

# S3 Expert Group

Brussels, 17 February 2023



# Agenda for today

<b>8:30-9:00</b>	<b>Arrival and coffee</b>	
<b>9:00</b>	Introduction tour de Table	All
<b>9:10</b>	Welcome address	European Commission, DG REGIO
<b>9:20</b>	Introduction of the S3 Community of Practice	European Commission, DG REGIO, G1 Unit S3 CoP Consortium
<b>9:40</b>	Presentation of the S3 Expert Group, including designation of Chair.	Lena Tsipouri, Task 5.3. Leader
<b>10:10</b>	Coffee Break	
<b>First round table: How to boost S3 implementation by diversifying the policy toolbox?</b>		
<b>10:20</b>	Presentation of the background note "The limited scope and use of policy instruments in S3". Objective: Discuss the paper, formulate lessons learned for S3 implementation in Less developed and Transition regions in new context	Dominique Foray (20')  Moderation by the Chairperson & All experts (60')
<b>11:40</b>	Coffee break	
<b>11:50</b>	The New Innovation Agenda from the S3 perspective Objective: Discuss the role of S3 in the new innovation context and the potential role of deeptech to address the innovation divide	DG REGIO (10') Moderation by the Chairperson & Lena Tsipouri (20')
<b>12:30</b>	Lunch break	
<b>Second round table: Brainstorming on S3 key topics to be addressed by the Expert Group</b>		
<b>13:15</b>	The S3 under the new programming period 2021-2027 Objective: Present the implications of the new programming period for the S3 implementation in terms of priorities and fundings	DG REGIO (30')
<b>13.45</b>	Brainstorming on topics to be addressed to boost S3 implementation, with a focus on Less Developed and Transition regions (Part I)	Moderation by Chairperson & Lena Tsipouri
<b>14.45</b>	Coffee break	
<b>15.00</b>	Brainstorming on topics to be addressed to boost S3 implementation, with a focus on Less Developed and Transition regions (Part II)	Moderation by the Chairperson & Lena Tsipouri
<b>15:45</b>	Wrap Up and AoB	Lena Tsipouri, Task 5.3. Leader
<b>16:00</b>	Closure of the meeting	

# S3 Community of Practice

S3 High Level Expert Group meeting

17.02.2023

Elisabetta Marinelli / Maialen Perez / Agis Evrigenis



# S3 Community of Practice

Flagship initiative of DG Regio:  
**strategic services to S3 practitioners:**

Assessing  
needs and co-  
design solutions

Analytical  
approach to  
policy dialogue

Hands-on  
support to  
regions



# Key components

Creating and mobilising a community of practitioners



Addressing key challenges for S3 implementation



Offering targeted support to regions, smart specialisation platforms and partnerships

# Services



Policy advice

S3 Expert Group

Working Groups

Support

Thematic Platform and Partnerships

Targeted support to regions

Community engagement

S3 Events

S3 CoP Website

# S3 Expert Group

## What is the Expert Group?

A group of leading academic and practitioners in the fields of S3, aiming at:

- advancing the conceptual development of Smart Specialisation
- drawing operational lessons from a policy perspective
- informing the policy design and implementation of the S3

## How does the Group operate?

- Bi-annual meetings
- Expert group assignments
  - Bottom-up and top-down identification of topics

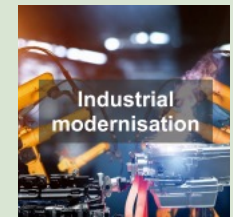
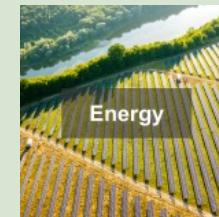
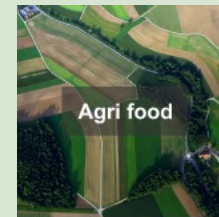
# S3 Working Groups

## What are the Working Groups?

- The working groups 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

## Topics of the Working Groups:

- Interregional collaboration
- Innovation diffusion
- Industrial modernisation



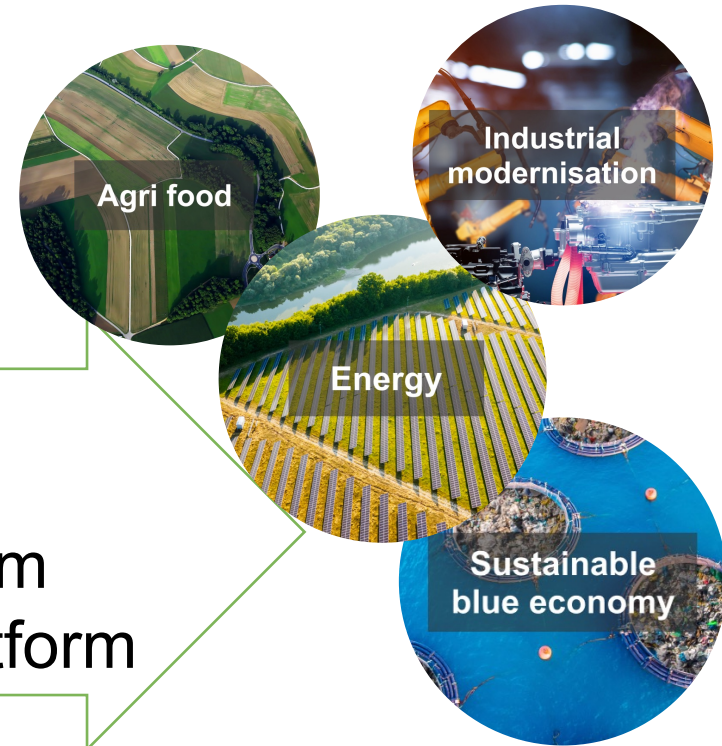
# Thematic Platforms and partnerships

## Support to S3 Thematic Platforms:

- Agri-Food Platform
- Energy Platform
- Industrial Modernisation Platform
- Sustainable Blue Economy Platform

## Support to S3 Thematic partnerships:

- Creation of new partnership
- Support to existing partnership
- Currently engaged in scoping exercise to define services



# Targeted support assignments



Targeted-support services offered to regions and/or Member States in response to specific request

The secretariat together with DG REGIO co-designs the assignment based on local needs

Tentative examples of service:

