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**Report on monitoring and impact oriented
steering of ERDF innovation funding with
recommendations for improvement**



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List of abbreviations

R+D / R+D+I	Research and development/research, development, innovations
TO	Thematic Objective
ECRN	<i>European Chemistry Regions Network</i>
ERDF	European Regional Development Fund
EPC	<i>European Professional Card</i>
GUS	Central Statistical Office (<i>Główny Urząd Statystyczny</i>)
II ROP MV 2014-2020	Intermediate Institution for Regional Operational Programme of Mazowieckie Voivodeship 2014-2020
MA RIS	Managing Authority for Regional Innovation Strategy for Mazovia 2020
MA ROP MV 2014-2020	Managing Authority for Regional Operational Programme of Mazowieckie Voivodeship 2014-2020
KJE	National Evaluation Unit (<i>Krajowa Jednostka Ewaluacyjna</i>)
NITS MCITS	National IT System: Monitoring and Control IT System (2007-2013)
LSI MEWA	Local IT System „ <i>Mazowiecki Elektroniczny Wniosek Aplikacyjny</i> ”
MRI	Mazovian Innovation Council (<i>Mazowiecka Rada Innowacyjności</i>)
MSODI	Mazovian Network of Information-Advisory Centres for Innovation (<i>Mazowiecka Sieć Ośrodków Doradczo-Informacyjnych w zakresie innowacji</i>)
SME	Small and medium enterprises
NUTS	Nomenclature of Territorial Units for Statistics (french <i>Nomenclature des unités territoriales statistiques</i> , ang. <i>Nomenclature of Territorial Units for Statistics</i>)
PA	Priority Axis
IP	Investment Priority
GDP	Gross Domestic Product
PO KL	Operational Programme — Human Capital, implemented in the financial perspective 2007-2013
RIS	<i>Regional Innovation Strategy for Mazovia 2020. Innovation support system and smart specialization of the region, constituting an annex to Resolution No. 23/15 of the Mazowieckie Voivodeship Assembly of 16 March 2015 with the amendment</i>
general regulation	Regulation No 1303/2013 of the European Parliament and of the Council of 17 December 2013 <i>establishing common rules 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</i>

Fund; 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 Council Regulation (EC) No 1083/2006

ROP MV 2014-2020	Regional Operational Programme of Mazowieckie Voivodeship 2014-2020
S3Chem	Project „Smart Chemistry Specialisation Strategy” funded by the Interreg Europe Programme
SL2014	Central IT System (<i>Centralny System Informatyczny</i>) SL2014 (2014-2020)
SMERIS	Monitoring and Evaluation System of Regional Innovation Strategy for Mazovia 2020
SRWM	<i>The Development Strategy of the Mazowieckie Voivodship 2030. Mazovia as an Innovative Region</i> , Annex to Resolution No. 158/13 of the Mazowieckie Voivodeship Assembly of 28 October 2013
SWR	System for Implementation of Recommendations (<i>System Wdrażania Rekomendacji</i>)
EU	European Union
implementation act	Act of 11.07.2014 <i>on the principles of implementation of programmes in the scope of cohesion policy financed in the 2014-2020 financial perspective</i> (Journal of Laws of 2017, item 2433)
ZWM	Management Board of the Mazowieckie Voivodship

1. Introduction

Present report is prepared as part of the implementation of the "Smart Chemistry Specialisation Strategy" (S3Chem), a project funded by the Interreg Europe Programme. The report concerns the analysis of monitoring and impact oriented steering of ERDF innovation funding with recommendations for improvement.

The report answers following research questions:

- What are the valid systems for monitoring and evaluating the process of financing innovations in the region?
- Which entities were involved in the monitoring and evaluation process? What is the involvement of social and economic entities in this process?
- What are the methods for measuring the impact of financing innovations?
- What are the mid-term results of the innovation financing process?
- What are the used instruments for monitoring of the implementation of the innovation financing process?
- What are strengths and weaknesses of the monitoring system?
- How is the innovation financing process organized?
- What are the recommendations to improve monitoring?

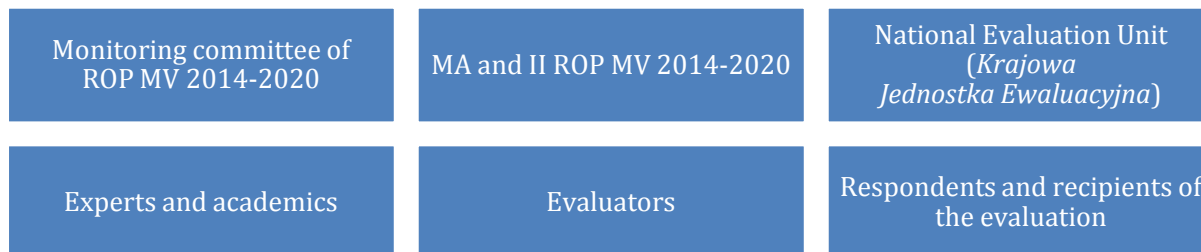
In order to answer above research questions, the content includes chapters concerning, as follows: a description of the monitoring system for financing innovations in Mazovia, objectives and results of activities related to financing innovations and a description of controlling measures for this process. The report presents how the data used to implement the process of monitoring and evaluation of the innovation financing process in the Mazowieckie Voivodeship is collected, containing also information on methods of informing stakeholders of the result of the conducted evaluation by institutions responsible for implementing the process of financing innovations.

as well as the analysis of the extent to which objectives and indicators have been met within this process in the region. Due to the fact that ROP MV 2014-2020 is the main source of financing innovations in Mazovia, a significant part of the description regarding the implementation of objectives and indicators in this regard concerns this Programme. The next part of the report concerns the stages of the process of financing innovations in the region. This part describes the structures involved in the process of financing innovations at every stage, starting from the preparation of strategic documentation, ending with the process of evaluating and implementing recommendations. The last part of the report presents strengths and weaknesses of innovation financing. It also includes recommendations for improving the process of implementing innovations in the region and expectations for the interregional learning process. It shall be also added that preparation of the report was supported by the research conducted among people involved in the process of financing innovations in Mazovia, potential stakeholders, representatives of sectors of science, business and administration.

The adopted thematic scope, the structure of the document and research methods resulted in the possibility to develop comprehensive conclusions with the focus on innovative activities undertaken in the chemical and bio-economy sectors.

2. Description of the monitoring and evaluation system

The monitoring and evaluation system of the innovation financing process from the ERDF involves a wide range of stakeholders. Among the main entities involved in this process are::



Source: own research based on the Evaluation Plan of the Regional Operational Programme of the Mazowieckie Voivodeship 2014-2020, Warsaw, February 2016, p. 36.

