



Process of identifying West Pomeranian Regional and Smart Specialization

Department of Strategic Management
The Marshal's Office of West Pomerania Province

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Projekt finansowany przez Unię Europejską, ze środków Europejskiego Funduszu Rozwoju Regionalnego
w ramach Regionalnego Programu Operacyjnego Województwa Zachodniopomorskiego na lata 2007-2013

The upcoming new Programming Period and priorities set by the European Commission pose new options and the requirements that must be met by European regions. One of them is the issue of smart specialization. Projects with high potential for commercialization of knowledge and fitting into smart specialization *strategies* will be preferential in 2014-2020 operational programmes. The West Pomeranian's economic situation and its economic growth depends largely on the level and development of innovative activities and R&D, as well as the use of their results as the driving force behind the economy. Currently, the region faces a challenge of increasing competitiveness and innovativeness of its economy. The presence in Western Pomerania sectors such as: food, metal, construction, logistics with the production of means of transport, chemical, or wood and furniture, let in the past twenty years to build a broad competence in this field in the area of education, research and production. The West Pomeranian's purpose should be to promote items that testify to the uniqueness of the knowledge and resources of the region, which will constitute an economic advantage. Focus on specific areas will allow to achieve economies of scale and to develop distinctive and original areas of expertise. This process, however, requires initiating new forms of cooperation between companies, business institutions and R & D units.

Regional and smart specialization

- Regional specialization means identified, unique features and assets of each country and region, emphasizing the competitive advantage and gathering regional partners and resources.
- Meanwhile in the case of smart specialization, in addition to the features which constitute the regional specialization, it highlights the need to take into account the following items when determining smart specialization: R&D, production use, extending the reach of the regional and supra-regional market.
- In European Commission's proposals on cohesion policy for the 2014-2020 period, smart specialization will be a (ex-ante) prerequisite for the use of EU funds under the Thematic Objective no. 1
- Smart specialization is a tool of regional development focused on areas with the greatest potential and R&D facilities, and thus there are conditions for development of a modern and innovative economy.

Identification of Regional Specialisation

- The process of identifying regional and ultimately smart specialization in the first place was due to the provisions of West Pomeranian Region Innovation Strategy 2011-2020.
- *Development of regional specialization based on the endogenous potential of the region* is one of the three strategic objectives of this document.
- There have also been attempts to identify areas of the economy - where such specialization can be developed and in a manner appropriate to the knowledge key activities and milestones related to them have been identified.
- The result of this work was the interior study designed by the Department of Regional Development of West Pomeranian Marshal's Office, which goal was the preliminary identification of generic areas of the economy, based on a systematic and consistent methodology, where there may be regional specializations, which formed the basis for developing smart specializations within them.
- The study was based solely on existing statistical data for 2010 - received from the Statistical Office in Szczecin which concerned: the number of registered enterprises (broken down by size classes), the number of new businesses, the number of employees and average monthly salary as well as data received from the Tax Office in Szczecin derived from VAT-7 reports regarding: the number of taxpayers, net revenues in all tax rates, revenues from exports (both from inside and outside the EU), the acquisition of fixed assets and other acquisition.
- In the process of identifying regional specializations a broad set of NACE sectors were used, in order to point out areas where there is a growth potential for the region. In the next step i.e. identification of smart specializations based on e.g. research of universities capacity and regional R&D, the sectors will be narrowed down to specific zones of specialization, with the highest growth potential.



We've identified five main areas - regional specialization, distinguished in the region:

➤ **bio-economy**

It's becoming important sector of industrial activity in Europe. Understood as an activity involving the sustainable use of natural resources and biological processes to create new products and services shall be an opportunity for the West Pomeranian's intensive development, as well as the possibility of a strong impact on innovation policy in Europe. To create a more innovative and low-carbon economy linking the sustainable agriculture and fisheries, food security and the use of renewable resources will translate into region's competitiveness and the implementation of high ecological standards. The development of the bioeconomy will bring the growth potential to the region and employment growth in rural areas, coastal and industrial areas.

