

Background document – Region FVG

The Smart Specialisation Strategy of Region Friuli Venezia Giulia

Introduction

Friuli Venezia Giulia is one of the five autonomous regions with a special statute and it is Italy's most North-Eastern region. Friuli Venezia Giulia covers an area of 7,858 km² (3,033 sq. miles), it is the **fourth smallest region** of the country and has about 1.2m inhabitants. It borders with Austria to the North and Slovenia to the East. To the South it faces the Adriatic Sea and to the West its internal border with the Veneto region. The Capital of the region is Trieste.

Socio-economic profile

Friuli-Venezia Giulia's industrial development has been driven, since late 1960s, by industrial clusters of SMEs working in traditional sectors; this development pattern is a hallmark of the North-Eastern Italy. The main specialisations include furniture, electric appliances and agro-food. These clusters, especially the suppliers with low export capacity, started to suffer increasingly from globalisation while the heavy industry (e.g. steel production) lost its importance. Commerce, retail, banking and services in general became the most important drivers of growth, also thanks to the strategic position of the region.

The financial and economic crisis has hit also this region since 2008.

From 2007 to 2015, the regional GDP declined by -10.5%. **However, from 2013 there was a slight increase and in 2015 the growth rate (+0.1%)** was below the National average (+0.7%) and the one for Europe (+2.2%).

In 2015, the regional GDP contributed to 2.2% of the national GDP (Eurostat, 2017).

In 2015, GDP PPS per capita was €29,900, above the Italian (€ 27,800) and the European average (€ 28,900).

In 2016, the share of employment in industry (including construction) was about 30%, higher than the Italian average, equal to 23%. In the same period, **the employment rate was higher (64.7%) than the national value (57.2%)**, although still below the European average (71.1%).

The unemployment rate increased considerably in the recent years, from 4.3% in 2008 to 7.6% in 2015 (Eurostat, 2017), though below the National (from 6.1% to 11.7%) and the European trends (from 7.2% to 8.6%).

The crisis affected firms and sectors, which are less export-oriented. At the same time, the fiscal consolidation measures taken at national and regional level have reduced the public resources available for the regional development, with negative impacts on disadvantaged territories and social groups (e.g. youths).

The definition of Friuli Venezia Giulia RIS3

The first draft of the "Regional research and innovation strategy for the smart specialization of the Autonomous Region of Friuli Venezia Giulia" was approved by the Resolution n. 708 of 17/04/2015 of the Regional government. The following version, approved by the Resolution n. 1403 dd. 10/07/2015 of the Regional government, led to the formal communication of "fulfilment" of the EAC 1.1 *Research and Innovation* by DG REGIO.

The RIS3 of Friuli Venezia Giulia Region focuses on the following areas of specialization: **Agri-food industry, Strategic production chains (Metal-mechanical sector and Home sectors), Maritime technologies, Smart health, Culture Creativity and Tourism (CCT)** and the related development trajectories.

The Strategy was outlined on the basis of a global SWOT analysis of the regional economic system, and through a dialogue with local stakeholder and a process of "entrepreneurial discovery". The analysis and dialogue on innovation and research have always characterized the industrial and research policy of the

FVG Region. From this long-lasting dialogue with the stakeholders, the main development trajectories assumed by S3 have been derived.

Subsequently, the S3 has undergone a process of integration and revision made up of several stages. Between the end of 2016 and the first trimester of 2017, the Strategy was revised with regard to Technological trajectories with the active participation of regional stakeholders. An updated version of the S3 was sent to the EC on 9 June 2017.

The involvement and listening of the stakeholders will remain programmatically a key element throughout the implementation phase of the Strategy, and will be strengthened further also to define result – oriented monitoring tools, in preparation for the next programming period 2021 - 2027.

Governance

The decision-making process that drives and enables the implementation of the regional RIS3 involves the bodies listed below, which represent different levels of stakeholders, including institutions and economic or social partners.

- **Steering Committee of the smart specialisation:** is the management body in charge of executing the guidelines provided by the Regional Government;
- **Strategic Committee:** the Strategic Committee represents the liaison between the Regional Administration and the stakeholders. The Committee includes the regional Directions/Services coordinating the Strategy, the coordinators of the regional Tables dedicated to the areas of specialisation (i.e. the regional Cluster managers), the representatives of trade associations, Area Science Park, representing the regional scientific system. Depending on the meetings' agenda, the participation is also open to "observers".
- **Technical Secretariat:** it is composed by civil servants who work in the Directions that coordinate the regional RIS 3. The Technical Secretariat supports technically and operationally the functions of the Steering Committee and the Strategic Committee.
- **General stakeholders Assembly :** it represents the regional community of innovators that make up the "quadruple helix".

