



Regional Innovation Action Plan 2014-2020

North-East Regional Development Agency

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I. Introduction

Science, technology and innovation are strategic domains, which ensure constant technological progress and thus, the sustainable development and economic competitiveness of a country.

This area is characterized by dynamism and complexity, and it is based on the extensive use of technology transfer, fast and modern communication and diversity of the information processing methods, which have led to a new society type, namely „informational society”.

Research development innovation (RDI), technology transfer (TT) and information technology (IT) areas, are currently independent economic sectors, which offer support for the development of other economic sectors, opening new horizons for increasing industry competitiveness, and last but not least, generating new workplaces.

The “Innovation Union” initiative is based on a broad concept of innovation, which includes, not only new or improved products and processes, but also services, new marketing, branding and design methods and new forms of business organizations and ways of collaboration. Innovation is increasingly seen as an open system in which different actors interact and cooperate.

Innovation’s geography is very diverse, some regions lying in a global competitive position in the technological frontier, while others are constantly making efforts to get closer to this border by adopting and adapting innovative solutions for their peculiar situation („innovation division”). Public support needs to adapt its strategy and interventions so they reflect this diversity.

The full innovation potential of UE regions have to be mobilized in order to achieve the smart growth objective, proposed by Europe 2020. Innovation is highly relevant for all regions: it helps the most advanced ones to keep their position and the less advanced to catch up with them.

The region’s knowledge and innovation capacity depends on a variety of factors – entrepreneurial culture, workforce skills, education and training institutions, innovation support services, technology transfer mechanisms, R&D and TIC infrastructure, mobility of researchers, business incubators, new funding sources and local creative potential.

The North-East region, ranked in the top two regions in Romania by the degree of innovation, has some comparative advantages and competitive fields: food, textiles, tourism, ICT, health services.

For the next period, North East aims at improving the innovation by supporting measures for education, research, information and cooperation measures are aimed at increasing the competitiveness of the region.

II. General information on the area of North-East Region

RDA area consists of six counties (Bacău, Botoșani, Iași, Neamț, Suceava, Vaslui), totalling an area of 36,850 square km and a population of 3,707,600 inhabitants (in July 1, 2010), being, in this regard, first among the eight regions of the of Romania.

Access to the main centres of the region can be made as follows:

Road:

- ✓ București – Bacău – Roman – Suceava - Siret (border crossing checkpoint) – European road E85
- ✓ Suceava -Vatra Dornei- Cluj (E576) which links to the European road E60 Cluj Napoca-Oradea
- ✓ Bacău – Brașov – Pitești European road E574 (which links to the international road E70 Craiova – Vidin - Scopje)
- ✓ Bucuresti-Bârlad–Albița (checkpoint) - Chișinău – European road E581 that crosses Vaslui county
- ✓ Roman-Tg. Frumos with branches to Botosani (E58) and Iasi - Sculeni (E 583)

Railway:

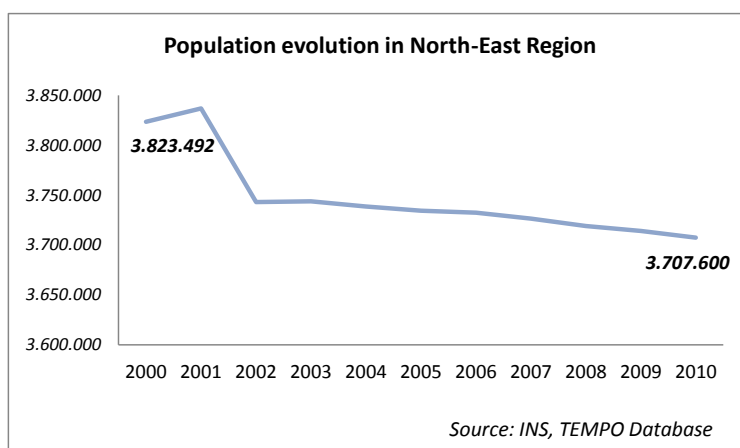
- ✓ București – Bacău – Roman- Suceava – Siret – Ucraina- main railway 500
- ✓ București - Iași – Ungheni - Republica Moldova – main railway 600

Air:

- ✓ Aeroportul Bacău - internal and international
- ✓ Aeroportul Iași – internal and international
- ✓ Aeroportul Suceava – internal and international

A rate of 57% of the RDA's area population lives in the rural areas. Over 55% of the total consists in population aged 24-64.

In 2010, the school population in the region was 17,56% of the total school population in Romania and the number of students from this region enrolled in universities was 10,83% of the national total. (Source: National Institute of Statistic, TEMPO Database).



III. Current economic situation of North-East Region

In 2010 in RDA area were a total of 53,156 active companies. Judging by turnover, regionally, the main national economy activities are: trade – 42% of total regional turnover, manufacturing – 24.1%, constructions – 20.7% and agriculture - 3.2%.

In terms of foreign participation companies number evolution, in January 2009 (compared to January 2008) it was registered a decrease of 42%, and in January 2010 (compared to January 2009) a 20 % decrease, at regional level.

