Joint Research Centre - JRC

The European Commission's science and knowledge service

"Mapping and Alignment of S3 Priorities in the Danube Region – S3 as a Basis for Enhanced R&I Cooperation in the SEE"

Conference on Supporting Smart Specialisation Strategies and Technology Transfer in South-East Europe, Bucharest, 18 June 2019
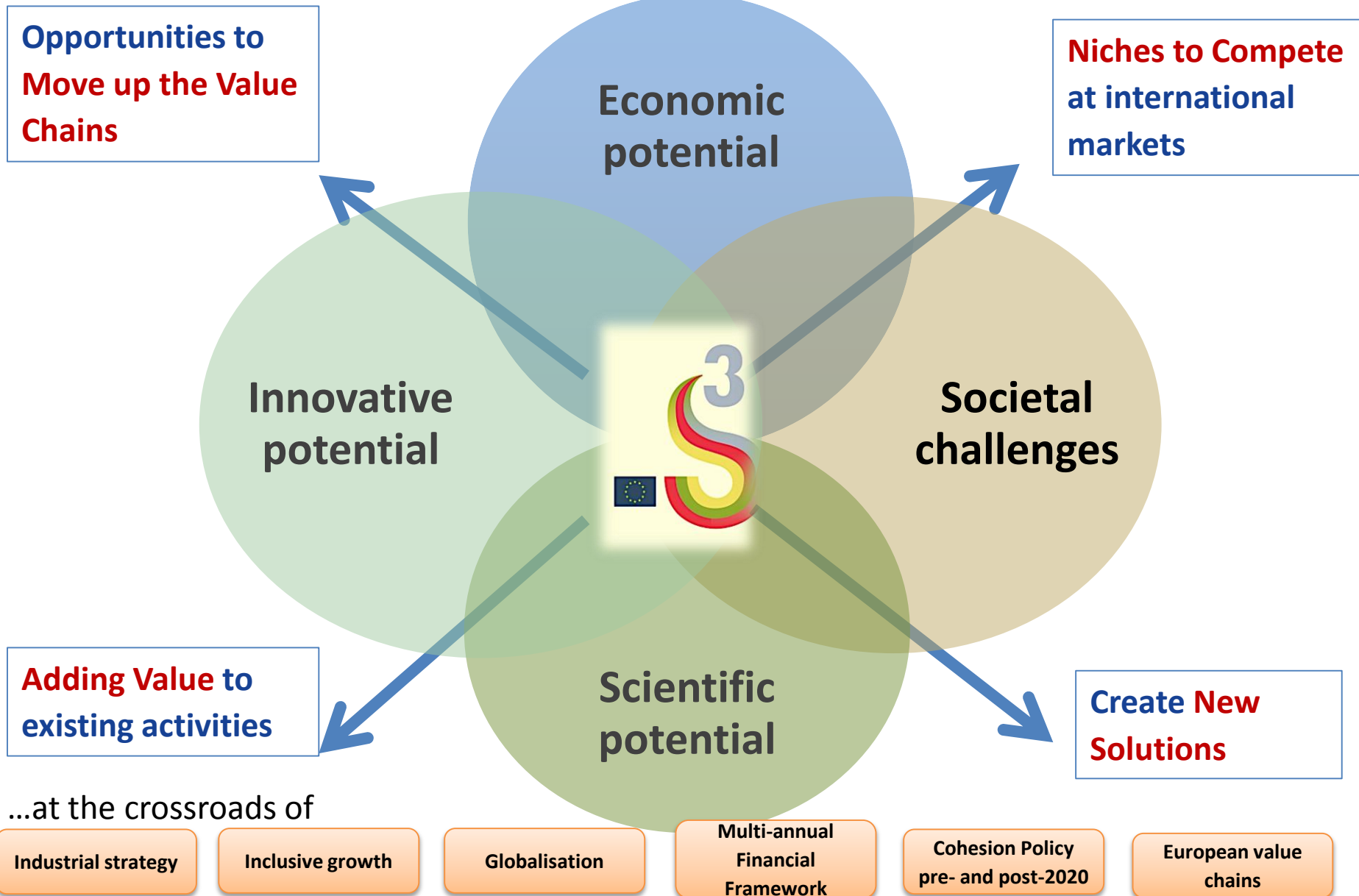
#S3platform

