





North-East Region of Romania

Smart specialization through people

and local products



## Why RIS3 North-East is needed?

Better concentration of resources for developing and focusing the investments of the North-East Region in fields showing competitive advantages and high added-value;

Better valorisation of RDI competences and facilities of the region

Increasing the share of applied research and its orientation on priority fields through a better collaboration with the regional business environment

Progressive increase of research-innovation funding attracted from private sources

Removing the regional economic system from isolation and propelling it on a trans-regional and international perspective

Identification of the projects of strategic importance to the region

Leading the financial flow towards maximizing the impact of initiatives aimed at integrating and systematic exploitation of competitive resources (human capital, creativity, clusters, technology transfer, etc.)



#### First RIS3 North-East 2014-2016

- Created through a project funded by Technical Assistance Operational Program 2007-2013 and implemented during May-October 2013
- Project budget: 19,120 Euro
- 16 regional meetings for elaboration of the strategy
- 1 Regional Action Plan
- 1 methodology of evaluation and monitoring of S3 North-East
- No special budget/programs/funds allocated for S3 implementation in Romania
- S3 North-East was peer-reviewed during the workshop organized by S3 Platform in Novi Sad during 10-11 April 2014

### First RIS3 North-East 2014-2016



Sector	No. of proposed projects	Total value proposed (Euro)	No. of implemented projects	Total value attracted (Euro)
Textiles	8	2,756,800	3	964,836
Biotechnologies	5	26,143,500	3	18,106,413
IT&C	5	16,438,000	1	732,445
Agrofood	9	25,270,000	0	0
Total	27 projects	70,608,300*	7	19,803,694

Financing sources proposed:\*

- 55,166,800 Euro = Sectorial OP for Increased Competitiveness 2007-2013 and Competitiveness OP 2014-2020
- 12,298,000 Euro = Human Capacity OP 2014-2020
- 3,000,000 Euro = National Program for R&D 2014-2020
- 143,500 Euro = National Innovation Program II (state budget)

Financing sources attracted:

- 19,670,361 Euro = Sectorial OP for Increased Competitiveness 2007-2013 (PA 1 and 2)
- 133,333 Euro = National Innovation Program II (state budget)



## Updating & reviewing RIS3 North-East 2016

Data collection and processing (June-August 2016)

- Updated regional profile
- 7 Sectorial case studies
- 5 good practice examples

Identification of sectors with specialization potential (June-August 2016)

- Agrofood
- Wood processing and furniture
- Biotechnologies
- Environment
- Textiles and new materials
- Tourism
- IT&C

Defining directions of specialization

(June-October 2016)

- Analysis of regional innovation potential
- •Identification of competitive and comparative advantages
- •Identification of regional competences
- •Identification of major societal challenges
- Mapping the value chains
- Organizing entrepreneurial discovery workshops (EDP)

Development of RIS3 (October –December 2016)

- Vision, mission, values
- Objectives
- Priorities, measures, types of projects
- RIS3 Matrix Structure
- Consultation of BDRWG and clusters
- Feed back from universities
- Public consultation



## Criteria and steps in selection of RIS3 fields

**Step 1** – identification of economic sectors with specialization potential – simultaneous fulfillment of the following conditions:

- ✓ Existing industrial agglomeration's territorial concentration and critical mass of companies at regional level
- ✓ Existing regional base of competences in the field no, of faculties/no, of graduates, doctoral schools/no, of PhD, vocational education, research-development-innovation and technologic transfer entities
- ✓ Existing comparative advantages in the relevant field based on the value of exports of main products groups according to Combined Nomenclator
- ✓ Results of research-development-innovation activity patents, scientific articles, PhD dissertations, etc,



## Criteria and steps in selection of RIS3 fields

Step 2 — Completing the sectorial information with the analysis of challenges and opportunities, definition of specialization vision together with the representatives of quadruple helix and identification of specialization fields:

- ✓ Existing associative structures clusters, networks, etc in the related field
- ✓ Existence of interest and availability of companies and knowledge institutes for initiatives oriented towards smart specialization
- ✓ Good knowledge of the problems the sector faces with and the potential solutions for solving the respective problems
- ✓ Existance of a clear vision on the sector's development perspectives in line with the vision for general economic development of the North-East Region
- ✓ Capacity to identify and valorise sector's competitive advantages in the European, national and regional context
- ✓ Correlation of smart specialization directions with the major societal challenges to be solved in the North-East Region

