



Ministry of
Education and Science
Republic of Latvia

RIS3 in Latvia

Emplnno project meeting

14.09.2016.



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RIS3 process

Bringing together research and industry organizations, HE institutions and policymakers for setting priorities, designing policy instruments and monitoring progress

- Unprecedented collaboration and coordination between 6 line ministries
- Engagement and support from industry organizations and planning regions
- Engagement and support at the political level
 - Establishment of ministerial level Strategic Innovation Council chaired by Prime Minister
 - Multiple hearing at the Parliament



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RIS3 process

Thorough and honest assessment of existing knowledge base, S&T human capital, institutions and innovation system:

- international evaluation of research institutions (2012-2013)
- **first round** of discussions that identified potential specialization areas (spring 2013)
- **second round** of discussions for validation of identified potential specialization areas with industry (summer 2013)
- **development of RIS3 strategy (autumn 2013)**
- **third round** discussions for validation and further development of specialization areas (2014)
- **fourth round** of discussions to prioritize investment programs and to devise instruments (2015)



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“Hybrid strategy” of specialization and diversification

RIS3 strategy aims at creating future domestic capability and comparative advantage and that integrates frontier technology research

Activities

- aim at development sufficiently diverse knowledge base and boosting innovation capacity of firms, and embedded and connected S&T human capital
- target whole innovation cycle
- remove obstacles and support development of productive innovation system



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Smart Specialization Strategy for Latvia

Objective: Transformation of economy towards higher added value, productivity and more effective usage of resources

Directions:

1. Structural changes of production and export in the traditional sectors of the economy;
2. Growth in sectors where there is or is likely to create products and services with high added value;
3. Branches with significant horizontal impact and contribution to economic transformation.

Priorities:

1. **High added value products**
2. **Productive Innovation System**
3. **Energy Efficiency**
4. **Modern ICT**
5. **Modern education**
6. **The knowledge base**
7. **Polycentric development**

Specialization areas:

1. Knowledge-based bio-economics
2. Bio-medicine, medical technologies, bio-pharmacy and biotechnologies;
3. Advanced materials, technologies and engineering systems
4. Smart energy
5. Information and communication technologies.



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Implementation of RIS3

role of universities – knowledge hubs

- **to develop** sufficiently diverse **knowledge base**
sufficiently diverse (to serve five specializations)
focused and relevant (to ensure competitiveness)
embedded in S&T human capital
- **to boost innovation capacity** of firms thru provision of human capital and access to knowledge
locally embedded (to develop local industry)
globally connected (to reach out for opportunities)
links across sectors and disciplines (to benefit from cross- fertilization)
- **to pool resources across sectors and regions** (innovation ecosystem)



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Implementation of RIS3

role of research institutes – to develop relevant knowledge

role of industry – to innovate

role of government – to enable, to set structure of incentives, correct market and policy failures

