



## **Financing Solid Waste Infrastructures in Greece in the Context of a Circular Economy and “Juncker Plan”**



**European Investment Bank  
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**Municipal Solid Waste Management Models and the Role of  
Local Authorities in Greece  
Alexandroupoli, 15<sup>th</sup> – 16<sup>th</sup> January 2016**



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# Introduction to the European Investment Bank



EIB Ratings	Long-term	Outlook
Moody's	Aaa	Stable
S&P	AAA	Stable
Fitch	AAA	Stable

•(as of September 2014)

- Created with the Treaty of Rome in 1958
- Owned by 28 EU Member States
- EU's policy-driven, long-term lending institution
- Self-sustaining, non-profit maximizing institution
- Sizeable capital of €242 billion
- Largest Multilateral Development Bank by assets (€525bn in 2014)
- Largest Multilateral Development Bank by annual lending (€67bn target 2014)
- Largest supranational borrower on the capital markets (€70bn target 2014)
- Highest credit rating, 0% risk-weighted
- Projects in over 160 countries



# The European Investment Bank

- Largest multilateral lender and borrower in the world
  - Raise our funds on the international capital markets
  - Pass on favourable borrowing conditions to clients
- Some 440 projects each year in over 160 countries
- Headquartered in Luxembourg and 28 local offices
- Around 2 100 staff:
  - Not only finance professionals, but also engineers, sector economists and socio-environmental experts
  - More than 50 years of experience in financing projects



# Total Lending and Staffing

## *Peer group of MDBs*



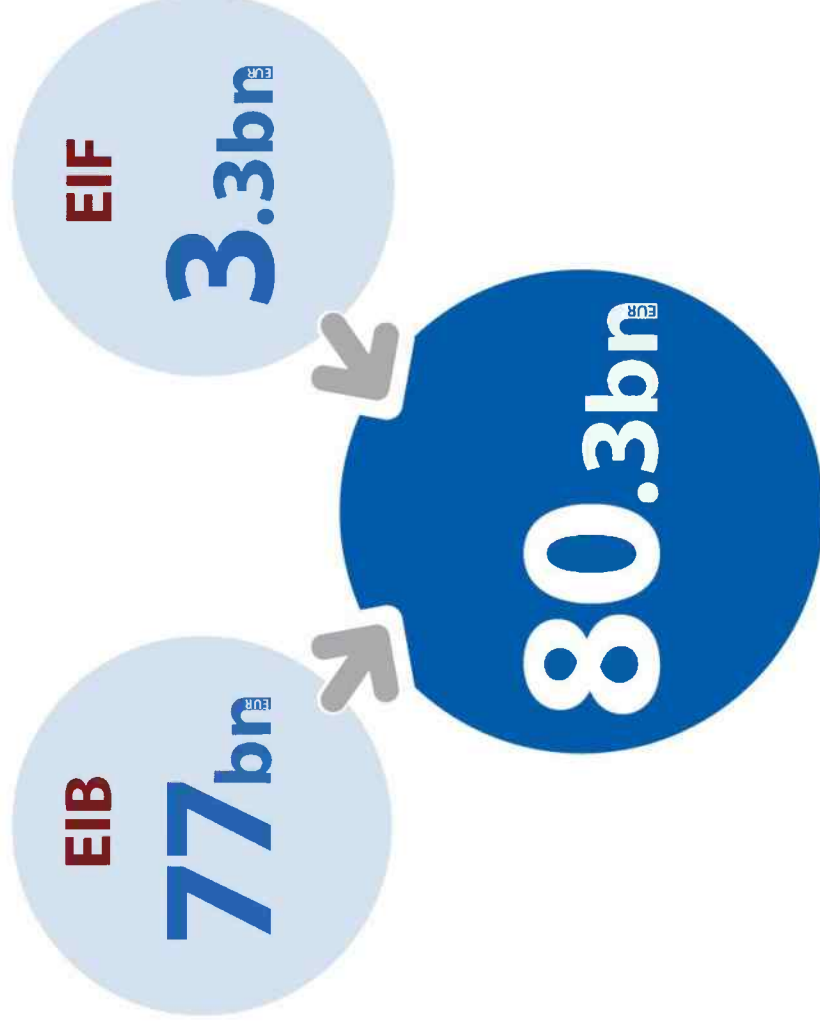


## EIB Strategy: Lending, Blending and Advising

- **Lending:** The vast majority of our financing is through loans; we also offer guarantees, microfinance, equity investment, and many other type of financing.
- **Blending:** Our support helps us unlock financing from other sources, particularly from the EU budget. These grants are blended together with EIB and other loans to form a full financing package.
- **Advising:** Lack of finance is only one barrier to investment. We can help with administrative and project management capacity which facilitates project design, preparation and implementation.



