EIB Financing of Marine Renewable Energy

Marine Renewable Energy Research Day

European Parliament

Brussels, 30 November 2016

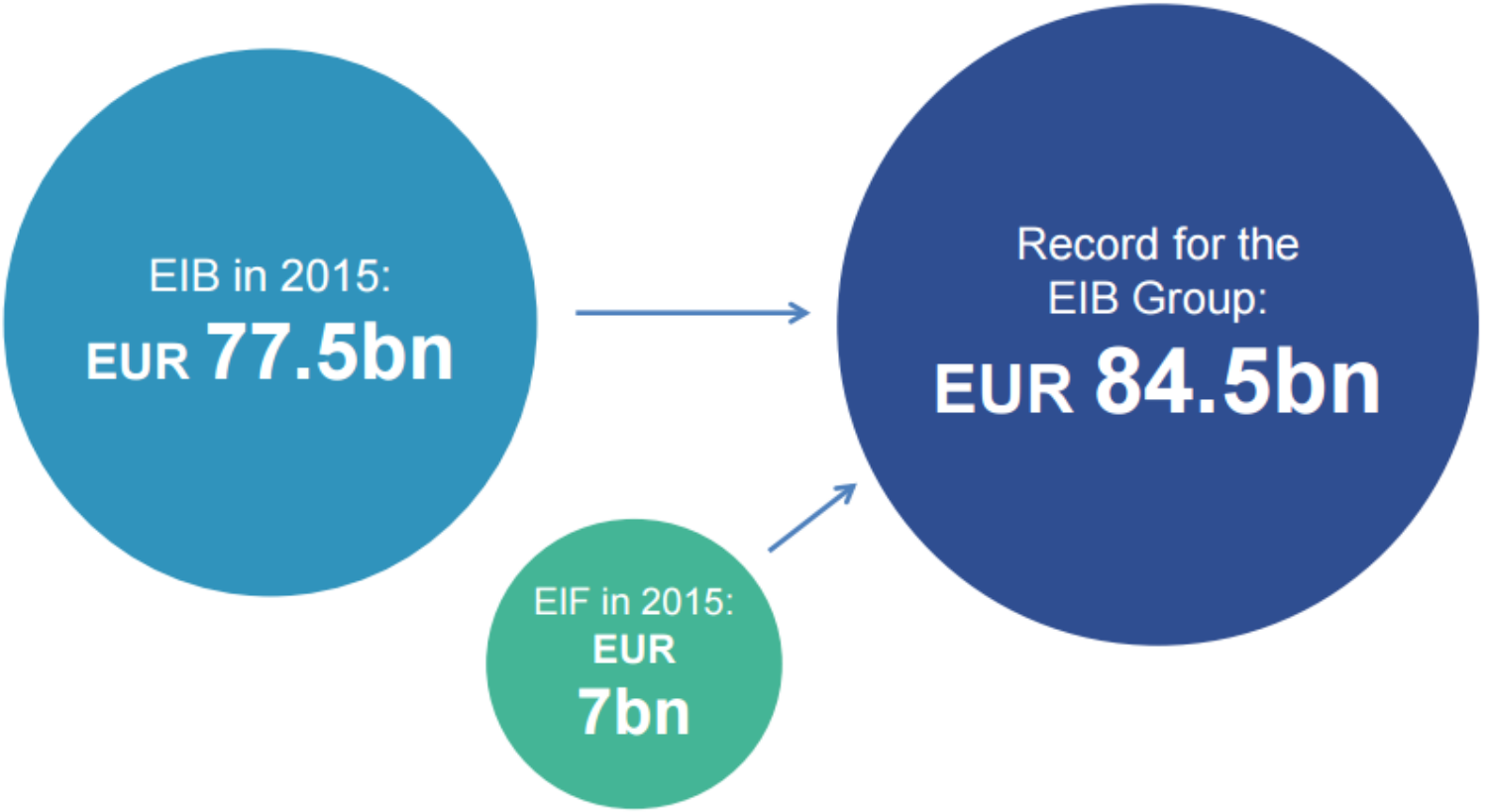
The EU bank

- Natural financing partner for the EU institutions since 1958
- Some 450 projects each year in over 160 countries
- Around 90% of lending is within the EU
- Shareholders: 28 EU Member States

Investing in Europe's growth: Providing finance and expertise for sound and sustainable investment projects