role of planning regions – cooperation and partnerships



Ministry of

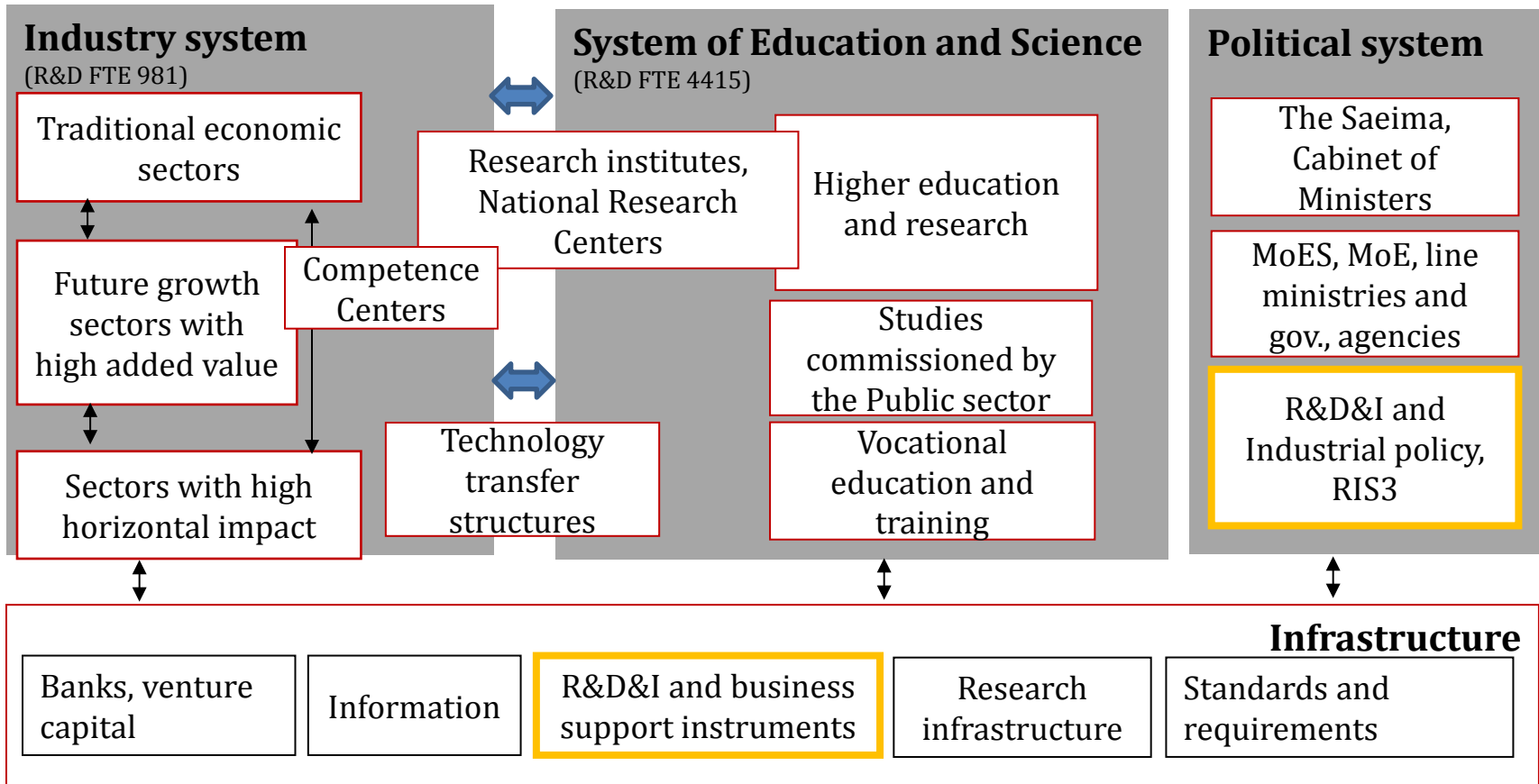
Latvian R&D&I System

Demand

Consumers (final demand)
Producers (interim demand)

Framework conditions

Financial environment, tax regime,
entrepreneurship and innovation incentives,
regulatory environment, State aid, mobility





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Monitoring RIS3

OVERALL GOALS (3)	Base value	2017	2020	Data source
(1) Investment in R&D (% from GDP)	0.6 (2013)	1.2	1.5	CSB
(2) Position in the EU Innovation Union Scoreboard	modest (2013)	modest	follower	EC
(3) Efficiency in the processing industry (EUR per employee)	20,126 (2013)	24,500	29,000	CSB
MACRO LEVEL INDICATORS (6)				
(1) Private sector investments in R&D (% of total investments)	21.8 (2013)	46	48	CSB
(2) Proportion of innovative companies (% of all companies)	30.4 (2012)	35	40	CSB
(3) Proportion of high-technology and medium-high-technology sectors in the export of Latvian goods (%)	23.8 (2012)	27	31	CSB
(4) The number of R&D personnel (public, private sector)	5593 (2013)	6300	7000	CSB
(5) A smaller number of stronger publicly-funded scientific institutions	42 (2013)	30	20	MoES
(6) Proportion of graduates (ISCED level 5 and 6) in the STEM fields from the total number of graduates, %	19 (2012)	25	27	MoES



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Monitoring RIS3

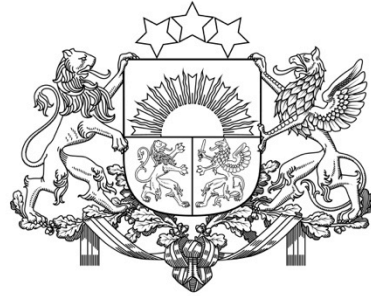
RIS3 MICRO LEVEL INDICATORS (14) <i>O – Output, R – Result; I – Impact indicator</i>			Programmes that contribute towards achieving the investment indicator	
			SF	National budget
R	(1) INCOME from licences/patents of scientific institutions (EUR) €	Research and R&D infrastructure programmes, Competence centre and Technology transfer programme	Base funding; National research programmes	
O I	(2) Business CO-FUNDING of R&D projects (EUR) €	Research and R&D infrastructure development programmes	Base funding; National research programmes	
O	(3) NUMBER of companies that have received support for introducing new products or technologies 	Support programme for introducing new products/technologies	Corporate income tax allowances	
I	(4) Company INCOME from new products or technologies introduced (EUR) €	Competence centre programme	-	
I	(5) New companies established by scientific institutions (SPIN-OFFS) 	Technology transfer support programme	Base funding, Higher education funding	
O	(6) The amount of LOANS granted to micro and small enterprises (EUR) €	Financial instrument support	-	
O	(7) Number of businesses that have received preparation and start-up CAPITAL SUPPORT in early development phase, risk capital funding in the expansion phase 	Financial instrument support	-	