Support to  
Entrepreneurial  
Discovery Process

Participatory policy  
analysis

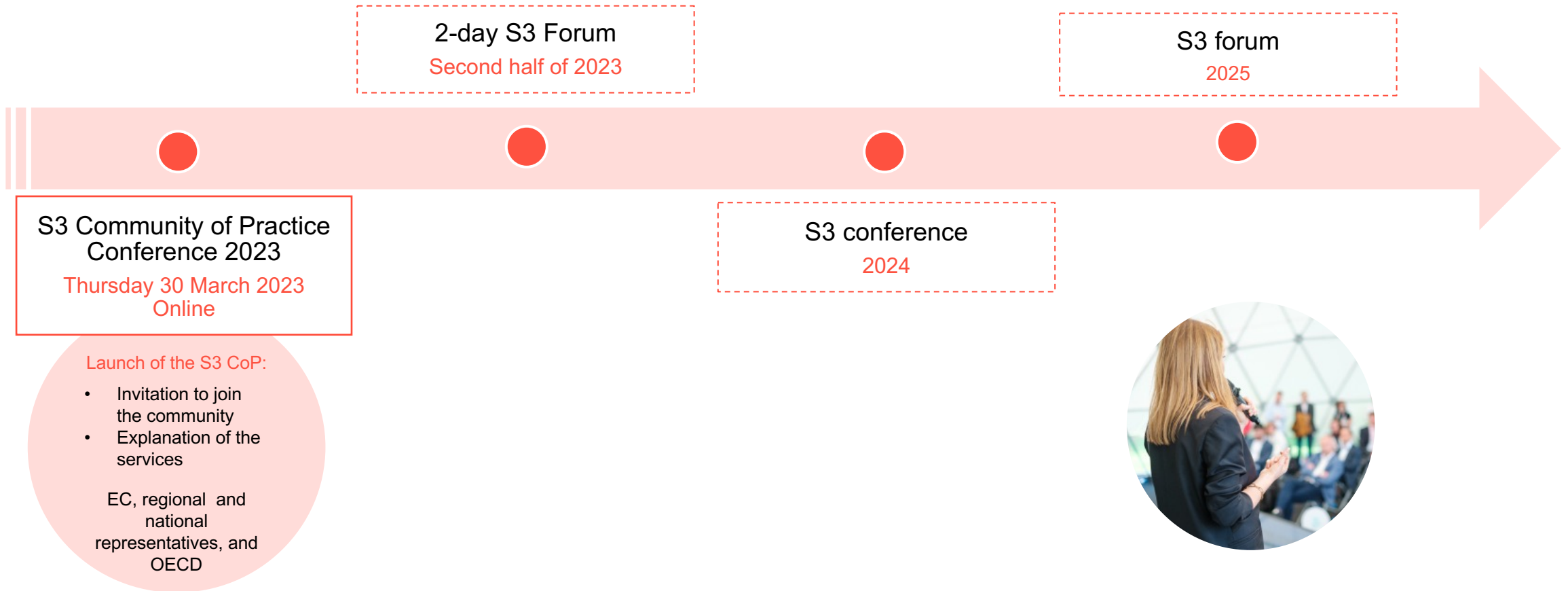
Foresight scenario  
development in a  
particular value chain

Support to the  
integration of clusters in  
Smart Specialisation

Etc.



# S3 CoP - Events





# S3 CoP Website (Coming soon!)

The screenshot shows the top section of the S3 Community of Practice website. At the top left is the European Commission logo. To its right is a language selector set to 'English' and a 'Translate' button. Further right is a search bar with the placeholder text 'Search the InfoRegio website' and a 'Search' button. Below this is a navigation bar with the text 'EU regional and urban development' and a menu with items: 'Home', 'Policy', '2021-2027', 'Funding', 'What's new', 'In your country', 'Projects', and 'Information sources'. Below the navigation bar is a breadcrumb trail: 'S3 Community of Practice > Home'. The main content area features a large aerial photograph of a solar farm next to a river, with a circular inset showing a closer view of the solar panels. Below the image are four icons in a row, each with a corresponding text label: 1. A puzzle piece icon labeled 'S3 Concepts and implementation'. 2. An icon of two hands holding a globe labeled 'Thematic platforms and partnerships'. 3. An icon of three people labeled 'CoP services'. 4. An icon of a document with a cursor labeled 'Resources'.



# An integrated approach to knowledge management

## Input



## Process

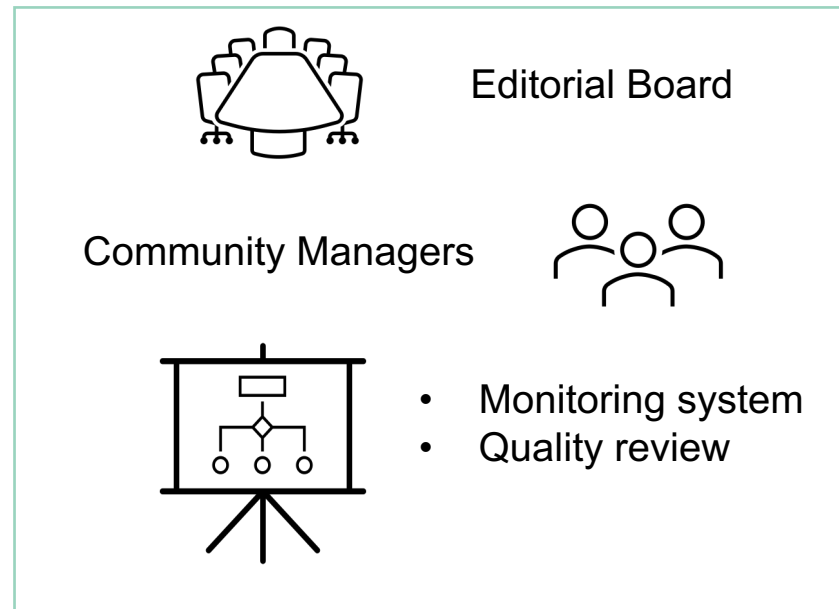


## Output

### Creation of knowledge

- Working groups
- Analysis/Experts
- Targeted support
- Thematic Platform

### Review, translation and monitoring



### Knowledge capitalization, dissemination and communication

- New developments feeding back to S3CoP activities
- Website
- Social media
- Events



# The knowledge management system and the expert group



Input

Expert group (among others)



Process

Reflection, policy briefs, targeted support, etc.



