

Smart Growth

Operational Programme

2014-2020

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- 1. STRATEGY FOR THE OPERATIONAL PROGRAMME'S CONTRIBUTION TO THE UNION STRATEGY FOR SMART, SUSTAINABLE AND INCLUSIVE GROWTH AND TO THE ACHIEVEMENT OF ECONOMIC, SOCIAL AND TERRITORIAL COHESION
- 1.1 Strategy for the operational programme's contribution to the Union strategy for smart, sustainable and inclusive growth and to the achievement of economic, social and territorial cohesion.
- 1.1.1 Description of the programme's strategy for contributing to the delivery of the Union strategy for smart, sustainable and inclusive growth and for achieving economic, social and territorial cohesion.

Diagnosis of challenges, needs and potential areas encompassed by the Programme

Recent years saw an acceleration of the process of Poland's convergence with the EU countries, also due to investments supported by structural funds and the high economic growth rate in Poland, which in the years 2007–2012 on average amounted to 4.0% (against the average 0.4% in the EU). In 2013, the GDP per capita in Poland amounted to 68% of the EU average which marked an improvement of 16 percentage points compared to 2006. These positive trends point to the increased competitiveness of the Polish economy and better living standards of the population. As the prosperity increases, a threat emerges that the Polish economy will enter the path of development drift, related to the "middle income trap". In order to avoid this threat, the economic development model for Poland must change from imitative to innovative.

In order to further reduce the developmental gap between Poland and highly developed EU Member States (i.e. to reach 74–79% of the average EU GDP per capita in 2020) a development policy is needed that would stimulate economic growth based on improved innovation, use of potentials associated with creativity and entrepreneurial society and ability to cooperate. Therefore, the focus should shift from "quantitative growth" to building a knowledge-based economy.

Innovativeness of the polish economy as compared to other countries

Poland is still at a very distant position in the rankings presenting innovation of the EU countries. Poland is characterised by a Summary Innovation Index (SII) score which is below the EU average. In Innovation Union Scoreboard (IUS) published in 2014 Poland was in the 4th place from the end and compared with the results from the previous year it was promoted from the weak innovators group to the medium innovators group. In the innovation ranking, Global Innovation Index, which takes into account 7 components regarding both conditions for innovative activity and results of this activity, Poland in 2014 was in 45th place behind i.a. Czech Republic, Slovakia and Lithuania, recording increase from 49th place (in total 143 countries were classified in the ranking). Among ranking components Poland received the best score in institutional environment (35th place) and the worst score in market maturity (70th place).

Conditions for innovative economy development are also shown on the Ease of Doing Business run by the World Bank. The ranking takes into account 10 components i.a. associated with the ease start of the economic activity, obtaining credit, tax system and enforcement of contracts. According to Doing Business 2015 ranking: Going Beyond Efficiency Poland is 32nd among 189 classified countries. In different ranking dimensions Poland was one of the highest classified countries in terms of easiness to get a credit (17th place) and one of the lowest in terms of receiving building permit (137th place), tax system (87th place) and business set-up procedures (85th place).

In the international comparisons Poland ranks particularly distant when it comes to using ecoinnovations. According to Eco-Innovation Scoreboard in 2013 Poland was in the penultimate place in EU-28, just ahead of Bulgaria.

Expenditure on the R&D activity

In the years 2007–2013 expenditure on research and development (GERD) increased in Poland from PLN 6.67 billion to PLN 14.42 billion, and in the same period GERD in relation to GDP increased from 0.57% to 0.87%. In the years 2007–2012, the gap between Poland and the average for the EU gradually decreased from about 70% to 56%, but the value of GERD to GDP is still two times lower than the EU average (2.06% in 2012 and 2.02% in 2013).

The increase in expenditure on R&D in this period in Poland was largely associated with an increase in public spending for this purpose. Compared to other EU Member States Poland is still characterized by a different structure of expenditure on R&D, especially with low share of private expenditure. In 2012 15.4% of funds for research and development work came from the European Commission and the state budget involved in co-financing of projects funded by the European Union.

More than half of the funds of the European Commission financing expenditure on R&D activities were spent in higher education sector (50.5%). In other implementing sectors these shares amounted to 30.5% in the government sector, 18.4% in the enterprise sector and 0.6% in the private non-profit institutions sector.

In Poland enterprises rarely conduct R&D works – the relation of BERD to GDP despite an increase from 0.17% GDP in 2007 to 0.33% GDP in 2012 still remains at a low level. In the period 2007–2012 business expenditure on R&D in nominal terms increased by 138%. A significant increase in internal expenditure on R&D in the enterprise sector is shown in 2013, because they amounted to PLN 6,291 million i.e. increased by PLN 850 million (increase by 17.8% compared to the previous year).

According to Innovation Union Scoreboard, R&D expenditure of Polish enterprises are still low and amounts to only 25% of the EU average. In Denmark, the figure is 150%, in Sweden – 176%, and in the Czech Republic which is closer to Poland – 77%. The indicator close to the Polish level is recorded in Slovakia and Croatia.

In 2013, as in the previous years, the highest share in the structure of financing sources was noted in the case of funds from the government sector. It should be emphasized that this share has been steadily decreasing since 2010 and within four years it fell by 13.7% percentage points. Also the systematic increase in the enterprise sector share in financing R&D activity was observed in the same period. In 2013 this share amounted to 37.3% of all expenditure incurred by the entities performing R&D activity, which means an increase by 5.0 percentage point as compared to the previous year, and increase by 12.9 percentage point in comparison with 2010.

As compared to other European countries this indicator is not favourable – on average the share of business funds in expenditure on R&D in EU amounts to 54.9%.

The data presenting internal expenditure on R&D by size classes of enterprises prove that larger entities more often conduct R&D activity. In 2012 the entities employing 50–249 people (33.9%) were the most active among entities conducting research in the enterprise sector. The highest average internal expenditure on R&D activity was recorded in entities employing 500 people and more (on average PLN 10.1 million).

Both in Poland and other European countries, the main obstacles against carrying out R&D work by enterprises are: high risk and uncertainty of research outcomes and their high costs. Access to

properly educated staff, to infrastructure and enterprises general awareness concerning the significance of R&D for gaining competitive advantages are also important.

According to the report prepared for PARP entitled "Assessment of the enterprises demand for support to research and development activity" the main obstacles against development of internal R&D activity by the enterprises are:

- · lack of funds for R&D&I activity,
- financial barriers, particularly relevant in the case of SME,
- difficulties in obtaining public support,
- insufficient human, organisational and know-how resources, lack of own R&D infrastructure,
- insufficient use of advisory services of external companies,
- difficulties with the correct booking of expenditure related to R&D activity,
- problems in cooperation with research units: too much theory in research conducted in research units, failure to meet deadlines, complicated relationship with scientific staff and administration in research units,
- uncertain demand for new products, which are the effect of the commercialisation of R&D results,
- difficulties in finding and evaluating various external resources, their assimilation, transformation and application,
- limited access to external consulting services,
- inactivity of R&D units in the commercialisation of research results.
- immaturity of financial institutions,
- deficiencies in innovative entrepreneurship education and imperfect flows of information,
- imperfections of telecommunication and municipal infrastructure.

These barriers have a negative impact on innovation of SME, therefore in the global market the enterprises from this sector are not able to compete with other entities.

Obtaining results of works by external entities is an alternative for their own R&D works. However, the Polish enterprise rarely conduct this type of shopping. In 2010, 464 enterprises decided to purchase works from other Polish units, almost 3 times less enterprises obtained works from entities from other EU countries, and a small group of enterprises benefitted from the offer of non-EU units. Polish enterprises acted as R&D works providers even less frequently in 2010, there were only around 100 enterprises, and most of which found customers on our territory.

In 2012, 36.7% of current expenditure on R&D was spent on basic research, 21% on applied research and 42.3% on development; for comparison in the UK the figures were: 15%, 48% and 37% respectively. In recent years Poland has recorded a slight increase in thee share of expenditure on applied research and development in relation to basic research, however, the structure is still significantly different from the typical for the most innovative economies. Changes in this field are shown by the size of national budget distributed by the National Science Centre (NCN) and National Centre for Research and Development (NCRD). In the years 2011–2013 the NCRD

budget (applied research) respectively amounted to: PLN 1.1 billion, PLN 1.5 billion and PLN 1.7 billion, and NCN budget (basic research) amounted to: PLN 0.5 billion, PLN 0.9 billion and PLN 0.9 billion. In the years 2010–2012 there was a significant growth in spending declared by the enterprises under the NCRD programmes from PLN 258 million in 2010 to PLN 1.2 billion in 2012. In the years 2013–2016 this expenditure are declared at the level of PLN 4.8 billion.

Expenditure on innovative activity of enterprise

Between 2011 and 2013, 18.4% of industrial enterprises and 12.8% enterprises from the service sector introduced innovative activity (compared to 17.7% and 13.9% in the years 2010–2012). In this period 17.1% of industrial enterprises and 11.4% enterprises from the service sector introduced new or significantly improved product or process innovations (compared to 16.5% and 12.4% in the years 2010–2012 respectively).

The results of innovative activity research show that the enterprises which in the years 2010–2012 introduced process innovation (new or significantly improved processes) than product innovation (new or significantly improved products) had higher share in the group of industrial enterprises and enterprises from the service sector.

Compared to the years 2009–2011 the percentage of enterprise, which introduced innovative product or process decreased in the industrial enterprises (by 0.4 percentage point) and increased in the service sector (by 0.1 percentage point).

Given the nature of innovation in the years 2011–2013 the share of enterprises, which introduced innovations in the general number of enterprises, is the highest in the units employing more than 250 people. Both the industry and services were dominated by the enterprises introducing process innovation (respectively 46.9% and 39.8%).

Between 2005 and 2012, expenditure on innovative activity in the group of industrial enterprises increased

from over PLN 14 billion to PLN 21.5 billion. In the years 2006–2011, expenditure on innovative activity in the service sector grew more slowly than in the industrial sector. In 2012, expenditure on innovative activity in the service sector has significantly increased (by 27.5% more than in 2011) and in total amounted to PLN 15.1 billion. In 2013, expenditure on innovative activity in the industrial enterprises amounted to almost PLN 21 billion while in the enterprises from the service sector amounted to almost PLN 12 billion.

It should also be stressed that not only the volume but also the internal structure of expenditure on innovation are important. In Poland the absorption of technologies by the enterprises usually displace their R&D activity, while the innovation of enterprises is mainly imitative character and mostly relies on the adoption of solutions already used in the world. This is indicated by the statistics – in 2012, the industrial enterprises allocated the majority of expenditure on innovative activity (58.2%) for purchase of machinery, technical equipment, transport equipment, tools, instruments, movable assets and equipment. In the case of R&D expenditure, the share was markedly lower and amounted to 13.3%.

In 2012, in the case of industrial enterprises the share of net income from the sale of new or significantly improved products introduced to the market in the years 2010–2012 amounted to 9.2% in the total income from sales, i.e. by 0.3 percentage point more than the share of income in 2011 from the sale of these products introduced in the years 2009–2011. In 2012, for the enterprises from service sector this indicator amounted to 3.1%, i.e. by 0.2 percentage point less than in the previous period.

The year 2012 was another year in a row, when there were no significant changes in the structure of net income from the sale of enterprise products by technology levels. The enterprises of medium-low (35.5%) and low technology (32.2%) still dominated in the product sales. In 2012 the share of high-tech and medium-low industrial processing sectors amounted to 5.3% and 27.0% respectively.

In 2013, in the case of industrial enterprises the share of net income from the sale of new or significantly improved products introduced to the market in the years 2011–2013 amounted to 8.6% in the total income from sales, while in the service sector it amounted to 3.4%.

The entities employing 250 people or more reached the highest share of income from the sale of innovative products in total income from sales, both in the group of industrial and service enterprises (11.9% and 5.9% respectively) – data for 2012.

Funding of innovative activity

The main source of innovation funding are enterprises' own funds. In 2012, 73.4% of expenditure of industrial enterprises and 69.6% of expenditure of the service enterprises was financed in this way. In 2013, these values amounted respectively to 71.1% in the industrial enterprises and 79.9% in the service sector.

Innovative enterprises, in particular micro and small ones, which are in their early stage of development and do not have long credit history or appropriate securities, have limited access to the capital for investments. The enterprises have also insufficient knowledge about the possibilities of funding the innovative activity in the enterprise. Equity funds, including venture capital funds are the alternative sources of R&D&I project funding for banking sector, however, as numerous publications show, Polish market of commercial sources of innovation funding is still in its development stage.

Between 2009 and 2010, level of investments of the equity funds market (PE/VC) in Poland increased by over 250% and amounted to EUR 657 million (EVCA data), which constituted 0.192% of GDP and half of the PE/VC funds located in Central and Eastern Europe. In 2011, level of investments reached EUR 689 million, i.e. 0.18% of GDP. Most funds went to the consumption goods and services sector and communication sector. There is little interest of funds in investments in high-tech industries. The low development level of PE/VC market in Poland is confirmed by the international reports.

In the Global Innovation Index ranking 2014, in 2013 Poland takes the remote 55th place, as far as share of value of venture capital funds investments is concerned.

The institution of so-called business angels is a rarely used source of R&D activity funding. Poor development of this instrument in recent years may result from availability of public funds for R&D. Increasing range of capital sources makes enterprises more careful when it comes to choosing the institution and people with whom they cooperate.

Although private expenditure on R&D is significantly below the EU average, expenditure on innovative activity other than R&Dare at a high level, which is characteristic for countries with the lower level of technical advancement.

Human resourced of R&D sector

As at 31 December 2012, the number of research units operating in Poland was 1,632. In 2012, 67 thousand of scientific and research workers were employed (in full-time equivalent – FTE). In 2012, Poland took 7th place among EU countries as far as R&D personnel is concerned and the 6th place in terms of number of scientific and research workers. In 2012 there was 1,000 people active in the

labour market to 5.2 people (in FTE) employed in R&D sector (EU28 - 10.9) and 3.9 scientific and research workers (EU28 - 6.8).

In 2012 the share of people with higher education in total number of people employed in R&D sector amounted to 89.1% and slightly increased (by 0.1 percentage point) as compared to the previous year. Among R&D employers 7.6% had professor title, 10.1% had post-doctoral degree and 33.0% had doctor degree.

Low R&D expenditures of Polish enterprises affect R&D staff employment rate in enterprises. In 2012, R&D expenditures concerned 28.3% of total employees in R&D sector. For the government sector this share was 24.0%, and 47.3% of R&D staff (measured in FTE) worked in higher education. In the UE scale, these proportions are quite different. Most R&D staff (in FTE) is associated with the enterprise sector – 52.6% and higher education sector – 32.7%, while the government sector covers 13.6% of R&D employment.

Activity in the international research programmes

National research units to a relatively small extent use the opportunities provided by the Framework Programmes financed by the EU. In terms of the number of research teams involved in the implementation of projects under the 7th Framework Programme (FP7), Poland is in the middle of the ranking (according to data from the end of 2014, covering 487 calls for proposals). The number of applications or beneficiaries of the FP7 broken down by 1,000 researchers for Poland (data after 487 calls for proposals) is one of the lowest among the EU countries.

Poland places on the same position in the statements defining the coordination of international research projects under FP7. In terms of the number of coordinations per 1000 R&D employees, Poland is at the 15th place among the EU Member States.

According to statistics on the participation of Polish teams in FP7 broken down by organisation type, Polish participants include large number of universities (38.9% of applicants and 39.3% of beneficiaries), slightly fewer research centres (19.0% of applicants and 30.3% of beneficiaries) and enterprises (22.1% of applicants and 23.9% of beneficiaries). It should be noted that the highest (amounting to 27%) success indicator was achieved by research centres.

Cooperation in the field of R&D

Level of cooperation between enterprises and research units in Poland is not satisfactory. Little tendency to cooperate is characterized by both enterprises and science sector, and their causes must be sought i.a. in the current development of innovative entrepreneurship, mainly through the purchase of licenses for new technology, as well as in low level of social capital in Poland.

Between 2010 and 2012, only 5.7% of industrial enterprises and 3.4% of enterprises from the service sector established cooperation in the area of innovative activity (this is respectively 33.8% and 27.3% of innovation active enterprises). Large entities (58.5% of companies from the industry sector and 57.5% of entities from the services sector) dominated among enterprises, which cooperated in the area of innovative activity. Medium (respectively 35.7% and 41.1%) and small (respectively 22.1% and 16.7%) enterprises started cooperation much less frequently.

The main partner in cooperation in the area of innovative activity between 2010 and 2012 were equipment, material, component and software providers (29.7% of industrial enterprises and 30.4% of entities from the services sector assessed cooperation with them as the most favourable). The second best-evaluated type of partners were enterprises from the same group (22.6% of industrial enterprises and 28.5% from the services sector). Universities were on the third place (respectively

11.4% and 10.1%). Remaining places were claimed by such groups of entities like: research institutes, customers, consulting companies, entities carrying out competitive activity. Percentage of enterprises cooperating with research units increases significantly along with the enterprise size (from 11.7% in case of small enterprises to 62.8% in case of large enterprises).

The factors that affect the insufficient cooperation between science and business environments attributable to the enterprises include: low innovation activity, limited capital resources of SME, poorly developed market of venture capital funds, lack of confidence in the scientific partner, uncooperative behaviour, policy of large companies with foreign capital that prefer cooperation with foreign partners.

The factors affecting the insufficient cooperation with enterprises attributable to science include: offers from scientific units untailored for the enterprises needs, insufficient informational and promotional activity of research units, high service costs, low efficiency of technology transfer centres, too many bureaucratic obstacles on universities, lack of market approach on the side of research units to the knowledge they developed and little trust of enterprises in quality and timeliness of services provided by the research units.

Clusters are one of the possible means of strengthening partnership between the academic and business environments. According to PARP estimates, approximately 250 cluster initiatives were established in Poland between 1997 and 2012. In the years 2010–2012, the share of enterprises cooperating in clusters in relation to the total number of entities cooperating in the field of carrying out innovative activities in the services sector amounted to 18.3% in the case of industrial enterprises the value of this indicator amounted to 13.1%. The quality of relations between members of clusters and intensity of their cooperation is also important. In line with the results of clusters benchmarking, 51% of analysed initiatives were established from the bottom up and 17% of clusters were established as a result of top-down initiative. This is a method typical for centres in which cluster is created on initiative of units outside of the enterprise sector. Micro and small enterprises constitute more than 70% of companies associated within clusters (medium enterprises – 21%, large enterprises – 8%). The studies show that most clusters are strongly linked with the regional specialization, which has a positive impact on their capacity.

The majority of entities associated within clusters do not incur large expenditure on innovative activity (in 2012 innovations covered by legal protection were introduced in 15 clusters), however increasingly more clusters express their interest in this type of activity. Expenditure on R&D also remain at a low level. According to the authors of clusters benchmarking the reason behind low innovativeness of clusters is the low level of competitiveness of Polish products on foreign markets and financial weakness of the producers, which results in lack of funding for carrying out activities aimed at developing innovativeness. Insufficient knowledge about the nature of relationship between competitiveness and innovativeness among entrepreneurs constitutes another cause of this situation. Weak training and consultancy support for clusters and low level of cluster members' participation in training contributes to low culture of innovation.

Protection of industrial property

In 2010, the number of applications to the European Patent Office (EPO) per 1 million of inhabitants slightly exceeded 8 in Poland, whereas the EU average was almost 14-fold higher (109). Low level of activity in terms of industrial property protection in Poland is confirmed also by the number of filed patent applications (9% of EU average) and income from abroad for licences and patents (12%).

A positive trend is the increase in the number of patent applications filed to the EPO in the years 2011–2012 from 400 to 532 (a growth of 32.9%) and the increasing number of applications filed to the Polish Patent Office. In 2011, applications concerning 3,878 inventions were filed and 1,989 patents

were granted (in 2010, 3,203 and 1,385, respectively). In 2012 in Polish Patent Office 2,484 patents were granted for inventions, including 1,848 for national inventions. Although this figure was 7.1% lower than in the previous year, the number of patents granted for national inventions still remains at non-listed level in the long-term evaluation. In the past two decades higher level of this statistics was recorded only in the years 1990–1993. In 2012, the number of patents for foreign inventions granted by the Polish Patent Office amounted to 636. Compared to the previous year it decreased by 43.4% and in relation to the record level of 2009 – by 73.7%.

Almost half of patent applications (47.7%) in Poland came from the R&D units, namely, research institutes, higher education institutions and units of the Polish Academy of Sciences. Of all the applications, in 787 cases a natural person was the first applicant; the share of such applications reached 17.8%.

Between 2008 and 2010, enterprises usually applied for protection of trademarks (3.5% of industrial enterprises, 5.3% of entities from the service sector), and much less frequently industrial designs, inventions and utility models. Most of submitted inventions (65.2% in case of industrial enterprises and 72.0% in the service sector) was a result of internal R&D works.

Numerous actions have been undertaken in recent years to raise the awareness of various environments, including the research community, about the development of innovation culture in Poland (for example Top 500 Innovators Programme, Innovation Creator and Patent Plus); they include also academic majors and specialties for innovation managers/brokers, compulsory classes on intellectual property protection for students.

It is worth adding that correlation between the number of patents and business expenditure for research (BERD) in enterprise sector is stronger than the correlation between the number of patents and total expenditure on research (GERD). Therefore, motivation and demand of enterprises has significant impact on using scientific achievements for economic development.

Barriers to increase the number of patents in Poland include not only the costs of obtaining and keeping the patent, but also expenses related to the enforcement of intellectual and industrial property law. It should be emphasized that the real costs of litigations, especially abroad, can be very high. The surveys conducted among enterprises by Deloitte company show that the costs of court proceedings are particularly acute in the case of SMEs, therefore the enterprises often resign from the patent protections before the court. According to the Communication from the European Commission of 3 April 2007 the total costs of parallel litigation only in four EU Member States, in which most of patent cases are conducted (Germany, France, the United Kingdom, the Netherlands) range from EUR 310,000 to nearly EUR 2 million in the first instance and from EUR 320,000 to EUR 1.4 million in the second instance.

Internationalisation of business activity

According to OECD the value of Polish foreign trade per capita amounted to EUR 8,900 in 2009, which gives Poland a relatively low 31st place among the OECD countries. The ratio of exports to GDP of Poland (41.6%) was at the average level compared to the OECD countries – close to Norway (41.5%) and Germany (46.1%), much lower than in Hungary (86.5%) and Slovakia (80.9%) and significantly higher than in Spain (26.3%) and France (25.5%).

In the last decade the ratio of foreign trade turnover to GDP has substantially improved. In the years 2001–2011, the average annual growth of trade turnover in exports and imports, both in quantity and quality dimensions, was significantly higher than relatively high average pace of GDP growth in this

period. According to Eurostat Poland has the fourth highest rate of growth in export in the years 2002–2010 in the entire EU (294.8%), second only to Lithuania, Latvia and Slovakia.

Eurostat data show that the activity of Polish enterprises is not sufficiently internationalised. Only 3.4% of enterprises are selling products and services to the EU markets and 1.7% to the other countries in the world. This result gives Poland respectively the 5th and 3rd place from the end among 21 EU countries surveyed. In the case of SMEs the percentage is even lower – 3.3% of these entities is exporting to the EU markets and 0.9% outside the Union. The small enterprises achieve the best results in Poland compared to EU countries – up to 35.6% of these entities is exporting to the EU markets (2nd place among 18 EU countries) and 16.4% outside the EU (5th place).

The export of Polish enterprises is relatively high compared to the scope of their activity. In 2010 the share of turnover from exports in total turnover of all enterprises in Poland (15.5%) was slightly higher than average in 21 EU countries (14.9%). The average trade volumes with EU for one Polish exporter (EUR 1.8 million) are slightly lower than the average for 24 European countries (EUR 2 million). The enterprises exporting outside the EU have significantly lower trade volumes (EUR 0.3 million for Poland with the average for EU countries amounting to EUR 1.8 million). Mainly large enterprises are exporting – the share of Polish SMEs in the exports in 2010 amounted to only 28.7% compared to the average for 18 EU countries forming at 39.7% level.

Signals concerning export of high-tech enterprises should be regarded as positive. Between 2007 and 2012 the share of high technology products in the total export has almost doubled (from 3.0% to 5.9%). In the same period the share of high technology products in import increased slightly: from 9.3% to 10.5%. In the years 2007–2012, export of high technology products at current prices increased almost three times (from EUR 3.1 billion to EUR 8.4 billion), while import increased from EUR 11.2 billion to EUR 16.0 billion. However, the share of export of high technology products in Poland is still much lower than the EU average of 15.6%.

The value of foreign direct investments (FDI) can also be the measure of international openness of the economy. The value of Polish direct investments abroad has been showing an upward trend for a few years now. In 2011, the net capital outflow against investments amounted to EUR 5.1 billion (by EUR 312 million less than in 2010 compared to EUR 3.3 billion in 2009 and EUR 3.1 billion in 2008). The growing capital expansion of enterprises abroad indicates a change in the international investment position of Poland, which from being the FDI recipient is gradually becoming also their source.

Business environment institutions

The sector of business environment institutions (BEI) has been developing very dynamically in recent years.

In 2000, the BEI sector included 266 entities, and in 2012 it included 821. In 2012, this number consisted of: 40 technology parks and 14 parks initiatives, 29 technology incubators, 73 academic business incubators, 58 business incubators, 69 technology transfer centres, 10 business angel network, 86 local and regional loan funds, 55 credit guarantee funds and 319 training and consulting centres. The growing number of BEI causes competition in seeking cooperation with enterprises which raises the quality of services provided by them.

Development of BEI in Poland is stimulated by the programme' measures financed from the EU funds. Nowadays it is very common that services provided for enterprises by these institutions are free of charge or only partially paid.

The business environment institutions sector offers simple services, in particular basic advisory services (advice on establishing and conducting economic activity, advice on applying for EU funds)

and basic training services. Entrepreneurs' demand for basic services constitutes an important factor for the functioning of these institutions, though the most innovative companies frequently have trouble finding the BEI whose services meet the specialised standards. Further professionalization of services provided by BEI is therefore necessary, as it will enable the institutions to better match their offer to the expectations raised by the enterprises.

Territorial features of R&D&I activity

The analysis of innovation of Polish enterprises at the regional level proves that Mazowieckie Voivodeship takes the leader position, which is largely due to the role of Warsaw as a centre of economic life. In other Polish regions the significant innovation potential is also concentrated in the capital cities of voivodeships and their functional areas.

In the years 2010–2012, the highest percentage of industrial enterprises that are innovatively active is in the voivodeships such as: Podlaskie (23.8%), Opolskie (23%) and Dolnośląskie (22.6%). On the other hand in the service sector the voivodeships such as: Mazowieckie (19.5%), Kujawsko-Pomorskie (16.5%) and Małopolskie (15.1%) took the first places in the ranking.

In 2012, the highest value of expenditure on innovative activity was recorded in the industrial and service enterprises from Mazowieckie Voivodeship. The lowest expenditure was incurred by industrial enterprises from Opolskie Voivodeship and service enterprises from Podlaskie Voivodeship.

The main source of financing of expenditure on innovative activity are enterprises' own funds. In 2012, this contribution amounted to 73.7% of all expenditure incurred in industrial enterprises (by 0.3 percentage points more than the previous year) and 69.6% of expenditure in enterprises from the service sector (by 13.4 percentage points less).

In 2012, expenditure on innovative activity was incurred by 12.9% of industrial enterprises and by 9.8% of entities form the service sector (as opposed to 12.8% and 9.6% in 2011 accordingly). The highest rate of industrial enterprises which incurred such expenditure was observed in Podlaskie Voivodeship (19.3%), and the lowest – in Wielkopolskie Voivodeship (9.6%). Among the enterprises form the service sector this indicator was the highest in Kujawsko-Pomorskie Voivodeship (13.0%) and the lowest – in Warmińsko-Mazurskie Voivodeship (4.1%).

In 2013, the highest internal expenditure on R&D per capita was observed in Mazowieckie Voivodeship, however almost half of expenditure was financed with resources form the government sector (49.2%). The highest share in financing of internal expenditure on scientific research and development works from the enterprise sector resources was registered in: Podkarpackie, Dolnośląskie and Pomorskie Voivodeships (64.5%, 50.1% and 42.2% accordingly).

The economic aspects of innovative activity are reflected in the indicator showing the share of enterprises income from the sale of new or significantly improved products in the total sale income. In 2012 Pomorskie Voivodeship (36.3%) had the leading position in this field in the industry sector, with Wielkopolskie Voivodeship (12.3%) and Podkarpackie Voivodeship (8.8%) on further positions. Warmińsko-Mazurskie Voivodeship (3.1%), Zachodniopomorskie Voivodeship (4%) and Lubuskie Voivodeship (4.7%) had the worst results. In the service sector the leading position is held by Podkarpackie Voivodeship (10.8%) and the second position is held by Mazowieckie Voivodeship with twice as low result (4.7%).

The R&D sector in Poland is characterised by significant regional variation. Although science and research units are located in all voivodeships, they are concentrated in the largest cities. A quarter

of R&D units, a quarter of science personnel potential and almost 40% of R&D expenditure is concentrated in Warsaw. The remaining potential and expenditure are located mainly in Kraków, Wrocław, Poznań, Łódź, Tricity, Silesian Metropolis and, to a lesser extent, in other voivodeship cities and in specialist centres, such as Puławy.

Employment in research and development activity in 2012 varied in different voivodeships. The highest employment in R&D activity measured in FTE per 1000 employees was recorded in the following voivodeships: Mazowieckie, Małopolskie, Śląskie, Dolnośląskie and Wielkopolskie, i.e. in voivodeships where the largest academic centres are located and the largest number of research institutes and the Polish Academy of Sciences institutes operates. Mazowieckie Voivodeship stands out from the others, as 30.3% of employed in R&D activity in Poland (in FTE) worked there, including research staff, who constituted 26.8% of all researchers in the country. The indicator of R&D staff (in FTE) per 1000 employees in total was in this voivodeship twice as high than in the country and it amounted to 11.2. Świętokrzyskie Voivodeship and Lubuskie Voivodeship are on the lowest positions in terms of the number of persons employed in R&D per 1000 employees, with 0.6% and 0.9% of R&D employees accordingly.

In 2007–2013 a number of investments connected with the development of R&D sector infrastructure was implemented in the regions. The list of these investments is presented on the Map of investments in science and higher education infrastructure which is used i.a. to monitor the implemented and planned investments in R&D infrastructure. As for 30.11.2014, the highest total value of investment was observed in Mazowieckie Voivodeship (over PLN 6,719 million), and further in the following voivodeships: Małopolskie (over PLN 4,385 million), Wielkopolskie (over PLN 3,164 million), Dolnośląskie (over PLN 2,724 million) and Lubelskie (over PLN 2,157 million).

Experience in implementation of Innovative Economy Operational Programme , 2007–2013 (IE OP)

The most important recommendations drawn from the IE OP evaluation research were presented in the study entitled "Meta-evaluation of evaluation study results of the Innovative Economy Operational Programme 2007-2013". The aim of the study was to develop key recommendations in order to use them in the following financial perspective in the scope of R&D&I support.

The most important problems defined in the abovementioned study concerned:

- too little thematic concentration;
- predominant significance of subsidy instruments;
- difficulty in defining, assessing and measuring innovation.

The most important recommendations concerned:

- concentrating the support on smart specialisation areas or promoting the approach of smart specialisations;
- diversification of support instruments depending on the type of addressed problem;
- more coherent approach to defining innovation;
- application of mechanisms reinforcing joint activities of entities from the science sector and the economy;

• granting co-financing to BEI based on verification of possible functioning of such institutions in the market without support, strategic premises for their operation and ensuring efficient monitoring tools.

The most important conclusions deriving from IE OP implementation, as well as from renegotiations of the document conducted during the IE OP implementation, include in particular:

- necessity of modification of instruments premises related to recapitalisation of capital funds experience connected with IE OP implementation indicate that the estimation of the gap in the access to ownership capital for innovative enterprises and proper match of allocation, witch will fund the designed capital instruments, are highly significant. A tool that is to be used for this purpose in the framework of SG OP is ex-ante analysis of financial instruments. It is also important that the investment limits were properly defined, that they stay within the limits derived from the ex-ante analysis and that they enable investments in companies from various sectors (including sectors that are more capital-intensive than ICT). It is also crucial to establish appropriate salary schemes for teams managing financial instruments (FI), including VC funds which should be based on results to the highest possible extend;
- necessity of modification in structure of instruments aimed at financing the R&D works of research units, which results form the experience in implementation of sub-measure 1.3.1 of IE OP the implemented change constituted the engagement of a member of consortium entrepreneur in project implementation and it contributed to economic validation of R&D results and their more sufficient transfer to the economy;
- changes introduced in the structure of measure 4.3 of IE OP (as a result of amendment to the Act on certain forms of innovative activity support), which influenced the increase in SME interest with this instrument;
- introduction during the implementation of IE OP of new, pilot support instruments answering the needs of entrepreneurs who search for external capital for development of an innovative undertaking.

A more comprehensive assessment of the IE OP implementation results in terms of increasing innovative character of the economy will only be possible after 2015.

SWOT analysis of the R&D&I area in Poland

Strengths

- increase in the average value of expenditure on innovation incurred by enterprises;
- growing expenditure on R&D (GERD) in relation to GDP;
- increase in the share of enterprises expenditure in total expenditure on R&D;
- growing number of employed in R&D activity;
- high potential of human resources for science and technology;
- increase in R&D infrastructure resources, both in enterprises and in research units;
- relatively high number of cluster initiatives;
- growing number of Polish patent applications to EPO and Polish Patent Office;
- growing share of high technology products in the total export;

• high number of business environment institutions and their diversity.

Weaknesses

- predominance of imitative innovations in enterprises activity low share of expenditure on R&D in general companies expenditure related to innovative activity;
- predominant share of public expenditure in GERD structure;
- predominance of big entities in structure of enterprises incurring expenditure on R&D&I;
- insufficient level of cooperation between enterprises and science sector in the scope of innovative activity;
- low activity of enterprises in the scope of protection of industrial property;
- concentration of support from capital funds, especially the venture capital type, on projects with relatively low risk level;
- unsatisfactory level of internationalisation of the SME sector;
- low share of Polish enterprises and research units in international research projects;
- low innovation level of clusters:
- low level of eco-innovation use in enterprises activity;
- low share of enterprise sector in R&D staff employment;
- BEI focus on provision of simple services;
- territorial diversity in the R&D&I area, with predominant position of Mazowieckie Voivodeship and unfavourable situation in certain regions of East and West Poland.

Opportunities

- recognition of innovative activity aspects as priorities in Europe 2020 strategy and in Polish strategic documents;
- thematic focus of support under Common Strategic Framework Funds for 2014-2020 on entrepreneurship and R&D&I;
- increase in entrepreneurs' engagement in the process of defining directions for science and economy policy of the country and regions, related i.a. to development of smart specialisation strategy;
- development of public-private partnership;
- growing significance of sustainable consumption patterns and related increase in demand for innovation;
- increase in enterprises innovation related to the process of transformation towards low carbon economy;
- improvement in human resources competence resulting from development in higher level education quality;

- •increase in allocation for international research programmes implementation (e.g. Horizon 2020);
- competition between research units concerning public funds on financing their activity, resulting in higher research quality;
- competition between business environment institutions resulting in higher quality of their offer;
- cluster policy development on the national and regional level.

