



ETIP SNET

EUROPEAN  
TECHNOLOGY AND  
INNOVATION  
PLATFORM

SMART  
NETWORKS FOR  
ENERGY  
TRANSITION

PLAN.  
INNOVATE.  
ENGAGE.

## WG5: Innovation Implementation in the Business Environment

*Raising awareness*

Regional Workshop Madrid 2018  
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# Content

- *About WG5*
- *Exploitation Challenges*
- *Assessment tools*
  - LeAan Canvas – Innovation Readiness Indicator
- *Exploitation support of European Union*

## Innovation Implementation in the Business Environment

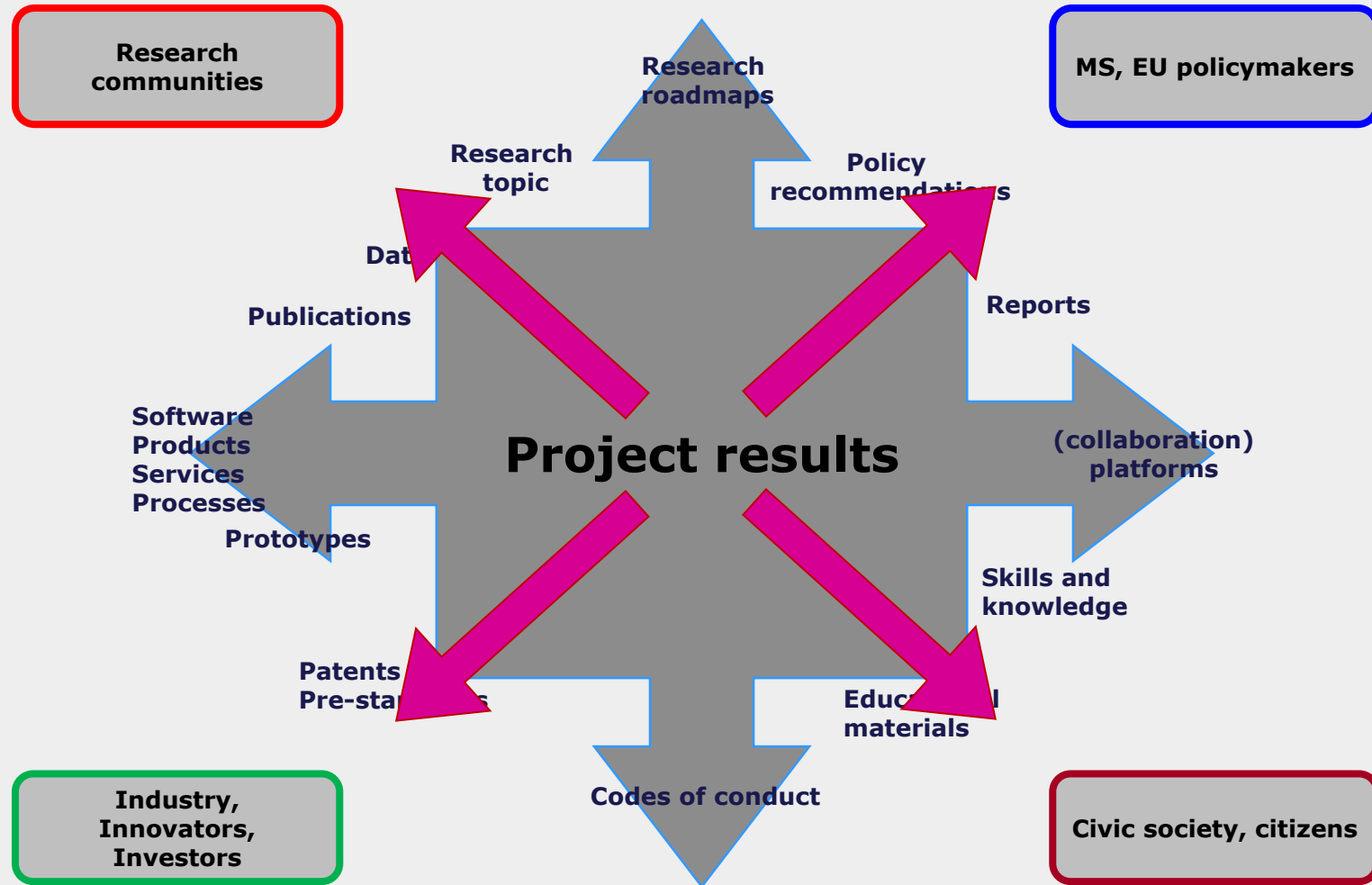
- *Build **homogeneity in the analysis of projects**, work done and lessons learned ⇒ Create a common platform*
- *Build a methodology to **judge system needs in the energy transition** capable of **identifying tangible needs for building on progress made** and give feedback to the other WGs for populating their R&I needs in the years ahead;*
- *Review the relevant BRIDGE reports that **identify the economic, social, technical, legal, etc. barriers** which may slow down business model deployment;*

## Three major challenges of R&I Project in Implementation in the Business Environment

- *Full exploitation of the project "Results"*
- *Overcoming the "Valley of Death"*
- *The "Out of the box" thinking*

