Agenția pentru Dezvoltare Regională
Sud-Est

# Implementation Plan

## BORDWIIS + (Boosting Regional Development with ICT-Innovation-Strategies)

INTERREG IVC
INNOVATION & ENVIRONMENT
REGIONS OF EUROPE SHARING SOLUTIONS

European Union
European Regional Development Fund

# Introduction/Diagnostic analysis of South-East Region of Romania

The Europe 2020 Strategy is about delivering growth that is: smart, through more effective investments in education, research and innovation; sustainable, thanks to a decisive move towards a low-carbon economy; and inclusive, with a strong emphasis on job creation and poverty reduction.

Smart growth means that each region shall rely on its assets and potentials (in other words, those competencies where it has a comparative advantage and a unique selling point with respect to other regions).

One task within the context of the preparatory activities for the next Structural Funds period is the development of so-called "Smart Specialization Strategies". In the Guide to Research and Innovation Strategies for Smart Specialization (RIS 3), the European Commission defines „Smart Specialization Strategies" as following: *national/regional research and innovation strategies for smart specialization (RIS3) are integrated, place-based economic transformation agendas that do five important things*:

- They focus policy support and investments on key national/regional priorities, challenges and needs for knowledge-based development, including ICT-related measures;
- They build on each country's/region's strengths, competitive advantages and potential for excellence;
- They support technological as well as practice-based innovation and aim to stimulate private sector investment;
- They get stakeholders fully involved and encourage innovation and experimentation;
- They are evidence-based and include sound monitoring and evaluation systems.

Within the INTERREG IVC Project BORDWIIS+ (Boosting Regional Development with ICT-Innovation Strategies), the partners from the 8 European regions aim to contribute to the development of smart specialization strategies in the field of ICT in their respective regions and to formulate recommendations for the collaboration between partner regions.

Based on the lead questions formulated within the study “Comparative analysis concerning the innovation potential of information - and communication technologies (ICT) in eight European regions” smart specialization scenarios have been described and a SWOT analysis carried out for each region. Following this, recommendations both for individual regions and for their collaboration have been described.

The South-East Region of Romania is the second by size among the eight regions of the country. It includes Brăila, Buzău, Constanța, Galați, Tulcea and Vrancea. The region has about 2.8 million inhabitants and covers about 35.762km². The region’s economy is rather focused on agriculture and natural resources. The South-East Region of Romania earns about 13.10 billion EUR (2010) and disposes an employment rate of 53 percent (2011). Within the region, 1,054 innovative firms are active.

According to the ICT Inventory, the turnover in this sector reached 819 million RON (ca.190 million. EUR) in 2010 and engaged 5,709 employees.

The table below indicates the most important and relevant values for the ICT sector:

| SOUTH-EAST REGION | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|
| Employment in high-tech sectors (% of total employment) | 1,03 | 1,21 | - | - | - |
| Human resources in science and technology (% of economically active population) | 18,8 | 18,1 | 19,1 | 18,6 | 20,5 |
| Households that have broadband access (% of households with at least one member ages 16 to 74) | - | 17 | - | 23 | 25 |

| | | | | | |
|---|---|---|---|---|---|
| **Households that have internet access at home (% of households with at least one member aged 16 to 74)** | - | 31 | - | 39 | 44 |
| **Individuals regularly using the Internet (% of individuals aged 16 to 74)** | - | 27 | 30 | 31 | 36 |
| **Individuals who have never used a computer (% of individuals aged 16 to 74)** | - | 59 | 60 | 57 | 55 |
| **Researchers (% of total employment)** | 0,09 | 0,06 | 0,07 | - | - |

Generally, the trends are positive and we can notice a slight growth regarding almost all the points highlighted above. Concerning the number of researchers, even though their number was already extremely low, between 2007-2008, the evolution was negative and in 2009 the grow was of only of 0,01%. Compared to the other Romanian regions, the South-East Region shows the lowest percentage of employees in research.

**ICT Market**

The ICT sector in Romania is characterized by:

- Between 2008-2010, the ICT sector in Romania is characterized by decreasing indicators:
  - Decreasing number of firms (-10%)
  - Decreasing employment (-7%)
  - Decreasing turnover (-3.3%)

- Contribution of the ICT sector to the overall GDP is rather small;
- The ICT sector in the region achieves a relative high export quota (41 %);
- Low level of collaborative R&D, mainly driven by scientific collaborations and not by firms.

**Benchmarks**

Compared to the European average, Romania has low productivity of the economy in general (50% of European average), low share of innovating companies (25% of EU average) and very low number of patents (1% of EU average).

**Technological competencies**

The Technological competencies in the field of ICT are constricted to software development and IT services, as well as consultancy and web portal services. Established areas of application are food industry and life product management.

**Cross-Innovations**

The following sectors are backbones of the regional economy and offer potential for cross-innovation:

- Agriculture (ca. 40% of overall employment);
- Tourism, logistics;
- Many economic fields in Romania are based on natural resources (e.g. wood industry, construction materials);
- Petrochemical industry, metallurgical industry, equipment industry, shipbuilding industry, building materials, textile and garment industry, food industry; mainly processing industry but highly diversified industry often concentrated in the big towns.

Relevant technological trends are machine-to-machine communication, sensor networks, embedded systems, RFID, cloud computing.

