermo					INCLUDED SUB C.12			
C.16	C. Transport	Other strategic projects-AIRPORTS	Milano, Venezia, Roma Fiumicino (rail links)	Ministry of Transport project promotor: Airport infrastructure manager	Airport projects			2,600	1,800	0,450	
C.17	C. Transport	Other strategic projects-AIRPORTS	Venezia, Bologna (rail links)	Ministry of Transport project promotor: Airport infrastructure manager	Airport projects			INCLUDED SUB C.16			
C.18	C. Transport	Other strategic projects-AIRPORTS	Roma Fiumicino (rail links)	Ministry of Transport project promotor: Airport infrastructure manager	Airport projects			INCLUDED SUB C.16			
C.19	C. Transport	Other strategic projects-AIRPORTS	Catania Fontanarossa (rail links)					0,480	0,238	0,238	

id	Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/bn)	Investment cost in 2014 - 2020 (€/bn)	Investment in 2015 – 2017 (€/bn)	Barriers/solutions
C.22	C. Transport	Missing links and bottlenecks-ROADS	A4 Venezia-Trieste	Ministry of Transport project promotor: Road infrastructure manager				2,400	2,400	0,120	<b>Barriers:</b> (i) concession duration for road projects; (ii) economic-financial viability to be assessed on the basis of new Business Plan and traffic study update; (iii) equity commitment to be verified.
C.23	C. Transport	Missing links and bottlenecks-ROADS	Salerno-Reggio Calabria	Ministry of Transport project promotor: Road infrastructure manager				2,900	1,100	0,600	Traditional procurement approach (not concession), public funding is still to be entirely covered
C.24	C. Transport	Missing links and bottlenecks-ROADS	Orte-Mestre	Ministry of Transport	Modernization and implementation of safety measures of the section E45 (262 km) and new construction of the section E55 (134 km)	Yes	Preliminary draft submitted by the private promoter pending approval by the CIPE. Afterwards an international tender will be called for identifying the dealer. The promoter has the right of first refusal.	7,300	7,300	1,300	<b>Barriers:</b> (i) concession duration for road projects; (ii) economic-financial viability to be assessed on the basis of new Business Plan and traffic study update; (iii) equity commitment to be verified. <b>Solutions:</b> Project execution by constructive functional lots. Long term funding availability is the consequence of the demonstrated sustainability of the project. Potential IFIs/NPB lending commitment is conditioned on, inter alia, (i) economic-financial viability once the Final Design is approved and an independent traffic study is available (barriers' solution) and (ii) co-financing from commercial banks on the same risk taking approach (including maturity of the debt facilities).
C.25	C. Transport	Missing links and bottlenecks-ROADS	Pedemontana Veneta	Veneto region	Construction of a toll highway 94 km long linking the motorways A4 (Brescia-Padova) and A27 (Venezia-Belluno)	Yes	Dealer already identified and final design approved by the Grantor; work in progress (about 10%); expected completion 31/12/2018	2,300	2,300	1,300	<b>Barriers:</b> The financing structure is still under definition. <b>Solutions:</b> Involvement in the pool of lenders of BEI / Cassa Depositi e Prestiti. Possible use of the financial instrument "bridge to bond".
C.27	C. Transport	Missing links and bottlenecks-ROADS	Campogalliano - Sassuolo	Ministry of Transport	Construction of a toll highway (18,3 km) linking the motorways A22 and A1 with Sassuolo population centre (direttrice Nord-Sud) and connection of Rubiera population centre with Modena ring road (direttrice Est-Ovest)	Yes	In April 2014 final award and in August 2014 creation of the Società di Progetto. At present the signing of the agreement with the Società di Progetto is pending	0,430	0,430	0,400	<b>Barriers:</b> Updating of the transport study considering the reduction in production in the Ceramics district and the construction of the adjacent non-toll highway Modena-Sassuolo. <b>Solutions:</b> Evaluation of possible incorporation of the concession with that of the adjacent A22 motorway, after sharing with the European Commission services