# Different Types of Results

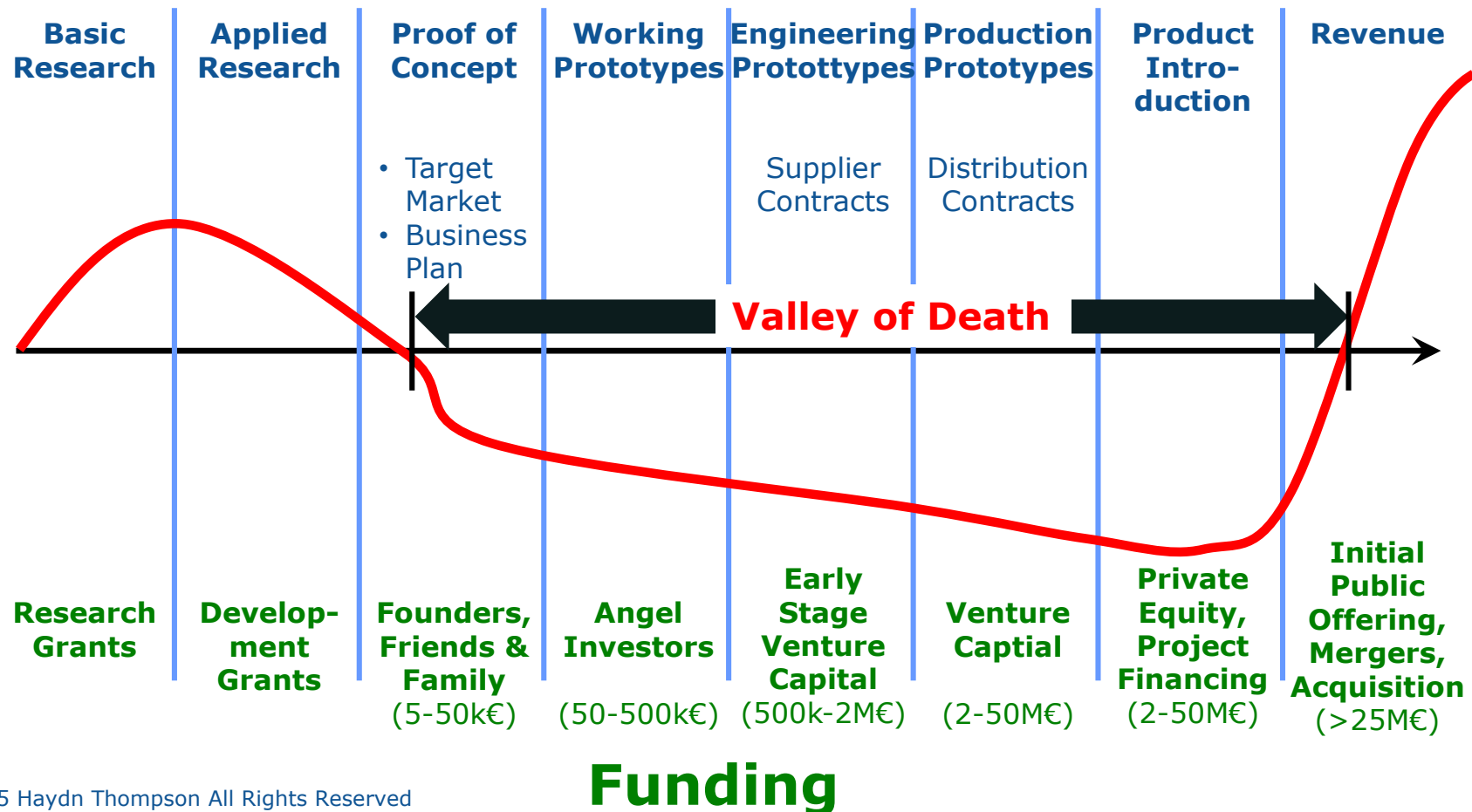
# Different Users of Results



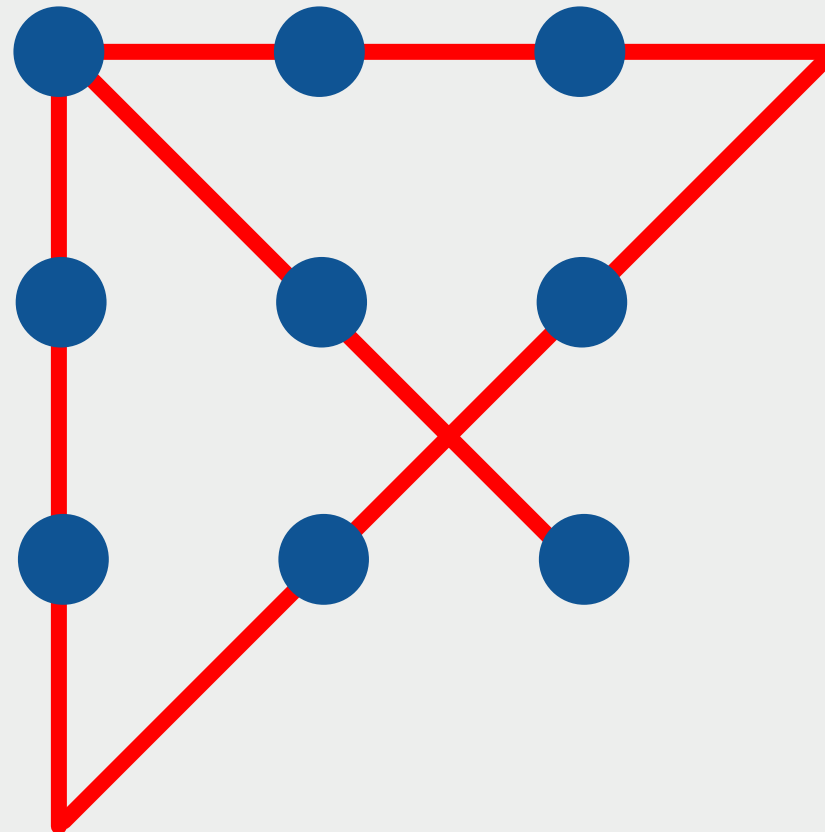
# Appropriate Exploitation Paths



## Development Stages of Commercial Product



**How to link all dots in one go and four straights without lifting the pencil?**



# Lean Canvas

A tool for KER Identification & Description

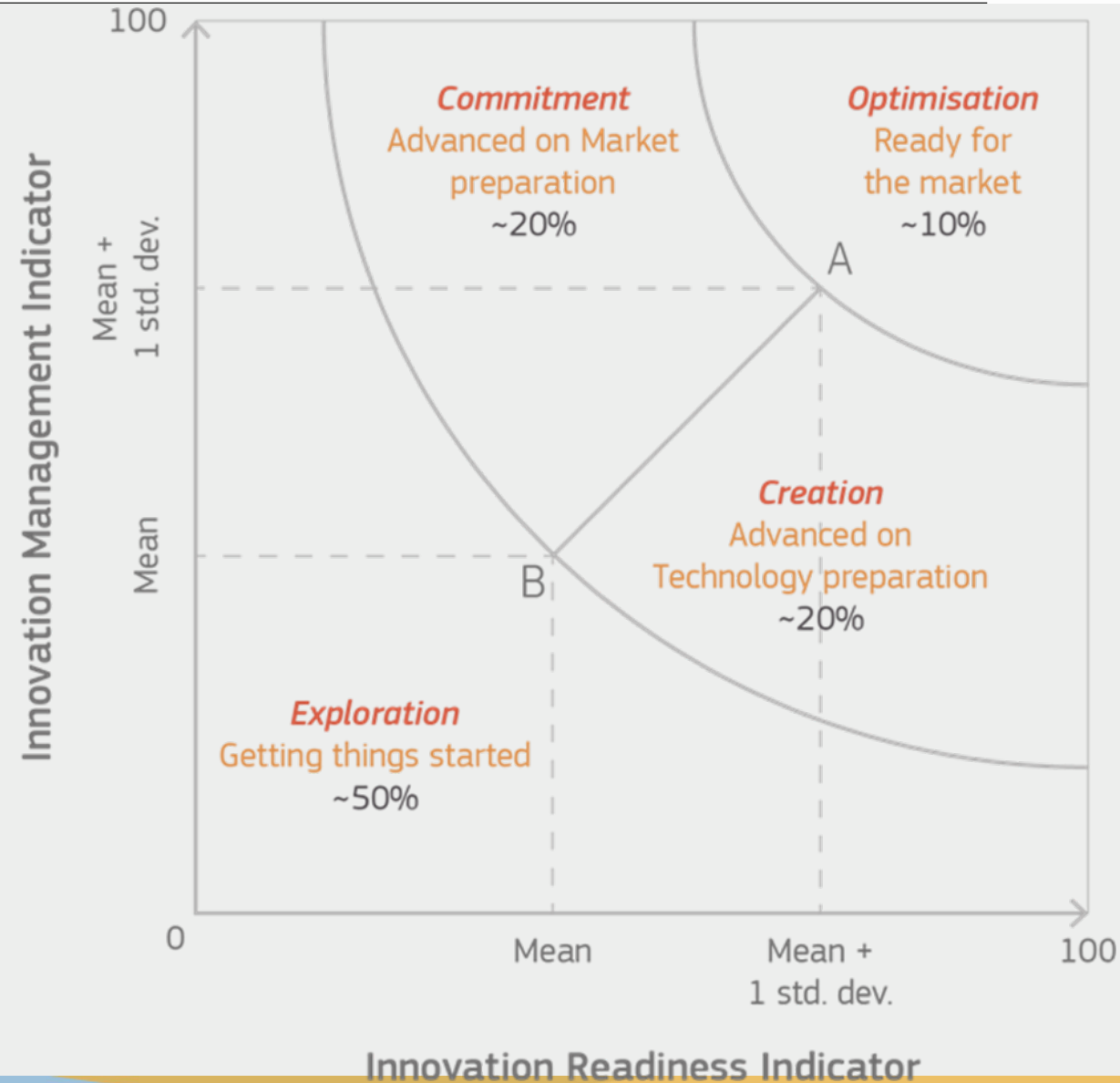
A starting point towards the exploitation path

<p><b>Problem</b></p> <p>Top 3 problems</p>	<p><b>Solution</b></p> <p>Top 3 features</p>	<p><b>Unique Value Proposition</b></p> <p>Single, clear, compelling message that states why you are different and worth buying</p>	<p><b>Unfair Advantage</b></p> <p>Can't be easily copied or bought</p>	<p><b>Customer Segments</b></p> <p>Target customers</p>
<p>Alternatives</p>	<p><b>Key Metrics</b></p> <p>Key activities you measure</p>		<p><b>Channels</b></p> <p>Path to customers</p>	<p>Early adopters</p>
<p><b>Cost Structure</b></p> <p>Customer Acquisition Costs Distribution Costs Hosting People, etc.</p>		<p><b>Revenue Streams</b></p> <p>Revenue Model Life Time Value Revenue Gross Margin</p>		



# Innovation: How ready are consortia respect to taking their results to the market?

- The **Innovation Radar** methodology and diagram (1) supports consortia in **assessing the innovation potential** of their outcomes and of their beneficiaries.
- The full application of the methodology requires the calculation of several indicators.
- Today we ask the project to position their result(s) in the map and we discuss what steps consortia can take to get results to the market



(1) De Prato, G., Nepelski, D. and Piroli, G. (2015). *Innovation Radar: Identifying Innovations and Innovators with High Potential in ICT FP7, CIP & H2020 Projects*. JRC Scientific and Policy Reports – EUR 27314 EN. Seville: JRC-IPTS

