„Smarter Lithuania – Innovative and Smart Economic Transformation“: EU investments in 2021-2027

Jekaterina Rojaka
Vice-Minister
June 27th, 2019
In 2018, Lithuania demonstrated strong growth

Real GDP in 2018, annual change, percent

Source: Eurostat
However, Lithuania still lags behind EU by productivity

Labour productivity per person employed and hour worked in 2017, EU28=100

Source: Eurostat
MANUFACTURING HAS BIG IMPACT ON ECONOMY, BUT LACKS INNOVATION

Summary of benchmark analysis (deviation from indicator average, %)

- Manufacturing: share in GDP
- Manufacturing: labor productivity
- Manufacturing: wages and salaries
- Share of medium-high-tech sectors in total manufacturing
- Turnover per person employed
- Share of employees in manufacturing sector in total employment

Source: Lithuanian Industry Digitization Roadmap 2019-2030
Lithuania has improved its digital score over 2014-2019

Digital Economy and Society Index, 2014

Source: European Commission, Digital Scoreboard
Lithuania has improved its digital score over 2014-2019.
Lithuania is less advanced in enabling digital tools

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<thead>
<tr>
<th></th>
<th>SME</th>
<th>LARGE</th>
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<tbody>
<tr>
<td></td>
<td>Analysing big data</td>
<td>Cloud computing services</td>
</tr>
<tr>
<td>Digital Fronrunners</td>
<td>13</td>
<td>35</td>
</tr>
<tr>
<td>Digital Challengers</td>
<td>9</td>
<td>13</td>
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<tr>
<td>Lithuania</td>
<td>12</td>
<td>16</td>
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<td>Digital Fronrunners</td>
<td>37</td>
<td>63</td>
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<tr>
<td>Digital Challengers</td>
<td>22</td>
<td>31</td>
</tr>
<tr>
<td>Lithuania</td>
<td>20</td>
<td>34</td>
</tr>
</tbody>
</table>

Source: Eurostat, McKinsey
Worsening demographic situation urges for policy changes

- **Population number in 2000**: 3,512,074
- **Employed in 2000**: 2,296,995, or 65.4%
Worsening demographic situation urges for policy changes

Population by age

- Population number in 2015: 2,921,262
- Employed in 2015: 1,950,322
  Or 66.8 percent

Source: Eurostat, EIM
Worsening demographic situation urges for policy changes

Population by age

- Population number in 2020
  - 2,671,108

- Employed in 2020
  - 1,724,428
  - Or 64.6 percent

Source: Eurostat, EIM
Worsening demographic situation urges for policy changes

Population by age

- Population number in 2050: 1,910,327
- Employed in 2050: 1,050,480 or 55 percent

Source: Eurostat, EIM
Recent international migration data is encouraging

International migration in Lithuania, thou

Source: OSP, EIM
Higher GDP growth
Increase in the number of innovative companies
Higher Average Wage
Higher growth of Exports

- Better chances to survive the Valley of Death
- Lithuania’s leap in global and EU innovation indexes
STI SYSTEM REFORM: OUTCOMES

Increase of RDI oriented FDI:
- Attractive landscape and policy for more R&D oriented FDI
- Attracted top talent in RDI field
- More expertise and expert involvement in all stages of innovation
- Increase of breakthrough and disruptive innovations

Unified STI policy:
- Adjusted strategic governance of STI area and policy coordination
- Clearly defined areas of responsibility for STI policy making
- Consolidated functions of STI policy implementation in one responsible agency
- Elected STI policy leader
- Common understanding of RDI activities
- New Law on Technology and Innovation
- Long term STI strategy
- Updated and optimized areas and priorities of S3

Effective innovation support system:
- Improved financial motivation system for RDI activities
- Unified assessment and evaluation system of RDI activities
- More focus on experimental development and innovation
SPENDING VS IMPACT OF R&D ON INNOVATION

SPENDING
512 mil. EUR 2007-2013
679 mil. EUR 2014-2020

IMPACT
28th According to RDI economic impact 2016*

• Public spending on R&D in Lithuania is similar to the EU average
• However, by utilization of R&D spending, Lithuania is among the outsiders.

*Source: EU Innovation Scoreboard 2017
### TURNOVER FROM NEW PRODUCTS

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2014</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>New to the company products</td>
<td>1.5</td>
<td>2.45</td>
<td>5.12</td>
</tr>
<tr>
<td>New to the market products</td>
<td>0.92</td>
<td>1.32</td>
<td>1.49</td>
</tr>
<tr>
<td>TOTAL, bil EUR</td>
<td>2.4</td>
<td>3.77</td>
<td>6.6</td>
</tr>
</tbody>
</table>

#### BUSINESS SPENDING ON INNOVATION

- **Higher education & public sector**: 5.5 mil EUR
- **Lithuanian companies**: 6.6 bil EUR

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**Income from the commercialization of new products, mil EUR (2016)**