Apart from several development initiatives, the regional analysis has shown that there are weaknesses in the South-East Region of Romania. Among them are high transport costs, a low level of safety (traffic, transport, and infrastructure) and a low productivity in agriculture.

Therefore the following points should be envisaged:

- Extension and development of programs to support entrepreneurial activities of university graduates in the cross-innovation related topics. Fruitful, creative and sustainable start-up companies are desirable;
- The low level of safety in traffic, transport and infrastructure potentially constrains the development of tourism. Specific upgrading of infrastructure to strive for safer traffic and transport should be envisaged. ICT might be part of this endeavour;
- The large areas of agriculture show low productivity. ICT solutions and technical upgrade of machinery and organization allow overcoming this weakness.

## Objectives of the Implementation Plan

The INTERREG IVC Programme defines the implementation plans as ***a document that specifies how each region participating in the cooperation will work to integrate the lessons learnt from the cooperation into its local/regional or if relevant national policies***. The aim is to go beyond the usual requirements by focusing on a more specific output at "partner" level.

In the case of BORDWIIS+, the project aimed to improve the elaboration and implementation of the Smart Specialization Strategies regarding the incorporation of ICT and innovation policies. The implementation plan of the project has to be a reflection on how to use the acquired knowledge (in each region internally as well as from the participating regions) to improve ICT and innovation policies in each region in the framework of RIS3.

**Smart Specialization Scenario**

The current specialization profile of the South-East Region is based on the competencies in software development and ICT service. In cooperation with potential cross-innovation areas like agriculture, (marine) tourism and ship building and logistics, future specialized solutions are possible.

The scenario for the South-East Region is the following: **ICT for advanced mobility solutions with a specialization on tourism, maritime transport and services (e.g. for the agricultural sector)**.

Strategy recommendation and vision for the future: **existing ICT capabilities can be used to advance the service sector and the established industries**. Chances are needed for connecting services providers (e.g. in the tourism or transport sector).

**Developing strengths and chances**

Implement innovation support for tourism and agro-food sectors to develop and unlock the potential of ICT applications:

- Within the agro-food sector, enhancement of competitiveness is possible by using ICT competence to improve access, use and quality of information in the agricultural sector, fisheries and aquaculture (e.g. to gain productivity). Emerging clusters in agriculture, farming & animal husbandry, food & beverages should be supported to initiate partnerships between the sectors: research, private and application.
- Within the tourism industry, enhancement of competitiveness can be initiated, too. It is crucial to refine the developed and traditional tourism by implementing ICT solutions. Advance in quality-price relation is recommended and can be pushed forward by ICT solutions. The flexible and qualified labour force as well as the existing high accommodation capacity can help to encourage tourism industry. International visibility is an important key to successful development; additional needs should be identified.

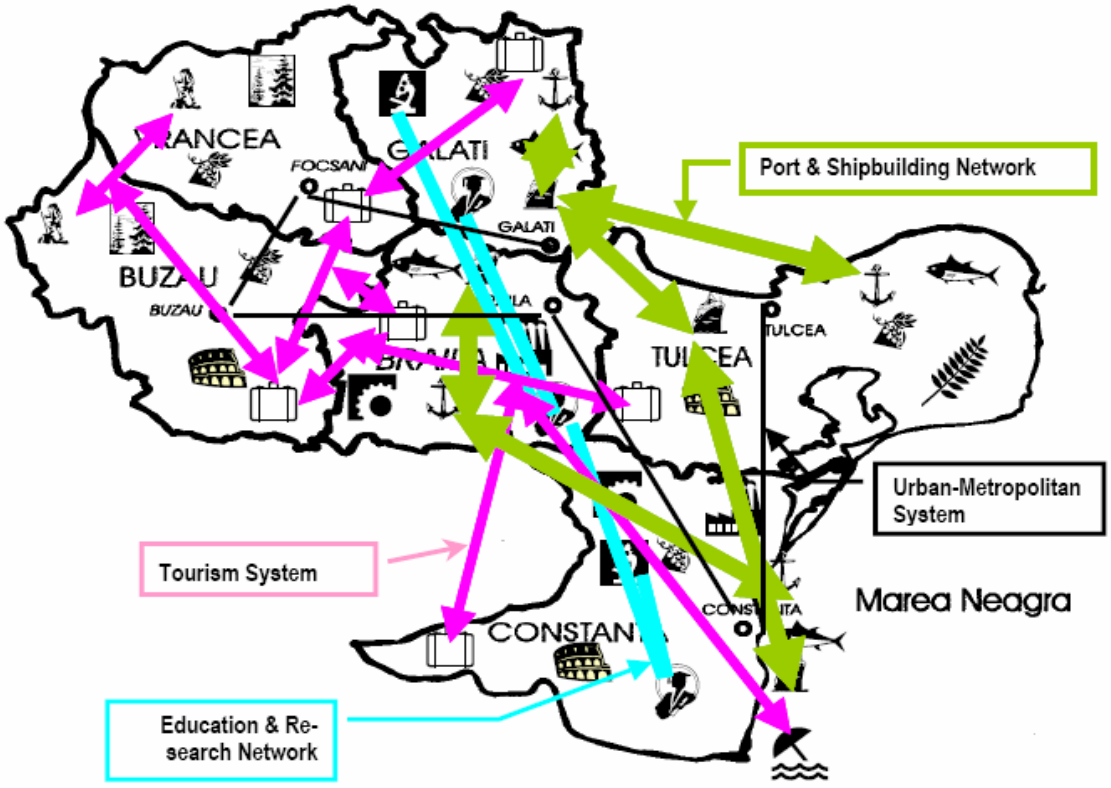
## Analysis of ICT and innovation policies in the South-East Region