At county level, the most affected counties were: Iasi with a 53 units decrease from 2008 (158 units) to 2009 (105 units) and a 22 units decrease from 2009 to 2010 (83 units), Neamt – 41 units decrease from 2008 (75 units) to 2009 (34 units) and 3 units decrease from 2009 to 2010 (31 units) and Suceava with 19 units decrease from 2008 (61 units) to 2009 (42 units) and 20 units decrease from 2009 to 2010 (22 units)

In terms of size class, about 90% of the active companies in RDA area are businesses with up to 9 employees (microenterprises).

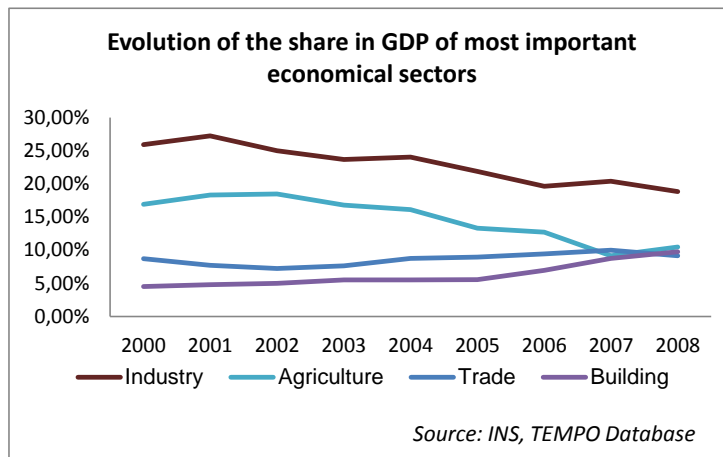
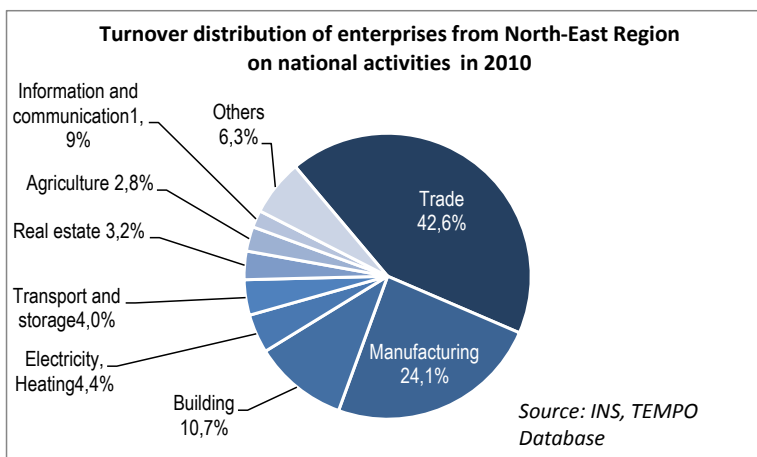
In RDA area, the crisis has shown the fragility of some industrial activities, which had registered almost an explosive growth in the before-crisis period (textiles and clothing, building materials) and that in the context of global economic downturn were forced to restructure, to restrict. At the same time, in some counties which in the past had made up the area with high unemployment rate, imbalances on the labor market worsened (e.g. Vaslui).

At county level (excepting Suceava county), it was found that textiles and clothing rank first in the local public authorities preferences. Wood industry development can be found in Bacau, Suceava and Neamt's administration options, and food industry in Bacau, Botosani and Suceava counties.

There is an increasing concern for supporting the strategic branches. Most options are oriented towards the development of the IT sector and biotechnology, while nanotechnology, pharmaceutical industry and alternative source energy, rank lower on the priorities lists.

In favor of supporting biotechnology are mostly Suceava and Iasi counties, for IT industry Bacau, Botosani and Suceava counties, and for pharmaceutical industry Botosani, Iasi and Neamt counties. In what regards the business support structures, the highest interest is currently oriented towards the business incubators.

According to turnover, the main 15



companies in the area are operating in the following fields: trade, automotive, metallurgy, food industry and textiles.

When it comes to Gross domestic product per capita(GDP/capita), RDA area had in the period 1999-2008 the lowest level between the 8 development regions of the country.

At regional level, GDP/capita soared in between 2000-2008. Analyzing the evolution of the main economic sectors shows that the share of construction and trade in regional GDP was growing in 2008, while agriculture and industry were on a downward trend.

In march 31, 2012, the unemployment rate in the area was 5.7%, above the national average of 5.4%. The highest unemployment rate was registered in Vaslui county– 9.6%, and the lowest in Botosani – 3.7%. Also, the unemployment rate among men was higher than in women.

13.30% of all the active innovative companies operate in the RDA area. This is an active share, given the fact that the lowest percentage is registered in the South-Western Region with 3.4%, and Bucuresti-Ilfov region registers 22.74%.

Regarding the nature of innovation efforts, it is found that most SME's focused mainly on the new products (34.73%) and new technologies (32.82%), but only 0.38% focused on the renewal of the information system.

It is noted that the share of SME's in the RDA area who had innovative approaches is less than the national average (18.70% vs. 19.98%).

If we do a comparative analysis by development regions, we find that SME's in the RDA area are less focused on the purchase of new products, the registered share being one of the lowest, but pays great attention to new technologies, the recorded value being exceeded only by the South Region.

The statistical survey on innovation shows that the blocking factors can be divided into three categories: cost factors, knowledge accumulation factors and market factors. In this context, the blockage was caused by high innovation costs, the domination of the established companies on the market, difficulties in finding partners for cooperation, fluctuating demand of innovative goods and services or lack of qualified staff.