- 2012: 638.3 mil EUR
- 2014: 1089.3 mil EUR
- 2016: 1274.6 mil EUR
SHIFTING R&D PARADIGM

R 70%  D&I 30%

D&I 70%  R 30%
TOWARDS THE SMARTER ECONOMY

Result: INNOVATION AS THE Backbone of Lithuanian Economy
KEY 3 ELEMENTS OF INNOVATION REFORM

Revision of innovation support system

Attraction of R&D oriented FDI

Revision of STI system

- One ministry in charge of technology & innovation policy
- One agency
- Update of S3 strategy
KEY 3 ELEMENTS OF INNOVATION REFORM

- Attraction of R&D oriented FDI
- Revision of Innovation support system
- Revision of STI system

- Using EU SF to create innovative products/services
- Creating infrastructure necessary for experimental development
- Creating the framework for innovation development infrastructure
- Involving technology scouts
- Motivating scientists to cooperate with businesses
- Developing the framework of consulting services
KEY 3 ELEMENTS OF INNOVATION REFORM

- Attraction of R&D oriented FDI
- Participation of experts in the realization processes of innovations
- Talent attraction in RDI field

Attraction of R&D oriented FDI
Revision of innovation support system
Revision of STI system
THE LAW ON TECHNOLOGY AND INNOVATION

THE CORE OF THE REFORM

- Financial support
- Clear concept of STI system
- Embedded model of the cyclic innovation
- Defined responsibilities and clear areas of governance
- Innovation Support Fund
- One Innovation Agency
### ACHIEVEMENTS

<table>
<thead>
<tr>
<th>The Law on technology and innovation</th>
<th>Empowered RDI Council</th>
<th>Evaluation of the impact of EU VP1 priority</th>
<th>Economic diplomacy map of RDI</th>
<th>Update of S3</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Clear leadership and responsibilities in the STI field</td>
<td>- Holistic attitude towards the formation and implementation of the STI policy</td>
<td>- Evidence-based analysis policy making</td>
<td>- Evidence based analysis for international co-creation</td>
<td>- Investment sustainability and continuity are ensured</td>
</tr>
<tr>
<td>- Efficient innovation support</td>
<td>- Valuable expertise and experience</td>
<td>- Analysis of the impact of existing interventions</td>
<td>- Strengths identified</td>
<td>- Effective project selection procedures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Basis for an efficient and targeted preparation for the challenges of the new 2021–2027 financing period</td>
<td>- Lithuania's interests abroad</td>
<td>- Reducing the administrative burden</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Networking of Lithuanian embassies intensified</td>
<td></td>
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</table>
UPCOMING TO-DO LIST

Establishment of Innovation Support Fund
- Venture capital, loans and guarantees to innovative businesses
- Sustainable source for innovation support

One Innovation Agency
- Optimisation of the STI agencies network
- Strengthening strategic capacities
- Consolidation of the programmes and facilities

Improvements of the operating model of governmental research institutes
- Strengthening experimental development part in the innovation cycle
- Transfer knowledge to business
- Enhance demand for research and technology

Boosting of Innovative public procurement
- Demand-oriented innovation policy instrument
- Improvement of public service effectiveness and efficiency
- Support to start-ups and innovative businesses to launch and grow
Why one agency?

RDI system is fragmented, complicated and does not meet business needs
Recommendations: to consolidate institutions in order to more efficiently implement R&I policy

Research and Innovation Observatory (RIO) experts in assessing Lithuania's research and innovation system draw attention to highly fragmented policy priorities of the Lithuanian RDI system, strategic level programs, funding and low interinstitutional cooperation. Experts emphasize the need to consolidate the efforts and resources of state institutions to achieve their purposeful use for the implementation of R&I policy.

Organisation for Economic Co-operation and Development (OECD) also highlights the fragmentation and lack of coordination of Lithuanian RDI policy. OECD experts recommend reviewing and consolidating all strategic-level R&D programs, preparing and implementing institutional reform of RDI policy implementation, including consolidate agencies and their programs. The experts propose to choose from two consolidation principles: (1) Aggregate the agencies according to the similarities and complementarity of the existing functions, or (2) Aggregate the agencies according to the similarities and complementarity of target groups of beneficiaries.

IMF discussions with Lithuania under Article IV of the Agreement states that there are many institutions in Lithuania with advisory and implementing functions and subordinate to the Government, the Seimas, the Ministry of Finance, the Ministry of Education and Science and the Ministry of Economy. The report points out that there is a lack of effective coordination between the institutions, which increases their maintenance costs and makes it difficult to use the entire STI system. IMF experts offer to merge all institutions that are dedicated to promoting innovation to a single institution, and the institutions responsible for the implementation of studies and fundamental research policies – to another one.

