

Operational Programme Research, Development and Education (OP RDE) & Smart Specialization (RIS3)

PhDr., Mgr. Václav Velčovský, Ph.D.

Deputy minister

EU Operational programmes Section (MEYS)

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& Research and Innovation Funding: The Stairway to Excellence

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Introduction to OP RDE



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OP RDE – priority axes

PA1

Strengthening capacity
for high-quality
research

- **SO1** - Improving international quality of research and its results
- **SO2** - Building capacity and strengthening long-term co-operation of research organisations with the application sphere
- **SO3** - Improving infrastructure for research in education
- **SO4** - Improving strategic management of research at national level

PA2

Development of
universities and
human resources
for R&D

ESF

- **SO1** - Improving quality of education at universities and its relevance to needs of the labour market
- **SO2** - Increasing participation of students with special needs, from socio-economically disadvantaged groups and ethnic minorities in higher education, and decreasing student drop-out rates
- **SO3** - Improving the conditions for lifelong learning at higher education institutions
- **SO4** - Setting up and developing an evaluation system and ensuring the quality and strategic management of higher education institutions
- **SO5** - Improving conditions for education related to research and for the development of HR in R&D

ERDF

- **SO1** - Improving education infrastructure at higher education institutions in order to ensure a high quality of education, improving access for disadvantaged groups and increasing the openness of higher education institutions

PA3

Equal access to high-
quality pre-school,
primary and secondary
education

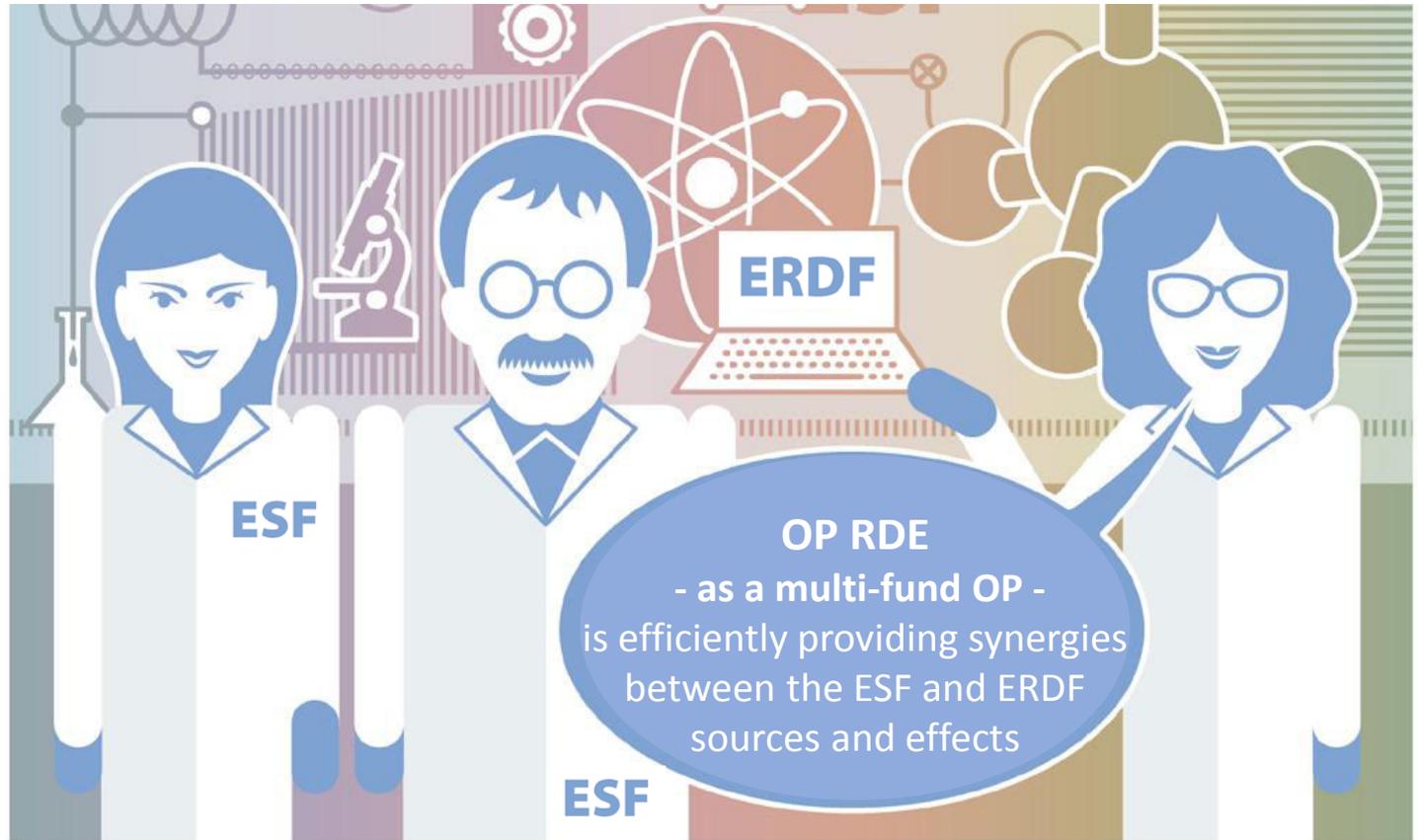
- 7 specific objectives across 3 investment priorities