New clusters connected to regional specialisation

S3 has resulted in a more positive engagement between the authorities and innovation actors within Region Friuli Venezia Giulia. In particular, links with the local universities and business communities have been strengthened. For example, the University of Trieste mapped the skills and enabling technologies within its various departments against the regional S3 priorities. Similarly, the University of Udine has produced an overview of the skills existing within their institution and its potential contribution to training, research and technology transfer. Finally, the International School for Advanced Studies has offered support with a focus on "Strategic supply chains" and "Smart health".

The regional efforts to foster cooperation between research and business and align government intervention with territorial dynamics have resulted in the identification of five clusters, developed namely by:

- the Agrifood & Bioeconomy Cluster Agency;
- the Furniture Cluster (Cluster Arredo e Sistema casa);
- the Metal-mechanics Cluster (COMET – Cluster Metalmeccanica FVG);

- the Maritime Technology Cluster FVG (Mare TC FVG);
- the Technological District of Molecular Biomedicine – CBM (Smart health cluster).

Vision

The Smart Specialisation Strategy derives from the outcomes of the SWOT analysis and the “entrepreneurial discovery process”. The analysis highlights some specific features of the regional economy that at the same time represent the challenges on which industrial and research policies should focus in order to achieve concrete changes.

The specific features of the regional economic system are the following:

- **Positive innovation performance of SMEs**, even if mainly produced in the absence of a structured activity of research and development within the enterprises and despite a significant reduction in investment;
- **Prevalence of "traditional" sectors** as driving forces behind the regional economy that show a few segments with higher added value that can be the catalysts for innovation and should be targeted by specific investments in research and development;
- **The presence in the Region of R&D centres of international standing**, which represent a significant added value, despite the gradual reduction of public resources and the limited capacity of enterprises to offer adequate job Opportunities;
- **The average size of companies**, representing a strong limitation to the ability of investing in innovation;
- **Low propensity to cooperate** between **businesses** and the **research** world that can be counterbalanced by the presence of Clusters, technological districts and innovation intermediaries, such as regional science and technology parks;
- **Decreased ability to export** by enterprises and limited presence of regional enterprises in the most dynamic sectors;
- **Presence of strong global and societal challenges**, which increasingly require innovative solutions.

The strengths of the area can be summarised as follows:

- **Excellence in scientific research and training**
- **High innovation capability**
- **Intensive manufacturing.**

The changes expected as a result of the Strategy are:

- a) The **consolidation and repositioning of the industrial** and production sectors in the Region towards segments that offer higher added value and are specific to the regional economic system.
- b) The **shift of the regional economic and production systems** towards **new areas** capable of generating new jobs, new markets and new industries, starting both with "traditional" sectors and with high-tech ones.

During the entrepreneurial discovery process which accompanied the drafting phase of the S3, the following **methodological intervention priorities** were also identified, to achieve the “expected changes”:

- A. **Developing collaboration and synergy between enterprises and between enterprises and scientific structures, increasing the quality and dissemination of innovation;**
- B. **Promoting investments by the enterprises in innovation and industrialisation of research results, also through innovation services;**
- C. **Promoting new innovative entrepreneurship, through the support for innovative start-ups and cultural and creative enterprises.**

Areas of specialisation and development trajectories

In 2015, the following areas of regional specialisation were therefore identified:

- Agri-food industry (4 trajectories)
- Strategic production chains (Metal-mechanical sector - 4 trajectories and Home sectors – 4 trajectories)
- Maritime Technologies (3 trajectories)
- Smart Health (4 trajectories)
- Culture, creativity and tourism (3 trajectories).

The calls for proposals on Axis I (Research and Innovation) of ROP ERDF 2014-2020 published in 2016 were based on the areas and trajectories defined in 2015.

On the basis of the first results (i.e. number of applications per area and trajectory) of the above mention calls and the suggestions from stakeholders (“second phase” of EDP) the trajectories were updated as follows in 2017, also in order to guarantee a better alignment of the regional RIS3 with the Italian Specialisation Strategy and European Thematic Platforms.