EC recommendations on the 2019 National Reform Programme, Stability Programme: 3. Focus investment-related economic policy on innovation, energy and resource efficiency, sustainable transport and energy interconnections, taking into account regional disparities. Stimulate productivity growth by improving the efficiency of public investment. Develop a coherent policy framework to support science-business cooperation and consolidate research and innovation implementing agencies.
Innovation agency: one stop-shop for business

The twin derivative is two entities

- Customer Service, information and consultancy
  Pro-active search for the new customers

- Think tank, recommendations for policy-makers

- Financial support administration

- Financial instruments and fonds
MITA re-organisation, disconnect from ŠMSM
Harmonisation of IT systems, single CRS
Real Estate
IA Statutes, structure and legislative procedures
Implementation of the chosen merge model
Registering the agency in the Register of Legal Entities
Internal communication
Preparation for initial reorganization actions (HR, hirings, facilities, etc.)
Gov. Approval of the action plan for the merging business support institutions in one Agency
Rebranding
Gov. approval
Report Consultancy; two working groups
Background publications for 2021-2027 EU investments in Lithuania

• Country Report Lithuania 2019;
• OECD Economic Surveys - Lithuania 2018;
• National progress programme (project);
• Evaluation on Lithuanian economic sectors finance post 2020;
• Ongoing impact evaluation on 1 priority axis (RDI);
• Ongoing impact evaluation on 3 priority axis (business sector).
## Partnership in investments planning process for 2021-2027

<table>
<thead>
<tr>
<th>Objective</th>
<th>Data</th>
<th>Participants</th>
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<tbody>
<tr>
<td>1.1 Research and innovation, advanced technologies</td>
<td>09/05/2019</td>
<td>Public institutions, business associations, etc.</td>
</tr>
<tr>
<td>1.2 Digitisation</td>
<td>15/05/2019</td>
<td></td>
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<tr>
<td>1.3 Growth and Competitiveness of SMEs</td>
<td>04/04/2019</td>
<td></td>
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<tr>
<td>1.4 Skills for Smart Specialisation, Industrial Transition and Entrepreneurship</td>
<td>09/05/2019</td>
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</table>
**Annual increase in GDP, compared to the scenario without the EU investments**

HERLIT macroeconomic model was the theoretical basis of the evaluation. In the national and EU practice of public policy analysis macroeconomic models are one of the most recognized instruments for the impact evaluation of the Programmes’ investments. HERMIN macroeconomic modelling system is designed to analyse and evaluate medium and long-term impact of the state interventions. These models are used in evaluations commissioned by the European Commission and the European Parliament.

Source: HERLIT-16, Ministry of the Economy and Innovation
Model confirms 0.56 p.p. increase in GDP and 5,9 thousand additional jobs created due to EU investments in 2020.
A Smarter LITHUANIA – Innovative and Smart Economic Transformation
Return on investment: on average additional value added created by projects exceeds the costs of these projects by 2.2 times, with highest economic benefit from the R&I.
Experience from 2014-2020: PRIORITY AXIS 1. STRENGTHENING RESEARCH AND DEVELOPMENT AND INNOVATION

PROBLEMS

- Low value-added-based structure of the Lithuanian economy
- Export of Lithuanian knowledge-intensive products and services, employment in knowledge-intensive enterprises, economic impact of investments and other knowledge-intensity indicators - behind the EU average
- Non-active business-science cooperation
- Low number of innovative firms
- Low private R&D investment

SOLUTIONS

- Supported activities:
  1. Financing of corporate R&D activities
  2. Attraction of FDIs
  3. Building and development of networks, supporting activities of R&D partnerships
  4. Strengthening of the availability and quality of innovation support services
  5. Explaining innovations to SME (LIC project continuance)
  6. Promotion of the demand for innovation

5. Explaining innovations to SME (LIC project continuance)
Achieved results in 2014-2020 in R&I area

Number of enterprises receiving grants – 671

Number of enterprises supported to introduce new to the market products – 262

Number of enterprises supported to introduce new to the firm products - 47

Private investments matching public support:
2023 Plan in OP – EUR 175 million, of which financial instruments – EUR 1,7 million;
Achieved (June 26th) – EUR 39 million, of which financial instruments – EUR 255 thousand

Lithuania’s place in Innovation Scoreboard - from 24 to 21

More innovation

Better business-science cooperation

Higher quality of business consultation

Number of enterprises receiving non-financial support (FI) - 622
Annual increase in R&I, percentage points

Source: HERLIT-16, Ministry of the Economy and Innovation
Lithuania has higher potential in the capital and larger cities, while other regions are lagging behind.