The government set up a regional ICT strategy with a strategic objective 2015 (ARISE), and initiated, together with local authorities, the Software Park Galati. Additionally, there are two business incubators as well as a favourable legislative framework for R&D infrastructure development. However, a survey initiated among the main stakeholders unveils that authorities should do more for companies and better appreciate the role of SE RDA in bringing together all the parties.

**Framework conditions conducive to regional innovativeness**

- Penetration of broadband infrastructure has quickly increased in the last years in Romania; status 2011: 44% have Internet access, 25% have broadband access;

- Romania lacks business infrastructure being able to compete in the national and international markets, especially in innovative and high-tech sectors (logistics, equipment, utilities, and space);
- Regional competitive advantages: balanced regional economy, strategic location, high quality of human resources;
- Major economic sectors: ICT, manufacturing, ship-building, agro-food, tourism.



**INNOVATION PROJECTS in the South-East Region**

- **ARISE project** *("A Regional Innovation Strategy for the South-East Region of Romania 2008-2015")* was funded by the European Commission and is considered a unique opportunity to raise awareness on a common regional identity by strengthening the apprehension on innovation related issues at regional level.

The project's strategic objectives were: to design a regional innovation policy appropriate for enhancing the post-transition processes, to embed the regional innovation policy in a comprehensive regional development policy and to progressively acquire an international visibility via innovation in the environmental sphere and through site marketing actions.

- **IN-EUR project** *("Measuring innovation among European subregions")* is a regional initiative project financed under the INTERREG IVC Programme, Priority 1 "Innovation and the knowledge economy", Intervention Area "Innovation, research and the technology development". **The overall objective** of IN-EUR project is to improve the quality of local level innovation policy through sharing, integrating and applying methodologies for the measurement of innovation in European sub-regions by means of interregional cooperation.

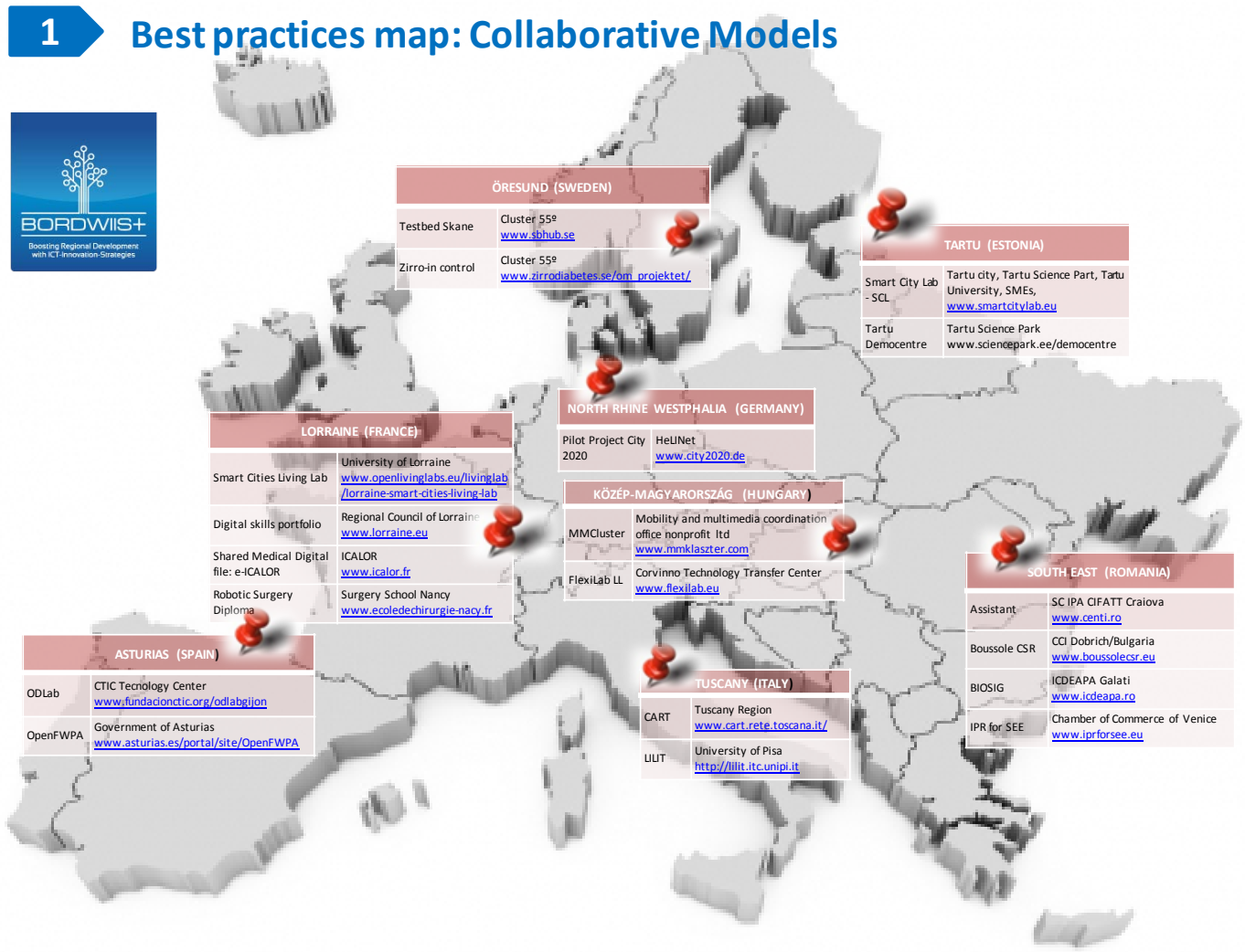
**The project's specific objectives** are: to share, adapt and apply the existing models for measuring local innovation; to enlarge local and interregional cooperation on the overall theme and on specific models; to verify the model's effectiveness through extensive local participation; to mainstream the ALBI model into local policy.