Threats

- "middle income trap" risk as a consequence of persisting model of imitative innovation;
- migration outflow of qualified staff resulting from underfinancing of R&D sector and better career development prospects outside Poland;
- decrease in competitiveness of Polish economy resulting from high costs of implementation of Union policy

in the scope of reduction of greenhouse gas emissions - possibility of "carbon leakage" effect;

- persistent lack of legal and tax incentives to engage in R&D activity in enterprises;
- inadequate absorption of Union funds supporting R&D&I resulting from the deterioration of creditworthiness of potential beneficiaries of support;
- relocation processes of international industry increasing attractiveness of other countries for FDI;
- selection of an excessive number of directions in smart specialisation in the country or in regions;
- outflow of capital funds from Poland resulting from legal changes unfavourable for these entities;
- growing international competition in gaining funds in the framework of international research programmes (e.g. Horizon 2020);
- closure of numerous business environment institutions;
- low interest of enterprises in benefiting from payable services provided by business environment institutions.

CONTRIBUTION TO THE IMPLEMENTATION OF EUROPE 2020 STRATEGY AND ACHIEVING ECONOMIC, SOCIAL, AND TERRITORIAL COHESION

Smart growth, understood as economic growth based on knowledge and innovations, is one of three priorities of Europe 2020 strategy. This document indicates, that innovation of European economy is still insufficient in comparison to other developed countries. Share of expenditure on R&D activity in GDP is at the level of 2% in EU, while in USA it is close to 3% and in South Korea – about 3.7%. These differences arise mainly from private sector investment level. The aim that the European Union is willing to achieve in the scope of smart growth for 2020 is to allocate 3% of GDP in R&D. In order to achieve this aim not only it needs to increase expenditure on R&D, but also introduce changes in the structure of this expenditure and improve conditions for R&D activity for private sector.

The aim indicated in Europe 2020 strategy concerning the increase in expenditure on R&D was adjusted to implementing capacities of individual EU Member States. The target for Poland is to allocate 1.7% of the GDP for R&D in 2020.

Polish challenges and development objectives, including those in the scope of increasing competitiveness and innovation of economy, were defined in national strategic documents and implementation programmes.

The main development objective for Poland until 2020, specified in the National Development Strategy 2020 (NDS), is to enhance and exploit economic, social and institutional potential, thus ensuring faster and sustainable development of the country and improved quality of life. NDS indicates the need for support of innovative enterprises, for financing scientific research and development works, as well as for development of business environment institutions by means of implementation of the following strategy specific objectives:

- II.2 Growth of the efficiency of the economy;
- II.3 Increasing the innovativeness of the economy.

Intervention provided for under SG OP will consider territorial conditions which were presented in detail in National Strategy of Regional Development 2010-2020. Regions, cities, rural areas (NSRD). It is a comprehensive medium-term strategic document concerning the socio-economic development policy of the country from the territorial perspective.

One of 9 integrated sectorial strategies, which are to ensure realisation of objectives defined in NDS on the national level, is the Strategy for Innovation and Efficiency of the Economy Dynamic Poland 2020 (SIEE). The main objective of SIEE is to create appropriate conditions for the functioning of Polish enterprises, science sector and administration which will allow to increase competitiveness and innovation of the economy. SIEE defines the following objectives:

- adjustment of the regulatory and financial environment to the needs of innovative and efficient economy;
- stimulating innovation through increase in knowledge and work efficiency;
- more efficient use of natural resources and raw materials:
- greater internationalisation of Polish economy.

It is assumed that SIEE implementation will enable reaching the level of expenditure on R&D of 1.7% of GDP in 2020, approximately half of which will be incurred by enterprises. The strategy assumes introduction of integrated and comprehensive innovation policy that will impact different aspects of

creating innovative solutions, i.a. in the scope of entrepreneurship, inter-sectoral cooperation, development of scientific base and staff, transfer of knowledge or public procurement and public-private partnership.

SIEE executive document is the Enterprise Development Programme (EDP). The programme defines tools for enterprise support in Poland, with a particular emphasis on the enforcement of their innovation. EDP will be implemented by means of activities undertaken by the central level administration and their subordinate units, as well as by regional and local authorities (within the scope of their competence). Entrepreneurs who use support instruments prepared by administration will be final EDP beneficiaries. EDP include a document defining the idea of smart specialisation on the national level.

Development objectives and priorities in the scope of increasing competition and economic innovation indicated in the abovementioned documents are in line with objectives of Europe 2020 strategy and they comply with recommendations defined in other Union documents.

The National Reform Programme (NRP) defines the method for implementation of activities set out in Europe 2020 strategy and in national strategic documents. Each year the European Commission analyses progress in the NRP implementation and formulates Country Specific Recommendations (CSR), which, after being adopted by the Council of the European Union, constitute the basis for preparing NRP updates for the subsequent year.

In the Council Recommendation on Polish NRP from 2013 it is indicated, that innovation of Polish enterprises is highly imitative in its nature and it is based on technology absorption understood as investment in fixed assets where already existing technologies are used. This type of investments is undoubtedly effective in ensuring greater efficiency and competitiveness of the economy. Nevertheless further economic growth stimulation in Poland will not be possible without the change in the approach to innovation and transition from the model based on absorption of new solutions to the model, where enterprises cooperate with the science sector in the scope of innovation. Consequently one of the recommendations of the Council of the European Union for Poland is to undertake activities in order to ensure an innovation-friendly business environment by coordinating research, innovation and industrial policy, by further developing revolving instruments and tax incentives and by better targeting existing instruments to the different stages of the innovation cycle.

According to the position of the European Commission presented in the Position Paper (PP), creating an innovation-friendly business environment in Poland should be one of priorities of intervention financed from the European Structural and Investment Funds (ESIF) in the years 2014-2020. Investments should be focused on building tools enabling the cooperation of research centres and business and stimulating the transfer of knowledge between the public and the private sector. The support should cover the whole innovation cycle: from research to commercialisation. Furthermore, the project funding model must be better adjusted to the risk level occurring at the given stage of the innovative solution development.

Analysis of the abovementioned document enables indicating the most important (priority) development challenges and needs in the scope of R&D&I:

- increase in enterprises expenditure on R&D;
- enhancing cooperation between enterprises and other economic and scientific entities;
- stimulating enterprise investments in implementation of innovative solutions, including R&D results;
- improvement of conditions for R&D&I activities undertaken by enterprises;

- further development of financial instruments to supplement the banking sector offer, including the increase of activity of venture capital funds and business angels;
- internationalisation of innovative enterprises;
- providing support for the protection and management of intellectual property;
- providing support for the technology development in terms of efficient management of resources and energy as well as in terms of the use of low-carbon energy sources;
- shift of BEI activities towards the market;
- better quality of specialist pro-innovation services provided by BEI;
- efficient use of R&D infrastructure resources within research units;
- directing R&D work undertaken by research units towards enterprise;
- greater significance of the Polish science in international area;
- improvement in R&D staff competence in enterprises and research units.

Basic premises for implementing Smart Growth Operational Programme 2014-2020

A document that defines funds intervention strategy under three Union policies: Cohesion Policy, Common Agricultural Policy and Common Fisheries Policy in Poland in 2014–2020 is the Partnership Agreement. Instruments for Partnership Agreement implementation constitute national and regional operational programmes and European Territorial Cooperation programmes.

One of concentration areas of ESIF interventions in 2014–2020, indicated in the Partnership Agreement, is entrepreneurship and innovation-friendly environment. The key objective in this area constitutes quality improvement and enforcement of the application nature of research, as well as increase in their use for economic growth (thematic objective 1). This objective will be implemented in the framework of the Operational Programme Smart Growth, 2014-2020 (hereinafter: SG OP).

The main SG OP objective is the increase of innovation of the Polish economy.

This objective will be reflected mainly in the increase of enterprise expenditure on R&D, therefore the main indicator targeted by the SG OP contribution, constitutes Business Expenditures on R&D (BERD). Estimated contribution of SG OP to achieve the target value of BERD (in 2023) amounts to 15.92%.

The central priority of the Programme is support for projects from idea to market.

The objective of SG OP is to support the whole innovation process, from an idea, through R&D work including prototype development, to commercialisation of R&D results. Considering diversified level of project implementation risk at the abovementioned stages, the Programme provides for subsidies and financial instruments.

R&D work and implementation of the results

Support instruments for enterprises aimed at undertaking R&D&I activities and their development (continuation) constitute basic elements of SG OP.

SG OP provides for implementation of support schemes dedicated to R&D work financing – on all or selected stages of innovative solution development and creating conditions for enterprise R&D work.

Compared to the support provided for innovation so far, under SG OP more emphasis is to be put on cooperation between science and business sectors. Enterprises willing to develop innovative products and services do not always have proper R&D back-office (infrastructure and human resources) for implementation of such activities. In such a case the cooperation with research units constitutes a favourable solution for enterprises planning to develop new or improved products/services. Moreover stimulating the cooperation between the areas of business and science should enable better direction of R&D work undertaken by research units towards enterprises and consequently enable better use of scientists work results in economic activity.

The SG OP includes activities supporting the implementation of the R&D results where subsidies or financial instruments can be used. This is due to the fact that the risk is significantly lower for further stages of innovative solution development (after R&D stage) and they are determined by market factors.

The support involve product and process innovations, as well as innovations of an organisational or marketing nature. This means, that apart from technological innovations, financing will be granted to non-technological innovations, allowing the increase of effectiveness of organisational or management activities in enterprises.

SG OP gives priority to eco-innovation, i.e. innovative technologies in environmental protection, including those in the scope of reduction of greenhouse gas emissions, air and water pollution and adaptation to climate change. SG OP provides for horizontal solutions giving preference to support for R&D&I projects leading to innovation in environmental technologies, low-carbon technologies and those enabling effective (economical) management of resources.

The economic development in Poland is increasingly attributed to the use of information and communication technologies (ICT). This sector plays an increasingly important role in the structure of the Polish GDP and affects the export profile. More extensive use of ICT in enterprises and building conditions for development of e-economy in Poland will constitute an important element of SG OP implementation.

Access to R&D&I projects financing

Intervention implemented under SG OP aims at the increase of accessibility to the capital market for SME implementing innovative projects. The Programme provides for support of incubation of companies based on innovative ideas and for undertaking activities stimulating private investors actions in R&D&I area. Due to intervention directed at the capital market development, it will be possible to stimulate the innovative companies expansion.

Business environment

An important factor conditioning undertaking of R&D&I activities by enterprises is business environment. Activities financed form the SG OP resources in this scope concentrate on co-financing of pro-innovation services provided by BEI for enterprises.

BEI activity should to the greater extent be subject to market mechanisms and allow self-financing of these entities.

It is necessary to concentrate interventions on the projects that contribute directly to improving quality of services, provided by BEI for enterprises, resulting from the entrepreneurs demand.

Due to the low level of use of methods of patent protection of inventions by Polish enterprises, SG OP provides for activities in this scope.

At the same time, as the low level of cooperation between entrepreneurs and research units was identified, SG OP allows financing of projects concerning provision of services by a research unit for an enterprise, which will contribute to the development of new and significantly improved products/services.

Internationalisation

In the years 2014–2020 projects in the scope of SME competitiveness improvement, including internationalisation of their activity, are financed to the great extent on the regional level. Therefore internationalisation support under SG OP is focused on projects directed to the limited number of beneficiaries with the highest innovation and R&D potential. The emphasis is put on projects with higher implementation efficiency on the national level. They will enable for innovative enterprises the establishment of contacts with foreign counterparties and investors as well as expanding outlet markets for innovative products and services. The support under SG OP, especially by enhancing cooperation between enterprises, will result in attracting foreign direct investment focused on R&D innovative activities.

Science

One of SG OP objectives is the increase of commercial potential of R&D works in research units and the improvement of the international position of Polish science. It will be implemented by supporting cooperation within supra-regional, national and international research networks and research-industry networks. The implemented instruments will result in increase of Polish research units potential to participate in projects that are financed in the framework of international programmes (Horizon 2020). Support is also needed in the R&D sector staff development in the scope of use of the latest scientific and technological achievements and the best practice in research projects management. Projects concerning the development of material resources in the science sector are not a priority. Selected national infrastructural projects will be supported under SG OP.

Clusters

The range of clusters support under SG OP is determined by recommendations included in the report "Directions and assumptions of the Polish cluster policy until 2020." Therefore SG OP gives preference to actors of so called key national clusters, i.e. cluster initiatives with the highest development potential on the national and international scale. They will be selected in the open competition procedure based on the quality assessment according to the established criteria. The selection of key clusters will be related to the process of defining and monitoring of smart specialisation strategy.

Problems with coordinating the cooperation and the flow of knowledge, also on the international scale, constitute factors that hinder the key national clusters development. Predicted enforcement of international competitiveness of key clusters is based on the services clearly raising their technological position, that lead to the increase in the number of Polish key clusters which are internationally distinctive and competitive.

Building of innovative potential

The awareness of Polish entrepreneurs concerning the significance of innovative activity for gaining competitive advantage is low. Both companies and research units are not interested in cooperation for creation and commercialisation of new knowledge, which results from the low social capital level, imperfection of Polish law and lack of specialist support in the scope of cooperation initiation.

Therefore, financing under SG OP concerns activities facilitating and intensifying cooperation between enterprises, research units and administration. Support is also granted for systemic actions that serve to provide information about the processes taking place in the innovative economy and allow better coordination of the innovation policy implemented with the use of different tools and programmes.

Additionally, in the framework of all SG OP priority axes, it is possible to implement pilot projects testing new forms of support.

Smart specialisation

SG OP implementation will be in line with the smart specialisation concept, which means the concentration of support on the areas with the highest development potential.

The smart specialisation concept is based on the assumption that a country or a region may build its competitive advantage using unique potentials that are specific for the given territory, which are identified in cooperation between companies, science, administration and broadly understood society (constituting so called quadruple helix). Areas defined as "smart" should generate special added value and influence other sectors of the economy. Identification of specialisation areas uses also benchmarking with the environment (other regions/countries).

The concept of smart specialisation is a new approach to stimulating cooperation between business and science sector in order to effect social and economic transformation. Therefore, the smart specialisation strategy is not a one-off action, but an ongoing process including monitoring of changes taking place in the market which may affect the competitive position of country or region. During so called entrepreneurial discovery, administration, performing and organisational and supporting role, facilitate close cooperation between all engaged parties, especially between entrepreneurs and science, which enables an on-going flow of information about economic trends, new directions of scientific research, possibilities and needs for using research results in the economy.

Definition of specialisation by particular countries and regions and concentration of support on these areas should allow more economical use of financial resources, as well as gaining new and enforcing existing economic advantages in a given area in increasingly competitive environment.

Smart specialisation strategy is defined on the national and regional level in separate documents. On the national level this document is an Annex to Enterprise Development Programme – National Smart Specialisation. The support for areas covered by smart specialisation strategy constitutes the only objective of financial intervention from the resources of thematic objective 1. In the framework of implementation of this strategy it will be also possible to finance experimental actions under SG OP, that are in line with entrepreneurial discovery mechanism constituting element of smart specialisation strategy. To implement experimental actions ensuring selection of the projects potentially contributing to identification and development of new smart specialisations (in the framework of the process of NSS monitoring), no more that 2% of resources for thematic objective 1 will be allocated.

Activities implemented i.a. under SG OP within the smart specialisation areas and in the framework of entrepreneurial discovery process should result in selection of projects that are characterised by the following features:

- considerable potential to use project results in the economic activity;
- high level of cooperation between partners engaged in investment realization (for projects implemented by more than one entity);
- actual demand for public funds;

- considerable significance for the national economy;
- maintaining stability and results of the project implementation in the country (in the case of successful project);
- positive impact on the country gaining the leader position in the given area (niche), capacity to create new area, where numerous innovations and diffusion effects may appear (for projects within experimental areas).

Justification for selection of thematic objectives and corresponding investment priorities, having regard to the Partnership Agreement, based on identification of regional needs and, where appropriate, national needs, including in the scope of responding to challenges indicated in relevant recommendations for particular countries, adopted under article 121 (2) of TFEU and, where appropriate, in relevant Council Recommendations adopted under article 148 (4) of TFEU, taking into account the results of the ex-ante evaluation.

Selected thematic objective	Selected investment priority	Justification for the selection
01 – Strengthening research, technology development and innovation	1a – Enhancing research and innovation infrastructure and increasing capacities to achieve R&I excellence and promoting centres of competence, in particular those of European interest	1. Europe 2020 strategy Increasing the role of knowledge and innovation as the driving forces of future development Improving the quality of our education, strengthening our research performance, promoting innovation and knowledge transfer throughout the Union, making full use of information and communication technologies 2. National Reform Programme (2013/14 update). Implementation of NRP priority area: Innovation for smart growth (building new advantages) 3. Country Specific Recommendation 2013 (CSR). Recommendation No 5 4. SIEE Compliance with action lines: 2.1: Raise the level and efficiency of science in Poland, strengthen its connections with economy and increase its international competitiveness. 2.3: Support for cooperation on development and implementation of innovation. 5. Position Paper Funding priority: Innovation-friendly business environment. PP lines of action 1.2. Enhancing research and innovation infrastructure to achieve outstanding results in this area.

01 – Strengthening research, technology development and innovation

1b - Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

1. Europe 2020 strategy

Improving innovative character and competitiveness of economy through increased private expenditures on R&D

2. National Reform Programme

(2013/14 update) – priority area: Innovation for smart growth (building new advantages)

3. Country Specific Recommendation 2013 (CSR).

Recommendation No 5

4. SIEE

Compliance with action lines:

- 2.3 Support for cooperation on development and implementation of innovation.
- 2.4. Development of innovation culture and wider inclusion of society into the process of creative thinking and developing innovation
- 5. Position Paper

Funding priority:

Innovation-friendly business environment.

PP lines of action

- 1.1. Supporting private investment in research and development
- 1.3 Creating innovation-friendly environment for innovative enterprises by promoting enterprises investment in research and innovation

03 - Enhancing	the
competitiveness	of
small and mediu	m-
sized enterprises	3,
the agricultural	
sector (with resp	ect
to the EAFRD), a	and
the fisheries and	
aquaculture sect	or
(with respect to t	he
EMFF)	

3a – Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators

1. Europe 2020 strategy

Improving innovative character and competitiveness of economy through increased private expenditures on R&D

- 2. National Reform Programme (2013/14 update) priority area: Innovation for smart growth (building new advantages)
- 3. Country Specific Recommendation 2013.

Recommendation No 5

4. SIEE

Compliance with the action line

- 1.4. Easy access to capital for enterprises at all stages of their development, with particular emphasis on high-risk capital and the SME sector
- 5. Position Paper

Funding priority: Innovation-friendly business environment.

PP lines of action:

3.1. Increasing efficiency through entrepreneurship and innovations, especially by facilitating making commercial use of new ideas and supporting the creation of new enterprises

03 – Enhancing the
competitiveness of
small and medium-
sized enterprises,
the agricultural
sector (with respect
to the EAFRD), and
the fisheries and
aquaculture sector
(with respect to the
EMFF)

3c – Supporting the creation and the extension of advanced capacities for product and service development

1. Europe 2020 strategy

Improving innovative character and competitiveness of economy through increased private expenditures on R&D

- 2. National Reform Programme (2013/14 update) priority area: Innovation for smart growth (building new advantages)
- 3. Country Specific Recommendation 2013.

Recommendation No 5

4. SIEE

Compliance with action lines

- 2.3: Support for cooperation on development and implementation of innovation.
- 4.1. Supporting Polish export and Polish investment abroad
- 5. Position Paper

Funding priority:

Innovation-friendly business environment. PP lines of action

3.3. Building an effective environment supporting enterprises and contributing to innovations, entrepreneurship and internationalisation

1.2 Justification for the financial allocation

Justification for the financial allocation (of the Union support) for each thematic objective and, where relevant, investment priority, in accordance with the requirements of thematic concentration, including results of the ex ante evaluation.

Smart Growth Operational Programme 2014-2020 is a national operational programme financed by the European Regional Development Fund (ERDF).

In line with the Partnership Agreement, in the 2014–2020 financial perspective, European funds will be allocated for all thematic objectives, there will be, however, a significant concentration of funds

in these areas, which will allow achieving the objectives set out in the Partnership Agreement to the fullest extent, while ensuring financing for the most effective undertakings. In line with the Partnership Agreement, the allocation of ERDF funds for SG OP amounts to EUR 8,613,929,014. The minimum involvement of national funds, estimated pursuant to Article 120 of the general Regulation, is EUR 1,575,940,689 at the time of programming. SG OP implementation involves national public and private funds. It is assumed that the final amount of national funds, mainly private funds, upon the SG OP closure may be higher, depending on the scope and level of State aid granted under the Programme.

The Partnership Agreement assumes an increase in allocations for objectives associated among others with enhancing the innovation of the economy and competitiveness of enterprises (TO1 and TO3). Funds allocated for SG OP implementation under TO1 will amount to EUR 6,116,056,353 and under TO3 -2,200,878,402.

Programme will be responsible for the implementation of almost 71.8% of TO1 allocations, which means that the substantial part of the R&D&I support instruments financed from funds of this thematic objective will be implemented at central level.

Such a division of allocations into thematic objectives under SG OP results particularly from:

- action lines in the programme support area identified in national and EU strategic documents R&D&I investments considered as a priority,
- identified challenges, needs and development potentials which was achieved, among others, in Programme diagnosis,
- scope and complementarity of the research and innovation support with other national and regional operational programmes which results from operational programmes implementation structure laid down in the Partnership Agreement,
- project specificity that includes cost and scope of the implementation of the projects on the basis of experiences in implementation of the analogous support instruments, among others, under IE OP (detailed information in this respect are included in the evaluator's ex ante SG OP report).
- minimum levels of concentration of support (so-called ring fencing) from the cohesion policy determined by the European Commission that have an impact on the division of financial resources into different thematic objectives and indirectly operational programmes.

Certification basis

Total eligible expenditure constitutes the basis for calculating the EU contribution under SG OP.

Categories of regions

Each priority axis of SG OP has two financial envelopes: one for 15 regions and the other one for Mazowieckie Voivodeship with maximum co-financing rates amounting to 85% and 80%, respectively. According to the principles stipulated by the Partnership Agreement, there are two types of priority axes under the Programme, namely, "pro-rata axis" and "standard axes".

• The "pro-rata axis" is the technical assistance axis. This is a national axis – its projects concern entire Poland, not individual region categories. Its relation between the envelopes for less developed regions and Mazovia is 93% (15 less developed regions) and 7% (Mazovia), which corresponds to the relation between structural funds in Poland for less developed regions and Mazovia. Projects implemented under this axis will use the allocations from both envelopes at the above proportion.

• "Standard axes" are:

Priority axis I: Support for R&D activity of enterprises

Priority axis II: Support for the environment and capacity of enterprise for R&D&I activity

Priority axis III: Support for innovation in enterprises

Priority axis IV: Increasing the research potential

As a rule, these axes are not national – the impact range of the project can be assigned to a given place of implementation. The relation between the envelopes for less developed regions and for Mazovia results from an analysis of needs and fund availability. At the stage of project implementation, expenditure will be assigned to envelopes of individual categories of regions proportionally to the number of regions covered by the project. For example, for a project implemented in five voivodeships, including Mazowieckie Voivodeship, 80% of funds will come from the envelope for less developed regions and 20% from the financial envelope for Mazowieckie Voivodeship. It is also possible to finance a project implemented throughout Poland.

In this case, one sixteenth of the funds for the project will be provided from the Mazovian envelope and fifteen sixteenths from the budget for undertakings in less developed regions.

In case of the financial instruments, non-competition projects implemented throughout the country and consortium projects supported under SG OP, expenditure will be assigned to envelopes of individual region categories in proportion to the number of regions covered by the project, regardless of:

- the physical location of the final recipients of the support,
- the actual share of costs incurred in each category of region in the co-financed project.

Performance reserve

The SG OP provides for a performance reserve of 6% of its total ERDF allocation, of which 6% for each category of region. The share of the performance reserve by year for each year amounts to 6%.

The performance reserve is established for each priority axis of the Programme, with the exception of technical assistance axis for which, according to provisions, the reserve has not been established (excluding the technical assistance axis requires increasing the reserve for other axes to maintain the required reserve level for funds under the SG OP). In case of priority axes II–IV, performance reserve was set at the level of 7%. In case of priority axis – at the level of 5.3%.

Table 2: Overview of the investment strategy of the operational programme

Priority axis	Fund	Union support (EUR)	Share of total EU support in total budget of the Operational programme	Thematic objective / Investment priority / Specific objective	Common and Programme-specific result indicators for which a target value has been defined
	ERDF	3,849,931,178.00	01 – Strengthening research, technology development and innovation 1b – Promoting enterprises investment in research and innovation, developing links and synergies between enterprises, research and development centres and higher education sector, in particular promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in the area of public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support of technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies 1 – Increased R&D activity of enterprises		[1]
II	ERDF	1,043,151,560.00	12.11%	01 — Strengthening research, technology development and innovation 1b — Promoting enterprises investment in research and innovation, developing links and synergies between enterprises, research and development centres and higher education sector, in particular promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in the	[2, 3]

	area of public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support of technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies 2 – Increased enterprise capacity for R&D&I activity
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III	ERDF	2,200,878,402.00	25.55%	03 – Enhancing the competitiveness of small and medium-sized enterprises, the agricultural sector (with respect to the EAFRD), and the fisheries and aquaculture sector (with respect to the EMFF)	[4, 5, 6]
				3a – Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators	
				3 - Increased funding of the SME innovative activity using venture capital (VC)	
				3c – Supporting the creation and the extension of advanced capacities for product and service development	
				4 – Increased activity of the enterprises in innovative activity	
				5 – Improved level of the internationalisation of enterprises activity	

IV	ERDF	1,222,973,615.00	14.20%	01 – Strengthening research, technology development and innovation	[7, 8]
				1a – Enhancing research and innovation infrastructure and increasing capacities to achieve R&I excellence and promoting centres of competence, in particular those of European interest	
				6 – Increased level of research results application on the market	
V	ERDF	296,994,259.00	3.45%	7 – High quality of human resources and technical and organisational conditions for efficient Programme implementation	[10, 9, 11, 12]
				8 – Efficient Programme implementation system	
				9 – Strengthening beneficiaries and potential beneficiaries competences	
				10– Efficient and effective information and promotion system under the Programme	

2. PRIORITY AXES

2.A Description of the priority axes other than technical assistance

2.A.1 Priority Axis

Priority axis I SUPPORT FOR R&D ACTIVITY OF ENTERPRISES

\square The whole of the priority axis will be implemented exclusively by using financial instruments
$\hfill\Box$ The whole of the priority axis will be implemented exclusively by using financial instruments created at the EU level
$\hfill\Box$ The whole of the priority axis will be implemented by applying a formula of the community-led local development
☐ For ESF: the whole of the priority axis is dedicated to social innovations, transnational cooperation or both of these areas

2.A.2 Justification for the establishment of a priority axis covering more than one category of region, more than one thematic objective or more than one fund (where relevant)

The axis supports projects implemented throughout Poland, taking into account specific aspects of support for innovation in enterprises. The cross-cutting nature of these projects prevents dividing interventions between two categories of regions.

If the provided support meets the requirements of State aid, it will be granted pursuant to applicable State aid regulations. State aid provided under the Programme will comply with procedural and material regulations on State aid applicable at the day of granting the State aid.

The priority axis I of SG OP includes the investment priority 1.b. Priority axis focuses on supporting R&D projects of enterprises.

Support is provided exclusively to areas identified as smart specialisations and potential new specialisations resulting from the process of entrepreneurial discovery which is a part of the National Smart Specialisation (NSS) monitoring. Including such areas in SG OP will aim i.a. at verification of their potential as smart specialisations, which, in case of positive results, may lead to NSS update.

2.A.3 Fund, category of region and calculation basis for Union support

Fund	Category of region	Calculation basis (total eligible expenditure or eligible public expenditure)	Category of region for outermost regions and northern, sparsely populated regions (where relevant)
ERDF	Less developed regions	Total	
ERDF	More developed regions	Total	

2.A.4 Investment Priority

Investment priority identification number	1b
Investment priority name	Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

2.A.5 Specific objectives corresponding to investment priority and expected results

Specific objective identification number	1
Specific objective name	Increased R&D activity of enterprises
The results that the Member State seeks to achieve with Union support	Poland faces a challenge in the area of development – it needs to increase the contribution of enterprises to funding research and development in order to ensure application of new solutions in economic activity. Low investment of enterprises in R&D and limited cooperation with the science sector affect the level of commercialisation of R&D in Poland, and thus also the innovation level of its economy, based mainly on introducing available technologies – it is largely imitative. Support under priority axis I is targeted at enterprises (large and SMEs) that start or develop R&D activity and plan to implement R&D projects independently or in cooperation with external entities, such as other enterprises, research units, non-governmental sector or social partners.
	The purpose of the axis is to finance R&D projects from the stage of research to development, with particular emphasis on demonstration. It is expected that the direct effect of axis implementation would consist in the transfer of innovative solution to businesses, understood in particular as development of new products, services or technologies to a degree that enables commercialisation of R&D results. Support provided under priority axis I to enterprises may be used to finance expenditure by the stage of preparation of the first production on the basis of R&D work results. First production means first industrial implementation related to the increase of the scale of pilot facilities or related to first-of-a-kind devices and facilities including steps following the launch of the pilot line which includes testing phase but does not include mass production or commercial activity.

Table 3: Programme-specific result indicators (by specific objective) (for ERDF and Cohesion Fund)

Specific objective	1 – Increased R&D activity of enterprises							
Identification No	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Base year	Target value (2023)	Source of data	Frequency of reporting
1	Enterprise sector investment in R&D in relation to GDP	%		0.38	2013	0.93	Eurostat	Once a year

2.A.6 Action to be supported under investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority 1b – Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

Examples of the types of projects implemented under investment priority 1.b:

• R&D projects of enterprises

Support covers research conducted by enterprise (independently or as the leader of consortium), mainly industrial research or experimental development (according to the definition of the Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty) in order to develop new or significantly improved solutions including development of the experimental prototypes and pilot installations.

R&D funding by enterprises, under a separate funding scheme can cover projects that envisage an enterprise or consortium of enterprises performing R&D work related to manufacturing a pilot/demonstration installation. At this stage of R&D, the new solution is verified in conditions similar to real and operational conditions.

Enterprise can conduct R&D on their own and using its own resources or ordering R&D implementation to external entities (research unit, other enterprises, research networks, scientific-industrial consortium etc.).

The above instrument ensures that the entrepreneur would be able to bring the solution which is the subject of the project to a stage where it would be possible to commercialise it.

Beneficiary can receive support for R&D result application from the instruments available under priority axis III of the Programme.

• Sectoral R&D programmes

Sectoral programmes serve implementation of large R&D undertakings that are significant to the development of specific industries/economy sectors. Under sectoral programmes, joint undertakings are initiated by a group of enterprises acting on behalf of an industry (e.g. via a technology platform or cluster initiative), presenting an outline of a research agenda along with specific needs of the sector for R&D. In the framework sectoral programmes, enterprises may cooperate with the science sector (however, cooperation in a consortium is not necessary).

Under this instrument, enterprise-beneficiary can receive support for R&D result application from the instruments available under priority axis III of the Programme.

Sectoral programmes may be used to identify smart specialisation in accordance with the concept of entrepreneurial discovery, constituting part of National Smart Specialisation monitoring.

R&D financed with capital fund participation

Support is provided to enterprises at early stage of development which conduct R&D in the area of advanced technologies. Funding covers the costs of industrial research and experimental development as well as other costs related to preparing R&D results for application and evaluation of the commercial potential of the project.

Investment vehicles aimed at searching innovative ideas coming mainly from research unit environment in Poland, will be established. Investment vehicles will verify rationality of ideas on R&D project at early stage of development (seed).

Public funds will help to fill the equity gap in financing of innovation and will contribute to generating private investment in R&D activities.

In addition, VC financial instrument is to be established. It provides for co-investment from funds at the disposal of public body, supported with SG OP funds, and (national and foreign) venture capital funds that will jointly dedicate funds to capital entry into innovative enterprises implementing R&D projects and commercialising project results. Thanks to this solution, public funds become a repayable support and by way of co-investment, they are used to generate private expenditures on R&D financing.

Involvement of a commercial partners (venture capital funds) in project implementation will increase the compatibility of R&D directions with market expectations, and thus the chance of result commercialisation.

Instrument supporting R&D carried out with participation of equity funds, may be used to identify smart specialisation in accordance with the concept of entrepreneurial discovery, constituting part of NSS monitoring.

The beneficiaries of the SG OP I axis can incur expenditure that go beyond the scope of R&D and constitute their necessary complement related to implemented project, in terms of:

- internationalisation of R&D results related to their commercialisation on foreign markets,
- establishment or development of R&D infrastructure,
- protection of intellectual property (outside Poland), excluding the costs related to legal proceedings,
- design,
- personnel development (under cross-financing).

The institution responsible for the implementation of priority axis I may implement pilot activities in order to test new solutions and ensure proper coordination of R&D support in Poland, taking into account the needs in the area of smart specialisation. These activities will constitute an integral part of the National Smart Specialisation monitoring and their results will be a basis for the NSS update.

Types of beneficiaries

- enterprises,
- enterprise consortia,

• entity implementing the financial instrument

Implementation area:

Entire Poland.

2.A.6.2 Guiding principles for the selection of operations

Investment priority 1b – Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

• Project selection procedure

Project selection procedure includes the following factors:

- the optimum way of achieving the objectives of the programme/priority axis/investment priority;
- type of beneficiary;
- project size (planned co-financing amount);
- results of the FI ex ante analysis.

Projects will be selected under the contest procedure (with regard to subsidy support) which results from

its effectiveness (both for potential beneficiaries and institutions implementing SG OP) and efficiency (the greatest chance for selecting projects ready for implementation and closely pursuing the objectives of investment priority 1.b).

• Project selection criteria

The selection of projects to be co-financed depends on the fulfilment of the criteria approved by the Monitoring Committee (pursuant to Article 110(2)(a) of the General Regulation). The criteria are the same for all potential beneficiaries in a given category of Programme projects. Project selection criteria will meet the general principles that correspond with the requirements of the General Regulation, in particular the following:

- they will be conducive to selection of projects that will contribute to achieving the assumed objectives and indicators to the greatest extent, in particular they will involve private capital to the greatest extent to conduct R&D activity and to commercialise results of this work,
- they will ensure selection of operations complying with the scope of ERDF,
- they will comply with the principles of transparency and non-discrimination, as well as with the terms laid down in Articles 7 and 8 of the General Regulation, i.e. in the area of equal rights of men and women, non-discrimination and sustainable development,
- they will ensure preferences for SME projects,

- they will ensure that projects implemented by large enterprises will be compatible with the conditions laid down in the Partnership Agreement, particularly they will contribute to specific effects of R&D&I activity diffusion to Polish economy. Preference will be given to projects of large enterprises undertaken jointly with SMEs or providing for cooperation with SMEs, NGOs and research institutions,
- they will ensure selection of such projects that result in the achievement of the stage of advancement of an innovative solution (product, service, process) that allows its marketing.
- they will ensure selection of the projects supporting NSS, including projects potentially contributing to identification and development of new smart specialisations, in the framework of the process of NSS monitoring.