Committed investments in 2014-2020 of priority axis 1 (R&I), as of December 2018.
Innovative firms are concentrated in four regions, however innovators in R&I area are mainly located in Vilnius

Index of Lithuanian innovative firms, LT average = 100

Innovative firms indicators, by region

<table>
<thead>
<tr>
<th>Business sector employees involved in R&amp;D (2017) - individuals</th>
<th>Capital region</th>
<th>Central and Western Lithuania</th>
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<tbody>
<tr>
<td>3 385</td>
<td>2 190</td>
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<table>
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<tr>
<th>Expenditure on R&amp;D in the business sector (2016) - million EUR</th>
<th>Capital region</th>
<th>Central and Western Lithuania</th>
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</thead>
<tbody>
<tr>
<td>80 378</td>
<td>34 182</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>The share of innovating enterprises compared to all enterprises (2016) - (%)</th>
<th>Capital region</th>
<th>Central and Western Lithuania</th>
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<tbody>
<tr>
<td>50</td>
<td>44,7</td>
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<table>
<thead>
<tr>
<th>Proportion of employees in innovative enterprises compared to employees of all enterprises (2016) - (percent)</th>
<th>Capital region</th>
<th>Central and Western Lithuania</th>
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<tr>
<td>72</td>
<td>66,1</td>
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<tr>
<th>Share of turnover of innovative enterprises compared to total turnover of enterprises (2016) - (%)</th>
<th>Capital region</th>
<th>Central and Western Lithuania</th>
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<tbody>
<tr>
<td>78,9</td>
<td>75,6</td>
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</table>

Source: Visionary Analitics, 2019
Current problems to be tackled

- The economy's capacity to innovate and absorb R&I is limited. Innovating firms in Lithuania are relatively small in size;
- Cooperation between businesses and universities or research centres remains scarce;
- Investment in R&I is below the EU average;
- Low business demand for research and innovation is mainly predetermined by the structure of the economy, which mostly consists of lower value added industry and services;
- Belated reform of the innovation policy – started only in 2018
Proposals and recommendations

MOST SUCCESSFUL – TO CONTINUE

According to Impact Evaluation of the 1 Priority Axis (Visionary Analytics, 2019), most successful and popular activities were:

• Corporated R&I activities
• Activities promoting demand for innovation.

TO BE IMPROVED

Moreover, all activities could be improved by

• Creating more synergy between measures, less fragmentation;
• Scaling-up, as massives measures lead to more efficiency;
• more attention for new innovators;
• more attention for innovation support services;
• developing forms of cooperation.

All proposals for 1.1 objective activities in 2021-2027 were prepared according provisions of Country Report Lithuania 2019 Annex D, OECD survey 2018, National progress programme (project), 2014-2020 projects experience and Impact Evaluation recommendations
2021-2027 investments
1.1. objective „Enhance research and innovation capacities and the uptake of advanced technologies“

Low private RDI investment, low economic impact

Non-active knowledge triangle (science-business-state)

Small, weak in international area innovators

Proposed activities:

Creation of new high value-added products
(RCO01, RCO02, RCO03, RCO08; RCR01, RCR02, RCR03, RCR05, RCR06, RCR19)

Start-ups acceleration and development
(RCO15, RCR17, RCR01)

Collaborative, contract-based research
(RCO01, RCO02, RCO07, RCO10, RCR02)

International networking
(RCR19)

High-value added FDI
(national indicators)
Digitisation for Citizens, Companies and Governments
Experience from 2014-2020: PRIORITY AXIS 2. PROMOTING INFORMATION SOCIETY

PROBLEMS

- Unequal coverage of hi-speed broadband among the regions
- Low security of the information infrastructure and resources
- Small share of enterprises use public sector information for the development of new commercial digital products and services
- Low accessibility and quality of public and administrative services

SOLUTIONS

1. Increasing the availability and use of broadband electronic communication networks and the provision of services
2. Increasing the efficiency of the protection of state information infrastructure and resources
3. Increasing the reuse of public sector information for business and public needs
4. Increasing the demand for ICT among the population
5. Increasing the accessibility and quality of public and administrative services

Supported activities:
Achieved results in 2014-2020 in information society

One single gateway to open data: the Lithuanian Open data portal

Better protection of state information and resources

State information infrastructure consolidation in progress

More e-services

Created more digital services (e.g.: E-invoice, E-waybill, applied accounting system, smart cash registers and etc.)

Population usage of internet up to 78 percent (in 2013 - 65 proc.)

50,18 % population using public e-services

Source: Ministry of Finance, Annual OP implementation report
Current problems to be tackled

- Slow development of digital economy;
- Very low share of open data compared to EU28, low availability and insufficient reuse;
- Digital divide between rural, older, disabled and lower-income residents and educated, high-income, young residents in internet use: Only 55% of people have basic digital skills (as opposed to 57% in the EU as a whole), although Lithuania is one of the EU countries with the lowest proportion of adults with a low level of education (in 2017 only 12% Lithuanians have less than lower secondary education, against an EU average of 25%);
- Non-systemical view on Cyber Security.