# Entrepreneurial Discovery Process (EDP) Focus-Groups



- identify regional development directions thorough smart specialization (niche sectors of competitive advantages & their challenges)
- identify innovative solutions for development

Participants - 4helix players → universities & research centers, companies, public authorities, NGOs

Methodology



Introductory plenary session on sectoral premises in the region Group activities – on sub-sectors addressing the main societal challenges of the region

- **Brainstorming** to identify sub-sectoral challenges
- Grouping sub-sectoral challenges 3-4 main categories per subsector
- Challenges analysis (sub-group work) definition, SWOT, identifying roles and actors along relevant value-chains
- Identifying solutions projects + partnerships + promoters + cost estimate + financing sources

## Entrepreneurial Discovery Process (EDP) Focus-Groups



2016 EDP focus groups – 4 sectors 2017 EDP focus groups – 6 sectors

(> 700 pers.)

#### Results

- Sectorial challenges identified in RIS3 priority areas, in relation with the main societal challenges
- (4 Hx) Solutions proposed for these challenges:
  - a) Development of new products/services and technologies
  - b) Infrastructure develop. (platforms, systems, databases)
  - c) New value chains / new companies
  - d) Partnership, consortia & associations
  - e) Training programs skills acquisition;
  - f) Excellence centers; Experts mobility (Univ companies)
  - g) IP, patents issues

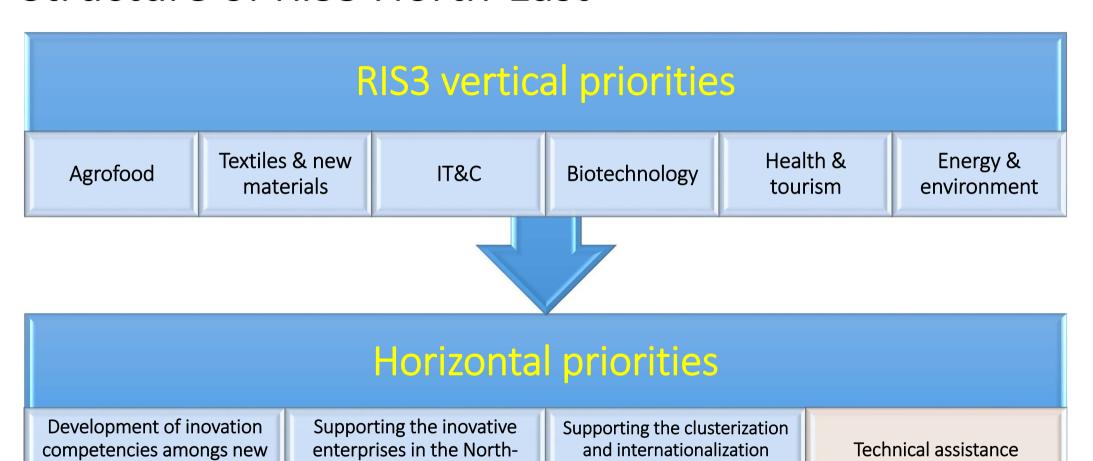


Agrofood	Safe, affordable and nutritionally optimized foodstuff Bio-based industries (food and non-food products for food processing industry)	Development of new products, practices, processes/ technologies in_horticulture  Sustainable farming  2 <sup>nd</sup> and 3 <sup>rd</sup> harvest  New business models for traditional products	Bioenergy - biogas, biomass, biofuel Eco-building - processing of hemp (construction panels for natural houses)	Sustainable management and exploitation of aquatic living resources and potential)
Textiles & Apparel	Innovative materials, bio-materials and functional textiles for medical purposes	Circular economy  Cultivation and processing of plants for natural fibres and eco-fabrics  Technical textiles, composite textile structures	High-tech processes & applications, industrial software Smart factoring Digital fashion/Digital printing	Smart textiles (for high performance water filtering purposes)
IT&C	Big Data analysis, management and security (telemetry, telematics, tele-assistance, telemedicine)  Real time monitoring of social systems - eHealth	Traceability of food (value) chains (IT&C solutions)  Precision agriculture (site specific crop management)  Smart farms	Increasing energy efficiency of consumers; Energy-Net (energy efficiency management system) Smart City	Gamification of education
Biotechnologies	Bio nano-technologies for use in medicine Medical and Pharma bio-natural products	Agrofood Biotechnologies (for safe food and sustainable production)	Industrial biotechnologies (high- energy biofuels, biocatalysts for industrial applications)	Technologies for real-time specific detection/monitoring of pollutants
Environment	Biodiversity Plants Genetics Green heritage sustainable management	Rational exploitation agricultural renewable resources (new or improved) Field crops (adapted to the impact of global climate change)	ZEB Waste collection and valorisation (up-cycling)	Technologies for de-pollution and water recovery  Monitoring industrial water, water management ( surface and underground)
Tourism	Active and adventure tourism  Health and recovery tourism  Healthy ageing tourism  Cultural tourism	Agro-tourism; eco-tourism  Slow-food tourism  Organic & traditional products	Efficient infrastructure (EE buildings) Traditional technologies and new materials	Curative waters (natural waters, aquatic sports)
Societal challenges	Healthy ageing, demography and wellbeing	Food security, sustainable agriculture and the bio-economy	Secure, clean and efficient energy	Safe, clean water



