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Evaluation of the progress of measures of the Ministry of Economy of the Republic of Lithuania aimed at promoting innovation and providing innovation advisory and support services

# **EXECUTIVE SUMMARY**





The service agreement is co-financed by the European Social Fund and funds from the national budget in accordance of the Operational Program Priority "Technical Assistance to Inform about an Operational Program and to assess it" measure No. 12.0.2-CPVA-V-203 "Evaluation of EU Funds Investments", and Services are provided at the request of the Ministry of Economy

## RESEARCH OBJECTIVE AND TASKS

The objective of the evaluation is to improve the implementation of the "Inogeb LT" measure aimed at providing high-quality innovation advisory and support services to companies in the field of research, experimental development and innovation RTDI according to the direction of smart specialization by analysing the results of the measures "Inogeb LT-1" and "Inogeb LT-3" implemented in the similar programming period in 2007-2013. In order to implement the task set by the Service Customer, the Service Provider evaluated the overall situation in the field of RTDI in Lithuania. The object of the study was evaluated with the exception of several evaluation criteria:

- *Suitability,* which includes the rationality of the measures provided by the services to target groups and their compliance with the economic situation of that time;
- The quality criterion is understood as the satisfaction of the beneficiaries with the services they
  provide. The assessment of this criterion was carried out by using a survey of beneficiaries, in
  which they were asked to indicate whether they were satisfied with the knowledge, competence
  of the consultants, the ability of the service provider to adapt to the specifics of the company, etc.;
- The *benefit* criterion was evaluated through a survey of beneficiaries aimed at assessing whether innovation advisory events had an impact on the start of innovation activities and / or the development of innovation. Companies were also asked to indicate if their institutional and individual skills were able to innovate;
- The *continuity* criterion was understood as the overlapping / continuation of the services offered for different beneficiaries over the different funding periods;
- The administrative criterion was employed to determine if the process by which the company was
  able to receive the services was smooth, without causing excessive bureaucratic obstacles or
  complications;
- The *effect* that the services provided to the beneficiaries has been assessed in accordance with established criteria, with the exception of similar experimental and control groups and by using counterfactual analysis.

## SITUATION IN R&D&I

Despite strategies and ambitious goals, the progress of RTDI policy in Lithuania continues to face challenges at the level of implementation and achievements of RTDI policy.

The total funding for research and experimental development in recent years (2016) has fallen to 0.74 percent of GDP. This is well below the 3 per cent recommended by the EC to invest in RTDI in order to achieve one of the priorities of the Europe 2020 strategy - *smart growth: developing an economy based on knowledge and innovation.* 

In addition to long-term and more complex problems such as aging populations or the preparation / attraction of skilled human resources, the problem of governance of innovation policy arising from institutional fragmentation is also highlighted.

Inter-ministerial coordination of RTDI policies remains inadequate, leading to conditional policy fragmentation and duplication. This situation is determined by the specifics of institutional governance, institutional particularism, and the failure of the RTDI Council to perform interinstitutional coordination functions in full.

When comparing Lithuania with other countries, the number of agencies implementing/administering and directly providing services in Lithuania is high and their functions are often overlapping. This determines the need for interinstitutional co-ordination, which is not a strong part of the Lithuanian public administration, at the under-ministry/agency level.

Taking into account the current situation, business expenses R&D and implemented innovations are becoming a critical point of resilience, which can still provide Lithuania with economic competitiveness and growth potential. Accordingly, the innovation support system and its services remain one of the key elements of the innovation ecosystem. The Inogeb measures for the period 2007-2013 and 2014-2020 organized by the Ministry of Economy of the Republic of Lithuania contributed significantly to the development of the innovation support system and the provision of services.