All proposals for 1.2 objective activities in 2021-2027 were prepared according provisions of Country Report Lithuania 2019 Annex D, OECD survey 2018, National progress programme (project), Evaluation on Lithuanian economic sectors finance post 2020, 2014-2020 projects experience
Digital Economy and Society Index 2019: Lithuania overview

<table>
<thead>
<tr>
<th></th>
<th>LITHUANIA</th>
<th>EU average</th>
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<tr>
<td></td>
<td>RANK</td>
<td>SCORE</td>
</tr>
<tr>
<td>DESI 2019</td>
<td>14</td>
<td>52.0</td>
</tr>
<tr>
<td>DESI 2018</td>
<td>14</td>
<td>49.2</td>
</tr>
<tr>
<td>DESI 2017</td>
<td>18</td>
<td>44.6</td>
</tr>
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</table>
## ICT Infrastructure Optimization & Management Transformation

| **Added value:** |  
|---|---|
| 1. Centralized, standardized and secure management of information resources | 
| 2. Focusing ICT policy on the new stage of digital state and economic development | 
| 3. Cost savings for hardware and licenses by 30% |

| **Aim of the Program:** | Optimization of ICT Infrastructure (policy, human resources, processes, technologies) |
| **Budget:** | EUR 38,331,470 |
| **Term of the Program:** | 31.12.2023 |
Status of the Program

2018

1st stage: Focusing Policy

2019

2nd stage: ICT optimization implementation model

CIO Office
Management Model and Preparation
G-Cloud: infrastructure and Platform
State ICT Center
State Data Center No. 1
Migration
Optimization of working places

2020

3rd stage: Adjustments as needed
Implementation of Digital Agenda

2021

Increasing the competencies of the State IT Center
State Data Center No.2
Data Center support and backup (from startup)

2022

Iterations of Migration
Robotization of Maintenance/optimization

2023

Legislation
Part of program
Ongoing activity
Planned activity
Continuous activity

Tags:

- Legislation
- Ongoing activity
- Planned activity
- Continuous activity
- Part of program
Central eHealth System (ESPBI IS)

Storage and exchange of 12 different clinical documents related to:
- referrals,
- discharge letter,
- out-patient medical records,
- E-Prescriptions,
- lab results, etc.
as well as 8 medical certificates:
- health certificates for students, drivers, holders of weapons,
- birth or death certificates, and others.
Central eHealth System: main indicators

Central eHealth system (ESPBI IS) is capable of storing patient information from various health care institutions (HCI) in one eHealth history.

One Resident – One EHR (electronic health record)

- 92% e-Prescriptions
- 100% pharmacies are connected and can dispense medicines by ePrescriptions
- 87% eEpicrisis
- 75% health certificates for drivers
- 100% birth certificate
- 100% death certificate

835 HCI (out of 900) are connected to central eHealth system. These HCI take care of 95% Lithuania's patients.
Development of eHealth System

2009-2015
Implementation of eHealth projects

2016 – 2018
eHealth growing usage

2019
Future development

Implementation of national eHealth and other information systems

New documents stored per month
2016.12 – 116,000
2017.12 – 1,240,000
2018.12 – 2,331,000
2019.04 – 3,004,000

Action plan 2019-2025
Development projects for 3 years perspective
2021-2027 investments
1.2. objective „Reap the benefits of digitalisation for citizens, companies and governments“

- Large digital exclusion of population (low demand for ICT)
- The potential of ICT in the public sector is not in use enough
- The potential of ICT in business is not in use enough
- Proposed activities:
  - Development of digitalisation capacities (inohub, competence centre, innovation centre and etc.)
    (RCR13)
  - Innovative and users friendly public digital services creation and development
    (RCO13, RCR11, RCR12)
  - Cyber security (public sector, SME’s) (national indicators)
  - Installation and development of interoperability solution in public sector
    (RCO14, RCR11)
  - Upscale and accelerate open data
    (national indicators)
  - Consolidation of the state information resources infrastructure
    (national indicators)
Growth and Competitiveness of SMEs

1.3. objective
Experience from 2014-2020

PRIORITY AXIS 3. PROMOTING COMPETITIVENESS OF SMALL AND MEDIUM-SIZED BUSINESS

**PROBLEMS**

- Lithuania - behind the EU-27 average in terms of entrepreneurship level
- Lack of initiatives promoting entrepreneurship and a lack of financing
- Insufficient access of SMEs, particularly start-ups, to the necessary sources of financing
- Limited accessibility and supply of services for business
- Very small domestic market, export volumes of domestic goods of Lithuania are small, low internationalisation of SMEs
- Value-added generated by production costs per one employee of SMEs in Lithuania is nearly 3 times as high as the EU-27 average
- Low productivity of the manufacturing industry
- Expensive implementation of technological innovations in business and improvement of technological capacities; lack of funds; and insufficient level of organisational and non-technological innovations launched in business by companies
- Low level of investment into eco-innovation, resource-efficient technologies

**SOLUTIONS**

1. Increasing the level of entrepreneurship
2. Increasing the internationalisation of SME’s
3. Increasing the productivity of SME’s
4. Increasing investments of SMEs in eco-innovation and other resource-efficient technologies

Supported activities:
Achieved results in 2014-2020 in business promoting

- Number of enterprises receiving grants – 6054
- Number of new enterprises receiving investments – 2062
- „Doing business“ – Lithuania in 14 place
- 59 million for industry digitalisation in SME’s
- Fostering of ecoinnovation
- Promoting business modernisation in regions
- Private investments matching public support:
  2023 Plan in OP – 307 million EUR, of which financial instruments – 81 million EUR;
  Achieved – 252 million EUR, of which financial instruments – 133 million EUR.
Source: HERLIT-16