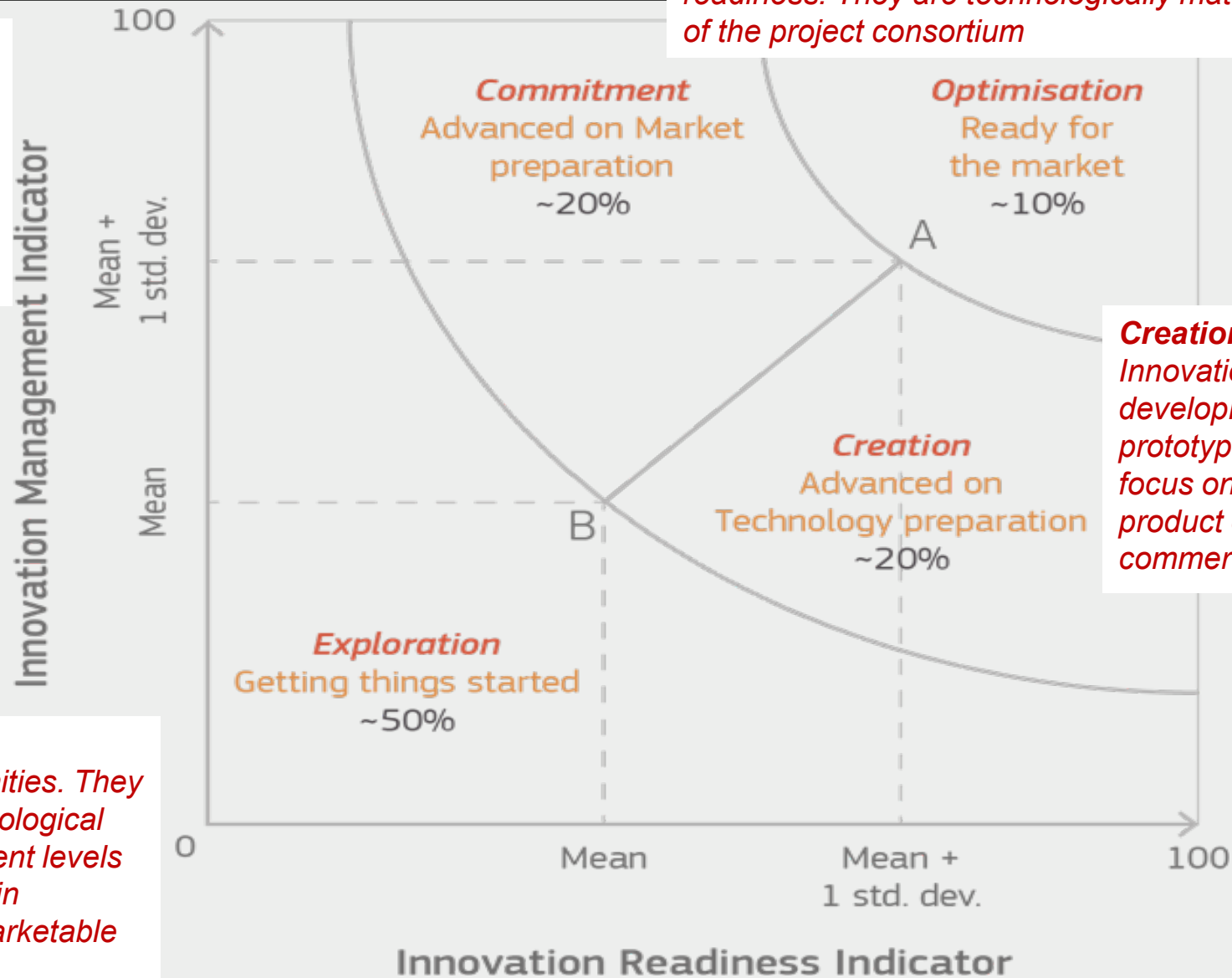


**Optimisation:**

Innovations outperforming in innovation management and innovation readiness. They are technologically mature and show high commitment of the project consortium

**Commitment:**

Innovations which concrete market-oriented ideas (e.g. market studies, business plans, end-user engagement). Need to progress on technology development.



**Creation:**

Innovations progressing on technology development process (e.g. pilots, prototypes, demonstration). Needs to focus on transforming into a marketable product or service and to prepare its commercialisation.

**Exploration:**

Innovations with value opportunities. They are in the early phases of technological readiness, show high commitment levels from the partners. Need efforts in transforming technology into marketable products and on progressing on technology development process.

**Thank you for your  
attention !**

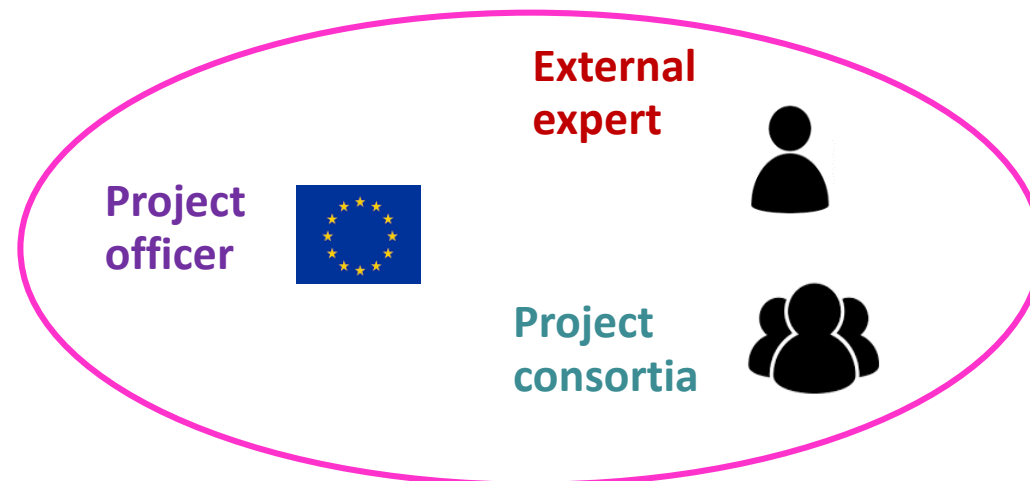
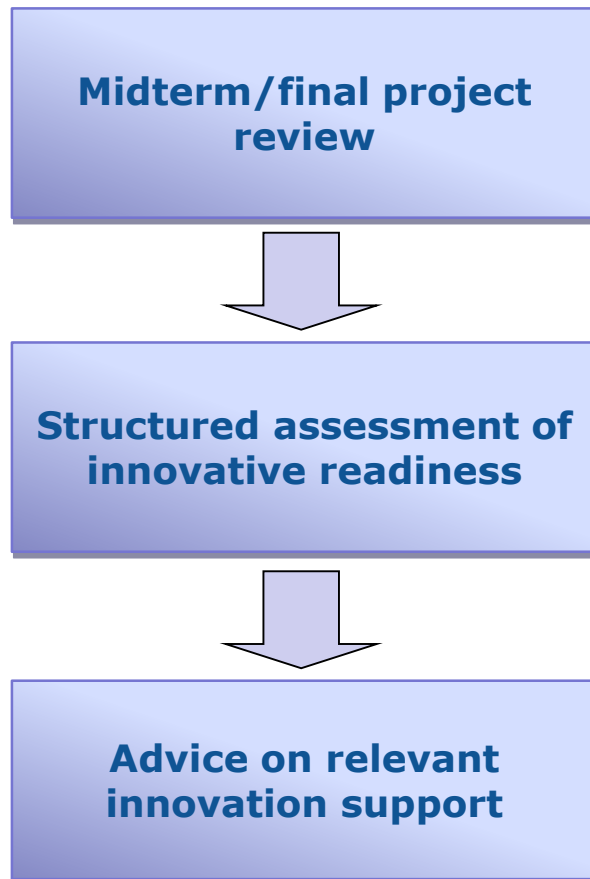


