S3 Platform Peer Review Workshop
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NORTH-EAST REGION OF ROMANIA
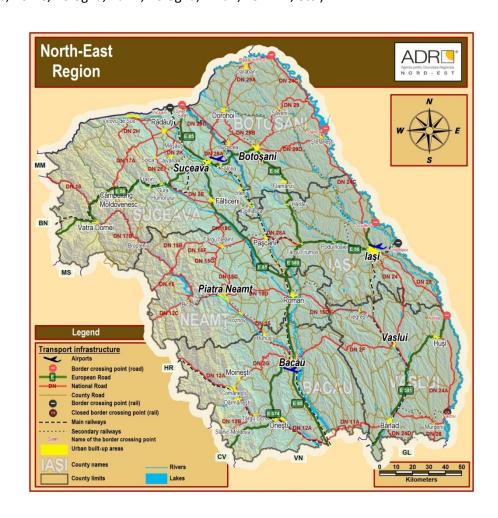**Background Information**

Location

The North-East Region of Romania covers a surface of 36,850 sq.kms (15.46% of the total surface of the country) - the largest counties being Suceava (8,553 sq.kms) and Bacau (6,621 sq.kms).

Represents the Eastern border of European Union and have several border crossing points with a modern infrastructure:
- o   Road access: Siret, Radauti-Prut, Stanca, Sculeni and Albita;
- o   Rail access: Vicsani and Ungheni.

The air transportation infrastructure consists of three airports located in Bacau, Iasi and Suceava. The airports operate domestic flights (Bucharest) and international flights (direct routes to Vienna, London, Dublin, Paris, Rome, Bologna, Turin, Bologna, Milan, Tel Aviv, etc.)

Administrative organisation

The North-East Region consists of **six counties** (Bacau, Botosani, Iasi, Neamt, Suceava, Vaslui), with a **population** of 3,302,217 inhabitants (July 2013), being the first among the eight regions of the country (16.41% of Romania's total population). From administrative point of view, the region has 46 cities and towns, 506 communes, 2,526 villages (October 2011).

The policy of growth poles in Romania aimed at a rapid economic growth, jobs creation, boosting the productivity for generating development in small and medium towns and rural areas adjacent to poles. In order to contribute to the development of economy, there were defined several categories of urban centres nationwide: **seven growth poles** (one for each Region except the Bucharest-Ilfov Region) and 13 urban growth centres. In the North-East Region, Iasi was designated as growth pole and Bacau and Suceava were designated as urban development poles (according to the Government Decision 998/2008).

-   **The Growth Pole of Iaşi** is positioned in the eastern side of the region, close to the eastern border of Romania with Republic of Moldova (road - 30 km, railway - 21 km) and at an approximately equal distance to the poles of development in the region (Bacau - 130 km and Suceava - 145 km).
-   **The Development Pole of Bacau** was established in 2006 (Intercommunity Development Association Metropolitan Area Bacau) and includes Bacau, along with 20 other villages situated in the vicinity.
-   **The Development Pole of Suceava** was established in 2011 (Intercommunity Development Association Metropolitan Area Suceava) and includes Suceava, Salcea town and other 12 villages situated in the near proximity.

Geography and specific resources

As far as the major forms of relief are concerned, the region is divided into three areas: the Carpathian Mountains in the west (28% of the territory), the Carpathian foothills in the middle south (12% of the territory) and the plateaus in the east (60% of the territory) - counties of Botosani, Iasi and Vaslui. The region is crossed by **eight major water courses** flowing on the north-south direction across the water basins of Siret (42,890 sq.kms) and Prut (10,990 sq.kms), which is natural border with Republic of Moldova, on a distance of approx. 680 km.

From biogeographic point of view, the fauna and flora of the North-East Region are part of the alpine region in the west (west of Suceava, Neamt and Bacau counties), the continental region in the central and north-east (east of Suceava, Neamt and Bacau counties, Botosani, Iasi counties and partially Vaslui) and steppe region in the east and south of Vaslui county. The region has a wide range of soil and subsoil resources:uranium ore, manganese, rock salt, sulphur, oil and gas, brown coal, therapeutic mineral waters, carbonated and non-carbonated mineral waters.