Dr. Ales Gnamus

JRC Seville - B.3 Territorial Development
https://s3platform.jrc.ec.europa.eu/

SMART SPECIALISATION PLATFORM
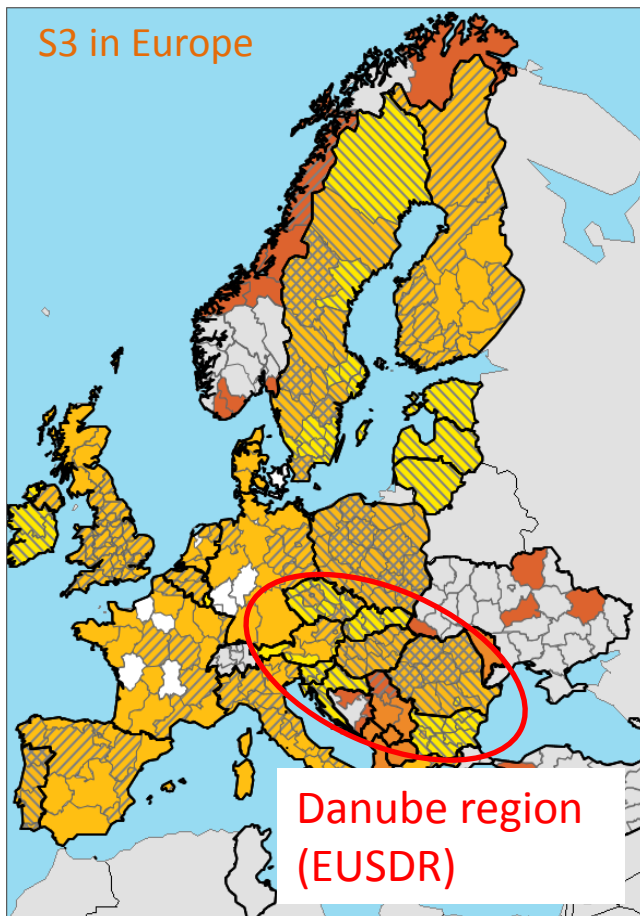
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Concept of Smart Specialisation (S3)

Policy Premise – Objective:

- **Smart Specialisation to enhance R&I cooperation at macro-regional level – hence in the Danube Region and in South-East Europe!**

S3 in Europe

Danube region (EUSDR)

Methodology:

- Existing benchmarkings – regional Socio-Economic comparisons

- **Clustering S3 Domains/Priorities**

- Relative R&I Specialisation by H2020

- **Specialisation by clustered S3 Domains/Priorities encoded in Eye@RIS3 (JRC S3 Platform)**

