



Investing in decarbonisation projects and tackling the inherent risks

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The inherent risk of decarbonisation projects



INNOVATION FINANCE GENERAL CHALLENGES

Decarbonization technologies and solutions are still at relatively early stages of development

Innovation inherently brings weakness to the fundamentals of business cases:

- ▶ Uncertainty on **operational performance**
- ▶ Requires the **establishment of a (sub) market**
- ▶ Lack of visibility on **demand** growth
- ▶ Need for **clear policy** targets

INNOVATION INVESTMENT PROJECT CHALLENGES

EIB FINANCING FLAGSHIP PROJECTS

The inherent risk of decarbonisation projects



INNOVATION FINANCE GENERAL CHALLENGES

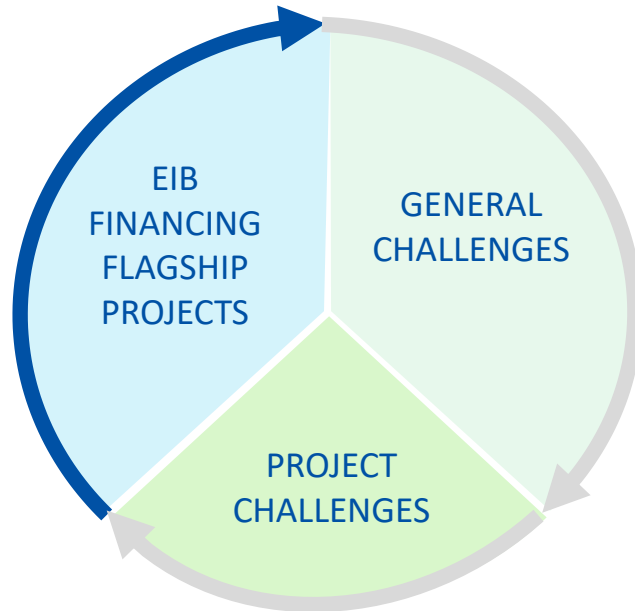
INNOVATION INVESTMENT PROJECT CHALLENGES

Requires financial instruments with a higher risk appetite than commercial and standard project finance debt, e.g.:

- ▶ Project **execution** risk
- ▶ **Performance** risk (on spec, price and volume)
- ▶ Supply and offtake risk
- ▶ Counterparty risk
- ▶ Early stage companies

EIB FINANCING FLAGSHIP PROJECTS

EIB support to overcome the inherent risk of decarbonisation projects



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INNOVATION INVESTMENT PROJECT CHALLENGES

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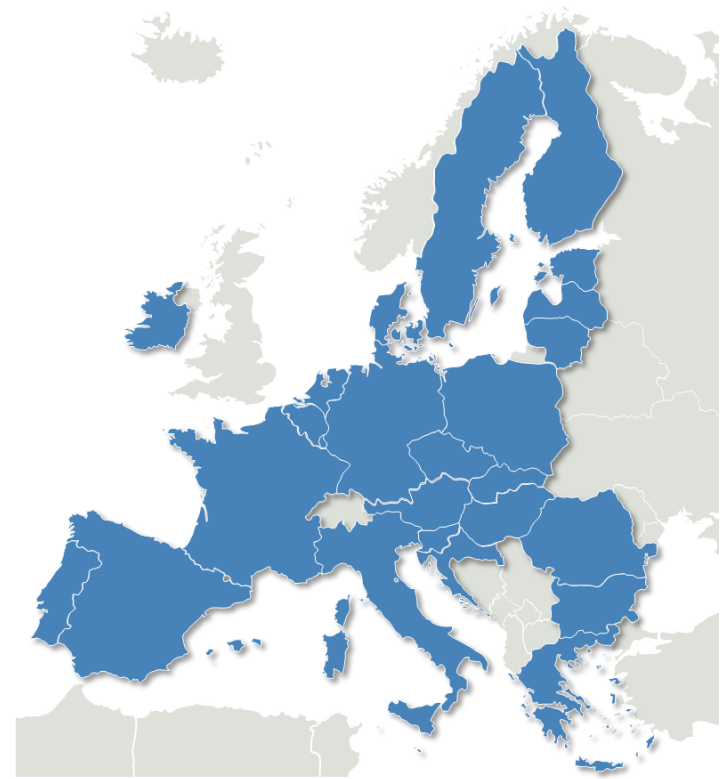
- ▶ Demonstrate through **flagship projects**
- ▶ Propose adequate **(high risk) financial tools**
- ▶ Effective **signaling** to private investors