## D. Social Infrastructure

Sector	Sub-sector	Program name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	TOTAL INVESTMENT SOUGHT (€/bn)	TOTAL INVESTMENT IN 2015 – 2017 (€/bn)	Barriers/solutions
D. Social Infrastructure	D.1 Education and Training	La Buona Scuola PLAN (LBS) (D1, D2, D3 and D4 are part of such plan).	MIUR	<p>La Buona Scuola is a long-term vision and framework for school reform in Italy. The related investment plan identifies five main areas of investment:</p> <ul style="list-style-type: none"> <li>- <b>Human resources:</b> an extraordinary recruitment plan, to hire 150 thousands teachers by September 2015 in order to close the current waiting list system, stop the recurring malpractice of yearly fixed-term contracts, provide schools with a stable staff of teachers to cover vacant positions and leaves, to ensure teaching continuity for students and to extend teaching hours to full-time in primary education.</li> <li>- <b>National training infrastructure for teachers:</b> the creation of mandatory professional development schemes, centred on peer-collaboration and the consolidation of a resilient national "network of networks" for didactic innovation (tying school networks and local innovators among each other). Training schemes system will focus particularly on: language skills and internationalization, digital skills and new media literacy, laboratory, creativity and problem-solving skills, and a fourth area of didactic innovation.</li> <li>- <b>Innovating curricula:</b> introducing coding, music and physical education in primary schools, and extending the teaching of arts and cultural heritage, informatics and computational thinking, making, economics and financial literacy in secondary schools.</li> <li>- <b>Digitalizing every school:</b> connecting every school in the country with high-speed internet, Wi-fi and devices for digital education by 2018, in conjunction with regional investments, private investments and the Government's ultra-broadband plan.</li> <li>- <b>School for Jobs:</b> mandatory vocational training in the last 3 years of technical and professional curricula for at least 200 hours per year and renewing all school labs.</li> <li>- <b>Advanced facilities for education:</b> extending current national investments to modernize and/or build modern, safe and enriching school facilities for pupils and NEEs dedicated to digital making, social inclusion, culture and creativity and industrial integration.</li> </ul> <p>The European Commission recently stated that meeting "La Buona Scuola" targets would allow Italy to respond to all Country Specific Recommendations</p>	Yes	Plan published on September 3rd, and on public consultation between September 15th and November 15th. Resources up to 1bn€ for the current year and 3bn€ from 2015 in Stability Law. Currently, 8 "delivery units" are working to implement various parts of the plan or adjusting them when needed according to consultation results. Decree and d.m. (administrative decrees) on January 2015 for implementing the work of delivery units between January and September 2015 and September 2018.	8.750	6.750	The Italian government has set-up a single management unit to coordinate and supervise the implementation of the project as well as facilitate financial partnership with the EIB, in coordination with CdP and local authorities. The EIB presently requires sovereign or regional recourse for considering financing.
