

# PNO INNOVATION

EU Funding Programmes supporting  
Research, Innovation and Investment  
in raw materials production for batteries

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Leading Communication, Dissemination and Exploitation activities of the  
LICORNE, RHINOCEROS, SOLMATE EU-funded projects that are active projects  
and part of the Cluster Hub



[www.licorne-project.eu](http://www.licorne-project.eu) [www.rhinoceros-project.eu](http://www.rhinoceros-project.eu) [www.solmate-project.eu](http://www.solmate-project.eu)

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## Boosting R&D impact for a better world

Part of PNO Group



# Content

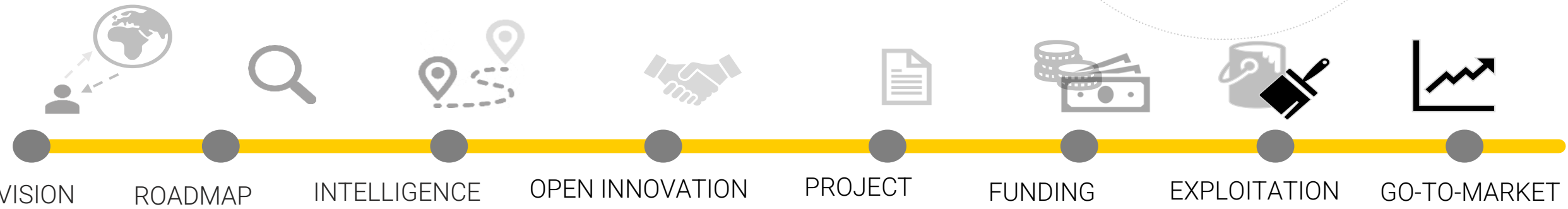
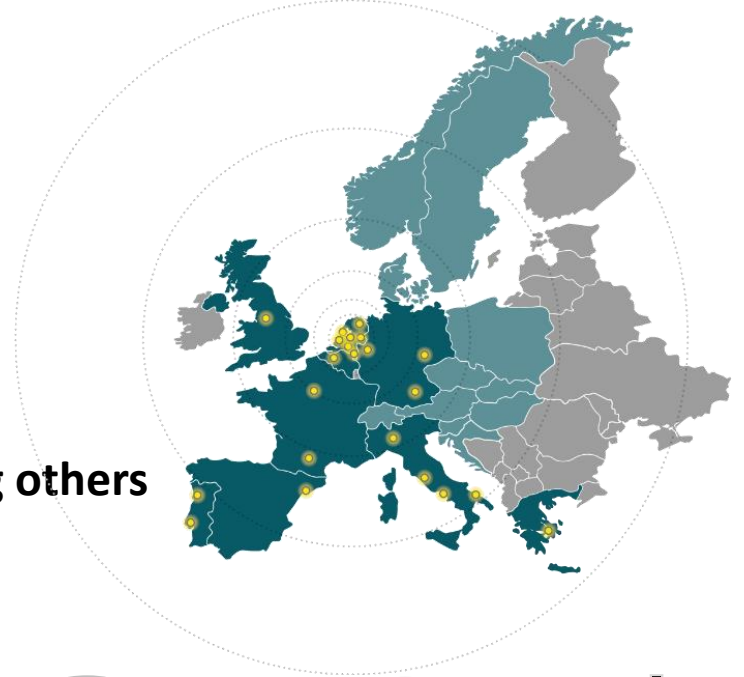
- 1. PNO in short**
- 2. Main EU funding programmes for research, Innovation and Investment**
- 3. Which funding opportunity to choose for your project idea**
- 4. Upcoming funding opportunities for Research, Innovation and Investment in raw materials production for batteries applications**
- 5. Contact**



# 1- PNO consultants: European leader in Innovation & Funding

➤ PNO is active in all aspects of the Innovation Value chain

e.g. PNO was one of the main contributor to initiate this Cluster Hub among others