Project selection criteria will be formulated in a way so as to:

- adjust them to the characteristics of the support instrument,
- ensure concentration of support,
- enable flexible approach to innovation assessment,
- adjust them to the characteristics of the innovation process characterised by high degree of unpredictability,
- ensure that compliance with formal requirements does not prevail over the content and quality of the evaluated project.

Organisation of the project selection process

Information on the activity of the institution that selects projects is open and public. The primary means of communication is the website of the institution which selects projects for co-funding. Concepts for calls for proposals under the competition procedure will be drafted following consultations with stakeholders of planned interventions or their representatives, for example on the Monitoring Committee of SG OP forum. Information on calls for proposals will be provided in advance so that potential beneficiaries have enough time to prepare for participation, in the context of the relevant principles.

The timespan and mode of the calls for proposals will match the nature and complexity level of planned undertakings and the size and complexity level of application documents.

Announcements will provide, particularly, information on the criteria, manner and dates of evaluation (individual stages thereof); detailed descriptions of the criteria and instructions applied during project evaluation

will be made available.

Project evaluation and selection depends on the specific nature of a given intervention area and on selection procedure applied. Project evaluation and selection procedure consists two basic elements:

- formal evaluation that consists in verifying whether access criteria have been met;
- content-related evaluation to verify qualitative criteria.

In the framework of these two blocks, additional stages of the project evaluation process may be determined, which will be described in procedures and will take place using open criteria that are

possible to evaluate. Project content evaluation will be carried out transparently and objectively, using good practices. When evaluating project proposals, it is of key importance to evaluate the quality of proposed ideas, taking into account evaluation whether the planned undertaking is financially viable.

The principle of verification procedure of the financial projects in the form of subsidies will include evaluation using an expert panel. Managing Authority will take a decision on the scope of application of the evaluation in individual support instruments implemented under priority axis, using an expert panel.

2.A.6.3 Planned use of financial instruments (where relevant)

Investment priority 1b – Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

Planned use of financial instruments

On the basis of the ex ante evaluation of the SG OP financial instruments carried out by independent evaluator, a venture capital financial instrument supporting R&D is planned to be used.

In the event of FI being established under the priority axis, the entities implementing FI will be selected taking into account conditions resulting from Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Regulation (EC) No 1083/2006 (hereinafter referred to as General Regulation) and from national legislation.

2.A.6.4 Planned use of major projects (where relevant)

Investment priority 1b – Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

Planned application of major projects

Selection of projects for co-financing under axis I of SG OP will be based on the competition procedure. As a rule, projects not belonging to the category of major projects will be financed. However, this does not preclude the possibility of financing major projects, if they are selected for support on the basis of criteria accepted by SG OP Monitoring Committee.

2.A.6.5 Output indicators by investment priorities and, where relevant, by categories of regions

Table 5: Common and Programme-specific output indicators (according to investment priority, by categories of regions for ESF and, where relevant, for ERDF)

Investment priority	Indicator	centres and high innovation, eco-in specialisation and	er education novation, a d support fo	n sector, particularly pplications in public or technology and a	r promoting services, dopplied resea	investments emand stimul arch, pilot line abling techno	in product and serv lation, networking, cl es, actions for early	s and synergies between ice development, technologusters and open innovation product validation, advantation of general purpose te	ogy transfer, social on by way of smart ced manufacturing
				relevant)	M	W	Т		
CO01	Productive investments: number of supported enterprises	Enterprises	ERDF	Less developed regions			2,809.00	SL 2014–2020	Once a year
CO02	Productive investments: number of enterprises which receive subsidies	Enterprises	ERDF	Less developed regions			2,664.00	SL 2014–2020	Once a year
CO03	Productive investments: the number of enterprises which receive financial support other than subsidies	Enterprises	ERDF	Less developed regions			145.00	SL 2014–2020	Once a year

CO06	Productive investments: private investments that supplement public support for enterprises (subsidies)	EUR	ERDF	Less developed regions	545,000,000.00	SL 2014–2020	Once a year
CO07	Productive investments: private investments that supplement public support for enterprises (other than subsidies)	EUR	ERDF	Less developed regions	203,000,000.00	SL 2014–2020	Once a year
CO08	Productive investments: employment growth in supported enterprises	Full-time equivalents	ERDF	Less developed regions	7,990.00	SL 2014–2020	Once a year
CO26	Research and innovation: number of enterprises which cooperate with research centres	Enterprises	ERDF	Less developed regions	1,330.00	SL 2014–2020	Once a year
101	Number of supported small and medium-sized enterprises	Enterprises	ERDF	Less developed regions	2167.00	SL 2014–2020	Once a year

CO01	Productive investments: number of supported enterprises	Enterprises	ERDF	More developed regions	298.00	SL 2014–2020	Once a year
CO02	Productive investments: number of enterprises which receive subsidies	Enterprises	ERDF	More developed regions	283.00	SL 2014–2020	Once a year
CO03	Productive investments: the number of enterprises which receive financial support other than subsidies	Enterprises	ERDF	More developed regions	15.00	SL 2014–2020	Once a year
CO06	Productive investments: private investments that supplement public support for enterprises (subsidies)	EUR	ERDF	More developed regions	82,000,000.00	SL 2014–2020	Once a year
CO07	Productive investments: private investments that supplement public support for enterprises (other than subsidies)	EUR	ERDF	More developed regions	22,000,000.00	SL 2014–2020	Once a year

CO08	Productive investments: employment growth in supported enterprises	Full-time equivalents	ERDF	More developed regions		850.00	SL 2014–2020	Once a year
CO26	Research and innovation: number of enterprises which cooperate with research centres	Enterprises	ERDF	More developed regions		140.00	SL 2014–2020	Once a year
101	Number of supported small and medium-sized enterprises	Enterprises	ERDF	More developed regions		230.00	SL 2014–2020	Once a year

2.A.7 Social innovation, transnational cooperation and contribution to the thematic objectives 1–7

Priority axis I – SUPPORT FOR R&D ACTIVITY OF ENTERPRISES

2.A.8 Performance framework

Table 6: Performance framework for priority axis (by fund and, for ERDF and ESF, by category of region)

Priority axis	Type of indicator (KIS, financial indicator, output indicator or, if applicable, result indicator)	Identification No	Indicator or KIS	Measurement unit (where relevant)	Fund	Category of region		Milocton	(2018)		Target	(2023)	Source of data	Explanation of indicator relevance (where appropriate)
Pric	Type of in (KIS, finst indicator, indicator, applicable indicator applicable indicator	Identi	India	Measu (wher		Catego	М	K	0	М	K	0	Sour	Expl indicate (app
I	Output indicator	CO02	Number of enterprises which receive subsidies (CI 2)	Number	ERDF	less develop ed regions	1	1	415	-	-	2,694	SL 2014 - 2020	Basic output indicator for subsidy instruments under priority axis I. As a rule, all projects implemented under priority axis I concern R&D activity of enterprises
ı	KIS	1	Number of enterprises which receive subsidies at the level of co- financing agreements	Number	ERDF	less develop ed regions	1	1	1465	-	-	-	SL 2014 - 2020	Key implementation stage concerning the indicator Number of enterprises which receive subsidies
ı	Financial indicator	1	Total amount of certified eligible expenditure	EUR	ERDF	less develop ed regions	-	-	750,50 6,471	-	-	4,093,8 12,996	SL 2014 - 2020	The indicator shows the actual pace of incurring and verifying eligible expenditure of projects

I	Output indicator	CO02	Number of enterprises which receive subsidies (CI 2)	Number	ERDF	more develop ed regions	-	-	44	-	-	283	SL 2014 - 2020	Basic output indicator for subsidy instruments under priority axis I. As a rule, all projects implemented under priority axis I concern R&D activity of enterprises
ı	KIS	1	Number of enterprises which receive subsidies at the level of cofinancing agreements	Number	ERDF	more develop ed regions	1	1	156	-	-	-	SL 2014 - 2020	Key implementation stage concerning the indicator Number of enterprises which receive subsidies
I	Financial indicator	1	Total amount of certified eligible expenditure	EUR	ERDF	more develop ed regions	-	-	84,832, 310	-	-	462,73 7,668	SL 2014 - 2020	The indicator shows the actual pace of incurring and verifying eligible expenditure of projects.

Additional quality information on establishing performance framework

In Annex.

Tables 7–11: Categories of intervention

Table 7: Dimension 1 – Intervention field

Priority ax	kis I -	- SUPPORT FOR R&D ACTIVITY OF ENTERPRISES	
Fund	Category of region	Code	Amount in EUR
ERDF	Less developed regions	002. Research and innovation processes in large enterprises	582,009,390.00
ERDF	More developed regions	002. Research and innovation processes in large enterprises	61,877,533.00
ERDF	Less developed regions	064. Research and innovation processes in SMEs (including voucher schemes, process, design, service and social innovation)	2,328,037,562.00
ERDF	More developed regions	064. Research and innovation processes in SMEs (including voucher schemes, process, design, service and social innovation)	247,510,134.00
ERDF	Less developed regions	065. Research and innovation infrastructure, processes, technology transfer and cooperation in enterprises focusing on the low carbon economy and on resilience to climate change	
ERDF	More developed regions	065. Research and innovation infrastructure, processes, technology transfer and cooperation in enterprises focusing on the low carbon economy and on resilience to climate change	
ERDF	Less developed regions	067. SME business development, support to entrepreneurship and incubation (including support to spin offs and spin outs)	395,908,200.00
ERDF	More developed regions	067. SME business development, support to entrepreneurship and incubation (including support to spin offs and spin outs)	42,091,800.00

Table 8: Dimension 2 – Form of finance

Priority axis	I – SUPP	ORT FOR R&D ACTIVITY OF ENTERPRISES	
Fund	Category of region	Code	Amount in EUR
ERDF	Less developed regions	01. Non-repayable subsidy	3,276,363,546.00
ERDF	More developed regions	01. Non-repayable subsidy	348,567,632.00
ERDF	Less developed regions	03. Support through financial instruments: venture and equity capital or equivalent	203,377,500.00
ERDF	More developed regions	03. Support through financial instruments: venture and equity capital or equivalent	21,622,500.00

Table 9: Dimension 3 – Territory type

Priority axis	s I – SU	PPORT FOR R&D ACTIVITY OF ENTERPRIS	SES
Fund	Category of region	Code	Amount in EUR
ERDF	Less developed regions	07. Not applicable	3,479,741,046.00
ERDF	More developed regions	07. Not applicable	370,190,132.00

Table 10: Dimension 4 – Territorial delivery mechanisms

Priority axis	i	SUPPORT FOR R&D ACTIVITY OF ENTERPRISES	
Fund	Category of region	Code	Amount in EUR
ERDF	Less developed regions	07. Not applicable	3,479,741,046.00
ERDF	More developed regions	07. Not applicable	370,190,132.00

Table 11: Dimension 6 – Additional ESF issue (Exclusively ESF and Youth Employment Initiative)

Priority axis I. – SUPPORT FOR R&D ACTI			VITY OF ENTERPRISES	
Fund	Category	y of region	Code	Amount in EUR

2.A.10 Summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries. (where relevant) (by priority axis)

Priority axis:	I. – SUPPORT FOR R&D ACTIVITY OF ENTERPRISES

2.A.1 Priority axis

Priority axis II SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISE FOR R&D&I ACTIVITY

☐ The whole of the priority axis will be implemented exclusively by using financial instruments
$\hfill\Box$ The whole of the priority axis will be implemented exclusively by using financial instruments created at the EU level
$\hfill\Box$ The whole of the priority axis will be implemented by applying a formula of the community-led local development
☐ For ESF: the whole of the priority axis is dedicated to social innovation, transnational cooperation or both of these areas

2.A.2 Justification for the establishment of a priority axis covering more than one category of region, more than one thematic objective or more than one fund (where relevant)

The axis supports projects implemented throughout Poland, taking into account specific aspects of the development of the environment and potential of enterprises to pursue innovative activity. The crosscutting nature of these projects prevents dividing interventions between two categories of regions.

Implementation of priority axis II of the SG OP involves financial resources under thematic objective 1 of the investment priority 1.b. Instruments under priority axis II focus both on support for services offered by the business environment favouring R&D&I activity as well as on stimulation of cooperation between various actors of the national innovation system (enterprises, research units, business environment institutions and administration). In view of the above, priority axis II takes into account support instruments addressed directly to innovative enterprises, implemented under a competition procedure, as well as systemic instruments whose beneficiaries are public administration units and other entities taking part in innovation policy making, promoting R&D&I and supporting enterprises and research units in this respect.

Support is provided exclusively to areas identified as smart specialisations and potential new specialisations resulting from the process of entrepreneurial discovery which is a part of the NSS monitoring. Including such areas in SG OP will aim at among others verification of their potential as smart specialisations, which, in case of positive results, may lead to NSS update.

If the provided support meets the requirements of State aid, it will be granted pursuant to applicable State aid regulations. State aid provided under the Programme will comply with procedural and material regulations on State aid applicable at the day of granting the State aid.

Expenditure on human resources development may be eligible under selected actions of axis II of the SG OP (within the framework of cross-financing).

2.A.3 Fund, category of region and calculation basis for Union support

Fund		expenditure or eligible public	Category of region for outermost regions and northern, sparsely populated regions (where relevant)
ERDF	Less developed regions	Total	
ERDF	More developed regions	Total	

2.A.4 Investment Priority

Investment priority identification number	1b
	Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

2.A.5 Specific objectives corresponding to investment priority and expected results

Specific objective identification number	2
Specific objective name	Increased enterprise capacity for R&D&I activity
	In Poland, a small number of enterprises pursue innovative activity and implement R&D projects. At the same time, access to adequate infrastructure is necessary for the implementation of R&D projects planned by the enterprise. Internal resources of a company are often insufficient for independent implementation of an innovation project. It is then necessary to use external sources of innovation by technology transfer or implementing projects in cooperation with other entities (enterprises, research units and BEIs). Cooperation can also be the way to reduce the costs and risk related to R&D&I activity.
	Business environment institutions are an important element of the system for supporting the innovative character of the Polish economy. In recent years, there was a systematic increase in the number of innovation and entrepreneurship centres. Their activity can be considered well-developed, although it requires further professionalization, and therefore support for creation of new BEIs is not envisaged.
	Funding will be directed to providing services for enterprises (in particular SMEs) by entities already operating on the market (in accordance with the demand-driven support model). Moreover, BEI activity should be subject to competitive mechanisms to a greater extent and should allow self-financing of these entities.
	On the other hand, a barrier to using methods of patent protection of inventions by Polish enterprises are costs of this process as well as low awareness of benefits from such protection. Research shows that Polish enterprises do not know the rules, opportunities and benefits of cooperation in the area of innovative activity. Barriers stemming from insufficient knowledge and awareness can significantly decelerate innovation development also because they translate into absence of demand for modern products, services or technologies. Such situation justifies actions related to financing brokers (animators) who serve as intermediaries between various participants of the national innovation system.
	Under priority axis II of the SG OP, also systemic projects are implemented that serve to provide information on the processes taking place in the innovative economy and allow better coordination of the innovation policy implemented using a variety of tools and programmes.

Considering the above, under investment priority 1.2 of axis II of SG OP various actions are taken which concern the following:

- R&D infrastructure investments in enterprises, increasing the scale of utilisation by the enterprises (mainly by SMEs) of pro-innovation services provided by BEIs and other entities,
- cooperation within the framework of the national innovation system,
- support for technology transfer within the framework of open innovation.

Table 3: Programme-specific result indicators (by specific objective) (for ERDF and Cohesion Fund)

Specific objective		2 – Increased enterprise capacity for R&D&I activity								
Identification No	Indicator	Measurement unit	Category of region (where relevant)		Base year	Target value (2023)	Source of data	Frequency reporting	of	
2	Enterprise sector investment in R&D in relation to GDP	%		0.38	2013	0.93	Eurostat	Once a year		

3	The share of enterprises	%	26.40	2013	36.10	CSO/Eurostat	Once a year
	that cooperated in the field						
	of innovative activity in the						
	total number of enterprises						
	active in the field						

2.A.6 Action to be supported under investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority 1b – Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

• Support for investments in R&D infrastructure of enterprises

Support covers creation and development of R&D infrastructure of enterprises via investments in devices, equipment, technologies and other necessary infrastructure that serves devising innovative products and services. The support will be conducive to establishing R&D divisions and laboratories in enterprises or creating R&D centres.

Project evaluation will primarily cover the research agenda that will be pursued by the enterprise using the research infrastructure build or modified under the project. The factors which are decisive in granting support are inter alia: the plan for utilisation of the infrastructure created, the level of R&D investment, the number of employees involved in R&D. Implementation of the research agenda by the enterprise will be monitored in the course of project implementation and will be evaluated after its completion. Failure to implement the research agenda by the enterprise results in an obligation to repay the co-financing proportionately.

Infrastructural investments may be supplemented with actions related to development of skills of the personnel handling new research devices (within the framework of cross-financing).

Open innovation – support for technology transfer

Support under the instrument is addressed to micro, small and medium-sized enterprises (SMEs) interested in acquiring technologies in the form of a patent or unpatented technical knowledge and in realizing a development investment based on implementation of the technology acquired. The instrument aims at using the formula of open innovation in order to increase the innovation level of enterprises and to create effective model (combining private and public capital) for financing innovative projects.

Within the framework of the instrument, a technology bank will be created, build upon patents as well as unpatented technical knowledge acquired from the enterprise resources, in particular from outside of the SME sector. Additionally, a financial instrument is to be created that will provide funding for development investments consisting in implementation of the solution acquired.

The planned financial instrument may have the form of a co-investment fund that will engage its capital in parallel with private investors. The instrument will provide a comprehensive support for SMEs in the process of acquisition and implementation of technological solutions with high innovation potential. By adopting a capital investment model the co-investment fund and the private investor will be involved in management of the innovation project. Contribution of the private sector to the

investments undertaken will additionally produce the effect of generation of private expenditure on funding innovation projects.

Final recipients of support will be selected according to a contest procedure based on clear and objective criteria.

Pro-innovation services for enterprises

Pro-innovation services provided for enterprises in line with the demand-driven support model should contribute to development of R&D&I activity in companies or be related to it.

Co-financing covers pro-innovation services provided by business environment institutions for SMEs. The services should match the needs of customers and comprehensively contribute to innovation (from research to commercialisation). Support mechanisms used are demand-driven and respond to diverse needs of enterprises pursuing R&D&I activity.

Costs of providing the pro-innovation services for SMEs by the business environment institutions may be co-financed under the following schemes:

- cooperation between SME and an accredited business environment institution then, the enterprise's demand for a pro-innovation service is the subject of assessment;
- cooperation between SME and a non-accredited business environment institution then, the enterprise's demand for a pro-innovation service and the capacity of the business environment institution to provide the service is the subject of assessment.

BEI accreditation criteria will concern i.a. their experience, staff and infrastructure capacity as regards providing pro-innovation services.

The pro-innovation services provide for the possibility to support Key National Clusters as regards internationalisation and development of cooperation with external entities. Such actions may include support for advisory services related to placing the offer/products, in particular technically advanced products, of a cluster and/or its members on the foreign markets.

It is also possible to support international expansion of a cluster related to increasing internationalisation of its' research, development and innovation activity, marketing, branding, national and international networking (support for actions implemented by the coordinator of the Key National Clusters for the cluster members).

Support will cover projects related to protection of intellectual property. Support is aimed at covering the costs of application for registration of the invention, utility model or industrial design (excluding application for protection in the territory of Poland) and costs of protection of industrial property as well as analyses of the freedom-to-operate that are essential elements of successful technology commercialisation. Support covers also actions aimed at reinforcing the position of Polish enterprises in disputes concerning protection of industrial property before relevant administration bodies.

Moreover, the funding is granted for systemic actions carried out by the Polish Patent Office which are related to shaping practical skills of enterprises as regards the use of protection of industrial property, the professionalization of services (in line with the demand of enterprises), such as performing specialist bibliometric analyses for enterprises in order to assess legal as well as industrial and economic capacity to use new solutions, informing interested entities on new patent applications and patents granted in a given technological area, examining a patent family, drawing patent maps

illustrating patent activity of specific enterprises or countries in a given technology and their patent strategies, analyses of the freedom-to-operate determining the level of risk of conflict with exclusive rights of other entities, analyses of the freedom-to-operate, finding prospective licensees and licensors of technologies based on the areas of their activity as regards applications.

On the other hand, support granted in the form of the so-called innovation vouchers enables development of contacts between SMEs and research units. Support is granted for acquisition of a service that consists in devising a new product or service, a design, new production technology or considerable improvement of an end product or production technology. Support covers projects that concern: innovation implemented by industrial companies, innovation in the sector of services of high technological advancement level as well as non-technological innovation.

The services acquired using innovation vouchers should take into account the local context of the enterprise's operation area, the enterprise's specific nature and the conditions in which it operates ("tailored" support). The projects should allow including end users in the process of creating new products and services in order to examine the market response to the designed innovation.

• Intensification of cooperation within the framework of the national innovation system

Support is granted for pilot projects aimed at testing new forms of support and are aimed at expanding knowledge and increasing the aptitude of enterprises for R&D&I activity. These instruments may include the following actions:

- developing and testing new instruments aimed at support for enterprise innovation, cooperation between science and business in the area of R&D&I, as well as stimulating cooperation between enterprises, science, business environment (socio-economic partners) and public administration, through implementation of e.g. pre-commercial public procurement (where public institutions communicate demand for a solution that has not yet been developed) and innovation procurement (concerning products or services that have not yet been commercially available);
- monitoring the implementation of the national smart specialisation strategy, including i.a. constant process of entrepreneurial discovery, information and education actions regarding smart specialisation, use of IT tools for monitoring.

Types of beneficiaries

- enterprises, including enterprise consortia
- coordinators of the key national clusters
- entities managing the Special Economic Zones
- beneficiaries of the non-competition projects public body or State legal person with an adequate technical and professional capacity and experience, responsible for implementation of pilot and systemic actions, whose main task is mainly development of detailed thematic scope of the support instrument, concept of its' implementation and selection of the final recipients of support within the framework of a competitive procedure based on transparent and objective criteria
- entity implementing the financial instrument

Implementation area

Entire Poland.

2.A.6.2 Guiding principles for the selection of operations

Investment priority 1b – Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

Project selection procedure includes the following factors:

- the optimum way of achieving the objectives of the SG OP/priority axis/investment priority;
- type of beneficiary;
- project size (planned co-financing amount);
- results of the FI ex ante analysis.

Projects will be selected under competition procedure which results from its efficiency and effectiveness.

A possibility is also envisaged for projects to be implemented under a non-competition procedure where the beneficiary is a public body or a State legal person with an adequate technical and professional capacity and experience. The final recipients will be selected on the basis of transparent and objective criteria.

The selection of projects to be co-financed depends on the fulfilment of the criteria approved by the Monitoring Committee (pursuant to Article 110(2)(a) of the General Regulation) and on the approval of the project for co-financing by the MA or the IB. The criteria are the same for all potential beneficiaries in a given category of SG OP projects. It is assumed that project selection criteria will meet the general principles that correspond with the requirements of the General Regulation, in particular:

- they will be conducive to selection of projects that will contribute to achieving the assumed objectives and indicators to the greatest extent, in particular they will stimulate increase in capacity of enterprises to implement innovation to the greatest extent,
- they will ensure selection of operations complying with the scope of ERDF,
- they will comply with the principles of transparency and non-discrimination, as well as with the terms laid down in Articles 7 and 8 of the General Regulation, i.e. in the area of equal rights of men and women, non-discrimination and sustainable development,
- they will give preference to SME projects,
- they will ensure that projects implemented by large enterprises will be compatible with the conditions laid down in the Partnership Agreement, particularly they will contribute to specific effects of R&D&I

activity diffusion to Polish economy. Preference will be given to projects of large enterprises undertaken jointly with SMEs or providing for cooperation with SMEs, NGOs and research institutes,

- they will ensure selection of the projects supporting NSS, including projects that may contribute to identification and development of new smart specialisations,
- they will ensure that specialist pro-innovation services and services supporting R&D&I activity, access to which will be given to enterprises, will be market-oriented, provided by specialised economic operators and subject to constant quality assessment.

Project selection criteria will be formulated in a way so as to:

- adjust them to the characteristics of the support instrument,
- ensure concentration of support,
- enable flexible approach to innovation assessment,
- adjust them to the characteristics of the innovation process characterised by high degree of unpredictability,
- ensure that compliance with formal requirements does not prevail over the content and quality of the evaluated project.

Information on the activity of the institution that selects projects is open and public. The primary means of communication in this respect is the website of the institution which selects projects for co-funding. Concepts for calls for proposals under the competition procedure will be drafted following consultations with stakeholders of planned interventions or their representatives, for example on the Monitoring Committee of SG OP forum. Information on calls for proposals will be provided in advance so that potential beneficiaries have enough time to prepare for participation, in the context of the relevant principles.

The timespan of and the procedure for the calls for proposals will match the nature and complexity level of planned undertakings and the size and complexity level of application documents.

In the case of the competition procedure, the notice will provide, in particular, information on the criteria, manner and dates of evaluation (individual stages thereof); detailed descriptions of the criteria and instructions applied during project evaluation will be made available.

Project evaluation and selection depends on the specific nature of a given intervention area and on selection procedure applied. Project evaluation and selection procedure consists two basic elements:

- formal evaluation that consists in verifying whether access criteria have been met,
- content-related evaluation to verify qualitative criteria.

In the framework of these two blocks, additional stages of the project evaluation process may be determined, which will be described in procedures and will take place using open criteria that are possible to evaluate. Project content evaluation will be carried out transparently and objectively, using good practices. When evaluating project proposals, it is of key importance to evaluate the quality of proposed ideas, taking into account evaluation whether the planned undertaking is financially viable.

The principle of verification procedure of the financial projects in the form of subsidies will include evaluation using an expert panel. MA will take a decision on the scope of application of the evaluation in individual support instruments, using an expert panel.

2.A.6.3 Planned use of financial instruments (where relevant)

2.A.6.2 Guiding principles for the selection of operations

Investment priority 1b – Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

On the basis of the ex ante evaluation of the SG OP financial instruments carried out by an independent evaluator, a financial instrument is planned to be used that will provide a comprehensive support for the SME sector in the process of acquisition and implementation of technological solutions with high innovation potential.

In the event of FI being established under the priority axis, the entities implementing the FI will be selected taking into account conditions resulting from the General Regulation and national legislation.

2.A.6.4 Planned use of major projects (where relevant)

Investment priority 1b – Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies

Selection of projects for co-financing under priority axis II of SG OP will be based on the competition procedure. As a rule, projects not belonging to the category of major projects will be financed. However, this does not preclude the possibility of financing major projects, if they are selected for support on the basis of criteria accepted by SG OP Monitoring Committee.

2.A.6.5 Output indicators by investment priorities and, where relevant, by categories of regions

Table 5: Common and Programme-specific output indicators (according to investment priority, by categories of regions for ESF and, where relevant, for ERDF)

Investment priority		1b – Promoting investments of enterprises in research and innovation, developing relations and synergies between enterprises, R&D centres and higher education sector, particularly promoting investments in product and service development, technology transfer, social innovation, eco-innovation, applications in public services, demand stimulation, networking, clusters and open innovation by way of smart specialisation and support for technology and applied research, pilot lines, actions for early product validation, advanced manufacturing capacity and first production, particularly in the field of key enabling technologies and dissemination of general purpose technologies									
Identification No	Indicator	Measurement unit	Fund	Category of region (where	Target va	lue (2023)		Source of data	Frequency of reporting		
				relevant)	М	W	Т				
CO01	Productive investments: number of supported enterprises	Enterprises	ERDF	Less developed regions			4,073.00	SL 2014–2020	Once a year		
CO02	Productive investments: number of enterprises which receive subsidies	Enterprises	ERDF	Less developed regions			4,053.00	SL 2014–2020	Once a year		
CO03	Productive investments: the number of enterprises which receive financial support other than subsidies	Enterprises	ERDF	Less developed regions			40.00	SL 2014–2020	Once a year		

CO06	Productive investments: private investments that supplement public support for enterprises (subsidies)	EUR	ERDF	Less developed regions	1,049,900,000.00	SL 2014–2020	Once a year
CO07	Productive investments: private investments that supplement public support for enterprises (other than subsidies)	EUR	ERDF	Less developed regions	56,500,000.00	SL 2014–2020	Once a year
CO08	Productive investments: employment growth in supported enterprises	Full-time equivalents	ERDF	Less developed regions	6,526.00	SL 2014–2020	Once a year
CO25	Research and innovation: number of researchers working at the modernised research infrastructure facilities	Full-time equivalents	ERDF	Less developed regions	350.00	SL 2014–2020	Once a year
CO26	Research and innovation: number of enterprises which cooperate with research	Enterprises	ERDF	Less developed regions	970.00	SL 2014–2020	Once a year

	centres						
102	Number of entities implementing projects in the area of protection of property	Number	ERDF	Less developed regions	415.00	SL 2014–2020	Once a year
103	Number of enterprises incurring investment expenditure for R&D activity	Enterprises	ERDF	Less developed regions	158.00	SL 2014–2020	Once a year
CO01	Productive investments: number of supported enterprises	Enterprises	ERDF	More developed regions	406.00	SL 2014–2020	Once a year
CO02	Productive investments: number of enterprises which receive subsidies	Enterprises	ERDF	More developed regions	404.00	SL 2014–2020	Once a year
CO03	Productive investments: the number of enterprises which receive financial support other than subsidies	Enterprises	ERDF	More developed regions	4.00	SL 2014–2020	Once a year

CO06	Productive investments: private investments that supplement public support for enterprises (subsidies)	EUR	ERDF	More developed regions	118,400,000.00	SL 2014–2020	Once a year
CO07	Productive investments: private investments that supplement public support for enterprises (other than subsidies)	EUR	ERDF	More developed regions	5,500,000.00	SL 2014–2020	Once a year
CO08	Productive investments: employment growth in supported enterprises	Full-time equivalents	ERDF	More developed regions	871.00	SL 2014–2020	Once a year
CO25	Research and innovation: number of researchers working at the modernised research infrastructure facilities	Full-time equivalents	ERDF	More developed regions	52.00	SL 2014–2020	Once a year

CO26	Research and innovation: number of enterprises which cooperate with research centres	Enterprises	ERDF	More developed regions	95.00	SL 2014–2020	Once a year
102	Number of entities implementing projects in the area of protection of industrial property	Number	ERDF	More developed regions	41.00	SL 2014–2020	Once a year
103	Number of enterprises incurring investment expenditure for R&D activity	Enterprises	ERDF	More developed regions	23.00	SL 2014–2020	Once a year

2.A.7 Social innovation, transnational cooperation and contribution to the thematic objectives 1–7

Priority axis II SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISE FOR R&D&I ACTIVITY

2.A.8 Performance framework

Table 6: Performance framework for priority axis (by fund and, for ERDF and ESF, by category of region)

rity axis	Priority axis Type of indicator (KIS, financial indicator, output indicator or, if applicable, result indicator) Identification No		Indicator or KIS	tor or KIS	Measurement unit (where relevant)	Fund	Category of region	Milestone (2018)		Target		(2023)	Source of data	Explanation of indicator relevance (where appropriate)	
Prio			Indica	Measul (where	4	Catego	М	K	0	М	К	0	Source	Expla indicato (where a	
11	Output indicator	1.	Number of enterprises incurring investment expenditure for R&D activity	Number	ERDF	less develop ed regions	-	-	8	-	-	158	SL 2014 - 2020	The basic output indicator for projects regarding R&D infrastructure in enterprises for which over 62% of the allocation for priority axis IV has been earmarked	
Ш	KIS	2.	Number of enterprises incurring investment expenditure for R&D activity at the level of co-financing agreements	Number	ERDF	less develop ed regions	-	-	79	-	-	-	SL 2014 - 2020	Key implementation stage for the indicator Number of enterprises incurring investment expenditure for R&D activity	
II	Financial indicator	1.	Total amount of certified eligible expenditure	EUR	ERDF	less develop ed regions	-	-	219,49 1,288	-	-	1,118,25 4,012	SL 2014 - 2020	The indicator shows the actual pace of incurring and verifying eligible expenditure of projects.	
II	Output indicator	1.	Number of enterprises incurring investment expenditure for R&D activity	Number	ERDF	more develop ed regions	-	-	1	-	-	23	SL 2014 – 2020	The basic output indicator for projects regarding R&D infrastructure in enterprises for which over 62% of the allocation for priority axis IV has been	

														earmarked
II	KIS	2.	Number of enterprises incurring investment expenditure for R&D activity at the level of co-financing agreements	Number	ERDF	more develop ed regions	-	1	12	-	-	-	SL 2014 - 2020	Key implementation stage for the indicator Number of enterprises incurring investment expenditure for R&D activity
11	Financial indicator	1.	Total amount of certified eligible expenditure	EUR	ERDF	more develop ed regions	ı	ı	22,728, 197	1	-	115,794, 563	SL 2014 – 2020	The indicator shows the actual pace of incurring and verifying eligible expenditure of projects

Additional quality information on establishing performance framework

In Annex.

2.A.9 Categories of intervention

Categories of intervention corresponding to priority axis content on the basis of the classification adopted by Commission and estimated breakdown of the EU support.

