

Interreg Europe Policy Learning Platform Webinar

Industry 5.0 – from theory to practice



European Union
European Regional
Development Fund

Lapland's Green Deal – Fostering the Adoption of the Green Transition and Digitalization

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On the behalf of Regional Council of Lapland

FACTS OF LAPLAND

- The northernmost region of Finland and the European Union
- Border with Russia, Norway and Sweden
- Capital city, Rovaniemi, the Official Hometown of Santa Claus
- Mining and metallurgy around 5000 M€
- The only chromite mine in the EU
- The biggest gold mine in the EU
- Total area 100 366 km², of which 7 699 km² is water
- 180 200 inhabitants (2016), density 1,8 people/km², a bit more reindeer than people.
- World's cleanest air and Europe's purest water
- World's largest organic harvesting area
- Forestry, manufacturing of wood and paper & paper products 1300 M€, 98% of total land area is forest
- Annual increment of forest growing stock 13,3 Mm³
- Sustainable harvesting limit 7,2 Mm³
- Total annual loss 6,1 Mm³, including harvesting 4,6 Mm³
- Employment: municipal sector 30%, state and state-owned companies 10% and private sector 49% in total 68 610 jobs
- Number of companies 9 094
- Total turnover of companies 12 000 M€
- Total tourism demand in Lapland is more than 1000 M€
- 2,7 million registered overnight stays in Lapland
- Annual growth rate ~20%
- 4th strongest export region in Finland
- Lapland region has the fastest growing economy in Finland
- 3800 M€ Industry export revenues (7% of the national export)
- World's northernmost hub of bio-, mining-, metal industry and services
- Agrofood production 300 M€
- 4 429 Reindeer owners
- Annual revenue ~39 M€, doubled in last 10 years



Background - Governance of the regional development

The Regional Council is responsible for the planning and development of the region in compliance with the Regional Development Act and the Land Use and Building Act

Regional programme and Regional Plan are legal documents that define the future development of the region and direct the public funding (the Lapland Agreement)

Lapland's smart specialisation programme, the Arctic Specialisation Programme, is part of the regional programme and Lapland's strategy for internationalisation – S3 update in progress

In Finland there's one operational programme (OP) for the implementation of the structural funds "Innovation and Skills Finland 2021-2027 – EU Regional and Structural Policy Programme"

Regional development is supported by the public funding in line with the OP

MA distributes the structural funds financing to the regional level management authorities: Regional Councils and the Centres for Economic Development, Transport and the Environment (ELY Centres)

Regional Councils and ELY Centres are responsible for deciding which projects will be carried out as part of the operational programme in the regions.

The work is supported by the regional management committees with overall coordination responsibilities of the structural fund activities throughout their own regions

Background - Governance of the regional development

Governance of the OP in Finland and Lapland – Innovation and Skills Finland 2021-2027 – EU regional and Structural Policy Programme

Green and digital transition are guiding principles

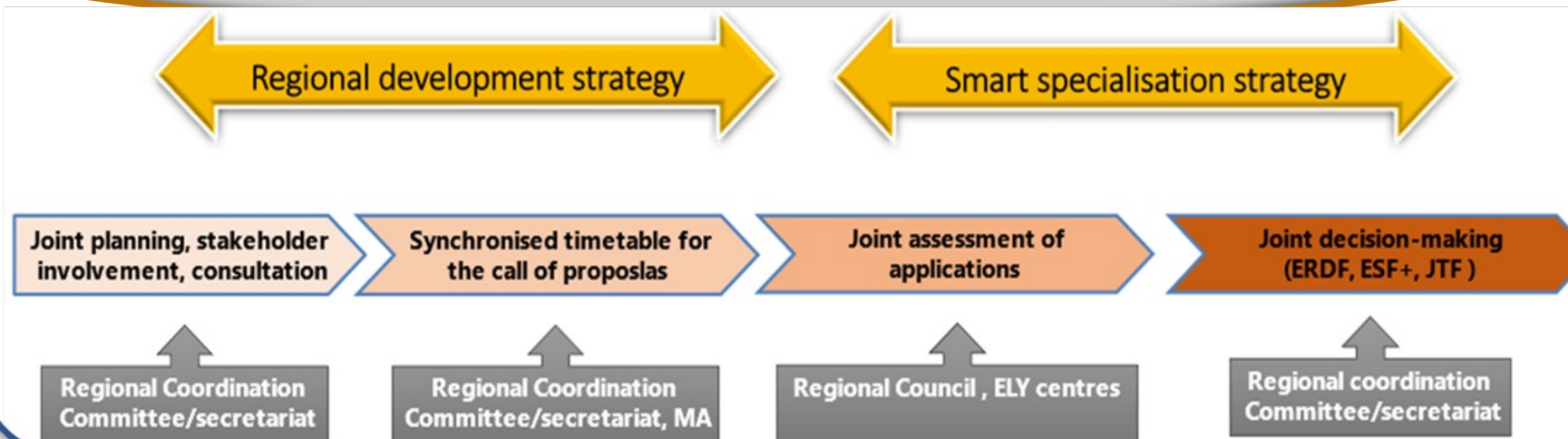
OP planning with
the lead of the MA
- Ministry of
Economic Affairs
and Employment