Human resources

At the end of 2012, **the civilian active population** employed in the North-East Region totalized 1,224,700 persons, representing 14.2% of the total active population of the country. Regionally, most of the working population is employed in services (42%), agriculture (41.5%) and industry 16.4%.

The regional unemployment rate is 6% (slightly above the national average of 5.4%) and lower than the Community average (10.5%) - 2012. High unemployment rate is among young people - the unemployment rate for the age group 15-24 years is 12.3% and in urban areas is 32% (2012).

In North-East Region, there are **seven public universities** and **four private universities accredited**:
   - Public higher education institutions: "Gh. Asachi" Technical University" Iasi, "Alexandru Ioan Cuza" University, Iasi, "Gr. T. Popa" University of Medicine and Pharmacy Iasi, "Ion Ionescu de la Brad" University of Agricultural Sciences and Veterinary Medicine Iasi, "George Enescu" University of Arts Iasi, "Vasile Alecsandri" University of Bacau, "Stefan cel Mare" University of Suceava. The Technical University of Iasi has a total of over 17,500 students in the 11 faculties engaged (3 years studies), master's, PhD (over 150 seats), postgraduate training and scientific research.
   - Accredited private higher education institutions: "George Bacovia" University of Bacau, "Mihail Kogalniceanu" University of Iasi, "Petre Andrei" University of Iasi, "Apollonia" University of Iasi.

The North-East Region comprises all forms of education. In 2011-2012 school years, the number of students enrolled in secondary education was of 620,013 students (16.7% of total population) and the number of students in universities was of 66,356 (in the three existing university cities Iasi, Bacau and Suceava).

The most of the research and development activities are carried out in the public sector (over 70%). During 2001-2006, in the North-East Region there were set up **12 Centers of Excellence** in higher education institutions in Iasi ("Alexandru Ioan Cuza University" University, "Gh. Asachi" Technical University, "Gr. T. Popa" University of Medicine and Pharmacy of Iasi), while other **13 Centres of Excellence** are operational within "Stefan cel Mare" University of Suceava.

During 2001-2006, the National Research Council recognized **79 research centres** in the North-East Region, hosted by the "Alexandru Ioan Cuza" University of Iasi, "Gh. Asachi" Technical University, "Gr. T. Popa" University of Medicine and Pharmacy Iasi, "Vasile Alecsandri" University of Bacau and "Stefan cel Mare" University of Suceava.

In the region there are also **private companies having specialized research departments** (such as Plantavorel SA Piatra Neamt, Antibiotice SA Iasi (Centre for Drug Evaluation), Aerostar SA Bacau).

Economic resources, structure of business environment

During 2005-2008, the **regional gross domestic product** (RGDP) increased reaching 12,228 million Euros (nominal value). In 2010, the **regional GDP per capita** was of 3,350 Euro/capita. The largest contribution to the achievement of regional gross domestic product belongs to Iasi (28.96%) and Bacau (21.79%) counties - almost half the regional level. Suceava and Neamt counties provide contributions of 17.89% and 12.91%, while the lowest contributions belong to Botosani (9.81%) and Vaslui (8.61%) counties.

Regionally, in 2010, the services and industry sectors brought the largest contribution to the establishment of regional gross added value with 52.5% and 27.7% respectively. Although nearly half of the employed population of the region is active in agriculture, the contribution of this sector to RGAV is of only 9.9%.

SMEs are an important segment of the economy of the region, absorbing in 2011 a large proportion of staff working in the companies (52.66%). If it is also to consider the personnel working in micro-enterprises, then the total weight is 79.61%. In 2011 there were **48,591 companies active in the region**.
- The majority of all active units (85.96%) are **microenterprises**. They are operating mainly in manufacturing and services sectors.