## Lending priorities in 2014





## **SWM: Issues and Business Opportunities**

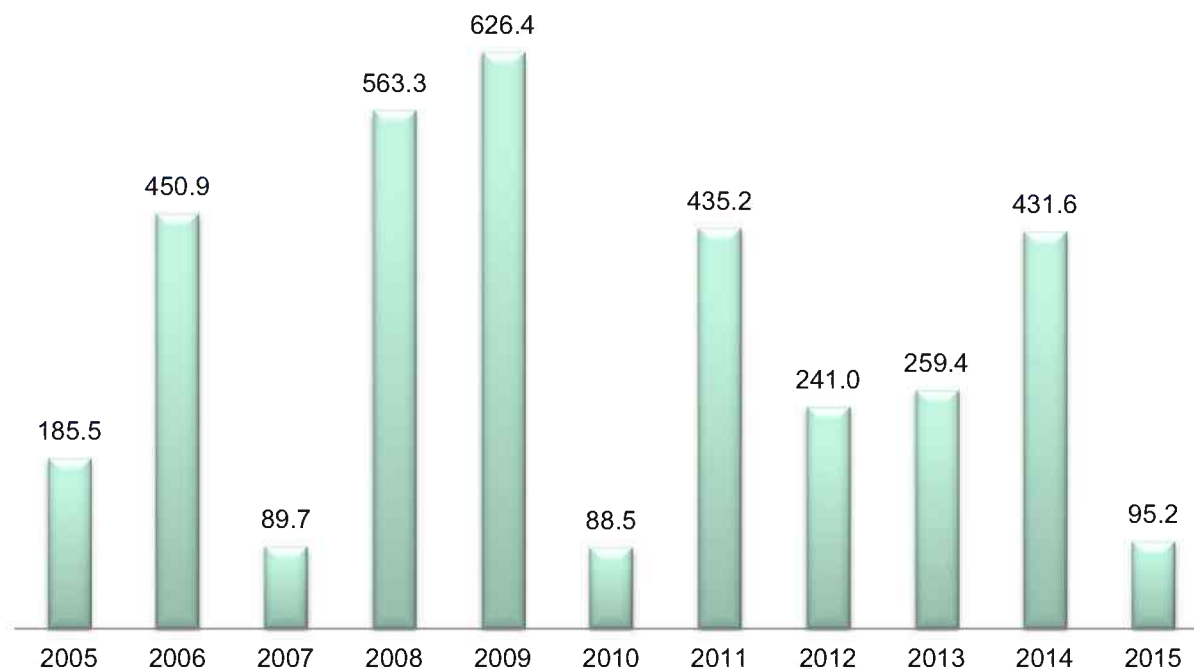
- 161 countries: 1.3 bn tpa of MSW but 2.2 bn tpa MSW in 2025;
- Costs: US\$ 205.4 bn to US\$ 375.5 bn in 2025;
- Global municipal waste market, including collection and recycling: estimated to € 310 billion per year;
- Waste Market in OECD: ca. US\$ 120 billion;
- 107 M t waste recycled in the EU28 (Eurostat, 2010);
- WM sector: European economy's most important suppliers of raw materials, one of the fastest growing sectors in EU;
- 1.8 M Jobs in the EU 28;
- 148 M CO<sub>2</sub>eq saving: €5.25 billion;
- 1.2 M direct jobs in the sector: 3 M jobs in 2020 (EC).





