



**THE EVALUATION OF THE CONDITIONS AND CHANGES OF THE ECONOMY  
SECTORS BEING IN THE COMPETENCE AREA OF THE MINISTRY OF ECONOMY  
AND FUNDED BY THE EU STRUCTURAL AND NATIONAL FUNDS**

**FINAL REPORT**

**SUMMARY**

Commissioned by Ministry of Economy  
of the Republic of Lithuania



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## SCOPE OF THE EVALUATION

The evaluation comprised three main components – (1) the development of the monitoring system of economy and sectors, (2) creation of the econometric macro model for the evaluation of public policy intervention – HERLIT-16 and (3) mid-term evaluation exercise of the measures being administered by the Ministry of Economy and financed by the EU structural and national funds.

**The monitoring system** was developed and documented in stand-alone report which is annexed to the final report. It is important to note that the monitoring system, developed in accordance with technical specification of the MoE, focuses on monitoring indicators of the economy and separate sectors which are in the competence are of the MoE. The monitoring system does not cover physical or financial indicators of the EU structural fund intervention programmes. The indicators of the developed monitoring system are grouped in two main groups – the first one comprises economic indicators and sectoral indicators in economic sense and, the second one, includes specific indicators which reflects key competence areas of the MoE, i.e. Research & Development, Business and Business Environment, Tourism and Energetics. These indicators were further used to create a macro economic model and to carry out the mid-term evaluation exercise.

**The Macroeconomic model HERLIT-16** was designed to fulfil the need of evaluation of public policy interventions and was practically applied for the implementation of the evaluation tasks set by the MoE. The model itself is one of the products of this evaluation and is submitted to the MoE for further utilisation in the field of evaluation of public policy interventions. HERLIT-16 is a macroeconomic model designed to analyse and evaluate mid-term and long-term impacts of the cohesion policy. This model is based on the same principles as the HERMIN model being used by the European Commission. The design of HERLIT-16 is grounded on the key features of the economic structures. The Lithuanian economy is disaggregated into 16 separate economic sectors what allows in-depth analysis of interventions and to tally economic sectors with the administrative areas of the MoE.

The scope of the mid-term evaluation of the measures administered by the Ministry of Economy and financed by the EU structural and national funds covers 38 measures implemented under the Operational Programmes of Economic Growth and Cohesion Promotion. For the need of the evaluation the measures were grouped according to the competence areas of MoE (Research & Development, Business and Business Environment, Tourism and Energetics). The total planned allocation for the MoE measures is 8 335 million Litas. This allocation is comprised of the EC funding (5 463 million Litas), national domestic funding (404 million Litas) and private funding (2 468 million Litas). The distribution of the funds for the administrative areas of the MoE is as following: 19.1 per cent for R&D, 33,8 per cent for Business and Business Environment, 15,1 per cent for Tourism and 32 per cent for Energetics. The scope of the evaluation also included alternative scenario of the distribution of the allocation for the MoE measures.

The main task of the mid-term evaluation was to assess the relevance and impact of the measures in the light of fluctuating macroeconomic and sectoral situation, to suggest changes in the current measures or propose new ones.

The tasks of the evaluation were specified by the valuation questions which were solved by grouping then according to the structural components and criteria of the evaluation. The main evaluation criteria invoked for the evaluation were relevance, effectiveness and impact.

## EVALUATION METHODOLOGY

The key methodological tool to carry out the macro level impact evaluation and to answer the evaluation questions was the macroeconomic model HERLIT-16. Using the model a baseline scenario (a scenario without the MoE intervention) was set and compared to the scenario including the MoE intervention. In this way evaluators were able to compare the different scenarios (with and without the MoE intervention) and carry out detailed impact evaluation of EU structural support.

Initially evaluators have intended to carry out counterfactual analysis at measure level, yet very modest fraction of completed projects restrained the possibilities to implement the analysis at a full methodological scale, thus simplified approach was taken and the initial plan was reduced to the fact comparison analysis. Other tools and methods of data collection and analysis during the evaluation included the examining of primary data sources, the analysis of secondary information sources, the comparative analysis, expert groups, statistical analysis and cases studies.