Tables 7–11: Categories of intervention

Table 7: Dimension 1 – Intervention field

Priority axis		II – SUPPO	JPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISE FOR R&D&I ACTIVITY						
Fund	Category	of region	Code	Amount in EUR					
ERDF	Less regions	developed	056. Investment in infrastructure, capacities and equipment in SMEs related directly to research and innovation	236,908,209.00					
ERDF	More regions	developed	056. Investment in infrastructure, capacities and equipment in SMEs related directly to research and innovation	23,091,791.00					
ERDF	Less regions	developed	057. Investment in infrastructure, capacities and equipment in large enterprises related directly to research and innovation	355,368,000.00					
ERDF	More regions	developed	057. Investment in infrastructure, capacities and equipment in large enterprises related directly to research and innovation	34,632,000.00					
ERDF	Less regions	developed	061. Research and innovation activities in private research centres, including networking	133,693,987.00					
ERDF	More regions	developed	061. Research and innovation activities in private research centres, including networking	13,029,002.00					
ERDF	Less regions	developed	062. Technology transfer and cooperation between universities and enterprises, mainly for the benefit of SMEs	172,477,143.00					
ERDF	More regions	developed	062. Technology transfer and cooperation between universities and enterprises, mainly for the benefit of SMEs	16,808,571.00					
ERDF	Less regions	developed	063. Support for clusters and networks of enterprises, mainly for the benefit of SME	52,068,571.00					
ERDF	More	developed	063. Support for clusters and networks of enterprises, mainly for the benefit	5,074,286.00					

re	egions	of SME	

Table 8: Dimension 2 – Form of finance

Priority axis II – SUP		II – SUPP	PORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISE FOR R&D&I ACTIVITY						
Fund	Category o	of region	Amount in EUR						
ERDF	Less regions	developed	01. Non-repayable subsidy	854,839,910.00					
ERDF	More regions	developed	01. Non-repayable subsidy	83,311,650.00					
ERDF	Less regions	developed	03. Support through financial instruments: venture and equity capital or equivalent	95,676,000.00					
ERDF	More regions	developed	03. Support through financial instruments: venture and equity capital or equivalent	9,324,000.00					

Table 9: Dimension 3 – Territory type

Priority axis		II – SUPP	I – SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISE FOR R&D&I ACTIVITY					
Fund	Category of	region	Code	Amount in EUR				
ERDF	Less regions	developed	07. Not applicable	950,515,910.00				
ERDF	More regions	developed	07. Not applicable	92,635,650.00				

Table 10: Dimension 4 – Territorial delivery mechanisms

Priority axis	i	II – SUPP	PPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISE FOR R&D&I ACTIVITY					
Fund	Category of	f region	Code	Amount in EUR				
ERDF	Less regions	developed	07. Not applicable	950,515,910.00				
ERDF	More regions	developed	07. Not applicable	92,635,650.00				

Priority axis:		II – SUPPORT FOR THE ENVI	RONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY				
Fund	Categor	y of region	Code	Amount in EUR			

2.A.10 Summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries. (where relevant) (by priority axis)

Priority axis:	II – SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISE FOR R&D&I ACTIVITY

2.A.1 Priority axis

PRIORITY AXIS III SUPPORT FOR INNOVATION IN ENTERPRISES

☐ The whole of the priority axis will be implemented exclusively by using financial instruments
☐ The whole of the priority axis will be implemented exclusively by using financial instruments created at the EU level
☐ The whole of the priority axis will be implemented by applying a formula of the community-led local development
☐ For ESF: the whole of the priority axis is dedicated to social innovations, transnational cooperation or both of these areas

2.A.2 Justification for the establishment of a priority axis covering more than one category of region, more than one thematic objective or more than one fund (where relevant)

The priority axis supports projects implemented throughout Poland, taking into account specific aspects of support for innovation in enterprises. The nature of these projects prevents dividing interventions between two categories of regions under two separate priority axes.

Implementation of priority axis III of the SG OP involves financial resources under thematic objective 3 and two investment priorities of this objective: Investment priority 3.a and investment priority 3.c.

Proposed support instruments show subjective and objective complementarity. Final recipients of the support are enterprises which implement innovative projects, including those related to R&D results implementation. These projects are mainly of the investment nature since they are connected with commercialisation of R&D results. At the same time, support is provided for the creation and development of innovative companies which at early stage of development need capital financing actions necessary to launch production or provision of services.

Evaluation of projects implemented under III axis of the SG OP will take into account (where it is possible to evaluate) whether projects are in line with areas identified in NSS or whether they contribute to the development, which will ensure complementarity of priority axes of the SG OP.

If the provided support meets the requirements of State aid, it will be granted pursuant to applicable State aid regulations. State aid provided under the Programme will comply with procedural and material regulations on State aid applicable at the day of granting the State aid.

Expenditure on human resources development may be eligible under selected actions of axis III of the SG OP (within the framework of cross-financing).

2.A.3 Fund, category of region and calculation basis for Union support

Fund	Category of region	Calculation	basis	(total	eligible	Category of region for outermost
		expenditure expenditure)	or	eligible	public	regions and northern, sparsely populated regions (where relevant)
ERDF	Less developed regions	Total				
ERDF	More developed regions	Total				

2.A.4 Investment Priority

Investment priority	3a
identification number	
	Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators.

2.A.5 Specific objectives corresponding to investment priority and expected results

Specific objective	3
identification number	
Specific objective	Increased funding of the SME innovative activity using venture capital (VC)
name	
T1 16 d 4 d	
	The market of commercial sources of innovative activity financing in Poland is relatively young and poorly developed.
Member State seeks	Existing capital funds are relatively unwilling to invest in innovative undertakings due to high risk. Therefore,
to achieve with Union	it is necessary to take actions to stimulate the activity of private investors in the field of R&D&I.
support	
	Under investment priority 3.a of priority axis III of the SG OP, actions that are focused on use of the financial instruments,
	mainly equity financial instruments, intended for SMEs (especially start-ups) are assumed to be implemented.
	As a special form of repayable financing, capital instruments ensure an additional element of support related to access
	to a network of business contacts of the investor, his/her expertise and experience that are particularly important to young
	entrepreneurs. In addition, actions financed in the form of subsidies which aim at facilitating access by enterprises to the
	financial support from regulated markets (e.g. WSE, NewConnect, Catalyst) are planned.

 Table 3: Programme-specific result indicators (by specific objective) (for ERDF and Cohesion Fund)

Specific objective		3 – Increased funding of the SME innovative activity using venture capital (VC)						
Identification No	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Base year	Target value (2023)	Source of data	Frequency of reporting
4	Investment in innovative activity from venture capital funds			0.30	2010	333.00	CSO/EVCA	Once a year

2.A.6 Action to be supported under investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority 3a – Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators

The priority axis III supports projects implemented throughout Poland, taking into account specific aspects of support for innovation in enterprises. The nature of these projects prevents dividing interventions between two categories of regions under two separate priority axes.

Implementation of priority axis III of the SG OP involves financial resources under thematic objective 3 and two investment priorities of this objective: investment priority 3.a and investment priority 3.c.

Proposed support instruments show subjective and objective complementarity. Final recipients of the support are enterprises which implement innovative projects, including those related to R&D results implementation. These projects are mainly of the investment nature since they are connected with commercialisation of R&D results. At the same time, support is provided for the creation and development of innovative companies which at early stage of development need capital financing actions necessary to launch production or provision of services.

Evaluation of projects implemented under III axis of the SG OP will take into account (where it is possible to evaluate) whether projects are in line with areas identified in NSS or whether they contribute to the development, which will ensure complementarity of priority axes of the SG OP.

If the provided support meets the requirements of State aid, it will be granted pursuant to applicable State aid regulations. State aid provided under the Programme will comply with procedural and material regulations on State aid applicable at the day of granting the State aid.

Expenditure on human resources development may be eligible under selected actions of axis III of the SG OP (within the framework of cross-financing).

Projects implemented under specific objective 3 will cover among others:

- support in setting up enterprises on the basis of innovative ideas (so-called preincubation),
- capital contribution for start-ups,
- investment in innovative enterprises via VC funds among others in order to commercialise R&D results,
- investment in innovative enterprises via mechanisms of syndicated (group) financing by business angels.
- support for enterprises through loan instrument in order to complement equity support offered to innovative start-ups,
- support for enterprises that seek financing for innovative undertakings from sector investors or on the capital market (on the Warsaw Stock Exchange, NewConnect and Catalyst market) by financing advisory services and market analyses.

Types of beneficiaries

- enterprises (SME),
- entity implementing the financial instrument.

Implementation area

Entire Poland.

2.A.6.2 Guiding principles for the selection of operations

Investment priority 3a – Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators

Project selection procedure includes the following factors:

- the optimum way of achieving the objectives of the programme/priority axis/investment priority,
- type of beneficiary,
- project size (planned co-financing amount),
- results of the FI ex ante analysis.

Under investment priority 3.a, co-financing will cover projects selected under the competition procedure (with regard to subsidy support).

The selection of projects to be co-financed depends on the fulfilment of the criteria approved by the Monitoring Committee (pursuant to Article 110(2)(a) of the General Regulation) and on approval of the project for co-financing. The criteria are the same for all potential beneficiaries in a given category of Programme projects. It is assumed that project selection criteria will meet the general principles that correspond with the requirements of the General Regulation, in particular:

- they will be conducive to selection of projects that will contribute to achieving the assumed objectives and indicators to the greatest extent, in particular they will stimulate increase in private investment in innovative activity to the greatest extent,
- they will ensure selection of operations complying with the scope of ERDF,
- they will comply with the principles of transparency and non-discrimination, as well as with the terms laid down in Articles 7 and 8 of the General Regulation, i.e. in the area of equal rights of men and women, non-discrimination and sustainable development,
- they will ensure selection of projects with the highest level of innovation,
- they will ensure preferences for the projects supporting NSS, as well as projects contributing to identification and development of new smart specialisations (where it is possible to evaluate).

Project selection criteria will be formulated in a way so as to:

• adjust them to the characteristics of the support instrument,

- ensure concentration of support,
- enable flexible approach to innovation assessment,
- adjust them to the characteristics of the innovation process characterised by high degree of unpredictability,
- ensure that compliance with formal requirements does not prevail over the content and quality of the evaluated project.

Information on the activity of the institution that selects projects is open and public. The primary means of communication in this respect is the website of the institution which selects projects for co-funding. Concepts for calls for proposals under the competition procedure will be drafted following consultations with stakeholders of planned interventions or their representatives, for example on the Monitoring Committee of SG OP forum. Information on calls for proposals will be provided in advance so that potential beneficiaries have enough time to prepare for participation, in the context of the relevant principles.

The timespan of and the procedure for the calls for proposals will match the nature and complexity level of planned undertakings and the size and complexity level of application documents.

In the case of the competition procedure, the notice will provide, in particular, information on the criteria, manner and dates of evaluation (individual stages thereof); detailed descriptions of the criteria and instructions applied during project evaluation will be made available.

Project evaluation and selection depends on the specific nature of a given intervention area and on selection procedure applied. Project evaluation and selection procedure consists two basic elements:

- formal evaluation that consists in verifying whether access criteria have been met;
- content-related evaluation to verify qualitative criteria.

In the framework of these two blocks, additional stages of the project evaluation process may be determined, which will be described in procedures and will take place using open criteria that are possible to evaluate. Project content evaluation will be carried out transparently and objectively, using good practices. When evaluating project proposals, it is of key importance to evaluate the quality of proposed ideas, taking into account evaluation whether the planned undertaking is financially viable.

The principle of verification procedure of the financial projects in the form of subsidies will include evaluation using an expert panel. MA will take a decision on the scope of application of the evaluation in individual support instruments implemented under priority axis, using an expert panel.

2.A.6.3 Planned use of financial instruments (where relevant)

Investment priority 3a – Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators

On the basis of the ex ante evaluation of the SG OP financial instruments carried out by independent evaluator, financial instruments is planned to be used that will provide equity and debt financing for innovative enterprises.

In the event of FI being established under the priority axis, the entities implementing the FI will be selected

taking into account conditions resulting from the General Regulation and national legislation.

2.A.6.4 Planned use of major projects (where relevant)

Investment priority 3a – Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators

Selection of projects for co-financing under axis III of the SG OP will be based on the competition procedure. As a rule, projects not belonging to the category of major projects will be financed. However, this does not preclude the possibility of financing major projects, if they are selected for support on the basis of criteria accepted by SG OP Monitoring Committee.

2.A.6.5 Output indicators by investment priorities and, where relevant, by categories of regions

Table 5: Common and Programme-specific output indicators (according to investment priority, by categories of regions for ESF and, where relevant, for ERDF)

Investment priority		3a – Promoting e including through		and fostering the crea	tion of new firms,				
Identification No	Indicator	Measurement unit	Fund	Category of region (where	Target va	alue (2023)		Source of data	Frequency of reporting
				relevant)	М	W	Т		
CO01	Productive investments: number of supported enterprises	Enterprises	ERDF	Less developed regions			1,539.00	SL 2014–2020	Once a year
CO03	Productive investments: the number of enterprises which receive financial support other than subsidies	Enterprises	ERDF	Less developed regions			1,539.00	SL 2014–2020	Once a year
CO05	Productive investments: number of supported new enterprises	Enterprises	ERDF	Less developed regions			1,048.00	SL 2014–2020	Once a year
CO07	Productive investments: private investments that supplement public support for enterprises (other	EUR	ERDF	Less developed regions			164,900,000.00	SL 2014–2020	Once a year

	than subsidies)						
CO08	Productive investments: employment growth in supported enterprises	Full-time equivalents	ERDF	Less developed regions	2,240.00	SL 2014–2020	Once a year
CO01	Productive investments: number of supported enterprises	Enterprises	ERDF	More developed regions	150.00	SL 2014–2020	Once a year
CO03	Productive investments: the number of enterprises which receive financial support other than subsidies	Enterprises	ERDF	More developed regions	150.00	SL 2014–2020	Once a year
CO5	Productive investments: number of supported new enterprises	Enterprises	ERDF	More developed regions	102.00	SL 2014–2020	Once a year
CO07	Productive investments: private investments that supplement public support for	EUR	ERDF	More developed regions	16,100,000.00	SL 2014–2020	Once a year

	enterprises (other than subsidies)							
CO08	Productive investments: employment growth in supported enterprises	Full-time equivalents	ERDF	More developed regions		218.00	SL 2014–2020	Once a year

2.A.4 Investment Priority

Investment priority	3c
identification number	
Investment priority name	Supporting the creation and the extension of advanced capacities for product and service development

Specific objective identification number	4
Specific objective name	Increased activity of the enterprises in innovative activity
Member State seeks	Support provided under priority axis III, under specific objective 4, is intended for enterprises from SME sector to finance R&D results applications which are the key aspect of transforming knowledge into new products, services and technologies. Compared to R&D, effectiveness of application is related to lower risk and depends on market factors that are related, among others, to the strategy of the company and to marketing of new products and services. Depending on the level of risk involved in the implementation projects, support will be provided using subsidies, financial instruments or forms of financing combining financial instruments with subsidies.
Specific objective identification number	5
Specific objective name	Improved level of the internationalisation of enterprises activity
Member State seeks	Increase in the activity of Polish companies on foreign markets is a positive trend. The activity level depends on the size of an enterprise, industry or sector where it operates. At the same time, it is necessary to implement actions that would make it easier for SMEs to offer products and services on foreign markets. It particularly concerns innovative enterprises as expanding outlet markets for new products and services influences R&D&I profitability. Therefore, internalisation support provided under priority axis III in the framework of the specific objective 5, is addressed to innovative enterprises from SME sector that represent selected sectors of economy with the highest export potential in the National Smart Specialisation areas, with innovative products/services resulting mainly from R&D works, with a potential to internationalise their activity, aimed at export activity on the selected markets. Funding is concentrated on the projects that result in establishing contacts by enterprises with foreign counterparties and investors, including via business environment institutions.

 Table 3: Programme-specific result indicators (by specific objective) (for ERDF and Cohesion Fund)

Specific obje	ctive	4 – Increased a	ctivity of the enterp	rises in innovative	activity			
Identificatio No	n Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Base year	Target value (2023)	Source of data	Frequency of reporting
5 Specific obje	Enterprise investment in innovative activity in relation to total investments of enterprises		evel of the internation	7.50 nalisation of enter	2012	11.70 tivity	CSO/Eurostat	Once a year
Identificatio No	n Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Base year	Target value (2023)	Source of data	Frequency of reporting
6	Share of export of high technology products in total export	%		6.70	2013	13.00	Eurostat	Once a year

2.A.6 Action to be supported under investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority 3c – Supporting the creation and the extension of advanced capacities for product and service development

The following type of the project is planned to be financed under specific objective 4:

Support for R&D results implementation

Progressing globalisation shows that sustainable economic development can be ensured solely by building competitive advantage by enterprises whose activity is based on innovative solutions. Insufficient own funds and difficult access to external sources of investment financing hinder enterprise capacity to conduct R&D activities and thus to implement new solutions that allow consolidating their competitive position.

Support for the R&D results implementation in the form of subsidies will contribute to greater use of these works by SMEs. Support in the form of subsidies provided to projects aimed at implementation of R&D results is justified by high level of risk related to implementation of these projects.

The purpose of the support is to fill the financing gap between the stage of R&D works conducted by SME

and introduction of a new product to the market or launching provision of a new service. Expenditure necessary to launch production of a new product or a new service may be financed under this support. Support can be intended particularly to implementation of R&D results obtained as a result of the implementation of projects co-funded by Programme priority axis I funds.

It is planned to implement the instrument supporting SMEs interested in the implementation of technological innovation. Experiences related to implementation of the analogous instruments under the 2007-2013 financial perspective will be used when providing the support.

In addition, guarantee funds are planned to be created for the innovative projects characterised by high level of risk and implemented by SME. Guarantee fund will provide guarantees to financial institutions which provide companies implementing innovation related to R&D results with capital.

Guarantees are a repayable instrument with the highest leverage rate understood as the relation of the generated financing to public funds involved. It is envisaged that the guarantee will not cover entirety of the loan, but just a part of it. When the guarantee fund takes over a part of risk faced by financial institutions, it will serve as an incentive for private capital to finance innovative projects.

If necessary for the achievement of project objectives, beneficiaries of projects financed under axis III of the SG OP in the framework of specific objective 4 can, apart from investment expenditure related to R&D results implementation, incur expenditure on:

- internationalisation of the implementation of R&D results related to their commercialisation on foreign markets.
- establishment or development of R&D infrastructure,

- protection of intellectual property (including outside Poland), excluding the costs related to legal proceedings,
- design,
- personnel development (under cross-financing).

Types of beneficiaries

- enterprises, including enterprise consortia,
- entity implementing the financial instrument.

Implementation area

Entire Poland.

Investment priority 3c – Supporting the creation and the extension of advanced capacities for product and service development

The following type of the project is planned to be financed under specific objective 5:

• Support for promotion and internationalisation of innovative enterprises

Funding will cover following types of projects:

- programmes aimed at internationalisation of the activity of enterprises that represent areas identified under National Smart Specialisation, in order to enhance their access to traditional and prospective markets targeted at economy sectors with the highest export potential;
- provision of specialist advisory services in the field of internationalisation for innovative SMEs (such as coaching, mentoring, support for development of the company activity in leading foreign BEIs, support for enterprises in soliciting public procurement implementation abroad, in searching for the foreign equity investors and counterparties).

Types of beneficiaries

- enterprises,
- business environment institutions,
- beneficiaries of the non-competition projects public bodies or State legal persons with an adequate technical and professional capacity and experience, responsible for implementation of pilot and systemic actions, whose main task is mainly development of detailed thematic scope of the support instrument, concept of its' implementation and selection of the final recipients of support within the framework of a competitive procedure based on transparent and objective criteria

Implementation area

Entire Poland.

2.A.6.2 Guiding principles for the selection of operations

Investment priority 3c – Supporting the creation and the extension of advanced capacities for product and service development

Project selection procedure includes the following factors:

- the optimum way of achieving the objectives of the SG OP/priority axis/investment priority;
- type of beneficiary;
- project size (planned co-financing amount);
- results of the FI ex ante analysis.

Under investment priority 3c, co-financing will cover projects selected under the competition procedure. Competition procedure will be applied particularly to support implementation of R&D results and selected actions related to internationalisation.

A possibility is also envisaged for projects to be implemented under a non-competition procedure (with regard to selected actions related to internationalisation) where the beneficiary is a public body or a State legal person with an adequate technical and professional capacity and experience. Final recipients of support will be selected according to a competition procedure based on clear and objective criteria.

The selection of projects to be co-financed depends on the fulfilment of the criteria approved by the Monitoring Committee (pursuant to Article 110(2)(a) of the General Regulation) and on approval of the project for co-financing. The criteria are the same for all potential beneficiaries in a given category of Programme projects. It is assumed that project selection criteria will meet the general principles that correspond with the requirements of the General Regulation, in particular:

- they will be conducive to selection of projects that will contribute to achieving the assumed objectives and indicators to the greatest extent, in particular they will stimulate increase in private investment in innovative activity to the greatest extent,
- they will ensure selection of operations complying with the scope of ERDF,
- they will comply with the principles of transparency and non-discrimination, as well as with the terms laid down in Articles 7 and 8 of the General Regulation, i.e. in the area of equal rights of men and women, non-discrimination and sustainable development,
- they will ensure preferences for the projects supporting NSS, as well as projects contributing to identification and development of new smart specialisations (where it is possible to evaluate).
- they will ensure selection of projects with the highest level of innovation,
- they will ensure selection of such projects related to internationalisation that will affect the changes of business model of entrepreneurs, particularly those assuming development of entrepreneur by expansion into foreign market.

Project selection criteria will be formulated in a way so as to:

• adjust them to the characteristics of the support instrument,

- ensure concentration of support,
- enable flexible approach to innovation assessment,
- adjust them to the characteristics of the innovation process characterised by high degree of unpredictability,
- ensure that compliance with formal requirements does not prevail over the content and quality of the evaluated project.

Information on the activity of the institution that selects projects is open and public. The primary means of communication in this respect is the website of the institution which selects projects for co-funding. Concepts for calls for proposals under the competition procedure will be drafted following consultations with stakeholders of planned interventions or their representatives, for example on the Monitoring Committee of SG OP forum. Information on calls for proposals will be provided in advance so that potential beneficiaries have enough time to prepare for participation, in the context of the relevant principles.

The timespan of and the procedure for the calls for proposals will match the nature and complexity level of planned undertakings and the size and complexity level of application documents.

In the case of the competition procedure, the notice will provide, in particular, information on the criteria, manner and dates of evaluation (individual stages thereof); detailed descriptions of the criteria and instructions applied during project evaluation will be made available.

Project evaluation and selection depends on the specific nature of a given intervention area and on selection procedure applied. Project evaluation and selection procedure consists two basic elements:

- formal evaluation that consists in verifying whether access criteria have been met;
- content-related evaluation to verify qualitative criteria.

In the framework of these two blocks, additional stages of the project evaluation process may be determined, which will be described in procedures and will take place using open criteria that are possible to evaluate. Project content evaluation will be carried out transparently and objectively, using good practices. When evaluating project proposals, it is of key importance to evaluate the quality of proposed ideas, taking into account evaluation whether the planned undertaking is financially viable.

The principle of verification procedure of the financial projects in the form of subsidies will include evaluation using an expert panel. MA will take a decision on the scope of application of the evaluation in individual support instruments implemented under priority axis, using an expert panel.

2.A.6.3 Planned use of financial instruments (where relevant)

Investment priority 3c – Supporting the creation and the extension of advanced capacities for product and service development

Under specific objective 4:

On the basis of the ex ante evaluation of the SG OP financial instruments carried out by an independent evaluator, a financial instrument is planned to be used under the specific objective 4 that will enable support for innovation and implementation of R&D results.

In the event of FI being established under the specific objective 4, the entities implementing FI will be selected taking into account conditions resulting from General Regulation and national legislation.

Under specific objective 5:

On the basis of the ex ante evaluation of the SG OP financial instruments carried out by an independent evaluator, financial instruments are not provided for use in the framework of the support instruments for enterprises internationalisation planned for implementation under priority axis III of the SG OP in the framework of specific objective 5.

In the event of FI being established under the specific objective 5, the entities implementing FI will be selected taking into account conditions resulting from General Regulation and national legislation.

2.A.6.4 Planned use of major projects (where relevant)

Investment priority 3c – Supporting the creation and the extension of advanced capacities for product and service development

Selection of projects for co-financing under axis III of the SG OP, under specific objectives 4 and 5 will be based on the competition procedure. As a rule, projects not belonging to the category of major projects will be financed. However, this does not preclude the possibility of financing major projects, if they are selected for support on the basis of criteria accepted by SG OP Monitoring Committee.

2.A.6.5 Output indicators by investment priorities and, where relevant, by categories of regions

Table 5: Common and Programme-specific output indicators (according to investment priority, by categories of regions for ESF and, where relevant, for ERDF)

Investment priority	у	3c – Supporting t	the creation a	nd the extension of a	dvanced capacities for product and service development					
Identification No	Indicator	Measurement unit	Fund	Category of region (where	Target valu	ue (2023)		Source of data	Frequency of reporting	
				relevant)	М	W	Т			
CO01	Productive investments: number of supported enterprises	Enterprises	ERDF	Less developed regions			2,536.00	SL 2014–2020	Once a year	
CO02	Productive investments: number of enterprises which receive subsidies	Enterprises	ERDF	Less developed regions			1,833.00	SL 2014–2020	Once a year	
CO03	Productive investments: the number of enterprises which receive financial support other than subsidies	Enterprises	ERDF	Less developed regions			703.00	SL 2014–2020	Once a year	
CO06	Productive investments: private investments that supplement public support for enterprises (subsidies)	EUR	ERDF	Less developed regions			1,292,100,000.00	SL 2014–2020	Once a year	

CO07	Productive investments: private investments that supplement public support for enterprises (other than subsidies)	EUR	ERDF	Less developed regions	412,700,000.00	SL 2014–2020	Once a year
CO08	Productive investments: employment growth in supported enterprises	Full-time equivalents	ERDF	Less developed regions	1,696.00	SL 2014–2020	Once a year
CO28	Research and innovation: number of enterprises supported to introduce products new to the market	Enterprises	ERDF	Less developed regions	1,294.00	SL 2014–2020	Once a year
CO01	Productive investments: number of supported enterprises	Enterprises	ERDF	More developed regions	249.00	SL 2014–2020	Once a year
CO02	Productive investments: number of enterprises which receive grants	Enterprises	ERDF	More developed regions	180.00	SL 2014–2020	Once a year

CO03	Productive investments: the number of enterprises which receive financial support other than subsidies	Enterprises	ERDF	More developed regions	69.00	SL 2014–2020	Once a year
CO06	Productive investments: private investments that supplement public support for enterprises (subsidies)	EUR	ERDF	More developed regions	204,800	,000.00 SL 2014–2020	Once a year
C007	Productive investments: private investments that supplement public support for enterprises (other than subsidies)	EUR	ERDF	More developed regions	40,300,0	000.00 SL 2014–2020	Once a year
CO08	Productive investments: employment growth in supported enterprises	Full-time equivalents	ERDF	More developed regions	166.00	SL 2014–2020	Once a year
CO28	Research and innovation: number of enterprises supported to introduce products new to the market	Enterprises	ERDF	More developed regions	127.00	SL 2014–2020	Once a year

2.A.7 Social innovation, transnational cooperation and contribution to the thematic objectives 1–7

Priority axis III – SUPPORT FOR INNOVATION IN ENTERPRISES

2.A.8 Performance framework

Table 6: Performance framework for priority axis (divided according to fund and, for ERDF and ESF, category of region)

Priority axis	Type of indicator (KIS, financial indicator, output indicator or, if applicable, result indicator)	Identification No	Indicator or KIS	Measurement unit (where relevant)	Fund	Category of region		Milestone	(2018)	Target (2023)		(2023)	Source of data	Explanation of indicator relevance (where appropriate)
Prio	Type o (KIS, indicat indicat applica	Identifi	Indica	Measur (where	ш.	Catego	M	K	0	М	K	0	Sourc	Expla indicato (where a
Ш	Output indicator	CO28	Number of enterprises supported to introduce products new to the market (CI 28)	Number	ERDF	less developed regions	-	-	194	-	-	1,294	SL 2014– 2020	The basic output indicator for projects concerning the implementation of the results of R&D works, for which over 70% of the allocation for priority axis IV has been earmarked.
III	KIS	3.	Number of enterprises supported to introduce products new to the market (CI 28) at the level of co-financing agreements	EUR	ERDF	less developed regions	-	-	401	-	-	-	SL 2014– 2020	Key implementation stage concerning the indicator Number of enterprises supported to introduce products new to the market
III	Financial indicator	1.	Total amount of certified eligible expenditure	EUR	ERDF	less developed regions	-	-	401,086, 481	-	-	2,359,33 2,237	SL 2014– 2020	The indicator shows the actual pace of incurring and verifying eligible expenditure of projects
III	Output indicator	CO28	Number of enterprises supported to introduce products new to	Number	ERDF	more developed regions	-	-	19	-	-	127	SL 2014– 2020	The basic output indicator for projects concerning the implementation of the results of R&D works, for which over 70% of the allocation for

			the market (CI 28)											priority axis IV has been earmarked.
III	KIS	3.	Number of enterprises supported to introduce products new to the market (CI 28) at the level of co-financing agreements	Number	ERDF	more developed regions	-	-	39	-	-	-	SL 2014– 2020	Key implementation stage concerning the indicator Number of enterprises supported to introduce products new to the market
III	Financial indicator	1.	Total amount of certified eligible expenditure	EUR	ERDF	more developed regions	-	-	41,532,2 75	-	-	244,307, 502	SL 2014– 2020	The indicator shows the actual pace of incurring and verifying eligible expenditure of projects

Additional quality information on establishing performance framework

In Annex

2.A.9 Categories of intervention

Categories of intervention corresponding to priority axis content on the basis of the classification adopted by Commission and estimated breakdown of the EU support.

Tables 7–11: Categories of intervention

Table 7: Dimension 1 - Intervention field

Priority	y axis	III – SUP	PORT FOR INNOVATION IN ENTERPRISES	
Fund	Category of	f region	Code	Amount in EUR
ERDF	Less regions	developed	056. Investment in infrastructure, capacities and equipment in SMEs related directly to research and innovation	1,288,616,734.00
ERDF	More regions	developed	056. Investment in infrastructure, capacities and equipment in SMEs related directly to research and innovation	125,589,514.00
ERDF	Less regions	developed	061. Research and innovation activities in private research centres, including networking	147,869,536.00
ERDF	More regions	developed	061. Research and innovation activities in private research centres, including networking	14,410,464.00
ERDF	Less regions	developed	065. Research and innovation infrastructure, processes, technology transfer and cooperation in enterprises focusing on the low carbon economy and on resilience to climate change	, ,
ERDF	More regions	developed	065. Research and innovation infrastructure, processes, technology transfer and cooperation in enterprises focusing on the low carbon economy and on resilience to climate change	
ERDF	Less regions	developed	067. SME business development, support to entrepreneurship and incubation (including support to spin offs and spin outs)	408,215,989.00
ERDF	More regions	developed	067. SME business development, support to entrepreneurship and incubation (including support to spin offs and spin outs)	39,782,243.00

Table 8: Dimension 2 – Form of finance

Fund	Category o	f region	Code	Amount in EUR
ERDF	Less	developed	01. Non-repayable grant	1,493,068,546.00
ERDF	More	developed	01. Non-repayable grant	145,514,142.00
ERDF	Less regions	developed	03. Support through financial instruments: venture and equity capital or equivalent	284,206,565.00
ERDF	More regions	developed	03. Support through financial instruments: venture and equity capital or equivalent	27,697,040.00
ERDF	Less regions	developed	04. Support through financial instruments: loan or equivalent	118,220,266.00
ERDF	More regions	developed	04. Support through financial instruments: loan or equivalent	11,521,027.00
ERDF	Less regions	developed	05. Support through financial instruments: guarantee or equivalent	109,937,024.00
ERDF	More regions	developed	05. Support through financial instruments: guarantee or equivalent	10,713,792.00

Table 9: Dimension 3 – Territory type

Priority axis	III – SUPPORT FOR IN	NOVATION IN ENTERPRISES	
Fund	Category of region	Code	Amount in EUR
ERDF	Less developed regions	07. Not applicable	2,005,432,401.00
ERDF	More developed regions	07. Not applicable	195,446,001.00

Table 10: Dimension 4 – Territorial delivery mechanisms

Priority axis III – SUF		III – SUP	PORT FOR INNOVATION IN ENTERPRISES					
Fund	Category of re	gion	Code	Amount in EUR				
ERDF	Less developed	d regions	07. Not applicable	2,005,432,401.00				
ERDF	More d	eveloped	07. Not applicable	195,446,001.00				

Table 11: Dimension 6 – Additional ESF issue (Exclusively ESF and Youth Employment Initiative)

Priority axis:		III – SUPPORT FOR INNOVATION IN ENTERPRISES					
Fund	Category of region		Code	Amount in EUR			

2.A.10 Summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries. (where relevant) (by priority axis)

Priority axis:	III – SUPPORT FOR INNOVATION IN ENTERPRISES

2.A.1 Priority axis

Priority axis IV INCREASING THE RESEARCH POTENTIAL

☐ The whole of the priority axis will be implemented exclusively by using financial instruments
\sqsupset The whole of the priority axis will be implemented exclusively by using financial instruments created at the EU level
☐ The whole of the priority axis will be implemented by applying a formula of the community-led local development
For ESF: the whole of the priority axis is dedicated to social innovations, transnational cooperation

2.A.2 Justification for the establishment of a priority axis covering more than one category of region, more than one thematic objective or more than one fund (where relevant)

The axis supports projects implemented throughout Poland, taking into account specific aspects of the development of enterprises potential to pursue R&D activity. The nature of these projects prevents dividing interventions between two categories of regions.

If the provided support meets the requirements of State aid, it will be granted pursuant to applicable State aid regulations. State aid provided under the Programme will comply with procedural and material regulations on State aid applicable at the day of granting the State aid.

Priority axis IV of SG OP covers one thematic objective (1) and one investment priority (1.a).

Public expenditure on R&D in Poland correspond to the EU average. There are numerous research units with a significant research potential in Poland and R&D works are conducted in the majority of disciplines. Some Polish research units have a well-established position on the international arena. Polish science is changing dynamically and the effects and impact of these changes on the economy (in the form of better educated graduates, R&D results which can be applied in the economy) will be established in the coming years.

Investments carried out in the years 2007–2013 resulted in the improvement of R&D infrastructure. At the same time, the trends and processes we have seen to-date show that building a closer link between science and economy remains a challenge.

This is demonstrated by a small (though increasing in recent years) scale of projects implemented jointly by research units and enterprises. Effective cooperation depends on the potential and offer of the science sector and is determined by the possible commercial use of research results by enterprises.

Support is provided exclusively to areas identified as smart specialisations and potential new specialisations resulting from the process of entrepreneurial discovery which is a part of the National Smart Specialisation (NSS) monitoring. Including such areas in SG OP will aim i.a. at verification of their potential as smart specialisations, which, in case of positive results, may lead to NSS update.

2.A.3 Fund, category of region and calculation basis for Union support

Fund	Category	of Calculation	n basis	(total	eligible	Category	of	region	for	outermost
	region	expenditur	e or	eligible	public	regions	and	north	ern,	sparsely
		expenditur	e)			populated	d regi	ons (w	here	relevant)
ERDF	Less develop	oed Total								
	regions									
ERDF	More develop	oed Total								
	regions									

2.A.4 Investment Priority

Investment priority	1a
identification number	
. ,	Enhancing research and innovation infrastructure and increasing capacities to achieve R&I excellence and promoting centres of competence, in particular those of European interest.