# Solid Waste Loans signed 2005-2015

EIB financing in solid waste sector EURm



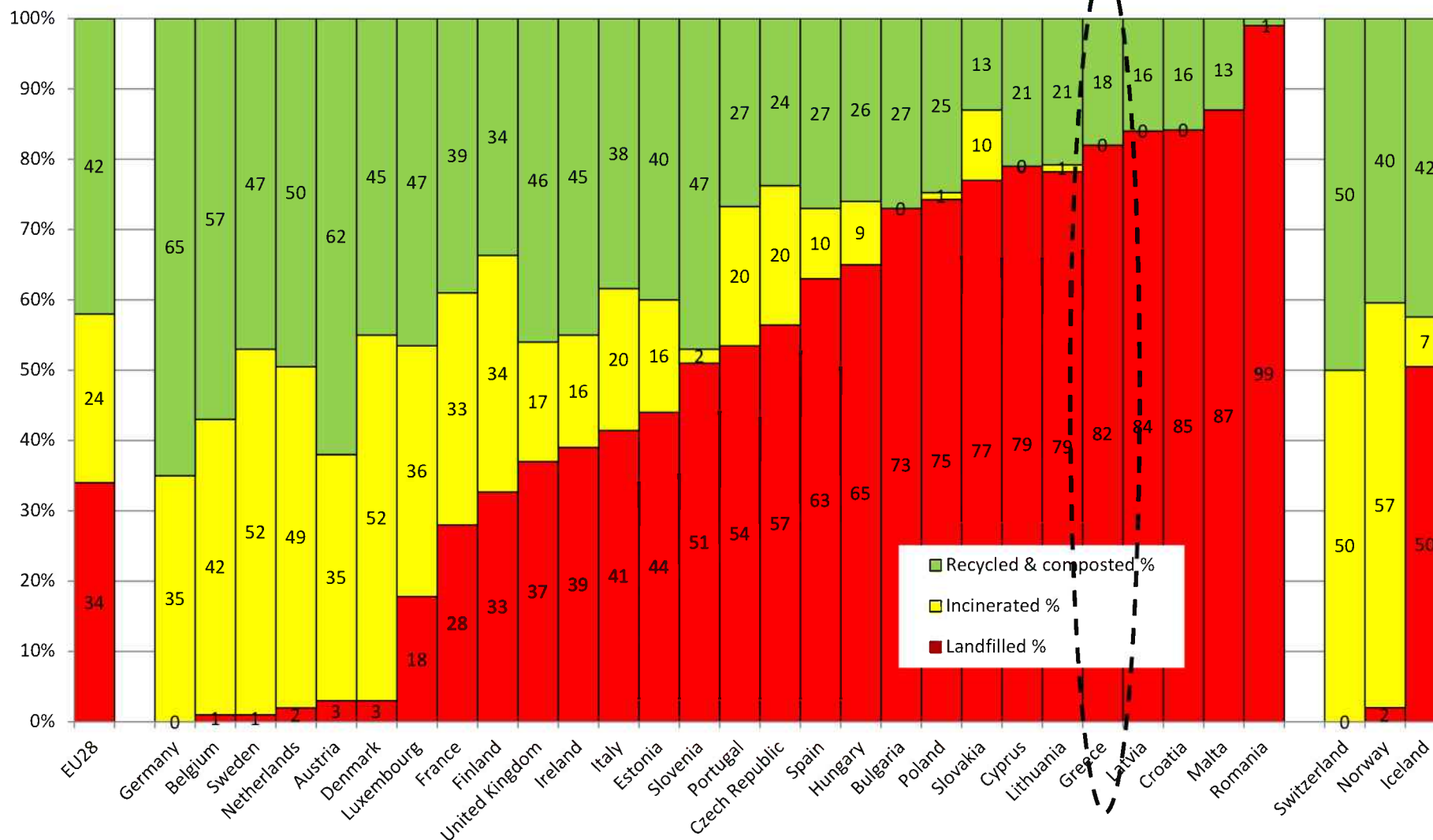
**2005-2015: € 3.47 bn total (3.34 in EU, 2.7 IL, 0.77 FWL)**