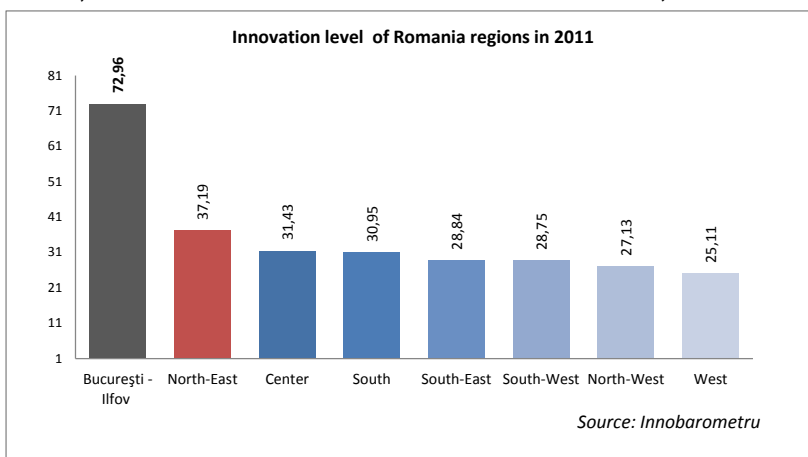
SME's analysis in terms of percentage of investment devoted to innovation in products, processes or organization, shows that 30.89% of the surveyed companies hadn't assigned a percentage of investments innovation. Deficiencies in technological development is a major obstacle for enterprises, especially SME's, who lack the financial resources for the innovation process.

Transfer structures For the RDA area, were approved and implemented the following business infrastructure projects: The Science and Technology Park -TEHNOPOLIS Iasi, HIT Hemeiusi Bacau Industrial Park, Business Incubator for SME's Botosani, Bucovina

Economic Centre –Suceava, Tutova Business Centre – Barlad, Vaslui county, Business Resources Centre – Vaslui, Moldova Fairground Centre – Iasi, Business and Exhibition Centre – Bacau.

Qualitative Analysis Setting the context for developing the regional innovation analysis has as important elements the following:

knowing the current SME's innovation need, the innovation offer coming from



universities and research institutes in RDA area and also the possibilities offered by interface structures at regional level.

By interviewing several organizations, a series of questionnaires structured by area of interest were filled out, from which we can conclude: Regional innovation offer. Research and development (activities) continues to take place, mostly in public sector (60%). RDA area has numerous research units: R&D units, higher education units, agricultural resorts and economic agents. Highly important is the development that the area has known in the last few years in what concerns the development of the research and excellence centres within the universities, recognized by the National Council of Scientific Research in Higher Education –CEEX government program.

IV. SWOT analysis for North-East Region

Strengths	Weaknesses
<ul style="list-style-type: none"> ✓ The existence of highly trained/qualified human resources working in R&D and IT sectors ✓ The existence of three universities, that have as main concerns –in addition to education-scientific research, invention and technological innovation ✓ The existence of basic infrastructure for research, development, innovation and technology transfer, 79 units(about 12% of national total) ✓ The presence in the area of 13,3% from the national total of companies with innovation activity ✓ The presence in the area of companies specializing in software production and IT services (delivery) ✓ The existence of fields with growth potential (including through innovation), such as: food industry, machine, machinery and equipment-building industry, light industry (knitwear, clothing, footwear), farming, pharmaceuticals, IT, renewable energy sector, tourism, crafts. ✓ Well developed and high coverage rate telecommunications infrastructure ✓ The presence of the European road E85 which crosses the area 	<ul style="list-style-type: none"> ✓ Insufficient/Low funding of RDI sector both from public and private sources ✓ Low investment level in modernization and refurbishment ✓ Low level of collaboration between research centres/universities and business environment which hinders the use of research results and technology transfer to the economy ✓ Low rate of grants access from the private companies ✓ Few ISO certified companies ✓ Low share of foreign investment in the RDA area ✓ Low labour productivity in the RDA area ✓ Low level of entrepreneurial and innovative culture ✓ Large development gap between RDA area and the other development regions (GDP per capita is only 68.39% of national total) ✓ Insufficient industry contribution to the regional GDP (44.3%) ✓ Insufficient information exchange and cooperation within the business environment ✓ Lack of a joint market for supply and need ✓ Unproper promotion of innovation
Opportunities	Threats
<ul style="list-style-type: none"> ✓ Increasing the importance of innovation in national and European politics ✓ Funding opportunities RDI projects by national and structural funds ✓ Ability business environment as a result of construction of industrial parks and business incubators science ✓ Increased dynamic SME sector ✓ Development of the trade due to the location at the European Union ✓ Existence regional strategy for innovation first ✓ Increase the number of projects in the North-East with the aim to encourage innovation ✓ Encourage the development of growth poles ✓ Creating Union National Innovation Partnership ✓ Existence concern of North-East Regional Development Agency to promote innovative development initiatives 	<ul style="list-style-type: none"> ✓ Availability of enterprises to achieve low RDI expenditure, mainly due to the financial ✓ Low competitiveness of companies in the region in the European market ✓ Migration of workforce and specialized research and innovation activities to other regions and countries that offer a motivating salary ✓ Lack of a structure to integrate the regional innovation system ✓ Lack of coordination between different sectorial policies with implications for development of CDI ✓ Increasing the volume of imported products on the Romanian market\ ✓ Low level of exports ✓ High levels of piracy threatening IT sector development.