- **Innovation Radar**
- **CORDIS**
- **Support Services for Exploitation of Research Results**
- **SME Instrument**
- **Seal of Excellence**
- **European Investment Project Portal EIPP<sup>1</sup>**
- **InnovFin Energy Demonstration Projects EDP**
- **Agreements with foundations**
  - SolarImpulse/WorldAlliance for Efficient Solutions
  - Breakthrough Energy



Helps answer the following 3 questions:

- *What are the innovations emerging from the projects?*
- *Who/where are the innovators?*
- *How can we help them to get to the market?*





## ***Benefits for projects***

- Secure **expert recommendations** for increasing the potential in their innovations to deliver market impact.
- Opportunity to reveal previously unseen value in their innovations.
- Identify other EU initiatives that can **meaningfully support** their ongoing work.
- See the **trend** of their 'innovation performance'.
- **Provoke new reflections** on their work and how it can be made more meaningful and relevant for the 'real world'.
- 'Opportunity of **serendipity**'
- Publication & search of innovation titles via the **public Innovation Radar dashboard** (<https://www.innoradar.eu/>)



CORDIS

# Result Packs

## Results Packs

CORDIS Results Packs are a new way to bring thematic collections of exploitable research results to specialised audiences.

**Energy efficient process industries:**  
Furthering Europe's ambitious environmental targets




**Supercomputing: a key cornerstone of the data-driven European economy**



**New frontiers for Europe with Quantum Technologies**



**Old meets green: New technologies to retrofit buildings in Europe**



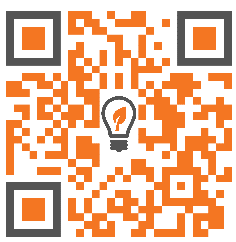
**Striking a balance between energy efficiency and indoor air quality**

**New materials: Reducing building's embodied energy**



# Call for investors Clean energy

Connecting innovative EU-funded projects with the investors who can power them forward



### Objectives

- Make "business" out of research
- Make "business men" out of researchers
- Open the "box"

### Issues

- What is the **problem**? What is the **solution**? What is the **value proposition**? Where are the **markets**? Who are the **early adopter**? Who are the **competitors**?
- How to **protect research results**?
- How to prepare a **business plan**?  
What is a business plan?  
What is a business model?
- How to **approach "investors"**?

*"... to maximise the research results by helping the beneficiaries in the exploitation of the results."*







# Horizon 2020 SME Instrument

Looking for Europe's next innovation leader

As part of the Horizon 2020 programme the SME Instrument will invest almost **€ 3 billion in 7500 projects** by 2020 in highly innovative small and medium-sized businesses.

## FUNDING

The SME Instrument is an open call with four cut-off dates per year for each Phase.

### PHASE1

**Concept & feasibility study**  
Idea to concept

The European Union will provide  
**€50 000** in funding

Get results in **2 months** and  
funding in **4 months**



### PHASE2

**Demonstration, market replication, R&D and product development**

Concept to Market-Maturity

The EU may contribute 70% of total project cost, between **€0.5 and €2.5 million\***

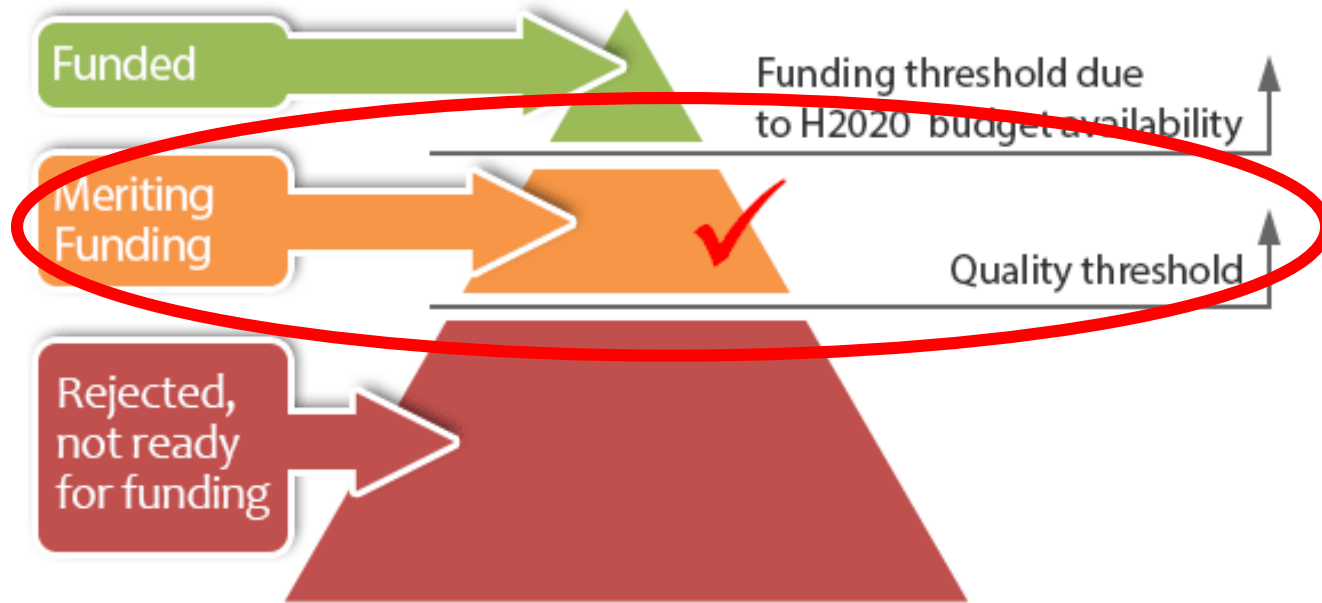
Get results in **4 months** and  
get funding in **8 months**

## BUSINESS SUPPORT for market launch

Participants at both phases will receive world-class **coaching** benefit from **networking opportunities** with top level investors and potential partners and get support to **launch their product** on European and international markets.

\*Up to €5 million for health projects.