## KEY FINDINGS

### *The analysis of economic situation and its perspectives*

- The economic and financial crisis has greatly affected the key macroeconomic indicators of Lithuania. The impact of current crisis is much deeper if compared to Russia's crisis in 1999. The deepest recession was observed in the year 2009, when Lithuania's GDP dropped by 14.7 per cent, productivity fell 8.5 per cent, investments decreased by 40 per cent and the unemployment rate reached 17.8 per cent (2010).
- The economic and financial crisis differently influenced the key economic sectors and subsectors which are in the competence of the MoE. Tourism sector has faced one of the deepest recession as its production fell by 18.3 per cent in 2009 and additionally 9 per cent in 2010. The key economic sectors – manufacturing and market services declined by approximately 15 per cent in production. The R&D expenditure has also decreased substantially - for about 14 and 1.2 per cent in the years 2009 and 2010 respectively. The sector of Energetic did not suffer negative impacts of the recession as its production remained stable in 2009 and fell comparatively little (4.8 per cent) in 2010.
- The forecast of the economic perspectives of Lithuania demonstrates that it is expected Lithuania to grow by 3.5 per cent in 2012, 3.8 percent in 2013, and from 3.8 to 5 per cent until 2020. Nevertheless, the rate of the unemployment will be relatively high during the five coming years and will hold out at 14 per cent in 2011 and 12 per cent in 2015.
- The prospects of sectors related to the competence areas of the MoE are the brightest in manufacturing where 7.7 per cent of annual growth is estimated. The market services will grow a bit more modestly comparing to the overall economy growth and should constitute 1.9-4.9 per cent of increase up to 2020. The sectors of Tourism and Energetics will demonstrate reasonable growth. The R&D sector (in terms of NACE 1.1 Education and Research) will behave as non-market service sectors and will be dependent on the governmental decisions.

### **Relevance**

Relevance of the MoE's measures was carried out by grouping the measures into four administrative areas of the MoE,

- The programming documents effectively reflect the key weaknesses of enterprises in the field of R&D. The measures of the R&D demonstrate high compliance rate with the EU level priorities and national strategic documents in the field. Moreover, R&D type measures were on the demand from the beginning of their implementation. The overall strategic relevance is assessed as high, yet the policy area faces challenges of weak policy coordination during its implementation phase between the two main institutions responsible for R&D and innovation policy, i.e. the Ministry of Economy and the Ministry of Science and Education.
- The MoE have made efforts increasing relevance of the Business and Business Environment measures after the financial and economic crisis was ascertained. The allocation for financial engineering measures was increased substantially in order to improve access to credits by the enterprises as the banks and other financial entities had greatly reduced giving out the loans. Yet, the implementation phase of the financial engineering measures has demonstrated that a fraction of the funds might be directed to solve ongoing problems of the companies, and almost half of the funding was channelled to wholesale and retail sale sector. This sector is not prioritized in Lithuania's strategic framework, neither it can create long term growth and competitiveness. Therefore, the overall relevance of the Business and business environment measures is moderate.
- Measures implemented in the Tourism field mainly focused on the development of the physical infrastructure. The evaluators suggest that it would be relevant to channel a fraction of funding to promote qualitative changes of the sector, for example by enchanting human resources, increasing organizational effectiveness, promoting networking and sharing good practice.
- The evaluators have found that measures implemented in the area of Energetics are of a high relevance because of the high compliance with the priorities and goals set in Lithuania's and EU strategic documents and directives. Most of the measures in the field will pay off especially in the long period and are highly relevant in the light of Lithuania's socio-economic and international context.

### **Effectiveness**

- Effectiveness can be considered as positive having in mind the physical values of the products and results contracted in grant agreements concluded. Comparing to the funds contracted, the Ministry in most cases has contracted higher product and result values than it was planned. The evaluators have found no physical indicators contracting problems in 5 of 10 tasks administered by the Ministry. In case of three tasks (*Increase business productivity especially by creating favourable environment for innovations and SMEs, Adapt public territories for investment attraction purposes, Increase reliability and safety of energy supply*) insufficient contracting of either product or result indicators values is encountered. In case of one task (*Provide technical feasibility and environmental preconditions for the integration of the Lithuanian electricity and gas markets into single electricity and gas markets of the EU*) problems in seeking of both product and result indicator are encountered.
- Results of micro level analysis performed in respect of measures *Lyderis LT, Intelektas LT* and *Intelektas LT +* revealed positive progress in seeking of physical indicators values at measure level. With the minor risk this allows to expect that the planned physical indicators values at measure level will be achieved in these measures by 2015.