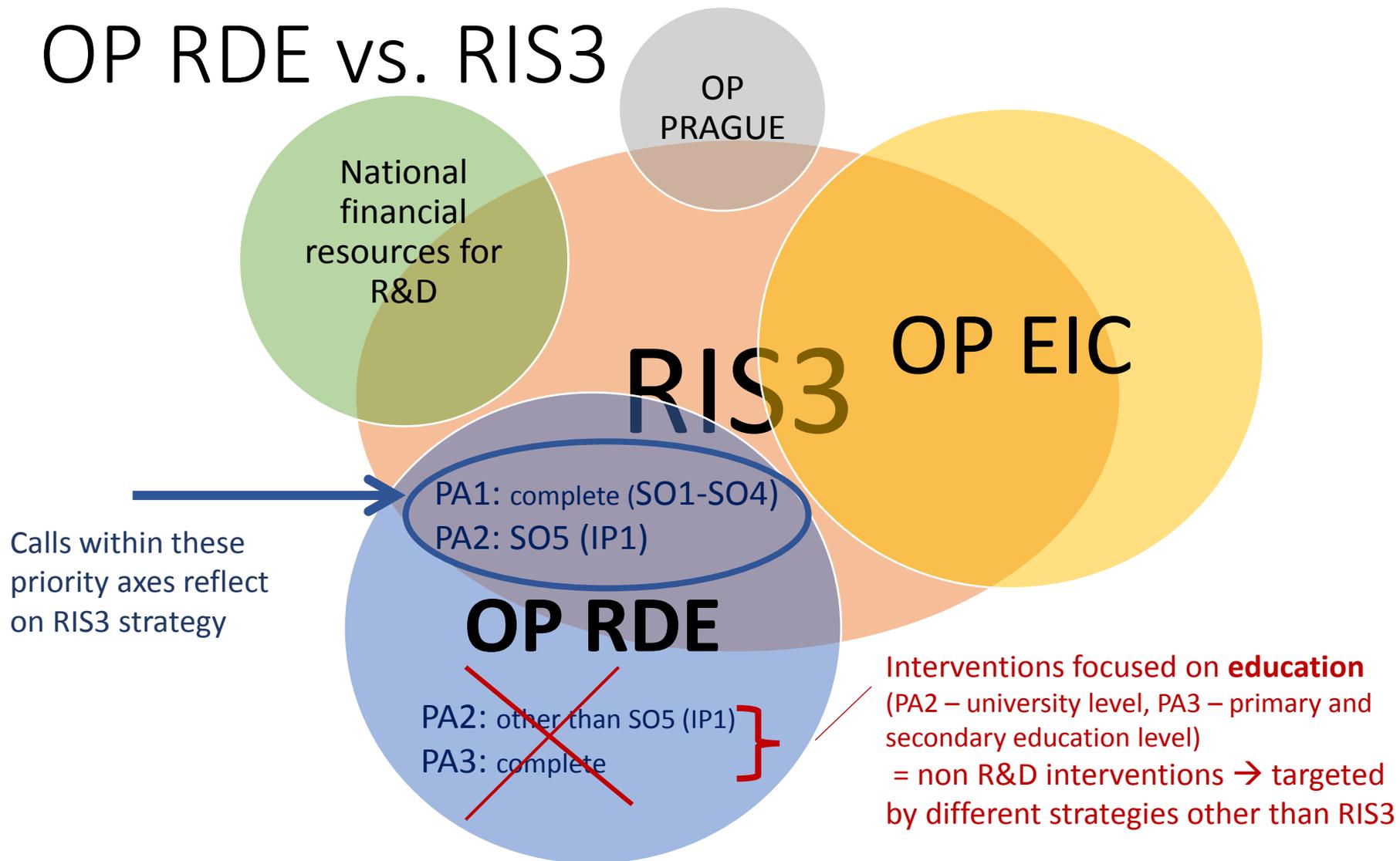
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Specific feature of OP RDE: ESF & ERDF synergies in R&D support