Output

The value added



# Artificial intelligence & the expert group



Option 1



Option 2



Option 3

# How to get in touch?

## Website

- [https://ec.europa.eu/regional\\_policy/S3-cop](https://ec.europa.eu/regional_policy/S3-cop)  
(Operational in March)

## S3 CoP Secretariat helpdesk

- The S3 CoP Secretariat can be reached for all other inquiries via email: [contact@s3-cop.eu](mailto:contact@s3-cop.eu)

## Twitter

- @S3Cop\_EU
- [https://twitter.com/S3Cop\\_EU](https://twitter.com/S3Cop_EU)

# Presentation of the S3 Expert Group



# The Expert Group

NAME	SURNAME	COUNTRY	OCCUPATION
<b>Alexandre</b>	Almeida	Portugal	National Innovation Agency Portugal
<b>Tatiana</b>	Fernandez	Spain	Generalitat de Catalunya
<b>Dominique</b>	Foray	Switzerland/France	École Polytechnique Fédérale de Lausanne
<b>Simona</b>	Iammarino	Italy/UK	Department of Economics and Business, University of Cagliari
<b>Tarmo</b>	Kalvet	Estonia	Tallinn University of Technology, TalTech; Institute of Baltic Studies
<b>Agnieszka</b>	Olechnicka	Poland	Centre for European Regional and Local Studies University of Warsaw
<b>Ruslan</b>	Stefanov	Bulgaria	Economic Program at Center for the Study of Democracy
<b>Ron</b>	Boschma	Netherlands	Department of Human Geography and Planning, Utrecht University
<b>Kristiina</b>	Jokelainen	Finland	Founder at SmartNorth Ltd
<b>Karolina</b>	Lipinska	Poland	Office of the Marshal of the Pomorskie Region in Poland.
<b>Antonio</b>	Novo Guerrero	Spain	President of the European Cluster Alliance

# The Team of the Contractor

- **Agis Evrigenis, Overall Project Leader**
- **Matthieu Lacave, WP 5 Leader**
- **Lena Tsipouri, WP 5.3 Leader**
- **Jeanne Prades WP 5 Alternate Leader**
- **Maialen Perez, Overall Project Coordination**
- **Elisabetta Martinelli, Knowledge Manager**

# The organisation

## Three Work Packages

- **WP1: Establishment and management of a S3 analytical expert database**
- **WP2: Delivery of ad hoc assignments**
- **WP3: Coordination, animation of Expert Group meetings and knowledge dissemination**



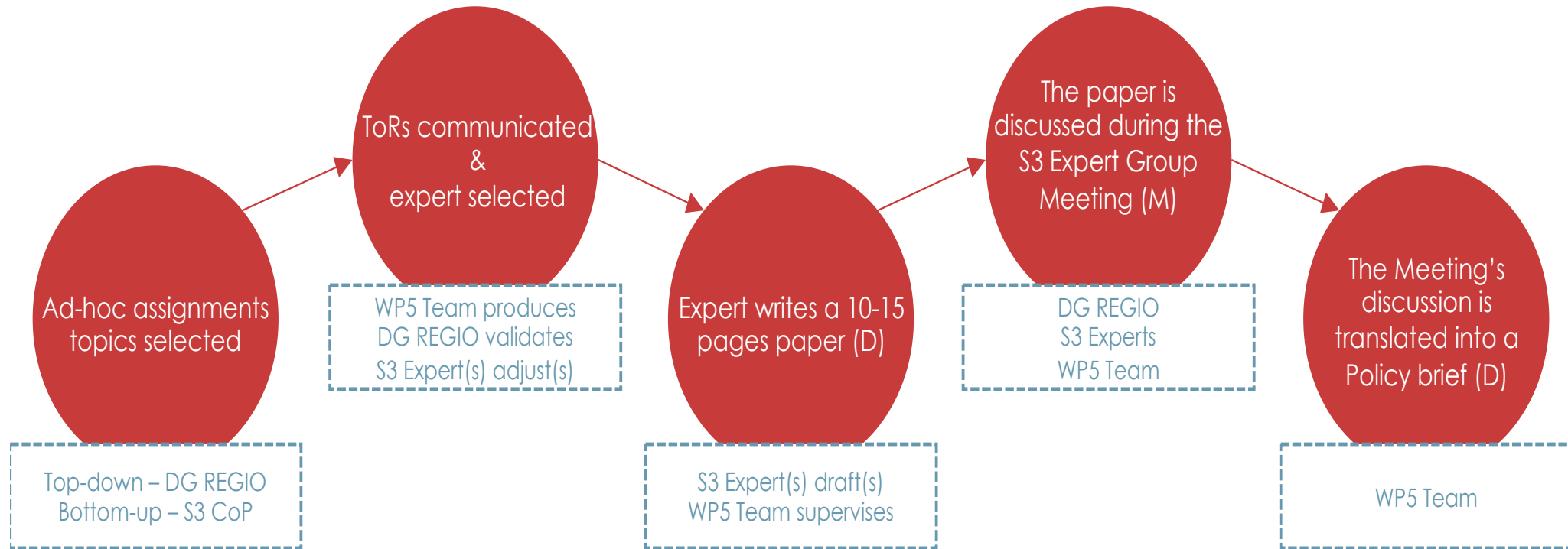
# Our tasks

- **Take stock from existing academic research, policy practices and ad-hoc analytical works on the S3 concept to up-date.**
- **Identify relevant key issues and appropriate tools, draw operational lessons from a policy perspective and inform the policy design and implementation of S3.**
- **Six to eight ad hoc analytical assignments on the concept of S3 (2 to 3 requests per year).**
- **Produce policy briefs reflecting the assignments and the debates of the group.**

# Our organisation/practicalities

- **Set-up and animation of 6 meetings of the S3 Expert Group to ponder, debate, and draw policy and operational conclusions from analytical works.**
- **The S3 Expert Group work will inform DG REGIO, the S3 Working Groups (WP4), the support facility provided for regions (WP6), as well as broadly to the S3CoP stakeholders (WP2 and WP3).**
- **Travel refunds and fees will follow each meeting.**