# Overview of the EU SWM



Source: EUROSTAT 2012





## Some EIB Investments in the Sector in Greece

### Project

W Macedonia SWM PPP

Finalization of Works and sealing of Langadas Landfill, Thessalonik

Upgrade the Landfill “Temploni” in Corfu

Completion of Construction of the Landfill “APHASIA” IN Ioannina

Construction and operation of landfill in the municipality of Symi

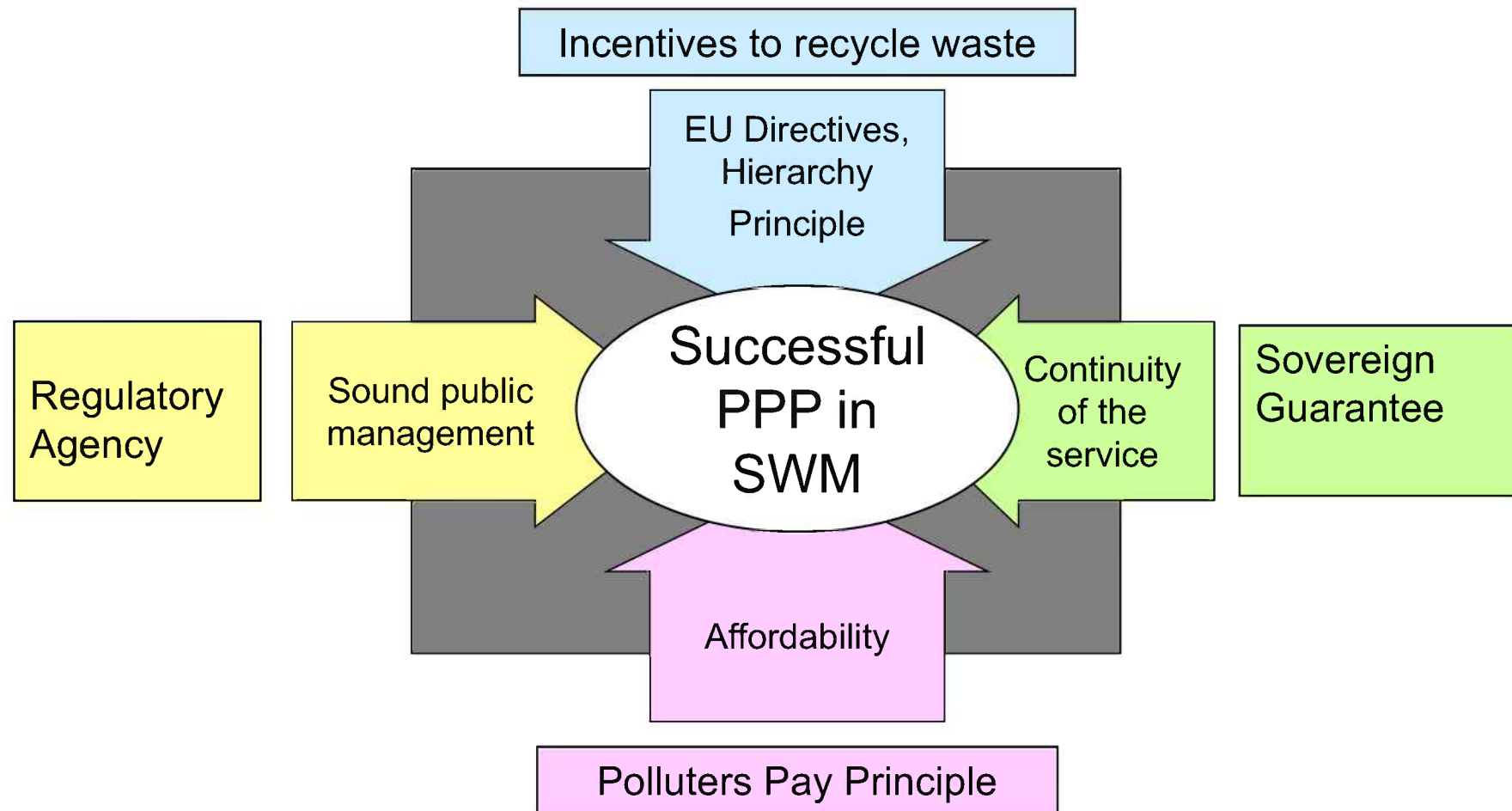
Construction and Operation a Landfill in Chios

Construction of an extension of the existing Landfill in the region of Komotini

Rehabilitation of dumpsites: In Attica region, Kalamaki, Tagarades, Thessaloniki Municipality, Moudania, Halkidiki, Kilkis