Our Track Record (January 2023)

Financing signed
€1.0bn+

Projects financed
34+

Financed under various mandates
Venture debt



EIB support to overcome the inherent risk of decarbonisation projects



OFFSHORE WIND:



ELECTRIC VEHICLES:



TEXTILE RECYCLING



DECARBONISATION OF THE STEEL INDUSTRY:



BATTERY VALUE CHAIN:



Our Clients

WHO IS VENTURE DEBT FOR ?



Innovation-driven companies



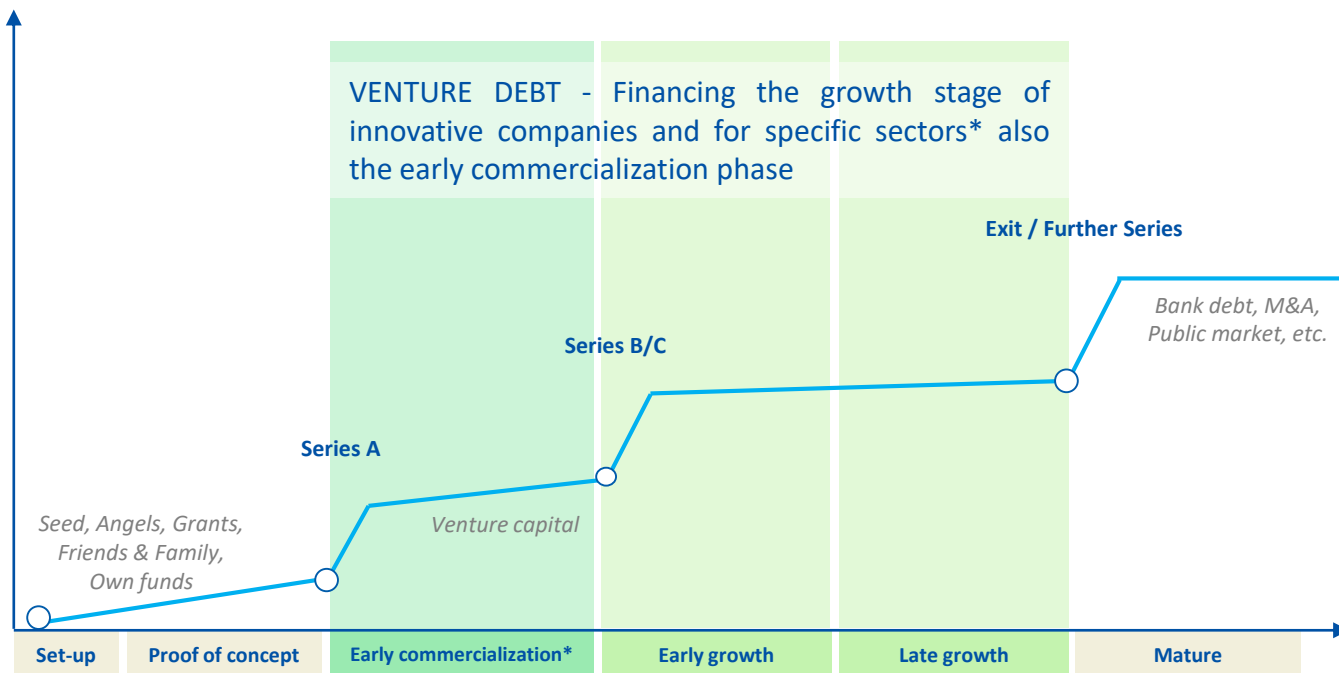
Investments located in EU



Raised Series A/B equity



Strong business model, governance and management team



* Target sectors for early commercialization: unmet medical needs, energy, transport, circular economy, bio-economy, CCU(S)

Advantages of the EIB Venture Debt Product



COMPANY

- ▶ Long tenor allows a company to focus on business growth
- ▶ Large tickets to support growth and scale-up and increase the runway to next funding round
- ▶ EIB is a stable and reliable investor with a triple-A rating
- ▶ Flexible terms and customized structures based on company's needs
- ▶ Quality stamp – increased market visibility and credibility for the company
- ▶ Accelerates the deployment of the business plan and de-risks related innovation