- **4GreenInn project** *("Innovations in sustainable management and protection of natural areas")* is funded within the second call of the Black Sea Basin Joint Operational Programme, Priority 2 "Sharing resources and competencies for environmental protection and conservation", Measure 2.2 "Promoting research and innovation in the field of conservation and environmental protection of protected natural areas. **The overall objective** of the Joint Action is sustainable management of protected natural areas in the Black Sea Basin and development of innovative methods for integrating the protected natural areas in the overall strategies for urban and socio economic development in the partner regions.

**The project's specific objectives** are: improving partner regions capacity for sustainable management of protected natural areas; promoting effective partnership in the field of sustainable management of protected natural resources based on practical and community significant solutions; establishment and promotion of common informational tool for protected natural areas in the Black Sea region.

## Analysis of good lessons from BORDWIIS+ to be incorporated in regional policies

A total number of 19 best practices have been identified and analyzed within the project. The map below shows the situation graphically.



Regarding the identified experiences, the collaborative models focused on approaches related to open innovation (living labs, collaborative platforms involving final users and society, clusters etc.), these being the most dominant examples in the analysis.

The majority of these practices can be considered as entrepreneurial discovery projects in the field of ICT and innovation and have been assessed with medium value for transferability.

These 19 identified practices have been analyzed and grouped into the following categories: e-Health, Smart-cities, ICT business support and e-Government.

### e-Health

| Region | Name of the good practice | Description | Transferability |
|---|---|---|---|
| **Lorraine** | **e-Icalor** | A digital file to follow the medial life of a patient of cardiovascular diseases open to medical agents, patients and certified people. | High |
| **Lorraine** | **Robotic surgery Diploma** | Theoretical and practical training courses for medicine students to acquire necessary skills to use surgical robots | Medium |
| **Öresund** | **Zirro** | An open collaborative platform for the challenge related to self-monitoring of blood glucose levels through a non-invasive method | n.d. |
| **Romania** | **Biosig** | A partnership between R&D, innovation and educational units to develop biotechnology to process fish products with maximum safety for consumer's health. | High |

### Smart-cities

| Región | Name of the good practice | Description | Transferability |
|---|---|---|---|
| **Eesti** | **SmartCity** | A collaborative platform Tartu city-university-companies to develop smart mobile and web solutions for urban life | High |
| **Lorraine** | **LSCLL** | A new model of smart city "user-driven" and focused on enhancing citizen quality of life and supporting the local economic and urban development. | High |
| **Asturias** | **ODLab** | A cooperation government - companies and citizens in the roles of: open data generation, services development, and data consumption. | Medium |
| **North Rhine Westphalia** | **City 2020** | A broadband infrastructure developed by a public/private initiative to provide citizen of advanced services: digital TV, video on demand, energy services, etc. | Medium |

### ICT Business Support

| Region | Name of the good practice | Description | Transferability |
|---|---|---|---|
| **Eesti** | **Tartu Democentre** | A platform to support the creation of small innovative itc-business introducing them to the public and private sectors. | Medium |

| Region | Name of the good practice | Description | Transferability |
|---|---|---|---|
| **Lozep Magyarország** | **MMCluster** | A Mobility and Multimedia cluster to inspire innovation in mobile and new media technologies | Medium |
| **Lozep Magyarország** | **Flexilab** | A common platform for "Open innovation" in the fields of innovative learning solutions. | Low |
| **Öresund** | **Testbed Skåne** | A regional network to help companies within environment and energy to increase their competitiveness and developing their businesses. | n.d. |
| **Lorraine** | **Lorfolio** | A digital skills portfolio to increase direct links between companies and employers. | High |
| **Romania** | **Assistant** | Cooperation platform to encourage cooperation in innovation activities between SMEs. | Medium |
| **Romania** | **Boussole CSR** | A web site to interchange SMEs good practices in Corporate Social Responsibility field. | High |
| **Romania** | **IPR for SEE** | A strategy of improving the SMEs competitiveness by developing and deepening their awareness in the usage of Intellectual Property Rights protection instruments. | Medium |
| **Tuscany** | **Lilit** | A new "living lab" focused in the paradigm of "Open innovation" that offers companies different tools to help them in their innovation process. | High |

**e-Government**

| Region | Name of the good practice | Description | Transferability |
|---|---|---|---|
| **Asturias** | **OpenFWPA** | An Open Framework in which companies can develop open source components for the electronic administration (eGoverment). | Medium |
| **Tuscany** | **Cart** | A collaborative approach to open government through the definition of a standard for the interoperability of the public ITC systems. | High |

Since the situation and experience of each partner is different, the transfer of good practices is a process that needs to cater for the region's profile and potential (size, economic strengths, competencies). Therefore, for each region, it is vital to identify the opportunities and difficulties within the transfer process.