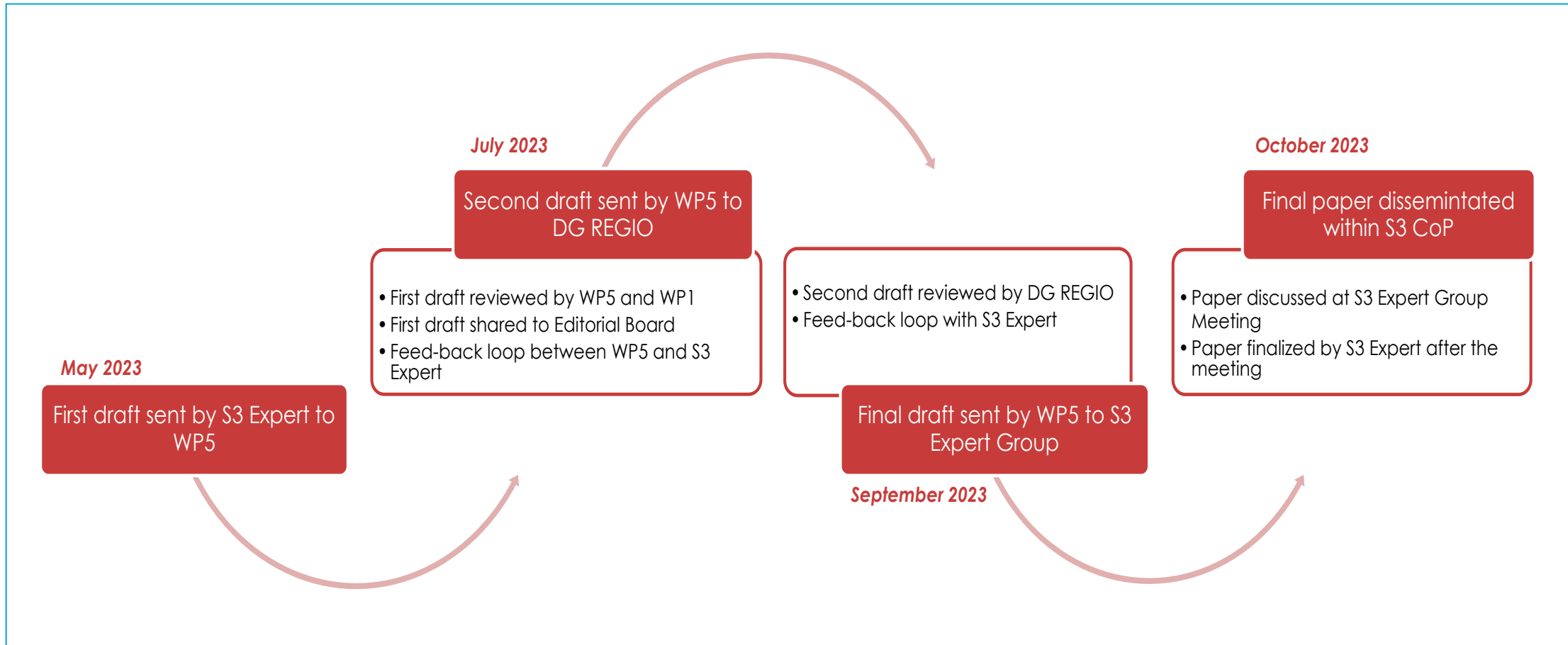
# The trajectory of each assignment



# The trajectory of each assignment

- Identification of topic(s)
- Agreement on who will be undertaking the specific assignment.
- If none or need for complementary expertise, the WP5 Team will circulate a short expression of interests among the other experts and academics included in the S3 CoP database
- Each assignment will result in a 10-20 pager paper (Introduction, Analysis, Conclusion with good practices and lessons learned)
- Two step quality review
- The final paper will be disseminated within the S3 CoP (website) after approval of DG REGIO

# First year timetable



# Indicative timeline until the end of the project

S3 Expert Group	oct-24	nov-24	Janu-23	Feb-23	March-23	Apr-23	May-23	June-23	July-23	Aug-23	sept-23	oct-23	nov-23	Dec-23	Janu-23	Feb-24	mars-24	Apr-24	May-24	June-24	July-24	Aug-24	sept-24	oct-24	nov-24	Dec-24	Janu-25	Feb-25	March-25	Apr-25	May-25	June-25	July-25	Aug-25	sept-25				
<b>WP 5.2. Delivery of ad-hoc analytical assignments</b>																																							
6 - 8 Papers of 10-20 pages each				A							A				A														A								A		
<b>WP 5.3. S3 Expert Group meetings</b>																																							
6 Expert Group Meetings and proceedings				M							M					M																						M	
6 Policy briefs of 5-6 pages each						P						P					P																					P	

- A** Ad-hoc analytical assignment
- M** S3 Expert Group Meeting
- P** Policy brief

# S3 Community of Practice High Level Expert Group

Brussels, 17 February 2023



# Coffee break

# First round table: How to boost S3 implementation by diversifying the policy toolbox?





# Presentation of the background note “The limited scope and use of policy instruments in S3”.



# 1<sup>st</sup> S3 Expert Group Meeting

**The limited scope and use of policy instruments in**

**Dominique Foray (EPFL)**

**Prepared for the S3 CoP Expert Group Meeting**

**European Commission – DG REGIO**

**Brussels, 17 February 2023**



# Narrative

- **After almost 10 years of practices: while the rationale is intact and the general principles (prioritization and EDP) remain in place. The S3 design and implementation concept offers a more obvious process – which has been cleaned out of unnecessary complications – and that regions find easier to implement with greater effectiveness**
- **The first period of implementation was a period of massive experimentation and learning**
- **It allowed to better understand what kind of policy design can be effective to generate structural transitions and strategic initiatives**
  - **Combining planning (prioritization) and entrepreneurial discovery**
- **It allowed also to highlight the problem of an insufficient exploitation of the rich innovation policy toolbox by most of S3 policy makers and stakeholders**

# Multiple determinants, multiple instruments

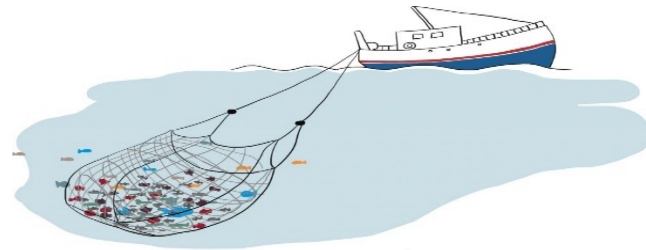
- **S3 is not another Horizon Europe - it is a general approach to the problem of structural transformation and transition of regional economy – it address more specifically vertical (vs horizontal) transformations**
  - e.g. the establishment of a circular economy in the food industry.
- **A vertical transformation has multiple determinants (not only research & innovation) and requires interventions in various policy areas (human capital, R&D, technology, infrastructure, etc..)**
- **EDP: strategic interactions between stakeholders and policy makers in order to:**
  - **elicit information about the specific problems, gaps, opportunities** to be addressed to achieve a vertical transformation and,
  - **define the policy interventions in responses**
- **Tinbergen theorem: as there are a number of policy goals and an array of specific concerns, one will need to have as many separate policy instruments as there are problems to be solved and opportunities to be realized**

# Limited use and poor design of instruments - 1

- **Many cases of EDP where the process led to significant contributions of stakeholders in terms of identification of problems and gaps to be addressed, but at some points the process got stuck because of lack of knowledge about the adequate policy responses**
- **Evidence on the poor exploitation of the diversity of the toolbox**
- **The toolbox is reduced to calls for proposals and the calls are poorly designed**

# Limited use and poor design of instruments - 2

- **Most calls are typically very broad**
  - In many cases, the calls are addressing all priority areas together (Prognos & CSIL)
- **But broad call cannot deliver directionality**
  - The analogy with trawling : one casts a huge fishing net in the deep see – and let's see what will come up!