- Recommendations for the Danube & SEE R&I cooperation

Socio-Economic Regional Benchmarking:
EU-28 regions, by cluster of socioeconomic features
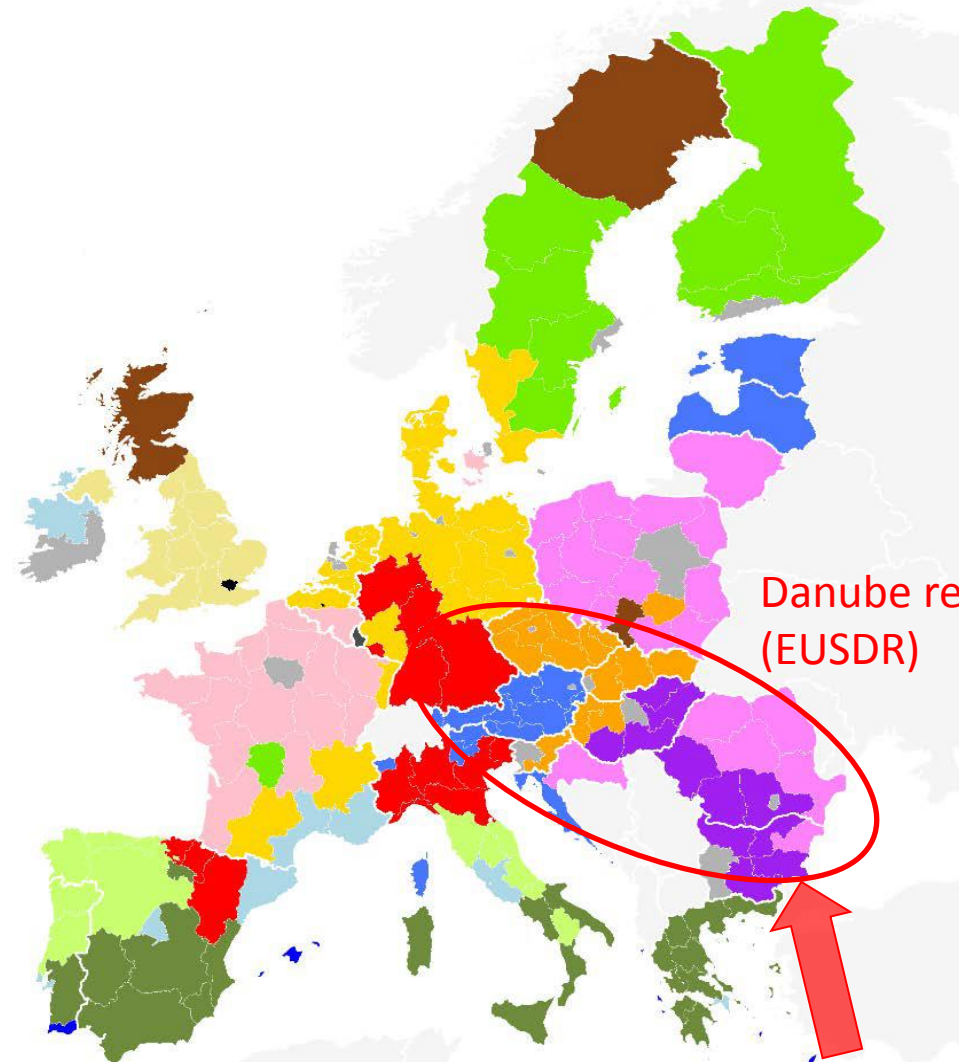
Legenda

City regions
- Wealthy capital cities: diversified services
- Wealthy financial centres; foreigners
- Capitals & urban poles
- Urban areas: poorer empl. conditions; tourists

Manufacturing
- High-income manuf. regions
- Medium-income manuf. regions
- Low-income manuf. regions
- Mining and quarrying regions

Intermediate
- Plenty-of-jobs regions (private+public activities)
- Plenty-of-jobs regions (manufacturing+services)
- Regions with empl. Imbalances; public sector
- Regions with empl. Imbalances; tradit. manuf.