Impact on firms share, invested in environmental innovation, p.p.
Impact on real labour productivity, p.p. (w/o FI)
Impact on Lithuanian export (share in GDP), p.p. (w/o FI)
Impact on FDI, p.p. (w/o FI)
Impact on firms share, invested in environmental innovation, p.p. (w/o FI)
Current problems to be tackled

- The benefits of Lithuania's speedy economic convergence are heavily concentrated in the two metropolitan areas;
- Despite the improved availability of funding, SMEs access to finance score remained close to the EU average. SMEs continued to experience some challenges in obtaining loans;
- Productivity growth is concentrated in low value added sectors (decreasing competitiveness of SME’s);
- Export market potential in not in use (to give more attention for EU strategic value chains)
Proposals and recommendations

MOST SUCCESSFUL – TO CONTINUE

According Impact Evaluation of the 3 Priority Axis (Visionary Analytics, 2019) most effective activities were:

• development access of SMEs, particularly start-ups, to the necessary sources of financing, searching of new export market and new trade partners.

TO BE IMPROVED

Moreover, all activities could be improved by

• more synergy between measures;
• massives measures lead to more efficiency;
• more attention for new export market;
• more attention for new technologies (Industry 4.0 and etc.);
• better access to international market and networks.

All proposals for 1.1 objective activities in 2021-2027 were prepared according provisions of Country Report Lithuania 2019 Annex D, OECD survey 2018, National progress programme (project), 2014-2020 projects experience and Impact Evaluation recommendations
2021-2027 investments
1.3. objective „Increase the growth and competitiveness of small and medium-sized enterprises“

Decreasing competitiveness

Slowed productivity growth and preparing for the future

Weak entrepreneurship in regions

Low integration to global value chain

Proposed activities:

Building of technological capacity in Industry 4.0 areas and in key enabling technologies (RCO01, RCR03, RCR19, RCR25)

Participation in cooperation networks and interregional clusters, including Baltic Sea region (RCR19, national indicators)

Investment in non-technological innovation (RCO01, RCR04, RCR19, RCR25)

SME’s internationalisation activities, identifying new export market (RCO01, RCR19)

Supporting of various business financing models (RCO01, RCR19, RCR25, RCR04)

New started firms creation, acceleration, development and mentoring activities, especially in regions (RCO15, RCR17, RCR01)

Investments in ecoinnovation (national indicators)
Skills for Smart Specialisation, Industrial Transition and Entrepreneurship
Experience from 2014-2020

PRIORITY AXIS 9. EDUCATING THE SOCIETY AND STRENGTHENING THE POTENTIAL OF HUMAN RESOURCES: problems and solutions

No forecasting of human resources system

No instrument enabling comparison of the professional structure of the labour market at international and domestic levels

No functioning nationally supported scheme for enhancement of the workforce qualifications

Supported activities:

1. Improvement of qualifications and competence of human resources ("Skills vouchers")

2. Support for investing companies and companies engaged in RDI activities

3. Apprenticeship and the acquisition of sectoral competences

4. Medium-term forecasting of the demand for human resources

5. Development of a complete instrument for the international and national comparison of labour market's professional structure

6. Forecasting studies on the demand for human resources in the labour market

MINISTRY OF THE ECONOMY AND INNOVATION
Achieved results in 2014-2020 in human resources

- Better qualifications and competence of human resources
- Improved sectoral competences
- Development of the forecasting of the demand of human resources
- Better R&I competence of human resources

The employed people who participated in ESF training awarding a qualification or competence
2023 Plan in OP – 65 000;
Achieved until now – 31 306

Trained employees of supported micro, small and medium-sized enterprises – 11 664

Achieved results in 2014-2020 in human resources
In the mid-term, highest EU investments impact in HR area is on wages, while in the long-run on productivity in manufacturing.
Problems still remain:

- Lithuania has made limited progress in improving the quality, efficiency and labour market relevance of education and training;
- Adults participation in learning remains low;
- Lack of coordination of the validation of programmes across education, the labour market and the voluntary sector;
- Public financial incentives or grants are mostly focused on medium-sized and large business;
- Non-sustainable adult learning system.

According provisions of Evaluation on Lithuanian economic sectors finance post 2020, activities could be improved:
- more attention for variety and needs-match learning programmes;
- better access for training services;
- better motivation for better qualification.