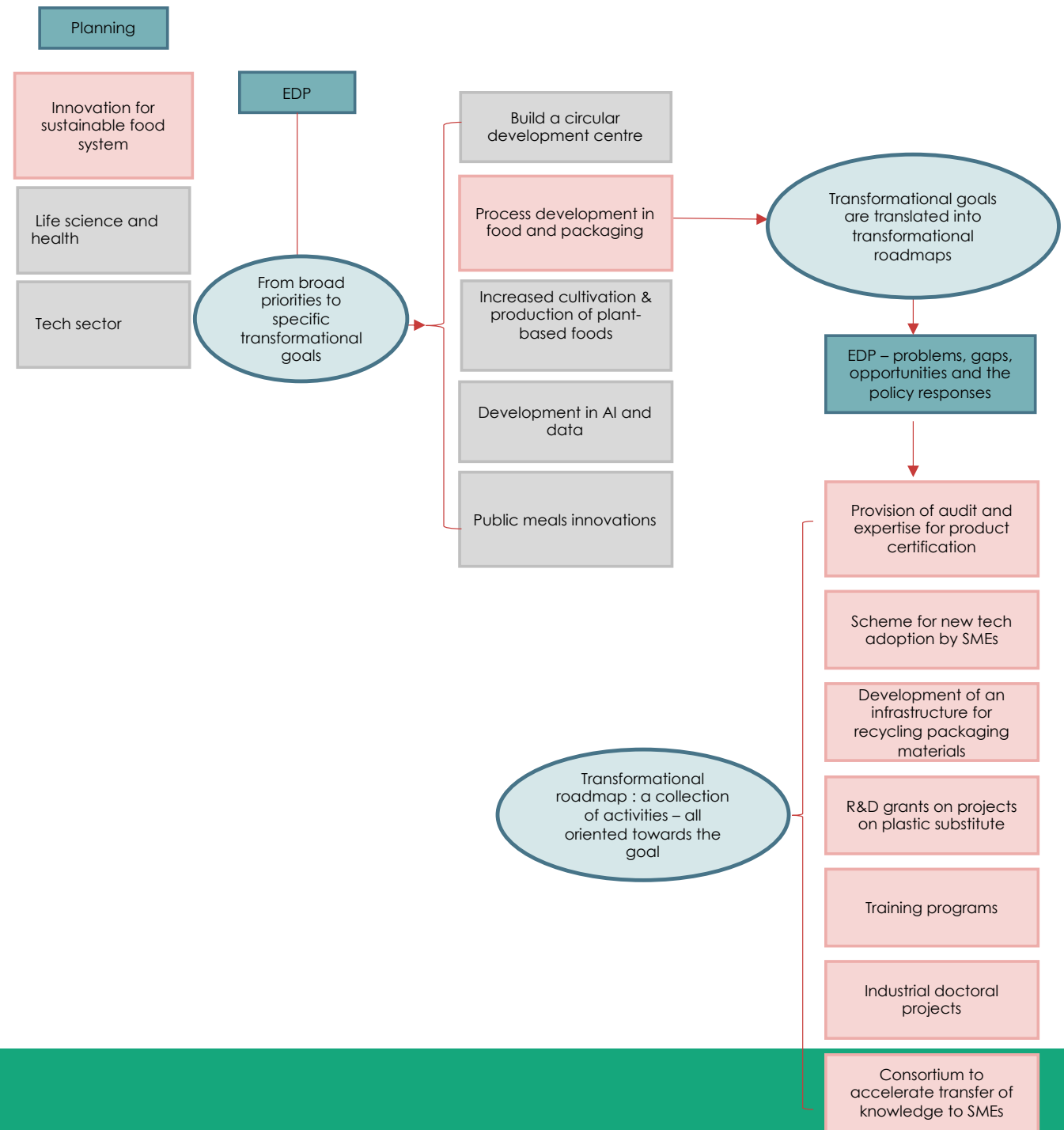


- **Broad call cannot allow the EDP to drive the desired transformation by addressing specific issues and involving particular classes of agents**
- **A coordination problem between policy makers, ERDF officers and industry/research partners – all incentives aligned towards broad call**
- **Moving to more specific calls involves a series of trade-offs**

# Exploring the innovation policy toolbox

- **Push logic – addresses the cost of innovation activities**
  - Direct provision of research through government labs, directed grants to R&D, R&D tax credits; subsidies to ToT or to technology adoption
- **Pull logic – addresses the reward for a successful activity**
  - Patent protection, ex ante prizes and AMC, public procurement for innovation
- **Coordination logic – addresses potential coordination failures which can be massive in case of systemic transformation**
  - ARPA mechanism, cluster and network policy
- **Institutional design logic – proposes new institutional design for complex innovation problem**
  - e.g. – consortium to support partnerships between universities and SMEs; support of entrepreneurship through multiple actions

# A case of good practices in terms of EDP and innovation policy toolbox





# Another toolbox: financial instruments

## Financial instruments vs grants

Grants address the funding problem of projects which are taken as given (the risk-return profile remains the same)

Financial instruments address the funding problem by changing the risk-return profile of the project

		Financial return	
		Yes	No
Risk	Diversifiable	<b>Funding problem:</b> Lottery <b>Example of FE solution:</b> Megafund	<b>Funding problem:</b> Societal with diversifiable risk <b>Example of FE solution:</b> ETF
	Non diversifiable	<b>Funding problem:</b> Strategic complementarities <b>Example of FE solution:</b> PPP	<b>Funding problem:</b> Societal with non-diversifiable risk <b>Example of FE solution:</b> Impact bond

# Recommendations

- **Improving capacities and capabilities of policy makers in the area of design and implementation of innovation policy- and financial- instruments**
- **Improving EDP, as this is the essential process where critical interactions need to happen between stakeholders – who can identify the specific problems and gaps - and policy makers – who can propose the policy actions in response**

# Accelerating and strengthening innovation in European Innovation Ecosystems across the EU and addressing the innovation divide

Roundtable

11:50/ 12:30



# S3 Community of Practice High Level Expert Group

Brussels, 17 February 2023



# Coffee break

# The New Innovation Agenda from the S3 perspective

**Catherine Wendt,  
Head of Unit, DG REGIO**



# The New Innovation Agenda will:

- **Improve access to finance for European start-ups and scale-ups**
- **Allow innovators to experiment through regulatory sandboxes**
- **Help create “regional innovation valleys” that will strengthen and better connect innovation players through Europe, including in regions lagging behind**
- **Attract and retain talent in Europe**
- **Improve the policy framework**

# Agenda's flagship actions

- 1. Funding Scale-Ups**
- 2. Enabling innovation through experimentation spaces and public procurement**
- 3. Accelerating and strengthening innovation in European Innovation Ecosystems across the EU and addressing the innovation divide**
- 4. Fostering, attracting and retaining talents**
- 5. Improving policy making tools**