## **EVALUATION OBJECT**

This assessment focused exclusively on measures for the development of innovation support system and innovation support services for the period 2013-2020 and 2014-2020. Specifically, the VP2-1.4- $\bar{\text{U}}$ M-03-K "Inogeb LT-1" and VP2-1.4- $\bar{\text{U}}$ M-05-V "Inogeb LT-3" financing measures for the period 2007-2013, for which a total of 15.69 million Euro was foreseen and Inogeb LT was the first EU investment priority instrument for the current financing period. For the 2014-2020 funding period, the funding for the measure under consideration is 16 million Euro. To summarize, all three measures are similar, they aim to provide high-quality innovation advisory services tailored to specific topics in the field of RTDI and to carry out innovation-enhancing activities.

### **EVALUATION METHOD**

In order to implement the study, the analysis of primary and secondary sources of literature, data, comparative and statistical analysis is carried out. The service provider also applies interviews with experts and policy makers, implements a survey of beneficiaries and uses a conterfactual analysis method. At the end of the study, Estonia and Sweden are presented as good practice case studies.

## **SUITABILITY**

When assessing the rationality and compliance with the economic situation of that time, of the "Inogeb LT-1" and "Inogeb LT-3" services for the target groups for the period 2007-2013, was determined that the services provided by these activities met the economic situation of the time and the existing need of enterprises.

The Inogeb LT-1 service target groups were made up of regular customers, and initial consultation could be obtained by all requesting companies. The services provided by the "Inogeb LT-3" supported activities were available to all requesting companies, and the duration of the consultations provided was unlimited.

According to a survey conducted by direct beneficiaries, innovation advisory services for both the 2007-2013 and the 2014-2020 financing periods were very important for small businesses (annual turnover up to 2 million Euros).

During the 2007-2013 funding period, innovation advisory services were most demanding for companies, which operate up to 1 year and for companies operating more than 10 years. During the 2014-2020 financing period, the demand for advice according to the company's operating time is more evenly, but the

greatest interest can also be seen in the period between companies which are operating 1, 5-10 or more than 10 years.

It was found that the demand for innovation support services for both of the funding periods under consideration do not correlate significantly with the executed/non-executed export activities of enterprises, i.e. these services are relevant to both exporting and non-exporting companies.

During the survey, it was found that companies from 2007 to 2013 received both one-time and multiple counselling services. Meanwhile, most consultations during the 2014-2020 period were repeated, i.e. y not one-time.

The analysis also showed that for the 2007-2013 and 2014-2020 funding periods companies need both consultations on both general and niche issues.

## **QUALITY**

Assessing the suitability and quality of Innovation Advice and Innovation Support Services packages for "Inogeb LT-1" and "Inogeb LT-3" for the period 2007-2013, it has been established that the consultation topics have not been pre-assigned to specific target groups - the services were provided individually, adapting the needs of each company. The fact that the number of counselling companies exceeded expectations allows drawing conclusions on the high relevance of topics for the target groups selected by the project executors and partners. The evaluation of the "Inogeb LT" measure revealed that the experience of the measures for the period 2007-2013 was taken into account in the development of the service themes of the measure, which allowed ensuring the quality of the topics and meeting the changing needs of the users.

According to the survey conducted by direct beneficiaries, the variation in the distribution of responses for quality services has been found to be low in both funding periods. Analysing the responses provided by companies about different aspects of the promotion of innovations, long-term events quality trends, the quality of consultancy services provided on individual issues or the knowledge and expertise of consultants, it can be seen that companies evaluate these quality consulting services without high variation of responses, i.e. unanimously. An analysis of responses also showed that the range of consultation topics offered to companies over the period 2007-2013 and 2014-2020 met their current needs, and companies indicated that the way of providing advice was tailored to their individual needs.

### **BENEFIT**

Assessing the benefits of the "Inogeb LT-1" and "Inogeb LT-3" measures for 2007-2013 to domestic companies developing, sustainability and continuity in RTDI activities, was highlighted the high demand for innovation support services which allows companies to understand the benefits of such services for better performance. In addition, an increase in the demand for innovation support services provided is higher than planned, within 2 years after the implementation of the project, which illustrates the sustainability of the measures. Consultation services provided by "Inogeb LT" during the period 2014-2020 were also characterized by high demand, which in a similar way allows us to conclude on the perceived benefits of consultation for better performance.

