Smart Specialisation Community of Practice (S3 CoP)

S3CoP Webinar

Understanding the bottlenecks to innovation diffusion: insights from EU regions

23 May 2024

European Commission

S3 COMMUNITY OF PRACTICE

Agenda

Time (CET)	Agenda ítem	Lead
10:00-10:05	Welcome & opening remarks	Susana Elena-Perez, S3CoP WG Leader
10:05-10:15	Overview of S3CoP WG on Innovation Diffusion	Susana Elena-Perez, S3CoP WG Leader
10:15-10:30	Insights from the first year of activity of the WG on Innovation Diffusion	Alison Hunter, 3SCoP WG Rapporteur
10:30-10:40	Q&A from audience	All audience
10:40-11:25	Expert panel discussion: regions insights on challenges for innovation diffusion: • Luc Hulsman, Northern Netherlands Alliance, The Netherlands • Arnault Morisson, Policy Learning Platform • Ana Fernández Zubieta, Complutense University of Madrid, Spain • Carolina Turcato, EurA AG, Portugal	Santiago Donat, 3SCoP WG Chair
11:25-11:35	Q&A from audience with the panel	All audience
11:35-11:50	Audience interaction on Slido: "what are the key challenges to be addressed moving forward"	Santiago Donat, 3SCoP WG Chair
11:50-12:00	Final remarks	Susana Elena-Perez, S3CoP WG Leader

Welcome & opening remarks
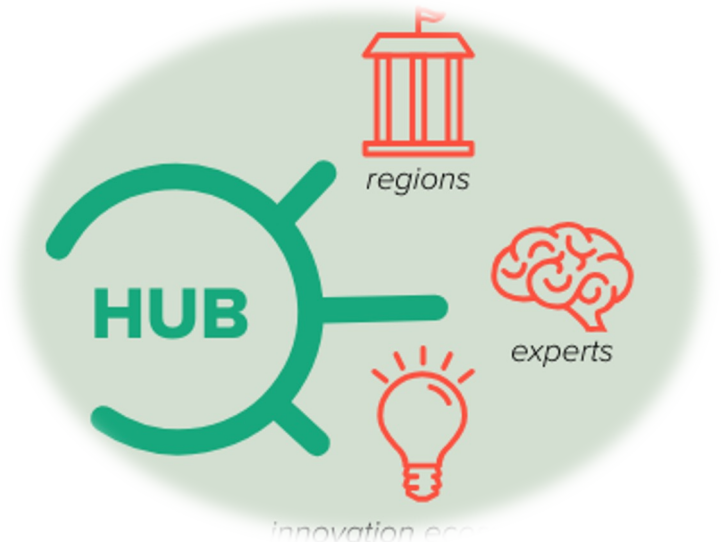
Overview of S3CoP WG on Innovation Diffusion

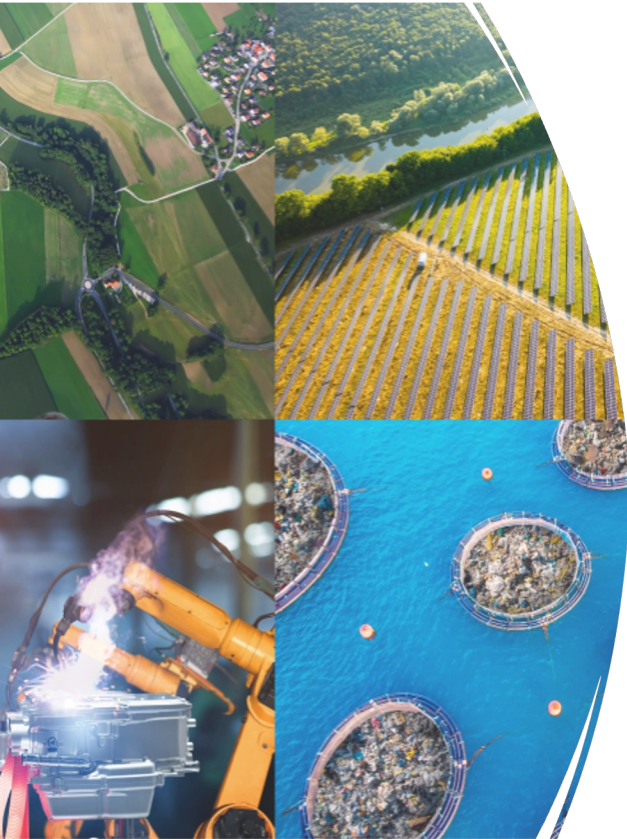**Susana Elena-Perez, S3CoP WG Leader**

Services

Policy advice
- S3 Expert Group
- Working Groups

Support
- Thematic Platform and Partnerships
- Targeted support to regions

Community engagement
- S3 CoP Website
- S3 CoP events

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Working Groups

On the **enabling condition** "Good governance of national or regional smart specialisation strategy".

Three Working Groups (WGs):
- Innovation diffusion
- Industrial transition
- Interregional collaboration

- The WGs offer opportunity for Peer Learning on selected topics.
- A set of regions meet regularly to discuss and address implementation challenges
- Inputs and outcomes are shared with the whole S3CoP

Main purpose

- To collect **knowledge & good practices**

- To identify **common needs & challenges**

- To co-develop **solutions** with the regions

- To **support & monitor** the deployment of solutions

- **Bottom-up**, iterative and **peer learning approach**

Approach

Main outcomes

- Concept & input notes

- Policy briefs

- Webinars

POLICY BRIEF

How to enhance the fulfilment of the S3 enabling condition in European regions

Lessons learnt from the WGs on innovation diffusion, industrial transition, and interregional cooperation.