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Monitoring RIS3

RIS3 MICRO LEVEL INDICATORS <i>O – Output, R – Result; I – Impact indicator</i>		Programmes that contribute towards achieving the investment indicator	
		SF	National budget
O	(8) The number of NEW SCIENTISTS supported for implementing post-doctorate research 	Post-doctorate support programme	-
O I	(9) Newly created JOBS , including the jobs for scientists in public sector/business sector 	Competence centre programme, Post-doctoral support, Business incubators	-
R I	(10) FUNDING from H2020 approved projects (LV part; EUR) € 	Support for international cooperation in R&I	“Baltic Bonus” initiative
R	(11) Scientific ARTICLES published in the international data bases (<i>Scopus, Web of Science</i>) 	Practical research, Competence centre programme	Base funding; National research programmes, HE funding, Fundamental & practical research support
R	(12) Employees trained 	Training support programmes	-
O	(13) The number of MA students and doctoral students involved in R&D projects 	Practical research programme, Competence centre programme	National research programmes, HE funding
O	(14) The number of new scientists supported for implementing post-doctorate research 	Post-doctorate support programme	-



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HORIZON 2020

Participation in the EU research and technology development programmes (2014–2017) 5.72 million euro (MoES, NB)

Corporate income tax allowances for research and development costs

Corporate income tax allowances for stimulating production when purchasing new production equipment

FLP (2014–2017) 20.76 million EUR (IZM, SB)

Technology transfer programme
24.5 million euro (MoE, SF)

Facilitating access to funding 51 million euro (MoE, SF)

Public infrastructure facilitating business in regions 114.2 million euro (MoEPRD, SF)

Reuse of public data 151.54 million euro (MoEPRD, SF)

NRP (2014–2017) 26.96 million EUR. (IZM, SB)

Support for small and medium-sized enterprises for the development of new products and technologies 7 million euro (MoE, SF)

High-growth enterprises 75 million euro (MoE, SF)

Support for the creation of production infrastructure and purchasing equipment 81.75 million euro (MoE, SF)

Training of the unemployed 24.90 million euro (MoE, SF)

Science base funding (2014–2017) 99.16 million euro (MoES, NB)

Competence centres 72.3 million euro (MoE, SF)

Cluster programme 6.20 million euro (MoE, SF)

Training the unemployed according to the labour market demand 96.4 million euro (MoW, SF)

Practically oriented research 76.51 million euro (MoES, SF)

Knowledge transfer to farmers and people responsible for the management of forests 17.1 million euro (MoA, EAFRD)

Business incubator support programme 31 million euro (MoE, SF)

Territory revitalization 278.26 million euro (MoEPRD, SF)

Improving the professional competence of employed persons 27.03 million euro (MoW, SF)

Innovation grants to students 34 million euro (MoES, SF)

Cooperation between research and agricultural and forestry sectors 2.2 million euro (MoA, EAFRD)

Innovation motivation programme 4.80 million euro (MoE, SF)

Conquering external markets 31.80 million euro (MoE, SF)

Labour market preventive reorganization system 1.99 million euro (MoW, SF)

Grants for post-doctoral research 64.03 million euro (MoES, SF)

Strengthening the institutional capacity of scientific institutions 15.25 million euro (MoES, SF)

Support for ERA bilateral and multilateral cooperation projects 32.55 million euro (MoES, SF)

Development of the R&D infrastructure 100 million euro (MoES, SF)

Increasing the scientific competitiveness

Strengthening the capacity for innovation

Increasing the business competitiveness

SCIENCE

Latvian economic growth

BUSINESS

EDUCATION

Reduction of HE study programme fragmentation, strengthening the capacity of HE academic personnel, improving the HE management 65.15 million euro (MoES, SF)

HE infrastructure development in STEM fields 44.64 million euro (MoES, SF)

Infrastructure development in colleges in STEM fields 14.2 million euro (MoES, SF)

Education based in the work environment, practical training in vocational education 21.93 million euro (MoES, SF)

Development of the infrastructure of vocational, including in STEM fields, 104.7 million euro (MoES, SF)

EDUCATION FUNDING