OP RDE vs. RIS3



PRIORITY AXIS 1: STRENGTHENING OF CAPACITIES FOR HIGH-QUALITY RESEARCH

PA1 – background information

- ✓ PA1 is financed by the **European Regional Development Fund**
- ✓ PA 1 significantly contributes to the implementation of one of the priorities of the **Europe 2020 Strategy**, “Smart Growth”
- ✓ Interventions in PA 1 are an essential tool for meeting the objectives in several key areas of changes of **RIS3 Strategy** (in Czech republic: The National Research and Innovation Strategy for Smart Specialisation of the Czech Republic and its regional annexes)



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SO 1 Enhancing of the international quality of research and its results

Aims at: Increasing the number or **high-quality research teams**, greater **openness and availability of R&D infrastructures** (including relevant infrastructural equipment)

The interventions will lead to the following:

- ✓ **Enhancement of the number of research teams** which will lead to high-quality research projects and quality research outputs.
- ✓ **Greater openness and availability of the R&D infrastructures** for research teams from other organizations conducting research, based on the transparent rules of the use of devices and equipment.
- ✓ **Strengthening of the interdisciplinarity** of performed research.



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SO 2 Establishing of capacities and reinforcement of the long-term cooperation of research organizations with the application sector

Aims at: Formation of **interdisciplinary research teams**, conduction pre-application research in breaking areas, higher intensity of **long-term cooperation** with the application sector (including relevant infrastructural equipment)

The interventions will lead to the following:

- ✓ **Formation of interdisciplinary research teams conducting pre-application research in breaking areas.** Intensive research collaboration across disciplines and sectors.
- ✓ **Strengthening of the research** focus on societal challenges.
- ✓ **Increasing of the potential** for use of research results in practice.
- ✓ **Higher intensity of long-term cooperation** of research organizations with the application sector, mainly with the business



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SO 3 Improvement of the infrastructure for the research-educational purposes

Aims at: Readiness of infrastructure, area and material conditions for [the research-oriented study programmes](#)

The interventions will lead to the following:

- ✓ **Readiness of infrastructure, area and material conditions** for the research-focused study programs.
- ✓ **Improvement of students' interest in the research-oriented study programmes** through the improvement of conditions for the research-oriented education and better presumes for the subsequent employment in relevant sector.
- ✓ **Reaching of better research results** by the youngest researchers' generation thanks to the use of higher quality material and device equipment.



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SO 4 Improvement of the strategic research management at the national level

Aims at: Creation of stable and **attractive environment for realization of high-quality research**

The interventions will lead to the following:

- ✓ Creation of the framework for regular monitoring and evaluation of effectiveness of the research system and its individual elements, leading to the **creation of a stable and attractive environment for excellent research.**
- ✓ **Improvement of the access to necessary information sources** for researchers via their centralised accesibility.

SO 4 will be implemented by systemic projects.



