Relevance of Thematic Impact Finance for Innovation Fund eligible projects

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What is THEMATIC IMPACT FINANCE?
The Challenges of the Commercialisation of Innovation

**Impact Finance Mandates aim to bridge the so-called “Valley of Death”**

Without an established market and a track-record of the performance of a technology, private investors have a high-risk perception of commercial demonstration projects.

Demonstration projects build investor confidence in a promoter’s ability to deliver, the performance of the technology and market demand for the product/service.

The EIB helps promoters to bridge the financing gap on their pre-commercial projects. It supports and accelerates the implementation of climate-friendly innovation.

Development of new technologies requires patient capital which EIB can provide to allow the crossing of the valley of death until commercial demonstration is achieved.
Energy Demonstration Projects Signatures

€361m of Financing signed to support innovative Energy Projects
Future Mobility Signatures

€141.4m of Financing signed to support Future Mobility Projects

- EV Charging EUR 25m
- Recycling of Marine Fuels EUR 18m
- IT Platform Shared Mobility EUR 15m
- Hydrogen EUR 20.8m
- Rail Freight Terminals EUR 12.6m

Highlighted projects are NER300 Supported
THEMATIC IMPACT FINANCE under the INVESTEU

Green Transition Investment Facility
Future of thematics under Invest-EU (under finalisation/negotiation)

- Clean Energy/Low Carbon innovation
- Energy Demo Projects
- Future Mobility
- Energy Intensive Industry low-carbon solutions
- Bio Economy
- Circular Economy

Main Policy Areas

Green Transition Investment Facility

Under final negotiation
Perspective on Thematics under Green Transition Investment Facility

1. Significant Market Traction
   - Healthy pipeline with EUR275m volume expected in 2021.
   - Momentum building on hydrogen related projects, CC(U)S, storage and grid solutions, EV charging, alternative fuels (wind, methanol, synthetic fuels).

2. Limited InvestEU resources for a growing number of sectors
   - InvestEU resources have been pared down
   - Allocations under discussion do not provide for a funding business plan at current cruising speed
   - New focus on circular economy and bio economy will bring competition on resources

3. Heavy Industry low-carbon solutions
   - The financing challenges of the heavy are very similar to that of other sectors benefitting from thematic impact finance tools
   - Targeted industries include steel, chemical, fertilizer and cement,
   - Significantly larger tickets expected to accelerate transition
Innovation Fund top up of Green Transition Investment Facility

- Specific contribution
- Identified segregated envelope
- Tailored eligibility tracking IF eligibility

Thematic Impact Financing by EIB

Projects
- Renewable Energy/ Future Mobility/ low-carbon technologies & process
- Project by project eligibility confirmation by EC
- Potential complement to projects with IF grants
CASE STUDIES OF NER300 SUPPORTED PROJECTS
WINDFLOAT

First Iberian Floating Offshore Wind

- Design and installation of a 25 MW floating wind farm 20 km off coast of Portugal, 85-100 water depth.
- 3 floating substructures each one with a wind turbine of the 8.4 MW.
- Project viability is underpinned by a 20 year Feed in Tariff.
- Experienced promoter’s consortium EDPR, Repsol & Engie.
- EIB loan under InnovFin EDP (NER300 supported), blended with grant funding from the EC (NER 300) and the Portuguese government.
- Major part of the project is built in Iberia, using the naval and steel industries of both Spain and Portugal.

- The Project contributes to the general objective of Climate Change, with a focus on marine energy.
- If successful, the project will “pave the way” for the floating offshore technology which will allow the use of maritime sites not feasible today.
- Key Project for de-risking the technology, which will be replicated in other parts of Europe (France, UK).
WINDFLOAT

First Iberian Floating Offshore Wind
EUR 17m quasi equity financing to GreenWay, Slovakia’s leader in electric vehicle charging stations and services. This is the first EDP operation in Slovakia.

National pilot network in Slovakia established since May 2016, with 60 fast charge stations and 1,500 registered users.

Besides ultra-fast charging stations, deployment at the end of 2017 of a pilot battery assist fast charging system to optimize the local energy management and potentially also provide additional energy services to the grid.

Project will support the development of the electric charging equipment and automotive industry, and related suppliers through the accelerated deployment of EV infrastructure and associated EVs.

- Supports the decarbonisation of transportation by promoting alternative fuels
- Demonstrates the feasibility of commercial-scale deployment of ultra fast charging stations for EV and the pilot of an integrated battery energy storage system
- Allows for the financing of a high risk project and an early stage venture
EUR 20m senior debt financing to a French SPV operated by Voltalis and co-owned by the Meridiam Transition Fund and Voltalis for the acquisition of 500MW of Demand Response (DR) capacity

- A patented technology reducing electric load of consumers in real time. The virtual energy management system employs two-way secured communication and real time algorithms that are based on machine learning
- The project comprises the manufacturing of smart devices and switches
- Voltalis will operate and maintain, and provide smart aggregation solutions at the interface between electricity consumers, wholesale markets and TSOs

- Supports the decarbonisation of power systems by decreasing demand when the system is tight, by adjusting the timing of power consumption to when supply of low-carbon sources is more abundant. DR ensures resource adequacy of power systems by reducing peak load and increasing demand flexibility
- Demonstrates the capability and reliability DR on energy markets and of an emerging market in the field of distributed energy sources
- Allows for the financing of a high risk project and an early stage venture
VOLTALIS

Innovative Demand Response Solution (French)
EUR 75m loan to C-Shift a Belgian company wholly owned by ArcelorMittal Belgium, part of ArcelorMittal Group

The loan is supporting two demonstration projects worth EUR 215m in total:

- **Torero**: a EUR 50m plant to convert waste wood into bio-coal, partially replacing the coal currently injected into the blast furnace.
- **Steelanol**: a EUR 165m plant that will capture waste gases from a blast furnace and biologically convert them into recycled-carbonethanol. The ethanol produced can be blended for use as a liquid fuel.