Touristic
- Affluent touristic areas
- Touristic areas; traditional-economy

Rural
- Sparsely populated regions
- Rural regions: traditional econ. activites & poor empl. conditions
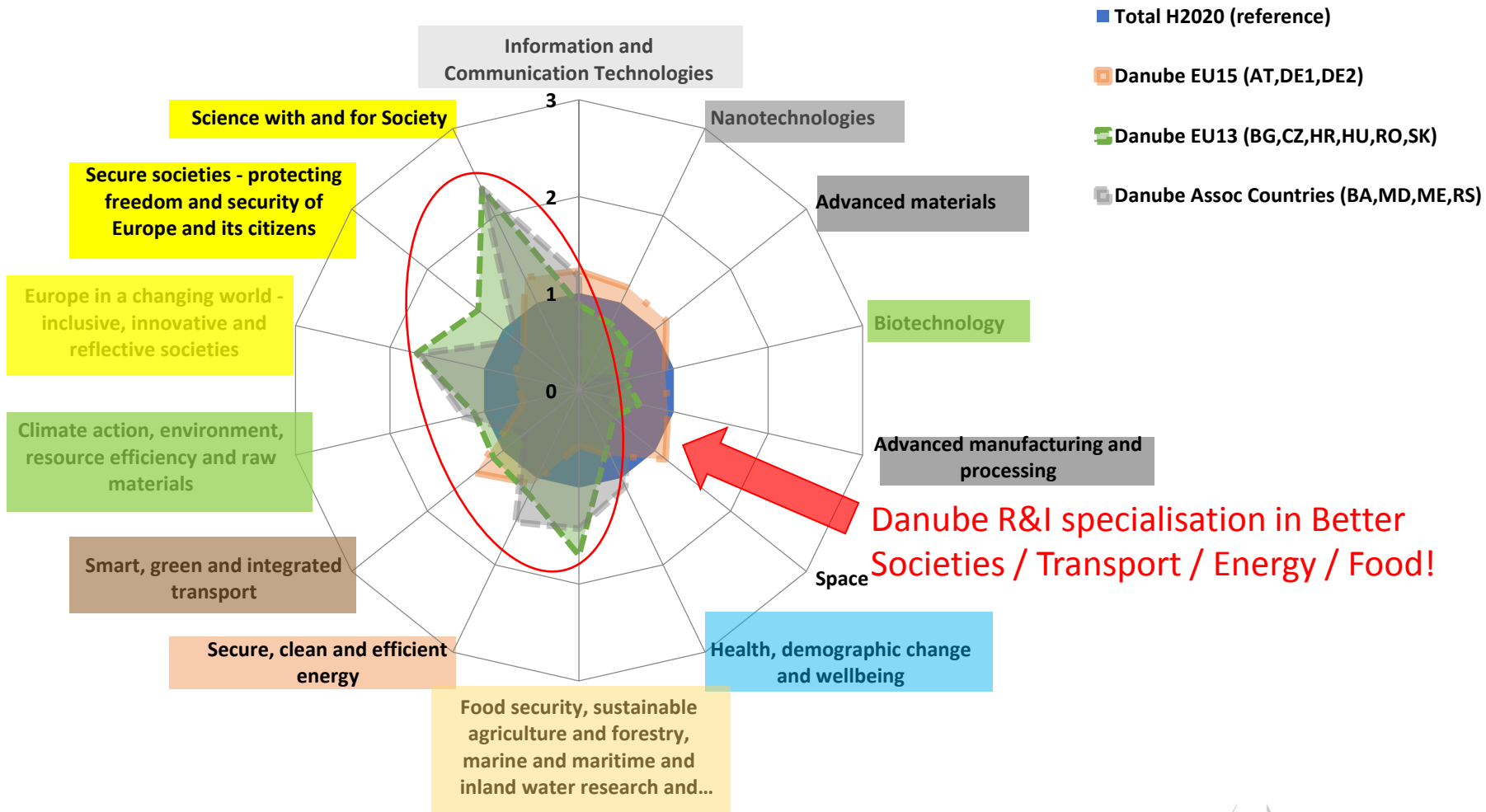- Very low-income rural regions; trad. manuf.