  
**35+**  
years of experience

  
**9**  
countries with offices

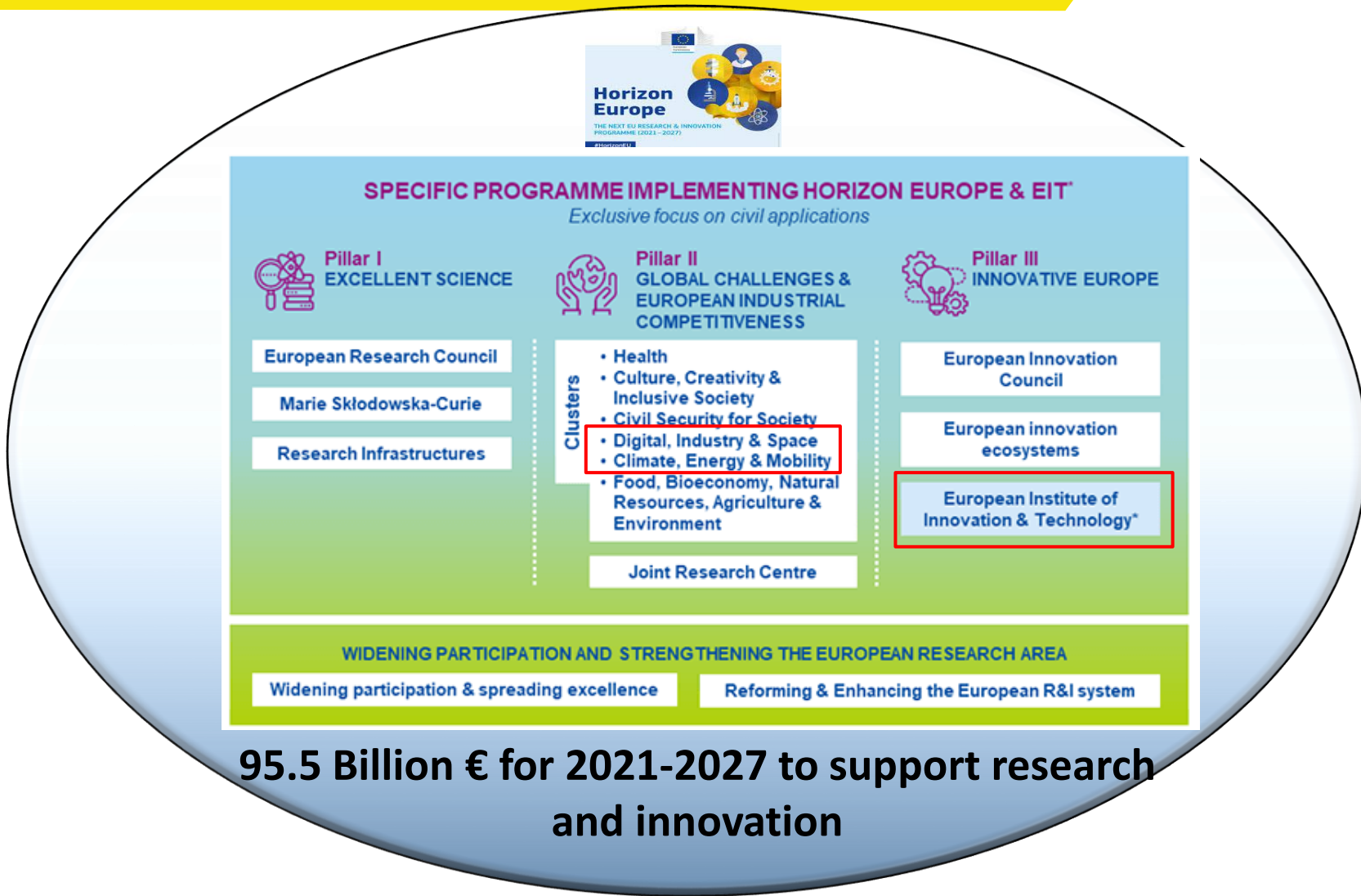
  
**2K+**  
organisations supported

  
**10K+**  
parties in network

  
**€1Bn**  
total project value



## 2- Main EU funding programmes for