# Seal of Excellence



It currently applies to the following calls:

- SME Instrument: Phase 1 & 2
- Marie Skłodowska-Curie Actions: Individual Fellowships
- Widening Actions: Teaming

[www.ec.europa.eu/research/soe](http://www.ec.europa.eu/research/soe)





- Making finance reach the real economy
  - **EIPP** as a bridge between EU project promoters and potential investors worldwide
- Improve investment environment



EU Project Promoters  
Public/Private



**European Investment Project Portal (EIPP)**  
The meeting place for project promoters and investors

**Update:** Projects with a total cost of EUR 5 million or more are eligible for the Portal.

Are you a project promoter based in the EU, and want to reach potential investors worldwide? Register your project in the European Investment Project Portal (EIPP) and boost its visibility to a large network of international investors! Start today by submitting your project below.

Or are you an investor looking for investment opportunities in areas such as energy efficiency, transport, healthcare, renewable energy, broadband infrastructure or in financing SMEs? The European Investment Project Portal (EIPP) will offer you a broad choice of viable projects.

**FIND A PROJECT**  
142 investment opportunities to choose from

**ADD YOUR PROJECT**

International Investors  
Community



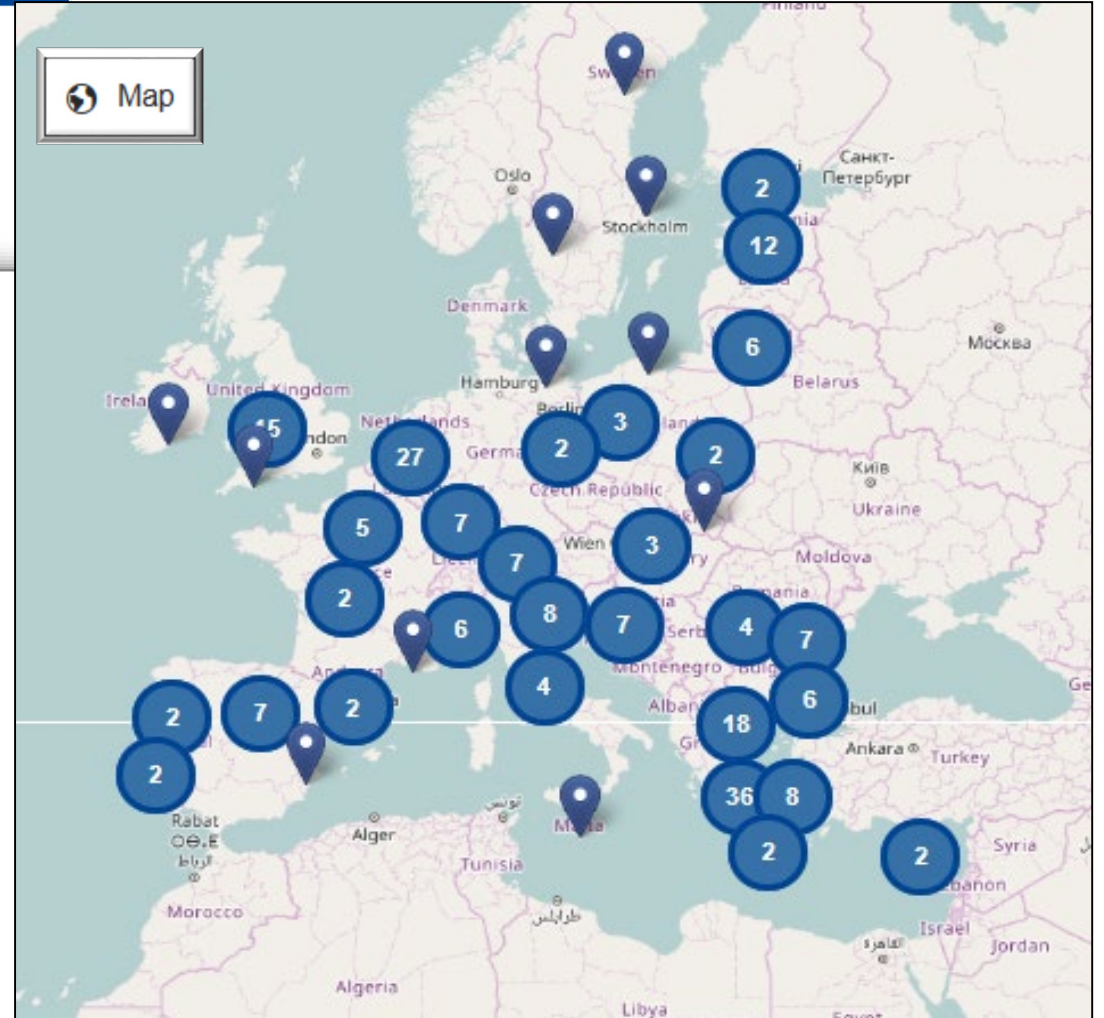
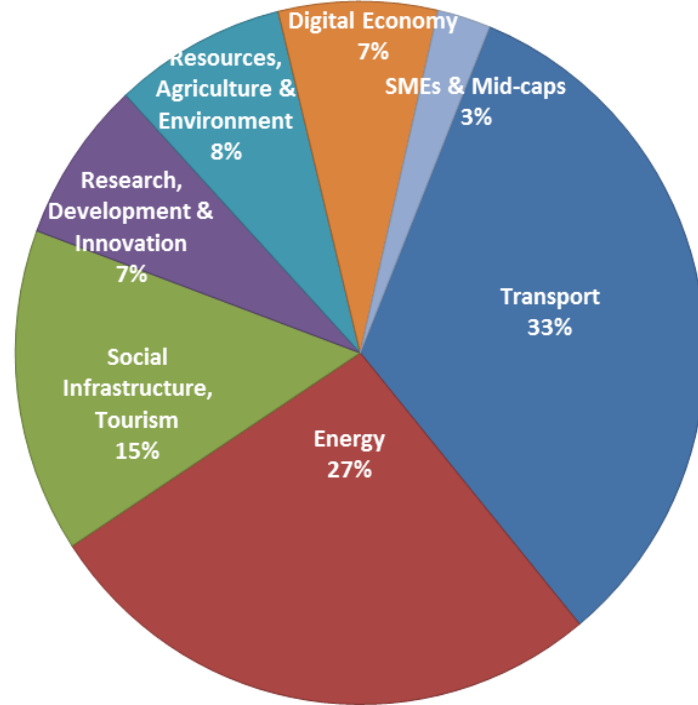
# Key figures about EIPP