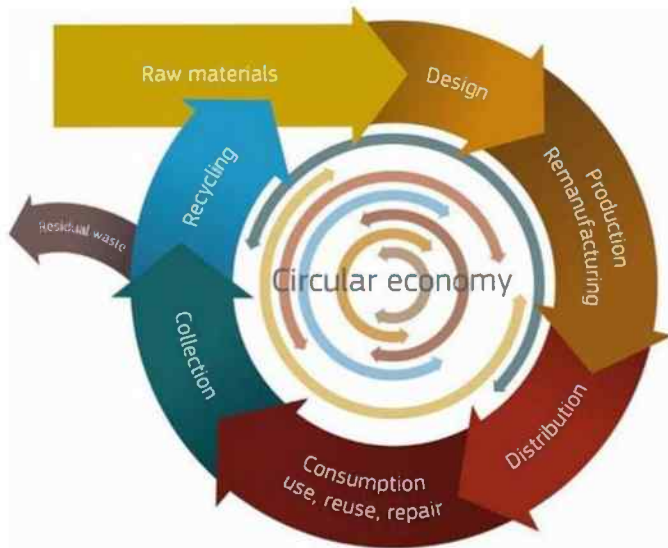


## PPP in SWM: Main Challenges





## Development of the Circular Economy: New Approach



- Need for public and private sources of financing
- Increase cooperation between different actors
- European Fund for Strategic Investments (EFSI): EIB, EIB Advisory Hub, the Commission
- Finance: EFSI Funding, €650 m from Horizon 2020 (EU funding programme R&D); € 5.5 billion for structural funds for waste management
- EIB advisory and financing tools under the InnovFin programme



## Circular Economy: New Market for SW



overview of the status quo of processing recyclables and bio- and green waste from municipal sources



identification of treatment capacity gaps for (minimum) compliance with EU Waste Framework Directive and Landfill Directive



estimation of investment needs and direct job effects



identification of requirements to funding by private sector (interview based)



## Circular Economy: Areas of Investment Focus

<u>Processes</u>	<u>Features</u>	<u>Economic Merits</u>
<b>Anaerobic Digestion (AD)</b>	Increase 4% p.a. Increase of foodwaste AD as driver of industrial growth and job creation (250 k – 300 k Jobs)	Reduction of fossil fuel Sustainable energy Less environmental nuisances CO <sub>2</sub> neutral, sustainable energy
<b>Biomass</b>	Gasification of homogenous material	Low carbon economy, +GHG
<b>Recycling</b>	Increase 7% p.a. 10 times more jobs than other processes	Reduction of virgin materials
<b>Composting</b>	Phosphorus recovery	Substitution of synthetic fertilisers
<b>Landfill remediation</b>	150,000 in EU: €40-50 bn	Supported also by Private sector



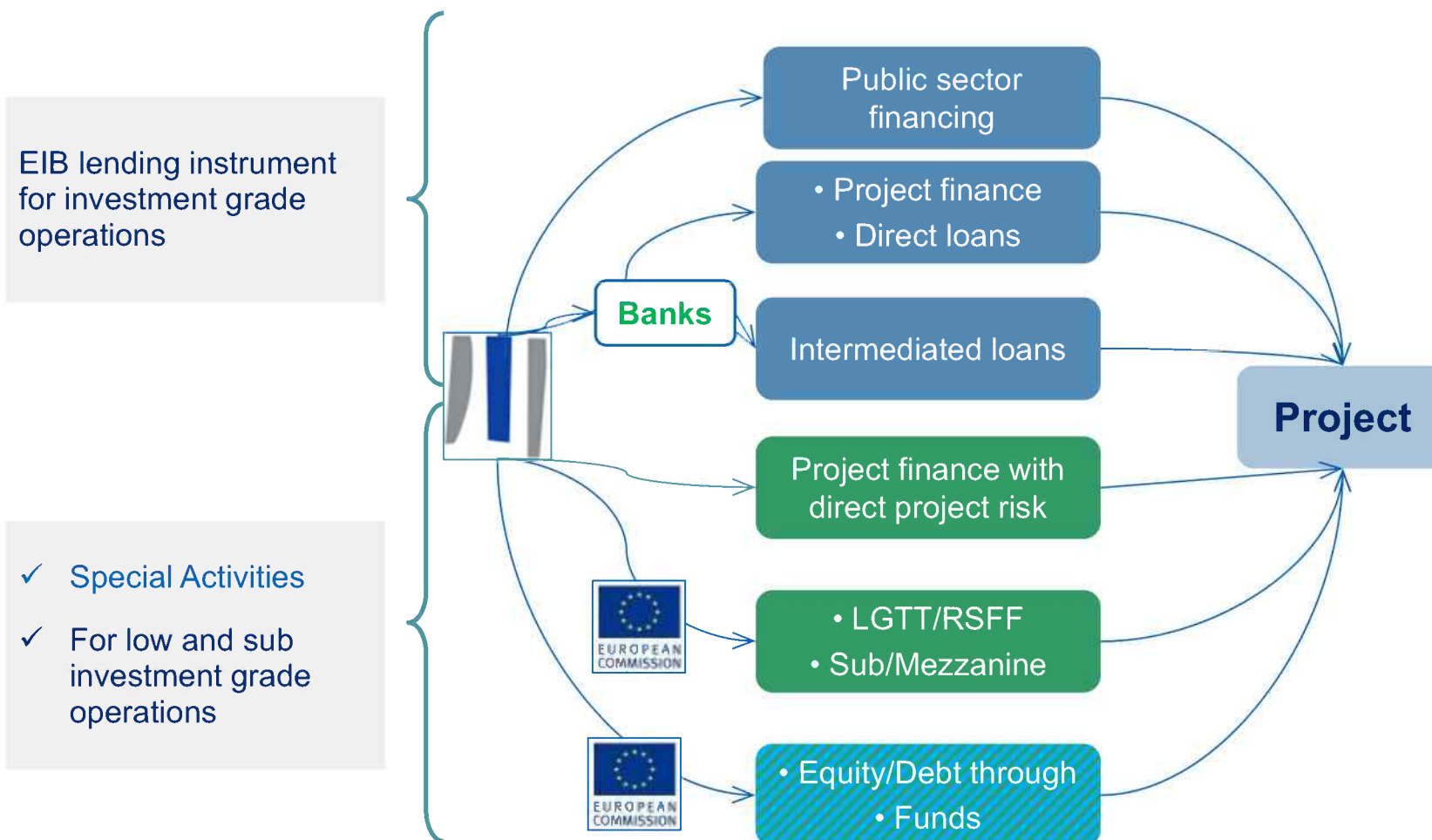
## CE: Investment Needs and Jobs Creation