Authors: Alison Hunter, Pirkko Taskinen, Claire Nauwelaers, Susana Elena-Perez, Yari Borbon, Vincent Duchêne, Santiago Donat, Luis Goñi, Richard Tuffs, and Federico Bley

March, 2024

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Working Group on Innovation Diffusion

Participants:

WG Leader Susana Elena-Perez
Chair Santiago Donat *(Spain)*
Rapporteur Alison Hunter *(Belgium)*

WG members
Sofia Karveli *(Greece)*
Katja Laitinen *(Finland)*
Lucian Sandu *(Romania)*
Carolina Turcato *(Portugal)*
Jennifer Grisorio *(Italy)*
David Uhlíř *(Czech Republic)*
Vincenzina Cristofaro *(Italy)*
Jose Antonio Pascual Sanchez *(Spain)*
Nathalie Boulanger *(France)*
Barbara Tan *(Belgium)*
Stjepan Marković *(Croatia)*
Myriam Martin *(Spain)*
Luc Hulsman *(Netherlands)*

Context: What the WG focused on in 2023

- The **Innovation Diffusion element** of the ERDP 2021-27 S3 **enabling condition**:

  - ✓ Innovation diffusion plays a key role in responding to innovation 'demand' and should be an integral element of innovation collaboration" (from Policy Brief)

  - ✓ Invest in and share the results and benefits of Innovation Diffusion efforts

- Analysing **how new ideas, practices and innovation spread through society**

- Two **challenges selected** for review by the WG members:

  - ✓ A weak or absent systemic approach to innovation diffusion

  - ✓ A weak articulation of demand for innovation and innovation support services from business, notably SMEs

- **Caveat**: guidance and actions must be tailored:

  - Regions are highly differentiated – e.g. structures, geographies, capacities; governance systems and innovation ecosystems. Innovation diffusion systems, policies and practices must reflect local needs

  - Impacts of Innovation Diffusion depend on local conditions incl: "capacity, funding, time, skills, and a long-term vision and political support at the regional level" (from Policy Brief)

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Main implementation challenges identified

Adoption of new technologies, innovations, business practices and digital tools across SMEs	The role of universities and RTOs (to meet the needs of companies in their ecosystem)	The role of innovation agencies and other public bodies in facilitating knowledge flows	Knowledge spillovers and innovation diffusion channels between large firms and local smaller enterprises
⭘ **Weak articulation** of the **demand for innovation** and for innovation support-services ⭘ **Digital skills shortages** in SMEs & deficiencies in the digital infrastructure in SMEs ⭘ **Lack of business development services** for SMEs (training, mentoring, advisory and consultancy services, etc.) **& Difficulties to access finance** for investments in digitalisation	⭘ **Mismatch between demand and supply of innovation support services** (low understandings of the demand side from universities, different incentives, needs and capacities of companies and universities/research centres) ⭘ **Poor technology and innovations transfer** from universities and RTOs to companies	⭘ **Multi-level governance** (coordination problems, etc.) ⭘ **Lack of a systemic approach** (work in silos)	⭘ **Low absorptive capacity** of local companies ⭘ **Low connection between S3** in the regions with policies **to attract and retain FDI**

| Key messages and policy recommendations: WG Innovation Diffusion | • **Sustained commitment from local / national authorities and tailored approaches** to designing and delivering innovation diffusion policies and practices.

• **Transformational innovation** requires optimal engagement of innovation communities (triple / quadruple helix)

• **Embedding innovation diffusion in regional innovation ecosystems** through (e.g.) the 'mutualisation' of innovation diffusion intermediaries and the systematic capture of innovation demand.

• **Innovation diffusion can strengthen collaboration across innovation actors** – through structured and systemic approaches to:
– innovation support service design (e.g. priority sectors and value chains)
– generating an 'innovation pipeline' approach to services based on technology readiness levels

• **Strengthen business-specific support elements** – customising support according to sector, maturity, size, technological capacity, and collaboration potential within the business community. |

Towards better integration of Innovation Diffusion in S3 policy mix

- **Improve strategic connections between Innovation Diffusion, EDP and S3 monitoring and evaluation**

- **Better targeting Innovation Diffusion to support firms in adopting new and green technologies, (so driving innovation transformation and green transition)**

  - Towards interregional innovation diffusion for the uptake of green technologies

  - Optimising quadruple helix engagement: better balancing the influence of innovation actors towards green transitions

- **The conditions that support *whether* and *how* RTOs and universities serve the needs of local firms** (examples: Loire Valley Innov', Centre-Val de Loire, FR and Flemish Spearhead Clusters, BE, INNO INFRA SHARE Interreg Europe project)

- **Facilitating innovation ecosystems knowledge flows:**

  - systematic review vs *ad hoc*?

  - Capacity to strengthen 'oversight' of knowledge flows?

- **The conditions that promote knowledge transfer from multi-national companies (MNCs) to domestic firms**

Q&A from the audience

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Expert panel discussion: Regions insights on challenges for innovation diffusion

- Luc Hulsman, Northern Netherlands Alliance , The Netherlands
- Arnault Morisson, Policy Learning Platform, Interreg
- Ana Fernández Zubieta, Complutense University of Madrid, Spain
- Carolina Turcato, EurA AG, Portugal

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"Weak or absent systemic approach to innovation diffusion and weak articulation of demand for innovation and innovation support services from business, notably SMEs" *S3 CoP Working Groups – Policy Brief*
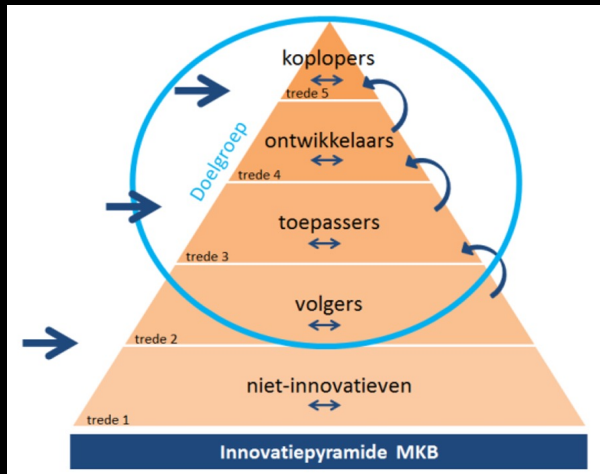
NNLs 'pre 2021-2027 reality':