2.A.5 Specific objectives corresponding to investment priority and expected results

Specific objective identification number	6					
Specific objective name	Increased level of research results application on the market					
Member State seeks to achieve with Union	Support under axis IV of SG OP focuses on R&D projects carried out by the research units, enterprises and consortia of these entities. The projects aim at increasing the knowledge resources in the areas identified as priority for the development of Polish science and important for Polish economy.					
support	Intervention under SG OP also serves to ensure the best R&D infrastructure possible, and the support will be focused on the implementation of projects that constitute Poland's contribution to building the European Research Area.					
	The projects co-funded under axis IV of SG OP must also serve consolidating the potential of research units so that, as an effect of Programme implementation, Polish science had stronger research units, recognised in the EU and globally. Achieving such effects requires investment in researchers and in research teams whose members are also researchers from foreign centres. Such actions, as well as support for creating international research agendas and virtual institutes, ensure that the effort of Polish science matches R&D projects implemented by EU centres and other centres in the world.					
	Harmonisation of the support provision rules under SG OP with the rules of Horizon 2020 Initiative is a factor conducive to effective application for funds from the international programme; it will also result in improvement in the quality of management of R&D projects in Poland.					
	The effects of actions implemented under axis IV SG OP should be analysed not only in terms of providing conditions for better functioning of the science sector, but mostly as the contribution to building long-term knowledge-based, resource-efficient economy in Poland, and thus in terms of benefits for economy and the whole society.					
	It is possible for projects under axis IV of SG OP to finance a part of expenditure for the protection of intellectual property (excluding the costs of court proceedings) obtained as a result of R&D and to finance expenditure for the development of personnel (trainings, internships, scholarships) participating in R&D (in the framework of cross-financing).					

 Table 3: Programme-specific result indicators (by specific objective) (for ERDF and Cohesion Fund)

Specific objective		4 – Increased activity of the enterprises in innovative activity							
Identific No	eation Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Base year	Target value (2023)	Source of data	Frequency of reporting	
7	Share of enterprise sector financing (BES) in higher education expenditure on R&D (HERD)	%		2.14	2012	6.98	CSO/Eurostat	Once a year	
8	Share of current expenditure on applied research and development in total current expenditure on R&D	%		63.30	2012	72.60	Eurostat	Once a year	

2.A.6 Action to be supported under investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment Priority 1a – Enhancing research and innovation infrastructure and increasing capacities to achieve R&I excellence and promoting centres of competence, in particular those of European interest

• Research and development works

Support covers research and development projects carried out by research and industrial consortia.

Support in the area of research result commercialisation is ensured by involvement of enterprises in project implementation.

Support is granted to projects implemented in the framework of the smart specialisation process at the national or regional level. In the case of smart specialisations common for several voivodeships, focus will be on creating supra-regional consortia (so-called regional R&D agendas). The concentration of funds in thematic areas with the highest economic and research potential in the country and the regions will increase the effectiveness of public and private R&D expenditure.

The projects should result in concentration of the potential of the best researchers and research teams (from research units and enterprises) with nationally and internationally recognised achievements and of persons, who up to this point, have worked in research for only a short time, i.e. young researchers, students and PhD students, in the best national research and education centres and enterprises conducting scientific activity and R&D activity. The projects should lead to synergy and optimisation of activities by linking the existing infrastructure and using it to conduct joint research and development projects.

Funding may be implemented under the following types of projects:

- research programmes of strategic importance for the economy,
- regional research agendas consistent with regional smart specialisations implemented by one region or jointly by several regions,
- research programmes of virtual institutes,
- application projects.

The above-mentioned projects may cover expenditure for the acquisition of R&D infrastructure, which is necessary for conducting research.

The funding may also be granted for R&D activity conducted in cooperation with research units from other countries and for costs of R&D activity abroad, if it constitutes an element of a project implemented in Poland.

• Development of modern research infrastructure of the science sector

Improvement of the quality of science requires investment in modern R&D infrastructure, which is often indispensable for applying new research methods and for making full use of the potential

of research staff. Such investments will allow to ensure consistency of the Polish science sector with the European Research Area and to improve R&D quality on an ongoing basis.

Support is targeted at selected national and international projects that involve large strategic R&D infrastructure, which are included in the Polish Roadmap for Research Infrastructures. The objective of the projects is to provide efficient access to such infrastructure to enterprises and other stakeholders. The grounds for providing support for infrastructure development is compliance of the project with criteria laid out in the Partnership Agreement, including:

- documented research potential, cooperation within the framework of research consortia or scientific-industrial consortia (promoted at the stage of project evaluation), presentation of a programme of building R&D activity and a long-term plan thereof, to be conducted in the facilities covered by the investments:
- the project's contribution to the consolidation of the national research potential (providing the possibility to conduct R&D activity to at least several research units or enterprises);
- the topics of R&D activity performed using the financed infrastructure match smart specialisation areas:
- the method of financing the infrastructure covered by support (preference will be given to projects that envisage granting State aid and projects with a high share of private contribution);
- providing access to infrastructure to entities from outside the unit which receives co-financing, in particular to enterprises.

The projects cannot duplicate the existing resources and should supplement the existing research and development infrastructure.

This aspect will be verified at the stage of evaluation of each project.

The instrument focuses on increasing the share of revenue from enterprises in the infrastructure operator's total revenue. The requirements which must be met to receive support include the presentation of the concept for providing access to the infrastructure by enterprises and other entities based on preliminary access regulations and calculations of the costs and their coverage by the customers, as well as actions aimed at informing economic operators and the society about the availability of the infrastructure and its functions.

Infrastructure supported in the years 2014–2020 should contribute to strengthening cooperation between science and business to the greatest extent, therefore it is envisaged that infrastructural projects should be financed using State aid schemes to the greatest extent. It will be also possible to divide projects into a part used economically (in accordance with the State aid scheme) and a non-economic part (financed from public funds). Preference will be given to projects implemented under the State aid scheme.

Moreover, the applicants are envisaged to be obliged to provide contribution from the resources of the enterprise (the applicant's partner in the project) regardless of their own contribution, also in a situation when co-financing from the Union funds will be carried out outside the State aid schemes. The instrument provides for preference for projects with the highest contribution of the enterprise to the costs of building infrastructure.

Infrastructural project implementation will be linked with reporting regularly on the progress of particular projects and verifying the indicator of share of the revenue from enterprises in the infrastructure operator's total revenue. Failure to implement the declared values of the above-mentioned indicator results in an obligation to repay the co-financing proportionately.

Infrastructural investments may be supplemented with actions related to development of skills of the personnel handling new research devices (within the framework of cross-financing).

International research agendas

The quality of the R&D sector is determined among others by the volume and quality of R&D activity conducted in cooperation with foreign research centres or enterprises. The number of Polish research teams participating in international projects and the number of research units acting as coordinators of international R&D projects is unsatisfactory and lower than the EU average.

SG OP supports International Research Agendas (IRA) created in Poland in cooperation with renowned research centres from other countries. The objective of International Research Agendas is to ensure high quality of R&D activity conducted by the teams consisting of distinguished Polish and foreign researchers. The support should contribute to establishing specialist, globally prominent research units in Poland, which apply the best world practices in terms of:

- identification of research programmes and topics,
- HR policy and R&D management,
- commercialisation of R&D results.

The IRA leader, responsible for its organisational part, is a researcher or a group of researchers who achieved international success in their field. The task of the IRA leader is to prepare an application with a detailed description of the thematic scope of the agenda and its implementation.

The application will be evaluated in several stages and the functioning of the International Research Agenda is to be verified by international experts. The funding for IRA covers the cost of: R&D, in particular applied research and development, agenda implementation, the use of the existing infrastructure, cooperation between partners, knowledge transfer, as well as the cost of development of research personnel in the area related to implemented undertakings (e.g. trainings, traineeships, in particular focused on increasing the R&D capacity of the personnel in enterprises).

Increasing the human potential in R&D sector

Qualified R&D personnel is necessary for the development of innovative industry and for breakthrough R&D activity of utmost significance to the economy. The instrument covers projects consisting i.a. in:

- development of R&D personnel in team projects implemented by distinguished researchers from around the world in research units or enterprises, operating in the most innovative areas, with the participation of a foreign partner;
- implementation of research projects in research units or enterprises in Poland, including in particular the return of eminent scientists of Polish origin or persons who are on sabbatical to Poland;
- development of R&D personnel under the direction of a researcher with significant experience in cooperating with the economy in team projects consisting of students, PhD students and recent

PhD graduates in the field of technology development or provision of research services for enterprises:

- development of skills in the field of research management, cooperation with enterprises or skills related to the latest scientific advances and commercialisation of R&D results (within the framework of the above-mentioned instruments and new instruments increasing the competencies of the research unit personnel and the degree of commercialisation of the R&D results);
- implementation of research projects by PhD students (i.a. of international PhD studies) or researchers on placements in enterprises and of research projects implemented under programmes for financing first research teams by early-stage researchers;
- increasing qualifications of the research unit personnel by support for research projects implemented by them and their placements with research units (in relation with implementation of research projects, including commissioned by the enterprises).

The essence of instruments focused on increasing the human potential in the R&D sector will consist in involving the enterprises to the greatest extent possible, i.a. by their participation in determining the thematic scope of the R&D activity. The instrument will contribute to increasing the capacity of enterprises to implement research projects by development of R&D personnel.

In addition, support will be provided for actions aimed at recruiting academic researchers, who are currently professionally inactive, to scientific work in research units and enterprises.

Instrument increasing human potential in the R&D sector may be used to identify smart specialisations in accordance with the concept of entrepreneurial discovery, constituting a part of NSS monitoring.

Types of beneficiaries

- consortia of enterprises and research units
- consortia of enterprises and universities (including special purpose entities of universities),
- · research units and their consortia
- · universities and their consortia
- business environment institutions
- beneficiaries of the non-competition projects public body or State legal person with an adequate technical and professional capacity and experience, responsible for implementation of pilot and systemic actions, whose main task is mainly development of detailed thematic scope of the support instrument, concept of its' implementation and selection of the final recipients of support within the framework of a competitive procedure based on transparent and objective criteria

Implementation area

Investment priority 1a – Enhancing research and innovation infrastructure and increasing capacities to achieve R&I excellence and promoting centres of competence, in particular those of European interest

Entire Poland.

2.A.6.2 Guiding principles for the selection of operations

Investment priority 1a – Enhancing research and innovation infrastructure and increasing capacities to achieve R&I excellence and promoting centres of competence, in particular those of European interest

Project selection procedure includes the following factors:

- the optimum way of achieving the objectives of the SG OP/priority axis/investment priority;
- type of beneficiary;
- project size (planned co-financing amount).

Projects will be selected under competition procedure which results from its efficiency and effectiveness (possibility to select projects mature to implementation).

A possibility is also envisaged for projects to be implemented under a non-competition procedure where the beneficiary is a public body or a State legal person with an adequate technical and professional capacity and experience. The final recipients of support will be selected on the basis of transparent and objective criteria.

The selection of projects to be co-financed depends on the fulfilment of the criteria approved by the Monitoring Committee (pursuant to Article 110(2)(a) of the General Regulation) and on the approval of the project for co-financing by the MA or the IB. The criteria are the same for all potential beneficiaries in a given category of Programme projects. It is assumed that project selection criteria will meet the general principles that correspond with the requirements of the above-mentioned regulation, in particular:

- they will be conducive to selection of projects that will contribute to achieving the assumed objectives and indicators to the greatest extent, in particular projects with economic potential which increase commercial exploitation of the R&D results,
- they will ensure selection of operations complying with the scope of ERDF,
- they will comply with the principles of transparency and non-discrimination, as well as with the terms laid down in Articles 7 and 8 of the General Regulation, i.e. in the area of equal rights of men and women, non-discrimination and sustainable development,
- they will give preference to projects implemented within the framework of international cooperation, also

within the framework of international research projects,

- they will ensure selection of projects aimed at increasing interest of enterprises in cooperation with science sector entities,
- they will ensure that projects related to creation of strategic R&D infrastructure will be compliant with the conditions laid out in the Partnership Agreement,
- they will ensure selection of the projects supporting NSS (or RSS in the case of regional research agendas), including projects potentially contributing to identification and development of new smart specialisations, in the framework of the process of NSS monitoring.

• they will give preference to supra-regional projects, i.e. projects implemented in more than 1 voivodeship.

Project selection criteria will be formulated in a way so as to:

- adjust them to the characteristics of the support instrument,
- ensure concentration of support,
- enable flexible approach to innovation assessment,
- adjust them to the characteristics of the innovation process characterised by high degree of unpredictability,
- ensure that compliance with formal requirements does not prevail over the content and quality of the evaluated project.

Information on the activity of the institution that selects projects is open and public. The primary means of communication in this respect is the website of the institution which selects projects for co-funding. Concepts for calls for proposals under the competition procedure will be drafted following consultations with stakeholders of planned interventions or their representatives, for example on the Monitoring Committee of SG OP forum. Information on calls for proposals will be provided well in advance so that potential beneficiaries have enough time to prepare for participation, in the context of the relevant principles.

The timespan of and the procedure for the calls for proposals will match the nature and complexity level of planned undertakings and the size and complexity level of application documents.

In the case of the competition procedure, the notice will provide, in particular, information on the criteria, manner and dates of evaluation (individual stages thereof); detailed descriptions of the criteria and instructions applied during project evaluation will be made available.

Project evaluation and selection depends on the specific nature of a given intervention area and on selection procedure applied. Project evaluation and selection procedure consists two basic elements:

- formal evaluation that consists in verifying whether access criteria have been met;
- content-related evaluation to verify qualitative criteria.

In the framework of these two blocks, additional stages of the project evaluation process may be determined, which will be described in procedures and will take place using open criteria that are possible to evaluate. Project content evaluation will be carried out transparently and objectively, using good practices. When evaluating project proposals, it is of key importance to evaluate the quality of proposed ideas, taking into account evaluation whether the planned undertaking is financially viable.

The principle of verification procedure of the financial projects in the form of subsidies will include evaluation using an expert panel. MA will take a decision on the scope of application of the evaluation in individual support instruments implemented under priority axis, using an expert panel.

2.A.6.3 Planned use of financial instruments (where relevant)

Investment priority 1a – Enhancing research and innovation infrastructure and increasing capacities to achieve R&I excellence and promoting centres of competence, in particular those of European interest

On the basis of the ex ante evaluation of the SG OP financial instruments carried out by an independent evaluator, financial instruments are not provided for use in the framework of the support instruments planned for implementation under priority axis IV of the SG OP and financed from the investment priority 1.a.

2.A.6.4 Planned use of major projects (where relevant)

Investment priority 1a – Enhancing research and innovation infrastructure and increasing capacities to achieve R&I excellence and promoting centres of competence, in particular those of European interest

Selection of projects for co-financing under priority axis IV of SG OP will be based on the competition procedure. As a rule, projects not belonging to the category of major projects will be financed. However, this does not preclude the possibility of financing major projects, if they are selected for support on the basis of criteria accepted by SG OP Monitoring Committee.

2.A.6.5 Output indicators by investment priorities and, where relevant, by categories of regions

Table 5: Common and Programme-specific output indicators (according to investment priority, by categories of regions for ESF and, where relevant, for ERDF)

Investment priority	/	-	a – Enhancing research and innovation infrastructure and increasing capacities to achieve R&I excellence and promoting competence, in particular those of European interest										
Identification No	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target valu	e (2023)		Source of data	Frequency of reporting				
				reievant)	М	W	Т						
CO25	Research and innovation: number of researchers working at the modernised research infrastructure facilities	Full-time equivalents	ERDF	Less developed regions			450.00	SL 2014–2020	Once a year				
CO26	Research and innovation: number of enterprises which cooperate with research centres	Enterprises	ERDF	Less developed regions			280.00	SL 2014– 2020	Once a year				
CO27	Research and innovation: private investments that supplement public support for innovation or research and development projects, research and development development	EUR	ERDF	Less developed regions			184,000,000.00	SL 2014– 2020	Once a year				

104	Number of R&D activities undertaken	Number	ERDF	Less developed regions	545.00	SL 2014–2020	Once a year
105	Number of research units which received support for R&D	Number	ERDF	Less developed regions	100.00	SL 2014– 2020	Once a year
106	Number of research units incurring investment expenditure for R&D activity	Number	ERDF	Less developed regions	30.00	SL 2014– 2020	Once a year
107	Number of persons involved in R&D activity under the project (total/female/male	Persons	ERDF	Less developed regions	660.00	SL 2014– 2020	Once a year
108	Number of persons who received support for development of R&D personnel, total/female/male	Persons	ERDF	Less developed regions	776.00	SL 2014– 2020	Once a year
CO25	Research and innovation: number of researchers working at the modernised research infrastructure facilities	Full-time equivalents	ERDF	More developed regions	30.00	SL 2014–2020	Once a year

CO26	Research and innovation: number of enterprises which cooperate with research centres	Enterprises	ERDF	More developed regions	20.00	SL 2014– 2020	Once a year
CO27	Research and innovation: private investments that supplement public support for innovation or research and development projects, research and development	EUR	ERDF	More developed regions	13,000,000.00	SL 2014– 2020	Once a year
104	Number of R&D activities undertaken	Number	ERDF	More developed regions	38.00	SL 2014–2020	Once a year
105	Number of research units which received support for R&D	Number	ERDF	More developed regions	70.00	SL 2014– 2020	Once a year
106	Number of research units incurring investment expenditure for R&D activity	Number	ERDF	More developed regions	2.00	SL 2014– 2020	Once a year
107	Number of persons involved in R&D activity under the project (total/female/male	Persons	ERDF	More developed regions	46.00	SL 2014– 2020	Once a year

)							
108	Number of persons who received support for development of R&D personnel, total/female/male	Persons	ERDF	More developed regions		54.00	SL 2014– 2020	Once a year

2.A.7 Social innovation, transnational cooperation and contribution to the thematic objectives 1–7

Priority axis IV – INCREASING THE RESEARCH POTENTIAL

2.A.8 Performance framework

Table 6: Performance framework for priority axis (by fund and, for ERDF and ESF, by category of region)

rity axis	e of indicator IS, financial cator, output dicator or, if icable, result indicator)	Identification No	tor or KIS	ement unit e relevant)	Fund	ry of region		Milestone	(2018)		Target	(2023)	e of data	Explanation of licator relevance nere appropriate)
Priority	Type of in (KIS, fink indicator, indicator applicable indicator indicator indicator indicator indicator indicator)	Identif	Indicator	Measurement (where releva	ш.	Category	М	K	0	M	К	0	Source	Explan indicator (where ap
IV	Output indicator	104.	Number of R&D activities undertaken	Number	ERDF	less developed regions	-	-	54	-	-	545	SL 2014– 2020	The basic output indicator covering 100% of the allocation for priority axis IV
IV	Output indicator	106.	Number of	Number	ERDF	less	-	-	0	-	-	30	SL	The basic output

			research units incurring investment expenditure for R&D activity			developed regions							2014– 2020	indicator for infrastructural projects for which ca. 41% of the allocation for priority axis IV has been earmarked
IV	KIS	4.	Number of research units incurring investment expenditure for R&D activity at the level of cofinancing agreements	Number	ERDF	less developed regions	-	-	16	-	-	-	SL 2014– 2020	The key implementation stage related to the indicator Number of research units incurring investment expenditure for R&D activity for which, due to the long-term nature of the projects, the value of the milestone is "0"
IV	Financial indicator	1.	Total amount of certified eligible expenditure	EUR	ERDF	less developed regions	-	-	263,86 3,452	-	-	1,344,3 19,252	SL 2014– 2020	The indicator shows the actual pace of incurring and verifying eligible expenditure of projects.
IV	Output indicator	104.	Number of R&D activities undertaken	Number	ERDF	more developed regions	-	-	4	-	-	38	SL 2014– 2020	The basic output indicator covering 100% of the allocation for priority axis IV
IV	Output indicator	106.	Number of research units incurring	Number	ERDF	more developed	-	-	0	-	-	2	SL 2014–	The basic output indicator for infrastructural

			investment expenditure for R&D activity			regions							2020	projects for which ca. 41% of the allocation for priority axis IV has been earmarked
IV	KIS	4.	Number of research units incurring investment expenditure for R&D activity at the level of cofinancing agreements	Number	ERDF	more developed regions	-	-	2	-	-	-	SL 2014– 2020	The key implementation stage related to the indicator Number of research units incurring investment expenditure for R&D activity for which, due to the long-term nature of the projects, the value of the milestone is "0"
1\	Financial indicator	1.	Total amount of certified eligible expenditure	EUR	ERDF	more developed regions	-	-	19,702, 192	-	-	100,37 7,814	SL 2014– 2020	The indicator shows the actual pace of incurring and verifying eligible expenditure of projects.

Additional quality information on establishing performance framework

In Annex.

2.A.9 Categories of intervention

Categories of intervention corresponding to priority axis content on the basis of the classification adopted by Commission and estimated breakdown of the EU support.

Tables 7–11: Categories of intervention

Table 7: Dimension 1 – Intervention field

Priorit	y axis	IV – INC	REASING THE RESEARCH POTENTIAL	
Fund	Category o	f region	Code	Amount in EUR
ERDF	Less regions	developed	056. Investment in infrastructure, capacities and equipment in SMEs related directly to research and innovation	100,440,346.00
ERDF	More regions	developed	056. Investment in infrastructure, capacities and equipment in SMEs related directly to research and innovation	7,028,460.00
ERDF	Less regions	developed	057. Investment in infrastructure, capacities and equipment in large enterprises related directly to research and innovation	100,440,346.00
ERDF	More regions	developed	057. Investment in infrastructure, capacities and equipment in large enterprises related directly to research and innovation	7,028,460.00
ERDF	Less regions	developed	058. Research and innovation (public) infrastructure	200,880,693.00
ERDF	More regions	developed	058. Research and innovation (public) infrastructure	14,056,920.00
ERDF	Less regions	developed	060. Research and innovation activities in public research centres and centres of competence, including networking	329,528,602.00
ERDF	More regions	developed	060. Research and innovation activities in public research centres and centres of competence, including networking	23,401,398.00
ERDF	Less regions	developed	061. Research and innovation activities in private research centres, including networking	226,855,458.00
ERDF	More regions	developed	061. Research and innovation activities in private research centres, including networking	15,874,542.00

ERDF	Less	developed	062. Technology transfer and cooperation between universities and enterprises, mainly	127,376,362.00
	regions		for the benefit of SMEs	
ERDF	More regions	•	062. Technology transfer and cooperation between universities and enterprises, mainly for the benefit of SMEs	8,913,347.00
ERDF	Less regions		065. Research and innovation infrastructure, processes, technology transfer and cooperation in enterprises focusing on the low carbon economy and on resilience to climate change	57,149,557.00
ERDF	More regions		065. Research and innovation infrastructure, processes, technology transfer and cooperation in enterprises focusing on the low carbon economy and on resilience to climate change	3,999,124.00

Table 8: Dimension 2 – Form of finance

Priority ax	Priority axis IV – INCREASING THE RESEARCH POTENTIAL				
Fund	Category of r	egion	Code	Amount in EUR	
ERDF	Less dev	eloped	01. Non-repayable subsidy	1,142,671,364.00	
ERDF	More dev	eloped	01. Non-repayable subsidy	80,302,251.00	

Table 9: Dimension 3 – Territory type

Priority axis IV – INCREASING THE RESEARCH POTENTIAL						
Fund	Category of re	egion	Code	Amount in EUR		
ERDF	Less deve regions	eloped	07. Not applicable	1,142,671,364.00		

ERDF	More developed	07. Not applicable	80,302,251.00
	regions		

Table 10: Dimension 4 – Territorial delivery mechanisms

Priority	axis	IV – II	NCREASING THE RESEARCH POTENTIAL	
Fund	Category of	region	Code	Amount in EUR
ERDF	Less regions	developed	07. Not applicable	1,142,671,364.00
ERDF	More regions	developed	07. Not applicable	80,302,251.00

Table 11: Dimension 6 – Additional ESF issue (Exclusively ESF and Youth Employment Initiative)

Priority axis: IV – INCREASING THE RESEA			ARCH POTENTIAL	
Fund	Category	y of region	Code	Amount in EUR

2.A.10 Summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries. (where relevant) (by priority axis)

Priority axis:	IV – INCREASING THE RESEARCH POTENTIAL

2.B DESCRIPTION OF THE PRIORITY AXES FOR TECHNICAL ASSISTANCE

2.B.1 Priority axis

Identification No of priority axis V

Name of priority axis SG OP TECHNICAL ASSISTANCE

2.B.2 Justification for the establishment of a priority axis covering more than one category of region (where relevant)

Implementation of the priority axis is aimed at providing effective SG OP management and implementation system and proper use of available financial resources, and thus indirectly at contributing to implementation of the main objective of the Programme, i.e. increasing innovative character of the economy.

Implementation of the SOP ICE and IE OP proved that producing the desired results is correlated with administrative capacity of entities active in the implementation system, beneficiaries and potential beneficiaries as well as having effective analytical tools and information and promotion tools in place.

The appropriate capacity of the above-mentioned entities includes:

- capacity of the institution to effectively implement processes related to the Programme operation,
- capacity of the beneficiaries to effectively apply for resources and to achieve objectives of the project,
- efficient system of information and promotion of the Programme.

Technical assistance (TA) measures are an indispensable component of SG OP implementation, which actively contributes to achievement of its objectives.

Results of the OPs implemented since 2004 related to entrepreneurship development and innovation have shown that due to support from the TA measures an effective system was set up, characterised by high potential and efficiency of functioning. Challenges related to concentration of SG OP, i.a. consisting in support for R&D projects, co-financing commercialisation of R&D results and wider use of FI, require that both the implementing administration and the beneficiaries and other entities involved should continue to carry out actions aimed at administrative capacity building.

There are still areas in which the actions taken so far have not proved to be effective enough (e.g. process of issuing the call for proposals, selection and evaluation of projects). During implementation of the IE OP these processes were modified and improved, e.g. by testing pilot project evaluation methods such as: an expert panel and foreign experts' reviews. It is necessary to continue actions aimed at improving the processes related to SG OP implementation. Therefore, for actions taken in the years 2014–2020 more emphasis is planned to be put on:

• strengthening the potential of beneficiaries, by intensifying actions aimed at arousing potential beneficiaries' interest in SG OP objectives, support for applicants in the process of applying for Programme funds in order to obtain high-quality projects, as well as support for the beneficiaries in project implementation;

• strengthening potential of partners in order to achieve added value for SG OP in the form of increased capacity to carry out effective actions and making better use of knowledge of the problems faced by the project developers and participants.

The TA measures may cover the costs related to SG OP implementation and to programming future interventions of the Structural Funds for programmes which are SG OP successors or address problems raised under this Programme.

The TA measures may also finance actions related to completion of relevant programmes or actions carried out under 2007–2013 financial perspective.

Under the above-mentioned priority axis, State aid will not be provided.

Support under the priority axis is complimentary to the support under TA OP 2014–2020. Under the measures of the SG OP priority axis V, actions implemented concern SG OP specific issues. Under TA OP, instruments of a similar nature to the ones implemented under SG OP concern key and horizontal issues related to cohesion policy implementation.

2.B.3 Fund and category of region

Fund		Calculation basis (total eligible expenditure or eligible public expenditure)
ERDF	Less developed regions	Total
ERDF	More developed regions	Total

2.B.4 Specific objectives and expected results

Identification No	Specific objective	The results that the Member State seeks to achieve with Union support
7	High quality of human resources and technical and organisational conditions for efficient Programme implementation	Employees involved in Programme implementation should be able to obtain and update knowledge and skills in order to ensure effective fulfilment of obligations. Implementation system institutions should have the access to expertise so that they can meet the beneficiaries' expectations and improve the support system, in particular the Programme monitoring and evaluation framework, as well as adjust competencies to the specific nature of R&D&I project implementation. Moreover, effective implementation of tasks by the employees implementing SG OP requires providing appropriate technical and organisational facilities.

2.B.5 Result indicators

Priority axis	7 – High quality of human resources and technical and organisational conditions for efficient Programme implementation										
Identification No		Measurement unit	Bas	Baseline value		Base year	Targ (202	get valu !3)	е	Source of data	Frequency of reporting
			M	W	Т		M	W	Т	=	
9	Annual average number of training forms per one employee of an institution of the EF implementation				1.00	2013			3.00	IT system for programme monitoring	Once a year

2.B.4 Specific objectives and expected results

Identification No	Specific objective	The results that the Member State seeks to achieve with Union support
8	Efficient Programme implementation system	In order to achieve adequate efficiency of the Programme implementation it is necessary to ensure efficient implementation of the system and corresponding tools. Creating a comprehensive set of solutions will enable the actions to be coordinated better, contributing to improving their efficiency and effectiveness, which will in turn translate into increased effect of the TA measures on the intervention under SG OP. On the other hand, this will strengthen the SG OP implementation process until all the Programme objectives are achieved.

2.B.5 Result indicators

Table 12: Programme-specific result indicators (by specific objective) (for ERDF/ESF/Cohesion Fund)

Priority axis		8 – Efficient Programme implementation system									
dentification	Indicator	Measurement	Base	line val	ue	Base	Target value (2023)				fFrequency
No		unit	M	W	Т	_year	M	W	Т	data	of reporting
10	Average time for project approval (from submission of application for cofinancing to signing of a contract)				263.00	2014			160.00	SL 2014– 2020	-Once a year
11	Share of the implemented operational recommendations	%			29.00	2014			50.00	Recommendation implementation n system	

2.B.4 Specific objectives and expected results

Identification No	Specific objective	The results that the Member State seeks to achieve with Union support
9	Strengthening beneficiaries and potential beneficiaries' competences	One of the key factors determining achievement of the main objective of the Programme is the supply of a relevant number of high-quality projects and their effective implementation. Competencies in a wide range of issues within the framework of project implementation from the European funds, R&D&I activity are necessary not only for the implementing administration but also for the beneficiaries and potential beneficiaries.
		In view of the above, it is necessary to undertake actions for advisory and educational support for the beneficiaries and potential beneficiaries as regards preparation and implementation of R&D&I projects particularly stimulating supply of the projects, e.g. by identifying the needs related to R&D&I activity and support for applying for Programme resources. Moreover, within the framework of the specific objective support is provided for actions focusing on ensuring smooth functioning of the project implementation process.
		Effective implementation of non-competition projects related to promoting R&D&I activity, which strengthen intervention under SG OP, including i.a. actions aimed at increasing SME internationalisation, requires taking actions supporting the implementation of such projects. Support in this respect will depend on reaching the goals related to progress in project implementation by the above-mentioned beneficiaries. A system of awarding bonuses for efficient actions of the beneficiaries will be developed and its main goal will be to streamline the Programme implementation process by linking the availability of some of the resources under TA with progress in the implementation. Detailed information on implementation of the efficiency bonus system of the above-mentioned beneficiaries will be presented in the annual reports submitted to the Commission.
		Allocating the TA financial resources in this respect is an important element of creating an efficient innovation system and contributes to achieving the main objective of the Programme.

2.B.5 Result indicators

Priority axis		9 - Strengthe	9 – Strengthening beneficiaries and potential beneficiaries' competences								
Identification No	Indicator	Measurement unit	Baseline value			Base year	Targe	et value	(2023)	Source of data	Frequency of reporting
			M	W	Т		M	W	Т		
12	Assessment of the usefulness of trainings for beneficiaries	Scale 0–5			4.08	2014			4.20	Surveys	

2.B.4 Specific objectives and expected results

Identification No	Specific objective	The results that the Member State seeks to achieve with Union support
10	Effective and efficient information and promotion system under the Programme	In order to ensure efficient implementation of the Programme, information and promotion actions will be carried out which will be consistent and compliant with the entire information policy at the level of the Partnership Agreement, i.e. with the Communication Strategy of the Cohesion Policy for 2014–2020, the guidelines on information and promotion of operational programmes of the Cohesion Policy for 2014–2010 and the Communication Strategy of SG OP 2014–2020. Information and promotion actions will focus on providing the beneficiaries and potential beneficiaries with reliable, comprehensive and coherent information on the objectives of the Programme and its individual axes, the scope of support and the requirements concerning the project implementation.

2.B.5 Result indicators

Table 12: Programme-specific result indicators (by specific objective) (for ERDF/ESF/Cohesion Fund)

Priority axis 10 – Effective and efficient information and promotion system under the Programme											
Identification No				Baseline value			Target value (2023)			Source of data	Frequency of reporting
		M W T			year	M	W	Т	data	reporting	

2.B.6 Actions to be supported and their expected contribution to the specific objectives (by priority axis)

2.B.6.1 Description of actions to be supported and their expected contribution to the specific objectives

The following actions are planned to be implemented under specific objective 7:

- actions aimed at increasing competencies and knowledge addressed to employees of the institutions responsible for SG OP implementation, regarding duties related to the implementation system and skills related to operation of the R&D&I projects supported. Within the framework of the specific objective, apart from supplementary training, support will be provided for: establishing close cooperation with experts in order to obtain advisory and training services, organisation of study visits and conferences to exchange good practices and implement tested, effective solutions in the course of SG OP implementation,
- actions aimed at providing support for participation of partners in the Programme implementation process,
- in particular for participation in the works of the SG OP Monitoring Committee and of other working groups, for implementation of tasks entrusted to the partners by the implementation system institutions, for strengthening the intervention under SG OP (supplementary training) and for covering the costs of participation in the sessions and meetings related to SG OP,
- covering organisational and administrative costs necessary to ensure smooth functioning of the institutions involved in the Programme implementation. It concerns both creating and maintaining adequate working conditions (including office space, supplies and equipment) and administrative costs related to the Programme implementation, e.g. organising meetings.

The above-mentioned actions will result in ensuring both knowledge and skills appropriate to the specific nature of the tasks and to technical and organisational conditions necessary for smooth functioning of the institution.

Types of beneficiaries: institutions involved in SG OP implementation.

The following actions are planned to be implemented under specific objective 8:

- actions aimed at effective implementation system for processes related to management and implementation, in particular concerning:
- 1. efficient system of calls for proposals and project selection,
- 2. efficient monitoring, evaluation, control and certification system,
- 3. creation of a comprehensive knowledge base as a tool supporting implementation of innovation policy in accordance with the principles of evidence-based policy,
- 4. well functioning and useful IT tools for the purposes of the Programme.
- actions aimed at preventing, combating, detecting and reporting frauds, abuse and irregularities, in line with the requirements of Article 125(4)(c) of the General Regulation and the European Commission's Guidance for Member States and Programme Authorities Fraud Risk Assessment and Effective and Proportionate Anti-Fraud Measures,

• monitoring, evaluating and updating the national smart specialisation strategy (covering i.a. the process of entrepreneurial discovery).

Reaching the above objectives should result in:

- smooth realisation of implementation processes under the Programme,
- effective and smooth process of project handling and availability of data necessary for the monitoring process via useful IT tools.

Types of beneficiaries:

- institutions involved in SG OP implementation,
- institution responsible for the smart specialisation strategy at the national level.

The following actions are planned to be implemented under specific objective 9:

- non-competition project management and implementation,
- actions aimed at building the capacity of beneficiaries, e.g. in the form of trainings, workshops, actions implemented in the project pipeline.