➤ **maritime activities and logistics**

The maritime economy is one of the most important elements of modern global economic system . Sea transport is vital for international trade, since about 90% of goods destined for other than EU's market are supported by maritime transport and in case of intra-EU's trade is more than 40%. However the concept of maritime economy is very broad and cannot be identified only as maritime transport. The Blue Book in the Integrated Maritime Policy [COM (2007) 575] European Commission IMP includes business areas such as: research, security, biotechnology, heritage, education, ecology, energy, information, clusters, medicine, marine spatial planning, education, defense, oceanography, law, seaports and inland fisheries, fishing, sports, shipyards, telecommunications, tourism, raw material resources, workforce management, spatial sea-land, catchment, sea shipping. The economic potential of the West Pomeranian province sets the industry and services related to maritime affairs. Coastal location of the region determines the significant role of those involved in the maritime sector, which accounts for the specificity of the region.

➤ **metal and machinery industry),**

There is a large number of entities represented by the production of metal in the region - this is third section of the processing industry in terms of volume of production sold. The activities of these enterprises is associated with long-term cooperation and work for the shipbuilding industry. The decrease of the importance of the shipbuilding industry is an impulse to restructure the specialization and the use of existing technologies to enter into other product markets. Shipyard and metal sector has a very high fragmentation involves NACE's sectors like: metal casting, metal processing, various tools and equipment production, ships, boats, locomotives production and repair and maintenance of machinery, ships and boats. This sector is highly fragmented - almost 95 % are micro-enterprises. The specificity of the sector - particularly shipbuilding component which include the production of small and medium-sized yachts made of polymer laminates, makes its share in exports higher than e.g. the construction industry and its represents 7.8% of total region's exports. The seaside location is necessary by logistical reasons for placement investments which are characterized by a large-scale industry. In addition due to historical conditions in West Pomerania there are a number of companies producing metal parts, often as subcontractors for larger companies.

➤ **services of the future**

The knowledge based economy is a term of the modern stage of development where knowledge, which plays a crucial role in stimulating economic and social development is understood as the ability to act. The driving force for economic growth is undoubtedly the knowledge, innovation, research and commercialization skills, as well as the methods for generating new ideas and concepts and the skillful management of knowledge and technology in the enterprise. Knowledge-based services are a part of the economy which development is determined by the technological knowledge and innovations based on it, which can be used to produce new services for innovative companies first and then as a result of diffusion of innovation by other companies. According to the OECD estimates for most developed countries, companies are currently investing in intangible assets related to innovation (R&D, software, know-how), almost as much as investing in traditional forms of capital.

➤ **tourism and health**



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Health tourism including spa tourism (to improve the general health status and treatment of various diseases), medical tourism (travel outside the country in order to benefit from outside medical care) and a spa&wellness tourism (trips to institutions , to improve the physical and mental conditions). Western Pomerania is one of the most touristic diverse regions in Poland. Tourists from home and abroad are attracted to numerous therapeutic and recreational centers in Szczecin and in the coastal area, as well as the famous spa town of Swinoujście , Kamień Pomorski , Kołobrzeg , Polczyn Zdroj and Dabki . Undeniable and unique climatic conditions of the region, maritime, saturated with iodine breeze, decks of curative mud and brine are the foundation of a network of services, treatments and rehabilitation services with spa&wellness services based on extensive treatment facilities. Not without significance there is also a strong network of spas, especially for the seaside which is a valuable element in attracting tourists and patients .

Within the national/regional strategies for smart specialisation, ICT measures could:

- a) feature as horizontal measures such as application-driven research and user-driven innovation and, adoption of ICT including ICT-based solutions in all kinds of fields (healthcare, healthy and active aging, e-accessibility, assisted living, e-government, access to public information, resource efficiency, smart grids, intelligent transport, safety, e-commerce, manufacturing, design, public services, e-education, e-inclusion, e-skills, entrepreneurship, digital literacy, econtent, creativity, culture, living labs, smart buildings and neighbourhoods, smart cities, trust, security, etc);
- b) have a sectoral focus targeting ICT industrial and technological leadership in R&D&i fields such as Key Enabling Technologies (KETs), or promoting specialisations in specific market segments or niches (such as micro- or nanoelectronics, photonics, embedded systems, smart integrated systems and complex systems engineering, next generation computing and future Internet, eInfrastructures; content technologies and information management; robotics, cognitive systems, advanced interfaces and smart spaces: mobile apps and social networks apps, etc.);
- c) include measures in support of the regional capacity to plan, manage and implement ICT measures (e.g., networking); to establish accelerators and mentoring facilities for start-ups; to support web entrepreneur camps, good practices exchange, peer review, studies, regular mapping of infrastructure, monitoring and benchmarking, development, expertise; to set up innovative investment models; to exploit pre-commercial procurement and other related innovative procurement activities including reinforcing cross border and international collaboration in preparing the digital growth actions.