FOUNDERS

- ▶ Limited dilution and loss of control
- ▶ Hands-off approach – no direct involvement
- ▶ Extend time to next funding round
- ▶ Market visibility after EIB investment



INVESTORS

- ▶ Complimentary to equity investment
- ▶ Limited dilution and loss of control
- ▶ Enhanced returns for equity investors
- ▶ Reduce pressure on equity needs
- ▶ Long-term loans match timing of investment

Our Sectors (1/2)



Massive, sustainable savings of CO2 emissions enabled by technology



Total number of jobs supported (mostly high skilled): **30,000 +**



Improved quality of life for millions

ENGINEERING



Advanced manufacturing and industrial innovation



Chemicals

ICT



Software with emphasis on AI/ML and cybersecurity



ICT Equipment and robotics



IT Services and e-commerce

LIFE SCIENCES



Biotechnology and drug development



Medical technologies



Medical services

Our Sectors (2/2)

ENERGY



Renewable energy technologies (wind, wave, solar, etc.)



Energy storage



Demand response and smart grid solutions

And more...

MOBILITY



New and adapted transport services and infrastructure (e.g. charging networks, drone delivery)



Digitalisation of the transport sector and manufacturing of green mobile assets



Alternative fuels for HGV, Maritime and Aviation – Green H2 and Methanol

And more...

CIRCULAR ECONOMY



Sustainable end-product, byproduct and waste product recycling.



Key sectors include: textiles, plastics, packaging, ICT, batteries, vehicles, construction materials, food, water, nutrients and energy equipment

BIO-ECONOMY

Sustainability and climate mitigation in food production and supply chains, agriculture, farming, forestry and blue economy



And more...

LOW-CARBON SOLUTIONS



CCU(S)

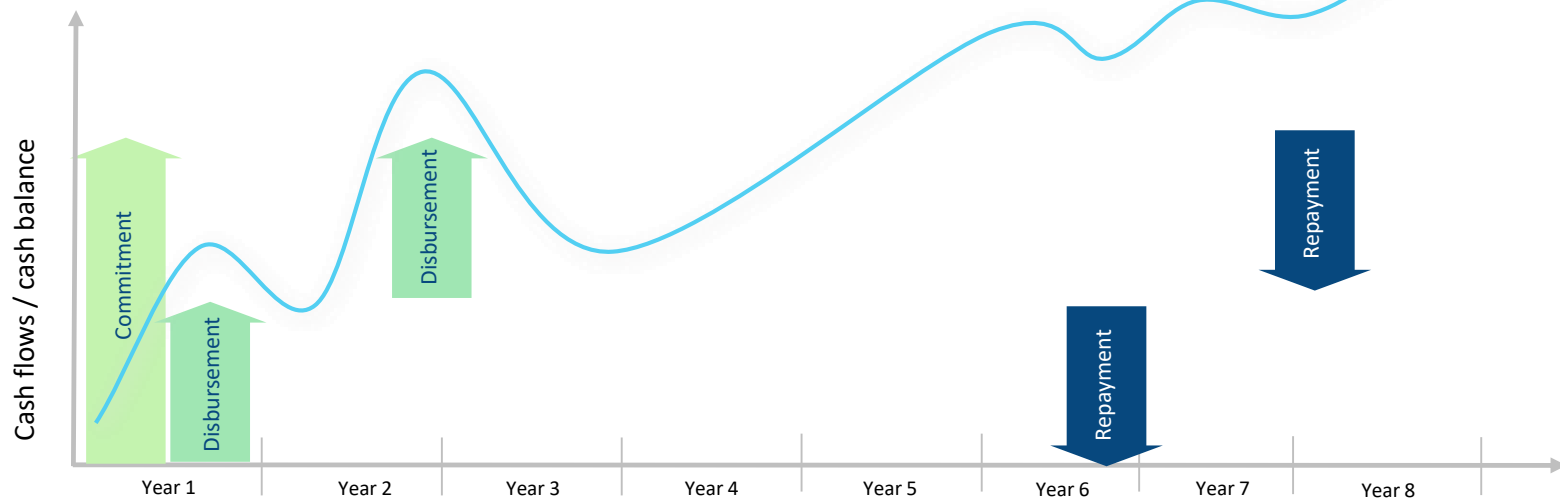


Carbon reduction for energy intensive heavy industry

And more...