# S3 Community of Practice High Level Expert Group

Brussels, 17 February 2023



# Lunch break

12:30 – 13:30



# Brainstorming on S3 key topics to be addressed by the Expert Group



# The S3 under the new programming period 2021-2027



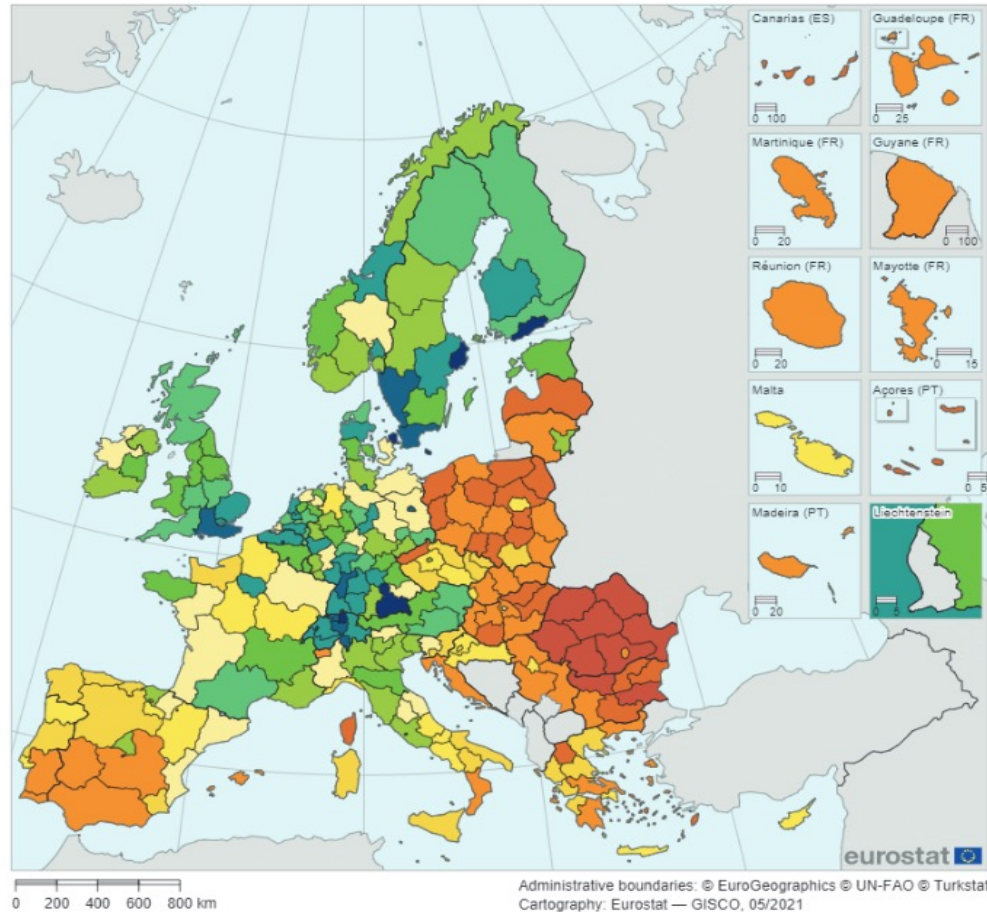
# The S3 under the new programming period 2021-2027

**S3 Expert Group Meeting  
Brussels, 17 February 2023**

**Wolfgang Munch  
Deputy Head of Unit, REGIO G1**

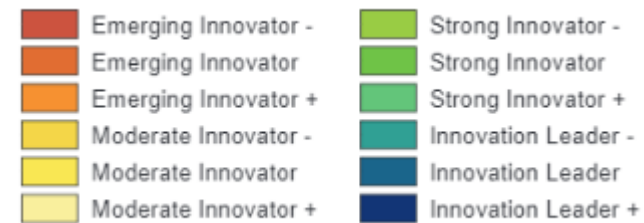


# Differences across EU regions in research & innovation capacity



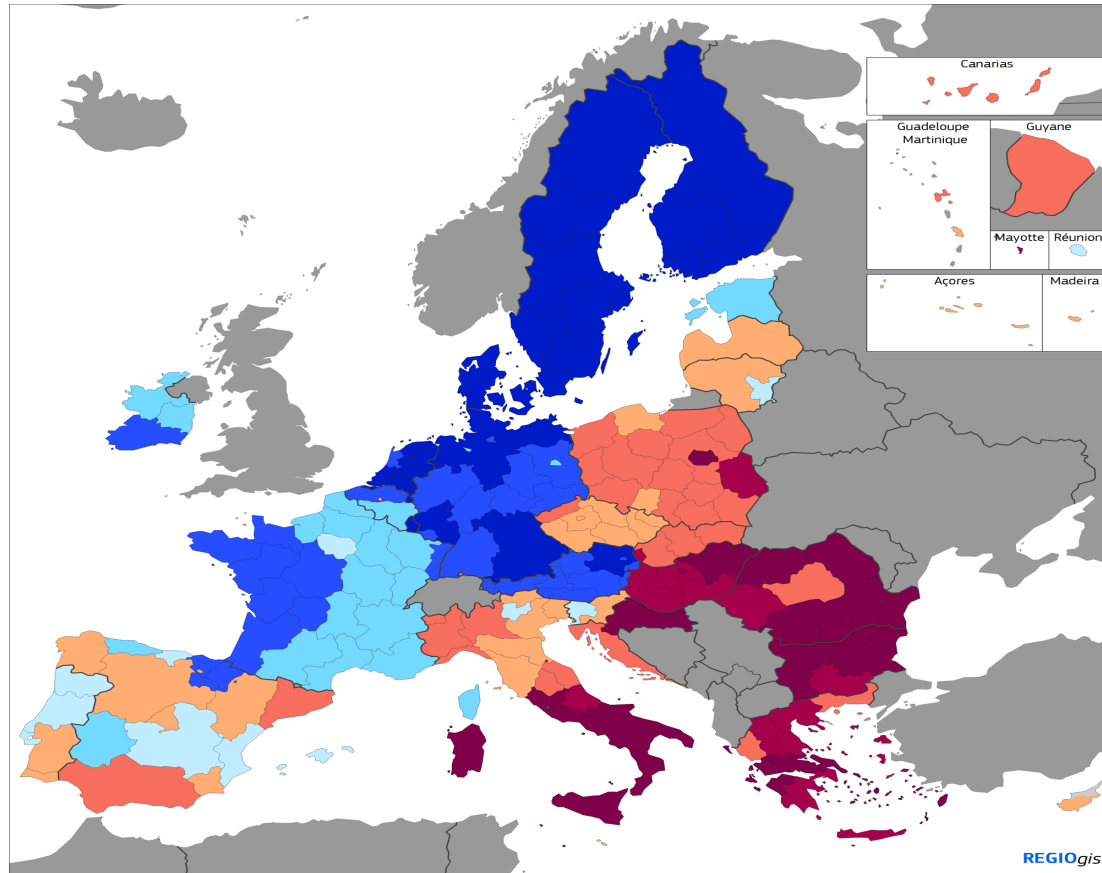
## R&I divide persists

- in EU regions across MS
- in EU regions within MS



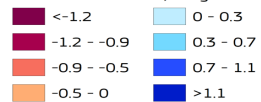
Source: Regional Innovation Scoreboard 2022