- fragmented support services (valorisation, skills, digitalization, sustainability,…)
- 'scattergun approach'
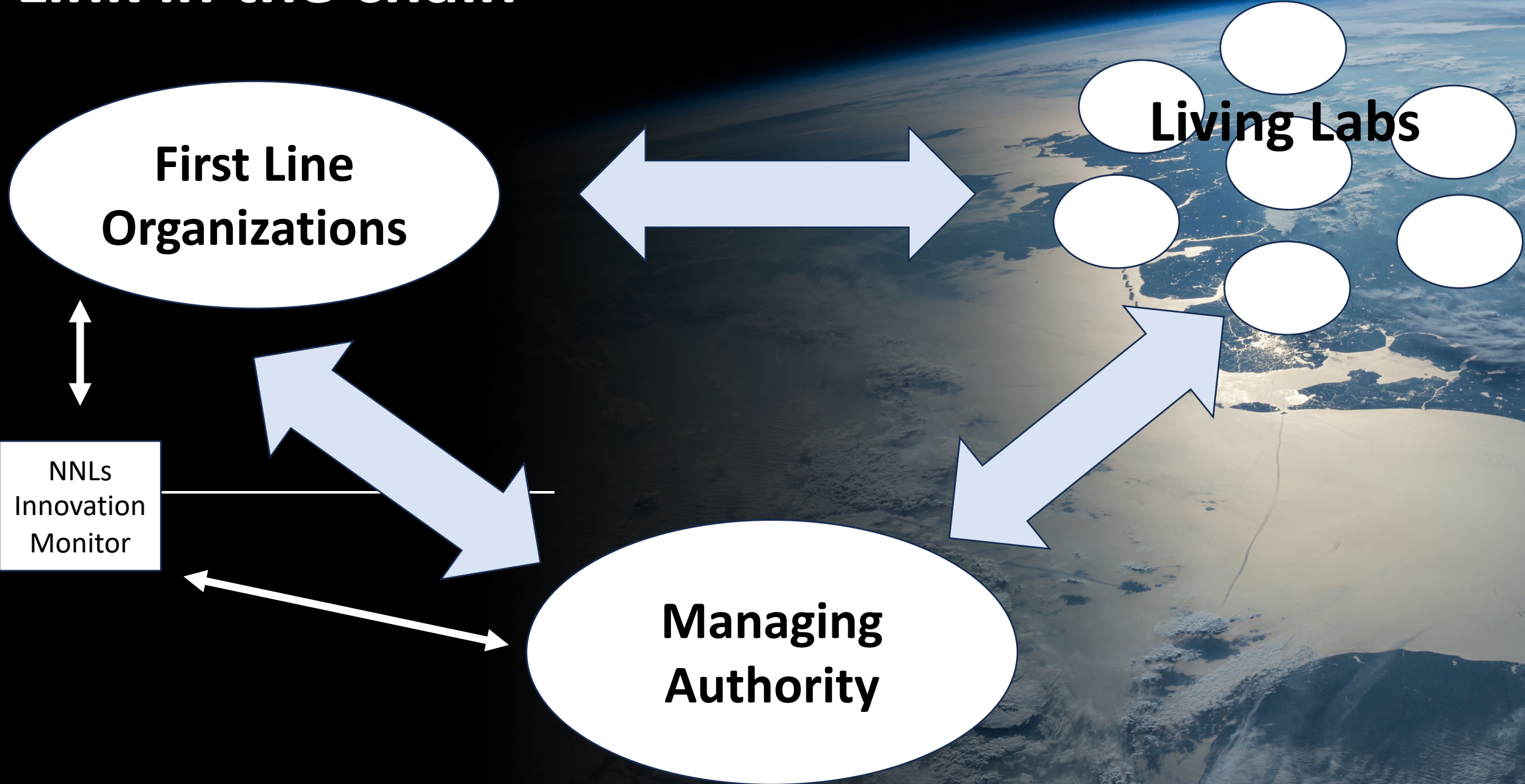- predominantly 'one off' support