NUTS III level
strategic planning

NUTS III level
strategic
implementation of
the OP



**Lapland Green Deal is setting the scene to implement green and digital transition in Lapland –
Regional development strategy – Lapland Agreement together with S3 are prioritising the actions**



Lapland's Green Deal guiding the regional actions and OP implementation

Finland has set the goal to be carbon neutral by 2035 and the first fossil-free industrialised society

The purpose of the Lapland's Green Deal is to guide the region towards the more sustainable and smarter low-carbon economy

Lapland's Green Deal objectives:

To create a roadmap that connects different industries, sectors and actors to support the Green Transition in Lapland

Sets common goals for future measures

Encourage different sectors, industries and actors to act in support of the goal of Green Transition and a voluntary agreements on Green Transition

Seven focus areas of the Lapland Agreement:

1. Sustainable growth of the Arctic economy
2. Challenges of the demographic development and labour
3. Competence management and development
4. Environment, well-being and services
5. Climate change and biodiversity
6. Accessibility
7. Sámi culture

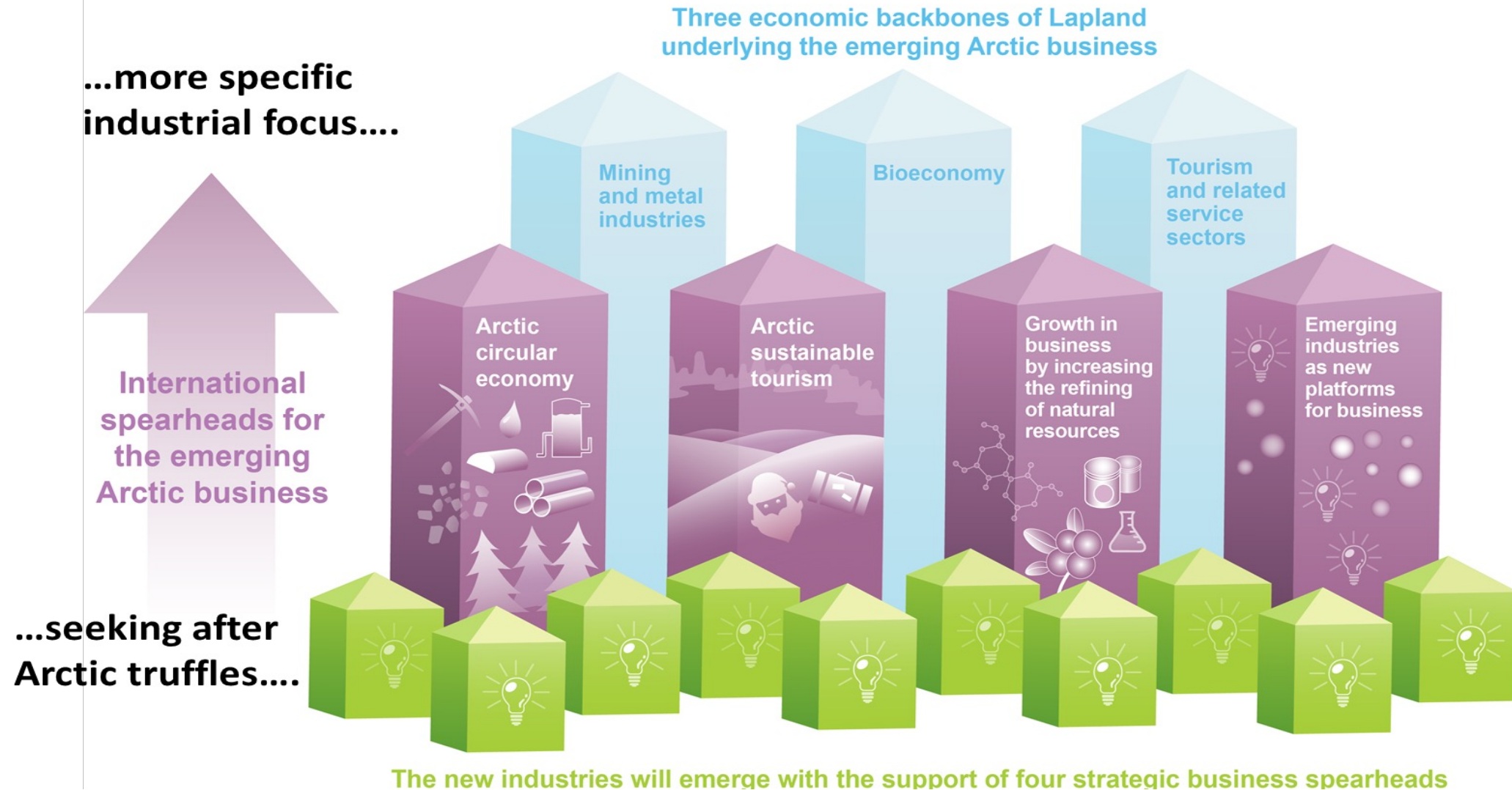
❑ The Lapland GD is included in the Regional programme (Lapland Agreement) as a cross-sectional theme