The implementation of ROP MV 2014-2020 and smart specializations of the region is associated with the necessity of appointing units responsible for the process as a whole. The coordinating function in the implementation of the Regional Innovation Strategy is performed by the Management Board of the Mazowieckie Voivodeship; these tasks are performed by teams functioning in the Marshal Office of the Mazowieckie Voivodeship. For this purpose, thematic groups were established within the structure of the MA RIS:

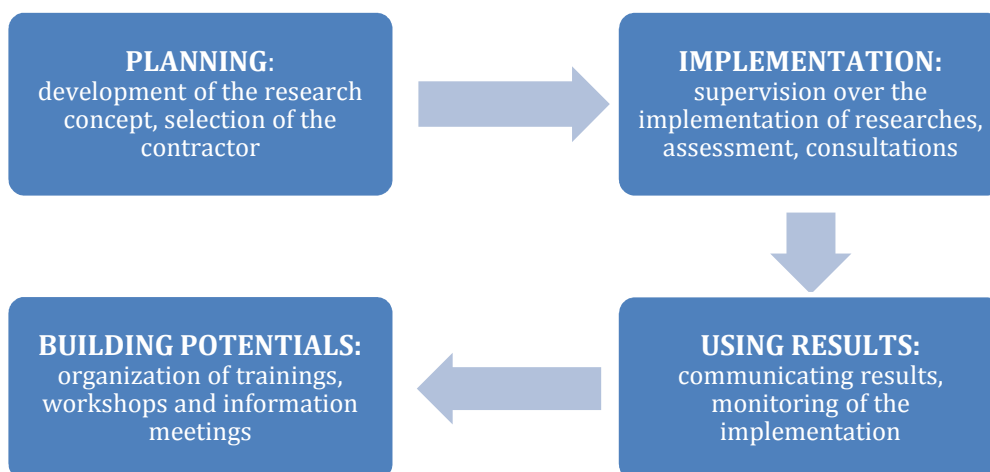
- team for coordinating the implementation and smart specializations;
- team supporting the regional innovation system¹.

In accordance with the Evaluation Plan², the evaluation of ROP MV 2014-2020 will have an external character, which means that its implementation will be entrusted to entities independent of bodies and units responsible for programming and implementation. Cooperation between the MA of the ROP MV 2014-2020 and the selected contractor of the evaluation shall be conducted on the basis of constant, mutual contact. After signing the contract with the contractor (thus initiating the research), as a rule, the inaugurating meeting takes place. Its aim is to clarify any doubts of the contractor concerning the expectations towards the MA ROP MV 2014-2020. Regarding the external evaluation, attention shall also be drawn to the reporting obligations of the contractor in terms of the implemented tasks. Monitoring the course of conducted evaluation by employees of the MA ROP MV 2014-2020 results in the possibility to avoid delays in completing the task and enables an early response to emerging threats to the research.

In the MA of the ROP MV 2014-2020 an unit responsible for developing the concept of evaluation, its supervision, the receipt of results and the implementation of recommendations was established. The different stages of evaluation are presented in the diagram below.

¹ Regional Innovation Strategy for Mazovia 2020. Innovation support system and smart specialization of the region, constituting an annex to Resolution No. 23/15 of the Mazowieckie Voivodeship Assembly of 16 March 2015, p. 49.

² Evaluation plan for the Regional Operational Programme of Mazowieckie Voivodeship 2014-2020, Warsaw, February 2016, p. 35.



Source: own research basing on the *Evaluation plan for the Regional Operational Programme of Mazowieckie Voivodeship 2014-2020*, Warsaw, February 2016, p. 36.

Regarding monitoring and evaluation, the provisions of the Implementation Programmes for RIS are also a significant factor³. These documents specify a number of tasks contributing to an effective implementation of the regional innovation support system and to receiving feedback on its implementation. Their update in the annual cycle results in the possibility of a quick response to emerging trends and challenges. The most important tasks concerning evaluation, included in the Implementation Programme are, inter alia: *ensuring the functioning of the information management system on the state of regional economy and innovation* based on the implemented IT platform, as part of the project entitled *Development of a monitoring system and the basis for evaluating implementation of the Regional Innovation Strategy for Mazovia*⁴. Fulfilment of the task provides support for the implementation, monitoring, evaluation and possible updates of RIS. Under the task, it is planned to conduct analyses and evaluation researches in the scope of the socio-economic situation of the voivodeship, organise interregional workshops, and conclude and implement agreements with institutions possessing information that could contribute to the strengthening of the system. Furthermore, the instrument called "The innovative project card" was developed, constituting one of the tools for monitoring the smart specialization of the region. The monitoring and evaluation system is also supported by the functioning of the Mazovian Innovation Council and the ongoing service of the IT platform⁵. Funds for the implementation of the task are allocated from the budget of the Voivodeship and from the Technical Assistance Operational Programme 2014-2020. Other planned tasks under the Programme include: organisation of subsequent editions of the "Innovator of Mazovia" competition; implementation of project under IP 1b by the self-government of Mazowieckie Voivodeship, ensuring support for the development of an effective RIS Mazovia implementation system; operating of working groups for the smart specialization of the Mazowieckie Voivodeship and establishing contacts and developing a cooperation network based on smart specialization in the Mazowieckie Voivodeship.

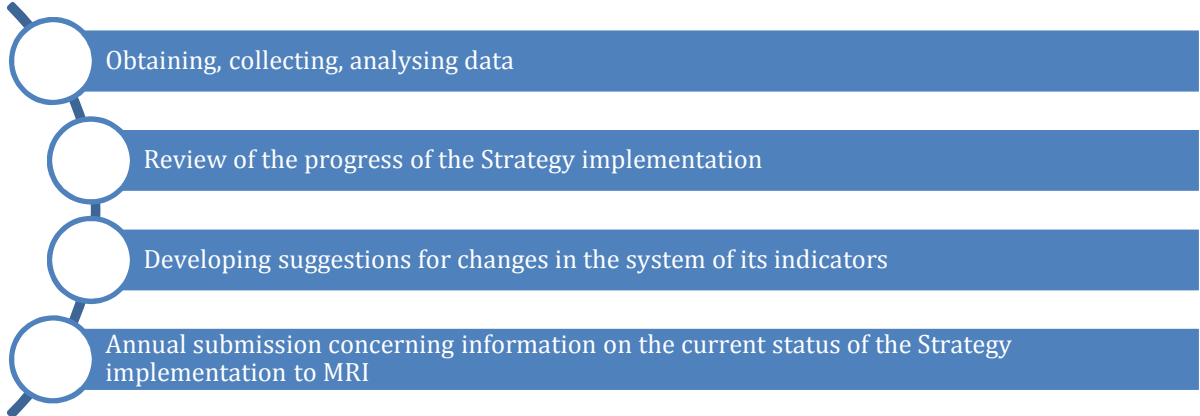
³ *The Implementation Programme 2015 for the Regional Innovation Strategy for Mazovia 2020*, adopted in the form of Resolution No. 433/32/15 of the Regional Council of Mazowieckie Voivodeship of 07.04.2015.; *The Implementation Programme 2015 for the Regional Innovation Strategy for Mazovia 2020*, Annex to Resolution No. 693/242/17 of the Management Board of the Mazowieckie Voivodeship of 16.05.2017.

Plans were made to adopt another Implementation Programme for 2018-2019.

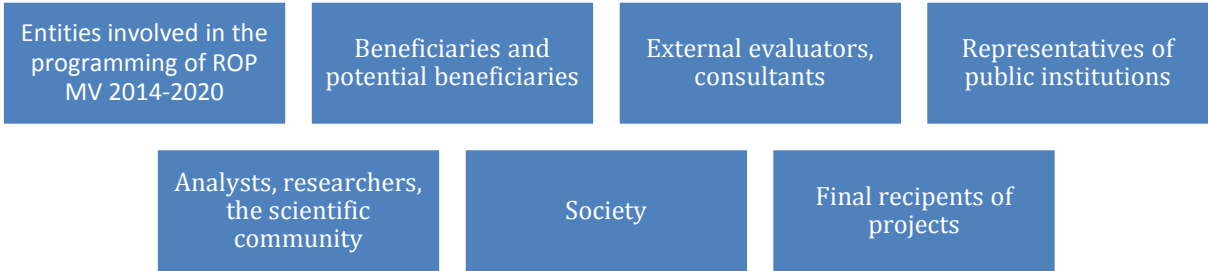
⁴ *The Implementation Programme for the Regional Innovation Strategy for Mazovia 2020*, constituting an annex to Resolution No. 693/242/17 of the Management Board of the Mazowieckie Voivodeship of 16.05 2017, p. 3.

