

RIS3 of Lithuania

Ieva Penelytė

Innovation Policy Analyst at Research and Higher Education Monitoring and
Analysis Centre MOSTA

ieva.penelyte@mosta.lt

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Content

- Short description of the region
- Short description of RIS3 process
- Lithuanian RIS3 Evaluation
- Monitoring results

Short description of the region

| Indicator | Lithuania | | European average (2016) |
|---|-----------|------------------|----------------------------|
| | 2011 | 2016 | |
| Real GDP per capita (EUR per inhabitant) | 9,800 | 12,000 | 26,900 |
| GDP per capita in PPS (EU28 = 100) | 66 | 75 (2015) | 100 (2015) |
| Real GDP growth rate volume (% change on previous period) | 6% | 2.30% | 1.90% |
| Research and development expenditure all sectors (% GDP) | 0.90% | 1.04% (2015) (p) | 2.03% (2015) (p) |
| Research and development expenditure business enterprise sector (% GDP) | 0.24% | 0.28% (2015) (p) | 1.3% (2015) (p) |
| Research and development expenditure government sector (% GDP) | 0.18% | 0.18% (2015) | 0.24% (2015) (p) |
| Research and development expenditure higher education sector (% GDP) | 0.49% | 0.58% (2015) | 0.47% (2015) (p) |

Source: Eurostat

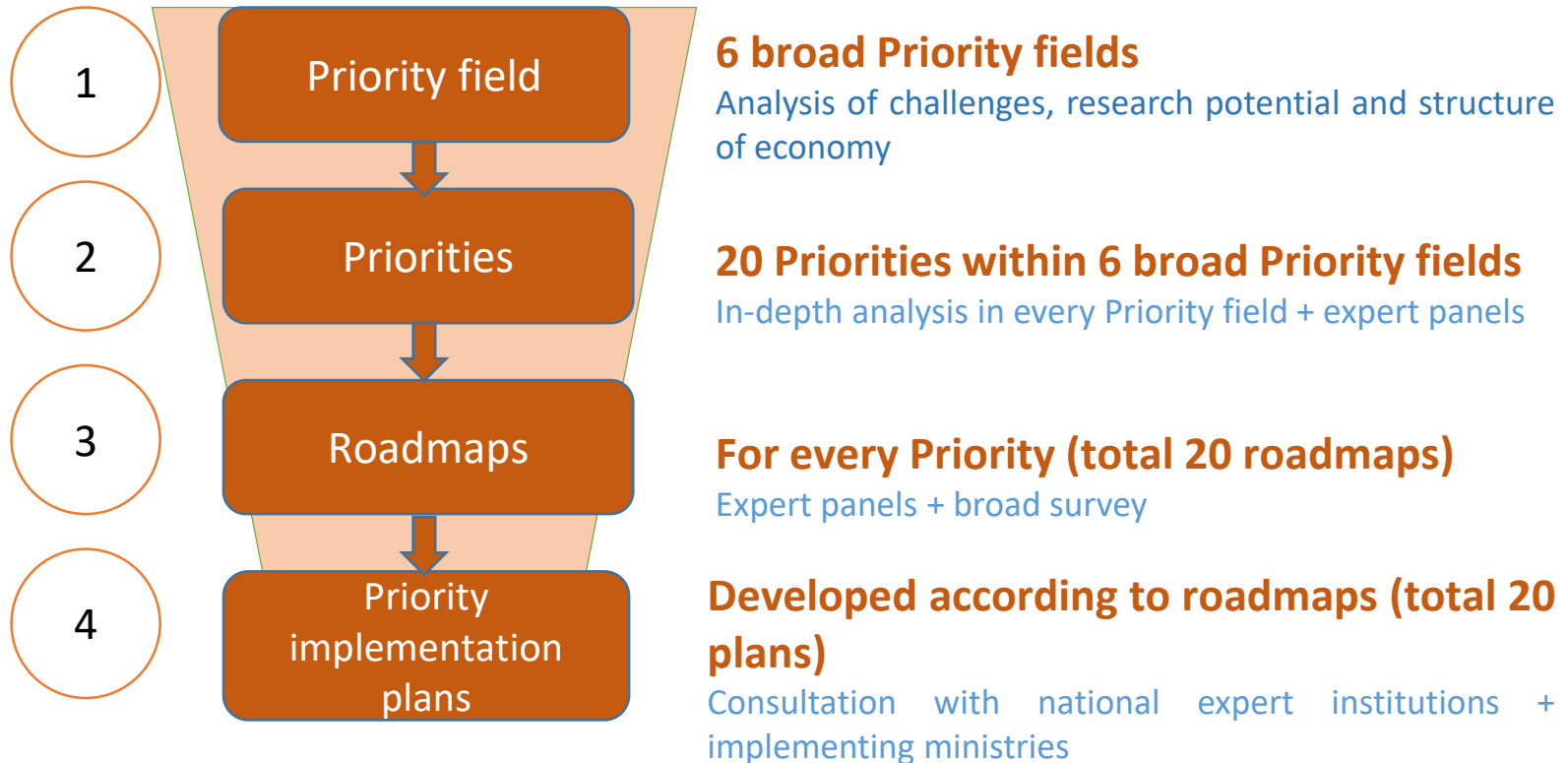
Lithuania encounters a problem of low business investments in R&D&I activities. Weak innovative capacities of business predetermine the competitiveness of Lithuania's economy. Knowledge and technology intensive sectors are relatively small and the impact of their development on Lithuania's economy is insignificant yet.