According to the survey of direct beneficiaries, it was found that only 12 per cent (3 companies) in the 2007-2013 financing period indicated that the innovation activities would have been carried out in the same scope and without consulting on innovation issues. Meanwhile, 48 per cent (12 companies) indicated

that the innovation activity would be performed in a smaller extent, 20 per cent (5 companies) would not have done it at all. Even 60 per cent (29 companies) of companies, which were advised in the 2014-2020 funding period and answered particular question indicated, that the innovation activities were carried out in a smaller extent, another 20 per cent (10 companies) indicated that they would not have done anything if they had not received advice on innovation issues. Only 12 percent (6 companies) respondents indicated that they would have performed the innovation activity in the same volume even if they did not receive advisory services. In addition, companies point out that innovation advisory services have improved their institutional capacities and the ability of individual employees working in them to carry out innovative activities. Such a response pattern is recorded in both funding periods, although in 2014-2020, a larger number of companies identify improvements in institutional and staff capacity to carry out innovative activities.

This distribution of corporate responses clearly indicates that innovation advisory events have had an impact on the start of innovation activities and / or the development of innovation. Therefore, it is also natural that most companies indicated that after innovation advisory events, R&D funding costs increased to a greater or lesser extent.

It is also important to note that companies receiving services in both periods would not be willing to pay for consultancy services if they were offered on the market, and not by measure. This shows that innovation infrastructure and innovation support for enterprises are necessary and beneficial as they reduce the financial risks of innovative activities.

#### CONTINUITY

Assessing the logic of the "Inogeb LT" interventions for the period 2014-2020, i.e. the continuation of activities implemented in 2007-2013 in the "Inogeb LT" measure, was found that consolidation of measures was a reasonable decision. At the same time, there was no longer any project competition, as a selection way, which was used in the "Inogeb LT-1" tool. The project competition did not provide visible added value, as evidenced by similar results from both measures. Therefore, the way of selecting the current "Inogeb LT" project (public project planning) is considered appropriate.

Compared to the previous period, changes in the selectivity of the beneficiaries were influenced by the clear criteria for the selection of service recipients - services provided under this measure are only available to companies whose activities correspond to one of the areas of Smart Specialization. Although such a criterion makes it possible to select potential recipients more clearly than in the measures for the period of 2007-2013, however, innovative enterprises can also be among potential recipients who do not meet the Smart Specialization criterion, and the process of searching for which the subject of Smart Specialization activities is satisfied by an entity wishing to receive the service can be quite artificial.

The adequacy and quality of the activities supported by the measure are evaluated positively, and this opinion allows for the results of the monitoring indicators obtained during the evaluation and the results of the survey.

In assessing "Inogeb LT" measures for the period of 2014-2020, the adequacy of innovation, innovation advisory services and innovation support services to market needs, efficiency and benefits to end users, the identified services are considered to be adequate to market needs. The benefits of "Inogeb LT" to domestic companies are illustrated by the high demand for innovation support services provided, as confirmed by the survey results. Significant demand is also observed for advisory services offered during

the 2007-2013 period, and therefore, "Inogeb LT-1" and "Inogeb LT-3" were also considered to meet the needs of the current market.

#### **ADMINISTRATION**

Assessing the relevance and effectiveness of the "Inogeb LT" administration for the period 2014-2020, it was found that the suitability and efficiency of administering the services provided at the applicant level is moderate. In some cases, there is an over-bureaucracy, when the settlement to the implementing institution is focused on the project implementation process and the minor details, and not the result achieved. In addition, although having the Smart Competence Criterion makes it possible to more accurately select potential recipients, this criterion does not always accurately define the potential of the recipient to innovate, and the process of searching for which Smart Objectives is tailored to the entity seeking service is quite artificial.