- **Small and medium enterprises** hold high shares in the distribution of water, sanitation, waste (34.6%), mining and quarrying (30.65%), manufacturing (29.35%) and electricity and heat (26.36%).
- **Large companies** are operating mostly in the electricity and heat fields representing 7.27% of all active units.
- **Traditional sectors**: clothing - textile, wood and furniture, construction and agro-food.

Business support structures

The business infrastructure is developed, diversified and territorially distributed. The following types of structures are available in the region:
- **Business centres and incubators for SMEs** (eg. Business Incubator for SMEs in Botosani, Business Center Tutova-Barlad, Business Centre and Exhibition "Mircea Cancicov" Bacau, Centre for Multicultural Affairs – Cacica, Business Centre Iasi, Centre for Support and Business Development "Carol" Iasi;
- **Scientific and Technological Centres** (eg. TEHNOPOLIS Iasi);
- **Industrial Parks** (eg. Mecanica Ceahlau Piatra Neamt, HIT Hemeiusi, Industrial Park Botosani);
- **Logistic Parks/ Agro-industrial Parks** (eg. Logistic Park and Agro Industrial Park TransagrapolisLetcani, Iasi County).

These structures are maximum 5 years old and require the development and specialization of services provided. In general, the service packages provided varies depending on the type of infrastructure and include: incubation space rental, exhibition spaces, access to utilities, consulting services, promotional services, etc. Hosted companies can take the benefit of certain features in terms of rental costs of incubation space / manufacturing, utilities, etc.

In the region, there are seven clusters: ASTRICO Savinesti (clothing-textile), ICONIC (IT New Media Iasi), APT Bucovina (tourism) IND-AGRO-POL (food and agriculture), bioROne (biotechnology) EURONEST ICT Hub (IT & C), IMAGO-MOL (medical imaging). There are also various business support organizations such as chambers of commerce and industry, employers' associations, Businessmen Association Iasi 2003 and National Council for SMEs – Regional Branch.

Our Mission: North-East Regional Development Agency (NE RDA) is generator of economic and social development of the North-East Region. RDA elaborates and develops strategies, attracts resources, identifies and implements financing programs and offers services for stimulating sustainable economic growth, partnerships and entrepreneurship.

Who we are: The North-East Regional Development Agency is a non-governmental, non-profit making organization of public utility established on April 1st, 1999 according to the Regional Development Law 151/1998, subsequently altered and amended by Law 315/2004. The agency is the executive body of the North-East Regional Development Board, body held responsible for elaboration and implementation of regional development policies.

The activity carried out by the agency is focused on regional planning and programming, implementation of European-funded programmes, development of partnerships with local public administrations and social, cultural and economic environment of the area, human resources development as well as development of own projects.

The North-East RDA has been certified according to the SR EN ISO 9001:2008 quality management standard for the activity performed in the field of regional development.

Results: In supporting the regional innovation system, **since June 2005**, the North-East RDA carried out the project **DISCOVER North - East Romania** (*Development of an Innovative Strategy Continuously Oriented to Valorisation of the Economic Resources in North East Romania,* financed under FP6), and at the end of 2008 it was developed **the first Regional Innovation Strategy of North-East Region**, which contributed to the strengthening of collaboration with academia and R&D sector in the region.

For this purpose, the following activities were realised:

- **analysis of the SMEs needs** in the region through questionnaires addressed to over 2,000 SMEs in the region (with the assistance provided by the partner Infyde Spain), making 40 interviews (face-to-face) with companies in the region and 20 technology audits with external assistance provided by partner FUNDECYT Spain;
- **analysis of research, development and innovation regional supply** by making 41 interviews (face-to-face) with R & D units of public / private sector, of which 20 with external assistance provided by partner Metron Srl Italy;
- **analysis and evaluation of services and development needs** for technology transfer and know-how structures available in North East (9 structures).

Since 2010, North-East RDA has taken steps to activate **the first cluster structures in the region**. Thus, there were created the ASTRICO Nord-Est textile cluster, the cluster of medical imaging IMAGO-MOL and tourism cluster APT Bucovina.