Towards an integrated, targeted approach
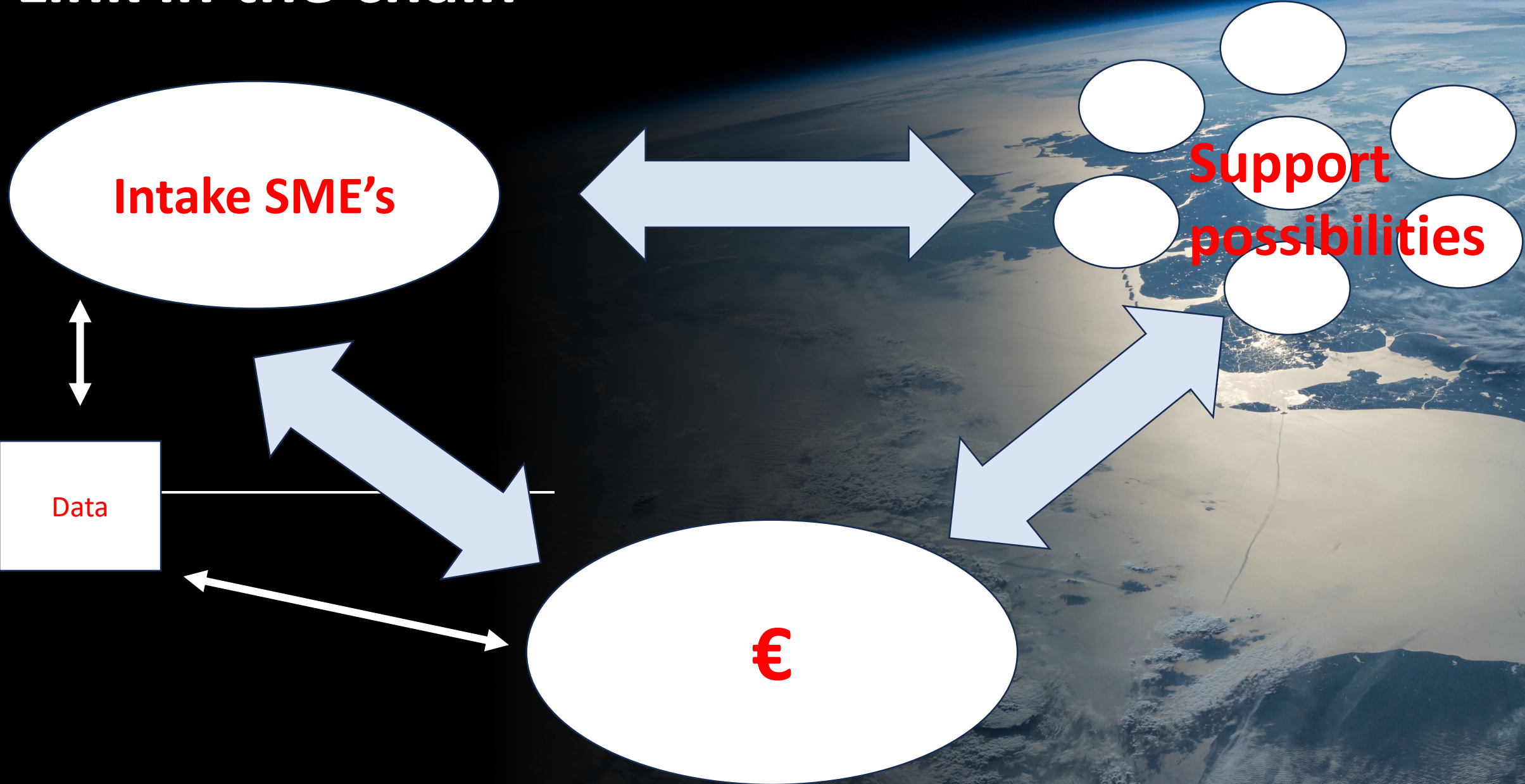
Escalator model: basic principles

1. Target group differentiation
2. Linkages between instruments/services ('chain'-principle)
3. Instrument/service positioned close to target group

Link in the chain

First Line Organizations

Living Labs

NNLs Innovation Monitor

Managing Authority

Link in the chain

Intake SME's

Data

€

Support possibilities
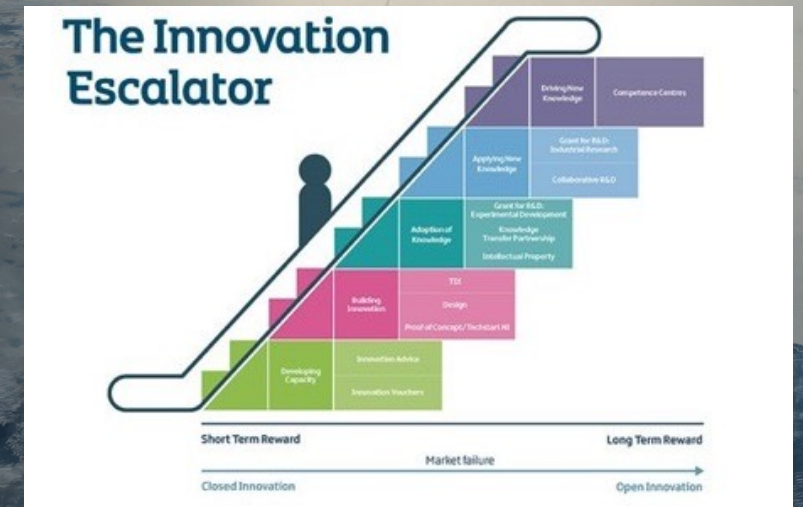
Escalator model: challenges

- Innovation ecosystem approach

    - effective collaboration between all actors within the system
    - innovative government

- extensive information needed about innovation characteristics SME's (position in pyramid)

    - high quality data
    - knowledge sharing (connecting databases)
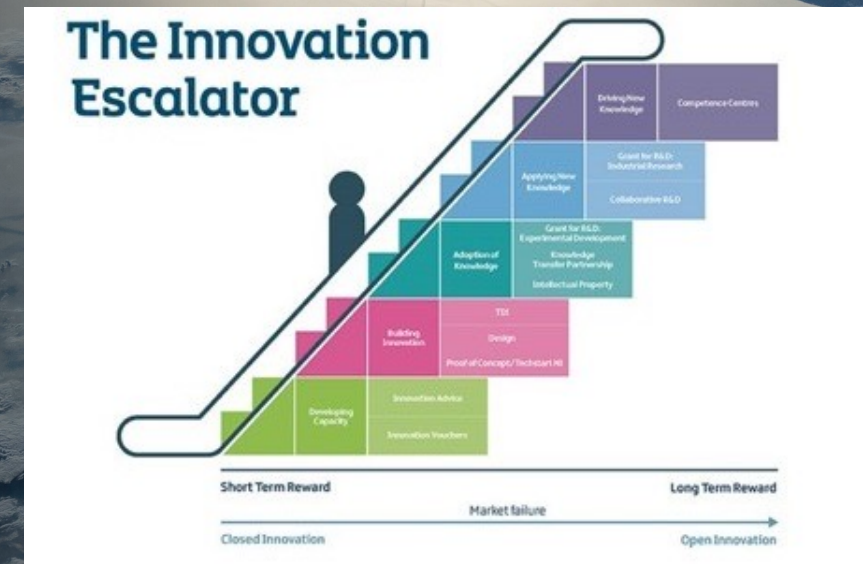
Thank you !

hulsman@snn.eu

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Innovation diffusion
Good practices from Interreg Europe projects

Arnault Morisson
Thematic Experts| Smarter Europe | Interreg Europe Policy Learning Platform

23 May 2024

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Interreg Europe **objective**

To improve **regional development policy instruments** (including Investment for jobs and growth goal programmes)

How?