research, Innovation and Investment



**95.5 Billion € for 2021-2027 to support research and innovation**

**€5.43 billion**  
**2021-2027**

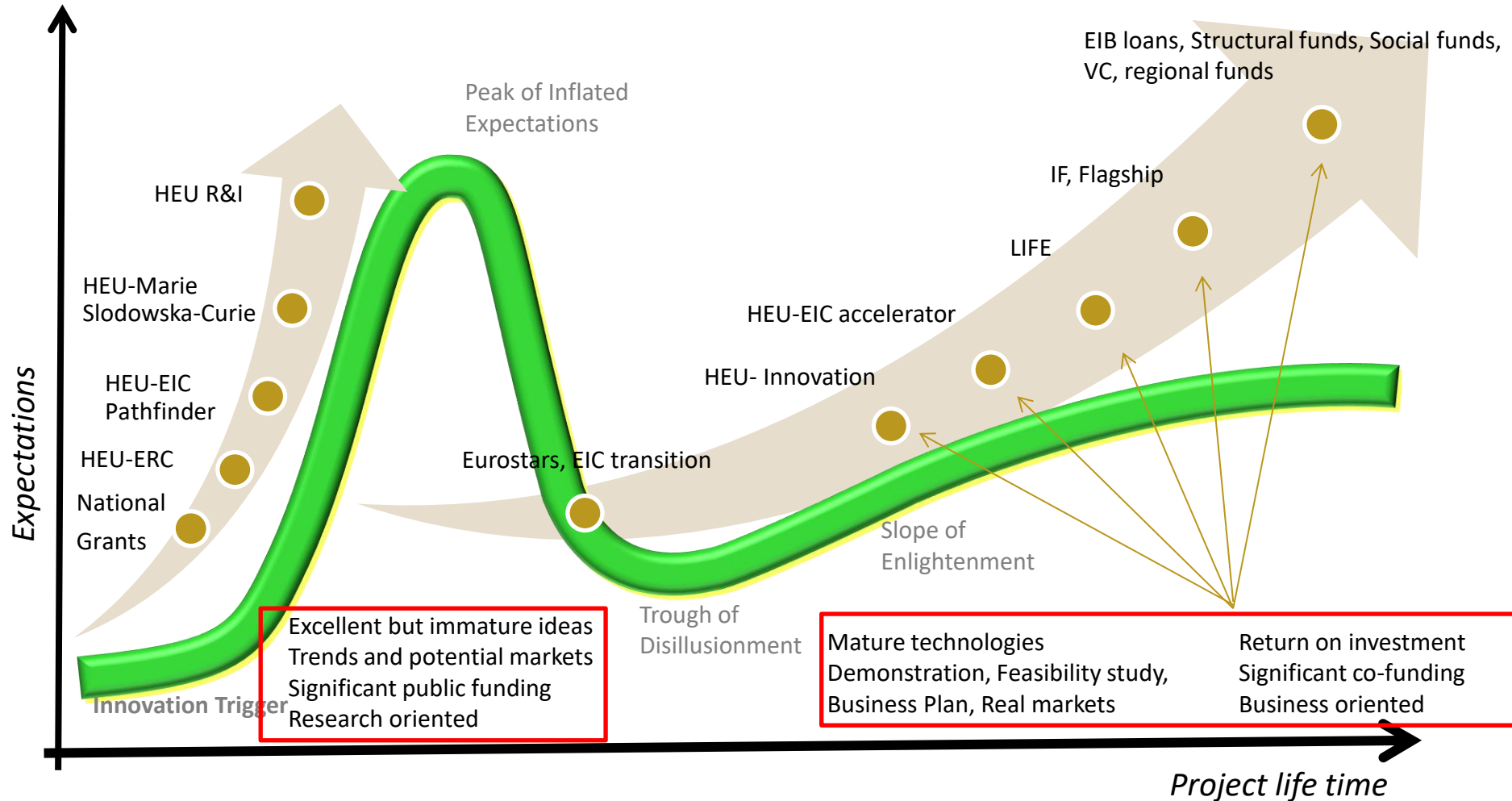
**INNOVATION FUND**  
*Driving clean innovative technologies towards the market*

