



# Interregional Innovation Investment

Coordination of the Pilot Actions

*Joint Event Thematic S3 Platforms*

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# Structure

1/ Overview

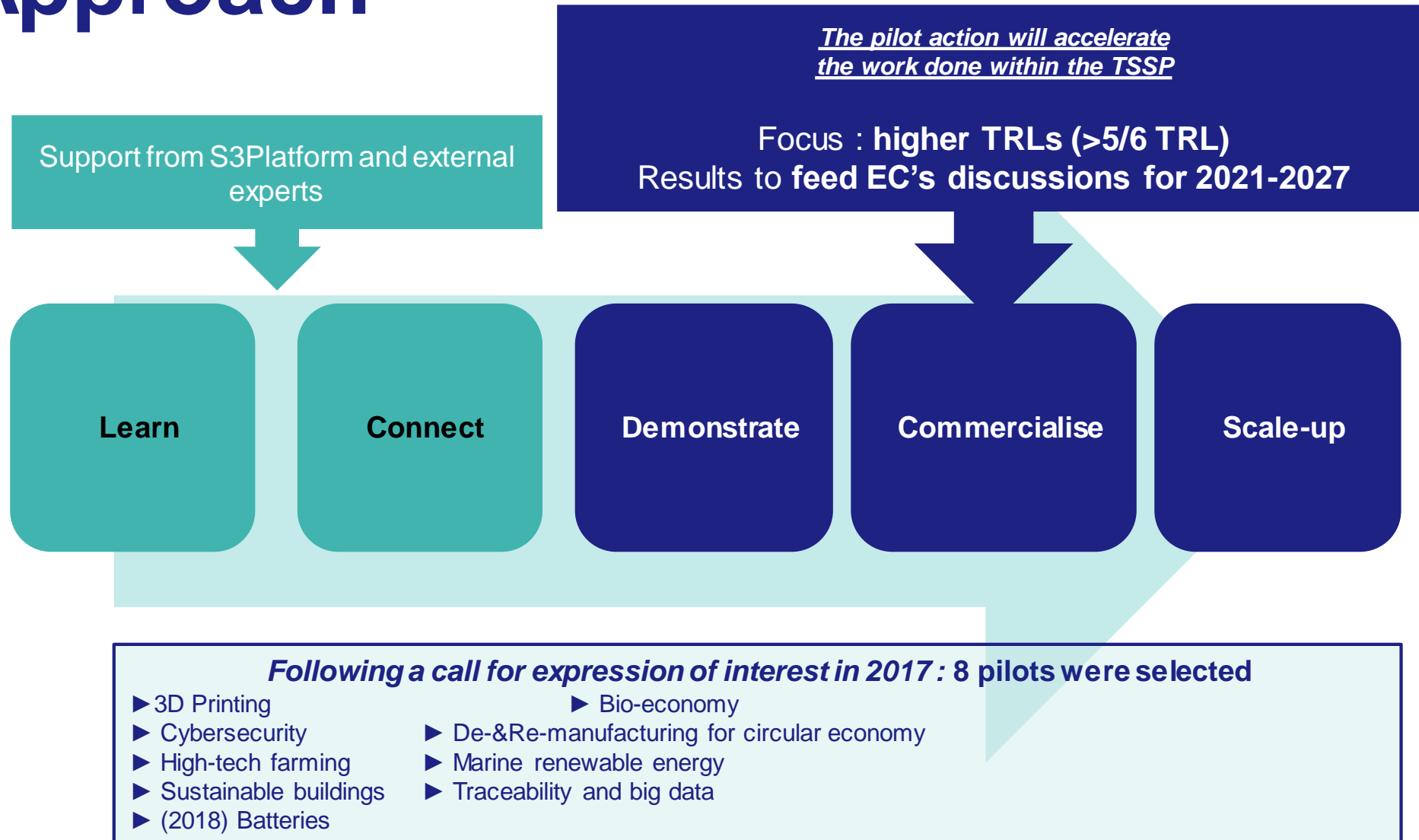
2/ Operational results

3/ Capitalisation results

# 1/ Overview

Objectives, process and approach

# Approach



# Pilot Coordination

## ➤ Oversight, guidance and reporting on Pilot Action (2018-2020)

- On-going, 2-way consultation and feedback (formal and informal)
- Quantitative analysis – e.g. business modelling; projected financing needs
- Qualitative analysis – e.g. Partnership operations and dynamics
- Articulation and coordination of Partnership support needs, incl. removal of bottlenecks
- 8 Partnerships (2018) → 9 Partnerships (2019)
- → concrete business cases and innovation investment
- Capitalisation exercise – functioning and effectiveness of Partnerships
- Interim reporting over 2 years; final reporting (June 2020, based on final outputs – January 2020)