EIB – The EU Bank

WE ARE THE WORLD'S LARGEST **MULTILATERAL** FINANCIER



We focus on our key priorities

ENVIRONMENT

EUR 19.6bn

INFRASTRUCTURE

EUR 18.9bn

INNOVATION

EUR 18.7bn

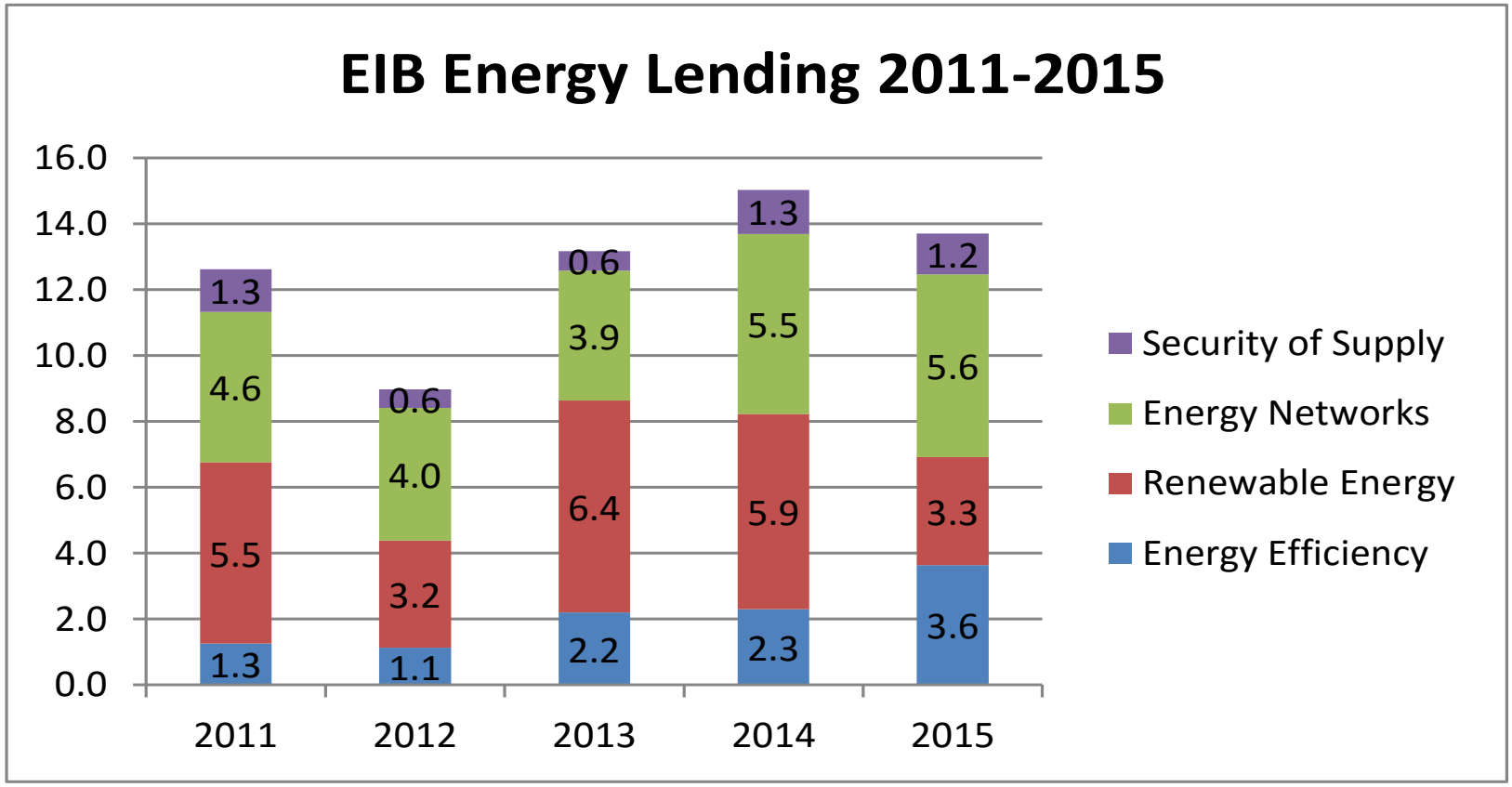
SME

EUR 29.2bn

EIB Energy Lending Criteria

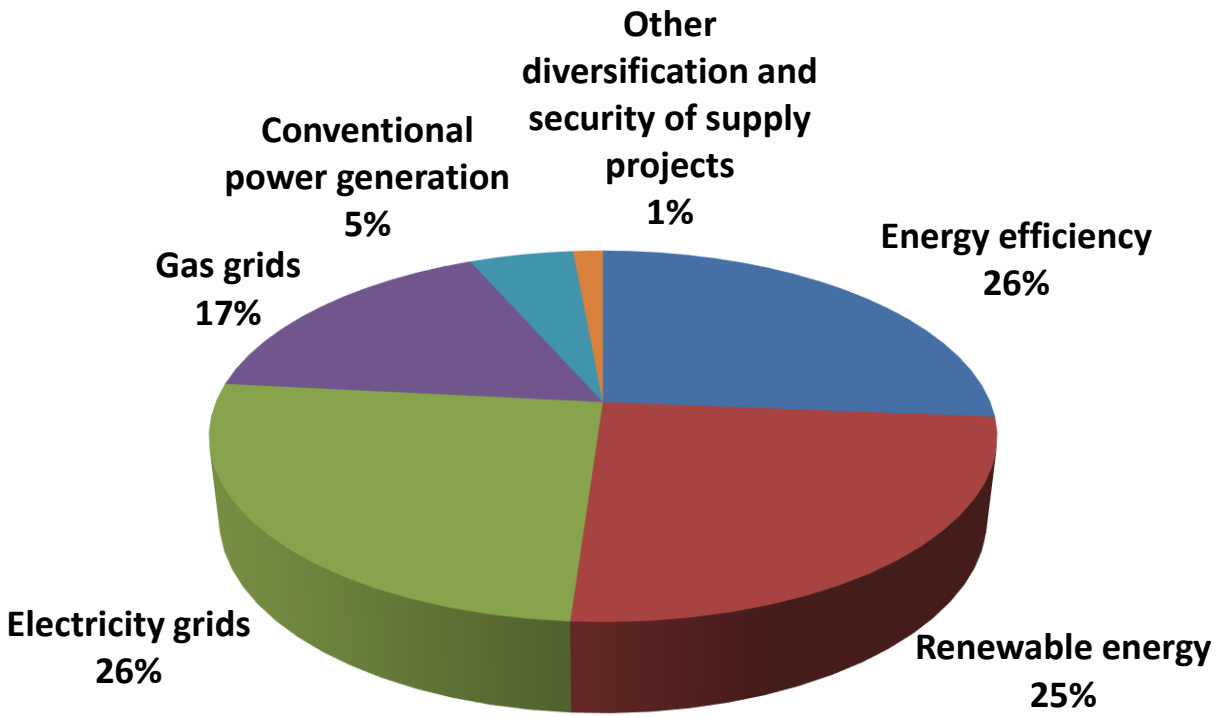
- Priority areas are:
  - energy efficiency,
  - energy networks (national and regional)
  - renewable energy
    - mature RE (hydro, biomass, onshore wind etc)
    - emerging RE (includes OFFSHORE WIND)
  - energy RDI
    - focus on low carbon technologies
    - includes OCEAN ENERGY (wave, tidal, OTE etc.)

- On average 15-18% of EIB total yearly lending



EIB lending to energy projects in 2015

- In 2015 energy loans of EUR 13.7 bn



EIB products

- **Direct lending:**
  - **Investment loans**
  - **Framework loans:** to promote aggregation of small projects, multi-project and multi-sector investment programme
- **Intermediated lending:** crowding in of commercial lending
- **Investment funds (equity) –** to catalyse private investors
- **Blended products –** Combining EIB finance with EU budget, e.g. InnovFin (higher risk projects for innovation)
- **Technical assistance –** typically upstream, with of without links to operations

InnovFin
Energy Demo Projects

Innovfin EDP

- It was developed under **InnovFin – EU Finance for Innovators** which is a joint initiative by the EIB Group and the European Commission under Horizon 2020, the EU framework for research and innovation (“R&I”) 2014-2020.

- The objective of InnovFin EDP is to support **bridging the valley of death from demonstration to commercialization**, helping the further rollout of low-carbon energy technologies to the market. It has been designed to address a financing bottleneck identified in the EU's Strategic Energy Technology (SET) Plan.

- InnovFin Energy Demo Projects enables the EIB to finance innovative **first-of-a-kind demonstration projects in the field of renewable energy, sustainable hydrogen and fuel cells.**

Which projects can be supported?