In order to define needs of potential beneficiaries and to meet them effectively an analysis of these needs will be performed. It will identify the beneficiaries' problems as regards applying for the Programme funds successfully and as regards correct implementation of the projects, and it will determine how the instruments developed under SG OP TA can address these problems.

The planned advisory actions for potential beneficiaries will result in supply of projects that fall under the SG OP objectives and in the beneficiaries' capacity to implement them successfully.

Types of beneficiaries:

- institutions involved in SG OP implementation,
- beneficiaries of non-competition projects.

The following exemplary actions are planned to be implemented under specific objective 10:

- conferences, workshops, seminars as well as promotion actions and events regarding SG OP,
- preparation, production and distribution of information and promotion materials,
- organisation of subsidy competitions for the media as well as non-governmental organisations and socio-economic partners,
- promotion actions (i.a. awareness-raising campaigns) concerning issues such as financial instrument or R&D&I project implementation,
- promotion actions aimed at raising awareness of the importance of eco-innovation as the key factor in green and sustainable economy with high growth potential and capacity for job creation,
- opinion polls on information and promotion issues,
- creation and maintenance of web portals regarding project implementation,

• purchase of data bases concerning potential beneficiaries.

Implementation of the above actions should result in:

- better visibility of the scope of support provided under SG OP and high-quality projects implemented thereunder which fully fall under the premises and objectives of the Programme;
- increasing interest of potential beneficiaries in applying for support under SG OP;
- creation of a positive view of European funds among research units, enterprises and the public, and in the long run promotion of good practices in project implementation by the beneficiaries and SG OP implementation system institutions.

Types of beneficiaries: institutions involved in SG OP implementation.

Implementation area

Entire Poland.

Planned use of financial instruments

Support in the form of non-repayable instruments (subsidies) is envisaged.

Planned application of major projects

Major projects are not supported under SG OP priority axis V.

Description of the main project selection principles under priority axis V

Project selection procedure

Under Technical Assistance of SG OP, SG OP implementation system institution projects are selected under the non-competition procedure.

The non-competition procedure has been chosen taking the following aspects into account:

- the optimum way of achieving the objectives of the priority axis/investment priority;
- type of beneficiary;
- project size (planned co-financing amount).

2.B.6.2 Output indicators expected to contribute to results (by priority axis)

 Table 13: Output indicators (by priority axis) (for ERDF/ESF/Cohesion Fund)

Priority a		Ind			N (0
dentificati	on No Indicator (name of the indicator)	Measurement unit			Source of data	
		dint	М	w	Т	
109	Number of participants of trainings for institutions	Persons				SL 2014–2020
110	Number of acquired devices and workplace equipment items	Number				SL 2014–2020
111	Number of evaluations carried out	Number				SL 2014–2020
112	Number of newly created or adjusted IT systems	Number				SL 2014–2020
113	Number of meetings of thematic networks, working groups, committees and other bodies that involve partners from outside public administration	Number				SL 2014–2020
114	Number of organised meetings, conferences and seminars	Number				SL 2014–2020
115	Number of expert opinions	Number				SL 2014–2020
116	Number of supported projects	Number				SL 2014–2020
117	Number of participants of trainings for beneficiaries	Persons				SL 2014–2020
118	Number of visits to the information portal/website	Number				SL 2014–2020
119	Number of wide-scale information and promotion actions	Number				SL 2014–2020
120	Number of information or promotion materials published in an electronic form	Number				SL 2014–2020
121	Number of FTE-months funded by technical assistance	Number				SL 2014–2020

2.B.7 Categories of intervention (by priority axis)

Relevant categories of intervention based on the classification adopted by Commission and estimated breakdown of the EU support.

Tables 14–16: Categories of intervention

Table 14: Dimension 1 – Intervention field

Priority a	axis V – So	- SG OP Technical Assistance							
Fund	Category of regi	on Code	Amount (EUR)						
ERDF	Less devel	oped 121. Preparation, implementation, monitoring and control	251,689,620.00						
ERDF	More develoregions	oped 121. Preparation, implementation, monitoring and control	18,944,380.00						
ERDF	Less devel regions	oped 122. Evaluation and studies	5,561,641.00						
ERDF	More developments	oped 122. Evaluation and studies	418,618.00						
ERDF	Less devel regions	oped 123. Information and communication	18,953,400.00						
ERDF	More devel regions	oped 123. Information and communication	1,426,600.00						

Table 15: Dimension 2 – Form of finance

Priority a	ixis	V – SG OP Technical Assistance							
Fund	Category o	of region	Code	Amount (EUR)					
ERDF	Less	developed	01. Non-repayable subsidy	276,204,661.00					
ERDF		developed	01. Non-repayable subsidy	20,789,598.00					

Table 16: Dimension 3 – Territory type

Fund	Category of region	Code	Amount (EUR)
ERDF	Less developed regions	07. Not applicable	276,204,661.00
ERDF	More developed regions	07. Not applicable	20,789,598.00

3. FINANCIAL PLAN

3.1 Financial appropriation from each fund and amounts for performance reserve

Table 17

Fund	Category	2014		2015		2016		2017		2018		2019		2020		Total	
	ot rogion	Main allocation	. 0110111101100	Main allocation			Performance reserve				Performance reserve		Performance reserve	Main allocation	Performance reserve	Main allocation	Performance reserve
ERDF	developed	898,725, 371.00	, ,	951,239,17 5.00			64,237,3 74.00	1,056,522, 886.00	, ,	1,106,786, 070.00	, ,	1,156,859, 071.00	, ,	1,206,773, 369.00	77,028,08 7.00	7,383,291,46 0.00	471,273,9 22.00
ERDF	developed	95,923,4 21.00			6,248,718. 00					103,981,19 4.00	6,637,09 8.00	106,052,78 1.00	6,769,32 6.00	108,194,27 7.00	6,906,018. 00	713,801,814. 00	45,561,81 8.00
Total		994,648, 792.00	, ,	1,049,135, 764.00	, ,			1,158,394, 246.00		1,210,767, 264.00	, ,	1,262,911, 852.00		1,314,967, 646.00	83,934,10 5.00	8,097,093,27 4.00	516,835,7 40.00

3.2 Total financial appropriation by fund and national co-financing (EUR)

Table 18 a Financing plan

Fund	Category	of Basis fo	rUnion	National	Indicative bro	eakdown of	Total	Co-financing	EIB	Main allocatio	n	Performance	reserve	Amount o
	region	calculation c	fsupport	contribution	the national c	ontribution	funding	rate	contribution					the
		EU suppoi	rt (a)	(b) = (c) + (d)			(6) - (3) +	(f) = (a) / (b)	(g)					performance
		(total eligible	e ^(a)	(b) = (c) + (d)			(b) = (a) +	$(1) = (a) \wedge (e)$						reserve i
		cost or publi	С				(5)							relation to th
		eligible												total amour
		cost)			National	National	ĺ			EU support	National	EU support	National	(I) = (j) / (a)
					public	private				(h) = (a) - (j)	contribution	(j)	contribution	100
					funding	funding					(i) = (b) - (k)			
					(c)	(d)								
ERDF		Total			0.00				0.00					5.30%
	regions		1,046.00	00		50.00	96.00	853%		0.00	.00	.00	.00	
	Fund	region region	region calculation of EU support (total eligible cost or public eligible cost) ERDF Less developed	region calculation of support EU support (total eligible cost or public eligible cost) ERDF Less developed Total 3,479,74 1,046.00	region calculation of support contribution EU support (total eligible cost or public eligible cost) ERDF Less developed Total 3,479,74 614,071,950.	region calculation of support contribution the national contribution (b) = (c) + (d) Rational public funding (c) ERDF Less developed Total 3,479,74 614,071,950. 0.00	region calculation of support (total eligible cost or public eligible cost) RATIONAL REPORT (a) (b) = (c) + (d) (b) = (c) + (d) (d) (eligible cost) RATIONAL REPORT (a) (b) = (c) + (d) (eligible cost) National public private funding (c) (d) ERDF Less developed Total 3,479,74 614,071,950. 0.00 614,071,9 50.00	region calculation of support (total eligible cost or public eligible cost) REDF Less developed Calculation of support (total eligible cost) Calculation (total eligible (total eligible cost) Calcul	region calculation of support (total eligible cost or public eligible cost) REDF Less developed Calculation of support (total eligible cost) Calculation of support (total eligible cost or public eligible cost) Calculation of support (total eligible cost or public eligible cost) Calculation of support (total eligible cost or public eligible cost) Calculation of support (total eligible cost or public eligible cost) Calculation (total eli	region calculation of support (total eligible cost or public eligible cost) RATIONAL MATIONAL PRIVATE FUNDING (a) (b) = (c) + (d) (b) = (c) + (d) (e) = (a) + (b) (f) = (a) / (e) (g) (g) (d) (g) (d) (e) = (a) + (b) (f) = (a) / (e) (g) (g) (d) (e) = (a) + (b) (f) = (a) / (e) (g) (f) = (a) / (e) (f) = (region calculation of support (total eligible cost or public eligible cost) National public funding (e) = (a) + (b) National public funding (c) (d) REDF Less developed Total 3,479,74 614,071,950. 0.00 614,071,9 4,093,812,9 84.9999999 950.00 3,295,370,50 0.00	region calculation of support (total eligible cost or public eligible cost) National public funding (c) (d) (d) (e) = (a) + (b) (f) = (a) / (e) (g) (e) = (a) + (b) (f) = (a) / (e) (f) = (a) / (e) / (e) (f	region calculation of support (total eligible cost or public eligible cost) National public funding (c) (d) ERDF Less developed Total 3,479,74 614,071,950. 0.00 614,071,9 50.00 96.00 853% region calculation of support (total eligible) (a) (b) = (c) + (d) (b) (c) + (d) (d) (e) (e) = (a) + (f) = (a) / (e) (g) (d) National public private funding (c) (d) EU support National (h) = (a) - (j) contribution (j) (i) = (b) - (k)	region calculation of support (total eligible cost or public eligible cost) National public funding (c) (d) ERDF Less developed Total 3,479,74 614,071,950. 0.00 614,071,9 50. 0.00 614,071,9 50. 0.00 50.00 96.00 853% rate (contribution (g) (e) = (a) + (f) = (a) / (e) (b) = (a) + (f) = (a) / (e) (g) EU support National (h) = (a) - (j) contribution (j) contribution (j) (j) contribution (k) = (b) * (j) / (j) / (a) ERDF Less developed

1	ERDF	More developed regions	Total	370,190, 132.00	92,547,536.0 0	0.00	92,547,53 6.00	462,737,668 .00	79.9999994 813%		350,415,185. 00	87,603,799. 00	19,774,947. 00	4,943,737. 00	5.34%
II	ERDF	Less developed regions	Total		167,738,102. 00		150,964,2 92.00	1,118,254,0 12.00	84.9999999 821%	0.00	883,979,797. 00	155,996,435 .00	66,536,113. 00	11,741,667 .00	7.00%
II	ERDF	More developed regions	Total	92,635,6 50.00	23,158,913.0 0		20,843,02 2.00	115,794,563 .00	79.9999996 546%		86,151,156.0 0	21,537,789. 00	6,484,494.0 0	1,621,124. 00	7.00%
III	ERDF	Less developed regions	Total	2,401.00		0	44.00	2,359,332,2 37.00	84.9999999 809%	0.00	1,865,052,13 3.00	329,126,847 .00	140,380,268 .00	24,772,989 .00	7.00%
III	ERDF	More developed regions	Total	195,446, 001.00	48,861,501.0 0	2,443,075.00	46,418,42 6.00	244,307,502 .00	79.9999997 544%		181,764,781. 00	00	13,681,220. 00	3,420,305. 00	7.00%
IV	ERDF	Less developed regions	Total	1,364.00			201,647,8 88.00	1,344,319,2 52.00	851%	0.00	9.00	187,532,536 .00	79,986,995. 00	14,115,352 .00	7.00%
IV	ERDF	More developed regions	Total	80,302,2 51.00	20,075,563.0 0		20,075,56 3.00	100,377,814 .00	79.9999998 008%		74,681,094.0 0	18,670,274. 00	5,621,157.0 0	1,405,289. 00	7.00%
V	ERDF	Less developed regions	Total	276,204, 661.00	48,741,999.0 0	48,741,999.0 0	0.00	324,946,660 .00	85.0000000 000%	0.00	276,204,661. 00	48,741,999. 00			
V	ERDF	More developed regions	Total	98.00	5,197,400.00			25,986,998. 00	79.9999984 608%		20,789,598.0 0	0			
Total	ERDF	Less developed regions		5,382.00		0	,974.00	9,240,665,1 57.00	84.9999999 843%			88.00	471,273,922 .00	83,165,987 .00	6.00%
Total	ERDF	More developed regions		632.00	189,840,913. 00		47.00	949,204,545 .00	786%		713,801,814. 00	.00	00	11,390,455 .00	6.00%
Total amount				8,613,92 9,014.00	1,575,940,68 8.00	93,167,16 7 .0 0	1,482,773 ,521.00	10,189,869, 702.00	84.5342410 248%	0.00	8,097,093,27 4.00	1,481,384,2 46.00	516,835,740 .00	94,556,442 .00	

Table 18c: Financial plan by priority axis, fund, category of region and thematic objective

Priority axis	Fund	Category of region	Thematic objective	EU support	National contribution	Total funding
SUPPORT FOR R&D ACTIVITY OF ENTERPRISES	ERDF	Less developed regions	Strengthening research, technological development and innovation	3,479,741,046.00	614,071,950.00	4,093,812,996.00
SUPPORT FOR R&D ACTIVITY OF ENTERPRISES	ERDF	More developed regions	Strengthening research, technological development and innovation	370,190,132.00	92,547,536.00	462,737,668.00
SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY	ERDF	Less developed regions	Strengthening research, technological development and innovation	950,515,910.00	167,738,102.00	1,118,254,012.00
SUPPORT FOR THE ENVIRONMENTAND CAPACITY OF ENTERPRISESFOR R&D&I ACTIVITY	ERDF	More developed regions	Strengthening research, technological development and innovation	92,635,650.00	23,158,913.00	115,794,563.00
SUPPORT FOR INNOVATION IN ENTERPRISES	ERDF	Less developed regions	Enhancing the competitiveness of small and medium-sized enterprises, the agricultural sector (with respect to the EAFRD), and the fisheries and aquaculture sector (with respect to the EMFF)	2,005,432,401.00	353,899,836.00	2,359,332,237.00
SUPPORT FOR INNOVATION IN ENTERPRISES	ERDF	More developed regions	Enhancing the competitiveness of small and medium-sized enterprises, the agricultural sector (with respect to the EAFRD), and the fisheries and aquaculture sector (with respect to the EMFF)	195,446,001.00	48,861,501.00	244,307,502.00
INCREASING THE RESEARCH POTENTIAL	ERDF	Less developed regions	Strengthening research, technological development and innovation	1,142,671,364.00	201,647,888.00	1,344,319,252.00

INCREASING THE RESEARCH POTENTIAL	More developed regions	Strengthening research, technological development and innovation	80,302,251.00	20,075,563.00	100,377,814.00
Total			8,316,934,755.00	1,522,001,289.00	9,838,936,044.00

Table 19: Indicative amount of support to be used for climate change objectives

Priority axis	Indicative amount of support to be used for climate change objectives (in EUR)	Proportion of total allocation to the operational programme (%)
I	192,496,559.00	2.23%
III	176,393,922.00	2.05%
IV	61,148,681.00	0.71%
Total	430,039,162.00	4.99%

4. INTEGRATED APPROACH TO TERRITORIAL DEVELOPMENT

Description of the integrated approach to territorial development, taking into account the content and objectives of the operational programme and the Partnership Agreement, and indication of how the operational programme contributes to achievement of the objectives of the operational programme and expected results.

In accordance with the Partnership Agreement actions under the OP implemented in the years 2014–2020 should take into account the territorial dimension. The integrated territorial approach is to ensure the appropriate adjustment of interventions to the specific challenges, needs and development potentials of different types of areas of strategic interventions (ASI). SG OP is implemented in the entire Poland, therefore its effects should be analysed through the prism of all types of areas of strategic intervention (ASI).

The voivodeship capital cities and their functional areas are the main concentration areas of SG OP territorial intervention. A large part of SG OP intervention is implemented in the major urban centres in Poland (including the voivodeship capital cities), which concentrate a large part of economic, innovative and scientific potential and play an important role in diffusion of intervention in other areas of the country.

Despite the large concentration of expected effects of SG OP in the voivodeship centres, these effects will also occur, to a lesser extent, in the subregional centres.

The absorption of innovation in the areas outside major urban centres will take place i.a. through the projects implemented in consortia, primarily scientific and industrial, as well as research programmes of virtual institutes which are geographically distributed research units.

Due to the specific conditions of Eastern Poland, manifested mainly by lower indicators of socioeconomic development, the selected SG OP activities will include solutions preferring the implementation of projects in the area of that macroregion or involving the entities located in that region to joint implementation of projects with entities from other regions of the country.

SG OP takes into account solutions that enable the financing of projects and beneficiaries of this macroregion in accordance with the rules determining the demarcation line between OP. SG OP will not provide the separate allocation for the projects from Eastern Poland at the Programme level, but it is possible to organise, in the selected SG OP activities, dedicated competitions for beneficiaries from this ASI.

Smaller urban centres and border areas are not treated in a special way under SG OP. However, the Programme, to some extent, affects also these areas through the projects implemented in the framework of strengthening the competitiveness and innovativeness of enterprises (when the beneficiaries will be located in these areas).

The implementation of SG OP may affect rural areas and entities located in these areas, because the Programme support planned for R&D&I activity and internationalisation of enterprises concerns also the agri-food sector in rural areas. SG OP does not provide for the implementation of actions dedicated to rural areas, which results from the horizontal character of the Programme and its purpose.

The effect of development spreading from the voivodeship centres to rural areas should be expected. The development of voivodeship cities, particularly in terms of economy, and the increase of wealth of

their inhabitants will also translate into the increased demand for goods and services from the rural areas.

4.1 Community-led local development (where relevant)

Approach to the use of instruments for local development led by the community and the rules of identifying the areas on which these instruments will be used.

4.2 Integrated actions for sustainable urban development (where relevant)

Where relevant, the estimated amount of ERDF support for integrated actions for sustainable urban development, which will be carried out under the provisions of Article 7(2) of the Regulation (EU) No 1301/2013, and estimated amounts of ESF support for integrated actions.

Table 20: Integrated actions for sustainable urban development – estimated amounts of ERDF and ESF support

Fund		The share of total allocation from the Programme fund
ERDF in total	0.00	0.00%
ERDF+ESF IN TOTAL	0.00	0.00%

4.3 Integrated Territorial Investment (ITI) (where relevant)

Approach to the use of integrated territorial investment (ITI) (within the meaning of Article 36 of the Regulation (EU) No 1303/2013) other than those carried out in cases covered by point 4.2 and estimated allocation to these investments under each priority axis.

Table 21: Estimated financial allocation to ITI other than those mentioned under point 4.2 (aggregate amount)

Priority axis	Estimated support in	allocation	(Union
Total	0.00		

4.4 Solutions for interregional and transnational projects, under the operational programme, with beneficiaries located in at least one other Member State (where relevant)

It is possible to finance the transnational projects implemented outside the area covered by the Programme, provided that the rules resulting from Article 70(2) and (3) of the General Regulation are taken into account. Financing of such projects from SG OP funds will be carried out in justified cases, taking into account their contribution to the Programme's objectives.

The SG OP funds may be used for financing the projects that will contribute to the implementation of the transnational EU Strategy for the Baltic Sea Region.

In particular it concerns the priority area Innovations and Poland is a co-leader in its implementation.

4.5 Contribution of the planned actions under the Programme in relation to macro-regional and sea-basin strategies, subject to the needs of the Programme area, identified by the Member State (where relevant) (if Member State and regions participate in the macro-regional and sea-basin strategies)

Implementation framework of actions related to the macro-regional and sea-basin strategies

The impact of SG OP on the objectives of the EU Strategy for the Baltic Sea Region

The implementation of SG OP complies with the third objective of the EU Strategy for the Baltic Sea Region (hereinafter called EUSBSR), i.e. *Increasing prosperity* by supporting scientific and research development of R&D institutions and enterprises as well as increasing competitiveness of entities, which in turn corresponds to an increase in global competitiveness of Baltic Sea region.

The list presented below shows the interventions under each priority axis of SG OP in relation to the selected priority areas of EUSBSR.

Priority areas of EUSBSR:

- Priority area: Innovation To exploit the full potential of the region in research and innovation
- Priority area: Internal market To remove hindrances to the internal market
- **Priority area: SMEs** To promote entrepreneurship and strengthen development of small and medium-sized enterprises

Priority Axis of SG OP:

Priority axis I: Support for R&D activity of enterprises

- R&D projects of enterprises
- Sectoral R&D programmes
- R&D financed with capital funds

Priority areas of EUSBSR corresponding to the indicated types of projects to be implemented under the axis I of SG OP:

• **Priority area: Innovation** – To exploit the full potential of the region in research and innovation

Priority axis II. Support for the environment and enterprise capacity for R&D&I activity

Support for investments in R&D infrastructure

Priority areas of EUSBSR corresponding to the indicated type of project to be implemented under the axis II of SG OP:

- Priority area: Innovation To exploit the full potential of the region in research and innovation
- Pro-innovation services for enterprises

Priority areas of EUSBSR corresponding to the indicated type of project to be implemented under the axis II of SG OP:

- Priority area: Internal market To remove hindrances to the internal market
- **Priority area: SMEs** To promote entrepreneurship and strengthen development of small and medium-sized enterprises
- Intensification of cooperation within the framework of the national innovation system

Priority areas of EUSBSR corresponding to the indicated type of project to be implemented under the axis II of SG OP:

• **Priority area: SMEs** – To promote entrepreneurship and strengthen development of small and medium-sized enterprises

Priority axis III. Support for innovation in enterprises

- Support for R&D results implementation
- Support for enterprises from venture capital funds, business angel networks and seed capital funds

Priority areas of EUSBSR corresponding to the indicated types of projects to be implemented under the axis III of SG OP:

- Priority area: Innovation To exploit the full potential of the region in research and innovation
- Support for promotion and internationalisation of innovative enterprises

Priority areas of EUSBSR corresponding to the indicated type of project to be implemented under the axis III of SG OP:

• **Priority area: SMEs** – To promote entrepreneurship and strengthen development of small and medium-sized enterprises

Priority axis IV. Increasing the research potential

- Research and development works
- Development of modern research infrastructure of the science sector
- International research agendas
- Increasing the human potential in R&D sector

Priority areas of EUSBSR corresponding to the indicated types of projects to be implemented under the axis I of SG OP:

• **Priority area: Innovation** – To exploit the full potential of the region in research and innovation

SG OP contributes to the primary task of EUSBSR, which is to build the network of international cooperation as well as closer cooperation and better division of labour in the already existing networks.

The priority axes I-IV of SG OP provided for instruments consistent with the *Innovation priority area*. In the framework of these instruments support will be directed to the enterprises, research units and scientific-industrial consortia with high research potential that could run consolidation processes and networking with other research centres operating in the country and participate in the implementation of international projects.

The support will allow the transnational cooperation aimed at development and commercial exploitation of joint research projects and will also enable protection of intellectual property. In addition, the support will increase the innovation capacity by new financing models for R&D commercialisation process. Moreover, the priority axis IV SG OP provided for support instruments, which implementation may result in enhanced scientific cooperation of Polish and international research units, particularly in terms of exchanging experience on effective cooperation between science and economy. Such effect may also be achieved by the implementation of action aimed at increasing the potential of R&D personnel in team projects implemented in research units or enterprises within the framework of international research projects or strategic cooperation with the leading research centre in the world.

The actions carried out under the SMEs priority area of SG OP will involve enhancing cooperation between Polish enterprises and foreign companies and R&D units in terms of value chain management, technology bridges creation in the leading innovation centres and projects implementation with centres of excellence.

The intervention will also aim at identification of innovative projects of companies with high internationalisation potential (born global). The enterprises having products that can become Polish export specialties will be able to gain access to advisory services in terms of internationalisation and to finance the costs of actions such as support for exploring potential for internationalisation as well as preparing internationalisation strategy and its implementation.

- 5. SPECIFIC NEEDS OF GEOGRAPHICAL AREAS MOST AFFECTED BY POVERTY OR TARGET GROUPS AT HIGHEST RISK OF DISCRIMINATION OR SOCIAL EXCLUSION (WHERE RELEVANT)
- 5.1 Geographical areas most affected by poverty / target groups at highest risk of discrimination or social exclusion

Under SG OP, there will be no measures which focus directly on preventing poverty. The support granted under SG OP may indirectly contribute to reducing poverty and minimizing its consequences.

5.2. The strategy for satisfying the specific needs od geographical areas most affected by poverty / target groups at highest risk of discrimination or social exclusion and, where relevant, contribution to the integrated approach set up in the Partnership Agreement.

Table 22: Actions aimed at satisfying the specific needs od geographical areas most affected by poverty / target groups at highest risk of discrimination or social exclusion

	The main types of actions planned under the integrated approach	Priority axis	Fund	Category of region	Investment Priority
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6. SPECIFIC NEEDS OF GEOGRAPHICAL AREAS AFFECTED BY SEVERE AND PERMANENT UNFAVOURABLE NATURAL OR DEMOGRAPHIC CONDITIONS (WHERE RELEVANT)

The SG OP does not provide for intervention focused on specific needs of areas affected by unfavourable natural or demographic conditions.

7. AUTHORITIES AND BODIES RESPONSIBLE FOR MANAGEMENT, CONTROL AND AUDIT AND THE ROLE OF RELEVANT PARTNERS

7.1 Relevant authorities and bodies

Table 23: Relevant authorities and bodies

Authority/body	Name of authority/body and name of department or unit	Head of authority/body (position or post)
Managing Authority	Ministry of Infrastructure and Development, Managing Department for Competitiveness and Innovation Programmes	_
Certifying Authority	Development, Managing Department for	Minister responsible for regional development/Director of the Department
Audit Authority	Ministry of Finance, Department for Protection of EU Financial Interests	Minister responsible for public finance
Body to which Commissic will make payments	nMinistry of Finance, Paying Authority Department	Minister responsible for public finance

7.2 Involvement of relevant partners

7.2.1 Actions aimed at involving the relevant partners in the preparation of the operational programme and the role of these partners in the implementation, monitoring and evaluation of the operational programme

Information about the institutional system of SG OP.

The institutional system of SG OP corresponds to the institutional system for the cohesion policy, described in the Partnership Agreement. The Managing Authority (MA) is the minister responsible for regional development. MA is also the Certifying Authority (CA). Some tasks will be delegated to Intermediate Bodies (IB), whose roles, functions and responsibilities in terms of priority axis implementation are defined by relevant inter-institutional arrangements. 2nd level Intermediate Bodies (II IB) may also be appointed, if necessary.

Tasks will be delegated only if it would result in improving the SG OP implementation effectiveness and efficiency. The Managing Authority bears general responsibility for lawful and effective implementation of SG OP.

In order to ensure more comprehensive and efficient preparation, organisation and supervision of the SG OP implementation system, it is planned to set up IB that will be able to cooperate with other entities to perform the tasks under the Programme.

When making such a delegation, MA will still bear responsibility for entire implementation of SG OP. Tasks will be delegated by way of an arrangement that defines the detailed scope of tasks of the Intermediate Body and resulting rights and obligations of both parties. Pursuant to the Act on the principles of implementation of the cohesion policy programmes, financed under the 2014-2020 financial perspective, MA may take formal actions aimed at remedying any failures of IB, especially those which consist in incorrect discharge of the tasks delegated to that institution.

IB in SG OP:

Axis I. National Centre for Research and Development

Axis II. Ministry of Economy

Axis III. Ministry of Economy

Axis IV. National Centre for Research and Development

If the tasks related to implementation of selected support instruments under the SG OP are entrusted to the Polish Agency for Enterprise Development, the Agency will be able to begin their implementation, provided that the measures laid down in the *Action Plan related to preparation of the PARP for implementation of operational programmes*, which constitutes an annex to the Programme, are completed. Until the measures defined in the Plan are implemented, no expenditure under support instruments implemented by the PARP will be certified to the EC.

Furthermore, the MA will introduce efficient and proportional measures aimed at prevention, detection, correction and reporting of fraud, pursuant to Article 125(4)(c) of the General Regulation. The institutions in the SG OP implementation system will analyse the risk in line with the *European Commission's Guidance on Fraud Risk Assessment and Effective and Proportionate Anti-Fraud Measures*. The risk assessment results will be taken into account in the control system.

Detailed rules of the management, control, monitoring, evaluation, information, promotion, IT systems and financial management adopted under the Programme result from the Partnership Agreement and relevant regulations and were provided in the annex to SG OP.

Organisational arrangements and procedures under the Partnership Agreement and individual programmes will ensure independence of the body responsible for designation from the bodies subject to designation (MA/CA) and the appropriate division of functions. In practice, the organisational regulations of the MID supporting the minister responsible for regional development will ensure independence of the designating body from the MA/CA by means of entrusting the tasks of the designating body to a different organisational unit of MID than the organisational unit performing the functions of the MA/CA of SG OP and ensuring that those organisational units are supervised by different, independent members of the ministry management (undersecretaries of state).

Information about the actions aimed at involving the relevant partners in SG OP preparations.

On 15 January 2013, the Council of Ministers adopted the *Assumptions to the Partnership Agreement* that define the directions of interventions from the European Union funds under the next financial perspective, including the number and scope of operational programmes planned for 2014–2020. One of them is a national operational programme for innovation, research and their links with the enterprise sector called OP Smart Growth.

In parallel with the process of drafting the *Assumptions to the Partnership Agreement* in the second half of 2012, actions were taken to begin work on operational programmes for 2014–2020. On 13 November 2012, the first meeting of the working group for preparing the assumptions of PO SG was held.

The adoption by the Council of Ministers of the *Assumptions to the Partnership Agreement*, in which it was indicated that the role of the managing authority for the national operational programmes financed with the cohesion policy funds will be performed by the Ministry of Regional Development, enabled the formal commencement of the work on the preparation of the SG OP. The organisation of the working groups, their thematic scope and composition were defined by the Order of the Minister of Regional Development No 4 of 11 February 2013 on the establishment of Working Groups to support the development of national operational programmes financed under the Cohesion Policy and the coordination of intervention under thematic objectives. The Order provided the basis for the establishment of the Working Group for preparing the operational programme for innovation, research and their links with the enterprise sector and the coordination of interventions under TO 1 and TO 3.

According to the above mentioned Order of the Minister of Regional Development, the Working Group for preparing the SG OP is composed of the representatives of the scientific communities, experts in the fields corresponding to the scope of the Programme, social and economic partners, non-governmental organisations. The selection of the partners involved in the work of the Working Group was based on the experience gained during the functioning of the Monitoring Committee of IE OP. The institutions, organisations and experts supporting the process of creating the SG OP have experience and extensive knowledge in a given field.

The Working Group worked at plenary meetings, attended by all members of the Group, and at thematic meetings in which individual members of the group took part. Thematic meetings were attended by experts and beneficiaries of operational programmes for the years 2007-2013, who presented their experience and proposed solutions for SG OP. The aim of thematic meetings was to define the most effective principles of programming the interventions within SG OP, which would be most appropriate for the needs.

In order to present the assumptions of SG OP to the public at large, a series of 7 regional conferences was organised between 23 May and 14 June 2013 in: Gdańsk, Wrocław, Białystok, Kraków, Katowice, Szczecin and Warsaw. The meetings were attended by representatives of the following Ministries: of Regional Development, of Economy and of Science and Higher Education. Approximately 800 persons (entrepreneurs, representatives of the science sector, socio-economic organisations, business environment institutions and local and regional governments) participated in consultation meetings.

The concept of SG OP was also presented at the numerous meetings and conferences on support for innovation organised i.a. by the Main Council of the Research Institutes, BCC, Polish Confederation Lewiatan and the Polish Federation of Engineering Associations.

The consultations of the draft SG OP were held on 9 September – 14 October 2013. The consultations were addressed to all entities concerned, especially representatives of business, science, local authorities, government, non-governmental organisations and socio-economic partners.

The notice on the social consultations was published on the website administered by the then Ministry of Regional Development and the nationwide daily – *Dziennik Gazeta Prawna*. Comments in the consultations were gathered chiefly through the website of the MRD. A draft Programme and electronic form for the submission of comments was published on the www.poig.gov.pl website. Comments were also submitted in writing or by electronic mail.

Comments on the SG OP made as part of the social consultations were submitted by **43 entities**, including government and local government entities, entrepreneurs, research units and universities.

250 comments were made in the course of the social consultations of the Programme (**153** comments were **taken into account**, including 64 partially taken into account, while **97** comments were **rejected**). The majority of comments referred to the **strategic part of the SG OP** (44) and the priority axes:

- Priority axis I (38 comments),
- Priority axis II (33 comments),
- III (31 comments).

Less than 9 % (22 Comments) - referred to the IV priority axis of the SG OP.

A final conference was also held as part of the consultations, in order to present the draft SG OP and discuss the scope of support under the SG OP. The conference was held on 7 October 2013 in the office of the MRD. The conference was attended by 160 participants, especially representatives of the target groups of beneficiaries of the SG OP (entrepreneurs and entrepreneurial organisations, researchers, institutions supporting innovative development of enterprises). The prevailing part of the meeting was dedicated to the discussion of the draft SG OP. Topics discussed during the meeting chiefly referred to:

- how the topic of smart specialisation can be taken into account in the SG OP,
- the level of support for various groups of beneficiaries,
- definition of innovation and types of innovative projects supported under the SG OP,
- differences resulting from the implementation of instruments of support in the form of subsidies and repayable instruments,
- the process of assessment of innovative projects,
- the terms of support for clusters in the FP for the years 2014-2020.

The conference was broadcast "live" through the website: www.poig.gov.pl/transmisja.

The video recording of the conference is available at the website: http://www.mrr.gov.pl/serwis_prasowy/transmisje/Strony/konferencja_konsultacyjna_POIR_2014_202 0.aspx

The report on the consultations and the position of the MA of SG OP on the comments made during the social consultations are available at the website:

http://www.poig.gov.pl/2014_2020/Strony/glowna.aspx#strona=1&zakladka=3

In March 2013, an open procedure for ex-ante evaluation of SG OP was resolved. The providers of the ex ante evaluation are PSDB Sp. z o.o. and Regio Group Sp. z o.o., acting jointly.

The agreement with the selected evaluator was concluded on 3 April 2013. The ex ante evaluation was carried out in a participative manner, i.e. the evaluator accompanied the MA at all the key stages of the programming process: from the development of the first initial draft of the SG OP, through the social consultations of the Programme and negotiations with the European Commission, to the approval of the SG OP by the European Commission. Key recommendations formulated by the evaluator were implemented on an ongoing basis in the programming process.