❑ Extensive commitment to the Lapland GD

The twin transition in Lapland

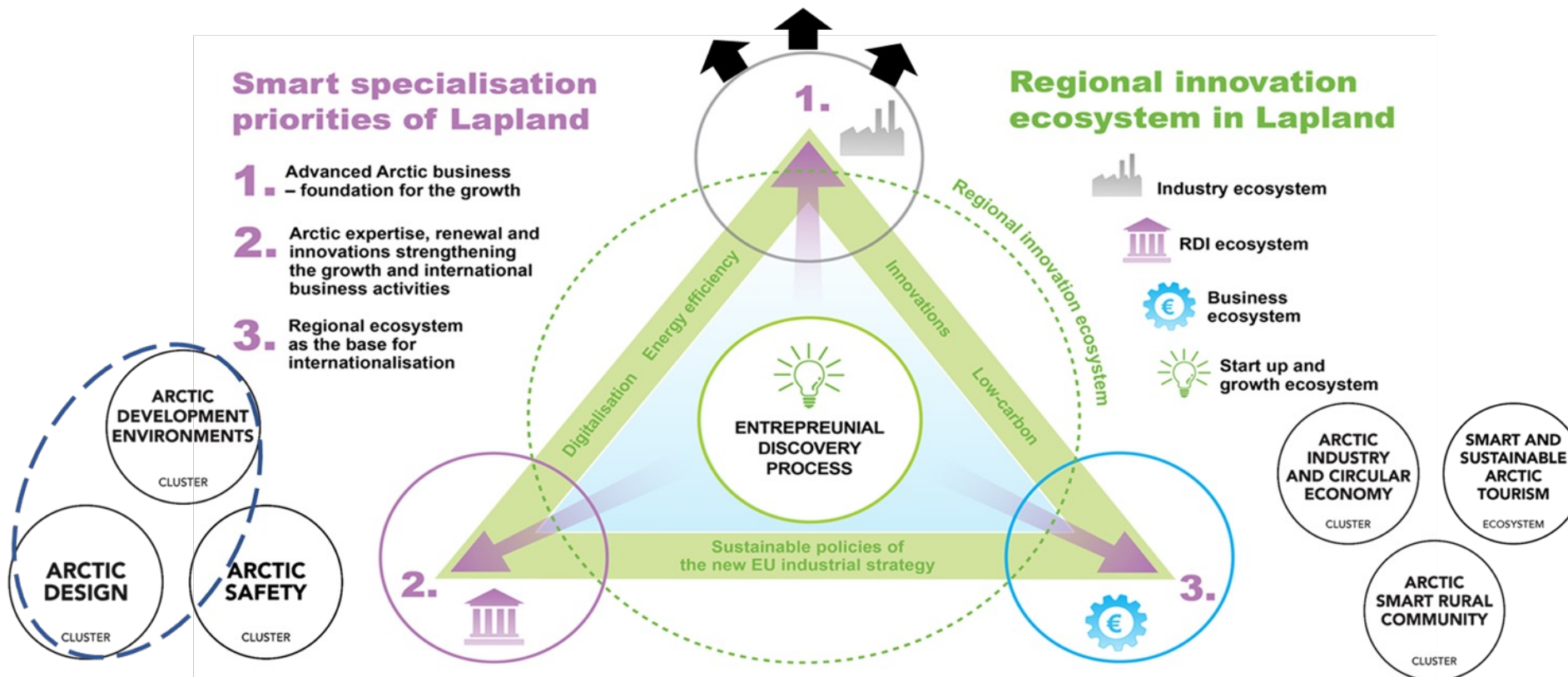
- ❑ Lapland together with other so-called NSPA (Northern Sparsely Populated regions), it is also the most prominent region with the strategic and critical raw materials deposits enabling the European Green Deal investment plan
 - European Commission's President Ursula von der Leyen's State of the Union proposal of a European Critical Raw Materials Act, reflecting its crucial importance on the EU's political and economic agenda
https://ec.europa.eu/commission/presscorner/detail/en/speech_22_5493
- ❑ Mineral-rich regions hold the core role in increasing the EU domestic raw-material production and play a crucial role in building European industrial ecosystems.
- ❑ Lapland is in the middle of these universal changes and opportunities
- ❑ Sustainable development is the foundation of growth in Lapland → looking for the best balance in utilising natural resources leads to continuous economic and social benefits for the current generations and the ones to come
- ❑ With the support of the RDI ecosystem, the regional industrial service sector could develop new emerging services supporting the twin transition and responsible use of natural resources.

Arctic industries at the centre





Smart Specialisation is a tool to orchestrate the operations of the Regional Ecosystem



With the lead of the Regional Council of Lapland - Strategic approaches to use synergic and blending funding integrating regional actions with the national and EU level initiatives – S3 communities of practise