The bigger part of value added delivered by Lithuania's economy comprises products and services of traditional manufacturing industry.

Lithuania's indicators such as export of knowledge-intensive products and services, employment in knowledge-intensive companies, economic impact of innovation and other economic indicators of knowledge-intensive economy are far below the EU average.

Short description of RIS3 process

From analysis to implementation



Priorities

AGRO-INNOVATION AND FOOD TECHNOLOGIES

- Safer food
- Functional food
- Biorefinery

ENERGY AND SUSTAINABLE ENVIRONMENT

- Smart energy systems
- Energy from biomass, waste treatment
- Digital construction
- Solar energy

HEALTH TECHNOLOGIES AND BIOTECHNOLOGY

- Molecular technologies
- Advanced technologies for health
- Advanced medical engineering

INCLUSIVE AND CREATIVE SOCIETY

- Educational technologies
- Implementation of breakthrough innovations

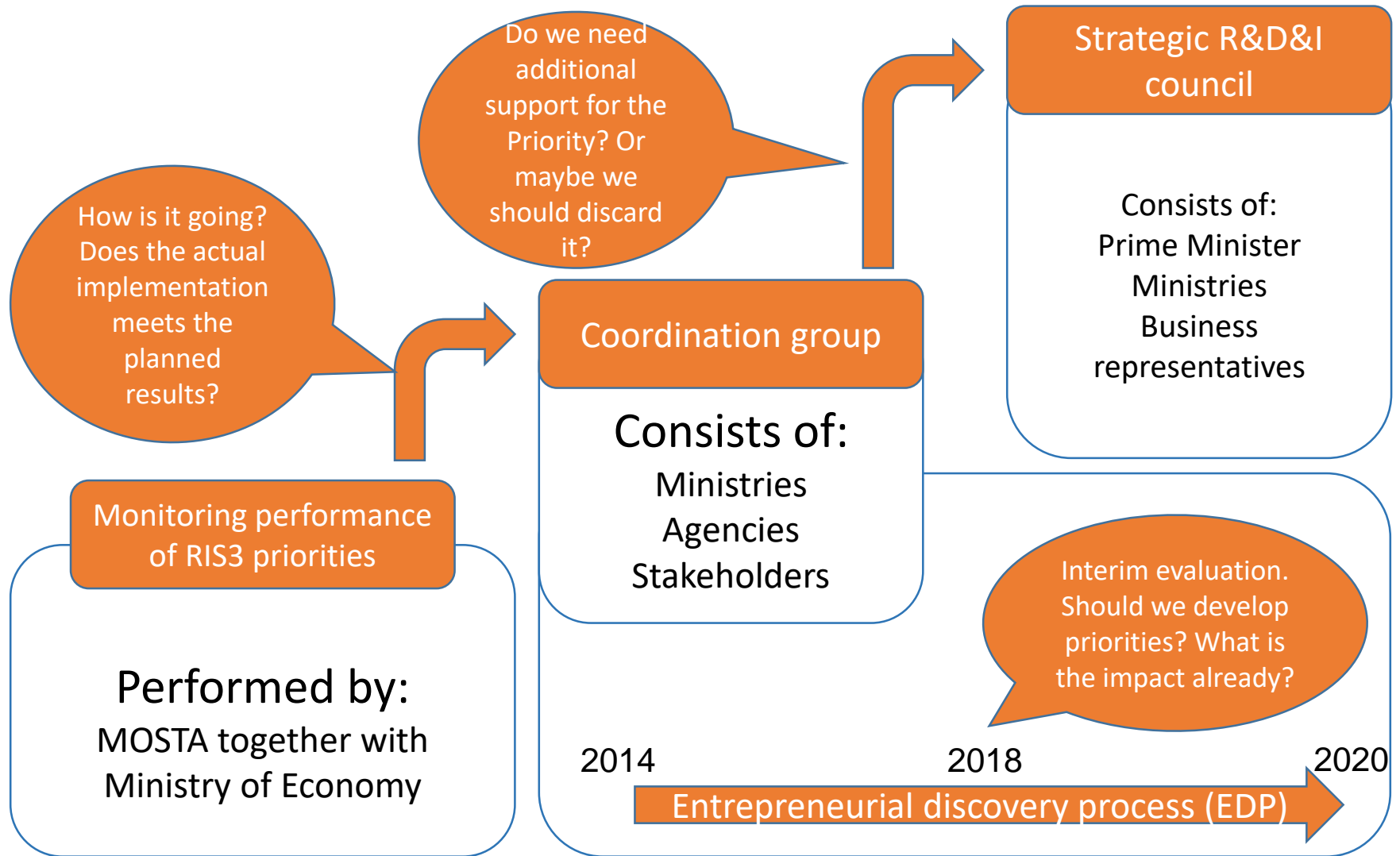
NOVEL PRODUCTION PROCESSES, MATERIALS AND TECHNOLOGIES

- Photonic and laser technologies
- Functional materials and coatings
- Structural and composite materials
- Flexible production systems

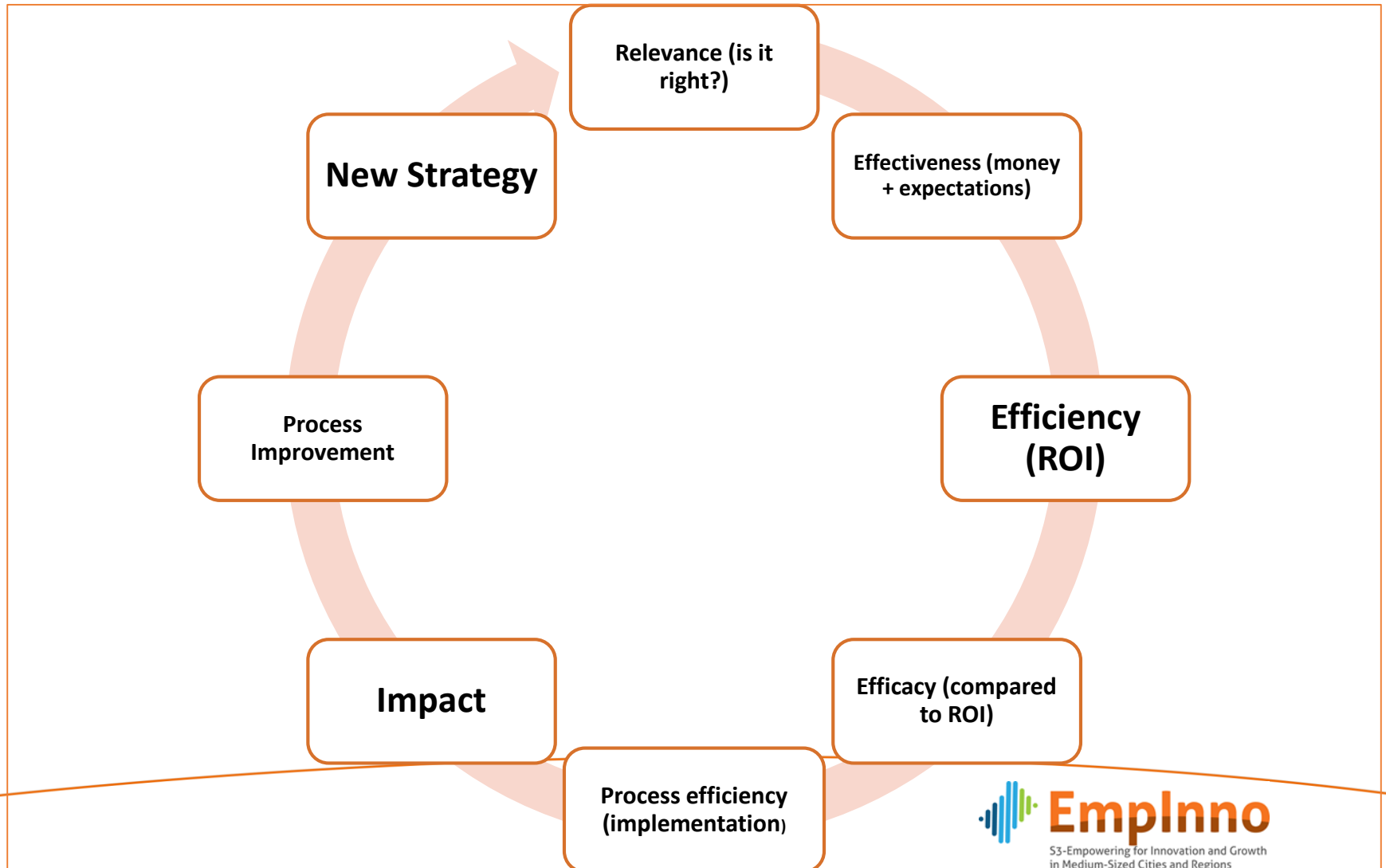
TRANSPORT, LOGISTICS AND INFORMATION AND COMMUNICATION TECHNOLOGIES

- Smart transport systems and ICT
- International transport corridors
- Digital content
- Cloud computing and services