## State of play and map view



**270+** projects submitted  
**160+** published

Sector groups by number of projects published  
(according to primary sector)



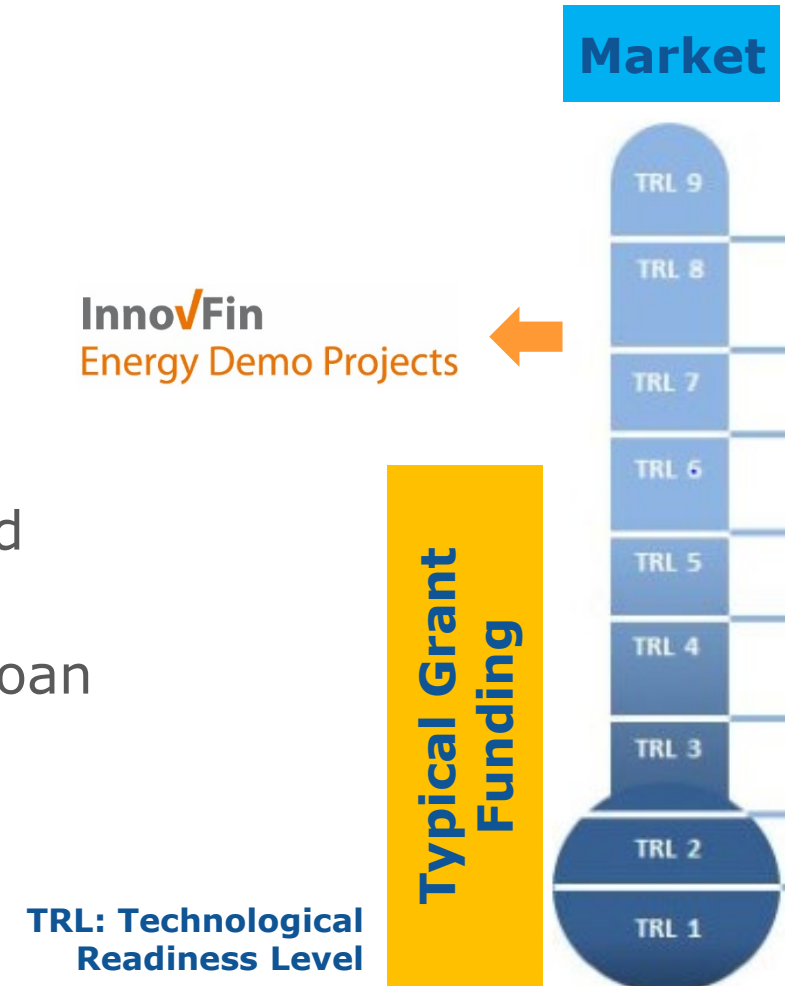
## First-of-a-Kind demonstration projects

### Problem

- At pre-commercial scale: market failure in accessing finance ("valley of death")
- Large investment needs

### Solution

- EIB provides loans with a max. tenor of 15 years and covering up to 50% of project costs
- EC (via Horizon 2020) provides a guarantee on the loan covering the riskiest phase of the project



## ■ Pilot manufacturing line of innovative battery cells in Sweden

- Applications in the automotive, stationary energy storage and industrial segments – covering the full battery life cycle (including recycling)
- Large improvements in energy density, quality and cost structure
- High levels of standardization and automation; AI-based quality monitoring

## ■ Impacts

- World's greenest battery: production will emit 64% less CO<sub>2</sub> compared to global competitors
- Demonstration site to employ up to 400 people
- Key step to deliver a planned EUR 4 billion, 32 GWh, 'gigafactory' in Europe

## ■ Finance

- Support: €52.5 million InnovFin EDP loan
- Project cost: €105 million



- 1,000 clean and efficient solutions that can protect the environment in a **profitable** way
- presented at COP24 to governments, businesses and institutions
- to encourage them to adopt more ambitious environmental targets and energy policies.



SDG6 – Clean Water and Sanitation  
SDG7 – Affordable and Clean Energy  
SDG9 – Industry Innovation and Infrastructure  
SDG11 – Sustainable Cities and Communities  
SDG12 – Responsible Consumption and Production

- **€ 100 million clean energy investment fund:**  
Breakthrough Energy Europe
- help innovative European companies develop and introduce radically new clean energy technologies to the market



*"The scientists and entrepreneurs who are developing innovations to address climate change **need capital to build companies** that can deliver those innovations to the global market.*

*Breakthrough Energy Europe is designed to provide that capital."*





- The vision:  
*"a Europe that protects,  
a Europe that empowers,  
a Europe that defends"*
- Tackling **climate change** (35 % budgetary target)
- Helping to achieve **Sustainable Development Goals**
- Boosting the Union's **competitiveness and growth**



*'With growing international competition, Europe needs to act urgently on research and innovation.'*

*The proposed **€ 100 billion** for the next EU research and innovation programme would be a huge boost.'*



## European Innovation Council

Support to innovations with breakthrough and disruptive nature and scale up potential that are too risky for private investors.

**European  
Innovation  
Council**

Helping innovators create markets of the future,  
leverage private finance, scale up their companies,

Innovation centric, risk taking & agile, pro-  
active management and follow up

Two complementary instruments bridging the gap from idea to investable project

**Pathfinder: grants**  
(from early technology  
to pre- commercial)

**Accelerator:**  
**grants & blended finance**  
(from pre-commercial  
to market & scale-up)



# Thank you for your attention!

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## Put your research results to good use!