Danube region (EUSDR)
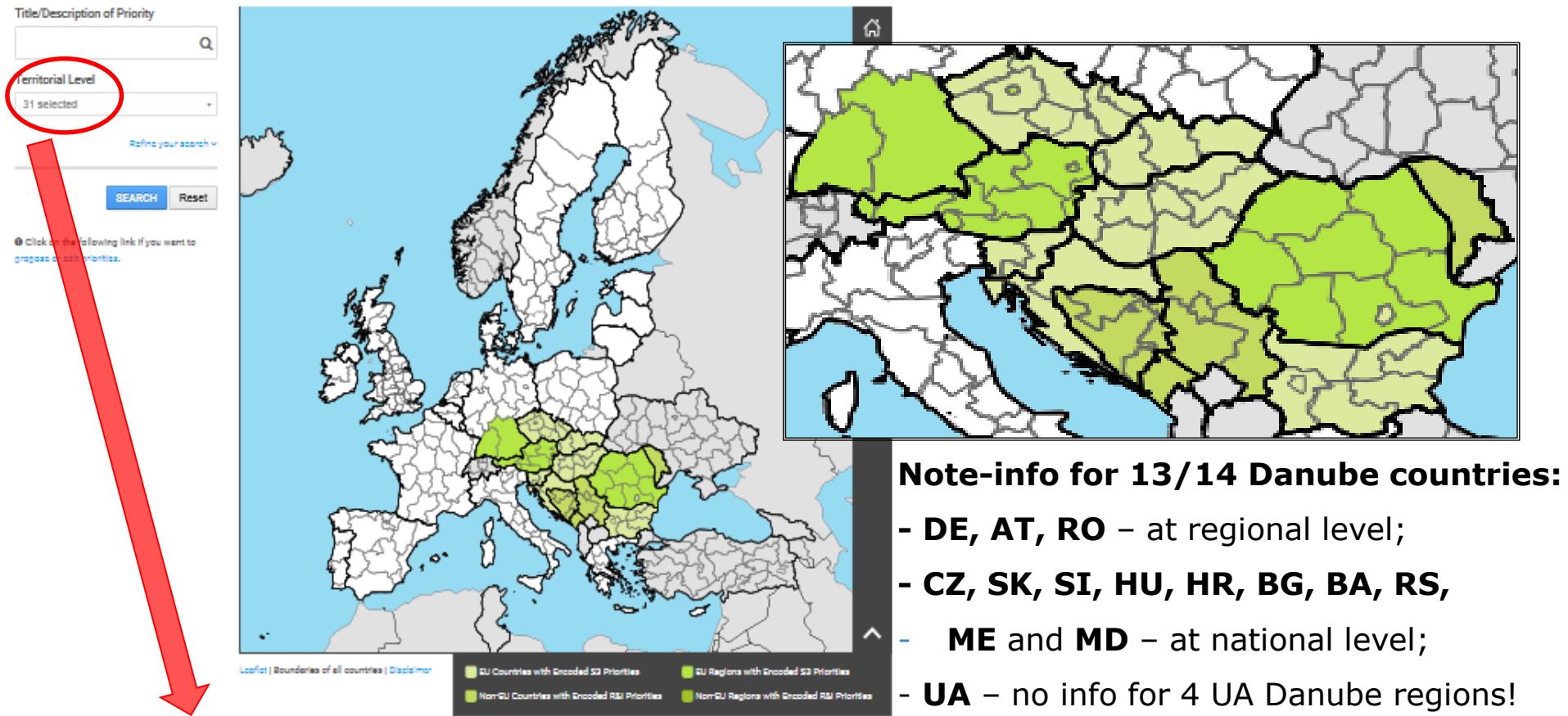
Large heterogeneity + missing data for WBC, MD&UA!

Source: Pagliacci et al. (2018)

Clustering of S3 Domains/Priorities:
by connectivity of R&I activities and semantics

S3 Domain/Priority	Main Keywords
Better Societies	Governance, Social and Societal issues, Culture, Creative, Arts, Services, Leisure, Entertainment, Tourism, Business, Financial, Security, etc.
Electronic Technologies & ICT	Industry 4.0, Computers, Software, Optics, Photonics, etc.
Sustainable Energy	Energy Efficiency, Renewables, Smart Grids, etc.
Climate & Environmental Sciences	Biotechnology, Natural sciences, Conservation, Climate mitigation, Earth observation, Flora & Fauna, Pollution, Ocean & Seas, etc.
Advanced Manufacturing & Materials	Process Industries, Machinery, KETs, Micro- & Nano-technology, etc.
Agro-Food	Farming, Rural, Sustainable agriculture, Healthy food, Wine, Beverages, Agricultural products, Food Processing, Forestry, Wood, Freshwater and Marine foods, Food Safety, etc.
Health & Wellbeing	Medicine, Medical technologies, Pharmaceutical, Leisure, Spa, Healthcare, etc.
Transport & Mobility	Vehicles, Aero/Space, Shipping, Transport Safety, Transport Security, Urban issues, Smart Cities, etc.
Other	Basic sciences, Mathematics, Physics, Fundamental research, Blue sky research, etc.