Renewable energy

Fuel Cells, Hydrogen

- Pre-commercial stage; technology needs to be scalable
- Loan: EUR 7.5m – EUR 75m; EUR and local currency; maturity of max 15 years; EIB finances up to 50% of project costs.
- Comprehensive due diligence including project due diligence (technical, financial, economic)
- EIB standard documentation

InnoVFin
Energy Demo Projects

Eligibility criteria

Eligible Energy Demo Projects must be in the renewable energy, hydrogen or fuel cells sector. These might include first-of-a-kind power, heat, and/or fuel production plants and first-of-a-kind manufacturing plants.	
1. Innovativeness	Are the project's key technologies considered innovative in relation to the state of the art for each technology? Does the project demonstrate for the first time commercial viability?
2. Replicability	Does the project have the potential to be replicated elsewhere? Does the project offer prospects for cost efficient CO2 reductions?
3. Readiness for demonstration at scale	Is the proposed project sufficiently mature to be ready for demonstration at the proposed scale? Is such scale equal to the one of future applications?
4. Timeline	Is the projected start of commercial operation of the whole plant expected to happen within a period of maximum 4 years?
5. Prospects of bankability	Does the project have the potential to be or to become bankable by the guarantee release date?
6. Commitment	Are the promoters, sponsors and/or operators willing to substantially co-fund the project?

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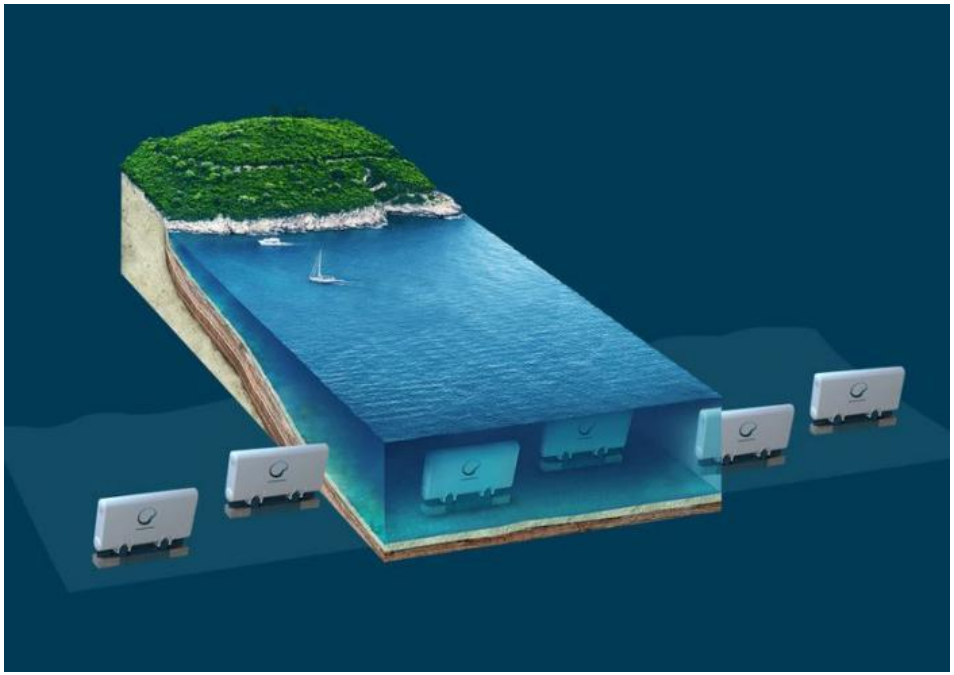
Energy Demo Projects

"Wave Roller" technology



Potential market capacity of ~200GW based on detailed coastline analysis

- Near shore device installed on seabed
- Developed by a pioneering start-up company located in Finland
- Operation site in Portugal with 100kW prototype in operation
- Full scale will be 350-700kW

- EIB loan (10 MEUR) signed on 06/07/2016
- It will part finance remaining development and first commercialization of the technology
- Equity type transaction given project risks

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Energy Demo Projects

Windfloat

- Floating offshore windfarm in Portugal (3 x 8 MW)
- Semi-submersible floating structure
- 20 km from shore
- Water depth 85-100 m
- Pilot installation, 2 MW (2011)
- Currently under appraisal by EIB
- EIB loan 25 MEUR (over an investment cost of 104 MEUR)
- Benefits from an NER 300-grant (first round 2012)
- Success of this technology would open up a new vast market
- It is estimated that up to 80% of offshore wind resource in the EU is in deep water

Conclusions

- EIB is supporting all marine energy technologies and has had a key role in the development offshore wind
- EIB willing to increase its support to other ocean energy technologies
- Our final objective is to stimulate growth, employment as well as to contribute to the decarbonisation of the European economy

Thank you!

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