All proposals for 1.4 objective activities in 2021-2027 were prepared according provisions of Country Report Lithuania 2019 Annex D, OECD survey 2018, National progress programme (project) and 2014-2020 projects experience.
2021-2027 investments

1.4. objective „Develop skills for Smart Specialisation, industrial transition and entrepreneurship“

- Low degree of innovation and digital proficiency
- Skills mismatch and weak firms employees preparation for future challenges
- Weak entrepreneurship
- The lack of the qualified workforce in SME’s
- Lack of the export management knowledge and skills in SME’s

Proposed activities:

- SME’s and innovation providers training on how to manage innovation, skills on developing and providing R&I ideas and services (RCO101, RCR98)
- Developing of entrepreneurship in out-of school forms (RCO101, RCO16)
- SME’s re-skilling, up-skilling in Smart Specialisation, industrial transition, digitalisation, productivity areas (including apprenticeship) (RCO101, RCO16, RCR97, RCR98)
- Development of a complete instrument for the international and national comparison of labour market’s professional structure (national indicators)

- Tools of vocational guidance for all age groups
- Recognition of competences acquired in different ways
- Attraction of the high-qualified specialists from third countries and instruments for their integration
Financial Instruments
**2014-2020 Financial Instruments and Partial Compensation of Interest**

**EUR 420.27m amount allocated for all instruments, out of which:**

EUR 229.96m ESIF: EUR 199.08m for FIs, EUR 30.88m for Partial compensation of interest and EUR 190.31m national resources (reflows) for FIs

### Equity Instruments (EUR 169.18m)
- Seed and Venture Capital Fund, Up to EUR 14.8m
- Co-investment Fund II, up to EUR 12.5m
- Co-investment Fund R&I, up to EUR 11.6m and up to EUR 5m
- Baltic Innovation Fund I and II, up to EUR 26m each

### Debt Instruments (EUR 142.35m)
- Development Funds I and II, up to EUR 15.6m and up to EUR 17.4m
- Business Angels Fund II, up to EUR 11m
- Accelerator Fund, up to EUR 14.48m

### Guarantee Instruments (EUR 73.86m)
- Open Credit Fund II, up to EUR 57.7m
- Risk Shared Loans, up to EUR 79.65m (EUR 76.64m ESIF, EUR 3.01m reflows)
- Individual guarantees for loans and leasing, up to EUR 29m
- Portfolio guarantees for loans, up to EUR 28.26m
- Portfolio guarantees for factoring, up to EUR 4.3m
- Export Credit Guarantees, up to EUR 8m
- Portfolio guarantees for leasing, up to EUR 4.3m
- Individual guarantees for large companies, up to EUR 4m
- Crowdfunding Loans, up to EUR 5m

### Partial compensation of interest
- Up to EUR 30.88m
- ESIF

### Reflows (national)
- ESIF/Reflows (national)
- ESIF
- Reflows (national)
- Reflows (national)
- Reflows (national)
- Reflows (national)
- Reflows (national)
- ESIF
- Reflows (national)
• Increased attention to financial instruments (19 active, 1 are coming)
• Promotion of new types of financing (including alternative) (portfolio guarantees for factoring, crowdfunding loans, export credit guarantees, co-investment fund for R&I)
• Equity instruments for different stages of SMEs‘ life cycle (pre-seed, seed, start-up, expansion, growth)
• Further cooperation with other Baltic countries (Baltic Innovation Fund II)
• Wide use of reflows
CHALLENGES IN IMPLEMENTING FINANCIAL INSTRUMENTS IN 2014-2020 PROGRAMMING PERIOD

• Limited possibilities of implementation of pilot financial instruments from ESIF (due to various restrictions and audits)
• Limited possibilities of combination of grants and FIs under single operation
• Too detailed ex-ante assessment methodology – delayed reaction to changing market needs

Challenges with specific financial instruments from ESIF:
• Loan instrument „Risk Shared Loans“ is not running as expected (market situation changed; conditions of this instrument became unattractive for banks)
• Still no investments from Co-investment Fund R&I (science institutions are not keen to invest into spin-offs)
Financial instruments (loans, guarantees, equity) – to be used to support broader scope of activities

Further development of equity ecosystem

Potential wider deployment of combination of grants and financial instruments (depending on the final version of CPR)

Refloows would be used more widely

Ex-ante assessment will show which objectives would be pursued (activities would be covered) through financial instruments
Annual increase in GDP level in p.p. (Financial instruments impact)
(Source: HERLIT-16)
Success Story. Foodsniffer

• The World’s first handheld mobile device that determines the freshness of raw meat and fish.

• Export to 15 countries: UK, France, Switzerland, Italy, Czech Republic, South Africa and more.