⁵ *Ibidem*, p. 3.

The monitoring and evaluation process consists a significant element in the process of implementation of the Strategy, contributing to an initial assessment of the effectiveness of measures undertaken over time. Apart from annual obligatory reporting being a part of the implementation of the ROP MV 2014-2020, the Monitoring and Evaluation System of Regional Innovation Strategy for Mazovia 2020 (System Monitorowania i Ewaluacji Regionalnej Strategii Innowacji Województwa Mazowieckiego - SMERIS) was developed in the Mazowieckie Voivodeship⁶. Conducting monitoring is part of the responsibilities of the employees of the Department of Development and Management of the Regional Innovation Strategy, located within the structures of the RIS MA. The tasks of the team involved in conducting monitoring include the following activities:



The communication strategy significantly corresponds with the process of the evaluation of the Programme. Measures aimed at identifying the main recipient groups of the results of evaluation research was initiated as early as the programming stage. Due to such approach it was possible to adjust the form and content of documents developed in the evaluation process to the needs of particular groups of recipients. Such documents serve not only strictly administrative purposes, but are also intended for other recipient groups, i.e.:



Source: own research based on the Evaluation Plan of the Regional Operational Programme of the Mazowieckie Voivodeship 2014-2020, Warsaw, February 2016, p. 36.

Communication of results of monitoring and conducted evaluations is carried out through a variety of channels, i.e.:

- Organization of meetings to present the results of evaluation researches⁷;

⁶ <https://smeris.mazovia.pl/> (access: 6.07.2018).

⁷ Meetings are organized each time after conducting evaluation and after the document is accepted as the result of it; participants of those meetings include, among others, employees of the MA and II of ROP MV 2014-2020, members of the working groups on smart specialization and all parties interested in the subject; the added value is the presentation of the results of the conducted evaluation by the research contractor, contributing to a more profound understanding of the mechanisms of the evaluation by recipients.

- Work meetings for employees of public institutions, to whom recommendations are directed;
- Work meetings with entities having influence on the programming of ROP MV 2014-2020;
- Publication of final reports on evaluation researches - reports are published on the web portal www.innowacyjni.mazovia.pl;
- Publication of newsletters, brochures and other information materials - the newsletter is available on the website www.funduszedlamazowska.eu, while brochures and other information materials are available in the headquarters of the MA RIS;
- Cooperation with local media;
- Publication of evaluation research results via social media.

Attention shall be drawn to the comprehensive approach to the evaluation of the ROP MV 2014-2020.

Conducted evaluations may be divided into following categories:

- **ex ante** (conducted before implementing the Programme);
- **on going** (or **mid term**: current evaluation conducted on the stage of implementation);
- **ex post** (conducted after the implementation of the programme/project is finalized).

The Evaluation Plan indicates a considerable number of research methods applicable in the ongoing evaluations of ROP MV 2014-2020⁸, in the case of all three types of researches, adopted methods include:

- desk research analysis (analysis of existing data);
- surveys (with beneficiaries and entities from the control group, they reflect the participatory nature of the evaluation);
- individual and focus interviews (with representatives of various environments, including public administration, beneficiaries; reflecting the participatory nature of the evaluation);
- participatory observation (the evaluator is observing real situations, for example the process of applying for support).

In the case of the **ex ante** assessment, following techniques are also used:

- Delphi method (providing experts with developed questionnaire forms; the results of the first stage of the research constitute a basis for the following stage);
- Expert panels (constituting a working group consisting of specialists in a given field; its task is to synthesize the results obtained with the use of other research methods);
- cost-benefit analysis (CBA, is a method of assessing the effectiveness of public intervention in the area covered by the support);
- cost-effectiveness analysis (CEA, it is a method of assessing the effectiveness of the project in relation to its objectives).

In the case of the **ex post** evaluation, the panel of experts is also used, among different techniques:

- benchmarking (the objective of this method is the assessment of effectiveness of the implemented project in relation to other measures considered to be model);
- case study (being an in-depth description of the operation of public intervention in practice).

Collection and analysis of data relevant to the implementation and evaluation of ROP MV 2014-2020 is conducted with the use of several significant tools - an especially significant tool relates to the central teleinformation system supporting the implementation of operational programmes (for example SL2014)⁹. This system constitutes the main channel of communication between the beneficiaries and

⁸ see: *Evaluation Plan...*, p. 40-43.

⁹ The tool was developed on the basis of article 69 of the Act of 11.07.2014 on the rules for the implementation of programmes in the scope of cohesion policy financed in the 2014-2020 financial perspective (*Journal of Laws 2017, item 2433*).

institutions involved in the implementation of the Programme. Moreover, it is a platform for collecting and processing data concerning all operational programmes implemented in Poland. The advantage of the system, compared to the NITS MCITS from 2007-2013, is the ability to collect more data and report in a form beneficial for the evaluation process (the reporting system is based on the data warehouse principle)¹⁰. The SL2014 system is supported by local IT systems, separate for each NUTS2 unit in Poland¹¹. Mazowieckie Voivodeship has the Local IT System MEWA - functions of this system relate to:

- automatic error service in sent documents on the side of local systems;
- the possibility of automatic updating transmitted documents;
- the ability to use the data dictionaries provided by SL2014.

The MEWA system constitutes also a source of information on calls for proposals, submitted applications and the process of evaluation and selection of projects¹².

The evaluation process also uses data collected within other databases, including:

- public statistics data and institutional databases (e.g. CSO);
- databases related to the 2007-2013 programming period;
- evaluation researches conducted at the national level;
- researches already conducted in the region;
- strategic documents at the regional, national and community levels;
- scientific and specialist literature, expert knowledge¹³.

The evaluation process in Poland is considerably decentralized. In the current financial perspective there is a separate evaluation unit for each Programme co-financed from European Union funds¹⁴. Analysing the approach of the MA ROP MV 2014-2020 to the evaluation process, attention shall be drawn to a comprehensive approach to the problem. The indicative financial plan included in the Programme's Evaluation Plan allocates PLN 4,188,856 (approximately EUR 1 million) for training and evaluation purposes¹⁵. Furthermore, Mazowieckie Voivodeship resorted to the division into obligatory and optional research, ensuring the opportunity to control the evaluation process to a certain extent, depending on the emerging needs. Establishing a proper objective of evaluation, criteria, type of evaluation (influential or procedural study) and main thematic (problem) areas contributes to a rational approach to the issue of evaluation. Given above, the researches are not of an ad hoc nature, and the approach to the issues covered by the evaluation is complementary.

¹⁰ Evaluation Plan..., pp. 39-40.

¹¹ On 1 January 2018, Commission Regulation (EU) 2016/2066 of 21.11.2016 amending the Annexes to Regulation (EC) No 1059/2003 of the European Parliament and of the Council concerning establishing a common classification of Territorial Units for Statistics (NUTS) (Journal of Laws UE L 322/1, 29.11.2016), according to which the Capital City of Warsaw is a separate unit at the NUTS2 level. Both for the Capital City of Warsaw, as well as for the rest of the Mazowieckie Voivodeship, constituting one NUTS region with Warsaw, one local ICT system is provided until the end of 2017.

¹² Evaluation Plan..., p. 41.

¹³ See: *Ibidem*, p. 41.

¹⁴ See: <https://www.ewaluacja.gov.pl/strony/system-ewaluacji/> (access: 6.07.2018).

¹⁵ These measures are intended for the implementation of evaluation and periodic researches, including ad hoc studies, training in evaluation, data collection for evaluation and presentation of results concerning research and project management, as well as publication of books, newsletters, brochures and other materials in this area.