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PRIORITY AXIS 2: DEVELOPMENT OF HEIs AND HUMAN RESOURCES FOR R&D

- **The SO 5** is financed by **European Social Fund**
- **Aims at:** Improving conditions for education related to research and for the development of human resources in R&D
- The interventions will lead to the following:
 - ✓ Increase of **qualification of research, administrative and technical staff** in research organizations
 - ✓ Improvement of **quality and effectiveness of strategic management of research organizations**
 - ✓ Improvement of quality and **international overlap of research-oriented study programmes**
 - ✓ Influx of leading **experts from private sector and abroad** in public research



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Basic framework for interventions in PA1 and PA2

- All the R&D project proposals must be in accordance with RIS3 Strategy
- **Duration of the projects**
 - ✓ PA 1 and PA2 - up to 5 years
- There is no limit for the number of project proposals submitted by one organization (with exceptions in specific calls for proposals)
- **Main supported beneficiaries**
 - ✓ Entities meeting the definition of an **organisation for research and dissemination of knowledge** in accordance with the Framework for State Aid for RDI
 - ✓ Other entities conducting research
 - ✓ State government institutions (and their subordinate organisations) – in case of systemic interventions (plus local government institutions and their subordinate organizations - in case of Smart accelerator call)
- Regulation of co-financing ESI Funds in programming period 2014 – 2020
 - ✓ Gives the minimal limits for **co-financing** projects by beneficiaries from their own economic activities (in case of Research organisations – min. 5%)



Synergies/complementarities with Horizon 2020 and other R&D programmes

- ✓ OP RDE will support activities enhancing the capacity for involving Czech entities in projects under Pillar I of the **Horizon 2020** programme (Excellent Science), and **European aid grants** (i.e. European Research Council grants, Marie Skłodowska-Curie and for ERA Chairs projects)
 - Various tools under various SOs of OP RDE including **SMART ACCELERATOR**
 - **SMART ACCELERATOR** = Call in PA2 supporting **regional capacity for RIS3 management and implementation** including support given to **preparation of strategic projects** (projects usually prepared in some kind of strategic partnership of more actors or projects with a significantly positive impact on the region) to be submitted to various aid/ESIF programmes
- ✓ As of **synergies with other ESIF OPs**, there are various synergic activities mainly with:
 - **OP EIC**: OP RDE – enhancing capacities for strategic co-operation of public and private sector and supporting HR for R&D; OP EIC – supporting applied research and enhancing research capacity for industry needs) → **key synergies for RIS3**
 - **OP Prague**: synergies in both R&D and education areas (in OP RDE - interventions with broad national impact, in OP Prague – Prague-specific interventions with local impact
 - and others

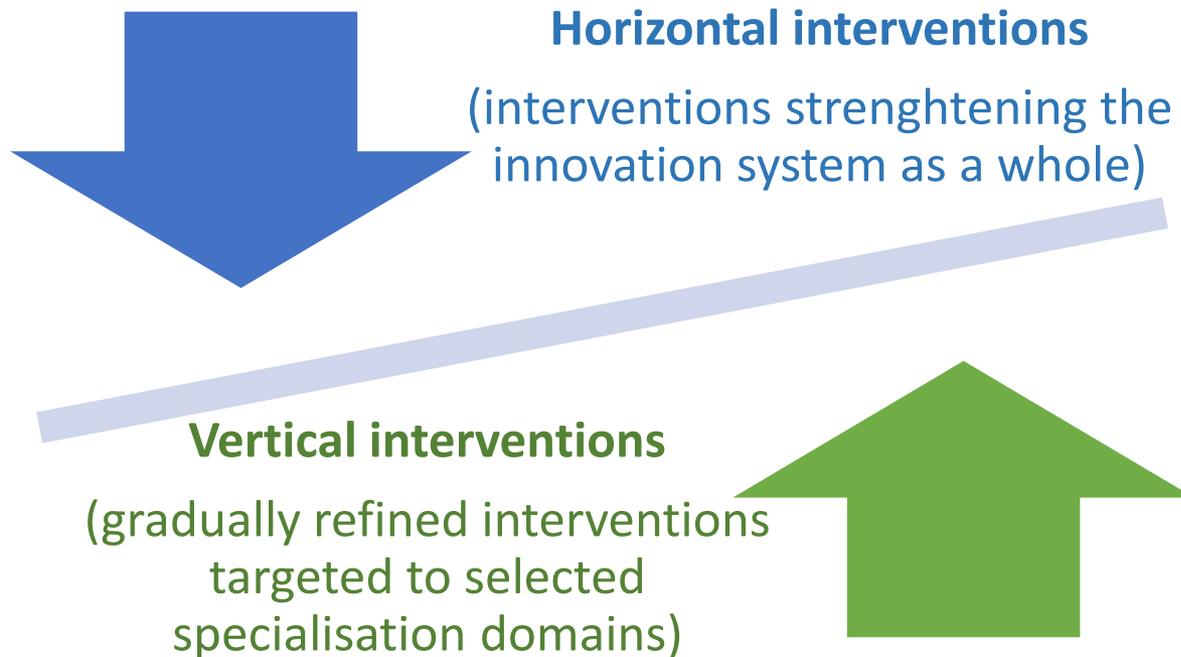


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RIS3 approach to prioritization progress in time