**40 B€ 2020-2030**



# 3- WHICH FUNDING OPPORTUNITY TO CHOOSE FOR YOUR PROJECT IDEA

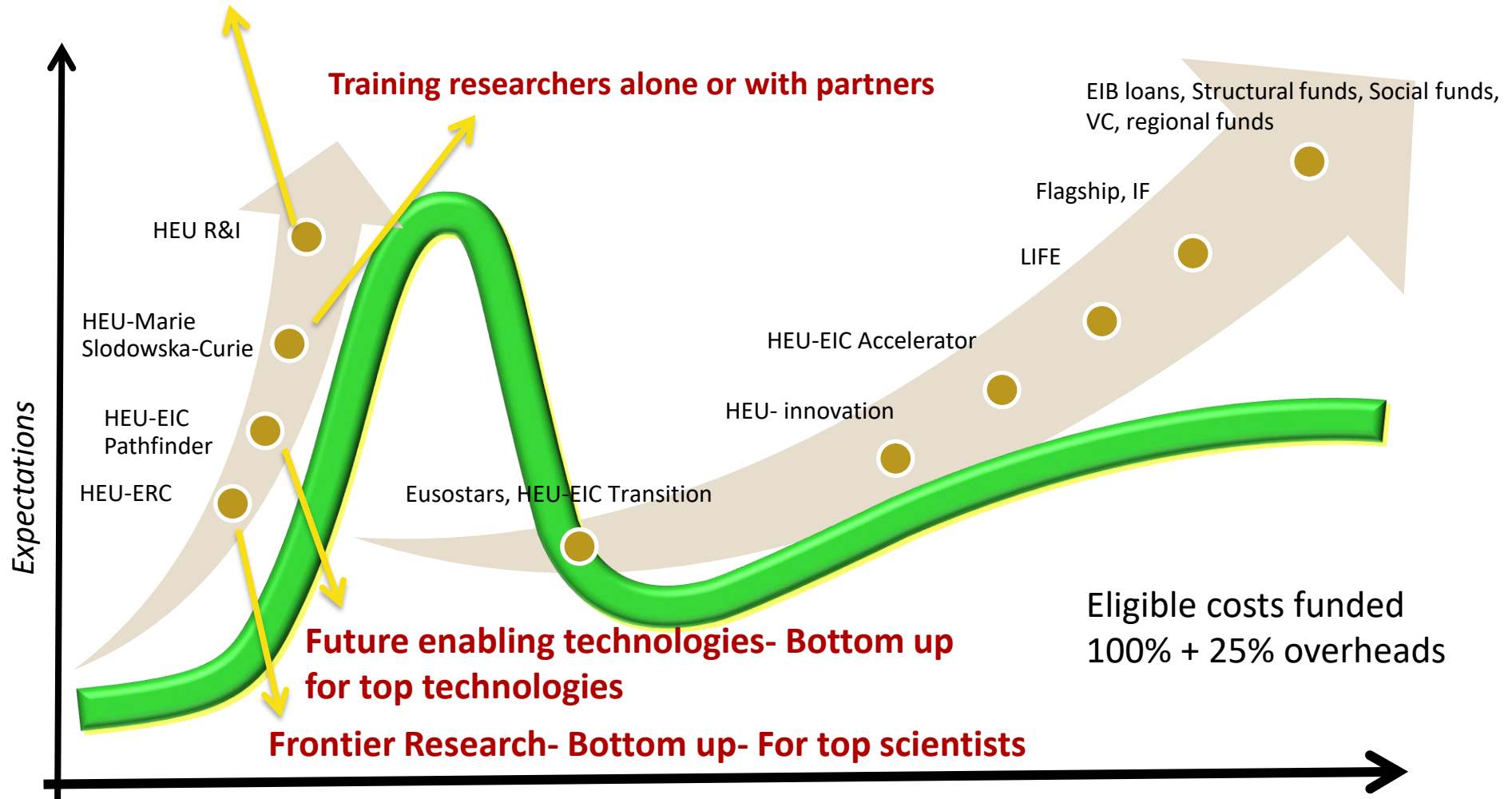
## IDENTIFY WHAT'S THE STATUS OF YOUR TECHNOLOGY ON THIS GARTNER CURVE



# 3- WHICH FUNDING OPPORTUNITY TO CHOOSE FOR YOUR PROJECT IDEA

FOREFRONT RESEARCH, TRAINING RESEARCHERS WHILE DEVELOPING TECHNOLOGIES, PROOF OF CONCEPT, PROTOTYPE DEVELOPMENT

**Collaborative projects-Top down**



**Bottom up:** Any research subject linked to science and technology can be chosen

**Top-down:** rather defined topics by the EC

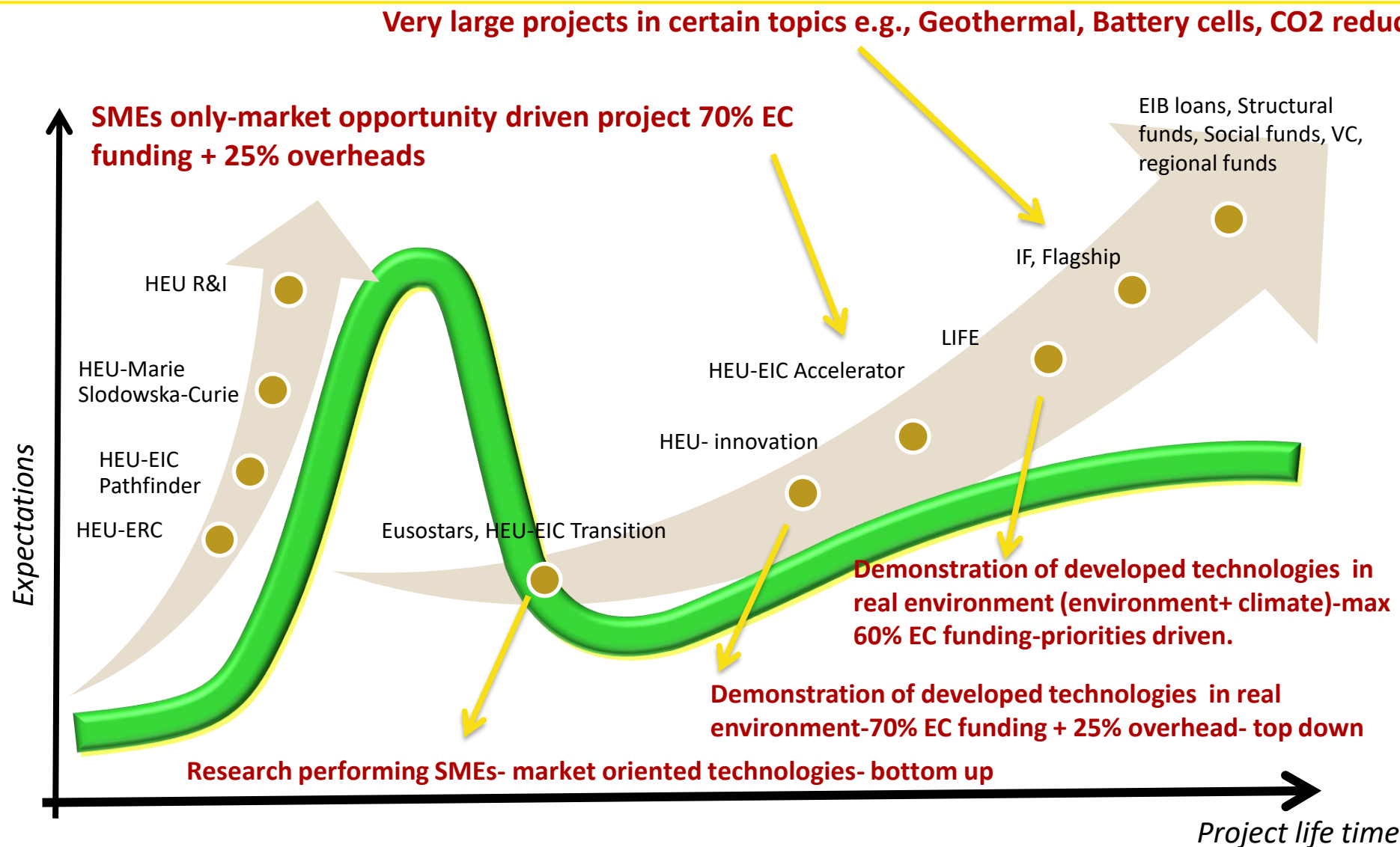
CONNECTING AMBITIONS

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# 3- WHICH FUNDING OPPORTUNITY TO CHOOSE FOR YOUR PROJECT IDEA:

DEMO IN REAL ENVIRONMENT, TECHNOLOGY DEPLOYMENT, UPSCALING, PILOT, PRE-PRODUCT, BUSINESS PLAN, ROI



## 4. Examples of upcoming Innovation funding opportunities for raw materials production for batteries (Li, Co, Ni, Mn, Gr., P etc.)

- **HORIZON-CL5-2025-D2-03-SRP: Sustainable processing and refining of raw materials to produce battery grade Li-ion battery materials (Batt4EU Partnership) TRL6-7\***

Scope: Projects should involve **advanced technologies** that can cost-efficiently and sustainably **convert primary/secondary sources into** at least one of the following:

- **battery-grade metal and precursors;**
- **electrode active materials.**

Raw materials in the scope are **lithium, cobalt, natural graphite, nickel, manganese, and phosphorus.**

*\* Info are based on draft Work programme and might be still subject to change- Horizon Europe official WP for 2025 are expected by April 2025*





## 4. Examples of upcoming Innovation funding opportunities for raw materials production for batteries

- **HORIZON-CL4-INDUSTRY-2025-01-MATERIALS-61: Technologies for critical raw materials and strategic raw materials from end-of-life products (IA), TRL6-7 (8M€, deadline 23 September 2025)\***

Scope: Actions should develop material efficient high-quality re-use and **recycling** of one or more of the following end-of-life product categories/key waste streams: **waste electrical and electronic equipment (WEEE), waste batteries, end-of-life vehicles**, waste wind turbines, waste solar photovoltaics, waste heat pumps, waste electrolysers and machine tools made from high-performance alloys.