The partners were involved in the preparation of the SG OP also in the process of development of the environmental impact prognosis, which was performed in accordance with the requirements of the Act of 3 October 2008 on making available information on the environment and its protection, the participation of the society in environmental protection and on environmental impact assessments (Dz. U. No 199, item 1227, as amended) According to the act, the strategic environmental impact assessment is required by draft policies, strategies, plans or programmes in specific areas, which define the framework for subsequent implementation of undertakings which can have significant impact on the environment.

The scope of the environmental impact prognosis was presented by the Chief Sanitary Inspector on 19 April 2013, and by the General Director for Environmental Protection on 9 May 2013. According to the Chief Sanitary Inspector, the prognosis should take into account the provisions of Article 3(2) of the above mentioned act, which stipulates that environmental impact means also an impact on human health. In the opinion of the General Director for Environmental Protection, environmental impact forecast should first of all be focused on providing recommendations for formulating criteria for the selection of projects, which will enable the fulfilment of environmental protection requirements in the course of their implementation. According to the General Director for Environmental Protection, the pre-selection of projects in terms of environmental impact at the stage of the competition will reduce the likelihood of problems at the stage of obtaining co-financing. The criteria indicated above should also be taken into account while classifying projects which did not take part in the competition as projects eligible for SG OP. The General Director for Environmental Protection also emphasised that authors of the forecast should take particular care while developing the rules governing the monitoring of the results of implementation of the provisions of SG OP, so that they enable the analysis of real environmental impact of the implementation of the programme.

On 16 September 2013, an agreement was concluded between the MRD and the the Central Mining Institute, which provided the forecast. Social consultations continued between 13 November 2013 and 4 December 2013. A draft *Programme* and *Prognosis* were published on the www.poig.gov.pl website with the form for the submission of comments. Comments concerning the *Prognosis* could be submitted until 3 December 2013 on the form for the submission of comments, by email to konsultacje-soos@mrr.gov.pl or by mail sent to the postal address of the MRD. Information about the consultations was also published in the Dziennik Gazeta Prawna (nationwide daily). Fifteen comments were submitted (ME, General Directorate for Environmental Protection), which were responded to by the provider of the evaluation.

The comments concerned chiefly the criteria of pre-selection and selection of projects in environmental terms and the procedure of the evaluation, as well as the environmental indicators proposed for the evaluation of the environmental impact of the SG OP.

Moreover, on 26 November 2013, a conference was held in the office of the MRD as part of the social consultations of the *Forecast*. The meeting was attended by representatives of the government and local government, research and development units, environmental institutions, entrepreneurs and representatives of the provider of the Prognosis. The conference was combined with a workshop, during which the proposed pre-selection and selection criteria were analysed.

The Monitoring Committee will play a key role in the implementation of the SG OP. It will consist of representatives of organisations listed in Article 5 of the General Regulation.

7.2.2. Global grants (in relation to the ESF, as appropriate)

7.2.3. Allocation of the amount for capacity-building (in relation to the ESF, as appropriate)

8. COORDINATION BETWEEN THE COHESION POLICY FUNDS, EAFRD, EMFF, AND OTHER RELEVANT UNION AND NATIONAL FUNDING INSTRUMENTS, INCLUDING THE EIB, EAFRD, EMFF AND OTHER UNION AND NATIONAL FUNDING INSTRUMENTS AND THE EIB

Mechanisms ensuring coordination between cohesion policy funds, the European Agricultural Fund for Rural Development (EAFRD), the European Maritime and Fisheries Fund (EMFF) and other union and national funding instruments and the European Investment Bank (EIB), taking into account relevant regulations established within the Common Strategic Framework.

The general coordination framework within the Partnership Agreement

The SG OP is covered by the coordination system described in detail in section 2.1.(1) of the Partnership Agreement. At the stage of preparation of the intervention of OP implementing the Partnership Agreement, close coordination was ensured i.a. within the Interministerial Team for the Programming and Implementation of the EU Funds, which consists of all the CP Managing Authorities (national and regional), EAFRD and EMFF programmes Managing Authorities and individual departments which usually function as Intermediate Bodies. Coordination is also carried out within the Ministry which supports the Minister competent for regional development and carried out by the PA CI.

According to the provisions of the Partnership Agreement, the minister competent for regional development plays a leading role in the coordination of measures between the SG OP and other operational programmes of the cohesion policy and the common agricultural policy and common fisheries policy. The tasks and functions of the Coordination Committee of the Partnership Agreement are described in the Partnership Agreement. Coordination at the level of implementation and at the operational level is ensured by the above mentioned Interministerial Team.

The Monitoring Committee of the SG OP will play a key function in coordinating support provided under the programme – its main task will consist in carrying out a review of the implementation of the programme and progress towards achieving its goals.

An important mechanism of coordination of support is also the Territorial Contract, which enables the ensuring of complementarity and synergy of measures implemented in regions and financed by different operational programmes.

Complementarity of investment priorities under the SG OP with the measures in other operational programmes for the years 2014-2020

The scope of support provided under DP OP is complementary to support from other programmes implementing the PA objectives and other national and union instruments. If there is a risk of overlapping between the areas covered by support, a dividing line agreed between individual programmes is applied. Complementarity of interventions was a significant factor at the stage of programming, however, its practical utilisation will be equally important at the stage of programme implementation. Therefore, measures will be taken to ensure actual complementarity at the stage of project selection and implementation. These mechanisms were described in greater detail in the Partnership Agreement and may be specified further in the programme documents, i.e. the Detailed Description of Priority Axes.

In the case of SG OP, mechanisms ensuring coordination and synergy will be applicable in particular, i.a.:

at the level of programming – identification of complementarity and synergy with other instruments

- identification of common/overlapping areas of intervention, categories of beneficiaries, target groups;
- identification of the possibility to carry out complementary projects in a given thematic area or in a given territory, identification of complementary priority axes in different programmes;
- division of the scopes of interventions (dividing line);

at the level of management and implementation - establishing mechanisms and structures

- identification of structures responsible for coordination in particular programmes
- cooperation between institutions competent for particular instruments in the context of complementarity of actions,
- establishment of joint groups/ task forces (which specify, for instance, the scope of interventions under complementary priority axes),
- common selection criteria for similar types of interventions e.g. complementarity as an additional selection criterion, methods of selection taking complementarity into account,
- Common List of Key Indicators,
- selection, management and accounting for projects schedule for joint or synchronised process of calls for proposals and examination of the projects,
- rules for funding (advance payments) and accounting (eligible expenditure, possibilities to apply simplified methods of accounting for expenditure),
- "matching" of projects, beneficiaries,
- common IT solutions for beneficiaries,
- common information and promotion actions, common guidelines for beneficiaries with regard to the above mentioned actions,

- procedures for parallel settlement and conclusion of agreements for the funding of complementary projects,
- IT tools enabling potential applicants to find an appropriate ways to apply for appropriations, which would be optimally adapted to the intended undertaking.

Complementarity between SG OP with the EP OP and the ROP

TO 1

IP1.a.

Complementarily to the SG OP intervention, ROP supports projects of research units aiming at creating new or developing already existing R&D infrastructure. These undertakings must contribute to the reinforcement of the regional smart specialisation and serve the implementation of the research agenda indicated in the intended project. In order to ensure a better investment coordination in this field and more effective spending of funds, investments in R&D infrastructure financed as part of the ROP will require arrangements with competent ministries. The SG OP provides funding to research and development agendas, in accordance with regional strategies for smart specialisation, which enable the supporting of scientific research important for ensuring the development of a voivodeship.

IP1.b.

In addition to the SG OP intervention, focused on providing direct support to R&D&I activity in enterprises, the ROP provides support to business projects having a narrower scope and smaller magnitude of impact (regional or local).

The ROP provides funding to projects connected with the development of the R&D infrastructure in enterprises. Projects connected with the provision of access to highly specialised services rendered by the BEI, which are financed under the SG OP, are supplemented with measures implemented as part of the SG OP that will enable an increase in the accessibility of pro-innovation services of the BEI, targeted at a wider group of enterprises and complying with the RIS.

TO 3

IP 3.a.

The SG OP provides comprehensive advisory and investment support, targeted at young people intending to establish a start-up business in the region.

Meanwhile, ROPs provide support for projects contributing to the development of "start-up" businesses, including investments connected with the development of business incubators and centres supporting academic entrepreneurship. Moreover, funding provided under ROPs will focus on the creation of new or development of the existing economic growth infrastructure, e.g. investments aiming at changing the function of former military sites, former industrial sites, former railway sites and former state-owned agricultural holdings.

IP 3.c.

Support for the implementation of R&D results will be implemented both under the SG OP and the ROP, however, on the regional level, funding will be directed to business projects having a narrower scope and smaller magnitude of impact (regional or local).

Moreover, ROPs will provide funding to investments in the development of enterprises, in particular investments in modern machinery and equipment and production equipment, in order to place new or improved products or services on the market, as well as investments contributing to the improvement of production efficiency.

In addition to the intervention of the SG OP in the scope of internationalisation, the Development of Eastern Poland Operational Programme supports international activity of enterprises through comprehensive individual consultancy and pro-export promotion. Actions in the scope of internationalisation, financed under the SG OP, will be focused in particular on implementation of new business models in SMEs. Meanwhile, business projects financed under the ROP are targeted at increasing exports and gaining new outlets, directed to a wide group of potential beneficiaries (including those who are not involved in R&D&I activities).

Moreover, support provided as part of the ROP is targeted at promotional activities, stimulating the internationalisation of the region's economy.

Complementarity of the SG OP with the I&E OP

SG OP provides funding for research and development leading to innovation in environmental technologies, low-carbon technologies and technologies enabling effective (economical) use of resources. Meanwhile, the I&E OP supports investment activities which contribute to the transformation towards a green, low emission economy by way of the use of innovative technologies, i.a. in the production of energy from renewable sources, generation of electricity and heat in high-efficiency cogeneration, application of energy saving production techniques, implementation of energy-saving production methods, implementation of intelligent energy management systems and a system of smart energy grids, as well as a reduction of the burden that the Polish transport system poses for the society and environment. The R&D results implemented thanks to the support from the SG OP, may be implemented as part of projects financed under the I&E OP. The SG OP also provides the possibility of developing innovative solutions to problems in the area of sustainable development, including low emission transport and renewable energy, identified by the public sector (e.g. through the mechanism of pre-commercial public procurement) and their subsequent implementation thanks to the appropriations from the I&E OP.

The complementarity of SG OP and the I&E OP occurs also in the thematic area of "health". SG OP supports R&D projects and projects connected with the development of R&D infrastructure, implemented by research units, including research institutes and medical universities. Modern medical technologies will be popularised under the I&E OP through the purchase of highly specialised medical equipment for diagnostics, treatment and rescue purposes.

Complementarity of the SG OP with the DP OP

The SG OP finances R&D projects connected with the development of various technologies including the ICT. Moreover, the SG OP supports the development of risk capital market (venture capital), which is frequently directed to support ICT projects. The effects of projects financed under the SG OP as part of axis I and IV (R&D results) may be used by beneficiaries of the public sector or providers of public services, as part of projects financed under the DP OP.

The DP OP supports the use of innovative ICT technologies in activities connected with the development of broadband, creation of e-public services, digitisation of public resources and making them available, as well as in e-inclusion projects. Therefore, it is possible to obtain support under the SG OP to develop an innovative solution using information and communication technologies (through

R&D work), while the DP OP instruments will enable the implementation of the solution in the activities of the administration or other entities providing public services, making public resources available, or in projects targeted at the realisation of social objectives (e-inclusion).

Complementarity of the SG OP with the Knowledge Education and Development Operational Programme (KED OP)

The SG OP supports the development of R&D staff through the determined instruments focused on research cooperation projects, placements and scholarships and training (e.g. in the scope of the latest technological achievements, commercialisation of knowledge, project management). Moreover, support for R&D staff under the SG OP is financed under crossfinancing, as a qualified expenditure in R&D and innovative projects.

It is assumed that in KED OP actions will be taken to contribute to the development of the didactic potential of university staff, i.a. in the scope of key didactic and presentation skills, application of innovative didactic techniques, information management.

Complementarity with the RDP and "Fisheries and the Sea"

The intervention implemented as part of the SG OP has a horizontal character, which means that no support instruments dedicated to specific sectors or branches of economy have been determined under the Programme. Moreover, it is not expected that place-based instruments, including instruments dedicated exclusively to entities located in urban or rural areas will be provided in the SG OP. Although the concentration of the R&D&I activity is generally located in main urban centres, support for projects implemented in rural areas is not ruled out in the SG OP.

Interventions financed under the EAFRD and EMFF will focus on transferring knowledge and innovation to agriculture, forestry, fisheries and aquaculture. Complementarity of support between the SG OP and RDP is possible, because the agricultural programme supports the increase in innovativeness and knowledge base in rural areas and the development of links between agriculture and forestry, agri-food industry and the R&D sector. RDP also assumes support for pilot projects, demonstration projects and creation of new products, practices, processes and technologies in agriculture (including the processing sector) under cooperation between three sectors.

Funding includes projects disseminating innovative solutions regarding agricultural production, forestry or agri-food processing, as well as consultancy in this area.

Complementarity of support between the SG OP and "Fisheries and the Sea" is also possible, as the intervention of the fisheries programme includes i.a. the introduction of new or significantly improved fishery products, management and organisation systems. Support is provided for innovations in the aquaculture sector, innovations connected with protecting sea biological resources in order to reduce the impact of fisheries on the environment.

Complementarity of the SG OP with the Horizon 2020 Framework Programme

Coordination between SG OP instruments and Horizon 2020 programme may serve the purposes of:

- codification of the rules for the provision of support (e.g. common criteria for the selection of projects),
- determination of common strategic objectives,
- harmonisation of the rules concerning the eligibility of costs,

- ensuring the possibility to combine funding from both sources,
- preparation of common or synchronised schedules for calls for proposals and examination of projects.

Additional information related to this section is included in the Annex to the SG OP.

9. EX-ANTE CONDITIONALITIES

9.1. Ex-ante conditionalities

Information on the assessment of the applicability and the fulfilment of ex-ante conditionalities (optional)

Ex ante conditionality under TO1 and TO3

In order to ensure long-term economic and social effects of the interventions of European funds under the Common Strategic Framework 2014-2020 (CSF), the European Commission proposed a new approach to the use of funds under the multiannual financial framework for years 2014-2020. It is expected that strict adjustment to the policy priorities under the Europe 2020 strategy, macroeconomic conditions and *ex-ante* conditionalities, as well as thematic focus and incentives aiming to improve efficiency and increase the effectiveness of spending of funds.

The objective of funds included in the CSF should be to ensure coherent solutions promoting competitiveness and convergence through the determination of appropriate investment priorities concerning individual countries. General focusing of expenditure on R&D work and innovations, supporting of SMEs, high quality of education and training, inclusive labour markets, high quality employment and social cohesion, ensuring the highest efficiency gain and shift to a low carbon economy, characterised by resource efficiency.

Pursuant to the General Regulation for funds subject to the CSF, the funds will be fully mobilised subject to the fulfilment of *ex ante* conditionalities, i.e. ensuring certain prerequisites which enable an effective implementation of programmes co-financed from the EU funds.

Thematic objective 1. Strengthening research, technological development and innovation

The thematic objective should be implemented in accordance with the framework of the innovation strategy for smart specialisation, which was developed in close cooperation with the private sector and appropriate national and regional entities in the field of research and innovation. In the case of this thematic objective, the priority for funding has effect on the following priorities and specific objectives, which will be supported with funds subject to the CSF, which reflect challenges specific to a given country:

- providing support for private investments in respect of research and development by promoting technological and applied research, pilot lines and activities covering early product validation, advanced production capabilities and first production in the area of key enabling technologies and spreading technology of general purpose,
- enhancing research and innovation infrastructure to achieve outstanding results in this area,
- creating innovation-friendly environment for innovative enterprises by promoting enterprises investment in research and innovation, product and service development, technology transfer, social innovation and public service applications, networking, demand stimulation, clusters and open innovation.

The National Smart Specialisation (NSS) constitutes an integral part of the Enterprise Development Programme (EDP) adopted by the Council of Ministers on 8 April 2014. The status of the NSS - in the form of an Annex to the EDP - follows from the character of the document, which, as intended, will be subject to verification and updating on the basis of the monitoring system and socio-economic

changes which are taking place. Changes in the document, consisting in the verification, correction and updating of provisions, will be possible to introduce in two ways:

- (1) as a result of an annual update of national smart specialisations,
- (2) as a result of ad hoc update on the basis of recommendations of forums established for the purpose of monitoring of the effects of the implementation of national smart specialisations and analysis of the available and developing R&D&I potential in Poland, i.e. Working Groups, Economic Observatory and the Consultative Group.

Any amendments to the NSS will be subject to acceptance by the Steering Committee in accordance with the procedure described in the rules of procedure of the Committee.

The country's priorities in the scope of support for the R&D infrastructure were determined in the Polish Roadmap for Research Infrastructure adopted in 2011 and updated in 2014. It fulfils the recommendations of the European Strategy Forum on Research Infrastructures (ESFRI) in this regard.

In 2012, a system for financing of large research infrastructure projects covered by the Roadmap was developed with a 10-year time horizon (2013-2023). Estimates related to the financing of infrastructure were determined on the basis of Multiannual Financial Plans of the State and draft operational programmes and accepted by the European Commission as part of the self-assessment of the fulfilment of ex-ante conditionalities by Poland.

At the time of approval of the SG OP, according to the NSS, which constituted an Annex to the EDP of 8 April 2014, 18 national smart specialisations, grouped in 5 thematic areas, are distinguished:

- Healthy population
- 1. Medical engineering technologies, including medical biotechnologies
- 2. Diagnostics and therapy of civilisation diseases and in personalised medicine
- 3. Manufacture of medicinal products
- Agriculture and food bioeconomy, forest based and environmental bioeconomy
- 1. Innovative technologies, processes and products of the agriculture and food and forest based sector
- 2. Healthy food (of high quality and produced by ecological methods)
- 3. Biotechnological processes and products of specialist chemistry and environmental engineering
- Sustainable energy industry
- 1. High-efficiency, low carbon, integrated systems for generation, storage, transmission and distribution of energy
- 2. Smart and energy-efficient construction
- 3. Environment friendly transport solutions
- Raw materials and waste management

- 1. Advanced technologies of sourcing, processing and exploitation of raw materials and production of their substitutes
- 2. Minimisation of generation of waste including waste unfit for processing and the use of waste for the production of materials and energy (recycling and other recovery methods)
- 3. Innovative technologies for the processing and recovery of water and reducing water consumption
- Innovative industrial technologies and processes (broken down horizontally)
- 1. Multifunctional materials and composites with advanced properties, including nanoprocesses and nano-products
- 2. Sensors (including biosensors) and smart sensor networks
- 3. Smart networks and geoinformation technologies
- 4. Electronics based on conductive polymers
- 5. Automation and robotics of technological processes
- 6. Optronic systems and materials

Thematic objective 3. Enhancing the competitiveness of SMEs

In the case of this thematic objective, the priority for funding has effect on the following priorities and specific objectives, which will be supported with funds subject to the CSF, which reflect challenges specific to a given country:

- increasing efficiency through entrepreneurship and innovations, especially by facilitating making commercial use of new ideas and supporting the creation of new enterprises,
- supporting structural changes in the economy through the development of new business models in SMEs and in the agricultural and fisheries sectors,
- building an effective environment supporting enterprises and contributing to innovations, entrepreneurship and internationalisation.

Table 24: Applicable ex-ante conditionalities and assessment of their fulfilment

Ex-ante conditionality	conditionality applies	Ex-ante conditionality fulfilled (yes /no/partially)
T.01.1 - Research and innovations: the existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well-performing national or regional R&I systems.	I - SUPPORT FOR R&D ACTIVITY OF ENTERPRISES II - SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY III SUPPORT FOR INNOVATION IN ENTERPRISES IV INCREASING THE RESEARCH POTENTIAL	Partially
T.01.2 -Research and innovation infrastructure The existence of a multi-annual plan for budgeting and prioritisation of investments.	IV – INCREASING THE RESEARCH POTENTIAL	Yes
T.03.1. Specific actions have been carried out to underpin the promotion of entrepreneurship taking into account the Small Business Act (SBA).	III – SUPPORT FOR INNOVATION IN ENTERPRISES	Partially
G.1 - The existence of administrative capacity for the implementation and application of Union anti-discrimination law and policy in the field of ESIF	I - SUPPORT FOR R&D ACTIVITY OF ENTERPRISES II - SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY III - SUPPORT FOR INNOVATION IN ENTERPRISES IV - INCREASING THE RESEARCH POTENTIAL V - SG OP Technical Assistance	

administrative capacity for the implementation and application of Union gender equality law and policy in the field of ESIF.	I - SUPPORT FOR R&D ACTIVITY OF ENTERPRISES II - SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY III- SUPPORT FOR INNOVATION IN ENTERPRISES IV - INCREASING THE RESEARCH POTENTIAL V - SG OP Technical Assistance	Partially
the rights of persons with disabilities (UNCRPD) in the field of ESIF in accordance with Council Decision 2010/48/FC	I - SUPPORT FOR R&D ACTIVITY OF ENTERPRISES II - SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY III - SUPPORT FOR INNOVATION IN ENTERPRISES IV - INCREASING THE RESEARCH POTENTIAL V SG OP Technical Assistance	Partially
ESIF.	I - SUPPORT FOR R&D ACTIVITY OF ENTERPRISES II - SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY III - SUPPORT FOR INNOVATION IN ENTERPRISES IV - INCREASING THE RESEARCH POTENTIAL V - SG OP Technical Assistance	Yes
application of Union State aid rules in the field of the ESIF.	- SUPPORT FOR R&D ACTIVITY OF ENTERPRISES II - SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY III - SUPPORT FOR INNOVATION IN ENTERPRISES IV - INCREASING THE RESEARCH POTENTIAL V - SG OP Technical Assistance	Yes

G.6 - The existence of arrangements for the effective application of Union environmental legislation related to the environmental impact assessment (EIA) and strategic environmental assessments (SEA).	I - SUPPORT FOR R&D ACTIVITY OF ENTERPRISES II - SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY III- SUPPORT FOR INNOVATION IN ENTERPRISES IV - INCREASING THE RESEARCH POTENTIAL V - SG OP Technical Assistance	Yes
G.7 - The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most effectively contribute to desired results, to monitor progress towards results and to undertake impact evaluation.	I - SUPPORT FOR R&D ACTIVITY OF ENTERPRISES II - SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY III SUPPORT FOR INNOVATION IN ENTERPRISES IV INCREASING THE RESEARCH POTENTIAL V SG OP Technical Assistance	Yes

Ex-ante conditionality		fulfilled	Basis	Explanations
T.01.1 - Research and innovations: he existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well-performing national or regional R&I systems.		(Yes/No) No	The condition was partially fulfilled by the Enterprise Development Programme (EDP), which was adopted by the Council of Ministers on 8 April 2014 (http://www.mg.gov.pl/files/uplo ad/17484/PRP_wersja_przyj%C 4%99ta_przez RM 08042014.p df).	Moreover, an action plan - schedule of actions for full implementation of the condition was developed, including a list of activities, indication of competent authorities and dates of implementation. The document was submitted to the European Commission with the draft Intelligent Development Operational Programme.
T.01.1 - Research and innovations: the existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well-performing national or regional R&I systems.	2 -is based on a SWOT or similar analysis to concentrate resources on a limited set of research and innovation priorities,	Yes	SWOT analysis of particular smart specialisations was included in Annex nr 4 to the EDP - National Smart Specialisation (http://www.mg.gov.pl/files/uplo ad/20534/Krajowa%20inteligent na%20specjalizacja.pdf) Chapter II Identification process - NSS Methodology, sp. 35-39.	
T.01.1 - Research and innovations: the existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well-performing national or regional R&I systems.	3 - outlines measures to stimulate private R&D investments,	Yes	A set of instruments intended to increase the innovative character of the economy was presented in the EDP.	

				,
T.01.1 - Research and innovations:	4 - contains a monitoring	No	The condition will be fulfilled through	
the existence of a national or regional	mechanism.		the Annex to the EDP. Its	
smart specialisation strategy in line			development was taken into account	
with the National Reform Program,			in the action plan.	
to leverage private research and				
innovation expenditure, which				
complies with the features of well-				
performing national or regional R&I				
systems.				
T.01.1 - Research and innovations:	5 - A framework outlining available	No	The condition was partially fulfilled	
the authorized at a matterial and academical				
the existence of a national or regional	budgetary resources for research		by the NDS and EDP (chapter VII	
smart specialisation strategy in line	and innovation has been adopted.		by the NDS and EDP (chapter VII Financial Plan, p. 156). A budget for	
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smart specialisation strategy in line			Financial Plan, p. 156). A budget for	
smart specialisation strategy in line with the National Reform Program,			Financial Plan, p. 156). A budget for the NSS will developed as part of the	
smart specialisation strategy in line with the National Reform Program, to leverage private research and			Financial Plan, p. 156). A budget for the NSS will developed as part of the	
smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which			Financial Plan, p. 156). A budget for the NSS will developed as part of the	
smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well-			Financial Plan, p. 156). A budget for the NSS will developed as part of the	
smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well-performing national or regional R&I			Financial Plan, p. 156). A budget for the NSS will developed as part of the	

T.01.2 -Research and innovation	1 - An indicative multi-annual plan	Yes	The condition is fulfilled by the Polish	An indicative financing plan for the
infrastructure. The existence of a	for budgeting and prioritisation of		Roadmap for Research	R&D infrastructure, including national
multi-annual plan for budgeting and	investments linked to Union priorities,		Infrastructures, adopted in 2011,	sources, structural funds and
prioritisation of investments.	and, where appropriate, the European		which fulfils the recommendations of	international programmes was
	Strategy Forum on Research		the European Strategy Forum on	prepared and directionally accepted
	Infrastructures (ESFRI) has been		Research Infrastructures (ESFRI) in	by the European Commission. The
	adopted.		this regard. In 2012, a system for	legal basis for the determination of
			financing of large research	expenditure originating from
			infrastructure projects covered by the	European funds (including the
			Roadmap was developed with a 10-	required national contribution)
			year time horizon (2013-2023). The	consists in operational programmes
			map was updated in August 2014	adopted on the basis of the resolution
			(more information to be found at	of the Council of Ministers (according
			http://www.nauka.gov.pl)	to art. 14j of Act of 6 December 2006
				on the principles of development
				policy (Dz. U. of 2006 no. 227, item
				1658, as amended)). Meanwhile, the
				legal basis for expenditure originating
				from the state budget are the
				Multiannual Financial Plans of the
				State, prepared on the basis of art.
				103-108 of the Act of 27 August 2009
				on public finance (Journal of Laws
				No. 157, item 1240, as amended) and
				adopted by the Council of Ministers.

account the Small Business Act (SBA).	1 - The specific actions are: measures have been put in place with the objective of reducing the time and cost involved in setting-up a business taking account of the targets of the SBA.	the practising of certain professions (isap.sejm.gov.pl) 5. Act on facilitating access to certain regulated professions (isap.sejm.gov.pl)	http://orka.sejm.gov.pl/proc7. nsf/ustawy/2094_u.htm 3http://isap.sejm.gov.pl/Details Servlet?id=WDU20041731807
carried out to underpin the promotion of entrepreneurship taking into account the Small Business Act (SBA).	•	1. S24 system on the portal 2. Act on the National Court Register (isap.sejm.gov.pl) 3. Article 29, Article 25(3), Article 14(1) of the Act on freedom of economic activity (isap.sejm.gov.pl) 4. Act amending the Acts regulating the practising of certain professions (isap.sejm.gov.pl) 5. Act on facilitating access to certain regulated professions (isap.sejm.gov.pl)	http://isap.sejm.gov.pl/Details 1. https://ems.ms.gov.pl/ 2. http://orka.sejm.gov.pl/proc7. nsf/ustawy/2094_u.htm 3. http://isap.sejm.gov.pl/Details Servlet?id=WDU20041731807

carried out to underpin the promotion of entrepreneurship taking into account the Small Business Act	3 - Specific actions: a mechanism is in place to monitor the implementation of the measures of the SBA which have been put in place and assess the impact on SMEs.	 S24 system on the portal Act on the National Court Register (isap.sejm.gov.pl) Article 29, Article 25(3), Article 14(1) of the Act on freedom of economic activity (isap.sejm.gov.pl) Act amending the Acts regulating the practising of certain professions (isap.sejm.gov.pl) Act on facilitating access to certain regulated professions (isap.sejm.gov.pl) (isap.sejm.gov.pl) 	http://orka.sejm.gov.pl/proc7. nsf/ustawy/2094_u.htm
and application of Union anti- discrimination law and policy in the field of ESIF.	1 - Arrangements in accordance with the institutional and legal framework of Member States for the involvement of bodies responsible for the promotion of equal treatment of all persons throughout the preparation and implementation of programmes, including the provision of advice on equality in ESIF-related activities.	Act of 3 December 2010 on the implementation of certain provisions of the European Union on equal treatment http://isap.sejm.gov.pl/DetailsSe rvlet?id=WDU20102541700 Agenda for equal opportunities and non-discrimination under the 2014-2020 EU funds.	Ministry of Infrastructure and Development on 12 August 2014.

G.1 - The existence of administrative capacity for the implementation and application of Union anti-discrimination law and policy in the field of ESIF.	2 - Arrangements for training for staff of the authorities involved in the management and control of the ESIF in the fields of Union antidiscrimination law and policy.	No		
1	1 - Arrangements in accordance with the institutional and legal framework of Member States for the involvement of bodies responsible for gender equality throughout the preparation and implementation of programmes, including the provision of advice on gender equality in ESIF-related activities.		Act of 3 December 2010 on the implementation of certain provisions of the European Union on equal treatment http://isap.seim.sov.pl/DetailsServlet?id=WDU20102541700 Agenda for equal opportunities and non-discrimination under the 2014-2020 EU funds.	Development on 12 August 2014.
G.2 - The existence of administrative capacity for the implementation and application of Union gender equality law and policy in the field of ESIF.	2 - Arrangements for training for staff of the authorities involved in the management and control of the ESIF in the fields of Union gender equality law and policy as well as on gender mainstreaming.	No		

G.3 - The existence of administrative capacity for the implementation and application of the United Nations Convention on the rights of persons with disabilities (UNCRPD) in the field of ESIF in accordance with Council Decision 2010/48/EC.	1 - Arrangements in accordance with the institutional and legal framework of Member States for the consultation and involvement of bodies in charge of protection of rights of persons with disabilities or representative organisations of persons with disabilities and other relevant stakeholders throughout the preparation and implementation of programmes.		Act of 3 December 2010 on the implementation of certain provisions of the European Union on equal treatment http://isap.sejm.gov.pl/DetailsServlet?id=WDU20102541700 Agenda for equal opportunities and non-discrimination under the 2014-2020 EU funds.	The Agenda was submitted to the European Commission by the Ministry of Infrastructure and Development on 12 August 2014.
G.3 - The existence of administrative capacity for the implementation and application of the United Nations Convention on the rights of persons with disabilities (UNCRPD) in the field of ESIF in accordance with Council Decision 2010/48/EC.	2 - Arrangements for training for staff of the authorities involved in the management and control of the ESIF in the fields of applicable Union and national disability law and policy, including accessibility and the practical application of the Convention on the Rights of Persons with Disabilities as reflected in Union and national legislation.	No		

capacity for the implementation and application of the United Nations Convention on the rights of persons with disabilities (UNCRPD) in the field of ESIF in accordance with	3 - Arrangements to ensure monitoring of the implementation of Article 9 of the Convention on the rights of persons with disabilities in relation to the ESIF throughout the preparation and the implementation of the programmes.		Act of 3 December 2010 on the implementation of certain provisions of the European Union on equal treatment http://isap.sejm.gov.pl/DetailsSe rvlet?id=WDU20102541700 Agenda for equal opportunities and non-discrimination under the 2014-2020 EU funds.	The Agenda was submitted to the European Commission by the Ministry of Infrastructure and Development on 12 August 2014.
public procurement law in the field of	Arrangements for the effective application of Union public procurement rules through appropriate mechanisms.	Yes	Act amending the Act - Public Procurement Law, including the adjustment to the judgment of the Court of Justice of the EU in case C-465/11, i.e. amendment of Article 24(1)(1) and Article 24(1a) of the PPL http://www.uzp.gov.pl/cmsws/pa ge/?F;248;ustawa_pzp.html	
G.4 - The existence of arrangements for the effective application of Union public procurement law in the field of the ESIF.	2 - Arrangements which ensure transparent contract award procedures		Act amending the Act - Public Procurement Law, including the adjustment to the judgment of the Court of Justice of the EU in case C-465/11, i.e. amendment of Article 24(1)(1) and Article 24(1a) of the PPL http://www.uzp.gov.pl/cmsws/pa ge/?F;248;ustawa_pzp.html	

G.4 - The existence of arrangements for the effective application of Union public procurement law in the field of the ESIF.	dissemination of information for staff		Act amending the Act - Public Procurement Law, including the adjustment to the judgment of the Court of Justice of the EU in case C-465/11, i.e. amendment of Article 24(1)(1) and Article 24(1a) of the PPL http://www.uzp.gov.pl/cmsws/page/?F;248;ustawa_pzp.html	
public procurement law in the field of	administrative capacity for	Yes	Act amending the Act - Public Procurement Law, including the adjustment to the judgment of the Court of Justice of the EU in case C-465/11, i.e. amendment of Article 24(1)(1) and Article 24(1a) of the PPL http://www.uzp.gov.pl/cmsws/page/?F;248 ;ustawa_pzp.html	
G.4 - The existence of arrangements for the effective application of Union public procurement law in the field of the ESIF.	1 - Arrangements for the effective application of Union State aid rules		The so-called SHRIMP database (System for Scheduling, Registration and Monitoring of State Aid), http://www.uokik.gov.pl/kompet encje_prezesa_uokik_w_zakresi e_pomocy_publicznej.php Act of 30 April 2004 on the procedural issues regarding State aid (i.e. Dz. U. of 2007 No 59, item 404, as amended) http://isap.sejm.gov.pl/DetailsServlet?id=WDU20070590404	

public procurement law in the field invo	ssemination of information for staff volved in the implementation of the SIF.	The so-called SHRIMP database (System for Scheduling, Registration and Monitoring of State Aid), npet encje prezesa uokik w zakresi e_pomocy_publicznej.php Act of 30 April 2004 on the procedural issues regarding State aid (i.e. Dz. U. of 2007 No 59, item 404, as amended) http://isap.sejm.gov.pl/DetailsSe rvlet?id=WDU20070590404	
public procurement law in the field of imp	ministrative capacity for	The so-called SHRIMP database (System for Scheduling, Registration and Monitoring of State Aid), http://www.uokik.gov.pl/kompet encje_prezesa_uokik_w_zakresi e_pomocy_publicznej.php Act of 30 April 2004 on the procedural issues regarding State aid (i.e. Dz. U. of 2007 No 59, item 404, as amended) http://isap.sejm.gov.pl/DetailsServlet?id=WDU20070590404	

G.6 - The existence of arrangements	1 - Arrangements for the effective	Yes	1.	Act amending the Act - Water	
for the effective application of Union	application of Directive 2011/92/EU of			Law and certain other acts	1.
to the environmental impact	the European Parliament and of the Council (EIA) and of Directive 2001/42/EC of the European		2.	Act on providing information on the environment and its	http://isap.sejm.gov.pl/Details Servlet?id=WDU20140000850
` ,	Parliament and of the Council (SEA).			protection, the participation of the society in environmental	2.
				protection and on environmental impact assessments	http://isap.sejm.gov.pl/Details
			3.	Regulation of the Council of	Servlet?id=WDU20081991227
				Minsters on the types of projects	3.
				likely to significantly affect the	http://isap.sejm.gov.pl/Details
			4.	environment Geological and Mining Law and	Servlet?id=WDU20130000817
				certain other acts (Dz. U. item 1238).	http://isap.sejm.gov.pl/DetailsServlet?id=WDU20130001238
				.200).	