Our Venture Debt Product

- **Up-front commitment of the full amount** and gradual disbursements
- Subsequent disbursements are subject to business and financial milestones (substantially de-risking tranches 2 and 3 if applicable)
- **Availability of typically 36 months** to accommodate long term investment plans of technology companies and scale-ups
- Large EIB tickets possible (**circa EUR 7.5-50m**) following a co-investment principle (max. 50%)
- Bullet structure to facilitate repayment based on an exit (or amortising structure if preferred)
- **Maturity to accommodate time to full profitability**
- Remuneration may include warrants, interest, PIK, royalties or other, alone or in combination
- **Limited security** package



Demonstration manufacturing Plant for large Scale Production of Li-ion Batteries

Amount: EUR 52.5m
Sector: Energy Storage
Country: Sweden
Signed: 2018



northvolt[®]



INVESTMENT RATIONALE/IMPACT:

- ▶ Supports the roll-out of EVs through the development of the upstream activities of the value chain
- ▶ Demonstrates and allows to qualify innovative products with customers
- ▶ Catalysing effect to attract financiers and pave the way for the scale-up

- ▶ EUR 52.5m loan for the construction and operation of a first-of-a-kind demonstration plant in Sweden, for the manufacturing of li-ion batteries
- ▶ The facility serves to show the commercial viability of the concept and to qualify and industrialize products together with Northvolt's customers. The produced batteries are targeted for use in transport, stationary storage, and industrial and consumer applications
- ▶ The demonstration site will also comprise a research facility and in total the operations will employ between 300-400 people. The launch of the demonstration plant is a key step towards the establishment of Northvolt's large-scale li-ion battery factory, eventually targeting a production of 32 GWh worth of battery capacity annually

Decarbonization of the Steel Industry

Amount: EUR 75m
Sector: Decarbonisation steel industry
Country: Belgium
Signed: 2019



INVESTMENT RATIONALE/IMPACT:

- ▶ 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
- ▶ 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

Electric Vehicle Charging Stations

Amount: EUR 40m
Sector: Electric vehicle charging stations
Country: Netherlands
Signed: 2018



INVESTMENT RATIONALE/IMPACT:

- ▶ 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 rollout of a nationwide network
- ▶ Demonstration of the possibility of making public electric chargers easily available to cover EV drivers needs and clear their concerns

- ▶ EUR 40m quasi-equity financing the expansion of public Electric Vehicle Chargers (EVC) stations across the Netherlands and later on a pan-European level.
- ▶ The Project targets to deploy a network of new EVC all across the BENELUX area and the development of Allego's EV cloud platform.
- ▶ 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

First Iberian Floating Offshore Wind

Amount: EUR 60m
Sector: Offshore Wind (floating)
Country: Portugal
Signed: 2018



INVESTMENT RATIONALE/IMPACT:

- ▶ 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).
- ▶ Design and installation of a 25 MW floating windfarm 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.

Innovative Textile-to-textile Recycling

Amount: SEK 311m
Sector: Textile recycling
Country: Sweden
Signed: 2021



RENEWCELL



INVESTMENT RATIONALE/IMPACT:

- ▶ The Project is aligned with the objectives of the Paris Agreement on climate change and the EU's Circular Economy Action Plan
- ▶ Demonstrates the feasibility of the textile-to-textile recycling technology at commercial scale.
- ▶ De-risking of a new technology in the circular economy space, which faces substantial market deployment risks and is lacking commercial investment
- ▶ Renewcell is an innovative textile-to-textile recycling company founded in Stockholm (Sweden) in 2012.
- ▶ The Company has developed (and patented) a technology to convert waste textiles into cellulosic pulp ("Circulose®").
- ▶ It is the first company in the world to offer dissolving pulp for textile production that consists of 100% chemically recycled cotton textiles.
- ▶ The technology has the potential to transform traditional man-made cellulosic fibre production supply chain from current highly-resource intensive forest-sourced pulp to an environmentally sustainable 'recycled' biodegradable pulp.
- ▶ The InnovFin EDP – CE EIB financing co-finances Renewcell's first full commercial scale recycling plant in Sundsvall (Sweden)
- ▶ [Greening the fashion industry with Renewcell - YouTube](#)



European Investment Bank

The EU bank