V. Strategy for North-East regional development

The vision of innovative development of the North East considers innovation as the economic competitiveness, with subordinate strategic objectives for the knowledge economy, adding value to regional products, entrepreneurial culture in the spirit of innovation.

The innovation strategy of the region encourages economic competitiveness in the North-East region by creating and developing innovative companies, the introduction of modern technologies in research units - development - innovation, harnessing its infrastructure and stimulating partnerships between universities, research institutions and companies.

The specific objectives of the Regional Innovation Strategy are:

- ✓ Develop of knowledge and generation, dissemination and use of innovation through effective transfer and commercialization of innovation;
- ✓ Increasing regional adding value and generating new economic activity;
- ✓ Promoting an economic and social environment and maintain adequate expansion process innovative and entrepreneurial culture.

Following analysis, the North-East Region has a number of competitive and comparative advantages in the following areas: food, textiles, tourism, ICT, health services.

Competitive and comparative advantages of the region can enunciate: skilled labor, the existence of strong universities and basic infrastructures for research, development, innovation and technology transfer, establishment of networks of cooperation on specific areas (in light industry, health, tourism, IT), the existence of areas with important traditions (light industry, furniture), there is a large number of enterprises with innovation activities, presence of special tourist resources (especially monasteries from Bucovina).

One of the goals of the transition region is based on competitive factors (labor, natural resources) or the investment based on innovation, which involves developing research capacity in high technology (high tech) value-added potential export and drive other productive sectors.

North East Regional Development Agency will work for co-opting stakeholders and regional resources to increase the competitiveness of these sectors and the efficient use of structural funds and increase synergies between different Community policies, national and regional, as well as of investments public and private.

State of the innovation has some issues, in terms of strategic vision should be improved. Among these, mention the inadequate awareness of innovation, poor awareness of the benefits created by innovation, lack of general guidelines for innovation (since the period of education and training through to stage marketing of goods and services), general reluctance theme to innovation and to concrete actions in the sphere of innovative character of weak applied research, etc.. Two main factors identified are represented by problems involved in preparing the mindset of most entrepreneurs vis-à-vis the unsatisfactory situation of innovation and innovative culture. For the next period, the North East Region aims to improve these shortcomings by supporting **education and information** measures, in order to allow the formation of the next generation of an educational environment conducive to innovation and cultural information. Vision strategy, in terms of supporting educational and information measures is that by 2020, most of the research themes of the North East have a highly practical tool that can contribute to the competitiveness of regional business

environment and culture entrepreneurship in the Region to improve significantly for the purposes of openness to innovation.

By 2020, the European Union proposes a target of 3% of GDP allocations for CD & I. For Romania, the target is 2%, given that, in 2010, the value of this indicator was only 0.5%. In North-East, the percentage that is research, development and innovation is only 0.3% of GDP, the difference is significant and relevant to the innovation gap within the region they register compared with the general situation in Europe. In the following period, the North-East will have to improve their research in the technological, scientific and practical. Supporting basic research will be a priority, aiming to improve infrastructure and facilities specific research to improve collaboration between providers and between them and demand generators and improve the scientific training of researchers. Principles which will guide future research measures will be performance and efficiency in using resources and knowledge.

Among the weaknesses identified in the comprehensive analysis and discussion in public consultation are insufficient cooperation between research centres, universities and businesses to use research results and achieve technology transfer to the economy. Problems identified collaboration is not just the supply-demand relationship, but occur even between organisms of the same type (research institutes, universities, businesses). For the next period, interest should be given to improving relations of **cooperation** between relevant actors in the field of innovation, in order to support the dissemination of results in the field, to improve applicability of research and development to facilitate partnerships. It will be a priority topic clusters, aiming at supporting the establishment of new clusters in areas with potential region (IT & C, light industry, food processing, tourism, etc..).

Vectors that will guide actions and innovative in the North East will target regional competitiveness will be **education, research, information and cooperation**. Regarding **education**, one of the priority areas of smart growth will follow completion of traditional education systems with attractive component, with strong practical meanings that learners improve their approach in the sense applied to study innovative sectors. We have supported the development of programs focused on identifying practical solutions to improve products and production processes. By supporting this vector, the North East will improve research and innovation, one of the priority areas for smart growth in the European Union. Activities will be developed consistent with the priority of "scientific excellence" Framework Program 2020.

In the following period will be sustained **excellence in research** while pursuing a high level of applicability of the results, which contribute to creating new products and services that contribute to regional and regional economic development by generating added value and new jobs.

Information activity on research and innovation would be focused on economic environment, high priority will be given to the SME sector. Will be promoted ideas and successful models of innovation, emphasizing the practical side and profitable adoption of innovative design, production, marketing, sales, etc..

A section priority information activities will be dedicated to increasing accessibility to financing innovative SMEs in the priorities set out in the "Innovation union", whereby to facilitate access to finance for SMEs and removed barriers to access market innovations they produce.

Cooperation between stakeholders in the field of innovation will be a continuing concern and priority of the North East. Will facilitate direct and active collaboration between academia and research institutes on the one hand and business on the other hand, supporting partnership structures such as clusters, in areas with high potential for application and multiplication of innovation. Partnerships and networks will be supported by cooperation between promoters of innovation at regional level and between them and other interested parties. We have facilitated access to European networks of cooperation and transfer systems and marketing innovation. Using information and communication technologies will be a priority, as indicated by the European principle would smart growth.