- ✓ Horizontality or verticality of interventions (on the level of model-activities aiming to fulfill the set RIS3 targets) are indicated in the National RIS3



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Specialization of Czech economy

RIS3 verticalization matrix (3-dimensions of specialisation)

	Key application sectors and application themes – national										Key sectors of knowledge application – regional ¹⁾									
	transport	transportation equipment, sustainability and safety of	Manufacture of	automation	Advanced and cost-effective mechanical engineering and	Advanced and cost-effective engineering	Cost-effective solutions in electronics and electrical engineering	IT services, software and IT security	production and distribution of electricity	Sustainable and safe	ageing	Drugs and medical products and methods for healthy	food safety and sufficiency	Natural resources, sustainable agriculture and	industry	Chemistry and chemical	Glass, ceramics	Rubber and plastic industry	Media	Textile
R&D specialization																				
Advanced materials																				
Nanotechnology																				
Micro- and nanoelectronics																				
Advanced manufacturing technologies																				
Photonics																				
Industrial biotechnologies																				
Knowledge for digital economy, cultural and creative industries ²⁾																				
Social-science knowledge for non-technical innovations ³⁾																				

R&D specialization

Generic knowledge domains
(KETs + non-technological domains)

- Advanced materials
- Nanotechnology
- Micro- and nanoelectronics
- Advanced manufacturing technologies
- Photonics
- Industrial biotechnologies
- Knowledge for digital economy, cultural and creative industries²⁾
- Social-science knowledge for non-technical innovations³⁾

Notes:

- 1) These are application areas that differ from the priorities defined from the national level and, at the same time, have been identified by at least one region as an area of its smart specialisation (see section 4.2.1).
- 2) This includes knowledge in the area of IT for new media, publishing and media, digital content processing, and audio-visual production.
- 3) This includes knowledge in applied and industrial design, visual and performing arts, and knowledge and skills in traditional and modern living culture that can be used in the cultural industries.



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OP RDE vs. RIS3 – general approach

- **Gradual increase of verticalized interventions** (calls) and decrease of horizontal calls in time
 - In the closest years (starting point) OP RDE strictly follows guidelines given by the National RIS3 → verticalization is applied only to calls matching „model activities/interventions“ indicated as vertical in the strategy; the rest is kept as horizontal as of now.
- **Gradual refining of focus of interventions** – based on the EDP gradually refining the vertical topics.
- **Different approach** to application of verticalization matrix – **based on type of intervention.**