Another important project implemented by RDA since 2012 is ClusterPoliSEE (Smarter Cluster Policies for South East Europe) (SEE Program) which is aimed at **improving the skills of the SEE governments to develop and implement regional policies on the creation and development of clusters.** There have been carried out different activities: inventory and description of existing clusters in North-East by updating the data in Cluster Observatory of regional cluster organizations; qualitative and quantitative analysis of cluster policy in Romania. Currently, North-East RDA runs a pilot activity in the region which will focus on the analysis of value chain of a regional cluster, facilitating bilateral meetings business-to-business (B2B) for attracting and completing missing links necessary to improve economic performances of cluster and organizing, for the first time in the region, of a cluster-to-cluster event in order to attract new members and generate hybrid activities required for their specialization.

In 2013, North-East RDA initiated and completed the **Smart Specialization Strategy of the North-East Region** (financed under Operational Program Technical Assistance 2007-2013), thus obtaining a necessary tool for achieving efficient investment (ratio results / cost) and efficient (ratio impact / objective) in research and innovation.

To achieve this objective, the North-East RDA implemented the following activities:

- **regional context analysis and the innovation potential** of the North-East Region and identify potential smart specialization sectors, namely agrofood, textile and clothes, ICT and biotechnologies;

It was analysed the expertise in the field of R&D and economic competitiveness, in order to make a correlation between research and development activity and business performance of the regional innovation system. The analysis was based on official data published by Eurostat and the National Institute of Statistics and some internal studies made by private consultancy companies (GEA and ARUP).

In addition to the analysis of macroeconomic indicators related to the positioning of our region compared to other regions (such as GDP, GDP / capita, percentage of GDP expenditure for research and development), there have been taken into account also indicators related to efficiency of economic activity (such as gross

value added, labour productivity) and other indicators that characterize the business environment: the number of active local units, staffing, turnover and net investment in each sector. There were also identified the areas with potential for clustering and could be suggested some directions of development at the sectoral level.

- **identify issues, barriers and solutions for sector development** by organizing 13 workshops (6 sectoral workshops, 5 clusters workshops, 2 workshops with business support representatives), involving local and county authorities, academics representatives, regional R&D and technological transfer representatives, major companies, chambers of commerce, other business support associations;
- **define the vision of the region's economic specialised development and establish the priorities of the strategy.**

The SWOT analysis realised is:

STRONG POINTS	WEAK POINTS
Identification of industrial agglomerations which could by „clusterised" – wood and furniture industry, machinery and equipment industry, rubber products industry; Existence of six clusters – medical imaging, clothing, tourism, new media, ICT, food industry; Strong link between PIB/capita and expenses on research-development; The share of SMEs in total firms is high (99.7%) and similar to the national and European level; The existence of dedicated network innovation activity and the Regional Innovation Laboratory; Second place in the national ranking in terms of the number of innovative enterprises, most of them making both product and process innovation; Existence of Centres of Excellence in higher education institutions; The existence of the 79 recognized research centres CNSIS; Business infrastructure well represented at regional level; High number of PhD's and doctoral schools in the region, most of them choosing real and technical profile; Skilled labour in RDI The high rate of youth employment.	Low value of GDP in the North-East Region - intra-regional disparities accentuated; Low value of GDP/capita; Structure of gross value added at the county level is heterogeneous; Employment rate in the region much lower than the national average; Uneven distribution of active local units in counties in the region (highly concentrated in Iasi and highly dispersed in Botosani and Vaslui); Density of SMEs very low, placing the region in last place nationally; Reduced spirit of initiative of the population in terms of number of new enterprises; Low levels of foreign direct investment in 2011 - 7th place nationally, most investments are in areas with low added value; Low competitive potential for Suceava, Neamt, Bacau, Vaslui, Botosani; Last place in terms of innovation expenditure; Labour productivity below the national average; Low share of expenditures on research and development in the region's GDP; Results of the CD enterprises below national average (turnover, number of employees); Low number of employees in research and development in the region; Reduced collaboration between business environment and universities / research institutes - low technological transfer.
OPPORTUNITIES	THREATS
The share allocated to the Member State level of	Legislative, political, economic and institutional

R&D and innovation and the competitiveness of SMEs for the period 2014-2020;	instability;
Develop a national strategy for research, development and innovation 2014-2020;	Reduced ability for co-financing; Emigration of qualified personnel, particularly in the areas of knowledge-intensive;
Funding opportunities for research and development projects by national and structural funds;	The reluctance of enterprises to invest in research and development activities;
Development of business environment as a result of establishment of business support infrastructure.	Lack of coordination among different sectorial policies with implications for the development of the RDI sector.