3. The objectives of the monitoring and evaluation processes with the initial assessment

Investment Priority 1b *Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialization, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies (...)* is implemented under measure 1.2 *Research and development activity of enterprises* of ROP MV 2014-2020.



The specific objective of IP 1b is *Increased R&D enterprises activity*¹⁶. The problem faced by the region's economy concerns a limited scope of undertaking research and development activities by entrepreneurs and inconsiderable funds allocated for this purpose. The analysis of the reasons behind this state (subjective lack of need, unwillingness to take risks, inability to cope with financing innovation and R+D activities) demonstrates that two types of actions are needed for the achievement of the objective, including:

- increasing the number of enterprises undertaking regular activities for R+D+I;
- improving access to R+D+I activities through additional sources of financing¹⁷.

Within the framework of ROP MV 2014-2020 there are instruments dedicated to enterprises that previously did not undertake research and development activities, which is aimed at the increase of the number of companies that incur expenditures for these purposes.

The implementation of IP 1b, which supports research and development activities, aims at the increase of the availability of sources of financing for innovation by local enterprises. The increase in the intensity of research and development works will also be possible because of the effects of intervention in the form of development of R+D infrastructure related to planned works in this field. Such infrastructure will contribute to the development of existing research and development

¹⁶ Regulation No 1303/2013 of the European Parliament and of the Council of 17 December 2013 establishing common rules 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; 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 Council Regulation (EC) No 1083/2006.

¹⁷ Regional Operational Programme of Mazowieckie Voivodeship 2014-2020, Warsaw, 12.02.2015, p. 57.

departments. The existing infrastructure may also be used outside of implemented projects co-financed from the EU.

Under IP 1b it is planned to implement, among others, the following types of undertakings:

- research and development projects;
- creating or developing a research and development base;
- the process of experimenting and searching for niche development and innovation - competitions related to the emergence of new smart specializations;
- development of a regional innovation system, ensuring conditions for a bottom-up process of defining the needs and cooperation of enterprises with scientific units in the areas of smart specialization based on the Regional Innovation Strategy for Mazovia¹⁸.

It was established that the research could be conducted both independently by the company as well as in cooperation with the scientific unit. Support under IP 1b is focused on the SME sector, nevertheless, the Programme allows for the implementation of investments by large enterprises, provided that they ensure the effects of diffusion of their activities as part of the R+D project to the economy.

Moreover, according with the provisions of the document, projects implemented under this priority shall be in line with the region's smart specialization. Due to the need to constantly monitor and respond to emerging challenges, no more than 10% of funds allocated to IP 1b is intended for use in the implementation of competitions that will result in *the process of experimentation and searching for developing ad innovative niche areas*¹⁹.



The Programme implements the specific objective of the Partnership Agreement, that is *Improving the quality and internationalization of research and increasing the use of results in economy*²⁰. It is also complementary with the main objective of the ROP MV 2014-2020, which is implemented as part of the strategic objective I *Development of the competitiveness of the region`s economy based on innovation, enterprise, absorbing labour market and balanced resources*.

For IP 1b and the objectives it has been subordinated to, the result indicator is the expenditure of the enterprise sector on R+D in relation to GDP. The base value (in 2011) was 0.35% of GDP. The target

¹⁸ *Ibidem*, p. 58.

¹⁹ *Ibidem*, p. 59.

²⁰ *Programming of the 2014-2020 financial perspective- Partnership Agreement, Ministry of Infrastructure and Development, August 2017, p. 19.*

value, to be achieved in 2023, is 0.85% of GDP. The value of the result indicator is measured in an annually.

Among the product indicators provided for measures implemented under IP 1b, attention shall be drawn to:

- enterprises cooperating with research centres (target value - 40 enterprises);
- enterprises receiving support (target value - 260 enterprises);
- enterprises receiving subsidies (target value - 260 enterprises);
- new scientists in supported units (target value - 300 people with an European Professional Card ²¹);

as well as the amount of private investment complementing public support for enterprises (subsidies) (target value - 125.2 million EUR).

Progress in the implementation of product indicators is measured annually by submitting reports on the implementation of the Programme to the European Commission.

From the beginning of the implementation of the Programme, 1005 contracts were concluded, worth EUR 1157.9 million of which EU funding amounted to EUR 752.4 million. 2017 was the most active period for signing contracts by the beneficiaries of the Programme; 806 contracts worth EUR 819.9 million, of which EUR 500.6 million was co-financed by the European Union, were concluded. Therefore, 80% of all contracts for co-financing from ROP MV in the current financial perspective were concluded in 2017. In the case of I PA, covering IP 1a and IP 1b, by the end of 2017, 405 applications were approved for implementation, of which 381 applications were submitted under IP 1b - 94% of all applications approved for implementation under PA 1. From 10 competitions announced under PA 1 (allocation: EUR 210.9 million), up to 8 related to IP 1b (allocation EUR 123.3 million)²². Detailed information on the degree of implementation of product and result indicators is included in the Annual reports on the implementation of the ROP MV 2014-2020. The reports shall cover the calendar year and shall be prepared by 30 June of the year following the year to which data in the report relate²³. The document is approved by the Monitoring Committee, composed of representatives of the local self-government, government, representatives of non-governmental partners and observers. The document is later adopted in the form of a resolution of the Management Board of Mazowieckie Voivodeship and forwarded to the European Commission for approval.

Given the process of closing the previous financial perspective and preparations for the current perspective, in 2014 there were no competitions co-financed from the resources of RPO MV 2014-2020. In 2015, 10 calls for proposals were announced under the competition procedure, however, in the pool there were no calls for IP 1b, therefore the progress of indicators implementation may be analysed only from 2016. A summary of the degree of implementation of product indicators is presented in the table below.

²¹ EPC.

²² Own research based on the Annual report on the implementation of the Regional Operational Programme of Mazowieckie Voivodeship 2014-2020 in 2017 and based on the list of calls for proposals: <https://www.funduszedlamazowska.eu> (access: 31.07.2018).

²³ The reporting obligation was not bidding 2014.

Table 1 Product indicators for IP 1b in RPO MV 2014-2020

ID	Indicator	Unit of measure	Target value in 2023	Value in 2016	Value in 2017
CO01	<i>Production investments: number of enterprises receiving support</i>	Enterprises	260	64	228
			260	1	349
CO02	<i>Production investment:: number of enterprises receiving subsidies</i>	Enterprises	260	56	228
			260	1	349
CO06	<i>Production investments: private investments: complementary public support for enterprises (subsidies)</i>	EUR	125 200 000,00	500 755,00	6 497 976,10
			125 200 000,00	1 668,08	47 498 757,40
CO24	<i>Research and innovation: number of new scientists in supported units</i>	Equivalents of full-time work	300	0	2
			300	0	64
CO26	<i>Research and innovation: number of enterprises cooperating with research centers</i>	Enterprises	40	0	0
			40	0	1

Grey colour marks fully conducted operations, while the white one - selected operations. Source: own research based on the Annual report on the implementation of the Regional Operational Programme of Mazowieckie Voivodeship 2014-2020 in 2016 and the Annual Report on the implementation of the Regional Operational Programme of Mazowieckie Voivodeship for 2014-2020 in 2017.

The analysis of reporting documents demonstrated that there was a significant increase in the level of implementation of abovementioned product indicators in 2017. Noteworthy is the number of enterprises receiving support or subsidies for productive investments - the result covering operations already implemented is nearing the target value, while it exceeds this level if taking into consideration selected operations. In the case of private investments complementary to public support for enterprises, the level of reaching the target amount is low - considering conducted operations - merely 5.19%, however, if taking into account the operations selected for its implementation - it amounts to 37.94%²⁴. Attention shall be drawn, however, to the low number of new researchers in units that received support for research and development in relation to the number of supported enterprises. The number of enterprises cooperating with research centers is also considerably low. Until now only one project aiming at such cooperation has been selected for implementation.