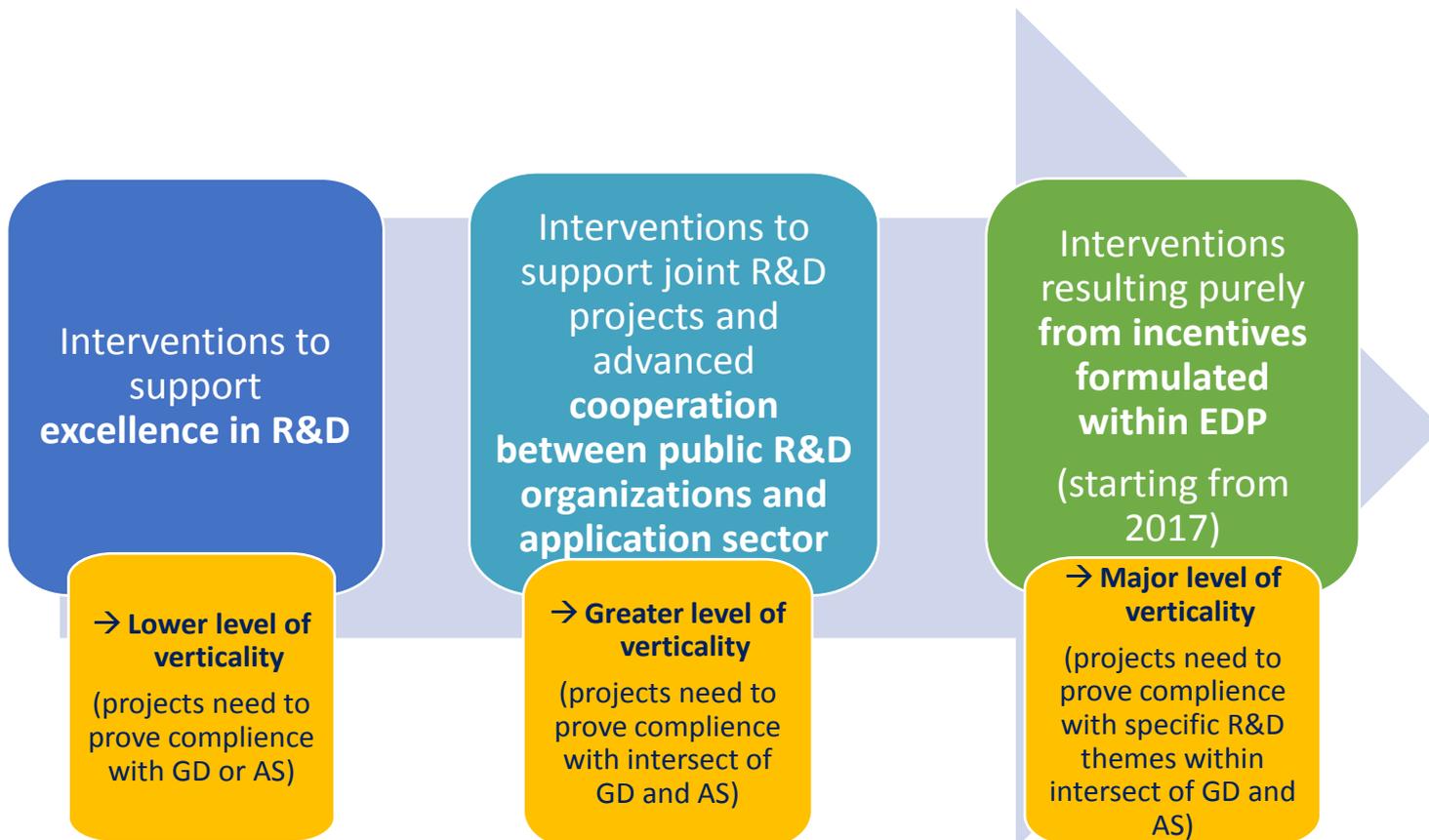


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OP RDE approach to RIS3 verticalization (in relevant SOs)



OP RDE – priority axes

PA1

Strengthening capacity
for high-quality
research

- SO1 - Improving international quality of research and its results → **VERTICAL (rows or collumns)**
- SO2 - Building capacity and strengthening long-term co-operation of research organisations with the application sphere → **VERTICAL (intersects of rows and collumns)**
- SO3 - Improving infrastructure for research in education → **VERTICAL (rows or collumns)**
- SO4 - Improving strategic management of research at national level → **HORIZONTAL**

PA2

Development of
universities and
human resources
for R&D

ESF

- SO1 - Improving quality of education at universities and its relevance to needs of the labour market → **non RIS3 (targeted by university strategies)**
- SO2 - Increasing participation of students with special needs, from socio-economically disadvantaged groups and ethnic minorities in higher education, and decreasing student drop-out rates → **non RIS3 (targeted by university strategies)**
- SO3 - Improving the conditions for lifelong learning at higher education institutions → **non RIS3 (targeted by university strategies)**
- SO4 - Setting up and developing an evaluation system and ensuring the quality and strategic management of higher education institutions → **non RIS3 (targeted by university strategies)**
- SO5 - Improving conditions for education related to research and for the development of HR in R&D → **devided in 2 parts:**
 - ESF calls complementary to ERDF calls for universities in SO3 PA1 → **VERTICAL (rows or collumns) & targeted by university strategies**
 - ESF calls to support of human resources for R&D → **HORIZONTAL**

ERDF

- SO1 - Improving education infrastructure at higher education institutions in order to ensure a high quality of education, improving access for disadvantaged groups and increasing the openness of higher education institutions → **non RIS3 (targeted by university strategies)**