Relative R&I Specialisation by H2020 Projects in clustered S3 Domains

Total H2020 (reference)

Danube EU15 (AT,DE1,DE2)

Danube EU13 (BG,CZ,HR,HU,RO,SK)

Danube Assoc Countries (BA,MD,ME,RS)

Information and Communication Technologies

Science with and for Society

Secure societies - protecting freedom and security of Europe and its citizens

Europe in a changing world - inclusive, innovative and reflective societies

Climate action, environment, resource efficiency and raw materials

Smart, green and integrated transport

Secure, clean and efficient energy

Food security, sustainable agriculture and forestry, marine and maritime and inland water research and…

Health, demographic change and wellbeing

Space

Advanced manufacturing and processing

Advanced materials

Nanotechnologies

Biotechnology

Danube R&I specialisation in Better Societies / Transport / Energy / Food!

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S3/R&I specialisation of Danube territories:
as encoded by Eye@RIS3

Note-info for 13/14 Danube countries:

- **DE, AT, RO** – at regional level;

- **CZ, SK, SI, HU, HR, BG, BA, RS,**

-    **ME** and **MD** – at national level;

- **UA** – no info for 4 UA Danube regions!

Danube: 31 territorial units (countries/regions) with info at relevant territorial level

Encoded S3/R&I priorities grouped and clustered into 8+1 categories/R&I Domains

Specialisation by clustered S3 Domains: Analysis of S3 Priorities encoded in "Eye@RIS3"

Total 178 S3 (R&I - for Non-EU) priorities clustered in 8+1 S3 Domains

S3 Domain/Priority	No. of related S3 Priorities in the Danube territories (MS/regions)	Coverage by EUSDR Priority Actions
Better Societies	31	6 (PAs: 3,8,9,10,11 + PA7)
Electronic Technologies & ICT	21	2 (PA7 + PA11)
Sustainable Energy	18	3 (PA2 + PA7)
Climate & Environ. Sciences	24	6 (PAs: 4,5,6,11 + PA7)
Advanced Manuf. & Materials	32	1 (PA7 + partially PA8)
Agro-Food	21	2 (PA7 + PA11 + partially PAs: 3,4)
Health & Wellbeing	19	1 (PA7 + partially PAs 9,10)
Transport & Mobility	11	3 (PA1 + PA7 + PA11)
Other (Mathematic & Physics)	1	1 (P7 + partially PA9)
Total	178	All EUSDR PAs covered

http://s3platform.jrc.ec.europa.eu/map   Retrieved: June 2019

Danube Strategy Pillars with Priority Actions vs. S3 Domains of Interest:

S3 Domains /Priorities	Connecting the region (PAs 1-3)			Protecting the Environ. (PAs 4-6)			Building Prosperity (PAs 7-9)			Strengthening the region (PAs 10-11)		Total
	Mobility & Multimod.	Sust. Energy	Culture & Tourism	Water quality	Environm. risks	Biodivers, landscapes air & soil	Knowledge society	Competitiv.	People & Skills	Inst.capacity & Cooperation	Security	
Better Societies			16				8	1	2	4	9	31
Electronic Techn.&ICT							21				9	21
Sust.Energy	18						18				0	18
Climate & Env.Science				11	23	10	24				0	24
Advanced Manuf. & Materials							32	23				32
Agro-Food			2	2			21				0	21
Health & Wellbeing							19					19
Transport & Mobility	11						11				0	11
Other							1		1			1