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NACE sectors of Regional Specializations

Identified areas of regional specializations in Western Pomerania are the basis for the development of smart specializations, they are divided into the following NACE subclasses:

1. Bio-economy

NACE (01.11.Z 01.12.Z 01.13.Z 01.14.Z 01.15.Z 01.16.Z 01.19.Z 01.21.Z 01.22.Z 01.23.Z 01.24.Z 01.25.Z 01.26.Z 01.27.Z 01.28.Z 01.29.Z 01.30.Z 01.41.Z 01.42.Z 01.43.Z 01.44.Z 01.45.Z 01.46.Z 01.47.Z 01.49.Z 01.50.Z 01.61.Z 01.62.Z 01.63.Z 01.64.Z 01.70.Z 02.10.Z 02.20.Z 02.30.Z 02.40.Z 03.11.Z 03.12.Z 03.21.Z 03.22.Z 06.10.Z 06.20.Z 08.92.Z 10.11.Z 10.12.Z 10.13.Z 10.20.Z 10.31.Z 10.32.Z 10.39.Z 10.41.Z 10.42.Z 10.51.Z 10.52.Z 10.61.Z 10.62.Z 10.71.Z 10.72.Z 10.73.Z 10.81.Z 10.82.Z 10.83.Z 10.84.Z 10.85.Z 10.86.Z 10.89.Z 10.91.Z 10.92.Z 11.01.Z 11.02.Z 11.03.Z 11.04.Z 11.05.Z 11.06.Z 11.07.Z 16.10.Z 16.21.Z 16.22.Z 16.23.Z 16.24.Z 16.29.Z 17.11.Z 17.12.Z 17.21.Z 19.10.Z 19.20.Z 20.11.Z 20.12.Z 20.13.Z 20.14.Z 20.15.Z 20.16.Z 20.17.Z 20.20.Z 20.30.Z 20.41.Z 20.42.Z 20.51.Z 20.52.Z 20.53.Z 20.59.Z 20.60.Z 21.10.Z 21.20.Z 22.11.Z 22.19.Z 22.21.Z 22.22.Z 22.23.Z 22.29.Z 23.11.Z 23.12.Z 23.13.Z 23.14.Z 23.19.Z 23.20.Z 23.31.Z 23.51.Z 23.52.Z 23.61.Z 23.62.Z 23.99.Z 31.01.Z 31.02.Z 31.09.Z 38.11.Z 38.12.Z 38.21.Z 38.22.Z 38.32.Z 39.00.Z 46.11.Z 46.17.Z 46.21.Z 46.22.Z 46.23.Z 46.24.Z 46.31.Z 46.32.Z 46.33.Z 46.34.A 46.34.B 46.38.Z 46.61.Z)

2. Maritime activities and logistics

NACE (03.11.Z 03.21.Z 10.20.Z 30.11.Z 30.12.Z 33.15.Z 46.38.Z 49.20.Z 49.41.Z 50.10.Z 50.20.Z 50.30.Z 50.40.Z 51.10.Z 51.21.Z 51.22.Z 52.21.Z 52.22.A 52.22.B 52.23.Z 52.24.A 52.24.B 52.24.C 52.29.A 52.29.B 52.29.C)

3. Metal and machinery industry

NACE (22.11.Z 22.19.Z 22.21.Z 22.22.Z 22.23.Z 22.29.Z 23.14.Z 24.10.Z 24.20.Z 24.31.Z 24.32.Z 24.33.Z 24.34.Z 24.41.Z 24.42.A 24.42.B 24.43.Z 24.44.Z 24.45.Z 24.46.Z 24.51.Z 24.52.Z 24.53.Z 24.54.A 24.54.B 25.11.Z 25.12.Z 25.21.Z 25.29.Z 25.30.Z 25.40.Z 25.50.Z 25.61.Z 25.62.Z 25.71.Z 25.72.Z 25.73.Z 25.91.Z 25.92.Z 25.93.Z 25.94.Z 25.99.Z 28.11.Z 28.12.Z 28.13.Z 28.14.Z 28.15.Z 28.21.Z 28.22.Z 28.23.Z 28.24.Z 28.25.Z 28.29.Z 28.30.Z 28.41.Z 28.49.Z 28.91.Z 28.92.Z 28.93.Z 28.94.Z 28.95.Z 28.96.Z 28.99.Z 29.10.A 29.10.B 29.10.C 29.10.D 29.10.E 29.20.Z 29.31.Z 29.32.Z 30.11.Z 30.12.Z 30.20.Z 30.30.Z 30.40.Z 30.91.Z 30.92.Z 30.99.Z 32.50.Z 33.15.Z 33.16.Z 33.17.Z 33.19.Z 46.14.Z 46.62.Z 46.72.Z)