PA3

Equal access to high-
quality pre-school,
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- 7 specific objectives across 3 investment priorities



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OP RDE – current state of affairs

- ✓ Since July 2015 until now, 11 calls in PA1 and PA 2 were already opened (3 in 2015, 8 in 2016) → 6 calls verticalized, 3 horizontal – all in line with RIS3

Call no.	Call	Priority axis/ thematic objective/ investment priority/ specific objective	Call type	Allocation	Call open until	Open/closed/ planned	RIS3 relevant yes/no	RIS3 horizontal/ vertical intervention*
02_15_008	Phased projects	PA1 TO1 IP1 SO1	Continuous	3 200 000 000 Kč	15.6.2016	closed	yes	V (GD or AS)
02_16_019	Excellent research	PA1 TO1 IP1 SO1	Single-round	6 000 000 000 Kč	10.6.2016	open	yes	V (GD or AS)
02_15_003	Excellent research teams	PA1 TO1 IP1 SO1	Single-round	2 500 000 000 Kč	22.1.2016	closed	yes	V (GD)
02_15_006	Teaming	PA1 TO1 IP1 SO1	Continuous	2 600 000 000 Kč	31.10.2016	open	yes	H
02_16_017	Infrastructures for research-oriented education (building completion or modernization)	PA1 TO1 IP1 SO3	Single-round	3 500 000 000 Kč	1.9.2016	open	yes	V (GD or AS)
02_16_013	Research infrastructures	PA1 TO1 IP1 SO1	Single-round	4 000 000 000 Kč	2.6.2016	open	yes	V (GD or AS)
02_16_015	ESF call for universities	PA2 TO10 IP2 SO1, 2, 4	Single-round	3 500 000 000 Kč	31.8.2016	open	no	-
02_16_016	ERDF call for universities	PA2 TO10 IP2 SO1	Single-round	10 000 000 000 Kč	31.8.2016	open	no	-
02_15_004	Smart Accelerator	PA2 IP1 SO5	Continuous	650 000 000 Kč	30.6.2016	open	yes	H (similar to systemic intervention)
02_16_018	Research-oriented study programmes	PA2 IP1 SO5	Single-round	550 000 000 Kč	2.9.2016	open	yes	V (GD or AS)
02_16_014	Building of expert capacities - technology transfer	PA2 IP1 SO5	Single-round	450 000 000 Kč	17.3.2016	open	yes	H

*NOTE: V= vertical; H= horizontal; GD= generic domains (RIS3 rows of vert. matrix); AS= application sectors(columns of vert. matrix)



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Planned calls (to be open in 2016)

Call	Priority axis/ thematic objective/ investment priority/ specific objective	Call type	Allocation	Planned opening of the call	Open/closed /planned	RIS3 relevant yes/no	RIS3 horizontal /vertical intervention PROPOSAL → only INDICATIVE!
Strategic management of R&D&I on the national level	PA1 TO1 IP1 SO4	Continuous	1 500 000 000 Kč	5.16	planned	yes	H (systemic intervention – IPS)
Pre-application phase R&D projects	PA1 TO1 IP1 SO2	Single-round	700 000 000 Kč	6.16	planned	yes	V (intersect of GD and AS)
Long-term interdisciplinary/intersectorial cooperation	PA1 TO1 IP1 SO2	Single-round	1 000 000 000 Kč	6.16	planned	yes	V (intersect of GD and AS)
International mobility	PA2 TO1 IP1 SO5	Single-round	300 000 000 Kč	12.16	planned	yes	H (possible V for part of the call)
Development of capacities for R&D	PA2 TO1 IP1 SO5	Single-round	660 000 000 Kč	5.16	planned	yes	H
Intersectoral mobility	PA2 TO1 IP1 SO5	Single-round	300 000 000 Kč	12.16	planned	yes	H (possible V for part of the call)
Support to students with special needs	PA2 TO1 IP1 SO2	Single-round	300 000 000 Kč	9.16	planned	no	-
Life-long learning programmes on universities	PA2 TO1 IP1 SO3	Single-round	200 000 000 Kč	9.16	planned	no	-

*NOTE: V= vertical; H= horizontal; GD= generic domains (RIS3 rows of vert. matrix); AS= application sectors(columns of vert. matrix)



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Thank you for your attention...



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