Country	Market attractiveness	Method 4	
		Investment potential	Direct jobs
		€m	(rounded)
AT	low	0	0
BE	low	0	0
BG	medium	1,061	1,674
CY	medium	277	324
CZ	medium	445	446
DE	medium	1,551	3,732
DK	low	169	252
EE	medium	109	180
ES	high	1,653	2,644
FI	medium	283	440
FR	high	2,337	4,420
<b>GREECE</b>	<b>medium</b>	<b>1,145</b>	<b>1,869</b>
HR	medium	549	911
HU	medium	476	904
IE	medium	363	912
IT	high	2,125	2,861
LT	medium	438	692
LU	low	32	52
LV	medium	214	340
MT	medium	43	88
NL	medium	514	954
PL	high	1,375	2,608
Portugal	medium	590	1,132
RO	high	2,314	3,934
SE	low	194	470
SI	medium	142	250
SK	medium	366	560
UK	high	1,876	3,485
EU28		20,641	36,134



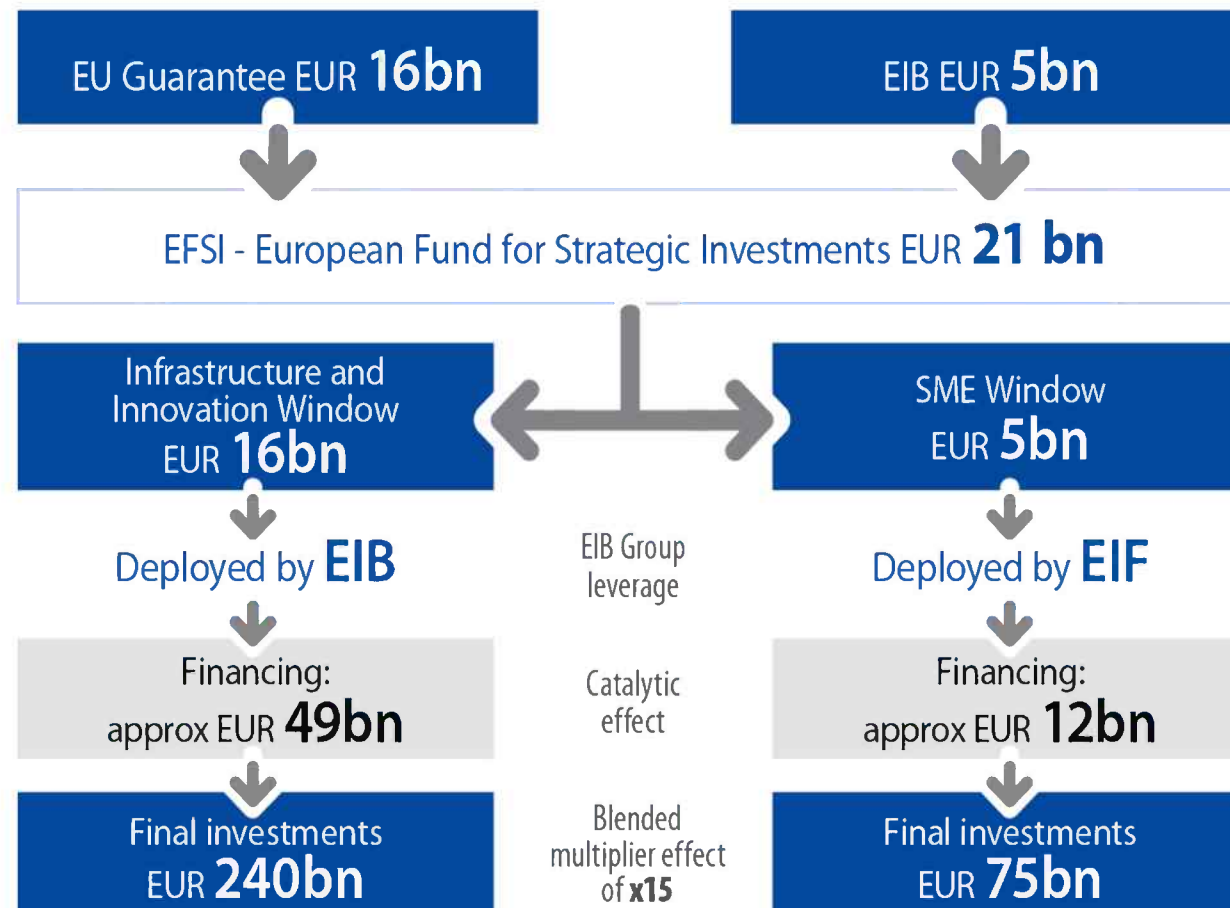


# Financing Instruments: Standard Products





## European Fund for Strategic Investments (EFSI)





## Eligible sectors, Operations and Counterparts

Eligible sectors	Eligible operations	Eligible counterparts
<ul style="list-style-type: none"><li>• Transport, energy; infrastructure projects in the environment, natural resources, urban development and social fields</li><li>• <b><u>Research and development and innovation</u></b></li><li>• Education and training, health, information and communications technology</li><li>• <b><u>Energy sector, renewable energy, security of energy supply and energy and resource efficiency</u></b></li><li>• Financial support for mid-cap companies and SMEs</li></ul>	<ul style="list-style-type: none"><li>• Commercially sound</li><li>• Economically and technically viable</li><li>• Added value (additionality)</li><li>• Investments boosting employment and growth</li><li>• Bank intermediation is