The South-East Region of Romania might be considered as a medium tech manufacturing and service provider, with great development potential. Regarding the analyzed good practices, there are several that could match our region's profile and needs and help cover its lacks:

**ODLab (Asturias)** – the aim of this initiative is to increase the transparency of public administration and the accountability of governments improving the e-participation of the citizens, to create business opportunities and to boost entrepreneurship. The participation and involvement of all stakeholders (citizens, government and private companies) is a necessary condition for the success of this initiative. The South-East Region has its own similar problems (transparency issues), and the transfer of this practice would definitely bring advantages, especially that many of the services are mobile applications and intuitive web sites that allow citizens and companies to gain insight of the data (real time location information about the public transportation system etc.). The transferability level is medium.

**OpenFWPA (Asturias)** – in order to avoid duplication and incompatibilities between systems and to decrease the complexity and expensive operations in the PA (due to the large number of servers and existing development environments), an e-Government platform has been developed. This model requires, just like the previous example, the participation and involvement of all stakeholders (government, private companies, citizens and technology centers). Using this model, the South-East Region of Romania could achieve several goals: commitment of both PA and private companies, high number of potential users, leadership in e-Government rankings etc. The transferability level is also medium.

**SCL (SmartCityLab, Eesti)** – was designed to create an innovative environment which will increase the competitive ability of companies by bringing together businesses, citizens, PA, R&D institutes and other structures that support innovation.

The South-East Region could engage the universities, the private IT companies and the local governments, in order to obtain the following results: new ideas and services developed, good quality etc. The transferability level is considered high and the advantage is that it does not require high investments, but a good will and determination of all stakeholders.

**Digital skills portfolio (LORDFOLIO, Lorraine)** – is a digital skills portfolio aiming to accompany the professional lives of the inhabitants (each user has a secure space online where he can gather all the documents attesting to his skills acquired by training or experience). This innovative tool would help people from the South-East Region in the process of acquisition of new skills. The involvement of all stakeholders (citizens – job seekers, students, public authorities, private companies) is absolutely necessary and the transferability level is high.

**City 2020 (North Rhine Westphalia, DE)** – is a fibreglass project aimed to overcome infrastructural barriers regarding powerful internet connection in small urban areas, so local residents and entrepreneurs can get access to services like high-speed Internet, digital tv and video. The transferability level is considered as medium, but it depends on the region's potential and strategies for broadband expansion (for example, for the regions with comparable framework conditions the level is high). The involvement of all stakeholders (cities, energy suppliers, telecommunication service providers) is absolutely necessary for the success of this model. Regarding the South-East region of Romania, the expansion of the broadband infrastructure would be an important achievement.

**TESTBED Skane (Oresund, SE)** – being part of a Swedish national strategy to explore innovation procurement strategies, it's role is to seek out different public institutions, clarify their needs and challenges and match them with relevant companies at the events. This would be a great opportunity for the South-East Region, to encourage and facilitate the collaboration between public institutions and companies (while companies get a better understanding of public needs, the public institutions get to chance to quickly find solutions using new ideas and technologies).

**CART (Tuscany, IT)** – is an interoperability system that defines standard and share services in order to enable information and data exchange among public administrations, in order to develop efficient and innovative public services. The advantages the South-East Region would have by transferring this good practice regard the efficiency of services and governments, international standards, reuse of applications and the involvement of different actors (universities and research centres, public administrations, private companies).

## Definition of activities

**Development potential in the South-East Region of Romania**

The South-East Region benefits of natural resources, which capitalized adequately, could play an important role in the socio-economic development. Among these natural resources, the most important are the oil and natural gas reserves (Buzau SubCarpathians, the West of Braila County and the South of Galati County), the stone carriers (Macin Mountains), salt etc.

The port of Constanta, Danube ports of Galati, Braila and Tulcea also play an important role for the socio-economic development of the region. Their links with the great ports of the world could be used both for ensuring the necessary raw material for the economic development of the region and for exporting goods produced in the region and in the rest of the country.
The tourism resources represent the most important potential for regional development:

- The Black Sea shore comprises 13 resorts, with accommodation units, treatment and entertainment (hotels, motels, villas, camping) alongside the 70 km of coast between Navodari and Mangalia;
- The Danube Delta, which represents a scientific attraction and a high touristic potential, especially after being included starting with 1990, along with other adjacent areas, in the Danube Delta Biosphere Reservation;
- The region benefits from a special spa heritage, with an old tradition: Techirghiol Lake (Eforie Nord) (healing mud with similar properties to the one in the Dead Sea);
- Also, there are promising conditions for the agro-tourism development in all the Region with important resources for the entertainment tourism development;
- The mountain area in Vrancea and Buzau presents tourist and rural tourism interest through Soveja and Lepsa resorts, and unique tourist areas in the country, such as: Mud Volcanoes (Vulcanii Noroiosi in Berca), the caves from Bozioru, Focurile Vii;
- The cultural – historic patrimony of the region: getic, Roman, Greek, Byzantine fortress and monastery places, most of them being located in Tulcea and Constanta counties.