*\* Info are based on draft Work programme and might be still subject to change- Horizon Europe official WP for 2025 are expected by April 2025*



## 4. Examples of upcoming Innovation funding opportunities for raw materials production for batteries

- **HORIZON-CL4-INDUSTRY-2025-01-MATERIALS-62: Strategic Partnerships for Raw Materials: Innovative Approaches for sustainable production of Critical Raw (IA)- TRL6-7 (7.5M€, expected deadline 23 September 2025) \***

Scope:

- Actions are expected to **develop and demonstrate extraction, processing and refining technologies** to facilitate and increase recovery in **exploitation of primary critical raw materials** (minerals and metals only).
- Actions have to **collaborate with countries the EU has signed Strategic Partnerships on Raw Materials**. Actions have to collaborate with one selected Strategic Partnership country out of the four groups: Group 1 (Argentina, Chile), Group 2 (Democratic Republic of the Congo, Namibia, Rwanda, Zambia), Group 3 (Kazakhstan, Uzbekistan), Group 4 (Australia, Greenland). Group 4 can be extended to countries which will sign strategic partnerships for raw materials before the deadline for applications

*\* Info are based on draft Work programme and might be still subject to change- Horizon Europe official WP for 2025 are expected by April 2025*

## 4. Examples of upcoming Innovation funding opportunities for Li production

### Prize - Lithium production from geothermal plants in Europe\*

- ✓ Challenge prizes (also known as inducement prizes) offering a cash reward to whoever can most effectively meet a defined challenge.
- ✓ The aim of this prize is: the on-site demonstration of lithium production (lithium carbonate –  $\text{Li}_2\text{CO}_3$  or lithium hydroxide –  $\text{LiOH}$ ) from geothermal brines in a geothermal plant
- ✓ The total money allocated to this prize is €7 million (EUR 7.000.000) to be distributed as follows:

1<sup>st</sup> place: €4 million

2<sup>nd</sup> place: €2 million

3<sup>rd</sup> place: €1 million

Time: Launch Q2 2025

*\* Info are based on draft Work programme and might be still subject to change- Horizon Europe official WP for 2025 are expected by April 2025*



## 4. Examples of upcoming Innovation funding opportunities for raw materials production for batteries

- **HORIZON-CL5-2025-D2-02: Cost-effective next-generation batteries for long-duration stationary storage (Batt4EU Partnership) (RIA)- TRL4-5 \***

Scope:

- This call aims to promote the development of materials that will work in relevant environments, are recyclable and with low environmental impact, and have safe manufacturing processes.
- The activity is focused on advancing technologies that are presently at an early or low Technology Readiness Level. Lithium-ion, Vanadium-based redox flow, sodium-ion, molten sodium-sulphur and other commercialized technologies are out of scope of this topic.

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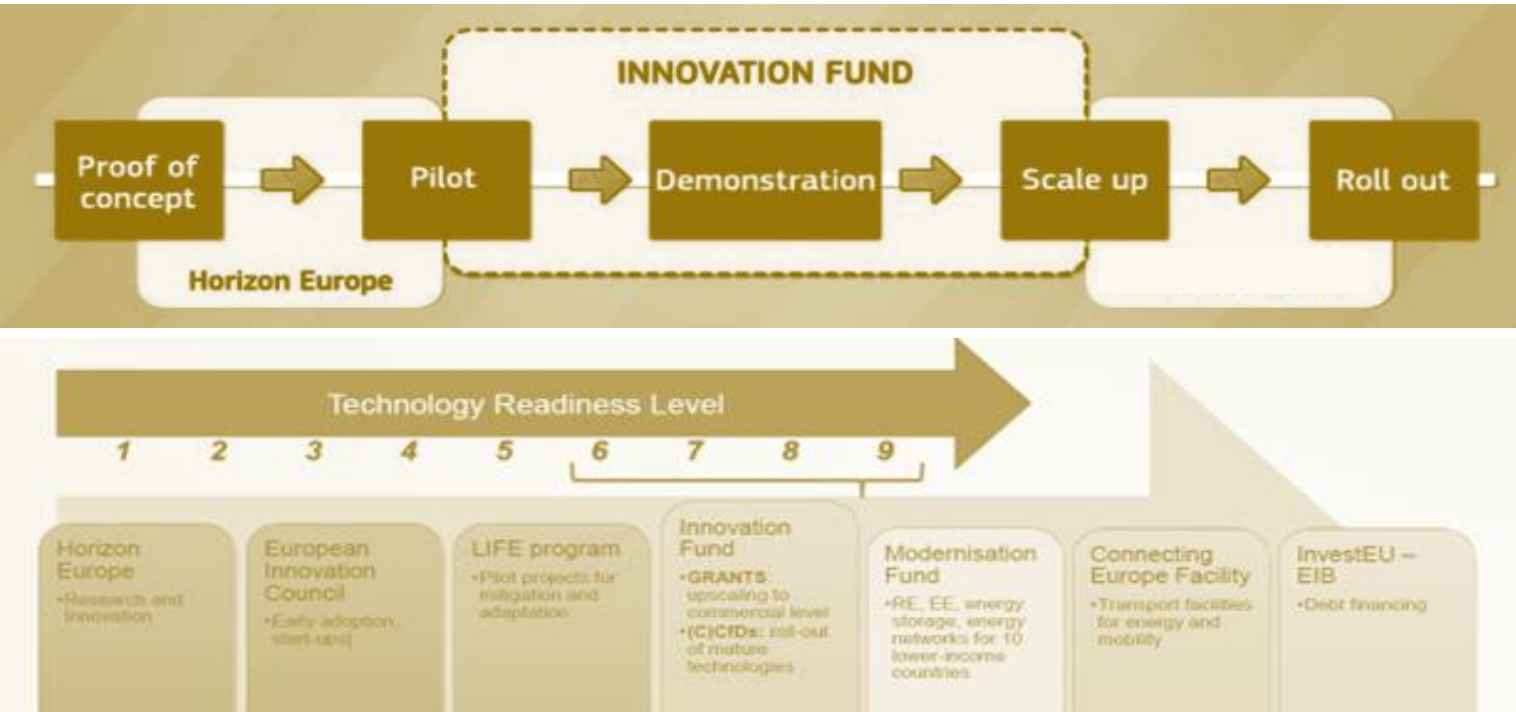
## 4. The innovation fund as a funding opportunity for investment in manufacturing of EV battery cells or geothermal project