Areas of Specialisation	Development Trajectories (revised in 2017)
AGRI FOOD INDUSTRY	<ol style="list-style-type: none"> 1. Integration of innovation measures on the agri-food chains to create value for the consumer 2. Integration of the concepts of circularity and sustainability in the agricultural and food economy of the regional territory 3. Value development through the constant integration of information throughout the agricultural and food chain
STRATEGIC PRODUCTION CHAIN METAL – MECHANICAL SECTOR	<ol style="list-style-type: none"> 1. Solutions and technologies for integrated design and innovation of products/intelligent machines. 2. Technologies for advanced production processes - "intelligent factory" 3. Technologies for the management and development of the organisation
STRATEGIC PRODUCTION CHAIN HOME SYSTEM	<ol style="list-style-type: none"> 1. Technology of materials and innovative design 2. Technologies for the efficiency of buildings and production processes 3. Digitalising the "Home System"
MARITIME TECHNOLOGIES	<ol style="list-style-type: none"> 1. Methodologies for designing new products, processes and services 2. "Green" technologies and energy efficiency 3. Safety technologies
SMART HEALTH	<ol style="list-style-type: none"> 1. Biomedical, in vivo and in vitro diagnostics 2. Medical IT and bioinformatics 3. Innovative Therapy 4. Ambient Assisted Living (AAL)
CULTURE, CREATIVITY AND TOURISM	<ol style="list-style-type: none"> 1. Technologies for the conservation and enhancement of goods and products 2. Geomatics and image processing 3. Social platforms and sharing

Action Plan

The implementation of the Strategy is achieved through the use of financial resources from different sources and with different instruments.

The action plan was defined in 2015 and based on the "*policy mix*" concept, following the indications of the JRC Guide "*RIS3 Implementation and policy mixes*". The goal was to integrate the different tools and resources within a framework consistent with the methodological priorities and expected changes.

This involves 3 different types of instruments. Those providing direct support, indirect support and contextual support, summarised as follows:

- o **Direct:** actions supporting directly and only the Areas of Specialisation and their development trajectories.
- o **Indirect:** Actions that, while not concerning S3 Areas, support measures in support of Research, Innovation and Development of the regional economy.

- **Context related:** measures strengthening the competitiveness and the overall regional context, and complementing or stimulating the prospective implementation of the S3, but not directly connected to it.

The **beneficiaries** of the planned measures can be identified by type, such as companies, research centres and training organisations or can be individuals specifically identified as competent to carry out the activities covered by the measures, such as, for instance, scientific and technological parks and districts (for technology transfer initiatives).

Direct, indirect and context related instruments amount to about Euro 328 Million (Direct actions: Euro 105 Million, indirect actions: Euro 110 Million, context related: Euro 113 Million), expected values as at 2023.

The policy mix involves the use of resources from both the Structural Funds (ERDF, ESF, EAFRD) and national, regional and community resources (such as cooperation or direct management programs).

Monitoring and Evaluation

The monitoring, evaluation and peer review of the Strategy have been planned as distinct but complementary activities: the monitoring will be an ongoing process, the evaluation will be implemented at certain points in the life of the Strategy and the *peer review* will take place in accordance with the initiatives organised by the JRC in Seville.

These activities share a system of indicators as a fundamental tool, which should ensure a flow of consistent and meaningful information aimed at understanding the performance of the interventions and allowing them to be re-oriented if needed.

The monitoring system consists of **4 sets of indicators: 1. context, 2. output, 3. results/outcomes and 4. impact**, in line with European guidelines for the 2014-2020 programming period.

Impact indicators aim in particular at identifying the net effect of the intervention of the S3 with respect to each of its priorities. This information will be collected and processed by an Independent evaluator, that has been identified for this purpose. For better understanding of the impact evaluation of the S3, the indicators will be further broken down for each area of specialisation.

The main source of the monitoring indicators will be the monitoring systems of the Regional Operational Programmes (ROPs). The information collected through the monitoring system will be the basis for the preparation of the Annual Implementation Report (AIR) by the Technical Secretariat. This because **most of the interventions will be financed by the Structural funds**, and also to avoid unnecessary duplication of requests for information made to businesses and the relevant regional services.