**Potential answer to global challenges**

With the specific specialization profile outline above, the region might be able to offer new and sustainable mobility solutions. As mobility patterns are changing, people increasingly ask for holistic mobility services and network solutions and new markets are developing. ICT plays a predominant role here: the development of information, communication and traffic management systems will help develop intelligent transport infrastructures. Research on intelligent logistics concepts and the use of mobile services can help drastically reduce resources. Applications in tourism and maritime sector have the potential to profit from and, at the same time, contribute to this trend.

## Objectives

### GO1. Improving competitiveness in the ICT sector through boosting the exports

SO1. Create public awareness on financial instruments/programs for sustaining investments in ICT sector

**Indicators:**

- ✓ Number of studies on the investment needs for the ICT sector – 1
- ✓ Number of awareness campaigns - 1
- ✓ Share of satisfied companies satisfied with public funding offers – at least 20%
- ✓ Share of companies' benefitting from public funds for ICT – at least 20%

**Measures:**

***Measure 1.1.1 Elaborate a study in order to identify the investment needs in the ICT sector at regional level***

Through the *Study on investment needs for the ICT sector* information on the current situation of the investments on ICT infrastructure, and on the required investments will be obtained. The Study will provide necessary information to substantiate the available public financial instrument/program for sustaining the development of ICT sector, in order to become more appealing to potential beneficiaries.

Estimated impact: Public authorities responsible for SOP IEC will be able to design a more suitable and appealing programme.

Responsible institution: South-East Regional Development Agency.

Financing options: Sectoral Operational Programme Increase of Economic Competitiveness (SOP IEC).

***Measure 1.1.2 Create awareness on the importance of the investment on ICT sector***

This measure aims at increasing the number of companies informed on the benefits of investing in ICT sector and on the available funds for obtaining the development of the sector.

Estimated impact: the percentage of companies informed on the importance of investments in

ICT will increase with 20%. Also the measure is expected to increase with 20% the number of companies that beneficiate of public financial support.

Responsible institutions: Public institutions, central and local, NGOs.

Financing options: Public funds, Sectoral Operational Programme Increase of Economic Competitiveness, foreign investments.

SO2. Facilitating access to SOP IEC financing

**Indicators:**

- ✓ Increase the investments in ICT by at least 10%

**Measures:**

***Measure 1.2.1 Adapting the financial instrument or the programme designed for supporting the investments in ICT sector in order to better suit the capacity of the companies interested in developing ICT***

Through this measure the information obtained through the *Study on investment needs for the ICT sector* will be used for improving access conditions to financing, with the aim to increase the number of companies interested in accessing funds for developing ICT infrastructure.

Estimated impact: Increase with 10% the investments in ICT sector within the region.

Responsible institution: Management Authorities for SOP IEC.

Financing options: Sectoral Operational Programme Increase of Economic Competitiveness, Operational Programme Technical Assistance, foreign investments.

SO3. Innovative (modern) technologies for production process.

**Indicators:**

- ✓ Number of databases created – 1;
- ✓ Number of internet pages created – 1;
- ✓ Number of national and international promotion campaigns for the website – 1;
- ✓ Number of innovative technologies for production process exported – 1;

**Measures:**

***Measure 1.3.1 Create a database on innovative technologies for production created within the region***

Through this measure the information on the innovative technologies will be centralized and a user friendly instrument will be created and implemented. The database will be posted on a web page, which will increase the visibility of the companies responsible for these technologies.

Estimated impact: Increase the awareness on the innovative technologies created in South-East Development Region.

Responsible institution: South-East Regional Development Agency.

Financing options: Sectoral Operational Programme Increase of Economic Competitiveness.

***Measure 1.3.2 Promotion campaign of the website at national and international level***

Through this measure the innovative technologies will be better promoted at national and international level and technological transfer will be boosted.

Estimated impact: Increase the visibility/notoriety of Romanian innovator companies, increase the cooperation with external companies interested in innovative technologies, increase the number of innovative technologies exported.

Responsible institution: Chamber of Commerce.

Financing options: Sectoral Operational Programme Increase of Economic Competitiveness.

SO4. Enhancing access, use and quality of information and communication technologies in agro-food sector

**Indicators:**

- ✓ Number of databases on innovative technologies in agro-food sector created – 1
- ✓ Number of internet pages developed for promoting innovative technologies in agro-food sector – 1
- ✓ Number of innovative technologies in agro-food sector exported – 1

**Measures:**

***Measure 1.4.1 Elaborate a database on innovative technologies in agro-food sector and develop an internet page hosting the database***

Through this measure data on innovative technologies developed within South-East Development Region will be collected and brought to people's attention through an Internet page.

Estimated impact: Improve people's and companies' knowledge on available innovative technologies developed within the region in agro-food sector.

Responsible institution: South-East Regional Development Agency, Lower Danube University of Galati.

Financing options: Sectoral Operational Programme Increase of Economic Competitiveness.