- Innovation fund is one of the largest grant schemes for investment support for low-carbon technologies. Calls are published once per year. 5th call published December 3, 2024, deadline 24 April 2025.
- Launched: 2020 with a total support of € 40 billion: 2020-2030
- Fuelled by the EU emissions trading system (EU ETS)
- Funding for innovative projects to reduce greenhouse gas emissions (low-carbon solutions)
- 60 % funding CAPEX (additional relevant costs compared to standard solution) + OPEX
- Funding based on real results (monitoring of effective GHG emission reduction)



## 4. The innovation fund as a funding opportunity for investment in large geothermal project



- Focus is on upscaling to industrial scale (R&D only limited allowed). an investor is needed.
- A feasibility study incl. techno-economic assessments should be available, a business plan must be developed
- Investment can be between 2.5 and up to > 1bn €
- Funding starts before permits and ends after the first 3-5 years of operational phase

## 4. The innovation fund as a funding opportunity for investment in manufacturing of EV Battery cells

Innovation Fund 2024 - Batteries - Manufacturing of electric vehicles battery cells  
INNOVFUND-2024-BATT-EV-CELLS (1 billion euro available)

**OBJECTIVE:** Support projects on **electric vehicle battery cells manufacturing** demonstrating innovative technologies, processes or products, **that are sufficiently mature and have a significant potential to reduce greenhouse gas emissions.**

Project may also include the additional production of upstream components such as:

- cathode precursor material (pcam),
- cathode active material (cam),
- anode active material (aam),
- electrolyte,
- separator,
- as well as battery or battery material recycling.



## 4. The innovation fund as a funding opportunity for investment in large geothermal project

Innovation Fund 2024 Net Zero Technologies – General decarbonisation –  
Large-Scale Projects  
INNOVFUND-2024-NZT-GENERAL-LSP

- Activities that can be funded: construction and operation of **pilot projects that focus on validating, testing and optimizing highly innovative, deep decarbonisation solutions** in all sectors eligible for innovation fund support.
- renewable energy installations, in photovoltaics, concentrated solar power, onshore and offshore wind power, ocean energy, **geothermal**, solar thermal
- **Lithium extraction can be combined with geothermal installation** for the funding
- Maximum grant per project under this topic is 40 M€.