# Quality of government



## European Quality of Government index, 2021

Standard deviation, range from poor quality (negative) to high quality (positive)



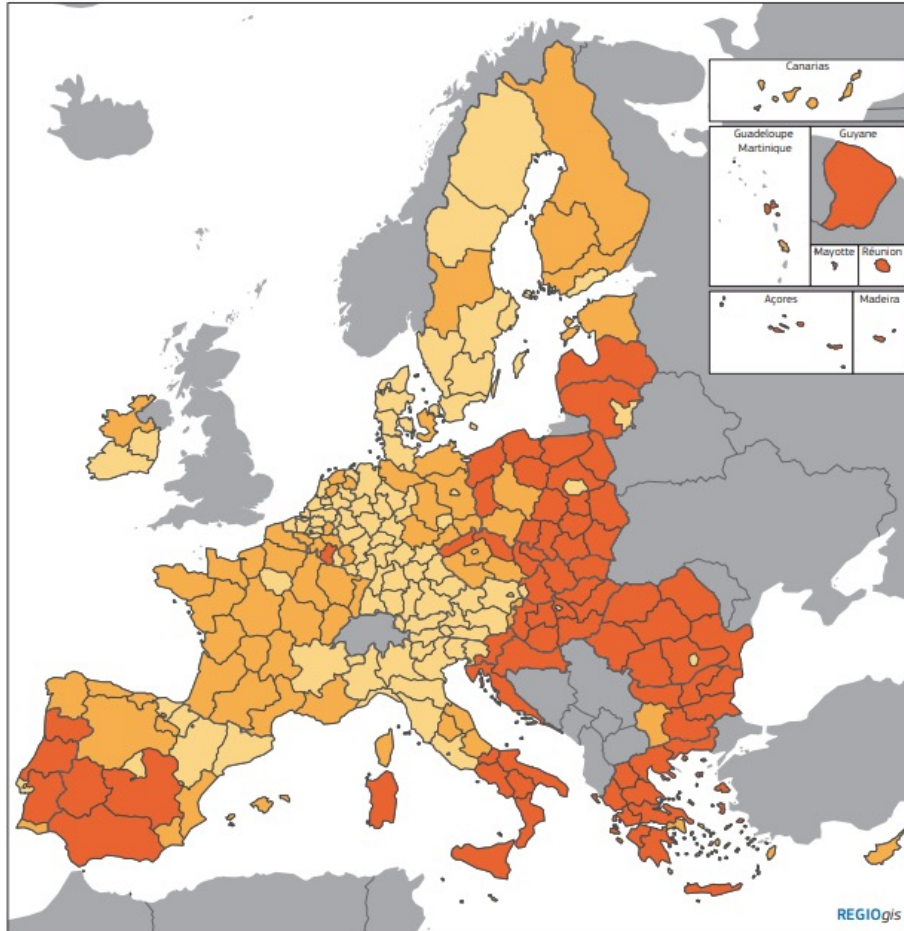
EU = 0  
Source: The Quality of Government Institute, University of Gothenburg

0 500 Km

© EuroGeographics Association for the administrative boundaries



# Cohesion policy: targetting funds where they are most needed



Category of regions for cohesion policy (ERDF and ESF+), 2021–2027

- Less developed regions (GDP per head (PPS) less than 75% of the EU-27 average)
- Transition regions (GDP per head (PPS) between 75% and 100% of the EU-27 average)
- More developed regions (GDP per head (PPS) above 100% of the EU-27 average)

# ERDF support for RD&I in 2021 - 2027

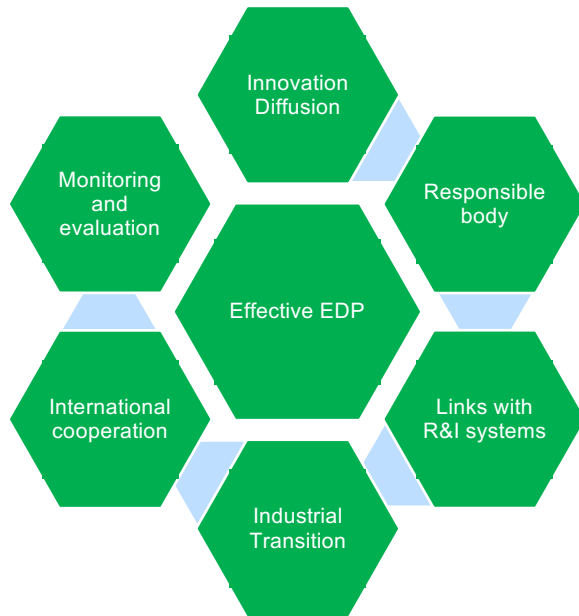
## Support to RD&I

Total	34.5 bn EUR
Less developed regions	20.4 bn EUR
Transition regions	8.5 bn EUR
More developed regions	5.4 bn EUR

▪ **Aid intensity to less developed and transition regions**

# ERDF for research and innovation: regulatory requirements

## Smart specialisation as an enabling condition



## ERDF Scope

Activities for **applied research** and innovation, including industrial research, experimental development and feasibility studies

## Specific objectives

- Developing and enhancing research and innovation capacities and the uptake of advanced technologies
- Developing skills for smart specialisation, industrial transition and entrepreneurship

**In selecting operations, the managing authority shall ensure that selected operations comply with the programme, including their consistency with the relevant strategies underlying the programme, as well as provide an effective contribution to the achievement of the specific objectives of the programme**



# Smart specialisation 2021-2027

## Focus: boost S3 implementation

- **Less developed and transition regions generally have a weak innovation ecosystem and a weak administration. How can we address the innovation gap in these regions?**
- **How can we help these regions to use the available funding for innovation?**

# Thank you !



# Brainstorming on topics to be addressed to boost S3 implementation, with a focus on Less Developed and Transition regions (Part I)



# Agnieszka Olechnicka

*In cooperation with: Artem Chumachenko,  
Kamila Lewandowska, Adam Ploszaj*

16 February 2023

## Ad-hoc study proposals

1. Feasibility study on the use of the concept of "practice-based research" for identification and implementation of smart specializations
2. Identification of research-based smart specializations in Ukraine – preparing to support smart reconstruction
3. Applying the concept of disruption index to advance the theory and practice of smart specialization



# Feasibility study on the use of the concept of "practice-based research" for identification and implementation of smart specializations

**Background:** Practice-based research (PBR) are difficult to study using typical smart specializations data (patents, publications, public statistics).