***Measure 1.4.2 Promotion campaign of innovative technologies available for agro-food sector at national and international level***

The database on innovative technologies available for agro-food sector and the internet page incorporating the information will be the basis of an information/awareness campaign. The role of this campaign is to increase the visibility of Romania innovative technologies and to increase the communication/collaboration with foreign companies.

Estimated impact: Due to the intense promotion, at least one innovative technology will be exported.

Responsible institution: South-East Regional Development Agency.

Financing options: Sectoral Operational Programme Increase of Economic Competitiveness.

SO5. Stimulating innovation in the tourism industry through smart use of ICT

Indicators:

- ✓ Tourist routes integrating focal points of South-East Development Region created and promoted – 1
- ✓ Internet pages developed for promoted the tourist route – 1

- ✓ Online studies for identifying tourists' needs – 2 per year
- ✓ Number of databases incorporating information on tourist offers, types of tourism, entertainment facilities, durable transportation, accommodation facilities etc. elaborated – 1
- ✓ Number of campaigns for promoting durable tourism and transport offers – 1 per year

**Measures:**

***Measure 1.5.1 Develop common mobile services for the tourist areas included in the tourist route***

The measure aims to implement ICT solutions to better promote the touristic route, to connect with other similar routes in Europe and in the world, to develop and implement innovative mobile services along the route to facilitate the exchange of information, mobility travel and additional services for tourists.

Estimated impact: Increase the number of tourist arrived within the region, improve the cooperation between stakeholders.

Responsible institution: Local authorities, National Authority for Tourism, travel agencies.

Financing options: public funds.

SO6. Strengthening the capacity of regional business incubators

Indicators:

- ✓ Number of companies benefitting from the activities of regional business incubators
- ✓ Number of companies installed in regional business incubators

**Measures:**

***Measure 1.6.1.Improvement of business incubators infrastructure***

***Measure 1.6.2.Improve the Human Resources for the management of business incubators***

***Measure 1.6.3.Access European funding for partnership projects for business incubators in partnership with Regional and Local Authorities***

Estimated impact: Increase the number of companies interested in applying innovation to day-to-day activity

Responsible institution: IT and Industrial Parks

Financing options: SOP IEC, Horizon 2020, INTERREG

## GO 2. Improving citizen access to public services

### SO1. Development of public services through the use of ICT and digitalization

**Indicators:**

- ✓ Digital public services created within the region – at least 3, e-health, e-administration, e-tourism
- ✓ Share of satisfied customers – at least 50%

**Measures:**

***Measure 2.1.1 Decrease of bureaucratization and increase the access to information***

Through this measure will be digitalized in at least 3 public services – health, administration, and tourism. The digitalization will make these services more appealing to the public, the access to information will also have an impact on increasing region's attractiveness.

Impact: Increase of the number of people using modern communication means in order to obtain relevant information on administration, health and tourism. Decrease of waiting times.

Responsible institution: Local authorities.

Financing options: Public funds.

### SO2. E-government solutions

**Indicators:**

- ✓ Percentage of accessible/easy to read documents – at least 50%
- ✓ Percentage of customers satisfied – at least 50%

***Measure 2.2.1 Increase the number of open government initiatives***

This measure aims to create and promote a transparent public administration by providing easy to read documents (the documents should be available in Word and Excel, and the information should be analyzed).

Impact: Increase public trust in the administration.

Responsible institution: Local authorities.

Financing options: Public funds.

SO3. One unique and online information centre

**Indicators:**

- ✓ Number of regional one stop shops – 1
- ✓ Number of regional information centres – 1
- ✓ Number of online pages – 1

**Measures:**

***Measure 2.3.1 Create regional inquiry offices and online information centres***

This measure focuses on the importance of creating centres of information that should hold unitary and complete information on all sectors and areas of interest in the region.

Estimated impact: Increase the share of satisfied customers.

Responsible institution: Local authorities.

Financing options: Public funds.

## GO3. Developing the HR ability of using ICT at regional level

SO1. Development of broadband connections in schools, libraries, universities

**Indicators:**

- ✓ Share of educational institutions connected to internet – 75%
- ✓ Share of cultural institutions connected to internet – 50%

**Measures:**

***Measure 3.1.1 Increase the internet access for educational and cultural institutions and students computer skills***

Given the importance of modern communication means, educational and cultural institutions should keep up with these realities. Students should have the opportunity to learn/develop their computer skills in an educational framework which also teaches them the educational/cultural importance and meaning of the internet.

Impact: Increase the number of students that improve their computer skills.

Responsible institution: educational and cultural institutions, public authorities, internet providers.

Financing options: public funds.

## GO4. Enhancing partnerships at local, national and transnational level through projects regarding the dissemination of innovation in ICT sector.

S01. Consolidation of South East RDAs capacity as a bond between international good practices and regional economies.

**Indicators:**

- ✓ Number of RDA meeting for information and experience's exchange – at least 1 per year
- ✓ Number of projects in partnership or lead by SE RDA

**Measures:**

***Measure 4.1.1 Create an alliance including RD institutions, personal in order to improve and use of innovation in ICT sector***

This measure states the importance of cooperation and experience exchange between persons and institutions in RD field in order to benefit from the innovations in the ICT sector.

Impact: A better understanding of the dynamic of ICT.