Declaration of vision and mission

Actual status in 2013 (to moment, no intervention scenario)

At present North-East Region holds competitive advantages at European level, mainly through low added value products, which main argument is the price (lower due to cost advantages). Innovation remains restrained in some excellence areas, without a disseminated impact at the level of all companies in the economy. The development is slowed by the quality of education and the availability of work force, as well as by the insufficient development of the business support networks and clusters. As a consequence a non-intervention scenario, the present economic profile of the region is not sustainable on a long term, blocking the region on the last position at national level in terms of GDP/inhabitant.

The development vision for 2020 (t1 moment, intervention scenario)

The North-East Region creates transfers and implements innovation in a systemic manner, mainly in 4 key sectors – agro food, textiles and clothes, IT&C and biotechnologies. These fields of smart specialization:
- transform local resources in products with high added value,
- have catalyst and multiplication effects towards the other branches of the regional economy,
- are highly competitive at global level,
- ensure regional economy' sustainable effect.

At regional level, there have been identified the following **sectors with potential for smart specialization**:

- **Agro-food sector**: agronomy, crop science, food science, biotechnology, soil research, nano-materials for protein separation;
- **ICT sector:** future networks, internet services, software, design embedded systems, personal and health systems, ICT for energy efficiency, ICT access, computer science and artificial intelligence.
- **Textile-clothing sector**: advanced biomaterials, functional textiles, medical textiles, smart textiles for interconnecting clothing, biomaterials, technical textiles, textile composite structures, knitted structures with thermal properties, mechanical protection knits, clothing synergistic;
- **Biotechnology sector**: pharmaceutical biotechnology, medical biotechnology - microbial and cellular (obtaining effective antitumor preparations, antiviral, antimicrobial, vaccines, methods for early diagnosis of diseases).

Smart Specialization Strategy - priorities, measures

Horizontal Priority 1: Developing innovation competences for future generations

Measure 1.1: Synchronizing the regional training offer with the actual level of innovation in priority areas of activity

To this purpose, the following types of projects are considered of priority:
- Development of „curricula partnerships" between educators and enterprises in the fields with regional smart specialization potential, in the view to actualize the education offer (specialties and thematic of the courses introduced in schools and universities);
- Support for educators in familiarizing with new trends and technologies in priority sectors of activity.

Measure 1.2: Establishing contacts among pupils, students, and master students and innovating companies in priority fields of activity
This measure proposes to familiarize pupils and students with the actual technological level from innovative companies, through work placed activities. To this purpose the following types of projects are considered:
- Revitalization of the study visits organized by the classrooms of pupils and students in enterprises and coupling them with training coursed (for example „how it's made..." or new technologies presentations);
- The support of pupils, students, and master students that take part to practical stages / internships in innovative enterprises from priority sectors (through bourses or other facilities).

Measure 1.3: Increasing the role of extracurricular activities in promoting creativity and innovative attitudes
To this purpose, the following types of projects are considered of priority:
- Supporting the Kids Club activities or other types of afterschool activitiesas well as students associations activities (through procurement of equipment, rehabilitation of buildings and spaces), to attract pupils and students in extracurricular technical type activities;
- Organization for pupils, students and master students of contests of ideas and innovative projects, in partnership with regional companies – example „Olympics contest/Night of small inventors";
- Support of pupils, students and master students to participate in competitions of ideasand innovative projects organized at national and international level (through financial incentives).