„Business Angels Fund“
Funded – 1.366.003 Eur
Out of which 928.529 Eur
Business Angels‘ fund

„InoPatent“
Project value – 7.640 Eur
Funded – 5.730 Eur

„InoVouchers“
Project value – 52.618,40 Eur
Funded – 36.774,96 Eur
Success Story. LB CHAIN PLATFORM-SERVICE

**Vision**

- **LBCHAIN PLATFORM-SERVICE**
  - Fintech with MVP
  - Test platform
    - Non-public testing
    - Tech./reg. support

- **REGULATORY SANDBOX**
  - Public testing
    - Regulatory support
    - Impunity

**FINTECH STARTUP JOURNEY**

- **IDEA**
- **MVP**
- **PRODUCTION**

**Technological / regulatory sandbox**

- Bank of Lithuania

**Pre-Commercial Procurement LT**

- Project value: 896 300 Eur
- Funded: 761 855 Eur
# E-invoice subsystem (i.SAF)

## Services provided in i.SAF

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.SAF subsystem</td>
<td>i.SAF subsystem containing invoice data</td>
</tr>
<tr>
<td>Preparation of preliminary VAT returns</td>
<td>A preliminary VAT invoice is prepared for Tax Payers (TP), thus saving the time of a TP</td>
</tr>
<tr>
<td>E-invoicing</td>
<td>Invoicing system for small business</td>
</tr>
<tr>
<td>Notification on discrepancies of cross-check of invoices between sellers-buyers</td>
<td>Cross-check of information allows identifying fraudulent TPs</td>
</tr>
</tbody>
</table>

## Benefits

- Conditions for waiving paper invoices are created
- A preliminary VAT invoice is prepared for a Tax Payers (TP), thus saving the time of a TP
- Invoicing system for small business
- Cross-check of information allows identifying fraudulent TPs
Success Story. Fishfinder Deeper

The world’s most popular castable fishfinder.

„New Opportunities LT“
Project value – 90.000,00 Eur
Funded – 45.000,00 Eur

„Expo Certificate LT“
Project value – 57.331,84 Eur
Funded – 28.665,03 Eur
Intensive trainings to increase added value created by SMEs

**Program requirements:**
- SME with export potential
- 2 participants per company (CEO+Export manager)
- Motivation to change

**What's in it for SME**
- 8 days of trainings and individual consultations
- Create or Rebrand and understand how to earn from what
- Previous participants increased their export after the trainings twice, from 8134 to 17349 thousands EUR.
SUCCESS STORY (FI): CAFFEINE

**CAFFEINE ROASTERS**

**DEVELOPMENT: TIMELINE**

LT: est. 2007, 40 coffee shops
LV: est. 2010, 18 coffee shops
EE: est. 2015, 9 coffee shops
Thank You!
Kiek švietimo sistemos pasiūla ir įgyjami įgūdžiai atitiks darbo rinkos poreikius?

Įgūdžių neatitikimo komponentai, pagal kvalifikaciją, proc. nuo 15-64 m. darbuotojų
Investicijos į žmonės – viena svarbiausių sėkmės komponenčių

Suaugusiųjų (25-64 m.) dalyvavimas mokymuose 2017 m., proc.

<table>
<thead>
<tr>
<th>Šalis</th>
<th>Suaugusiųjų dalyvavimas (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rumunija</td>
<td>1,1</td>
</tr>
<tr>
<td>Bulgarija</td>
<td>2,3</td>
</tr>
<tr>
<td>Kroacia</td>
<td>2,3</td>
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<tr>
<td>Slovakija</td>
<td>3,4</td>
</tr>
<tr>
<td>Lenkija</td>
<td>4</td>
</tr>
<tr>
<td>Grankija</td>
<td>4,5</td>
</tr>
<tr>
<td>Lietuva</td>
<td>5,9</td>
</tr>
<tr>
<td>Vengrija</td>
<td>6,2</td>
</tr>
<tr>
<td>Kipras</td>
<td>6,9</td>
</tr>
<tr>
<td>Latvija</td>
<td>7,5</td>
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<tr>
<td>Italija</td>
<td>7,9</td>
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<tr>
<td>Vokietija</td>
<td>8,4</td>
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<tr>
<td>Belgija</td>
<td>8,5</td>
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<tr>
<td>Airija</td>
<td>8,9</td>
</tr>
<tr>
<td>Čekija</td>
<td>9,8</td>
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<tr>
<td>Portugalija</td>
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<td>Ispanija</td>
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<tr>
<td>Malta</td>
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<tr>
<td>Euro zona</td>
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<tr>
<td>Slovėnija</td>
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<tr>
<td>Austrija</td>
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<tr>
<td>Estija</td>
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<tr>
<td>Luksemburgas</td>
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<td>Francuzija</td>
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<tr>
<td>Nederlandai</td>
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<tr>
<td>Norvegija</td>
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<tr>
<td>Islandija</td>
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<td>Danija</td>
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<tr>
<td>Stotojos</td>
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<tr>
<td>Svedija</td>
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<tr>
<td>Šveicarija</td>
<td>30,4</td>
</tr>
<tr>
<td></td>
<td>31,2</td>
</tr>
</tbody>
</table>

Šaltinis: Eurostat
Kiek Lietuvos darbo rinką paveiks automatizacija?

**Panel A. Region of Type B**

Nekvalifikuoti gavybos, statybos, pramonės ir transporto darbininkai (93), Maisto gamintojai, medienos meistrai, siuvėjai ir kiti giminiškų profesijų darbininkai ir amatininkai (75), Valytojai ir pagalbininkai (91)

Duomenys: OECD Country Profile of Lithuania, 2018