At the beneficiaries' level, even 74 percent (51 out of 69) companies in the 2014-2020 funding period indicated that they did not experience administrative and / or bureaucratic difficulties in obtaining innovation advisory services. Another 16 percent (11 companies) responded that while they faced a bureaucratic burden, it did not cause difficulties. When asked to specify bureaucratic obstacles or administrative burdens specifically, the companies are fragmentarily pointing out that that was filling forms and documents to get the consultation. 56 companies answered to the question "was there a negative response to obtaining innovation advisory services?" for the financing period 2007-2013, but only 5 percent (3 companies) indicated that they had a negative response, while for the period 2014-2020, no one company did indicate that they received a negative response. Consequently, it can be concluded that most of the companies that sought advice, had received it.

# MONITORING

Assessing the appropriateness of "Inogeb LT" monitoring indicators for the period 2014-2020, it was found that the indicators used in the measure adequately reflect the logic of intervention, provided that the results of the calculations are performed qualitatively (for example, only unique entities will be counted, thus avoiding double counting of the result). It is suggested to consider additional sections, for example:

- Business expenditure for RTDI per capita: it is proposed to consider not only an increase in the RTDI expenditure of the entire country, but also a specific increase in the RTDI expenditure of the companies receiving non-financial support;
- The share of innovative enterprises working with partners from all companies involved with innovation: it is proposed to consider not only the situation in the whole country, but also the specific changes in the framework of cooperation between partners who have received nonfinancial support;
- Number of enterprises receiving non-financial support: it is proposed to consider the number of hours of advice given.

#### **EFFECT**

In order to determine the benefits of the supported activities for domestic enterprises developing RTDI activities, a counterfactual impact assessment was carried out. The "Inogeb LT-3" project VP2-1.4-ŪM-05-V-01-001 "Technology and Science for Innovative Business" for the 2007-2013 period was chosen for such

an assessment. From the options discussed, only this project met all the minimum requirements for such an analysis.

During the analysis, the impact of the consultations provided by the project VP2-1.4- $\bar{\text{U}}\text{M}$ -05-V-01-001 " Technology and Science for Innovative Business" on the turnover of the final beneficiaries, profit before tax and the number of employees was evaluated. The period before the intervention was considered to be 2011 (when the consultation had not yet received either an experimental or a control group), and the period after intervention - 2014 (when the impact of the consultations received in 2012 on the study group had already occurred but the control group had not yet received a consultation).

The analysis of the sampled companies showed that the experimental and control groups are very different according to the fact of registration in the Vilnius county and the sales revenue of 2011, as well as sufficiently different according to age. For example, the average sales revenue of the experimental group for 2011 is more than 4 times above the average of the control group.

The counterfactual impact assessment has shown that the impact of the consultations on the sales revenue of the experimental group could be negative, however, the estimated impact estimates are not statistically significant and, therefore, it cannot be argued that the intervention had a negative impact on sales revenue. On the one hand, the intervention could have been too insignificant to have an effect (some companies were consulted at no more than an hour, and the activities supported in the period 2007-2013 have not yet reached a higher qualitative level compared with 2014-2020). On the other hand, innovation activity does not necessarily have to lead to the growth of activity volumes - also important goal of innovation activity can be cost reduction.

The counterfactual analysis of profits has not confirmed the assumption of cost reduction as an objective of innovation activity. Differences-in-differences analysis would indicate that the consultation had a negative impact on the profit of the experimental group (both in nominally and in the assessment of change). Nevertheless, the use of estimates of adverse impacts with a lower than usual statistical significance means that there is a lack of evidence that intervention has had a negative impact on profit.

On the other hand, the assumption of cost reduction as an objective of innovation activity is confirmed by a counterfactual analysis of the number of employees, which showed that the average growth of the number of employees in the 2011-2014 period was 23 percent lower than would have been had in the absence of consultations. Differences-in-differences regression has shown that this impact estimate is statistically significant. Consequently, the innovative activities of enterprises could be aimed at increasing labour productivity, which allows expanding the scope of activities without increasing the number of employees.