Through exchange of experience, innovative approaches and capacity building (in relation to the identification & transfer of good practices)

- Primarily dedicated to **policymakers**
- Focus on **exchange of experience**

→ Different from cross-border or transnational cooperation

Two **actions**

Projects

Limited number of regions exchanging and transferring experience on a shared regional development issue

➡️ | **Third call is opening on 20 March and closing on 7 June 2024**
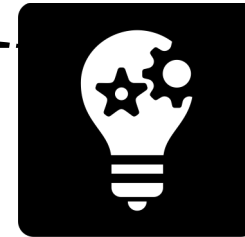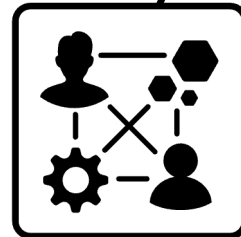
Policy Learning Platform

Further exploiting projects' achievements and opening up the programme benefits to all

The Platform in a nutshell

Policy-learning opportunities through **access** to:

Knowledge
Find policy solutions

People
Meet our community

Expertise
Get policy advice

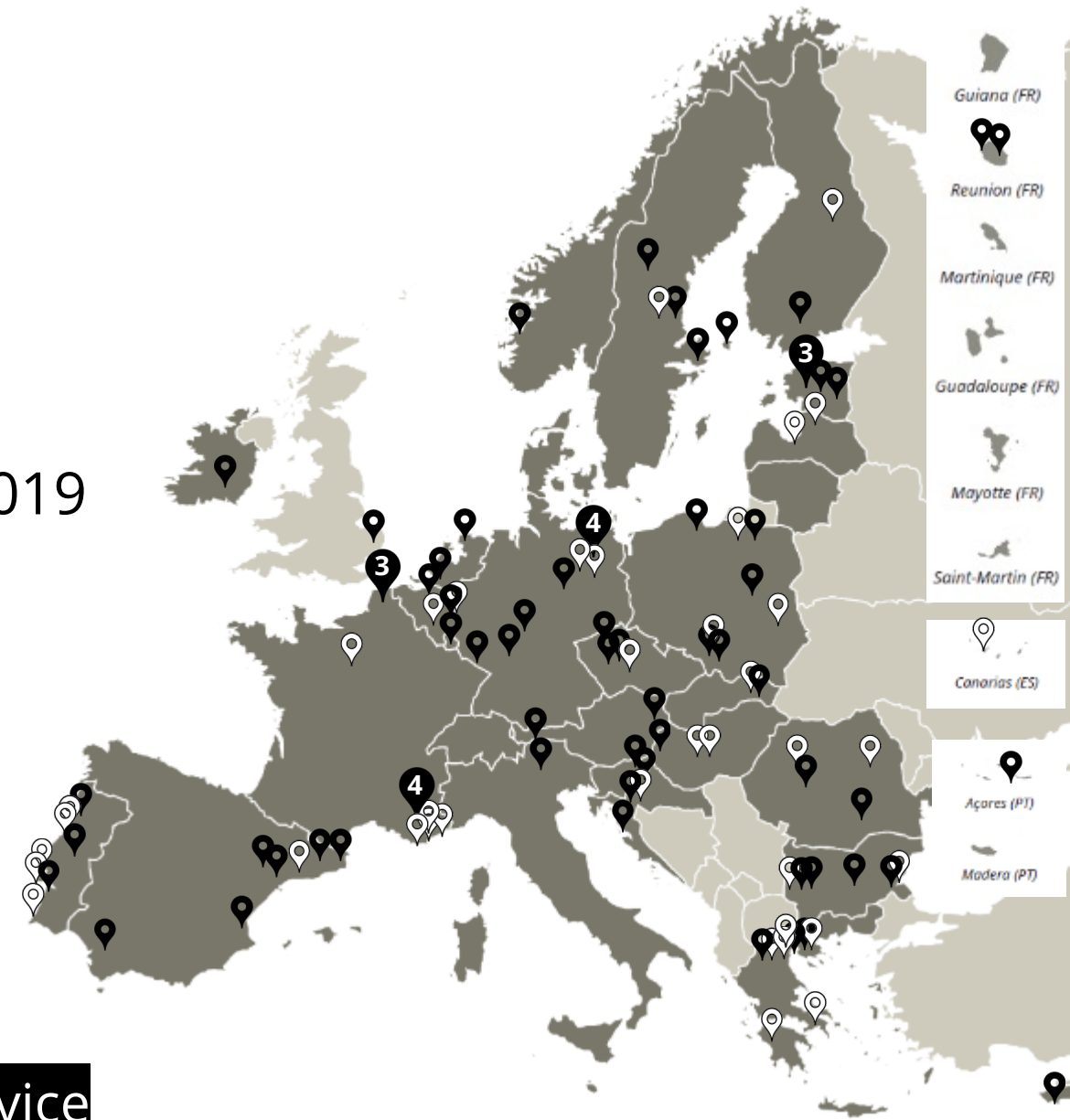www.interregeurope.eu/policylearning

Peer learning IN PRACTICE

📍 **74 peer reviews** implemented since 2019

10 peer reviews in the pipeline

📍 **44 matchmaking** sessions

Apply to benefit from expert support any time
https://www.interregeurope.eu/get-policy-advice

Guiana (FR)

Reunion (FR)

Martinique (FR)

Guadaloupe (FR)

Mayotte (FR)

Saint-Martin (FR)

Canarias (ES)

Açores (PT)

Madera (PT)

Innovation diffusion

The adoption of new technologies, innovations, business practices and digital tools across business (and especially among SMEs) from leading firms to those lagging behind.

| Good practice: |

Innovation audits

Romania

The **innovation audit is a programme to assess and review the innovation and internationalisation capabilities of private companies** in Romanian clusters.