Responsible institutions: R&D institutions.

Financing options: SOP IEC.

**Indicators:**

- ✓ Number of persons trained who have a better understanding of what innovation in ICT means – at least 2
- ✓ Number of websites created for promoting the regional innovative technologies – 1
- ✓ Number of projects developed by RDA in the field of innovation in ICT sector – at least 1

**Measures:**

***Measure 4.2.1 Consolidate the capacity of RDA as a regional promoter of innovation in ICT sector***

Through this action RDA will develop capacity to engage in the promotion of innovation in the ICT sector through a better understanding of the phenomenon and of the need to implement innovative solutions. The created forum will be a useful tool for connecting local entrepreneurs with those outside the country, and also it will allow the identification and promotion of technological innovations with immediate impact on regional economic development.

Estimated impact: Increase of the notoriety of the regional innovative companies.

Responsible institution: RDA.

Financing options: SOP IEC, public funds.

S02. Facilitating the participation of actors involved in ICT sector in international specialized fairs and expos (other advantages of this activity could also be the promotion of their own achievements and boosting the exports).

**Indicators:**

- ✓ Percentage of ICT regional actors that participate in international specialized fairs and expos – at least 20%
- ✓ Percentage of regional innovation technologies promoted during the international specialized fairs and expos – at least 20%

**Measures:**

***Measure 4.2.1 Consolidate the capacity of actors involved in ICT sector***

This measure emphasizes the need to actively connect regional ICT actors with international ones in order to better respond to nowadays challenges, to better promote regional products or technologies and to have access to the best ones developed abroad.

Estimated impact: developing strategic partnerships and a better access to innovative technologies.

Responsible institution: companies.

Financing options: private funds.

## GO5. Development of creative industries through ICT

SO1. Education in creative industries

**Indicators:**

- ✓ Strategic partnership in the field
- ✓ Introduction of creative industries courses in the curricula
- ✓ Programs aimed at stimulating creativity , entrepreneurship and innovation

**Measures:**

Measure 5.1.1. Investment in the modernization and quality assurance in education and research, with focus on creativity, innovation and entrepreneurship.

The measure has an important role in supporting and developing creative potential in education. The development of knowledge and aesthetic and communication skills represents an important incentive for developing an entrepreneurial critical mass in the field of creative industries, and also a major incentive for directing talented pupils and students towards fields like: graphics, arts, advertising etc.

Estimated impact: youngsters' and teens' creative skills development through curricula and entrepreneurial examples given by SME's active in the field.

Responsible institutions: School Inspectorates, Local Public Authorities, Companies.

Financing sources: private funds, public funds, European Social Fund.

S02. Development of ICT infrastructure to support creative industries

Measure 5.2.1. Investments for improving and developing the public ICT infrastructure and including the infrastructure in programs designed for stimulating entrepreneurial spirit and creativeness

The measure has an impact on developing private companies active in creative industries, through facilitating the access to broadband and communications through optical fibre. These structures have a special importance for the business structures that provide this type of services or for those areas where this type of services has not penetrated given to low economic efficiency. That is why improving connectivity in areas with geographical deficit, for example, through public financing programs represents a very important strategic step.

Estimated impact: improving the access of the companies from areas with geographic deficit to private and business structures.

Responsible institutions: SE RDA, Ministry of Communication, Local Public authorities, companies.

Financing sources: private funds for co-financing, public funds, ERDF.

SO3. Support creative entrepreneurship through creating the institutional framework and increasing administrative capacity

Measure 5.3.1. Strengthening institutional capacity of the local and regional organizations with responsabilities in elaborating and implementing policies in education and training, and development of creative entrepreneurship

The measure relates to increasing institutional capacity and improving the partnership between those organizations that can govern the following processes: information, strategic support, financing for the entrepreneurs in creative economy. The measure aims primarily at increasing the capacity of the following institutions: Chambers of Commerce, business organizations, Universities, SE RDA, Local and County Public authorities, in order to sustain through training, information, awareness campaigns, effective financing the growth of creative industries.

Estimated impact: development of the administrative capacity of the organizations involved in creative economy and strengthening the partnership between these institutions.

Responsible institutions: Chamber of Commerce, organizations of businessmen, Local and County Public Authorities, Companies, SE RDA.

Financing sources: private funds, European fund through EFS, ERDF.

# Final remarks

The South-East Region of Romania has particular development features, with a traditional agricultural and fisheries sector development and a niche specialization on ship building, sea transport and steel production. Constanța county has a special feature because it holds one of the biggest harbours in Europe and has an important touristic infrastructure on the Black Sea shores, Brăila and Galați are focused more on shipping, steel, agriculture and IT, Vrancea has specialized on agriculture and textiles, Buzău is specialised on manufacturing industry, Tulcea has a focus on tourism and services, holding the biggest natural Delta in Europe.

Companies in the Region are using ICT as an important vector of development, from software development for manufacturing industry management, to the management of the industrial processes. Public authorities have also committed to use IT in the public services delivery process, in order to improve the quality and satisfaction of citizens. ICT is therefore an important goal as long as a key instrument for the region, given the challenges of the next EU programming period and taking opportunity of the Agenda 2020, structural funds available for Romania and the South East Region and other EU programmes (Horizon 2020, Interreg, etc.)