## ➤ Roles: Project Coordinator and Project Manager (Alison HUNTER and Pierre PADILLA)

- Direct contact and engagement with Partnerships – PP
- Oversight and capitalisation – AH

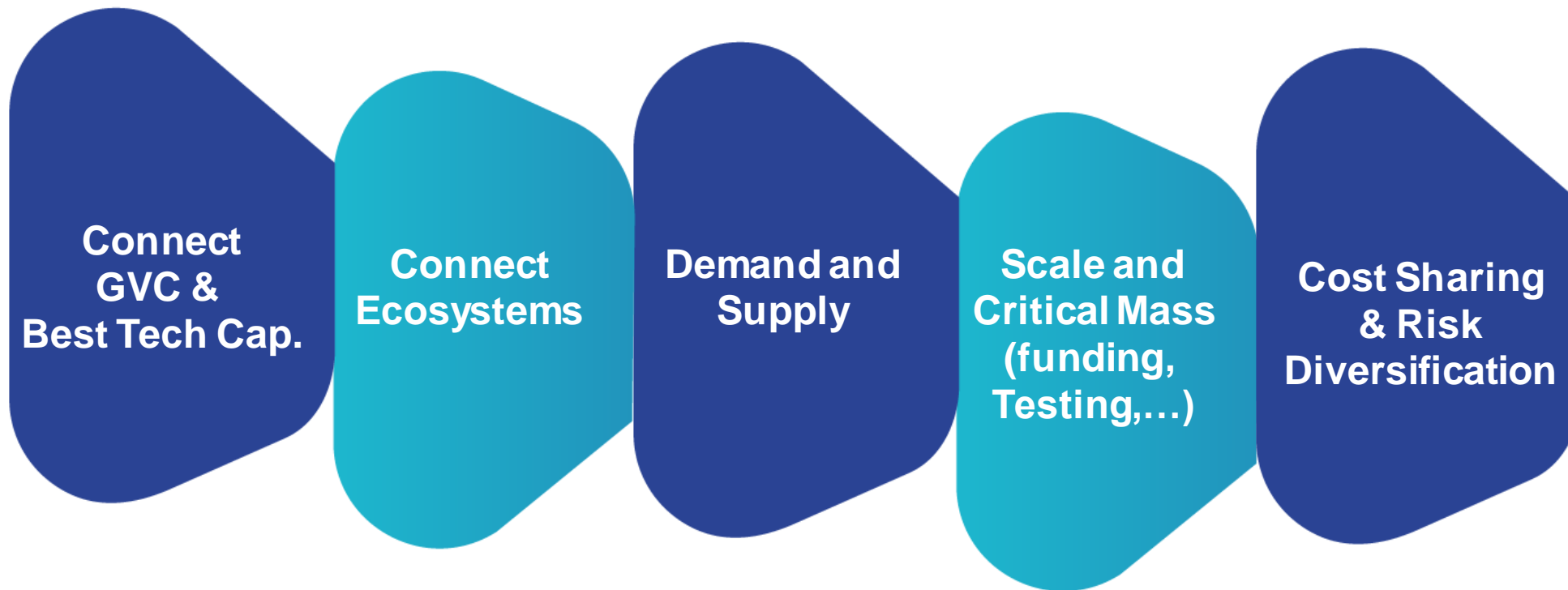
# Support Mechanisms

- **Thematic expertise from a dedicated team of Commission services**
- **Two overall coordinators** (Alison HUNTER and Pierre PADILLA)
- **'Single partnership coordinator' (SPC)** for each Partnership
  
- **Customised support services on specific needs** (dedicated team across EC services; AMI LIST external expert(s) – DG REGIO)
  - business plan design
  - financial modelling
  - intellectual property rights
  - standardisation
  - market research
  - etc.
  