### **Impact of measures administered by the MoE during crisis**

- During the crisis the impact of the measures administered by the MoE on GDP level occurs starting from 2009 and leads to increase of GDP by 0.65 per cent. In 2010 the increase of GDP due to the impact of the MoE measures equals to 1.5 per cent comparing to scenario with no assistance. This means that in case without the EU structural assistance the GDP would have been contracted even more (by the indicated percentage values).
- Results of the micro level analysis show that the projects financed by the MoE measures *Lyderis LT, Intelektas LT* and *Intelektas LT +* have mitigated the impact of the crisis at the level of project promoters, i.e. so was indicated by 62 per cent of *Lyderis LT* project promoters and 64 per cent *Intelektas LT / Intelektas LT +* project promoters.

### **Impact of the measures administered by the MoE during 2007-2015**

- In 2012 when expenditure in the MoE measures is the highest, the impact of the MoE intervention on GDP will constitute about 3.2 per cent, i.e. GDP will be higher by this value comparing to the scenario with no assistance. In period of 2013–2015 the impact decreases due to the decrease of the financial injections of the EU structural assistance. After the EU structural assistance terminates at the end of 2015, there is a modest but enduring impact due to which the level of GDP is about 0.75 per cent higher comparing to the scenario with no assistance. This post-programme impact is caused by the spillover benefits of the increased “stocks” of the physical infrastructure, human capital and R&D.
- In 2009 when the first expenditure are incurred in the projects, the EU structural assistance decreases the unemployment level by 0.5 percentage point, in 2010 – by 1.1 percentage point, in 2011 – by 1.6 percentage point. In 2012 the unemployment level due to the impact of the EU structural assistance is likely to decrease by about 2.2 percentage point comparing to the scenario with no assistance. However, such decrease is small comparing to the significant increase of the unemployment level from 5.8 per cent in 2008 to 17,8 per cent caused by the recession. Small impact of the assistance on the economy is also caused by the insufficient acceleration of the implementation of 2007-2013 period assistance. From 2007 to 2009 the MoE has used only about 7 per cent of the EU and national co-financing funds foreseen for the whole 2007-2013 programming period. Meanwhile, in 2009 the old programming period (2004-2006 SPD) have already been completed, thus during the deepest year of the crisis the economy of Lithuania encountered not only the financial and economic crisis but also faced the decrease in the amounts of public interventions.
- The employment creation builds up over the years of the operational programmes to a peak of just over 34,000 in 2012. However, these numbers fall off rapidly when the assistance is terminated after 2015, and the enduring employment gain is more modest and reaches from 4,000 to 4,500.
- The EU structural assistance also has a positive impact on the household consumption (e. g. in 2012 it is by 4 per cent higher comparing to the scenario with no assistance) and gross fixed capital formation (which in 2012 is likely to be by 13 per cent higher comparing to the scenario with no assistance). On the other hand, during implementation period the assistance has a negative impact

on the net trade position and increases the levels of prices and wage rates and this in short run negatively influences the competitiveness of Lithuania. However, after the operational programmes terminate, the improved “stocks” of physical infrastructure, human capital and R&D contributes to the competitiveness of Lithuania and start making a positive impact on the net trade balance (which in 2016 is likely to be by almost 0.4 per cent better comparing to scenario with no assistance).

### ***Evaluation of the impact of MoE efforts to react to the financial and economic crisis***

- In 2008-2009 the Ministry of Economy while reacting to the financial and economic crisis and implementing Economy stimulation plan, has made changes in more than two thirds of administered measures. On the basis of supplements to operational programmes and documents describing detailed financing rules for individual measures, the evaluators have designed the initial scenario of MoE administered measures, i.e. a hypothetical scenario based on assumption that the MoE wouldn't have been made any changes in measures. It should be noted that European Commission co-financing in actual scenario is by 3.77 per cent higher and national public co-financing by 64.13 per cent higher comparing to the initial scenario.
- During the years of the recession (2009-2010) the actual scenario of the MoE measures had higher positive impact on GDP level than the initial scenario would have had. The difference in impact is quite small (in the actual scenario the GDP level in 2009 and 2010 was 0.06 and 0.14 per cent higher respectively than would have been created in the case of the initial scenario).
- The impact of the actual scenario on employment is likely to be more positive comparing to the initial scenario. The difference is small and constitutes to 840 jobs in 2009 and 1880 jobs in 2010. Thus during the crisis slightly less jobs would have been created in the case of the initial scenario.
- The simulations of the actual and initial scenarios done revealed that the MoE efforts made to mitigate the outcomes of 2009 and 2010 Lithuania's economic recession were successful, however, these efforts could not withstand the substantial negative consequences of the crisis.