Short description of RIS3 process



Lithuanian RIS3 Evaluation Cycle



Lithuanian RIS3 Evaluation System

Innovation policy evaluation in RIS3 context

Monitoring

Includes monitoring and evaluation of RIS3 indicators

- Monitoring period - last 12 months
- 5 evaluation reports in total

Interim Evaluation

Includes evaluation of RIS3 progress on relevance, effectiveness, efficiency, and etc. aspects

- The evaluation period is every 24 months
- 2 evaluation reports in total
- Entrepreneurial Discovery Process (EDP) applied

Impact Assessment

Includes RIS3 final impact assessment (as ex-post)

- Impact assessment period is 5 years
- 1 evaluation report in total

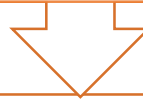
Lithuanian RIS3 Evaluation System

| No. | Scope of assessment | Type of assessment |
|-----|---|---------------------------|
| 1. | Changes in environmental factors that could affect the implementation of the RIS3 | Monitoring |
| 2. | The relevance of the RIS3 priorities for investment and the impact perspectives | Monitoring, Interim |
| 3. | Implementation of R&D&I policy instruments | Monitoring, Interim |
| 4. | Implementation of projects funded by R&D&I policy instruments | Monitoring, Interim |
| 5. | Participation in international research programs | Monitoring, Interim |
| 6. | The status of research and education institutions in the international context | Monitoring, Interim |
| 7. | R&D&I trends in business sector | Monitoring, Interim, EDP |
| 8. | R&D&I trends in research sector | Monitoring, Interim, EDP |
| 9. | Effectiveness of R&D&I policies | Interim, Impact (ex-post) |
| 10. | Impact of RIS3 on economic sectors | Impact (ex-post) |
| 11. | Impact of the implementation R&D&I policies on the priorities of the RIS3 | Impact (ex-post) |

Set of Indicators

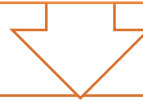
Input Indicators

Monitoring whether adequate public and private resources are allocated, how efforts and resources are concentrated in different areas of RIS3



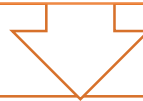
Output Indicators

Monitoring the implementation of the priorities of the RIS3



Outcome Indicators

Monitoring the progress of RIS3 and the value of the products created during its implementation, the benefits to the direct target groups



Impact Indicators

Monitoring the impact of the implementation of RIS3 on the country's economy

Monitoring „Critical mass“

- Priorities are evaluated using the concept of "critical mass" (i.e. a set of evaluation criteria measuring the priority potential)
- In the first monitoring report priorities were evaluated using 8 evaluation criteria, and in the second report 35 criteria were used
- The first report was baseline, in the second report 6 policy instruments and the results of the two instruments were analysed
- The I report was more focused on the contextual assessment criteria, the second report focuses on the intensity and scope of the activities

Monitoring No. 1 results

Critical mass

Molecular technologies
Advanced technologies for health
Photonic and laser technologies
Functional materials and coating

Inventors

Advanced medical engineering
Smart energy systems
Solar energy

Moderate results

Flexible production systems
Functional food
Cloud computing and services
Digital content
Implementation of breakthrough innovations
Educational technologies
International transport corridors
Biorefinery

Features:

- **63 to 214 Q1 publications, 2/3 with foreign co-authors**
- **33 patents overall**
- **Intensive financing from „Intellect“ / „Horizon 2020“ measures (20M € overall)**

Publishers

Energy from biomass, waste treatment
Smart transport and ICT systems
Digital construction
Safer food

Monitoring No. 2 results

Critical Mass Priorities

Assessing financial, human resources, economic, etc. peculiarities of participants in the innovation ecosystems participating in Lithuanian RIS3.

Having evaluated the priorities of RIS3 in accordance with criteria 35, two priorities reach critical mass:

Safer food

Photonic and laser technologies

Monitoring No. 2 results

7 priorities have a significant potential. It is a heterogeneous group with critical mass in separate areas. These are:

- energy production from biomass
- solar energy
- functional materials
- molecular technology
- public health
- cloud computing
- breakthrough innovations

The four weakest priorities are:

- digital building
- creation of bio-materials (*the weakest priority, as already recorded in the second monitoring report*)
- transport and ICT systems
- transport corridors

Thank you!

Contact:

Ieva Penelytė

Innovation Policy Analyst at Research and Higher Education
Monitoring and Analysis Centre MOSTA

t +370 679 67998

e ieva.penelyte@mosta.lt

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