4. Services of the future

NACE (50.10.Z 50.20.Z 50.30.Z 50.40.Z 51.10.Z 51.21.Z 51.22.Z 58.11.Z 58.12.Z 58.13.Z 58.14.Z 58.19.Z 58.21.Z 58.29.Z 59.11.Z 59.12.Z 59.13.Z 59.14.Z 59.20.Z 60.10.Z 60.20.Z 61.10.Z 61.20.Z 61.30.Z 61.90.Z 62.01.Z 62.02.Z 62.03.Z 62.09.Z 63.11.Z 63.12.Z 63.91.Z 63.99.Z 64.11.Z 64.19.Z 64.20.Z 64.30.Z 64.91.Z 64.92.Z 64.99.Z 65.11.Z 65.12.Z 65.20.Z 65.30.Z 66.11.Z 66.12.Z 66.19.Z 66.21.Z 66.22.Z 66.29.Z 66.30.Z 69.10.Z 69.20.Z 70.10.Z 70.21.Z 70.22.Z 71.11.Z 71.12.Z 71.20.A 71.20.B 72.11.Z 72.19.Z 72.20.Z 73.11.Z 73.12.A 73.12.B 73.12.C 73.12.D 73.20.Z 74.10.Z 74.20.Z 74.30.Z 74.90.Z 75.00.Z 78.10.Z 78.20.Z 78.30.Z 80.10.Z 80.20.Z 80.30.Z 84.11.Z 84.12.Z 84.13.Z 84.21.Z 84.22.Z 84.23.Z 84.24.Z 84.25.Z 84.30.Z 85.10.Z 85.20.Z 85.31.A 85.31.B 85.31.C 85.32.A 85.32.B 85.32.C 85.41.Z 85.42.A 85.42.B 85.51.Z 85.52.Z 85.53.Z 85.59.A 85.59.B 85.60.Z 86.10.Z 86.21.Z 86.22.Z 86.23.Z 86.90.A 86.90.B 86.90.C 86.90.D 86.90.E 87.10.Z 87.20.Z 87.30.Z 87.90.Z 88.10.Z 88.91.Z 88.99.Z 90.01.Z 90.02.Z 90.03.Z 90.04.Z 91.01.A 91.01.B 91.02.Z 91.03.Z 91.04.Z 92.00.Z 93.11.Z 93.12.Z 93.13.Z 93.19.Z 93.21.Z 93.29.Z)

5. Tourism and health

NACE (55.10.Z 55.20.Z 55.30.Z 55.90.Z 79.11.A 79.11.B 79.12.Z 79.90.A 79.90.B 79.90.C)