- **Capitalisation exercise for the overall pilot**

# 2/ Operational results

Eye on the business cases

# Why?





# Overview and Granularity

Area	PARTNERSHIP	RECOMMENDED FOCUS – LEVEL OF GRANULARITY
	Cybersecurity (CYBER)	Setting up an Acceleration Programme for cybersecurity scale-ups building upon the relative acceleration strengths of each region involved.
Portf.	De- and Re-Manufacturing (DRM)	Development of business cases on composite recovery from wind energy systems (and possibly other segments) which are aimed at connecting regional nodes and their technological capabilities to demonstrate the recovery of composites.
	3D-Printing (3DP)	Setting up an Additive-Subtractive Manufacturing platform and a more specific case on the demonstration of additive manufacturing for hybrid car components.
Project	Bio-Economy (BIO)	Demonstrating and scaling up Bio-based aromatics (Bio-aromatics) meant for the construction sector, at this stage encompassing both piloting and demonstration activities.
	High-tech Farming (FARM)	Setting up a digital platform for agritech solutions, of which two business cases were put forward and one developed that addresses the transfer of photonic solutions to farmers.
	Traceability and Big Data (TRACE)	Setting up a communication and traceability system for agrifood products in the form of a business-led traceability platform.
	Sustainable Building (BUILD)	Supporting the “Smart Campus” through the commercialisation and procurement of smart solutions such as smart plugs - which appears to be the most mature case.
	Marine and Renewable Energy (MRE)	Demonstrating the Sensing & Remote Monitoring in Marine Renewable Energy facilities.
	Advanced Materials for Batteries (AMBP)	Setting up a portfolio of cross-regional demonstration projects to accelerate the commercialisation and market uptake of advanced materials enabling the EU battery industry

# In practice...

	Innovation	Investment Claim and Possible Sources	Interregional Coverage
<b>DRM</b>	<b>Challenge:</b> fragmentation of circular technologies and solutions to green the composite industry <b>Innovation:</b> a demonstration network for de- and re-manufacturing	€108,377,036.21 (business cases) out of total investment need of € 309,648,674.89 + € 250,000.00 (network founding grant)	3+ Member States
<b>BIO</b>	<b>Challenge:</b> lack of critical mass to address the fragmentation and sub-optimal investment in bio-aromatics <b>Innovation:</b> a joint demonstration investment integrating the construction bio-aromatics value chain	€8,900,000.00 (overall investment) of which € 4,000,000.00 in equity and € 4,900,000.00 in grant support	3+ Member States
<b>CYBER</b>	<b>Challenge:</b> lack of critical mass to scale up cybersecurity SMEs across various segments <b>Innovation:</b> combination of acceleration capabilities put at the service of cyber companies	€1,200,000.00 (accelerator) of investment need of which € 480,000.00 in private contribution (private investors) and €720,000.00 in grant	3+ Member States
<b>FARM</b>	<b>Challenge:</b> hampered deployment of technologies enabling high-tech farming companies in wine and fresh fruits sectors <b>Innovation:</b> setup of a network of demo farms to demonstrate relevant solutions and facilitate their deployment across regions	Out of €2,075,000.00, the project expects € 135,000.00 in regional funding, secured € 490,000.00 from private sector and estimates a remaining investment gap (grant) of € 1,450,000.00	3+ Member States
<b>3DP</b>	<b>Challenge:</b> fragmentation of the additive manufacturing landscape for hybrid components <b>Innovation:</b> a demonstration network with a developed investment case in hybrid manufacturing for automotive components	€263,400.00 out of a total of € 4,589,000.00 (business case 1) on top of € 1,000,000.00 of grant to set up the platform	3+ Member States
<b>TRACE</b>	<b>Challenge:</b> lack of transparency to the expense of consumers along the food value chain <b>Innovation:</b> decentralised solution for supply chain traceability and transparency gradually building upon product groups	€1,600,000.00 in grant combined with € 500,000.00 in equity out of a € 2,100,000.00 investment portion (Naturcode who owns the platform) under the total € 3,500,000.00 project budget (but Openfield's part of sub-contracting costs and margin expected to fund it)	3+ Member States
<b>BUILD</b>	<b>Challenge:</b> environmental footprint of smart campus buildings due to the slow uptake of innovative solutions <b>Innovation:</b> testing and deploying innovations such as smart plugs cross-regionally	€49,500.00 financially modelled for the platform, € 90,000.00 claimed for the RTE MCS and € 300,000.00 claimed for the E3 Smart Plug	3+ Member States
<b>MRE</b>	<b>Challenge:</b> opportunity costs for suppliers of components and services in the offshore windmill sector <b>Innovation:</b> implementing an open platform for data-based innovation in the area of marine and renewable energy	€207,737.50 out of a total of € 830,950.00 and combined with € 623,212.50 in equity	3+ Member States
<b>AMBP</b>	<b>Challenge:</b> lack of technological and investment scale for the joint deployment of new materials for batteries <b>Innovation:</b> series of joint demonstration cases driven by businesses focusing on commercialisation and market deployment	1) €3,240,000.00 2) €25,267,000.00 3) €5,500,000.00 (€3,300,000.00 expected in support) 4) A range between €15,000,000.00 and €20,000,000.00	3+ Member States