Analysing the progress in achieving the assumed level of the result indicator, one shall note its instability. In the years 2014-2015, the level of expenditures of the enterprise sector on R+D operations in relation to GDP oscillated within the target value set to be achieved in 2023²⁵. A considerable increase of the indicator in relation to the base value was noted. However, in 2016 its level was decreased to 0,00%.

²⁴ Own research based on the Annual report on the implementation of the Regional Operational Programme of Mazowieckie Voivodeship..., p. 18.

²⁵ In 2014 the level amounted to 0,81% GDP, and in 2015 - 0,75% GDP.

Table 2 Result indicators for IP 1b in ROP MV 2014-2020

Indicator	Base value (2011)	Target value (2023)	2016	2015	2014
<i>Expenditures of the business sector on operations R+D in relation to GDP [%]</i>	0,35	0,85	0,00	0,75	0,81

Source: own research based on the Annual report on the implementation of the Regional Operational Programme of Mazowieckie Voivodeship 2014-2020 in 2016 and the Annual Report on the implementation of the Regional Operational Programme of Mazowieckie Voivodeship for 2014-2020 in 2017.

Evaluation of the progress in the implementation of indicators are not only based on annual reports on the implementation of the Programme submitted to the European Commission, control activities of MA and II of ROP MV, and reporting obligations of beneficiaries, but also on activities included in the Evaluation Plan of ROP MV 2014-2020²⁶. The document includes an outline of the process of conducting evaluation in Mazowieckie Voivodeship, with the indication of the main areas of evaluation, planned evaluation activities, basic sources of existing data, and research methods used to conduct the evaluation process. The document covers all investment priorities and thematic objectives implemented under the ROP MV 2014-2020. The chronological list of planned evaluations is described in terms of priority axes and investment priorities. On this basis it may be stated that the plan for PA 1 is provided for (within the area of Modern Economy - the capital of entrepreneurship, knowledge and innovation), the implementation of five evaluations ²⁷:

- *Evaluation of the usefulness of research agendas in R+D projects under ROP MV 2014-2020 (2016);*
- *Evaluation of support for the ROP MV 2014-2020 granted to cooperative relations in the scope of R+D activity;*
- *Evaluation of the progress of support provided under the ROP MV 2014-2020 for the increase of R+D potential and the use of innovative solutions in the economy of the region.*

Indication of the purpose of the research, its justification, criteria to be met by the study, a general outline of the methodology along with the areas planned for research (research questions) and the scope of time and the entity responsible for conducting the research indicates that the Evaluation Plan is an action considerably comprehensive in the case of the Mazowieckie Voivodeship. Given above, the organized research will contribute to an extensive feedback response and its use to improve the implementation of the Programme or to modify strategic documents for the future financial perspectives, in order to ensure possibly most effective spending funds.

²⁶ Evaluation Plan..

²⁷ Furthermore, seven horizontal researches are planned as part of the Evaluation Plan, see *Ibidem*, p. 57

Table 3 Indicators of the main objective of the Regional Innovation Strategy of Mazowieckie Voivodeship until 2020 in selected years

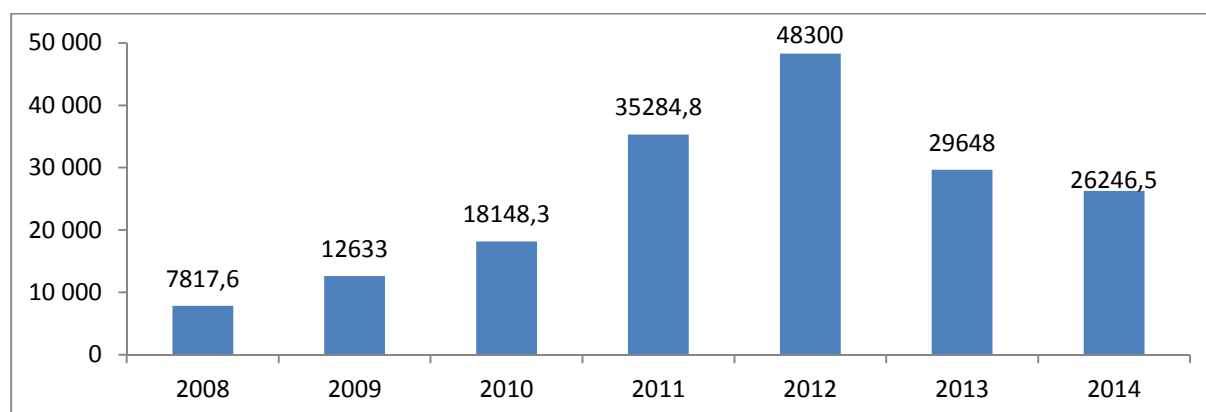
Name of the indicator	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Expenditure on R+D in relation to GDP	1.19	1.2	1.1	1.07	1.07	1.21	1.19	1.36	1.39	1.38	1.55	1.7
Expenditure on innovative activity in enterprises in relation to GDP				0.94		3.46	2.59	0.0	2.49	2.54		
The share of innovative enterprises - in the total number of industrial enterprises			49.6	24.0	45.7	25.8	16.2	17.3	13.9	15.3	18.5	19.1
Share of innovative enterprises - in the total number of enterprises from the service sector				25.2		22.0	18.1	15.6	13.8	16.9	15.2	15.1
Share of the voivodeship in national expenditures for innovative activities in enterprises				38.9		36.8	35.8	42.0	39.4	44.2	36.9	33.3

Source: SMERIS: <https://smeris.mazovia.pl/> (access: 31.07.2018).

Another element of the monitoring system constitutes of the analysis of indicators of the RIS objectives implementation. The main objective of the document is monitored by 5 indicators presented in the table above. Current information is obtained using SMERIS. It should be noted that the ratios for expenditures on R+D in relation to GDP and expenditures on innovative activity in enterprises in relation to GDP increased significantly. However, the share of innovative enterprises in the total number of industrial and service enterprises as well as the share of the voivodeship in national expenditure on innovative activity in enterprises decreased. It shall be added that the decline in the scope of the last of mentioned indicators may be related to the increase in public intervention for innovative activity in the current financial perspective, as part of implemented operational programmes.

Over the years, there has been an increase in internal expenditure on research and development in enterprises operating in the chemical sector and bioeconomy. Invariably, the region has been in the leading position in the country in this respect since 2011²⁸. The amount of expenditures for this purpose is presented in the chart below.

Figure 1 Internal expenditures in the enterprise sector for R+D activity: production of chemicals and chemical products

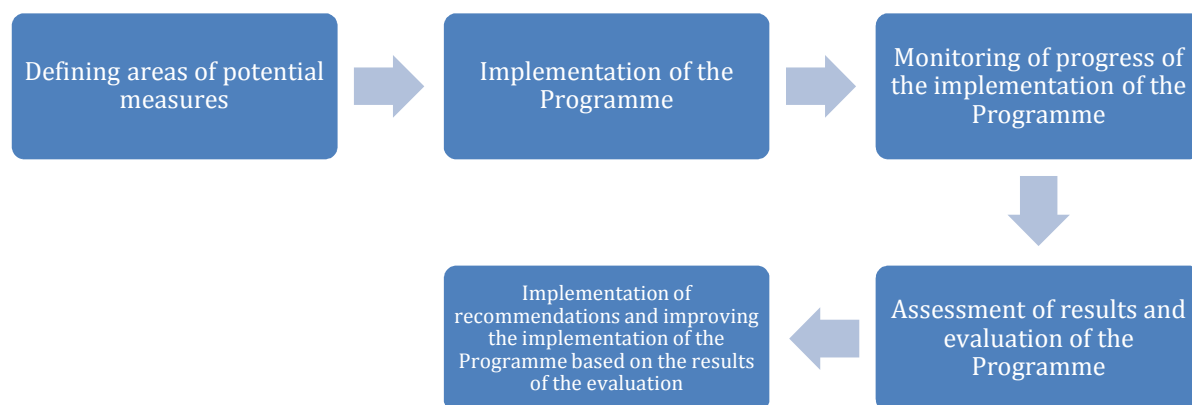


Source: own research based on data from: <https://smeris.mazovia.pl/> (access: 31.07.2018).