## 4. The innovation fund as a funding opportunity for investment in large geothermal project

### PNO is coordinating the EU funded DIAMONDS4IF project

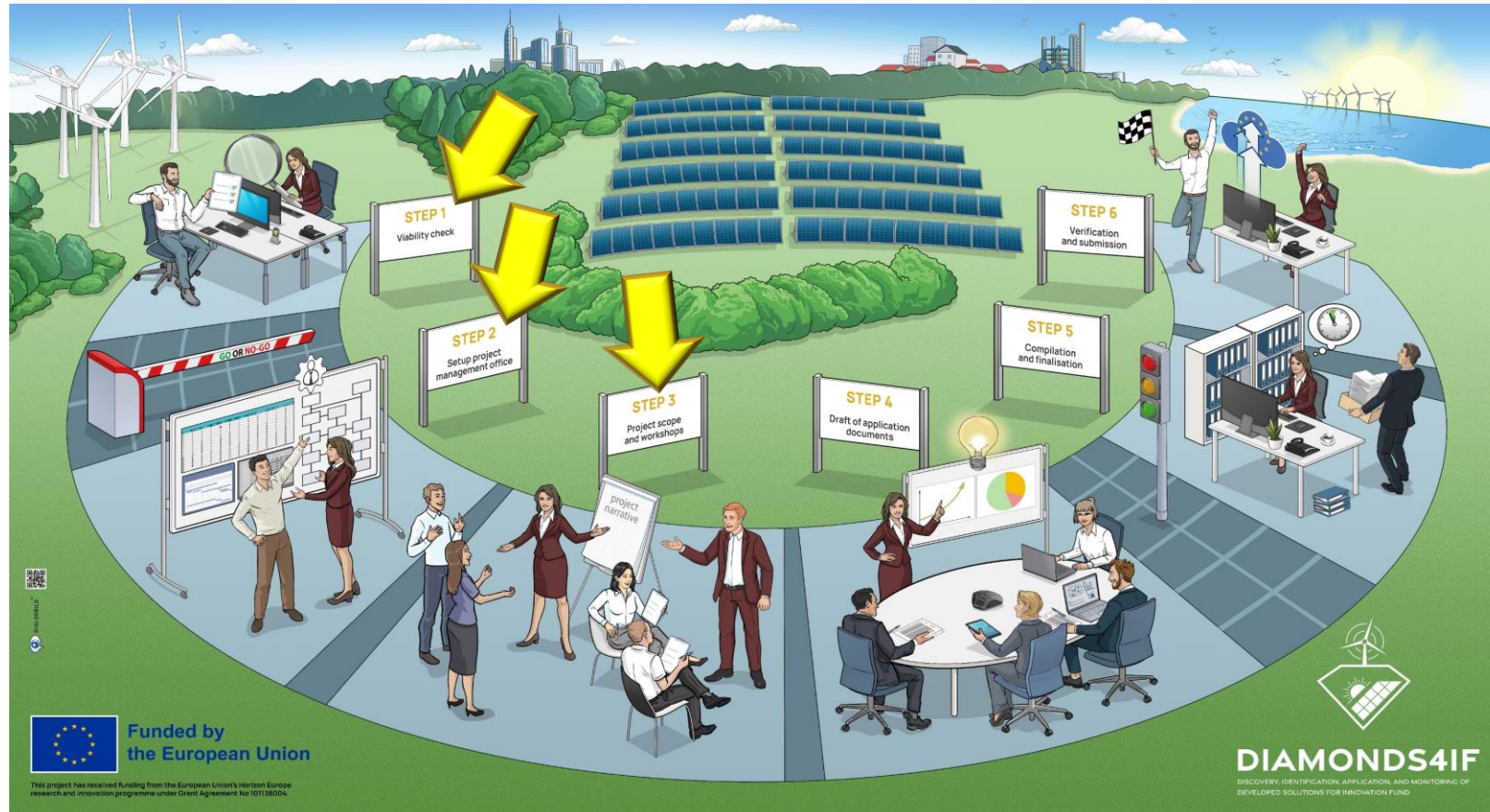


#### The Objectives of DIAMONDS4IF:

- Transformation of H2020 research results and other innovations into Innovation Fund-ready projects.
- Overcoming challenges arising from transferring R&D results into successful ventures and securing investment funding
- Guiding applicants for Innovation Fund
- Support of renewable energy sector related projects



# Support for preparation of an IF application



- The DIAMONDS4IF project provides support for Innovation Fund applicants from the renewable energy sector.
- Usually, 6 Steps are needed to prepare an Innovation Fund application.
- The support provided through DIAMONDS4IF comprises Steps 1-3:
- Viability check
- Setup project management office
- Project Scope and workshops

# SUPPORT FOR PREPARATION OF AN IF APPLICATION



**Do you plan investment in clean technologies? E.g. Geothermal and lithium extraction project, Battery cells manufacturing?**

- **Check the DIAMONDS4IF project website:** <https://www.diamonds4if.eu/>:
  - An interactive map about the steps to go for innovation Fund
  - Guidelines and our videos explaining the secrets of the Innovation Fund
  
- **Fill the self assessment form for Innovation Fund:**  
<https://www.diamonds4if.eu/toolbox/>
  
- **A colleague will get back to you if your project meets the IF criteria.**



# Contact



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# THANK YOU!