#### Structure of RIS3 North-East

generations

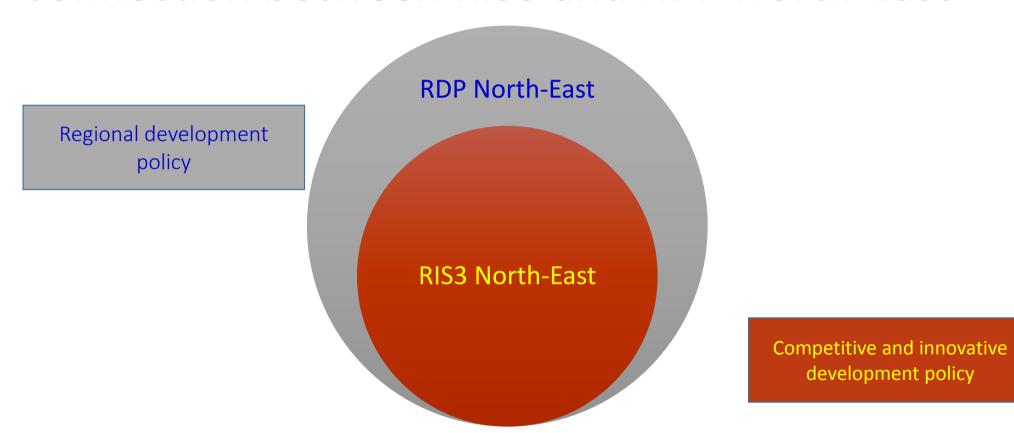


**East Region** 

initiatives



### Connection between RIS3 and RDP North-East



Integration of RIS3 into RDP – through decision of North-East Regional Development Board



## Our governance and implementation structures for RIS3 North-East

- ➤ Regional Innovation Consortia (RIC) permanent formal structure, 36 members, quadruple helix
- Consultative Academic Committee (CAC) permanent formal structure, 34 members, representatives of the universities
- ➤ Consultative Financing Committee (CFC) formal structure with min 14 members, representatives of MAs/IBs and banks
- > RDA North-East Department for Business Support
  - ➤ Coordinator for RIS3 process
  - ➤ Responsible with universities relation (1) Regional Marketing Office
  - ➤ Responsible with smart specialization areas, implementation reporting and promotion of RIS3 (4+2) Sectorial Specialization Office
  - ➤ Responsible with RDITT relation, help desk support and advice for internationalization (2) Internationalization Office
  - > Responsible with RDA projects on RIS3 (3) External Cooperation office

## Key elements for RIS3

Prepared by RDA

Bottom-up approach

Based on Q4 partnership

Integrated in RDP 2014-2020

Correlated as areas top-down with NSRDI and NSC

Management & coordination ensured by RDA

Financing RIS3 from international and national programs/project calls



### Funding status – RIS3 integrated projects

- Funding instrument: Axis 1 of ROP 2014-2020 Promoting Technology Transfer (policy instrument of PP10 NE RDA under Clusterix 2.0);
- Monitoring Committee of ROP 2014-2020 approved on September 15, 2017 an allocation of 29 mil Euro (ERDF + national budget) for North-East Region;
- North-East RDA will elaborate the 1st draft of Applicant Guide until 30.11.2017
- Total initial project proposals collected = **129** (total estimated budget 233.64 million Euro);
- Project proposals confirmed by legal representatives of LP = 31, total estimated budget 44,529 mil. Euro
- After screening = 22 project proposals, estimated budget: 47,283 mil. Euro (identification/confirmation of partners, matchmaking of similar proposals, completion of detailed project fiches, internal analysis NE RDA, external analysis of CAC)





Thank you for your attention!