²⁸ In 2009 and 2010 Mazovia was ranked lower than Śląskie Voivodeship, however, in the following years it regained its leading position.

4. Description of the process of implementing recommendations

The process of controlling the policy of financing innovation is considerably extensive and includes the stages from defining the areas of measures to the evaluation of the undertaken measures. The main activities covering the process of steering the innovation financing process should include:



In terms of defining potential areas that may become the basis for Mazovia's smart specialization, a large role should be attributed to the involvement of potential stakeholders in the work on the Regional Innovation Strategy for Mazovia²⁹. As part of works on the document, extensive social consultations were held. Also, in 2014, a significant number of meetings were organized in the process of updating the document, among others with representatives of subregional centers in the Mazowieckie Voivodeship, with representatives of key sectors of the region's economy and with clusters' representatives. As part of the public consultation, 34 meetings were organised³⁰. During those consultations more than 200 comments formulated by 17 entities were submitted, most of which was accepted³¹.

The establishment of working groups for smart specialization of the region also serves to define fields that are the basis for the development of regional smart specialization. The activity of groups contributes to ensuring the involvement of stakeholders in the management and monitoring of RIS, while at the stage of defining the areas of potential smart specialization - to targeting the support within specific areas of specialization in accordance with current needs and emerging development opportunities. A considerable involvement of stakeholders is also supported by the fact that the groups are open, resulting in the involvement of groups of representatives who have not previously participated in the works.

Furthermore, Mazovian Innovation Council operates in the region, constituting a part of the systemic project called *Development of a monitoring system and the basis for evaluating implementation of the Regional Innovation Strategy for Mazovia*. The Council is a consultative and advisory team of the Management Board of Mazowieckie Voivodeship in the scope of innovation policy related to the implementation of the Regional Innovation Strategy for Mazovia. The Council consists of the Marshal of Mazowieckie Voivodeship as chairman, and, as follows: members of the Management Board of

²⁹ *Regional Innovation Strategy for Mazovia 2020...*

³⁰ *Report on public consultations of the project of Regional Innovation Strategy for Mazovia 2014-2020 along with smart specialization of the region, 27.02 - 3.04 2014, Warsaw 2014, p. 12.*

³¹ *Ibidem, p. 15.*

Mazowieckie Voivodeship, representatives of regional institutions, scientific units, the economy sector, business environment institutions and central, regional and local administration³².

Moreover, within the Strategy it is also planned to conduct evaluation. Evaluation is divided into three types:

- supplementary assessment (annual);
- mid-term evaluation;
- ex post evaluation of the Strategy³³.

The monitoring and evaluation team in cooperation with the Council and working groups on smart specialization are responsible for the development of specific objectives, the scope of research and the expected results of thematic evaluations conducted depending on the current needs.

The recommendations resulting from the evaluation are submitted to the Mazovian Innovation Council for approval. At the same time, the unit is responsible for monitoring the implementation of the recommended measures³⁴.

As mentioned before, the analysis of progress in the implementation of ROP MV 2014-2020 takes place on an annual basis, while the basic reporting obligations of MA ROP MV 2014-2020 and of Intermediate Institutions include submitting annual reports and final reports on the implementation of the Programme to the European Commission. These reports contain, among others, information on the level of achievement of product and result indicators. The information used to prepare the report is obtained from public statistics and information provided by the beneficiaries of the funds. The information provided by the beneficiaries as part of their reporting obligations serves as a source of data necessary for the evaluation process, being also significant in the scope of controls and audits, which is to counteract the improper spending of funds.

When it comes to entrepreneurs who report after project implementation, they say that it is difficult for them and they would prefer not to do it, but I do not think that these procedures are overly burdensome. (...) An entrepreneur who implements the initiative must submit a report after the project is completed and it is also a matter of monitoring whether he is still operating and if it maintains the effects of the project, so I would not say the procedures are burdensome.

Statement of the representative of the institution involved in the implementation of ROP MV 2014-2020.

Reporting obligations towards the European Commission include, among others, submitting information on the number of announced competitions and projects identified for co-financing in a non-competitive mode, the number and financial value of applications submitted under calls for proposals, signed contracts and the extent of allocations using the fund from which the project is co-financed, and the value of approved applications for payment. The report also contains information on significant issues that may affect the implementation of the Programme and undertaken corrective/preventive measures.

Another significant element of monitoring of the system of implementation and financing are evaluations, conducted both at the national and regional level. Conclusions from the conducted research on The assessment of the utility of research agendas in R+D projects under ROP MV 2014-

³² Regulations of the Mazovia Innovation Council, par. 3.

³³ Regional Innovation Strategy for Mazovia 2020..., pp. 52-53.

³⁴ Ibidem, pp. 52-53.

2020 indicate that research agendas prepared under the Regional Innovation Strategy contribute to the concentration of support on particular industries, and their general role should be considered as undeniably positive.

Of a considerable significance to the matter is the System for Implementation of Recommendations (Polish SWR), under which, in accordance with the Guidelines for the evaluation of cohesion policy for 2014-2020³⁵, the results of the evaluations are used. This system operates basing on an IT database administered by the National Evaluation Unit. The SWR contains information on all approved recommendations adopted under the cohesion policy system in Poland. After receiving the recommendation as a result of evaluation researches, the process of their consultation with the addressees occurs, after which the recommendation is approved or rejected. After approving the recommendation, it should be entered into the IT database of the SWR within 60 days; this obligation is held by the Managing Authority/National Evaluation Unit (KJE) in the given Operational Programme. Moreover, the addressee of the recommendation provides information on the implementation of recommendations to these institutions after completion of their implementation.

Placing recommendations in a standardized form in the system, along with the status, ensures a holistic approach to the evaluation and monitoring process within the country.

In terms of best practices regarding the process of monitoring and analysing the progress of the Programme's implementation, the involvement of potential stakeholders should be included to a large scale. The open nature of working groups on smart specializations shall be again mentioned. Furthermore, attention shall be drawn to the considerable interest of representatives of various entities as part of monitoring and updating of smart specialization. Among the strengths of the process of development and financing of innovations in the region, one should also take into a consideration a high degree of concentration of support on the chemical and bioeconomy industry. These industries are aligned with most of the priority research directions resulting from the smart specialization of Mazovia. The chemical industry in Mazovia is strongly developed, which results in the large involvement of stakeholders in the processes related to the programming of innovation development in the region³⁶. In the Mazowieckie Voivodeship there is a number of strategic documents that demonstrate the detailed nature of the process conducted in order to identify areas with a potential to contribute to the region's innovation level, to which the support stream has been directed. These include, inter alias:

- Development Strategy for the Mazowieckie Voivodeship 2030³⁷;
- Regional Innovation Strategy for Mazovia 2020³⁸;
- Priority research directions within the smart specialization of Mazowieckie Voivodeship³⁹;
- Implementation Programme for Regional Intelligent Specialization⁴⁰.