VI.RDA's priorities & measures planned for the future period 2014-2020

VECTOR 1: Education - development in engineering education and training to continue focusing on strategic skills and future jobs

1. Initiation of training modules to develop strategic, innovative and creative thinking (both for managers and executive staff)

Partners: North-East Regional Development Agency, universities

Target date: 2014-2020; *Estimated budget:* 150.000 EUR

Financing source: Operational programme for human resources 2014-2020, Transnational cooperation program for 2014-2020

Monitoring indicators: 300 people trained in strategic planning, 300 people trained in innovation manager, 300 people trained in technical creation

2. Organization of courses for all stakeholders on the concept of cluster and partnership

Partners: North-East Regional Development Agency, Chambers of commerce, clusters

Target date: 2014-2020; *Estimated budget:* 100.000 EUR

Financing source: Operational program for competitiveness 2014-2020, Transnational cooperation program for 2014-2020

Monitoring indicators: 200 persons trained on the cluster concept

3. Development a marketing research to identify reluctance in collaboration from SMEs

Partners: North-East Regional Development Agency, Chambers of commerce

Target date: 2014-2020; *Estimated budget:* 100.000 EUR

Financing source: COSME Program, Transnational cooperation program for 2014-2020

Monitoring indicators: 1 market study realized

4. Promoting the creation of innovative companies

Partners: companies, North-East Regional Development Agency, Chambers of commerce, business support structures

Target date: 2014-2020; *Estimated budget:* 2.000.000 EUR

Financing source: COSME Programme, Operational program for competitiveness 2014-2020

Monitoring indicators: 10 innovative companies created in the region

5. Supporting companies in introducing innovations

Partners: companies, North-East Regional Development Agency

Target date: 2014-2020; *Estimated budget:* 5.000.000 EUR

Financing source: Operational program for competitiveness 2014-2020, Regional Operational Program 2014-2020

Monitoring indicators: 30 SMEs which acquired innovative technologies

VECTOR 2: RESEARCH - Increase the quality and quantity in applied research in the areas of potential growth activity: wood processing, textile, mechanical, food and agriculture, biotechnology, tourism and ICT services

1. Supporting SMEs in developing marketing innovation

Partners: North-East Regional Development Agency, Chambers of commerce

Target date: 2014-2016; *Estimated budget:* 150.000 EUR

Financing source: Horizon 2020 Programme, Transnational cooperation program for 2014-2020

Monitoring indicators: 30 companies informed about marketing innovation

2. Developing a sociological research on innovative thinking and clusters

Partners: North-East Regional Development Agency

Target date: 2014-2020; *Estimated budget:* 150.000 EUR

Financing source: COSME Programme, Transnational cooperation program for 2014-2020

Monitoring indicators: 1 sociological research realized

3. Supporting participation in European research projects

Partners: Universities, Research Institutes, North-East Regional Development Agency

Target date: 2014-2020; *Estimated budget:* 500.000 EUR

Financing source: Horizon 2020 Programme

Monitoring indicators: 3 research projects implemented

4. Development of applied research projects on regional competitive fields like: food industry, textile industry, tourism, IT, health care

Partners: Universities, Research Institutes, North-East Regional Development Agency

Target date: 2014-2020; *Estimated budget:* 2.000.000 EUR

Financing source: Horizon 2020 Programme, National Program for research 2014-2020

Monitoring indicators: 5 projects of research developed

VECTOR 3: INFORMATION - increasing the number of patents and licenses acquired / applied by companies

1. Awareness of innovation for SMEs

Partners: North-East Regional Development Agency, Chambers of commerce

Target date: 2014-2020; *Estimated budget:* 200.000 EUR

Financing source: Horizon 2020 Programme, Transnational cooperation program for 2014-2020

Monitoring indicators: 1 awareness campaign realized, more than 180 SMEs involved in the awareness process

2. Dissemination and information of SMEs on legislation related to patents and copyrights

Partners: North-East Regional Development Agency, Chambers of commerce

Target date: 2014-2016; *Estimated budget:* 100.000 EUR

Financing source: Horizon 2020 Programme, Transnational cooperation program for 2014-2020

Monitoring indicators: more than 180 SMEs informed

3. Organizing an annual regional seminar for innovation with participation of all stakeholders of innovation (INOVAR^{NE}-Innovation in the North-East)

Partners: North-East Regional Development Agency, Universities, Chambers of commerce,

Target date: 2014-2020; *Estimated budget:* 20.000 EUR/an

Financing source: Transnational cooperation program for 2014-2020, own sources

Monitoring indicators: 1 regional seminar dedicated to innovation, 50 participants at the event

4. Action of informing and involving students about local and regional opportunities of employment

Partners: North-East Regional Development Agency, Universities, AJOFM

Target date: 2014-2020; *Estimated budget:* 10.000 EUR/an

Financing source: Transnational/cross-border cooperation program for 2014-2020/ CE DG Communication (Europe Direct)