**Aim:** to identify the possibilities of using PBR to identify and implement smart specializations

**Methods:**

- ✓ systematic literature review to identify connections between PBR and smart specializations;
- ✓ identification and analysis of PBR examples;
- ✓ identification of recommendations for research and practice of implementing smart specializations.

**Practice-based research:**

- ✓ conducted through professional practice, in real-life practice settings to improve practice outcomes
- ✓ joint production of knowledge (researchers, practitioners, stakeholders)/ dual researcher-practitioner roles, blurred boundaries between universities, industries, public services, etc.
- ✓ integration of research and practice (instead of "transfer" of research evidence to practice fields)
- ✓ supporting smart specializations by **bridging the gap between academic research and practice** and integrating the regional knowledge base towards new domains of R&D and innovation.

*Examples:*

- ✓ nursing research in patient-centered clinical settings;
- ✓ self-management health innovations (researchers, healthcare professionals and entrepreneurs);
- ✓ Practice-Based Research Networks (physicians engaged in medical research);
- ✓ R&D projects at schools (testing innovative learning concepts);
- ✓ practice-based (professional) doctorates.

# Identification of research-based smart specializations in Ukraine – preparing to support smart reconstruction

**Background:** urgent task; preparation for knowledge-based processes of reconstruction and strengthening of the Ukrainian R&D sector. Knowledge of the current potential of Ukrainian science needed by various international institutions planning activities to support Ukraine, including reconstruction and support of the economy and the R&D sector.

**Aim:** to identify the research specializations of Ukraine's research and development sector

## **Methods:**

- ✓ analyze fields/keywords and perform topic modeling based on the full descriptions of the applications;
- ✓ perform institutional and spatial cross-sectional analysis;
- ✓ complementary analysis using standard bibliometric data from Web of Science, Microsoft Academic Graph, patent data from the PATSTAT database;
- ✓ estimate the impact of the war (taking into account occupied areas or the destruction of individual institutions).

**Secured access to unique data:** 1702 research proposals submitted to the National Research Foundation Of Ukraine (NRFU) through February 2022 (facilitated thanks to Artem Chumachenko, PhD, Science Studies Lab, University of Warsaw). Proposals are available in the form of a relational database and easily computer-readable text files, which show most up-to-date picture of the capabilities and research intentions of Ukrainian scientists.

# Applying the concept of disruption index to advance the theory and practice of smart specialization

**Background:** Disruption index has not been used to analyze regional research potentials, nor smart specialization.

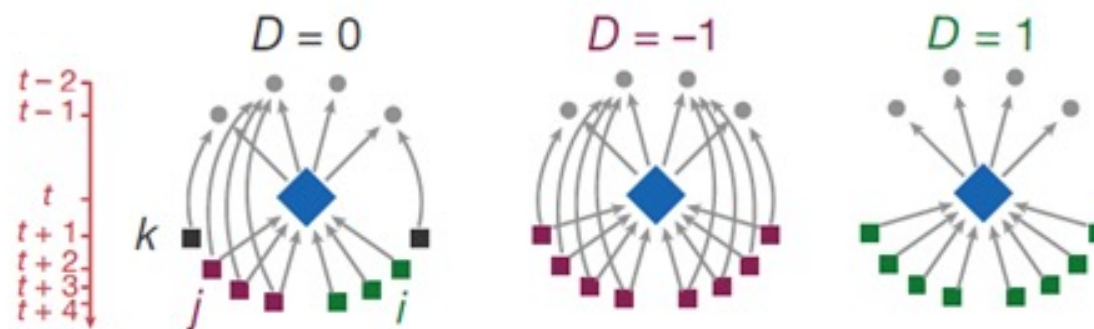
**Aim:** To demonstrate the usefulness of the disruption index concept for the implementation of smart specialization strategies.

**Methods:** Analysis of the discontinuous dimension of the disruption index in Europe, based on geolocated data on scientific publications:

- ✓ examine which topics/fields have the highest levels of the index in each region;
- ✓ Web of Science and Microsoft Academic Graph data from 1900-2022 geolocated at the NUTS2 level;
- ✓ different approaches to measuring the disruption index to see which are most relevant for measuring smart specializations

## Disruption index:

- ✓ measures to what extent a publication (or patent) makes a breakthrough contribution to a discipline, and to what extent its contribution is incremental.
- ✓ takes into account not only the number of citations received by a given paper but also to what extent the papers citing the paper of interest also cite the items that the focal paper cited.



$$\text{Disruption: } D = p_i - p_j = \frac{n_i - n_j}{n_i + n_j + n_k}$$

Wu, L., Wang, D., & Evans, J. A. (2019). Large teams develop and small teams disrupt science and technology. *Nature*, 566(7744), 378-382.

*When the papers that cite a given article also reference a substantial proportion of that article's references, then the article can be seen as consolidating its scientific domain. When the converse is true—that is, when future citations to the article do not also acknowledge the article's own intellectual forebears—the article can be seen as disrupting its domain"*

# S3 Community of Practice High Level Expert Group

Brussels, 17 February 2023



# Coffee break

14:45 – 15:00



# Brainstorming on topics to be addressed to boost S3 implementation, with a focus on Less Developed and Transition regions (Part II)



# Topic - prioritisation

- **What is going on S3 implementation today? In terms of priorities and in terms of policy instruments? And to what extent that differ across regions? Complementarities between instruments and regions? – include the financial instruments**
- **Help regions to prioritise. Incentives SMEs to participate in EDP.**
- **Roles of clusters and intermediated ecosystems in implementing the S3? How to engage large companies? – deep tech! + Start-ups**
- **Identifying main blocking factors in less developed/in transition regions in terms of governance capacities and institution capacities to operationalise S3?**
- **Improving governance to use public funding to leverage EU public funding through the S3 process to attract private investment in less developed/in transition region**
- **Education & Skills for S3 – How regions integrate into education and training policies S3 priorities? Difficulties & Barriers?**
- **Understand the role of GVCs and MNCs in S3 and their role for interregional collaboration**
- ...
- **Other topics: Include start-ups / Work with Ukraine / S3 Platforms**

# Wrap Up and AoB



# Closure of the meeting



# Thank you !