D. Social Infrastructure	D.1 Education and Training	La Buona Scuola - National Training Infrastructure	MIUR	<b>National Training Infrastructure:</b> permanent and mandatory training for 800,000 teachers across various schemes, through consolidation of a resilient national "network of networks" for didactic innovation, focused on language skills, digital skills, special educational needs, career guidance and school-to-work schemes support	Yes	Executive working group at MIUR to set up a permanent National Training Infrastructure consistent with "La Buona Scuola" objectives and with European Structural funding	2.050	2.050	Barriers: fragmented governance of teachers' education; scarce and fragmented investments would inhibit the timely and efficient deployment of La Buona Scuola plan at national level. Regular training schemes already in place. Solutions: need to extraordinary financing coupled with a substantially streamlined governance and deployment of training schemes.
D. Social Infrastructure	D.1 Education and Training	La Buona Scuola - National School Building Renewing Plan	MIUR, Regions, Local Authorities	<b>Advanced facilities for education:</b> extending current national investments to modernize and/or build modern, safe and enriching school facilities for pupils and NEEs dedicated to digital making, social inclusion, culture and creativity and industrial integration - measures in order to prevent any damage caused by earthquakes	Yes	Partially implemented with BEI	6.000	4.000	Barriers: 1) Fragmented policy solutions, layered over time; 2) Budgetary cuts and scarce investments, especially for mid and long term projects 3) multi-centered decision system for several core processes
D. Social Infrastructure	D.1 Education and Training	La Buona Scuola - Full Digitalization of Schools	MIUR	<b>Digitalizing every school:</b> equipping every classroom in the country with high-speed internet, Wi-Fi and devices for digital education by 2018, with a cohesive joint plan of central and local authorities together with private investments	Yes	New National Plan for Digital Schools under revision based on La Buona Scuola. Ongoing collaboration with Agency for Digital Italy (AGID)	0.670	0.670	Barriers: Fragmented policy solutions, layered over time; cuts and scarce investments; multi-centered decision system for several core processes
D. Social Infrastructure	D.1 Education and Training	La Buona Scuola - Innovative School-to-work schemes	MIUR	<b>Innovative School-to-work schemes:</b> developing and funding a set of innovative school-work schemes, in order to sustain compulsory school-to-work training in technical and professional secondary school. Schemes include "didactic enterprise", "school for craftsmanship" and experimental apprenticeship.	Yes	Consultations with main industrial partners and associations. Experimental apprenticeship scheme launched on May 2014	0.030	0.030	Barriers: high costs for entrepreneurs, low rewards for schools. Solutions: ad hoc schemes for different partners, dedicated resources
D. Social Infrastructure	D.1 Education and Training	University Infrastructural capacities improvement	MIUR	Improve overall infrastructural capacities of the tertiary Education System and all infrastructures devoted to students welfare towards full integration within the European Higher Education Area.	Yes	Planning and investment decision taken, activities partially started, average duration 3 years, with some actions also reaching year 2021	0.813	0.454	Barriers: Budgetary constraints; current rules of public accountability; current administrative procedures; low perception of the added value of a PHD holder within the industrial and SME's context; Solutions: exclude public/local debt/guarantees provided for tertiary education institutions from stability pact; use of EU funds to absorb credit risk on tertiary education financing; general simplification of bureaucratic procedures
D. Social Infrastructure	D.2. Health	Trento new hospital hub	Autonomous Province of Trento, Private investors	Construction and operation scheme of a new hospital, having capacity of over 600 beds	Yes (regional)	After the recent annulment of first tendering/awarding of the scheme, the awarding authority is expected to launch a new public tender soon	0.310	0.310	Barriers: length of tendering process. Solutions: partially financed with public (regional) resources € 160 mln