*Exploitation – do it right!*

Experts provide **on-demand support services**  
for research projects in the field of energy



The services are  
**free of  
charge**

- ✓ Project Risk Analysis
- ✓ Exploitation Strategy Seminars
- ✓ Business Plan Development
- ✓ Assistance for Patenting
- ✓ Ad Hoc Assistance
- ✓ Brokerage Events

Research projects in the field of "Energy" refer to projects funded under the:  
7th Framework Programme - Thematic Priority number 5 "ENERGY" of the "Co-operation" programme, and  
"Innovative Programme for research and innovation Horizon 2020" - Societal Challenge "Secure, clean and efficient energy"



Interested in one of these exploitation support services?  
Find out more at: <http://sserrmeta-group.com/SitePages/default.aspx>

or use the QR code  
or contact the Commission at [RTD-ENERGY-SSERR@ec.europa.eu](mailto:RTD-ENERGY-SSERR@ec.europa.eu)



# Additional info on:



- **Common Dissemination Booster**
- **Open Access**
- **SSERR services**
- **EIPP**
- **InnovFin EDP**

## Common Dissemination Booster



- Supporting dissemination activities of groups of funded R&I projects under any area of FP7 or H2020 and beyond (projects funded under any EU, national or regional funding programme)
- Provides 5 types of services:
  - ❖ **Portfolio Identification Service**
  - ❖ **Stakeholder/End-user mapping, including Leveraging Networks at European Level and in Complementary Research Fields**
  - ❖ **Portfolio Dissemination Plan Development**
  - ❖ **Portfolio Dissemination Capacity Building**
  - ❖ **Dissemination Campaign in Practice**
- The services are complemented by external consultants under confidentiality agreement

contact your PO or FMB: [EC-CSC-DISSEMINATION-SUPPORT@ec.europa.eu](mailto:EC-CSC-DISSEMINATION-SUPPORT@ec.europa.eu)

# Open Access



## Support for common OA portals

- **OpenAire** aggregator and search interface for publications
- **EU Open Data Portal** for aggregated information on programme data





## ➤ **Dedicated Support Services to H2020 projects in Energy**

- *Project Risk Analysis PRA (10 days)*
- *Exploitation Strategy Seminars ESS (17 days)*  
*Identifying Key Exploitable Results KERs*
- *Business Plan Development BPD (30 days)*  
*Drafting a business strategy for KERs*
- *Assisting with Patenting PAT (15+ days)*
- *Brokerage Events BRE*
- *Ad Hoc Assistance AHA*



## ➤ **On request of research project or Project Officer**

## ➤ **Executed by experts (remote and onsite)**

## ➤ **Administrated & monitored by EC**

- *Establishing specific service contracts*
- *Reviewing reporting; following KPIs; dissemination of lessons learnt*
- *Processing payments*

# PRA - Project Risk Analysis

**Objective:** to identify potential risks and obstacles to achieve and exploit in the future projects' results.

**Service:** The expert analyses the results that partners are willing to exploit, the form(s) that the exploitation of these results may take and the conditions needed to enable results exploitation and highlights potential risks to be monitored.

Number of days assigned: 10

Methodology: remote work

Deliverable: Synthesis report with Background research

## Recommendation

Effective at very beginning, when KERs are still not fully characterized.

# ESS – Exploitation Strategy Seminars

**Objective:** to brainstorm on how the projects address exploitation opportunities, risks and potential obstacles, enhance the team awareness on IPR and standardisation.

**Service:** One day seminar with the expert acting as facilitator. After the ESS, a report summarizing the results of the seminar and a draft PUDF for the benefit of project partners and POs are prepared.

Number of days assigned: 17 (including PRA)

Methodology: remote work + on-site workshop

Deliverable: ESS report, draft Exploitation plan

## Recommendation

To be applied 2 times during the project (early for awareness raising and later for further defining KERs)



## BDP – Business Plan Development

**Objective:** to assist partners in developing a business plan for exploiting their results, up to including solutions for financing needs.

**Content:** The Business Plan Development service extends the support in helping projects to develop a business plan, from the very drafting phase, up to including solutions for financing needs and coaching on how to successfully present the business idea. ([BMC](#))

Number of days assigned: 30

Methodology: remote work + 2 seminars

Deliverable: Final report

### Recommendation

BDP applies to already well identified KERs, so more mature projects. How to pitch to be an integral part of the service.

## PAT – Assisting with Patenting

**Objective:** to support partners with the writing, filling and legal follow-up of patents.

**Content:** The patenting process is a critical point for the exploitation of research projects. Not standardised. The appointed Expert analyses needed patenting issues.

Number of days assigned: depends on the need, 15+

Methodology: remote work (meeting is optional)

Deliverable: Short report

### Recommendation

Split the service in more than 1 specific contract due to lengthy process.  
Define the project needs in advance.

## AHA – Ad Hoc Assistance

**Objective:** Support to any other exploitation related activities (assistance to the project meetings, feasibility studies etc.)

**Content:** to be defined case by case in advance

*Example: Participation at Kick-Off Meeting, preparation of strategic partnerships or alliances*

*Number of days assigned: to be defined case by case*

*Methodology: to be defined case by case*

*Deliverable: Short report*

## BRE – Brokerage Events

**Objective:** to support the EC in providing a forum for project participants (open to industry, SMEs and academia) to meet and discuss their results to create synergies and generate new ideas for further developments in the use of results.

**Content:** How to pitch/present exploitable result will be the main part of a successful BRE.

*Number of days assigned: to be defined case by case*

*Methodology: workshops*

*Deliverable: Short report*

**Does my project have to be based in the EU to be published on the Portal?**



Yes. However, cross-border projects with non-EU countries are also permitted as long as the investment takes place, at least partially, in one of the EU MS.

**Does the Portal provide financing?**



The EIPP does not provide financing. It acts as a bridge between EU-based project promoters and investors worldwide.

**Is the Portal linked to EFSI?**



No, the publication of a project on the Portal is neither a guarantee of, nor a precondition for obtaining EFSI financing.

**Is publishing a project on the Portal free of charge?**



Yes, publication is free for all projects (Amending Decision adopted on 29 May 2017).

**As an investor, do I have to be EU-based?**



No. Investors can be based anywhere in the world.

## ■ Project characteristics

- Floating offshore windfarm in Portugal
- Semi-submersible floating structure
- 3 x 8,3 MW
- 20 km from shore, water depth 85-100 m

## ■ Risks and opportunities

- Risks: new turbine, upscaling, structural integrity, wind resources
- Opportunities: deep seas, assembly in port, transport by tugboats

## ■ Technological development

- 2011-2014 – FP7 "DEMOWFLOAT" project: pilot installation of 2 MW

## ■ Finance

- Support: €60 million InnovFin EDP loan + €30 million NER300 grant
- Total project cost: €131 million