³⁵ *Guidelines for the evaluation of cohesion policy for 2014-2020, Ministry of Infrastructure and Development, Warsaw, 22.09.2015, p. 35.*

³⁶ *See: Report 2 on recommendations for the Involvement of Stakeholders and Governance of Regional Innovation Strategies in Mazovia Region, Warsaw, April 2018.*

³⁷ *The Development Strategy of the Mazowieckie Voivodship 2030. Mazovia as an Innovative Region, Annex to Resolution No. 158/13 of the Mazowieckie Voivodeship Assembly of 28 October 2013*

³⁸ *Regional Innovation Strategy for Mazovia 2020...*

³⁹ *Priority research directions within the smart specialization of the Mazowieckie Voivodeship version 1.0, Warsaw 2017; Priority research directions within the smart specialization of the Mazowieckie Voivodeship version 2.0, Warsaw 2017; Priority research directions within the smart specialization of the Mazowieckie Voivodeship version 3.0, Warsaw 2018.*

⁴⁰ *The Implementation Programme 2015 for the Regional Innovation Strategy for Mazovia 2020, adopted in the form of Resolution No. 433/32/15 of the Regional Council of Mazowieckie Voivodeship of 07.04.2015.; The Implementation*

Attention should also be drawn to the matter of communicating the results and the effects of research and conducted evaluation, which is mainly done by issuing relevant documents on websites:

- ROP MV 2014-2020⁴¹, in the „Przeczytaj analizy, raporty i podsumowania” tab;
- Mazovian Unit of EU Programmes Implementation⁴², in the „Ewaluacja RPO WM” tab;
- Regional Innovation Strategy⁴³, in the „Publikacje” tab.

Promotion of projects in the chemical and bioeconomy industries is also performed through the organization of the "Innovator of Mazovia" competition, focusing on enterprises from the SME sector. The winners of the contest have the chance to receive the prize in two categories: "Innovative Young Company" and "Innovative Young Scientist"⁴⁴. Another competitions, promoting the chemical industry and bioeconomy are Mazowiecki Klaster Kluczowy and the competition "Start from Mazovia", designed for young, innovative companies. This process is also influenced by the functioning of the website of the Monitoring and Evaluation System of the Regional Innovation Strategy for Mazovia⁴⁵.

Of a significance is also the participation of Mazowieckie Voivodeship in the project "Smart Chemistry Specialization Strategy"; the promotion of Mazovia and Mazovian companies from the chemical and bioeconomy industries can therefore be noticed outside Poland, thus affecting transnational cooperation and the internationalization of enterprises. The next promotion channel is the Mazovia Development Forum⁴⁶. It is the most important event regarding the development of the region, having a workshop and conference nature. It contributes, among others, to promotion of European funds and exchange of experience. As part of the event, there are also fairs in which exhibitors from the administration, business and science sectors can participate. This promotes establishing contacts and sharing knowledge. During the next - 9th edition of the Mazovia Development Forum in October 2018 matters related to the slogans: Region of the Future, Eco Region and Man and Medicine will be discussed. This proves the claim that the Forum is an important platform for the promotion of the chemical industry and the bioeconomy.

Programme 2015 for the Regional Innovation Strategy for Mazovia 2020, Annex to Resolution No. 693/242/17 of the Management Board of the Mazowieckie Voivodeship of 16.05.2017.

⁴¹ <https://www.funduszedlamazowska.eu> (access: 31.07.2018).

⁴² <http://rpo.mazowia.eu> (access: 31.07.2018).

⁴³ <https://innowacyjni.mazovia.pl> (access: 31.07.2018).

⁴⁴ <https://innowacyjni.mazovia.pl> (access: 31.07.2018).

⁴⁵ <https://smeris.mazovia.pl> (access: 31.07.2018).

⁴⁶ <http://forumrozwojumazowska.pl> (access: 31.07.2018).

5. Conclusions and recommendations

5.1. Strengths and weaknesses of the monitoring system

Due to the analysis of the monitoring and evaluation system it is possible to indicate the strengths and weaknesses of this process. The results of the analysis are presented in the table below.

Table 4 Strengths and weaknesses of the innovation financing system

STRENGTHS	WEAKNESSES
<i>Strong coordination of the evaluation process and a high level of detail of the ROP 2014-2020 Evaluation Plan (at the level recommended by the EC). This provides the opportunity to implement specific intentions without the need to modify the document - the most significant issues have been specified in the framework of the Plan.</i>	<i>No measures based on the counterfactual impact evaluation method, in which comparative groups selected according to rigorous criteria are taken into consideration, proving it impossible to distinguish criteria (other than intervention under the ROP) that may affect the achievement of objectives and results</i>
<i>Adoption of an external evaluation mechanism, ensuring a high degree of independence of evaluators and avoiding the risk of distorting the evaluation process through a subjective approach to research by an employee of the entity implementing the Programme.</i>	<i>No comprehensive guides containing detailed definitions of indicators, their interpretation and measurement of their value, which raises doubts concerning the equivalence of data collected from beneficiaries (e.g. due to different methodologies for calculating indicators).</i>
<i>Basing indicators on data obtainable and easily measurable (data obtained from beneficiaries, public statistics).</i>	<i>No indication of key solutions in the use of evaluation results at the Programme level.</i>
<i>Data aggregation within the IT system, based on the principle of a data warehouse and the integration of SL2014 and LSI, due to which the collected data may be used in the evaluation process in a manner adapted to the needs of the process.</i>	<i>No obligation to submit an annual risk assessment to members of the Monitoring Committee (in terms of implementation, degree of Programme implementation, certification of funds and achievement of indicators).</i>
<i>An approach to evaluating the implementation of objectives under the ROP coordinated with the approach to the evaluation of the DSMV. Therefore, ROP MV is an instrument for financing the Strategy, and not an instrument for achieving its goals.</i>	<i>Current indicators do not allow to observe the change occurring in a given period. Contextual indicators should be used to a greater extent.</i>
<i>Building an evaluation culture by organizing conferences and meetings and making publications regarding the evaluation process available.</i>	
<i>Regular feedback from the Programme's decision-makers regarding the achievement of the Programme indicators.</i>	
<i>An annual update of the Evaluation Plan, to the most possible extent relating to the factual current stage</i>	
<i>High number of indicators per priority, which allows for early recognition of undesirable changes within the PA.</i>	

Source: own research.

5.2. Potential to improve monitoring and evaluation

According to the General Regulation, evaluations are conducted in order to improve the quality of designing and implementation of programmes as well as to analyse their effectiveness, efficiency and impact⁴⁷. Therefore, the main task of evaluation is to prepare conclusions and recommendations that may affect the improvement of the analysed processes. In the scope of the subject discussed in this report, it is necessary to consider recommendations that will improve the process of financing innovation and measures aimed at preventing non-spending of funds allocated for this purpose. Interviews with representatives of institutions involved in the implementation of ROP MV 2014-2020 and beneficiaries of funds were of a considerable importance in this aspect. Because of them it was possible to directly learn beneficiaries' opinions regarding changes that they would like to introduce in order to improve monitoring and evaluation. The fact that in Poland, compared to other European countries, the clustering process is developing relatively slowly the respondents perceived as problematic⁴⁸. It was stated that in this context it is necessary to increase the level of social capital in the region, which will contribute to obtaining better results of implementing RIS and ROP MV 2014-2020. Moreover, addressed issues mainly related to the implementation stage, which could be more effective according to the study participants. In the case of monitoring and evaluation, attention shall be drawn to the large scope of activities undertaken by MA RIS and MA ROP, which may be the reason as to why the respondents did not submit proposals for improvement of the process.