\*= already matched by MIUR - BEI School Upgrade Extraordinary Programm

\*\*= Financed by DM 351/2014

\*\*\*= financed by DM 351/2014

**Pipeline of projects**  
**E. Resources and Environment -**

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Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/bn)	Investment in 2015 – 2017 (€/bn)	Barriers/solutions
E. Resources and Environment	E.1. Natural resources: efficient use and secure availability	CAP Settore Idrico Milano	CAP Holding	Investments in water and wastewater schemes in line with EU environmental directives	No	Investment programme 2015-2033 with multiple schemes, with planning and permitting at different stages, and with annual capex occurring every year	1.100	0.210	Barriers: Regulatory uncertainties on standard costs (benchmarking) and termination value, affecting the economic and financial plan of the operator. Potential solutions: Operation of EUR 70 million already financed by EIB / Cassa Depositi e Prestiti.
E. Resources and Environment	E.1. Natural resources: efficient use and secure availability	SMAT Settore Idrico Torino	SMAT S.p.A.	Investments in water and wastewater schemes in line with EU environmental directives	No	Investment programme 2015-2023 with multiple schemes, with planning and permitting at different stages, and with annual capex occurring every year	0.560	0.250	Barriers: Regulatory uncertainties on standard costs (benchmarking) and termination value, affecting the economic and financial plan of the operator. Potential solutions: Operation of EUR 100 million to be financed by EIB / CDP (signature expected by end 2014).
E. Resources and Environment	E.1. Natural resources: efficient use and secure availability	Publiacqua Settore Idrico Firenze	Publiacqua S.p.A.	Investments in water and wastewater schemes in line with EU environmental directives	No	Investment programme 2015-2021 with multiple schemes, with planning and permitting at different stages, and with annual capex occurring every year	0.460	0.210	Barriers: Project financing with end of the concession in 2021 does not allow long-term financing beyond 2021. Regulatory uncertainty on the level and payment mechanism of the Termination Value (TV) due at the end of the concession. Potential solutions: (i) Establish and certify the current level (in EUR) of the Regulated Asset Base (RAB) and the level of the Termination Value for each remaining concession year; (ii) Establish the principle that the concessionaire maintains the right to provide the service until the full receipt of the TV in cash; (iii) Ensure grandfathering in case of changes to the future regulatory framework; or (iv) Obtain "corporate guarantee" from private partner ACEA S.p.A. for TV.
E. Resources and Environment	E.1. Natural resources: efficient use and secure availability	Acquedotto del Fiora	Acquedotto del Fiora S.p.A.	Investments in water and wastewater schemes in line with EU environmental directives	No	Investment programme 2015-2026 with multiple schemes, with planning and permitting at different stages, and with annual capex occurring every year	0.290	0.110	Barriers: Project financing being structured with relatively small operator, with high unit costs due to low population density and wide area. Regulatory uncertainty linked to the future definition of standard and environmental costs and of the TV. Potential solutions: (i) Define standard costs and environmental costs foreseen by AEEGSI; (ii) ensure grandfathering of the economic plan of the concessionaire in case of unexpected future changes to standard and environmental costs
E. Resources and Environment	E.1. Natural resources: efficient use and secure availability	CIIP Settore Idrico Ascoli	CIIP S.p.A.	Investments in water and wastewater schemes in line with EU environmental directives	No	Investment programme 2015-2032 with multiple schemes, with planning and permitting at different stages, and with annual capex occurring every year	0.220	0.050	Barriers: Relatively small operator. Regulatory uncertainty linked to the future definition by the AEEGSI of standard and environmental costs and related to the Termination Value. Potential solutions: (i) Establish and certify the current level (in EUR) of the Regulated Asset Base (RAB) and the level of the TV for each remaining concession year; (ii) Establish the principle that the concessionaire maintains the right to provide the service until the full receipt of the TV in cash; (iii) Ensure grandfathering of the concession and economic and financial plan in case of changes to the future regulatory framework; (iv) Define standard and environmental costs; (v) ensure grandfathering of the economic plan of the concessionaire in case of unexpected future changes to the standard and environmental costs.

Sector	Sub-sector	Project name	Implementing agency	Description	Included in national investment plan (yes/no)	Status	Total investment cost (€/bn)	Investment in 2015 – 2017 (€/bn)	Barriers/solutions
E. Resources and Environment	E.2. Resilience to Climate Change	Program for mitigation of hydrogeological hazard	Varios Regions	Flood hazard mitigation measures, landslide hazard mitigation measures, coastal protection measures.	yes	At various phases of project cycle	9.584	7.657	Barriers: financial resources shortage, stability pact, requested time for advice acquisition. The EIB presently requires the implementation of the program to be coordinated and supervised by a single implementing agency . Difficulties for the EIB to reach out local authorities and/or small size projects in the face of increasing devolution of responsibility on investment. <u>Potential solutions</u> : ruling acts and bills, simplification and reduction of bureaucracy's burden. Considering reviewing EIB policies, structure, and mandate to reach out local authorities and small size projects and enhancing partnership with NPBs and regional financial institutions .
E. Resources and Environment	E.2. Resilience to Climate Change	Program for remediation of contaminated sites	Varios Regions under the supervision of the Ministry of the Environment and Protection of Land and Sea of Italy	Investments in remediation of contaminated sites and asbestos removal	yes	At various phases of project cycle	2.806	2.532	Barriers: Procedural complexity in terms of the administrative and technical; financial constraints in spending at the local level due to EU stability pact. The EIB presently requires the implementation of the program to be coordinated and supervised by a single implementing agency. Difficulties for the EIB to reach out local authorities and/or small size projects in the face of increasing devolution of responsibility on investment. Lack of implementing projects capacity at local level. Solutions: Legislative and regulatory measures (being adopted and to be adopted) aimed at procedural simplification and for overcoming difficulties in spending at the local level. Considering reviewing EIB policies, structure and mandate to reach out local authorities and small size projects and enhancing partnership with NPBs and regional financial institutions.