Monitoring indicators: 1.000 student yearly informed

5. Publishing a quarterly regional publications (Regional InfoBuletin) that include a section for promoting results CDI

Partners: North-East Regional Development Agency

Target date: 2014-2020; *Estimated budget:* 50.000 EUR

Financing source: Transnational cooperation program for 2014-2020

Monitoring indicators: 1 regional publication, minimum 8.000 copies/year

6. Creating a regional innovation portal including a database on European legislation in the field of innovation and information on all research results of universities and companies interested in innovation

Partners: North-East Regional Development Agency

Target date: 2014-2020; *Estimated budget:* 9.500 EUR

Financing source: Transnational cooperation program for 2014-2020

Monitoring indicators: 1 regional portal for innovation

7. Campaigns for public awareness on the importance of innovation to increase competitiveness

Partners: North-East Regional Development Agency

Target date: 2014-2020; *Estimated budget:* 200.000 EUR

Financing source: Operational Program for human resources 2014-2020, Transnational cooperation program for 2014-2020

Monitoring indicators: 1.200 persons informed about innovation

VECTOR 4: COOPERATION - increase in the number of interactions between supply and demand for innovation

1. Promoting projects of exchanges of experience regarding clusters

Partners: North-East Regional Development Agency, regional clusters

Target date: 2014-2020; *Estimated budget:* 350.000 EUR

Financing source: Transnational cooperation program for 2014-2020, Operational program for competitiveness 2014-2020

Monitoring indicators: 5 experiences exchange realized

2. Improving collaboration between university and SMEs from region by involving students in the development of internships

Partners: Universities, Chambers of commerce, companies, North-East Regional Development Agency

Target date: 2014-2020; *Estimated budget:* 200.000 EUR

Financing source: Operational program for human resources 2014-2020

Monitoring indicators: 200 students who did internships

3. Remove barriers to registration of inventions and innovations

Partners: Chambers of commerce, North-East Regional Development Agency, Ministry of economy, commerce and business environment

Target date: 2014-2017; *Estimated budget:* 150.000 EUR

Financing source: Regional Operational Program 2014-2020, Transnational cooperation program for 2014-2020

Monitoring indicators: 1 set of legislative proposals to remove barriers

4. Developing a regional strategy on clusters

Partners: North-East Regional Development Agency

Target date: 2014-2016; *Estimated budget:* 150.000 EUR

Financing source: Regional Operational Program 2014-2020, Transnational cooperation program for 2014-2020

Monitoring indicators: 1 regional strategy on clusters realized

5. Organizing an annual regional exhibition on innovation

Partners: Universities, companies, North-East Regional Development Agency

Target date: 2014-2020; *Estimated budget:* 10.000Euro/actiune

Financing source: Transnational cooperation program for 2014-2020, Cross-border cooperation program, own sources

Monitoring indicators: 1 annual exhibition organized

6. Supporting new associative structures such clusters

Partners: North-East Regional Development Agency, clusters, companies

Target date: 2014-2020; *Estimated budget:* 400.000 EUR,

Financing source: Operational program for competitiveness 2014-2020, Transnational cooperation program for 2014-2020

Monitoring indicators: 3 new clusters initiated in the region

7. Stimulate, support actions and exchanges of experience, performance management in the Information Technology Centers, industrial parks and business incubators

Partners: Tehnopolis, business incubators, North-East Regional Development Agency

Target date: 2014-2020; *Estimated budget:* 300.000 EUR

Financing source: Horizon 2020 Programme, Transnational cooperation program for 2014-2020

Monitoring indicators: 3 exchanges realized, 5 persons trained in management parks

8. Development of manuals of good practice in innovation in Europe and Romania

Partners: North-East Regional Development Agency, Universities

Target date: 2014-2020; *Estimated budget:* 500.000 EUR

Financing source: Horizon 2020 Programme, Transnational cooperation program for 2014-2020

Monitoring indicators: 1 manual of best practices

VECTORS OF INNOVATION

VECTOR 1: EDUCATION development in engineering education and training to continue focusing on strategic skills and future jobs	VECTOR 2: RESEARCH Increase the quality and quantity in applied research in the areas of potential growth activity: wood processing, textile, mechanical, food and agriculture, biotechnology, tourism and ICT services
<ol style="list-style-type: none"> 1. Initiation of training modules to develop strategic, innovative and creative thinking (both for managers and executive staff) 2. Organization of courses for all stakeholders on the concept of cluster and partnership 3. Development a marketing research to identify reluctance in collaboration from SMEs 4. Promoting the creation of innovative companies 5. Supporting companies in introducing innovations 	<ol style="list-style-type: none"> 1. Supporting SMEs in developing marketing innovation 2. Developing a sociological research on innovative thinking and clusters 3. Supporting participation in European research projects 4. Development of applied research projects on regional competitive fields like: food industry, textile industry, tourism, IT, health care
VECTOR 3: INFORMATION increasing the number of patents and licenses acquired / applied by companies	VECTOR 4: COOPERATION increase in the number of interactions between supply and demand for innovation
<ol style="list-style-type: none"> 1. Awareness of innovation for SMEs 2. Creating databases regarding all research results of universities and companies interested in innovation 3. Dissemination and information of SMEs on legislation related to patents and copyrights 4. Organizing an annual regional seminar for innovation with participation of all stakeholders of innovation (INOVAR^{NE}-Innovation in the North-East) 5. Action of informing and involving students about local and regional opportunities of employment 6. Publishing a quarterly regional publications (newspaper format) for promoting results CDI 7. Creating a regional innovation portal including a database on European legislation in the field of innovation 8. Campaigns for public awareness on the importance of innovation to increase competitiveness 	<ol style="list-style-type: none"> 1. Promoting projects of exchanges of experience regarding clusters 2. Improving collaboration between university and SMEs from region by involving students in the development of internships 3. Remove barriers to registration of inventions and innovations 4. Developing a regional strategy on clusters 5. Organizing an annual regional exhibition on innovation 6. Supporting new associative structures such clusters 7. Stimulate, support actions and exchanges of experience, performance management in the Information Technology Centers, industrial parks and business incubators 8. Development of manuals of good practice in innovation in Europe and Romania