# Maturity Framework

— DRM — BIO — CYBER — FARM — BUILD — MRE — TRACE — 3DP

1/ Case for business opportunity

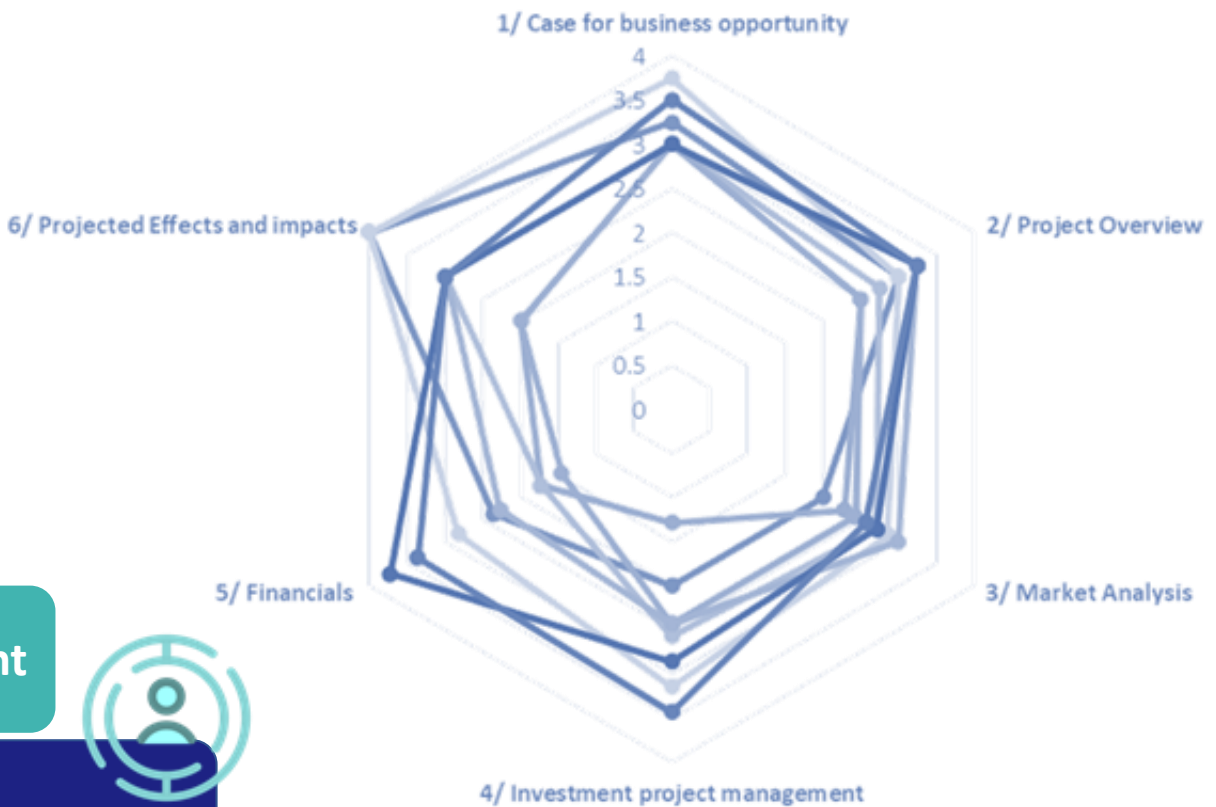
2/ Project Overview

3/ Market Analysis

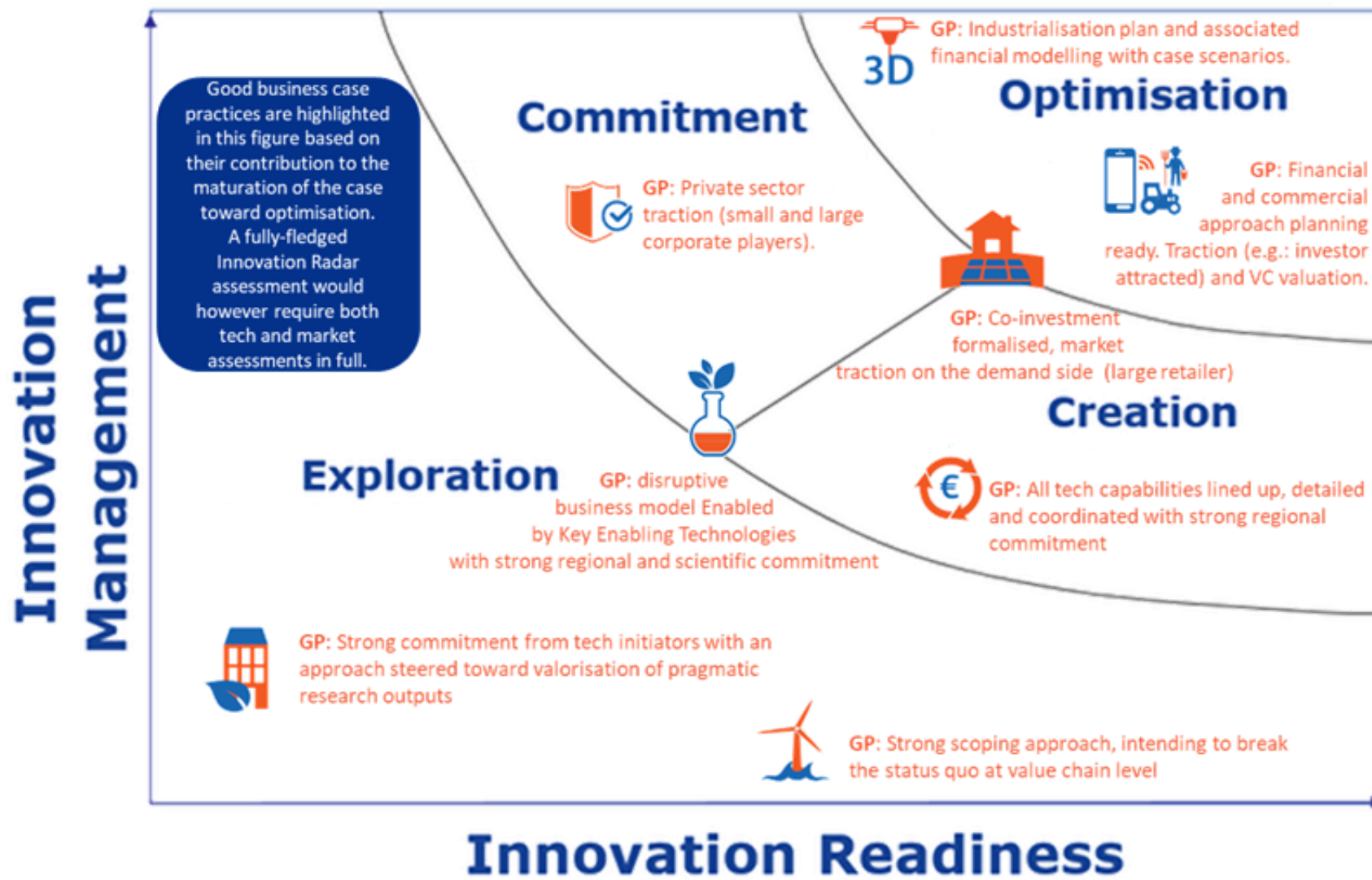
4/ Investment project management

5/ Financials

6/ Projected Effects and impacts



# Good Practices



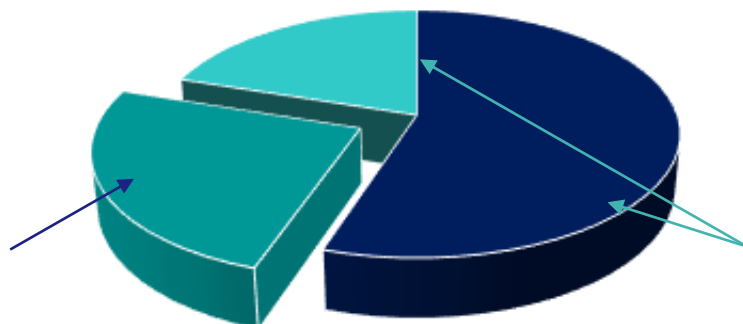
# Investing at different levels

	DRM	BIO	CYBER	FARM	3DP	TRACE	BUILD	MRE
Direct investment in businesses	/	Y	/	/	Y	Y	/	Y
Portfolio format	Y	Y	Y	Y	Y	Y	Y	Y
Leverage of private investment	Y	Y	Y	Y	Y	Y	Y	Y
Cross-regional rationale	Y	Y	Y	Y	Y	Y	Y	Y