The **innovation audit** consists of three phases:

(1) a questionnaire with 45 questions on innovation culture, innovation strategy, innovation management, networking, development of new processes and products, research and development (R&D), access to new markets, and management technology,

(2) experts analyse the responses to the questionnaire and recommendations are sent out,

(3) meetings are organised to discuss on the future uptakes of recommendations **to improve SMEs innovation capabilities**.
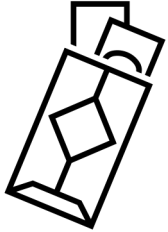
Interreg Europe project

CLUSTERIX 2.0
Interreg Europe
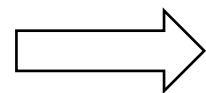
The importance to assess SMEs readiness and capabilities to uptake new technologies.

Innovation diffusion

Knowledge spillovers and innovation diffusion channels between large firms, especially multinationals, and local enterprises.

Good practice:

Tampere region Innovation voucher

Tampere region, Finland

Interreg Europe project

Innovation vouchers are small lines of credit provided by regional governments to Small- and Medium-sized Enterprises (SMEs) to purchase services from knowledge providers such as universities, research centres, or consulting firms with a view to introducing new products, processes, or services in their business operations.

Innovation voucher schemes should be administratively simple to ensure they are attractive to SMEs (effort to apply versus amount of funding available).

The Tampere region innovation voucher initiative was executed with flexibility and agility, allowing companies to choose service providers under a first-come, first-served basis, without public authorities' pre-selection, as there was no competitive tendering process for service providers. Additionally, a digital platform was developed to manage applications. The project had a budget of 1.7 million euros, with 1.0 million euros allocated to distribute as vouchers to companies, with a maximum amount of 5,000 euros per company.
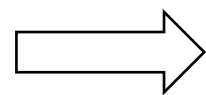
Innovation vouchers to promote interactions and spillovers in the innovation ecosystem.

Innovation diffusion

The role of universities and RTOs to meet the needs of companies in their ecosystem.

Good practice:

Primas Proof of Concept

Asturias, Spain

Interreg Europe project

S3Chem
Interreg Europe

Primas Proof of Concept is a public-private initiative to support research groups in developing proof of concepts in Asturias, Spain.
Proof of concepts correspond to the Technology Readiness Level (TRL) 3, where first laboratory testing is conducted and require close collaboration between research and industry.

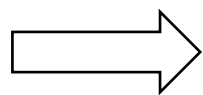The programme fosters multi-actor collaboration with the objective to find research solutions to regional industrial R&D challenges.

Each edition of the programme is co-financed by IDEPA (50%) and a large private company (50%) to support proof of concepts in specific RIS3 priorities.

Limiting the asymmetry of motives between universities and industry is essential for effective collaboration.

Innovation diffusion

The role of innovation agencies and other public bodies in facilitating knowledge flows, and how they are coordinated.

Good practice:

Challenge-driven competitions

Sofia, Bulgaria

Interreg Europe project

InnoBridge
Interreg Europe

The city of Sofia is experimenting with challenge-driven hackathons as mini missions to solve pressing local societal challenges.

The Sofia Development Association was created by the Municipality of Sofia, Bulgaria, to promote quadruple helix engagement and to pilot and test innovative solutions. The Association has organised more than **20 hackathons to solve place-based urban challenges**.

Hackathons are short-term competitions where teams compete to develop minimum viable products (MVP) before presenting them to a jury. The winners receive a prize money to further develop their MVP and prototypes.

The Sofia Development Association is involved to frame the challenges, to find funding for the prize money thanks to co-sponsorship, to assist prototype development, and to support further public procurement or commercialisation.

⇒ **Using challenge-driven policies to rally the innovation ecosystem around concrete societal challenges.**

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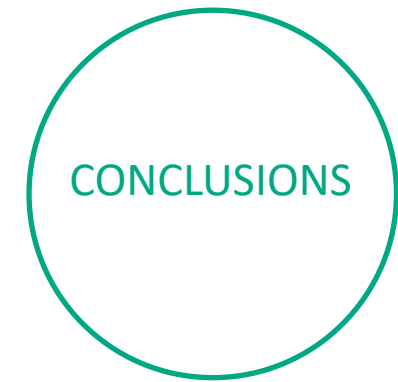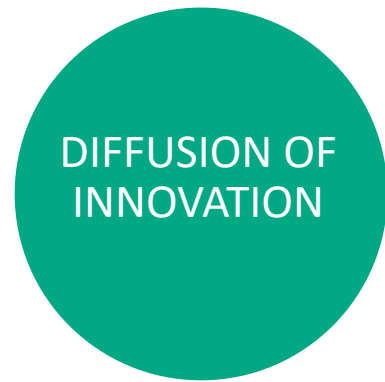
23 May 2024

Diffusion of innovation and S3

Ana Fernández Zubieta

(UCM-ICEI)