Fostering the Adoption of the Green Transition and Digitalization in Practise

ARCTIC DEVELOPMENT ENVIRONMENTS CLUSTER IS THE FOUNDATION OF THE LAPLAND INNOVATION ECOSYSTEM

Cluster is aiming to

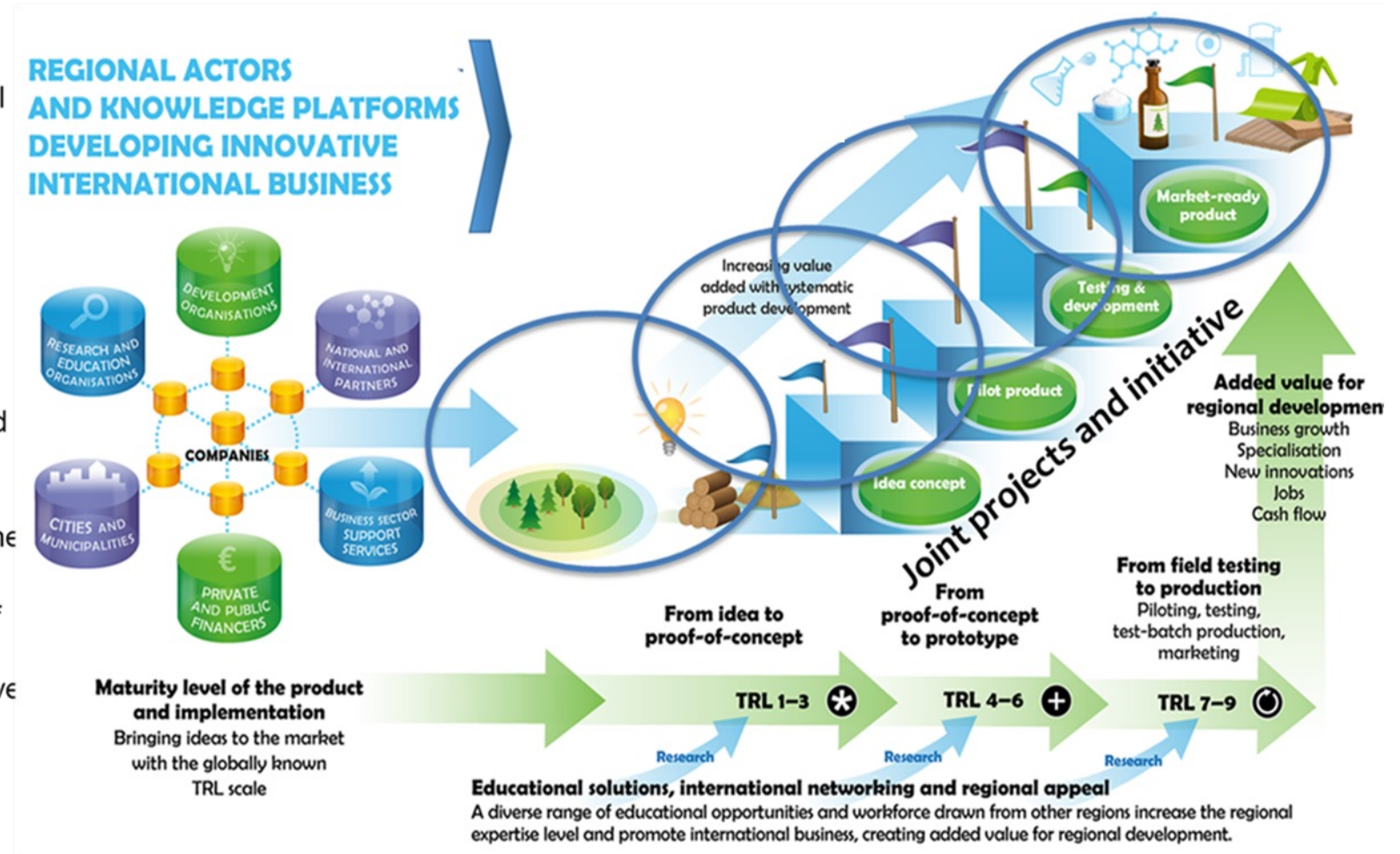
- ❑ empower regional RDI actions across traditional organisational boundaries
- ❑ support and meets the needs of industry and commerce.

Its key features are

- ❑ RDI-based innovation cycle management
- ❑ identification of Technology Readiness Levels (TRL) and Innovation Readiness Levels (IRL)
- ❑ advancing the maturation of ideas, products and services towards the market
- ❑ the services of Lapland's RDI organizations are available to companies and researchers on a one stop-shop basis.

Multidisciplinary RDI communities from University of Lapland, Lapland University of Applied Sciences, Natural Resources Institute Finland, Geological Survey of Finland, Vocational College Lappia and Lapland Vocational College

- ❑ 50 modern development environments
- ❑ more than 750 experts and specialists



Fostering the Adoption of the Green Transition and Digitalization in Lapland

- ❑ SMARTY Action plan supports the development of the Industry Digital Transformation “One-stop-shop in Lapland and Arctic”
- ❑ Industry 4.0 current status analysis and recommendation in Lapland provides the follow-up steps to develop sustainable digital transition
 - Lapland Green deal is the roadmap focusing on engages and empowers different industries, sectors, and actors to support the Green Transition in Lapland
 - Smart Specialisation in Lapland is governing systematic sustainable development of the region’s economic - transformations towards a sustainable industry
- ❑ In Lapland, industrial development by its nature has several features of Industry 5.0 already applied – but not seen as 5.0 industry development but in essential enabling condition
- ❑ Arctic Development Environments Cluster continues to play in core role
 - More living lab practices
 - Use of the service design methodical approaches in twin transition
 - Strengthening the role of regional DIH and EDIH
- ❑ Management authority supports the synergid funding development - ERDF, JTF, integration with EU growth and innovation programmes



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More information

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