Having regard to limited financial and human resources and considering requests innovation stakeholders who participated in working meetings, consider that following **six actions should be priority**: 1. Initiation of training modules to develop strategic, innovative and creative thinking (both for managers and executive staff), 2. Organization of courses for all stakeholders on the concept of cluster and partnership, 3. Creating a regional innovation portal including a database on European legislation in the field of innovation, 4. Organizing an annual regional seminar dedicated to innovation with participation of all stakeholders of innovation (INOVAR^{NE}-Innovation in the North-East), 5. Stimulate, support actions and exchanges of experience, performance management in the Information Technology Centers, industrial parks and business incubators 6. Developing a regional strategy on clusters.

VII. RDA's implementation mechanism

RDA's first implementation stage will consist in **promotion measures for the document and the proposed initiatives**, in order to mobilize stakeholders for measures implementation. In what regards the activities of promotion of the document/document's promotion activities, bodies responsible for implementing the identified measures will have the highest priority rank/degree, but other important segments of beneficiaries will also be target-groups of this stage/phase. Attach a sample letter of support to be signed by all actors in regional innovation, namely: Regional Laboratory for Innovation, national authorities involved in planning, local authorities.

The actual RDA implementation will be made by the bodies identified in the action plan as responsible or beneficiaries, with the help of North East Regional Development Agency and North East Regional Innovation Laboratory. Stakeholders involvement is expected to be even more consistent as they were directly involved in the development process of the programming document and the proposed initiatives were either generated or completed with the help of their representatives.

An essential component of the implementation mechanism will be **communication**, seen as dissemination of initiatives and stakeholders mobilization on one hand (North East Regional Development Agency and North East Regional Innovation Laboratory) and continuous information on measures implementation process, RDA's improvement proposals, etc.

Monitoring and evaluation activity will be run/conducted continuously, will be highly dependent on the North East Regional Innovation Laboratory but it will have to be supported by the local stakeholders involved in innovation. The relevance of this activity is the more obvious as it is one of the factors that ensure the permanent character/nature of the planning activity.

North East Regional Innovation Laboratory will continuously evaluate the progress and results of RDA's implementation, publishing a periodic report (advisable/preferably annual) which will contain separate sections, regarding:

- ✓ Assessing the state of measures implementation, with focus on the originally set objectives and on regional sectorial targets;
- ✓ The regional socio-economic context, highlighting significant changes with potential impact on innovation;
- ✓ Recommendations for amendments to the Action Plan, if necessary.

The findings of the periodic (annual) report will be the basis for possible document changes. Otherwise, whenever document review will be required (e.g. publication of any information on grants for the next programming period), North East Regional Innovation

Laboratory will review the facts and decide upon the necessary changes. Attach annual evaluation questionnaire on the plan.

VII.1 Measures of awareness and promotion for the proposed initiatives.

Promotion of the initiatives included in the innovation action plan, will seek to encourage the regional innovation development stakeholders on taking initiative. For the projects included in the action plan which will be financed from European funds, specific means of publicity and information will be used (press conferences, reports, press releases). The communication means that will be used, are: Direct communication (by organizing public information events), electronic communication, public information (will be based on publishing information related projects), press releases.

Awareness and promoting measures for proposed initiatives are:

- ✓ local and regional meetings, held regularly (quarterly or annually) to provide information and latest updates on initiatives involved;
- ✓ Ad hoc meetings with partner institutions and specific interest groups on innovation initiatives
- ✓ Develop a PowerPoint presentations to promote initiatives from the action plan at various seminars, symposiums, fairs;
- ✓ Develop a database and its maintenance for distribution of promoting materials.
- ✓ Develop periodic newsletters, partners and beneficiaries transmitted electronically;
- ✓ Participation in press conferences, interviews, press releases and articles;
- ✓ Establishing a dedicated web section on innovation initiatives hosted on the website of the North-East Regional Development Agency.
- ✓ Develop and update regularly the site

VII.2 Measures to prevent the risk of plan implementation

Risks involved in implementing the plan are:

- ✓ **Financial risks**, that risk to not access funds from the plan for various reasons (eg eligibility) or risk budget to be one of those funds diminished. To prevent this risk, Regional Development Agency, after consulting the North-East Regional Laboratory of Innovation, will update the action plan, when funding programs for the period 2014-2020 will be completed, possibly by adjusting the project budgets and involving other stakeholders in implementation.
- ✓ **Risks on human resources**, namely lack of technical skills needed by the organization responsible for implementing action for a quality implementation (external consultants, partner organizations, expertise in project management, etc.). This should be taken to extend the partnership to those organizations that can assist with technical expertise the implementation of initiative.
- ✓ **Risks of collaboration**. Implement all actions in the plan requires close cooperation between different institutions (universities, private sector associations, regional development agency). To maintain good cooperation throughout the implementation plan should be continuous communication between these institutions and a breakdown of common interests.
- ✓ **External risks**. Currency risks, changes in tax policy and administrative procedures have hampered visible the implementation of EU funded and can cause problems in the next programming period.