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S3 CoP Webinar
23 May 2024

Diffusion of innovation and S3

DIFFUSION OF INNOVATION

POLICY DIFFUSION

S3

CONCLUSIONS

Diffusion research vs. Innovation studies

Innovation studies (SPIS) focuses on the study of innovation, including R&D using theoretical and analytical frameworks from different disciplines and research fields, including diffusion research (Everet Rogers [1962], 2003) *Diffusion of Innovations*

(Fagerber and Verspage, 2009; Martin, 2012; Fagerber, Fosaas and Sapprasert, 2012; Martin, Nightingale and Yegros-Yegros, 2012)

→ Diffusion research main contribution to SPIS: from knowledge and technology basis of innovation to the factors the influence the spread of innovations across individuals, groups and organizations

    → S-shaped curve of rate of adoption over time

    → Standardisation of the categorization of adopters (innovators, early adopters, early majority, late majority and laggards)

Diffusion research vs. Innovation studies

- Different conceptualisation of innovation

Sociological approach to innovation
(Diffusion research)

- Social perception
- Critical mass
- Interpersonal communication
- Norms, values and social structures

Economic approach to innovation
(Innovation Studies)

- Market
- Changes in the production structures

(Rogers, 1983: 11)

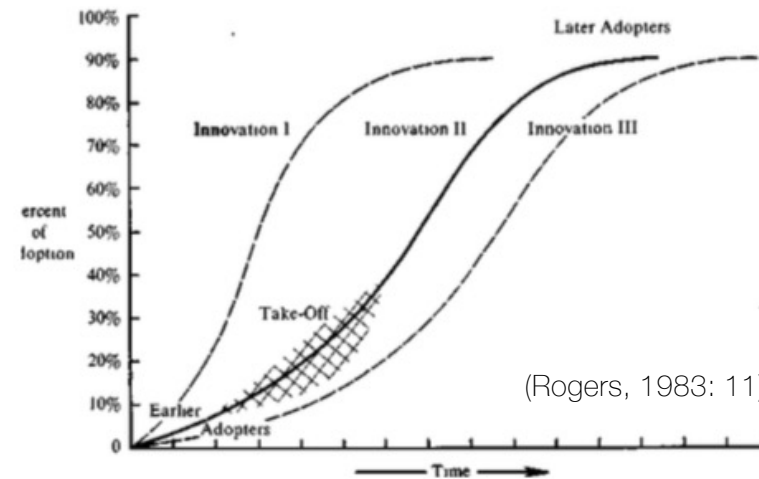**Figure 1-1.** Diffusion is the process by which (1) an *innovation* (2) is com-municated through certain *channels* (3) over *time* (4) among the members of a *social system*.

Importance of considering social perception of innovation for identifying opportunities for innovation in less developed regions

Diffusion of innovation and S3

DIFFUSION OF INNOVATION

POLICY DIFFUSION

S3

CONCLUSIONS

Policy diffusion

- **Diffusion research** has been also applied to the study of the spread of policies (less attention in SPIS)

  → UNDERSTANDIG INNOVATION WITHIN THE POLICY PROCESS combining insights from social and policy-related conceptualization of innovation through diffusion research

  → S3- Importance of considering different mechanism of policy diffusion (Graham, Shipan and Volden, 2013):

  - Competition
  - Coercion
  - Learning
  - Socialisation

  → Dynamics of power; importance of having open decision-making communities; considering non-elite policy actors (Dolowitz and Marsh, 1996;McCann, 2011; Baker, McCann and Tenemos, 2020)

Diffusion of innovation and S3

DIFFUSION OF INNOVATION

POLICY DIFFUSION

S3

CONCLUSIONS

SMART SPECIALISATION STRATEGIES (s3)

- S3 process has spread across Europe with more than 180 strategies being design (EC, 2021:65) and beyond

- Gained importance, being central in enabling condition 1 "Good Governance of national or regional smart specialisation strategy" EC programming period 2021-2027

→ Change of disburse payment from ex ante conditionality to result-based financing. Monitoring process more important or bureaucratic?

SMART SPECIALISATION STRATEGIES (s3)

- **S3 theoretical and practical challenges**
(e.g. Balland et al., 2019; Foray, 2015, 2019; Radosevic et al., 2017; Foray, Morgan and Radosevic, 2018; Hassink and Gong, 2019)

Three main interrelated areas of studies and questions:

  o Economics of innovation that focus on how S3 and R&I investments (knowledge and innovation) could help to boost economic growth at regional level; → from sectoral (generic) to regional (place-based)

  o Innovation policy studies that focus on how to integrate S3 with other policies and instruments → Mix of policy dimensions (e.g. policy domains and levels)

  o Case studies on smart specialisation that focus on how S3 and their main elements have been implemented (prioritisation, EDP and monitoring and evaluation system)

- The implementation of S3 has been challenging, especially for less developed regions
(EC, 2017; 2021; Kroll, 2015; Guzzo, Gianelle and Marinelli, 2018; Foray, Morgan and Radosevic, 2017)

SMART SPECIALISATION STRATEGIES (s3)

- Insights for S3
  - Complementarities between different conceptualisation of innovation
  - Diffusion of successful initiatives – how to improve both institutional quality and policy coordination mechanism → (e.g. Targeted actions; cost and benefits of early adopting regions; adaptation to different context; mobilisation of reformers; exploration of channels of communication)
  - Multiple mechanism of policy diffusion and S3 process to guarantee long-term changes
  - Lagging regions should pay special attention to:
    - the emulation of more developed regions
    - the diversity of stakeholders and across policy dimension for building trust in the EDP
    - the role of non-elite actors in the EDP to facilitate social innovation

Diffusion of innovation and S3

DIFFUSION OF INNOVATION

POLICY DIFFUSION

S3

CONCLUSION

conclusions

- Technological virtues/vices do not explain the success/failure of innovation → diffusion of innovation complex social process (norms, values and social structure) → different conceptualisation of innovations

- Policy diffusion and its mechanisms are important: competition (market), coercion (power), but specially, learning and socialisation (building trust) is important for long term changes

- Perception of innovation and innovation policies; different sources of uncertainty (technological, social and policy-related); mechanisms and institutions required to deal with complexity and change; distribution of benefits of innovation.