Our approach to the smart specialization process



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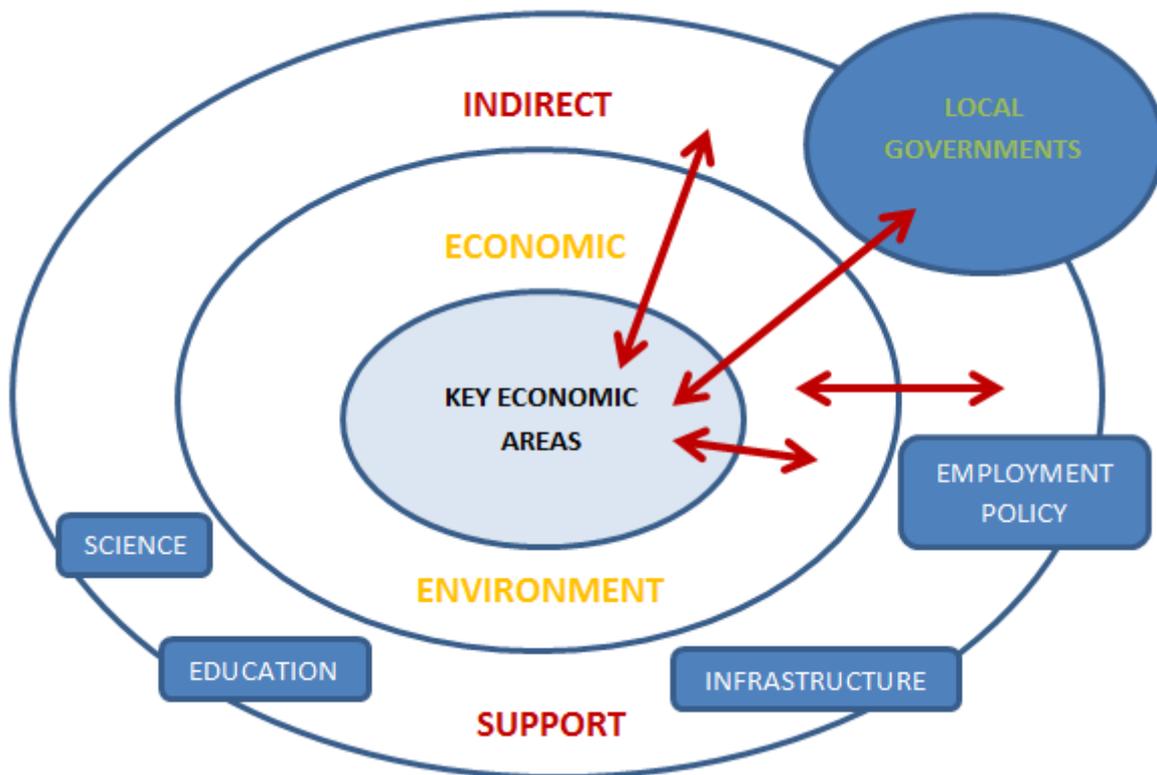


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- Treating smart specialization as a process, one must indicate the manner in which it should be performed, including the necessary resources, business entities, tools for identification and development of specialization and possible support instruments.
- Currently there is no common methodology for determining the smart specialization at a regional level, also missing linkages between national and regional specializations.
- Strategic Management Department in West Pomeranian Marshal's Office proposes a new approach, particularly with regard to the regional level (in case of the need for cooperation with the scientific - research units outside the region which seems to be reasonable to apply to Innovative Economy Operational Programme), which is based on the identification and co-operation of three areas involved in the process of smart specialization.
- To effectively implement the smart specialization process, one should look at the specializations wider than just a list of sectors and technologies classified into subclasses of NACE. This is the system with interdependent and mutually reinforcing links, with a significant role not only of entrepreneurs, but also of local governments and business institutions.
- The diagram below shows the process of determining the intelligent specialization.



- The smart specialization process should be built based on the identification of key areas of economy with growth potential - from the bottom up, in which the market should stimulate economic growth and innovation. Identified companies are to be a base to build around them and develop specializations with tangible benefits for the regional development. It should be stable, promising companies with a potential for innovation. An important task is to diagnose their needs, barriers and determine their relevance and role in the smart specialization.
- In particular, funds from thematic objective no. 1 *strengthening research, technological development and innovation*, and possibly no. 3 *enhancing the competitiveness of small and medium-sized enterprises* will constitute a support instrument for key business entities.
- The second sector is the economic environment, which should include counterparties of key businesses, both those already cooperating, but also the potential ones who through appropriate development can obtain necessary competences. It will also qualify for Higher education and research and development units, which already provide

or are able to provide new technologies and innovative solutions in line with market demand should also be included in this sector.

- In particular, funds from thematic objective no. 3 *enhancing the competitiveness of small and medium-sized enterprises* and possibly no. 1 *strengthening research, technological development and innovation* will constitute a support instrument for these entities.
- The third sector in the smart specialization process are so-called *indirect support*, which in this case are at the disposal of e.g. local governments, business institutions and clusters. These instruments are expected to contribute to economic development and innovation in identified thematic areas. They will involve for example employment policy, vocational training, education and infrastructure - elements supporting the economic development.
- In particular, funds from thematic objective no. 2 *enhancing access to, and use and quality of, information and communication technologies*, no. 3 *enhancing the competitiveness of small and medium-sized enterprises*, no. 7 *promoting sustainable transport and removing bottlenecks in key network infrastructures*, no. 8 *promoting employment and supporting labour mobility* and no. 10 *investing in education, skills and lifelong learning* will constitute a support instrument for this sector.
- by local governments that promote and influence all sectors, but also take advantage of them will play an important role in the whole process, because implementation entails their development and safety, health and infrastructure improvement, , etc. - all indirectly due to taxes and financial means of the new financial perspective.