Potential for S3 Cooperation in Danube on prevailing S3 Domains:

S3 Domain/Priority	Correlation of S3 Domains with Danube Priority Areas	Potential for Danube wide R&I Collaboration with broader EU impact	No. of related S3 Priorities in the Danube territories (MS/regions)
Better Societies	+++++	+++++	31
Electronic Technologies & ICT	+++	+++	21
Sustainable Energy	++++	++++	18
Climate & Environmental Sciences	++++	+++	24
Advanced Manufacturing & Materials	++	++++	32
Agro-Food	+++	++++	21
Health & Wellbeing	+++	++	19
Transport & Mobility	+++	++	11
Other	-	-	1

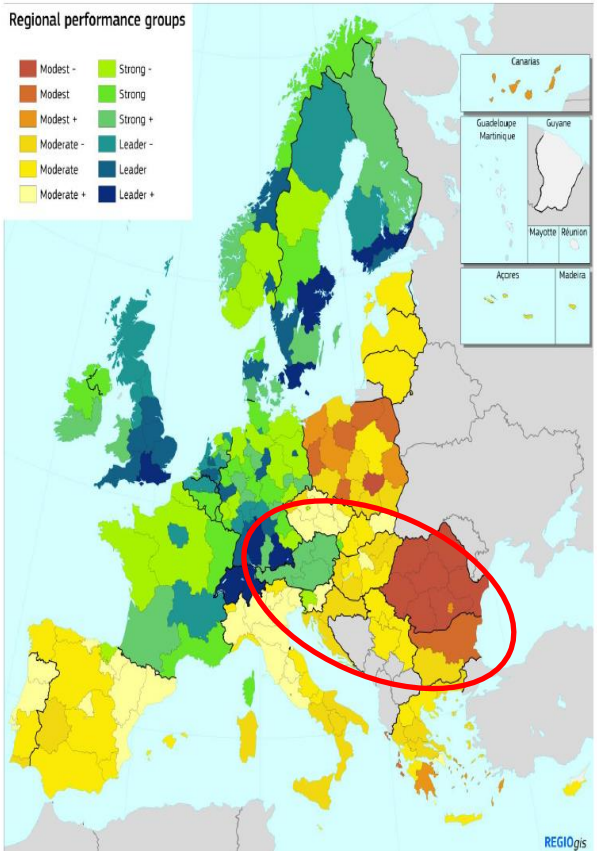# …S3 Forging Strategic Partnerships and Cooperation btw WBC and EU…

Participation in the Thematic S3 Partnerships 2019

Regional Innovation Scoreboard
2018

Regional performance groups

- Modest -
- Modest
- Modest +
- Moderate -
- Moderate
- Moderate +
- Strong -
- Strong
- Strong +
- Leader -
- Leader
- Leader +

EUSDR area

Industrial Modernisation

Energy

Agri-Food

Recomendations for Danube & SEE:
to improve R&I policies and cooperation/support instruments

- **Existing benchmarkings i.e. regional Socio-Economic comparisons show lack of data coverage of WBC/Neighbourhood MRS partners and unconventional categorisation for SEE**

- **H2020 collaboration indicates strengths in some domains and relative R&I specialisation of countries/regions and Danube territory**

- **Better Societies (incl. Services, Culture, Tourism, Creative innovation), Sustainable Energy, Advanced Manufacturing & Materials and Agro-Food are S3 Domains/Priorities with the greatest cooperation potential for the Danube region with broader EU impact**

- **Active engagement of Danube & SEE territories in Thematic S3 Partnerships and European Strategic Cluster Partnerships for Smart Specialisation Investment will ensure support though line EU policies (GROW, CONNECT, AGRI, ENV, REGIO, NEAR) and enhance cooperation of the SEE territories with the EU peers (RTD)**

European Commission

Thanks for your Attention!

Questions?

You can find us at http://s3platform.jrc.ec.europa.eu/home

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