Among the recommendations aimed at improving the process of controlling the policy of financing innovations in Mazovia, respondents participating in the study pointed primarily to formal issues related to, among others, the need to shorten the time provided for signing contracts for co-financing projects under the ROP MV 2014-2020. According to the surveyed respondents, this process is currently long-lasting, which, in the case of such a rapidly growing industry as innovation, affects the ability to achieve the objectives set in the project submitted along with the application for co-financing. A possible acceleration of this process would be beneficial both for the beneficiaries of the funds and for final recipients of the co-financed project. Furthermore, such information and educational activities should be conducted which would raise the awareness of potential applicants concerning the importance of thoroughly analysing the content of the application for the subsequent undisturbed implementation of the project.

[It would be beneficial to - editorial note] shorten the period of signing contracts, make beneficiaries aware of the fact that objectives in projects will have to be achieved, that not everything can be changed at the stage of project implementation.

Statement of the representative of the institution involved in the implementation of ROP MV 2014-2020.

Another matter that would affect the improvement of the innovation financing system would be the introduction of improvements to the system of registration of grant applications. It seems to be

⁴⁷ Regulation No 1303/2013 of the European Parliament and of the Council of 17 December 2013 establishing common rules 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; 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 Council Regulation (EC) No 1083/2006

⁴⁸ See: Report 2 on recommendations for the Involvement of Stakeholders and Governance of Regional Innovation Strategies in Mazovia Region, Warsaw, April 2018.

reasonable to introduce a function that would export the entered data to all places where it would have to be supplemented with identical values. This would contribute to avoiding errors in applications, that is mistakes resulting from the necessity of manually entering the same data (technical, financial, etc.) numerous times in the form, and thus would contribute to reducing the percentage of applications rejected due to discrepancies or inconsistencies. Due to such solution, introducing innovations would be more efficient, which could contribute to the increase of the scale of innovations in the region and to the acceleration of work on unprecedented solutions.

With an intuitive system and validations, which would reject projects in which given values are not consistent. It would be optimal if these values, stated in the feasibility study, were drawn by the system, not rewritten. In other words: that the beneficiary would not conduct calculations in the feasibility study first, leading to certain values, and then rewrite them by hand to the application form - this system should be connected so that the data will be imported.

Statement of the representative of the institution involved in the implementation of ROP MV 2014-2020.

In the area of counteracting the potential failure to use all funds allocated for innovation, respondents participating in the research mentioned various solutions. The main focus was on organizational and administrative issues that affect the pace of the innovation financing process. According to the representative of the institution involved in the implementation of ROP MV 2014-2020, procedural issues cannot be simplified. Furthermore, respondent indicated the incomplete spending of funds being related to the fact that co-financed projects have a long period preceding their operational phase. Therefore, it is a systemic issue, independent of the activities of institutions implementing the Programme.

I know the reasons for not spending funds and I think that we are not able to prevent it today in the system, because non-spending is connected to the fact that entrepreneurs make investments in a slow pace and introduce their projects into the operational phase longer than they should.

Statement of the representative of the institution involved in the implementation of ROP MV 2014-2020.

Another issue that appeared in the respondents' statements were needs relating to training and information. Increasing their scale could affect the full spending of funds.

Certainly, informing beneficiaries, familiarizing them with programmes, implementing health programmes, also here these information activities could be strengthened.

Statement of the representative of the institution involved in the implementation of ROP MV 2014-2020.

In the scope of interregional learning concerning the improvement of the monitoring and evaluation process, it shall be mentioned that Mazowieckie Voivodeship has a very extensive evaluation system in the scope of ROP MV 2014-2020. The evaluation plan exceeds the minimum requirements set in this respect by the European Commission.

The use of the benchmarking method in monitoring and evaluation processes in other voivodeships demonstrates that there are no significant deficiencies in Mazovia Region. Among a few examples that

can be distinguished in this respect is the idea of Warmińsko-Mazurskie Voivodeship, which has set up the Barometer of Innovation as part of the project. The aim of the project and of the body established during its implementation was to carry out regular - annual - research in the field of supporting innovation, the needs of entrepreneurs, their expectations and the scope and scale of cooperation between science and business. Due to this, in the Warmińsko-Mazurskie Voivodeship it was possible to position the region in the scope of the level of innovation in relation to other regions of the country⁴⁹. Establishment of a similar unit in the Mazowieckie Voivodeship would result in a considerably more precise monitoring of RIS implementation than it has been possible up to date.

5.3. Expectations in terms of interregional and international cooperation

The last matter discussed in the present report are the expectations of MA RIS, the MA of the ROP and potential other stakeholders in the scope of interregional and international cooperation.

The Mazowieckie Voivodeship should take the role of a region setting trends and good practices in the field of interregional cooperation and interregional learning. Mazovia, as already mentioned, is the only one region in Poland that has the status of a more developed region in the current funding perspective, thus it can set certain trends and influence the shape of interregional cooperation within the country. Given above, it can benefit from being a mentor for other regions in the interregional learning process. Nevertheless, the region should also actively work to establish cooperation with other regions. Moreover, it should aim to establish cooperation at both the regional and supra-regional level - international level.

Interregional learning is also encouraged by participation in both national and international bodies. Such membership may become a source of cooperation developing towards the implementation of joint projects, which might significantly increase the attractiveness of the region for potential entities wishing to implement innovative activities in the region. It would also contribute to increasing the attractiveness of the region on a macroregional scale - European. In this context, it should be noted that Mazowieckie Voivodeship is a member of the ECRN (European Chemistry Regions Network). Furthermore, the self-government of the Mazowieckie Voivodeship implements together with other regions the S3Chem project (Smart Chemistry Specialization Strategy), in which 7 regions from all over Europe participate.

The self-government of the Mazowieckie Voivodeship also implements a non-competitive project under the ROP MV 2014-2020, Modelling of the Offer System for Innovation (MSODI). This is a continuation of measures undertaken in the previous financial perspective as part of the project entitled Mazovian Network of Consulting and Information Centres in the field of innovation, co-financed from the OP HC funds⁵⁰. Given this, it is possible to observe long-term activities aimed at supporting business environment institutions, which may contribute to the creation of a friendly climate in Mazovia for investments by entities operating in the chemical industry and the bioeconomy sector.

Similarly to the case of improving the monitoring and evaluation system, also in the scope of interregional and international cooperation it is difficult to identify potential fields on which the

⁴⁹ *Dobre praktyki wdrażania Regionalnych inteligentnych Specjalizacji w Polsce*, A. Rogut, B. Piasecki, M. Klepka, P. Czyż, Polska Agencja Rozwoju Przedsiębiorczości, Warsaw 2009, pp. 173-174.

⁵⁰ <https://innowacyjni.mazovia.pl> (access: 6.07.2018).

learning process could take place. It is stated that Poland as a country and its individual regions have easily developed an evaluation culture since the accession to the European Union. A potential tool that can be used to improve cooperation in this area may be the region's activities aimed at initiating a knowledge exchange forum in the field of evaluation. Such activities may take place, for example, in the form of conferences or workshops, to which entities from both the country and regions will be invited.

Mazovia can also improve the tool provided by operation of SMERIS basing on the Greek application *Meta Foresight*⁵¹. Because of extending SMERIS with additional functionalities and enabling access to it for companies, organizations and other interested institutional entities, this system can become a comprehensive source of knowledge used not only evaluation, but also, among others, by scientists working on regional development matters.

⁵¹ <http://www.urenio.org/metaforesight> (access: 31.07.2018).

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