VIII. RDA's conclusions for the strategy of transnational innovation system

Specifically, for the **North-East of Romania to become a region of knowledge which promotes innovation as the engine of economic development** must be aligned to the directions promoted of flagship initiative "**Innovation Union**", and take some actions such as :

1. To support investment in education, research and development, innovation and ICT. Such investments will benefit from extra funding in the next funding period. This regional action is needed to attract qualified staff and researchers to promote innovation management training courses for entrepreneurs. Research and innovation systems both within the European Union and the Member States should be better coordinated, and their performance must be improved.

There are some significant gaps in scientific education at the regional level. Innovation is now required in almost all aspects of life: schools must ensure that all young people are prepared to face this challenge. Most European universities do not attract enough top global talent, and the number of universities with leading positions in existing international rankings is relatively low.

Excellence must be the guiding principle. We need world-class universities, to raise skills levels and to attract top talent from abroad. It is necessary to support regional implementation of information technology and communications, field generating innovation. Have to stimulate continuous training which develops strategic competences, raise company's competitiveness and preparing the workforce for a higher quality entrepreneurial environment.

2. To facilitate the improvement of R & D institutions in the North East Region to increase regional economic competitiveness. European Regional Development Fund should be exploited for research and innovation capacity. Research should produce more innovations. It should be enhanced cooperation between the world of science and business world, should be removed obstacles and incentives should be instituted. To stimulate research and development of competitive regional areas.

Thus, the participation of research teams, research centres and enterprises in international projects and networks should be promoted, research centres should be encouraged modernization, should stimulate the research in scientific and strategic technology. A research and innovation at high level requires world-class infrastructure.

3. To develop the ability of enterprises to be innovative and develop innovative business culture. Remaining barriers to entrepreneurs who want to "introduce ideas on the market" should be removed: better access to finance especially for SMEs, affordable intellectual property rights, regulation and targets smarter and more ambitious, faster establishment of interoperable standards and the strategic use of our massive budget allocated to public procurement.

Should be launched partnerships for innovation in order to accelerate research, development and market deployment of innovations to address major societal challenges, sharing of expertise and resources and stimulate the competitiveness of EU industry, from the aging health. Our strengths in the **design and creativity** should be better exploited. We need to promote **social innovation**.

Innovative culture is not sufficiently implemented in the business, companies have not a management system dedicated to innovation. This leads firms to maintain economic and technological control, think prudent to opportunities and technology solutions.

Social innovation is a new important area which should be developed. It is encouraging ingenuity charities, associations and social entrepreneurs to find new ways

to meet social needs not adequately met by the market or public sector. Also, you may have about fostering ingenuity to make behavioral changes to address major societal challenges such as climate change. In addition to meeting social needs and societal challenges, social innovations help citizens and create new social relations and models of collaboration. Therefore, they are innovative in nature and beneficial to society and innovation.

Considering the programming documents for the following period the main challenges that face innovative regional companies are:

1. Access to finance

Improving SME access to finance will also be supported by *strengthening the guarantee funds for SMEs*, including by addressing regional development of this system, supported by the creation and capacity for business development consulting. Facilitating access to credit guarantee scheme will improve the financing conditions and therefore access to finance for SMEs, while the demand for credit for working capital and development covered by the offer is insufficient, especially in the banking sector, but also on the non-bank micro-credit component.

2. Increasing the competitiveness and innovative spirit

Supporting business development based on increasing production quality and eco-efficient business models provides encouraging innovation in SMEs and in this way, increase the competitiveness of SMEs in Romania, especially in the Internal Market. SMEs from Romania are in direct competition with all companies that offer products and services in global markets and, therefore, be encouraged to use all opportunities to increase competitiveness and business development.

3. Entrepreneurship education

Knowledge-based society must be built on education, training and new knowledge derived from research. With education and training, as national issues are the need for common strategies in the national systems also appeared a number of quality criteria is established for measuring national system. SME representatives should be involved in the process of change in education systems. Entrepreneurship should be part of the curriculum starting from primary school.

4. Innovation Clusters for regional growth

Clusters - clusters of companies, often SMEs, which interact with each other and with customers and suppliers and share often a fund specialized workforce, financial services and business facilities in the R & D and training - are an important part of smart specialization strategies. They provide an environment to stimulate competitiveness and innovation. Support for their development should be concentrated on areas of comparative advantage.

5. Innovation-friendly business environment for SMEs

A booming SMEs sector is essential for growth, jobs and innovation and thus cohesion. Regional and national authorities should support innovation-friendly business environment in assisting SMEs, especially those with busy R & D activity and creating new businesses.

6. Creativity and cultural industries

Cultural and creative industries, which boom locally and regionally, are in a strategic position to link between creativity and innovation. They can help to boost local economies, can stimulate new activities, create new sustainable jobs, important propagation effects on other industries and enhance the attractiveness of regions and cities. Therefore, creative industries are catalysts for structural change in many industrial and rural areas that have the potential to revitalize their economies and to help change the public image of the regions.