Key actions:

- Identification of economic operators with development potential on the basis of methodology for West Pomeranian smart specialization.
- Individual, in-depth interviews with representatives (decision-makers) of the companies mentioned above – their needs, barriers, deficits, development plans, R&D facilities, internationalization, etc.
- Identification of operators cooperating on the market with the companies above - by examining the value chain and developing their market needs and development barriers.
- Identification of key clusters in terms of specialization - presentation of the concept of smart specialization process, identifying their needs, capabilities and clusters plans.
- Verification of West Pomeranian higher education potential in the context of key enterprises' demand for research.
- Conversations with specific local governments - understanding their development plans, cooperation proposal and presenting the range of smart specialization process.

Value chains for smart specialization

- Not every region can be a leader in the field of key enabling technologies, but they all can benefit from these technologies one way or another, on earlier or later stages of the value chain.
- Given that smart specialization is the process (entrepreneurial discovery leading to economic transformation) and not the list of selected sectors or technologies, it's important to designate and monitor the value chains in different areas of specialization.
- Preparing a document for the smart specializations will mainly rely on the method identification of conducting such a process, including necessary resources such as aware and prepared stakeholders, tools developed for identification and development of smart specializations and prepared support instruments. Moreover, such approach emphasises a dynamic aspect of the issue - the need for change and verification of specializations identified in accordance with the changing economic situation. Therefore it is important to analyze needs at individual levels and to identify possible deficits following e.g. globalization processes. In the case of West Pomerania the sphere of vocational education and the increasing market's demand for specialized personnel constitutes such an example.
- Determination of smart specialization requires a clear idea about the potential of the region. An important element of discovery, in which field the region finds its potential to be more competitive than other regions is the process of entrepreneurial discovery, which involves, among others, developing solutions to explore new ideas in the value chain and access to new value chains.



RIS3 Guide outlines the six-scheme RIS3 strategic process in which the leading elements are ordered in terms of the logical structure of the RIS3 strategy. From the West Pomerania's point of view it is reasonable that RIS3 strategy allows to solve suggested issues in terms of scheme proposed by the guide's authors.

Stages of smart specialization scheme - RIS3

I. Analysis of the regional context and potential for innovation

RIS3 strategic process should be based on sound analysis of the regional economy, society and the structure of innovation, including both evaluation of existing resources and the development prospects for the future.

II. Governance: Ensuring participation and ownership

Innovation users or groups representing demand-side perspectives and consumers, relevant nonprofit organizations representing citizens and workers should all be taken on board of the design process of RIS3.

III. Elaboration of an overall vision for the future of the region

Having a clear and shared vision of regional development is crucial in order to keep stakeholders engaged in the process, a task that is particularly challenging, given that a RIS3 is a long-term process.

IV. Identification of priorities

Priority setting in the context of RIS3 entails an effective match between a top-down process of identification of broad objectives aligned with EU policies and a bottom-up process of emergence of candidate niches for smart specialisation, areas of experimentation and future development stemming from the discovery activity of entrepreneurial actors.

V. Definition of coherent policy mix, roadmaps and action plan

An action plan is a way of detailing and organising all the rules and tools a region needs in order to reach the prioritised goals, and it should provide for comprehensive and consistent information about strategic objectives, timeframes for implementation, identification of funding sources, tentative budget allocation.

VI. Integration of monitoring and evaluation mechanisms

Monitoring refers to the need to follow progress of implementation. Evaluation refers to assessing whether and how strategic objectives are met. In order to perform evaluation, it is essential that objectives are clearly defined in a RIS3 in measurable terms at each level of implementation, i.e. from the strategic overall objectives to the specific objectives of each of its actions. A central task of RIS3 design is to identify a parsimonious yet comprehensive set of output and results indicators and to establish baselines for the result indicators and target values for all of them.

¹ Based on: *Guide to Research and Innovation Strategies for Smart Specialisations (RIS 3)* European Union, 2012.