The projects are set to reduce up to 350,000 tonnes of CO2 emissions per year in the first phase.

Industrial-scale demonstration of innovative technologies that support the decarbonization of the steel industry.

Accelerates the transition needed in the steel industry to meet the EU’s climate objectives.
EU Supports ArcelorMittal with EIB Loan to Scale Up Technology to reduce carbon emissions
THE MOBILITY HOUSE

Building the Internet of Storage

- EUR 15m senior quasi-equity financing to finance the design, development and implementation of a proprietary, fully-fledged, combined electricity-mobility platform providing services to the power grid.

- Investments are expected to take place in Germany, France and the Netherlands, where the Company plans to scale-up its technical and commercial operations to fully demonstrate the viability of its infrastructure and business model.

- The Company has been building and developing Vehicle-Grid-Integration, complementing stationary storage to enable “Internet of Storage” solutions. Its portfolio of distributed assets consists of stationary storage and fleets of EV batteries.

- Deployment of innovative electric charging infrastructure at the crossroads between the automotive and the electricity industry, in conjunction with related stakeholders, enabling the accelerated market uptake of EVs assets.

- Deployment of an innovative platform combining charging points, EVs batteries and stationary energy storage assets to provide services to the electricity networks. This holistic “internet of storage” concept will be a first-of-a-kind deployment in the EU.

- Allows for the financing of a high risk project and an early stage venture.
THE MOBILITY HOUSE

Building the Internet of Storage (German)
BE CHARGE

Electric Vehicle charging Stations

- EUR 25m quasi equity financing the expansion of public Electric Vehicle Chargers (EVC) stations across Italy.
- The project targets to deploy a network of 11,000 new EVC by 2030 all across the Italian territory.
- EU Policy fit:
  - Decarbonization of transport through transition to innovative and sustainable transport technologies,
  - Promotion of the deployment of electric vehicles infrastructure,
  - Support for the e-mobility market expansion

- Deployment of electric vehicles infrastructure, making EVC stations widely and easily available and supplying energy from renewable source
- Acceleration of the deployment of electric vehicle chargers via the roll-out of a nationwide network.
- Demonstration of the possibility of making public electric chargers easily available to cover EV drivers needs and clear their concerns
AW Energy is a Finnish start-up company founded in 2002 with a research center in Finland and an operation site in Portugal.

The Company designed and developed a wave energy device called WaveRoller.

The company had successfully tested three small-scale (100kW) prototypes in normal marine environment in Portugal in 2012-2013.

The Company has developed a full-scale prototype, which it intends to demonstrate in a real operational environment and then commercialize it to major power companies.

The EIB EUR 10 m loan under InnovFin EDP intends to:
- Part-finance the remaining development of the FOAK device.
- Part-finance the first commercialization of the technology.
- The Project contributes to the general objective of Climate Change, with a focus on ocean energy.
- Important project for demonstrating the feasibility of the wave energy technology at commercial scale.
- De-risking a new technology in the ocean space which is lacking of commercial investments.
EVERFUEL

Hydrogen production facility and commercialisation

- EUR 20.8m quasi equity financing of hydrogen production and distribution infrastructure in Denmark, to supply green hydrogen to a fleet of fuel-cell electric buses.
- Support of private initiative to bring down the manufacturing cost of fuel-cell electric buses by up to 40%.
- EU Policy fit:
  - Decarbonisation of transport through transition to innovative and sustainable transport technologies
  - Rollout of hydrogen fuel-cell electric vehicles
  - Unlock the potential of competitive alternative technology to battery-powered buses
  - Stimulates carbon efficiency
- Deployment of zero-emission Fuel Cell Electric Vehicles (FCEV) powered by green hydrogen
- Acceleration of the deployment of hydrogen-powered vehicles use by making fuel-cell transport modes a competitive alternative to battery-based and combustion engine based transport
- Demonstration of the advantages of hydrogen as a transportation fuel as part of a larger private initiative (H2 Bus Europe project)
EVEREST

Electric Vehicles Charging Station

- EUR 50m quasi equity financing the expansion of public Electric Vehicle Chargers (EVC) stations across Spain.
- The project targets to deploy a network of 476 fast charging points by end of 2023.
- EU Policy fit:
  - Promotion of the deployment of electric vehicles infrastructure
  - Support for the e-mobility market expansion
  - Decarbonisation of transport by promoting EVC network

- Deployment of electric vehicles infrastructure, making EVC stations widely and easily available and supplying energy from renewable sources
- Acceleration of the deployment of electric vehicle chargers via the roll-out of a nationwide network
- Demonstration of the possibility of making public electric chargers easily available to cover EV drivers needs and clear their concerns