Horizontal priority 2: Supporting innovative enterprises within the North-East Region

Measure 2.1: Assistance services for transforming innovative ideas in business ideas
To this purpose the following project ideas are considered of priority:
- Establishment of new business support structures and encouraging the development of the existing ones (for example business incubators, business hubs, technological parks etc.), in order to attract new companies;
- Implementation of programs for „simulated enterprises" to facilitate translation into practice of innovative ideas of pupils and students;
- Develop of "shared resources" initiatives;
- Consultancy activities for innovative start-ups and spin-offs.

Measure 2.2: Implementation of financial instruments for encouraging the establishment and development of new innovative companies in the region
To this purpose the following type of projects will be considered of priority:
- Development of business-angels networks;
- Attracting in the region new risk capital funds;
- Microcredit schemes for innovative business ideas.

Horizontal priority 3: Supporting the existing and emerging cluster initiatives, as support for the development of the regional innovation system

Measure 3.1: Creation and consolidation of business networks and clusters

To this purpose the following projects will be considered of priority:

- Establishment of regional horizontal business networks (for example associations or groups of producers) or horizontal business networks (value chains), as well as new clusters;
- Support for existing business networks and clusters to increase their economic performances and to attract new members;
- Support for inter-clusters and inter-networks cooperation, including through joining international networks.

Measure 3.2: Increasing the capacity of integrated action of existing business support networks and clusters

- To this purpose the following projects will be considered as of priority:
- Support for the management of the existing business networks and clusters;
- Support for the development of services offered by business support networks and clusters to their members.

Measure 3.3: Support to the consolidated business networks and clusters to develop as innovation systems

To this purpose the following projects are considered to be of priority:

- Implementation of applied research projects in the regional clusters, developed in partnership by companies and research units;
- Extension and modernization of research-development-innovation regional infrastructure, through interventions at the level of existing clusters;
- Ensuring technology, know-how and best practices transfer at the level of business support network and regional existing clusters.

Horizontal priority 4: Technical assistance

Measure 4.1: Development of the S3 implementation, monitoring and evaluation systems

To this purpose the following projects will be considered of priority:

- Creation of a regional consortium for smart specialization at the level of North-East Region;
- Develop monitoring studies to analyse the implementation results obtain by S3 in the region.

Methodology of monitoring of Smart Specialization Strategy

The monitoring of the implementation of the strategy will be developed according to the following **schedule of activities:**

1. Activities of monitoring of the implementation of Smart Specialization Strategy will be realised in 2017, respectively in 2019, on correlation with the process of reviewing of performances at national level, required by European Commission for all Member States (in terms of providing, for the first time, of a performance reserve).

2. North-East RDA will have the attributions of documentation of the selected context, output and result indicators, as per the above schedule, as follows:
   - *for context indicators*: the values of indicators will be obtained from secondary sources – statistical data from the National Institute for Statistics (for example Database TEMPO Online);
   - *for output and result indicators*: the values of indicators will be obtained from Annual Implementation Reports of Operational Programs related to period 2014-2020, elaborated by Management Authorities/ Intermediate Bodies (based on data from SMIS), in the context that all priority projects (see Annex 1) will be proposed to be financed from Operational Programs.

3. The monitoring activity of the implementation of Smart Specialization Strategy of North-East Romania can be subsumed, from financial, informational and human perspectives involved, to monitoring activity of implementation of Regional Development Plan 2014-2020, which will be (most probably) the subject of technical assistance contracts concluded between RDA and Ministry of Regional Development and Public Administration, in the context that the two processes, implicitly and the programmatic documents results were correlated even since the phase of conception.

4. In the context in which it is found that the information available on the existing information sources (NIS databases, annual implementation reports) are not sufficient to reflect the progress of implementation of the strategy, complementary can be used the application of monitoring questionnaires by those organizations which are implementing projects relevant to the strategy. However, if the process of collecting information from primary sources, based on a questionnaire, will be difficult, is recommended the application of the questionnaires by established regional clusters, already responsible for monitoring the implementation of projects undertaken by their members.