So far, three AIRs have been drafted, proving evidence of the financial and procedural implementation of “direct actions” and “indirect actions”. The Reports are available on the regional website: <http://www.regione.fvg.it/rafvg/cms/RAFVG/fondi-europei-fvg-internazionale/Strategia-specializzazione-intelligente/articolo.html>

During the preparation of the latest Annual Implementation Report, it became apparent that the present monitoring dashboard is mainly focused on “inputs” (financial resources) and therefore needs to be updated in order to be more result-oriented.

This is why Region Friuli Venezia Giulia is planning to involve the relevant stakeholders (Cluster managers in particular) to identify adequate results/outcomes indicators, to be able to monitor effectively the evolution of each specialisation area in the next few years. The starting point for the revision of the present dashboard will be the comments and suggestions put forward by the independent Evaluator in the “Evaluation Design”.

As for the **evaluation** of the impact of the S3, this fulfils two major needs:

1. Understanding if the measures put in place have been effective and efficient.
2. Understanding whether the government and governance mechanism have guaranteed the necessary level of inclusiveness and, at the same time, operational capacity and the specific objectives of the S3 have been achieved as a whole.

The first need will be addressed in the evaluation of the individual ROPs when assessing of performance and impact of the individual Thematic Objectives as laid down in Regulation 1303/2013 (art. 47 et seq.). The evaluation, carried out as part of the ROPs, will assess if and how the Thematic Objectives (above all, the Thematic Objective No. 1) have been achieved within the framework of the specific indicators. The second need (solely focused on the S3) will be addressed through a specific evaluation activity that will also cover the interventions not supported by the ESIF.

In 2017 the evaluation activity of the regional S3 was formally launched.

Following the selection of an external evaluator, the ISRI company in Rome, some first evaluation products were produced, which can be downloaded from the S3 Evaluation section of the regional website at the following link: <http://www.regione.fvg.it/rafvfg/cms/RAFVG/fondi-europei-fvg-internazionale/Strategia-specializzazione-intelligente/articolo.html>

In particular, the independent evaluator provided the following documents:

- **the Evaluation Design**, which contains, among others, the objectives of the evaluation and the methodology used, as well as the refinement of the evaluation questions and a proposal to revise the indicator system;
- **the First and Second Annual Report** on the implementation of the S3, developed by monitoring data, updated to 31.12.2016 and 31.12.2017 respectively; they show an analysis of the procedural, physical and financial progress of the direct and indirect actions that contribute to the implementation of the regional S3, both in general terms and with reference to the areas of specialization;
- the Methodological Note and **the first Thematic Analysis about the governance model of S3 in the FVG Region** (available at the following link: <http://www.regione.fvg.it/rafvfg/cms/RAFVG/fondi-europei-fvg-internazionale/Strategia-specializzazione-intelligente/articolo.html>), aimed at assessing the adequacy of the governance system with respect to the tasks and functions characterizing the process of definition of the Strategy, and trying to understand how and with what expectations the stakeholders have faced that process.

From these first documents, some useful ideas emerged for the formulation of the questions for the peer review and for the starting phase of post-2020 programming.

State of implementation

The RIS3 Annual Report 2018 drafted by Technical Secretariat on the basis of the data referred to 31.12.2017 showed the following state of implementation.

Financial resources activated – distribution per Priority and typology of action			
PRIORITY	DIRECT ACTIONS	INDIRECT ACTIONS	TOTAL PER PRIORITY
PRIORITY A - Developing collaboration and synergy between enterprises and between enterprises and scientific structures	€ 70.772.403	€ 28.735.000	€ 99.507.403
PRIORITY B - Promoting investments by the enterprises in innovation and industrialisation of research results	€ 40.863.908	€ 36.843.512	€ 77.707.420
PRIORITY C - Promoting the new innovative entrepreneurship	€ 8.450.424	€ 25.750.000	€ 34.200.424
	€ 120.086.735	€ 91.328.512	€ 211.415.247

Financial performance of Specialisation Areas		
Area of specialisation	Aid granted	Aid paid
Agri-food	€ 4.007.742	€ 277.458
s.p.c. Metal mechanical sector	€ 21.740.971	€ 3.106.063
s.p.c. Home system sector	€ 12.610.750	€ 2.345.002
Maritime technologies	€ 13.243.110	€ 2.144.850
Smart health	€ 12.418.995	€ 1.295.918
	€ 64.021.568	€ 9.169.291