- ¡GRACIAS!
- a.fernandez.zubieta@ucm.es

Innovation diffusion in less innovative regions

Findings from ACCELERO project

Carolina Turcato

EurA ®

ACCELERO

Accelerating Local Innovation Ecosystems in Europe

2y EU funded project
European Innovation Ecosystems WP

ACCELERO aims at contributing to reverse the unbalanced business activity in Europe by increasing the attractiveness of (less advanced) ecosystems: making 'modest' and 'moderate' innovation ecosystems more attractive to local SMEs that will benefit from a strong local support and avoid relocation to mainstream EU hubs as well to international companies interested in setting up their businesses outside the established and well-known centres.

ACCELERO in a nutshell

Objectives

O1. To support emerging/moderate innovator intermediaries to <u>improve the quality of business acceleration services</u> by providing top services and <u>co-creating specific services based on local needs</u> and pilot-testing them.

O2. To create a <u>"pan-European" Network/online platform of business support organisations (BSOs)</u> ensuring connectedness to innovation leaders' best practices, scaling-up and networking, ensuring a sustainable asset after the project completion.

Quadruple helix involvement

Each selected hub to act as local/regional innovation orchestrator by (a) being responsible to represent local stakeholders in project's discussions and (b) to integrate local actors to projects events / webinar to foster local engagement.

Timeline

Discovery

1. Selection of 10 LEBs Local Ecosystem Builders from emerging and moderate innovation regions (7/3)
2. Selection of 5 EU Hubs from leader and strong innovation regions
3. Needs analysis on innovation support activivities

Definition

Direct service delivery to BSOs based on mapped needs / training sessions

Development

Co-creation of a specific business support servic
•Goal: to create a service tailored to each BSOs needs and context to be pilot-tested

Delivery

1. Pilot test services
2. Two Workshops to involve quadruple helix
3. EU BIC Certification

Selected hubs

Hub	Country	European Innovation Scoreboard Regional Classification
Poznan Science and Technology Park	Poland	Emerging
Fundecyt-PCTEX	Spain	Emerging
Izmir Technology Development Zone	Turkey	Emerging
fonduri-structurale-ro	Romania	Emerging
Kielce Technology Park	Poland	Emerging
Youth Entrepreneurial Service Foundation (YES)	North Macedonia	Emerging
E-business incubator Go-Up	Bulgaria	Emerging
Creació - Agencia d'Empreendedoria, Innovaccio i conexeiment S.L.	Spain	Moderate
Entrepreneurial Center of Krapina-Zagorje County Ltd.	Croacia	Moderate

Way forward

Two services were co-created and pilot-tested in different regions (pilot-test ongoing):

Collaboration with academic staff and industry to create project that satisfy industry needs

Business Model Validation service. (will allow the startup to receive feedback on their business model in very different markets (Spain, Romania, Poland, North Macedonia)

Barriers and challenges to innovation diffusion in less innovative regions (business level)

Lack of collaboration with large corporations, industries, and companies, which further limits their budget and operational capacity

Need of better local level ecosystems coordination to support startups and retain them locally

It can be challenging for BSOs to expand beyond their own ecosystem, whether by seeking collaboration from other markets or helping local startups/SMEs go global. One reason for this is a lack of contacts and networking with international markets, which can limit a company's global reach.

In the regions with a limited number of innovative companies, startups find it difficult to attract external funds, as most sources of funds/programmes target more innovative companies.

Fostering innovation and innovation diffusion in less innovative regions

1

Mostly low-tech SMEs are found in less innovative regions

Innovation diffusion work is needed top-down through education and sensitization, strong role of universities, exchange of best practices, interregional collaboration

2

Attraction of private investment – the path to creating a more robust regional innovation ecosystem

2.1.Regions with big companies installed -> creating real mechanisms and means to foster cooperation (also within S3 stakeholders dialogues)

2.2.Attraction of more innovative companies

2.3.Business support services: intermediary organisations to strengthen cooperation to ensure a comprehensive offer is in place to attend real needs (different TRL/BRL) and to foster attraction of private investment. Intermediaries to act as drivers of change and promote innovation diffusion.

Thank you!

Carolina Turcato
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Q&A from audience with the panel

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Audience interaction: What are the key challenges to be addressed and moving forward?

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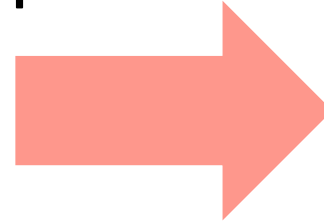S3 COMMUNITY OF PRACTICE

Final remarks

Next steps

- WG meetings in June and December 2024
- New webinar May 2025

- Action-learning approach to gather practical knowledge and articulate some of the recommendations included in the policy brief.

- Selected regions:
  - ✓ South Moravia (CZ)
  - ✓ Croatia
  - ✓ Puglia (IT)

S3 Community of Practice presents

S3 CONFERENCE
#S3Conference

11 & 12 December 2024
Rimini, Emilia-Romagna

SAVE THE DATE!

European Commission | COESIONE ITALIA 21-27 EMILIA-ROMAGNA | Regione Emilia-Romagna | Comune di Rimini

#S3CoP

Thank you !

How to get in touch?

Website

https://ec.europa.eu/regional_policy/policy/communities-and-networks/s3-community-of-practice_en

Twitter

@S3Cop_EU

https://twitter.com/S3Cop_EU

Frequently asked questions

For questions and inquiries, please consult the S3 CoP website and regularly updated FAQ

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