possible</li><li>• Pricing commensurate with the risk – no subsidy element</li></ul> <div><ul style="list-style-type: none"><li>✓ EIB in charge of verifying that eligibility criteria are properly applied</li><li>✓ EIB normal “know your customer” and compliance requirements</li><li>✓ Typically higher risk profile than normal EIB’s normal operations</li></ul></div>	<ul style="list-style-type: none"><li>• Corporates of all sizes</li><li>• Utilities</li><li>• Public sector entities</li><li>• SMEs (below 250 employees) or MidCaps (below 3,000 employees)</li><li>• NPBs or commercial banks for intermediation</li><li>• Dedicated investment platforms possible</li></ul>



# Key Messages



- Major needs and investment opportunities: Increase lending;
- Use waste as a resource: Circular Economy;
- Strengthen energy recovery, and tackling of climate change;
- Consider climate change related parameters and risks in our economic project appraisal criteria;
- Explore risk-sharing financial structures, particularly innovative technologies
- Circular Economy entails
  - Technological and process innovation
  - Financial innovation may also be required to create the financial products that can sustain Circular Economy-related investments
- Investment Plan for Europe: Creation of a window of opportunities for assessing whether new financial instruments could be better tailored to Circular Economy-related investments
- Joint EC-EIB financial instruments such as InnovFin and EFSI could be used to support EU's policy on circular economy and enable further transition



# Thank you for listening!

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