G.6 - The existence of arrangements for the effective application of Union environmental legislation related to the environmental impact assessment (EIA) and strategic environmental assessments (SEA).	staff	 Act amending the Act - Water Law and certain other acts Act on providing information on the environment and its protection, the participation of the society in environmental protection and on environmental impact assessments Regulation of the Council of Minsters on the types of projects likely to significantly affect the environment Geological and Mining Law and certain other acts (Dz. U. item 1238). 	http://isap.sejm.gov.pl/Details Servlet?id=WDU20140000850 2. http://isap.sejm.gov.pl/Details Servlet?id=WDU20081991227 3. http://isap.sejm.gov.pl/Details Servlet?id=WDU20130000817 http://isap.sejm.gov.pl/DetailsServlet?id=WDU20130001238
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G.6 - The existence of arrangements for the effective application of Union environmental legislation related to the environmental impact assessment (EIA) and strategic environmental assessments (SEA).	Yes	 Act amending the Act - Water Law and certain other acts Act on providing information on the environment and its protection, the participation of the society in environmental protection and on environmental impact assessments Regulation of the Council of Minsters on the types of projects likely to significantly affect the environment Geological and Mining Law and certain other acts (Dz. U. item 1238). 	1. http://isap.sejm.gov.pl/Details Servlet?id=WDU20140000850 2. http://isap.sejm.gov.pl/Details Servlet?id=WDU20081991227 3. http://isap.sejm.gov.pl/Details Servlet?id=WDU20130000817 http://isap.sejm.gov.pl/DetailsServlet?i d=WDU20130001238
G.7 - The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select measures, which most effectively contribute to desired results, to monitor progress towards results and to undertake impact evaluation. 1 - Arrangements for timely collection and aggregation of statistical data with the following elements are in place: the identification of sources and mechanisms to ensure statistical validation.	Yes	Act on official statistics of 29 June 1995 (as amended). http://isap.sejm.gov.pl/DetailsSe rvlet?id=WDU19950880439	

	T	L .		
basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most	2 - Arrangements for timely collection and aggregation of statistical data with the following elements are in place: :the identification of sources and mechanisms to ensure statistical validation; arrangements for publication and public availability of aggregated data.	Yes	Act on official statistics of 29 June 1995 (as amended). http://isap.sejm.gov.pl/DetailsSe rvlet?id=WDU19950880439	
G.7 - The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most effectively contribute to desired results, to monitor progress towards results and to undertake impact evaluation.	3 - An effective system of result indicators including: the selection of result indicators for each programme providing information on what motivates the selection of policy actions financed by the programme.	Yes	Text of the Intelligent Development Operational Programme (in particular table no 3 (result indicator), no 5 (output indicator), no 6 (indicator performance framework)); "Draft Template and Guidelines for the Content of the Operational Programme 2014-2020"	

basis necessary to undertake	indicators including: the establishment of targets for these indicators.	Yes	Text of the Intelligent Development Operational Programme (in particular table no 3 (result indicator), no 5 (output indicator), no 6 (indicator performance framework)); "Draft Template and Guidelines for the Content of the Operational Programme 2014-2020"	
basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary	indicators including: the consistency of each indicator with the following requisites: robustness and statistical validation, clarity of normative	Yes	Text of the Intelligent Development Operational Programme (in particular table no 3 (result indicators), no 5 (output indicators), no 6 (performance framework indicators)); "Draft Template and Guidelines for the Content of the Operational Programme 2014-2020"	

G.7 - The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most effectively contribute to desired results, to monitor progress towards results and to undertake impact evaluation.	6 - Procedures in place to ensure that all operations financed by the programme adopt an effective system of indicators.	Yes	Guidelines of the European Commission The programming period 2014-2020 guidance document on monitoring and evaluation - ERDF and CF and The programming period 20142020 guidance document on monitoring and evaluation - ESF, relevant instructional provisions of the "Draft Template and Guidelines for the Content of the Operational Programme 2014- 2020", Act of 11 July 2014 on the principles of implementation of the cohesion policy programmes, financed under the 2014-2020 financial perspective, guidelines of the MID and internal procedures of the MA of SG OP.	
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9.2 Description of actions to fulfil ex-ante conditionalities, responsible bodies and timetable

Table 25: Actions to fulfil applicable general ex-ante conditionalities

General ex-ante conditionality	Criteria not fulfilled	Actions to be taken	Deadline (date)	Bodies responsible
G.1 - The existence of administrative capacity for the implementation and application of Union anti-discrimination law and policy in the field of ESIF.	2 - Arrangements for training for staff of the authorities involved in the management and control of the ESIF in the fields of Union anti-discrimination law and policy.	Adoption of the Agenda for equal opportunities and non-discrimination under the 2014-2020 EU funds by the PA Coordination Committee	2015-03-31	Ministry of Infrastructure and Development
G.2 - The existence of administrative capacity for the implementation and application of Union gender equality law and policy in the field of ESIF.	2 - Arrangements for training for staff of the authorities involved in the management and control of the ESIF in the fields of Union gender equality law and policy as well as on gender mainstreaming.	Adoption of the Agenda for equal opportunities and non-discrimination under the 2014-2020 EU funds by the PA Coordination Committee	2015-03-31	Ministry of Infrastructure and Development

G.3 - The existence of	2 - Arrangements for training	Adoption of the Agenda for equal opportunities and	2014-03-31	Ministry of Infrastructure
administrative capacity for the	for staff of the authorities	non-discrimination under the 2014-2020 EU funds		and Development
implementation and application	involved in the management	by the PA Coordination Committee		
of the United Nations	and control of the ESIF in			
Convention on the rights of	the fields of applicable			
persons with disabilities	Union and national disability			
(UNCRPD) in the field of ESIF	law and policy,			
in accordance with Council				
Decision 2010/48/EC.	including accessibility and			
	the practical application of			
	the UNCRPD as reflected in			
	Union and national			
	legislation, as appropriate.			

Table 26: Actions to fulfil applicable thematic ex-ante conditionalities

Thematic ex-ante conditionality	Criteria not fulfilled	Actions to be taken	Deadline	Bodies responsible
Conditionality			(date)	
T.01.1 - Research and innovations: the existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well-performing national or regional R&I systems.	A national or regional smart specialisation strategy is in place that contains:	Update of quantitative analyses and preparation of development trends for each specialisation in order to demonstrate value-added in its development for the benefit of Polish economy; Update of qualitative analyses in terms of the results of projects in the area of R&D&I with large potential for innovativeness and competitiveness on foreign markets; Re-designing of the results of SWOT analysis (analysis for each specialisation, not for units which aggregate these specialisations) and referring these provisions to specific implementing actions (operational programmes, national projects) and planned results. Development of a coherent vision of socio-economic development for the NSS, based on development trends prepared for them.	2015-12-31	Ministry of Economy

T.01.1 - Research and	4 - contains a monitoring	Preparation of a coherent system, taking into account	2015-12-31	Ministry of Economy
innovations: the existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well-performing national or regional R&I systems.	mechanism.	available tools and enabling the monitoring of progress of work at the national and regional levels Preparation of monitoring indicators for national smart specialisations Development of an action plan for the achievement of planned strategic objectives and detailed NSS, schedule of work, entities responsible for specific actions and indication of initiatives related with the NSS		
T.01.1 - Research and innovations: the existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well-performing national or regional R&I systems.	5 - A framework outlining available budgetary resources for research and innovation has been adopted.	The budgetary resources were specified in the National Development Strategy 2020. The budget for the implementation of the NSS will be prepared as part of the implementation of the Action Plan.	2015-12-31	Ministry of Economy

T.03.1. Specific actions have been carried out to underpin the promotion of entrepreneurship taking into account the Small Business Act (SBA).	2 - Specific actions: measures have been put in place with the objective of reducing the time needed to get licenses and permits to take up and perform the specific activity of an enterprise taking account of the targets of the SBA	Entry into force of the Act amending the Acts regulating the access to certain professions - third round of deregulation	2015-05-01	Ministry of Justice
T.03.1. Specific actions have been carried out to underpin the promotion of entrepreneurship taking into account the Small Business Act (SBA).	3 - Specific actions: a mechanism is in place to monitor the implementation of the measures of the SBA which have been put in place and assess the impact on SMEs.	Implementation of an electronic consultation platform - deadline 1.07.2015 Impact Assessment Guidelines - deadline 1.07.2015 Completion of the pilot SME test - deadline 31.12.2015	2015-12-31	Ministry of Economy

10. REDUCTION OF ADMINISTRATIVE BURDEN FOR BENEFICIARIES

Summary of the assessment of administrative burden for beneficiaries and, if necessary, planned undertakings, with an indicative timeframe, intended to reduce the administrative burden.

General objectives

Poland makes continuous efforts to reduce the administrative burden imposed on citizens and economic operators. Actions are taken in particular with regard to enterprises and entrepreneurship. The actions are undertaken to provide conditions conducive to the development of enterprises and entrepreneurship, for example, through enhancing of competitive advantages, and consequently at the sustainable growth in the long-term perspective.

These measures are mainly intended to improve access for enterprises to capital, strengthen entrepreneurial attitudes, strengthen business environment from the institutional, organisational and financial point of view, as well as to eliminate information gap by making available the analyses on the competitiveness of industry sectors. The measures produce tangible outcomes which result in a steady improvement of Poland's ranking in the World Bank's *Doing Business*.

Economic activities in Poland are also positively affected by European funds – including the funds under the Cohesion Policy, as proven by numerous evaluation studies. Therefore, it is necessary to work out the rules which will allow the beneficiaries to apply for the EU funds without having to bear undue administrative burdens.

During the 2014-2020 financial perspective, the institutions responsible for the implementation of Cohesion Policy in Poland will continue the measures aimed at the introduction of the widest possible catalogue of simplifications for the beneficiaries of the EU funds. Administrative burdens may be reduced only in the areas that are governed by the national regulations of MA or IB. It should be emphasised that the implementation system of the EU funds for 2014-2020 was planned so as to continue reducing the burdens for beneficiaries and improving their institutional capacity (e.g. expert support under the project pipeline).

Moreover, the responsibilities of beneficiaries have been clearly defined. Pursuant to the national recommendations, when developing operational programmes, the relevant institutions involved in their preparation had to include in the operational programme a summary assessment of key administrative duties of the beneficiaries related to the implementation of the programme and to indicate their source. It was also recommended that the source should be indicated in the description of the key duties of beneficiaries — Union and national provisions, guidelines, their objectives and potential consequences of failure to implement them.

Simplifications in the implementation of funds under the Cohesion Policy in 2014–2020 which do not result directly from the planned EU regulations include in particular:

- increased decentralisation of the implementation system due to an increased share of regional programmes
- in the total allocation. Compared to 2007-2013, partial management of ESF (under operational programmes financed from two funds) was delegated to voivodeship local authorities,
- incorporation of integrated support mechanisms to be implemented by urban centres (ITI) into programmes,
- flexible forms of project financing with extensive imprest account system,

- providing access to repayable support covering more thematic areas,
- providing easy access for potential beneficiaries to comprehensive information via one of the extensive information point networks for individual funds and one web portal comprising all necessary information about Structural Programming funds, including the SG OP.

The following simplifications allowed under the General Regulation have been applied in Poland:

- in terms of revenue generating projects the widest possible use of flat-rates, including the reduction of co-financing level under the priority axis after taking into account the profitability of projects implemented under this axis,
- as wide application of flat-rate financing under operational programmes as possible.

Assumptions concerning the SG OP

In the FP 2014-20, emphasis was put on the working out of the rules, which will allow the beneficiaries to apply for the EU funds without having to bear undue administrative burdens.

During the FP 2014-20, the institutions responsible for the implementation of Cohesion Policy in Poland will continue the measures aimed at the introduction of the widest possible catalogue of simplifications for the beneficiaries of the EU funds. Actions taken so far under the IE OP 2007-13 demonstrated that the application of some mechanisms, such as the enabling of certification of expenditure before the approval of a major project, clearly improves the implementation of projects. In the FP 2007-13 a permanent undertaking *Simple Funds* was adopted on the horizontal level; it groups a team of experts-practitioners, whose task is to examine individual and systemic cases of excessively complicated procedures.

However, it should be noted that the vast majority of obligations imposed on the beneficiary is a direct result of the EU law, especially the draft General Regulation or is its consequence. In the light of the above, reducing administrative burden imposed on the beneficiaries of the SG OP is possible only in the scope of national conditions, within the limits of modifications which can be made by the Managing Authority.

The planned simplifications under SG OP will focus mainly on:

- introducing the IT system compliant with the *e-cohesion* requirements that enables the electronic communication between beneficiaries and institutions of the SG OP managing and implementation system and reduces the number of documents submitted in paper form;
- ensuring access for beneficiaries to comprehensive information via the extensive information networks of particular funds, including the functioning of single web portal for all operational programmes;
- using the flexible forms of project financing, including the imprest account system;
- · application of flat-rate financing;
- simplifying the procedures for selecting the projects and increasing the transparency and objectivity of selection process and selection criteria so that the beneficiaries can assess in advance whether their projects could positively pass the assessment procedure;

• reorganising the reporting process so that it concentrates on gathering the most important data for monitoring purposes.

Arrangements concerning the IT system and the information network will be introduced horizontally and their scope will extend beyond the SG OP.

In the course of implementation of the Programme regular assessment of administrative burdens imposed on beneficiaries and activities intended to reduce the administrative burdens and popularise good practices within the monitoring and reporting systems is planned. In case other problem areas are identified in the course of implementation of the SG OP, institutions will undertake ongoing activities to eliminate the sources of problems.

11. HORIZONTAL PRINCIPLES

11.1 Sustainable development

Description of specific action to take into account environmental protection requirements, resource efficiency, climate change mitigation and adaptation, disaster resilience and risk prevention and management, in the selection of operations.

The terms of sustainable development of the Programme will be determined by horizontal arrangements, such as dedicated calls for the support of projects having a positive influence on the ensuring of sustainable development (e.g. eco-innovations) and point preferences for projects from the above mentioned range in the calls within the framework of activities of general character (e.g. supporting R&D projects in enterprises).

Moreover, undertakings related to innovative technological arrangements leading to the reduction of the harmful impact on the environment, especially leading to the reduction of energy intensity and material intensity of goods and services, reduction in the use of water and other natural resources, reduction of emissions having a harmful impact on the environment and the application of the life cycle assessment at all levels of the design of technological or organisational processes, as well as popularisation of models of sustainable manufacturing and consumption. Preference for the above mentioned activities will be reflected, for example, in the criteria of selection in activities connected with the increase in innovation potential of enterprises in Poland.

In the case of aid from ESIF granted to a large entrepreneur, the MA will ensure that the financial contribution from the funds will not result in a considerable loss of jobs in the existing locations of this entrepreneur within the EU.

Strategic environmental impact assessment

Environmental impact prognosis is performed in accordance with the requirements of the Act of 3 October 2008 on providing information on the environment and its protection, the participation of the society in environmental protection and on environmental impact assessments (Dz. U. No 199, item 1227, as amended), which stipulates that draft policies, strategies, plans and programmes in specific areas that constitute a framework for the implementation of projects with a potential significant impact on the environment require a strategic environmental impact assessment.

The scope of the environmental impact prognosis was presented by the Chief Sanitary Inspector on 19 April 2013, and by the General Director for Environmental Protection on 9 May 2013. According to the Chief Sanitary Inspector, the prognosis should take into account the provisions of Article 3(2) of the above mentioned act, which stipulates that environmental impact means also an impact on human health.

In the opinion of the General Director for Environmental Protection, environmental impact forecast should first of all be focused on providing recommendations for formulating criteria for the selection of projects, which will enable the fulfilment of environmental protection requirements in the course of their implementation. According to the General Director for Environmental Protection, the preselection of projects in terms of environmental impact at the stage of the competition will reduce the likelihood of problems at the stage of obtaining co-financing. The criteria indicated above should also be taken into account while classifying projects which did not take part in the competition as projects eligible for SG OP.

The General Director for Environmental Protection also emphasised that authors of the reports should take particular care while developing the rules governing the monitoring of the results of SG OP so that they enabled the analysis of real environmental impact of the programme. Main conclusions from the strategic environmental assessment of the draft SG OP

A significant part of investments implemented under the SG OP will have a positive or neutral impact on the environment. Positive environmental impact may also be expected with the implementation of the Programme, which may influence the slowing down or inhibition of adverse tendencies with regard to particular elements of the environment, i.a. as a result of support for development and implementation of eco-innovations and horizontal arrangements allowing the preference of projects which enable effective management of resources. Positive impact of the SG OP may be achieved through the implementation of innovations, which will limit the negative impact of currently applied technologies, in particular in the scope of production of energy from renewable sources, transport and waste management. Some activities connected with the construction, extension or restructuring of infrastructure for research and development purposes may have impact on the environment. These projects concern i.a. infrastructure consisting in cubic features, roads, car parks, etc., management of existing office-service rooms, retrofitting with modern equipment, test apparatus and analytical apparatus (i.a. testing facilities, demonstration facilities). However, their influence on the environment will be of a transitory character as long as the implementation is carried out in accordance with the applicable legal norms and recommendations.

Moreover, the economic operator prepared recommendations concerning the formulation of "environmental" criteria of selection of projects and developed proposals for the terms of monitoring of the environmental impact of the realisation of the SG OP. The recommendations of the authors of the Forecast concerning the procedure of selection of projects in environmental terms will be considered at the stage of making the Programme more specific, and especially in the course of preparation of the terms of contests with respect to projects, which will involve the implementation of undertakings, which, according to the authors of the Forecast, may have impact on the environment.

Detailed information related to this topic is included in the Annex to the SG OP.

11.2 Equal opportunities and non-discrimination

Description of specific undertakings intended to promote the equality of opportunity and prevent discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation in the course of preparation, development and implementation of the operational programme, in particular in the context of access to funding, taking into account the needs of different target groups exposed to the risk of such discrimination, and especially the requirement to ensure accessibility for people with disabilities.

Implementation of the principle of equal opportunities and preventing of discrimination in the process of implementation of the SG OP may be ensured by means of:

- suitable selection of the criteria of entry to the Programme,
- subsidising of specific projects,
- suitable system of monitoring and control,
- possibility of implementation of suitable projects as part of the TA.

Under the SG OP support will be provided only to projects, which have at least neutral impact on the implementation of the principle of equal opportunities and preventing of discrimination. Positive impact on the implementation of the above mentioned principle may be additionally rewarded in the course of assessment of the projects, which will be made more specific at the stage of preparation of documents making up the SG OP implementation system.

It will be necessary to apply an individual approach to individual contests announced in the course of implementation of the programme and to verify the extent in which an organisation should take into account the situation of various social groups, contributing to the implementation of the principle of equal opportunities and preventing of discrimination.

For example, in the case of instruments assuming the possibility of increasing infrastructural expenditure, it may be justified to take into account the requirements related to design for all, paying special attention to the needs resulting from different disabilities.

The implementation of the principle of equal opportunities and non-discrimination is also important at the stage of monitoring of the results of the programme and information and promotion actions.

Institutions involved in such actions should apply the following guidelines:

- information and promotion actions should not replicate gender stereotyping. This refers to the graphics applied, use of gender sensitive language, and, above all, the essential message, which should not be based on stereotypical roles of women and men.
- information and promotion actions should be adapted to the needs of persons with disabilities of different type and degree, including motor, sensory and cognitive disabilities.

The process of preparation of various information and promotion tools should involve (as part of consultation) persons/organisations possessing expert knowledge in this area.

• information and promotion actions focused on popularising of general knowledge about the Programme, as well as the assumptions of individual contests, should be combined with education in the scope of assumptions of horizontal policy and promotion of good practices in this area. The reported information should be related with the scope of the Programme's impact, indicating real and practical aspects connected with the implementation of the policy of equal opportunities and preventing of discrimination.

The notes, reports and analyses prepared, should - as far as is possible - include information broken down by gender, which will make it possible to learn about the scope of inequality in the area of the impact of the programme and preparation of important evaluation type conclusions.

11.3 Gender equality

Description of the contribution of the operational programme into the promotion of gender equality and, where appropriate, solutions ensuring that gender perspective at the level of the operational programme and operations would be taken into account.

SG OP will be implemented in line with the principle of equal opportunities, in particular the principle of gender equality in the meaning of the Union and national law. The observance of the principle of equal opportunities for men and women reflected in the process of programming, implementing, monitoring and control, information and promotion and implementation of the programme.

The obligation to promote gender equality is fulfilled trough a suitable selection of the criteria of entry to the SG OP. All projects implemented under the SG OP must be at least neutral with regard to the principle of gender equality; preference is given to projects contributing to the promotion of employment and mobility of employees by ensuring equality between men and women, reconciliation of work and family life, promoting social inclusion and combating poverty by preventing discrimination on grounds of sex, race or ethnic origin, religion or beliefs, disability, age or sexual orientation.

Implementation of projects which promote arrangements contributing to the ensuring of equal opportunities and non-discrimination is possible under the SG OP TA (projects defined taking into account social, economic and thematic conditions, e.g. connected with supporting of the management of innovative projects by women).

Moreover, accessibility of appropriate indicators broken down by gender will be ensured at the stage of realisation and implementation of the Programme.

12. SEPARATE ELEMENTS

12.1 Major projects to be implemented during the programming period

Table 27: List of major projects

Project	Planned date of	Planned	Planned date of	Priority axes
	notification/submission of the application	beginning of	completion (year, quarter)	
	(year, quarter)	implementation		
		(year, quarter)		

12.2 Performance framework of the operational programme

Table 28: Performance framework divided according to fund and category of region (summary table)

Priority axis	Fund	Category of the region	Indicator or key implementation		Milestone fo	Milestone for 2018				
			stage	measurement, where appropriate	М	W	Т	М	W	Т
I – SUPPORT FOR R&D ACTIVI ENTERPRISES	Y OF ERDF	Less developed regions	Productive investments: number of enterprises which receive subsidies				415			2,664.00
I – SUPPORT FOR R&D ACTIVI ENTERPRISES	Y OF ERDF	Less developed regions	Total amount of certified eligible expenditure	EUR			750,506,471			4,093,812,996.00
I – SUPPORT FOR R&D ACTIVI ENTERPRISES	Y OF ERDF	Less developed regions	Number of enterprises which receive subsidies at the leve of co-financing agreements	5 			1465			
I – SUPPORT FOR R&D ACTIVI ENTERPRISES		More developed regions	investments: number of enterprises which receive subsidies				44			283.00
I – SUPPORT FOR R&D ACTIVI ENTERPRISES	Y OF ERDF	More developed regions	Total amount of certified eligible expenditure				84,832,310			462,737,668.00

I – SUPPORT FOR R&D ACTIVITY OF ENTERPRISES		ore developed gions	Number of enterprises which receive subsidies at the level of co-financing agreements		156	
II – SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY		ss developed gions	Total amount of certified eligible expenditure	EUR	219,491,288	1,118,254,012.00
II – SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY	reg	ss developed gions	Number of enterprises incurring investment expenditure for R&D activity at the level of co-financing agreements		79	
II – SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY	reg	ss developed gions	of enterprises incurring investment expenditure for R&D activity		8	158.00
II – SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY		ore developed gions	Total amount of certified eligible expenditure	EUR	22,728,197	115,794,563.00

II – SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY	More developed regions	Number of enterprises incurring investment expenditure for R&D activity at the level of co-financing agreements		12	
II – SUPPORT FOR THE ENVIRONMENT AND CAPACITY OF ENTERPRISES FOR R&D&I ACTIVITY	More developed regions	of enterprises incurring investment expenditure for R&D activity		1	23.00
III – SUPPORT FOR INNOVATION IN ENTERPRISES	Less developed regions	and innovation: number of enterprises supported to introduce products new to the market		194	1,294.00
III – SUPPORT FOR INNOVATION IN ENTERPRISES	Less developed regions	Total amount of certified eligible expenditure	EUR	401,086,481	2,359,332,237.00
III – SUPPORT FOR INNOVATION IN ENTERPRISES	Less developed regions	Number of enterprises supported to introduce products new to the market (CI 28) at the level of co-financing agreements		401	

III – SUPPORT ENTERPRISES	FOR IN	INOVATION I	N ERDF	More developed regions	Research and innovation: number of enterprises supported to introduce products new to the market		19		127.00
III – SUPPORT ENTERPRISES	FOR IN	INOVATION I	N ERDF	More developed regions	Total amount of certified eligible expenditure		41532275		244,307,502.00
III – SUPPORT ENTERPRISES	FOR IN	INOVATION I	N ERDF	More developed regions	Number of enterprises supported to introduce products new to the market (CI 28) at the level of co-financing agreements		39		
IV – INCREASING THE	RESEARO	CH POTENTIAL	ERDF	Less developed regions	Total amount of certified eligible expenditure		263,863,452		1,344,319,252.00

IV – INCREASING THE RESEARCH POTENTIAL	ERDF	Less developed regions	Number of research units incurring investment expenditure for R&D activity at the level of co-financing agreements	y el	16		
IV – INCREASING THE RESEARCH POTENTIAL	ERDF	Less developed regions	Number of R&D activities undertaken	Number	54	545.	00
IV – INCREASING THE RESEARCH POTENTIAL	ERDF	Less developed regions	Number of research units incurring investment expenditure for R&D activity	Number s	0	30.	00
IV – INCREASING THE RESEARCH POTENTIAL		More developed regions	Total amount of certified eligible expenditure		19,702,192	100,377,814.	00
IV – INCREASING THE RESEARCH POTENTIAL	ERDF	More developed regions	Number of research units incurring investment expenditure for R&D activity at the level of co-financing agreements	y el	2		

IV – INCREASING THE RESEARCH POTENTIAL	More developed regions	Number of R&D activities undertaken	Number		4		38.00
IV – INCREASING THE RESEARCH POTENTIAL	More developed regions	Number of research units incurring investment expenditure for R&D activity	Number		0		2.00

12.3 Relevant partners involved in the preparation of the programme

Partners:

- government:

- 1. Ministry of Economy member of the Working Group for the development of SG OP
- 2. Ministry of Science and Higher Education member of the Working Group for the development of SG OP
- 3. Ministry of Finance member of the Working Group for the development of SG OP
- 4. Ministry of Culture and National Heritage member of the Working Group for the development of SG OP
- 5. Ministry of Transport, Construction and Maritime Economy member of the Working Group for the development of SG OP
- 6. Ministry of Interior member of the Working Group for the development of SG OP
- 7. Ministry of Administration and Digitisation member of the Working Group for the development of SG OP
- 8. Ministry of Health member of the Working Group for the development of SG OP
- 9. Ministry of Agriculture and Rural Development member of the Working Group for the development of SG OP
- 10. Ministry of the Environment member of the Working Group for the development of SG OP
- 11. Ministry of Sport and Tourism member of the Working Group for the development of SG OP
- 12. Ministry of Labour and Social Policy member of the Working Group for the development of SG OP
- 13. Polish Agency for Enterprise Development- member of the Working Group for the development of SG OP
- 14. The National Centre for Research and Development member of the Working Group for the development of SG OP
- 15. National Science Centre member of the Working Group for the development of SG OP
- 16. Polish Information and Foreign Investment Agency member of the Working Group for the development of SG OP
- 17. Patent Office member of the Working Group for the development of SG OP
- 18. Public Procurement Office member of the Working Group for the development of SG OP
- 19. Supreme Audit Office member of the Working Group for the development of SG OP
- 20. Central Statistical Office member of the Working Group for the development of SG OP
- 21. Polish Tourism Organisation member of the Working Group for the development of SG OP

- local government administration:

- 1. Marshal's Office of Podlaskie Voivodeship member of the Working Group for the development of SG OP
- 2. Marshal's Office of Lubuskie Voivodeship member of the Working Group for the development of SG OP

- 3. Marshal's Office of Mazowieckie Voivodeship member of the Working Group for the development of SG OP
- NGOs:
- 1. National Capital Fund S.A. member of the Working Group for the development of SG OP
- 2. Bank Gospodarstwa Krajowego member of the Working Group for the development of SG OP
- 3. National Focal Point member of the Working Group for the development of SG OP
- 4. The Polish Bank Association member of the Working Group for the development of SG OP
- 5. Foundation for Polish Science member of the Working Group for the development of SG OP
- 6. Polish Business and Innovation Centres Association member of the Working Group for the development of SG OP
- 7. Polish Chamber of Commerce for High Technology member of the Working Group for the development of SG OP
- 8. Union of Rural Communes of the Republic of Poland member of the Working Group for the development of SG OP
- 9. Union of Polish Counties member of the Working Group for the development of SG OP
- 10. National Federation of Polish NGOs member of the Working Group for the development of SG OP
- 11. Polish Chamber of Commerce member of the Working Group for the development of SG OP
- 12. Business Centre Club member of the Working Group for the development of SG OP
- 13. Lewiatan Business Angels member of the Working Group for the development of SG OP
- 14. Association of Polish Cities member of the Working Group for the development of SG OP
- 15. Union of Polish Metropolises- member of the Working Group for the development of SG OP
- 16. Gdansk Institute for Market Economics member of the Working Group for the development of SG OP

- economic and social partners;

- 1. Employers of Poland member of the Working Group for the development of SG OP
- 2. Polish Confederation Lewiatan member of the Working Group for the development of SG OP
- 3. Independent Self-governing Trade Union "Solidarity" member of the Working Group for the development of SG OP
- 4. Trade Unions Forum member of the Working Group for the development of SG OP
- 5. All-Poland Alliance of Trade Unions member of the Working Group for the development of SG OP

- scientific community and experts

1. BDKM Sp. z .o.o. - member of the Working Group for the development of SG OP

- 2. University of Warsaw member of the Working Group for the development of SG OP
- 3. Cracow University of Economics- member of the Working Group for the development of SG OP
- 4. University of Łódź member of the Working Group for the development of SG OP
- 5. University of Gdańsk member of the Working Group for the development of SG OP
- 6. Systems Research Institute, Polish Academy of Sciences member of the Working Group for the development of SG OP
- 7. Main Council of the Research Institutes member of the Working Group for the development of SG OP
- 8. National Information Processing Institute member of the Working Group for the development of SG OP
- 9. Conference of Rectors of Academic Schools in Poland- member of the Working Group for the development of SG OP
- 10. Polish Federation of Engineering Associations member of the Working Group for the development of SG OP

- enterprises:

- 1. PSDB Sp. z o.o. and Regio Group Sp. z o.o. provider of ex-ante evaluation
- 2. EGO s.c. Provider of the diagnosis and SWOT analysis

Main abbreviations

BCC Business Centre Club

BERD The share of research and development expenditure

of the business sector in total gross domestic expenditure

FDI foreign direct investments

R&D Research and Development

R&D&I research and development, innovation

COSME Programme for the Competitiveness of enterprises

and SMEs

CSR Country-Specific Recommendations

TO thematic objective

EIB European Investment Bank

EMFF European Maritime and Fisheries Fund

ERDF European Regional Development Fund

EAFRD European Agricultural Fund for Rural Development

ESF European Social Fund

ESIF European Structural and Investment Funds (ESI Funds)

FTE full-time equivalent

EPO European Patent Office

ESFRI European Strategy Forum on Research Infrastructures

ETC European Territorial Cooperation

EVCA European Venture Capital and Private Equity Association

GDOŚ General Directorate for Environmental Protection

GERD gross expenditure on research and development

GIS Chief Sanitary Inspector

WSE Warsaw Stock Exchange

CSO Central Statistical Office

CA Certifying Authority

FI financial instrument

CU coordination unit

BEI business environment institutions

IB intermediate body

II IB 2nd level intermediate body

IUS Innovation Union Scoreboard

MA managing authority

EC European Commission

KIS key implementation stages

CC coordinating committee

NSS national smart specialisation

MC monitoring committee

NRP National Reform Programme

NSRD National Regional Development Strategy 2020

IRA International Research Agendas

ME Ministry of Economy

MID Ministry of Infrastructure and Development

MRD Ministry of Regional Development

SME Small and medium-sized enterprises

NCRD National Centre for Research and Development

NCN National Science Centre

OECD Organisation for Economic Cooperation and Development

EIA environmental impact assessment

ASI Area of Strategic Intervention

PAS Polish Academy of Sciences

PARP Polish Agency for Enterprise Development

PE private equity

IP investment priority

OP Operational Programme

IE OP Innovative Economy Operational Programme Innovative

Economy Operational Programme

SG OP Smart Growth Operational Programme 2014-2020

I&E OP Infrastructure and Environment Operational Programme

DP OP Digital Poland Operational Programme

TA OP Technical Assistance Operational Programme

EP OP Development of Eastern Poland Operational Programme

KED OP Knowledge, Education, Development Operational

Programme

"Fisheries and the Sea" Fisheries and the Sea Operational Programme

RDP Rural Development Programme

EDP Enterprise Development Programme

CP cohesion policy

TA technical assistance

RRA regional research agendas

CLLD Community-led local development

ROP Regional Operational Programmes

RIS regional innovation strategies

SIEE Strategy for innovation and effectiveness of the economy,

Dynamic Poland 2020

LS 2014–2020 National IT system for 2014-2020

NDS National Development Strategy 2020

EUSBSR EU Strategy for the Baltic Sea Region

EU European Union

PA Partnership Agreement

UP RP Patent Office of the Republic of Poland

CSF Common Strategic Framework

VC venture capital

ITI integrated territorial investment

7. FP 7. Framework Programme

Annexes

- 1. Action Plan for the fulfilment of ex-ante conditionality for TO 1.
- 2. Expert opinion on the SG OP result indicators
- 3. Information on the establishment of the performance framework
- 4. Information on the complementarity of SG OP with Horizon 2020, COSME and ETC programmes and national programmes
- 5. Information on the system of monitoring, reporting, evaluation, control, info-promo and financial management
- 6. Methodology for estimating target value output indicators
- 7. Opinion of the authority for equal treatment
- 8. Plan of activities connected with the preparation of the PARP for the implementation of operational programmes
- 9. Summary SG OP for citizens
- 10. Summary of the Forecast Environmental Impact Assessment for SG OP
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- 12. SG OP ex ante evaluation report
- 13. Self-assessment of the fulfilment of ex ante conditionalities

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