# Target Instruments

	DRM	BIO	CYBER	FARM	3DP	TRACE	BUILD	MRE
Equity	Y 30%	Y 45%	/	/	Y 58%	Y 15%	Y	Y 75%
Lending	/	/	/	/	Y 36%	Y & /	Y	Y & /
Alternative finance	/	/	/	/	/	/	Y	/
Private contribution	Y 35%	Y	Y 40%	Y 24%	Y	Y 40%	Y	Y
Hybrid	/	/	/	/	/	/	/	/
Grant	Y 30%	Y 55%	Y 60%	Y 70%+ 6% (regio)	Y 6% (case)  + €1M (100% Platf)	Y 45%	Y	Y 25%

**Investment Gap**  
(Non-dilutive, non-debt financing)



**Gearing**  
(Debt/Equity)

+



# Opening the box

- 1) **Platform VS Operational** service provision
- 2) **Development VS Deployment**
- 3) **Tech & Sector** Variations (e.g. Digital VS Circular)

**Strategic Choices  
with Implications**

# Business Cases - Selected Highlights

## 1) De-Risking

- Tech risk + Fin./Company risk (young, covenants, etc.)
- Coordination = Cost (~"SG&A")
- Failure → cross-regional (asymmetry + lack of critical mass inc. risk capital)

## 2) From Due Diligence to Funds Distribution

- Expertise (assessment + monitoring)
- Cascading VS Central mode

## 3) Points of attention

- Demonstrate strong market orientation
- Investment = revenues = Financial Plan
- Industry



# Pilot Action: Selected Impacts

## 1) Accelerated Maturity

- Pre-commitments of investment/purchases/lead-user involvement
- Bonding Regional Ecosystems
- Champion Cases

## 2) Spill-overs

- New collaborations
- Unlocked Funding From Mainstream programmes (e.g. H2020)
- Less advanced regions



# 3/ Capitalisation results

Eye on the partnerships

# Capitalisation Exercise and Smart Regions 2019

## 1) Capitalisation Exercise:

- 14 regions from across 9 Partnerships, each involved in between 1 and 7 Partnerships
- Depth, semi-structured interviews (11) – triple helix partnerships
- 54 stakeholders (14 private sector; 20 research / science; 25 public sector) → stronger ‘policy’ perspective

## 2) Smart Regions 2019:

- ‘Learning from Triple-Helix Perspectives’ (5 regions from group above)
- Shared ‘stories’ and insights based on challenges, successes, learning and practices

# Key Findings - Capitalisation Exercise

- **Different expectations and perceptions of ‘success’ from Partnerships and domestic contexts**
- **Across regions, a clear spectrum of innovation capacity**
- **Key barrier to sustainability of effort: deficit in domestic, senior/ political commitment and financial investment ‘know-how’**
- **Towards building robust foundations for S3 Partnerships landscape**

# Effective S3 Partnerships: benefits and insights

- Relationship between S3 interregional collaboration and adopting a market-led, value chain orientation
- Spillovers and network effects
- **Core characteristics of effective Partnerships:**
  - Partnership: Permanent coordination function / support (SPC)
  - Domestic: Strong domestic support and governance structures (vs 'gatekeeping')
  - Domestic / Partnership: Innovation investment capacity
  - EU: Streamlined access to technical knowledge / expertise

# S3 Partnerships - overview of challenges

- **Incomplete Single Market**
- **No financial support for ‘transactional’ costs**
- **No tried and tested joint innovation investment ‘roadmap’**
- **Domestic innovation investment environments - patchy**
- **Governance blockages:**
  - TSSP landscape
  - in Partnership
  - connecting to domestic governance

# High level findings – Business Cases

- **The additionality of the Pilot (speed, finances, focus, resources)**
- **Clear evidence of interregional funding gap**
- **Evidence of market failures:**
  - Information deficiencies
  - Co-ordination failures
  - Non-rival information

# Establishing a post-2020 legacy for S3 Partnerships and joint innovation investment

- Valuing learning within & across S3 Partnerships
- Strategic planning & coordination of support needs
- Addressing gaps / weaknesses across EU innovation investment landscape
- **Performance management:**
  - Define 'success'
  - Allow failure
  - Post-2020 EU innovation investment policy - reduce fragmentation and improve connectivity





# Thanks !

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