### ***Comparison of the impacts of the EU structural assistance in different administration areas of the MoE***

- In the short run the highest impact is made by the EU structural assistance in R&D area. Increase in GDP level caused by the expenditure incurred in R&D area in the period up to 2015 is 2.33 times higher than expenditure itself (the cumulative multiplier for the period up to 2015 equals to 2.33). A lower impact is made by the investments into energetics area (value of the cumulative multiplier equals to 1.75). The lowest impact is made by the investments in tourism and BBE areas. The values of the cumulative multipliers for these areas are 1.57 and 1.35 respectively.
- The EU structural assistance in R&D and energetics areas has also a long lasting impact on economy. Increase in GDP level caused by the expenditure in R&D area in the period up to 2020 is 3.44 times higher than the expenditure itself, and for energetics area this ratio is 2.34.

## **KEY RECOMMENDATIONS**

- It is recommended to assure continuity of public policy and expenditure during transition from the 2007-13 to 2014-20 programming period. I.e. it has to be foreseen and planned that the first projects of the new programming period should be commenced already in 2015-16 by setting a goal to utilize at least 15 per cent of the EC and national funds during the first three years of the implementation of the programmes of the new financial period.
- It is recommended for the MoE to draft an action plan for preparation of alternative package of measures which would be focused to solve the consequences of the likely second wave of the financial and economic crisis. An action plan for preparation of alternative package of measures has to incorporate the sequence of actions, the deadlines and responsible persons who after second crisis is stated should promptly (within set time limits) prepare the proposals for changes in measures necessary to react to the changed socio-economic situation and its effects. The alternative package of measures has to modify and incorporate the MoE administered measures that may have direct effect on reducing crisis consequences prioritizing manufacturing sector and exporting market services sub-sectors.
- During programming of 2014-20 period assistance it is recommended to revise terms of funding of financial engineering measures by setting a priority for the enterprises that obliges to use financial engineering measures funds to finance investment in fixed tangible assets ensuring long term growth of firm productivity and / or creation of new / higher value added products..

- In the case of adjustments of the MoE EU structural assistance policies and measures made in order to reduce the effects of economic and financial crisis effects or made on other grounds, it is not recommended to solve short and medium term problems encountered by firms by reducing funding to R&D area. MoE R&D area investments create the highest medium and long term economic benefits, thus it is recommended, if possible, to rebuild planned funds for R&D area measures up to level planned in the beginning of 2007-13 programming period.
- As it was found during the evaluation, the R&D type investment gives the highest economic return both in short and long term, so it is recommended to prioritize R&D type measures and their funding in the forthcoming 2014-20 programming period. Yet, there should be absorption potential of R&D funding examined in detail before setting concrete goals and allocations for the forthcoming period.
- It is also recommended to prioritize investment into Energetics sector, as according to the findings of the evaluation, such investments also brings high returns in short and long periods. The measures of Energetics area should be directed towards modernization of the sector, assuring higher independence from the external sources and should prioritize projects of national importance.
- In the opinion of evaluators, the measures which subsidize acquisition of more effective machinery and equipment are still expedient (i.e. such measures would supplement the economy fostering effect). Nevertheless, such measures should be directed to medium and high technology manufacturing sectors and to the businesses generating high value added by prioritizing advancing enterprises, i.e. which carries out R&D and innovation activities. Please also see recommendation No. 8 regarding conditions for financing of projects.
- Due to the lack of R&D and innovation policy coordination it is recommended to set the administrative procedures assuring better coordination of the policy between two key institutions in the field – Ministry of Economy and Ministry of Science and Education. (E.g. there could be foreseen to include delegates of both ministries into planning of measures falling to the responsibility area of both these ministries and to approve the project list to be financed from these measures by the delegates from both institutions.)
- During the new 2014-20 programming period it is recommended to set such tourism promotion measures which would focus on the creation of higher added value of tourism services and integrated marketing activities.
- Due to the relatively high deadweight effect, it is recommended to lower support intensity of the regular measures subsidizing acquisition of the equipment of the enterprises (e.g. Lyderis LT, Invest LT-2 type measures). The intensity of support for business should not exceed 30 per cent of the project value in case of this type of measures.
- Apart from the usual measures subsidising R&D activities and innovative solutions in businesses (e.g. Intelektas LT, Intelektas LT+, Idēja LT type measures), it is recommended to consider setting a new R&D type measures which would be financed via financial engineering mechanisms by foreseeing for such purpose a separate financial engineering measure or separate calls within financial engineering measures.
- It's recommended to set higher priority and increase funding for measures designated to promote foreign direct investment. During the implementation of such measures a priority on medium-high technology enterprises and companies willing to implement or locally outsource R&D services should be set.