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Ongoing Evaluation of the Implementation of the Operational Programme Research, Development and Education

Ministry of Education, Youth and Sports

Preparation of documentation about the evaluation of the MRD-NCA following the Progress Report 2019 including ensuring relevant inputs in the evaluation

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**Final version** 





# 1 Executive Summary

This Report is an output of the documentation prepared for evaluations carried out by the Ministry of Regional Development – National Coordination Authority (hereafter 'MRD-NCA') following the Progress Report 2019 in Operational Programme Research, Development and Education (hereafter 'OP RDE') including ensuring relevant inputs in this evaluation. At the same time, key results, conclusions and recommendations from the following evaluations reports were integrated in the Report:

- Progress Report 05;
- Progress Report 06;
- Specific Report 4 " Evaluation of the Fulfilment of Horizontal Principles in the Implementation of OP RDE ", year 2018/2019;
- Specific Report 3 " Evaluation Report of relevance and effectiveness of OP RDE multi funding and support of regional categories (more developed regions, less developed regions) with the multi funding OP RDE ", year 2018/2019;

# Overall Evaluation of the Progress Made in OP RDE

Overall evaluation of the progress made in OP RDE can be summarised in the following points. The points are later defined in detail in individual fields (aspects) of OP RDE implementation:

- All SO OP RDEs are covered by at least one completed or announced call. The most significant
  call coverage is in PA3 (27 calls), at smallest in PA4 (2 calls). At SO level, the biggest coverage
  is in the case of PA3 IP3 SO1, which is covered by a total of 14 calls, out of which 5 are linked
  to this SO only.
- Including the expenditure submitted for certification on 28 February 2019, all financial indicators of milestones for 2018 were met in all PAs.
- All milestone indicators for 2018 have been met, some with a significantly high level of performance that has been up to a multiple of the 85% threshold.
- Milestones for all PAs were achieved, while in the case of PA1 a milestone was achieved thanks to the fulfilment of all indicators of the milestone (financial and factual) to a minimum of 97%. In the case of PA2, milestones were achieved by offsetting the expenditure submitted for certification on 28 February, 2019, exceeding the required minimum of 85% for all milestone indicators. In PA3, the milestone was achieved thanks to exceeding the 75% threshold for the financial indicators of the milestone and meeting the factual indicators of the milestone.
- Setting up territorial dimension implementation processes generally supports the implementation of the OP RDE and contributes to the implementation of the SO
- In PA3, the milestone was achieved thanks to exceeding the 75% threshold for the financial indicators of the milestone and meeting the material indicators of the milestone.
- Setting up territorial dimension implementation processes generally supports the implementation of the OP RDE and contributes to the implementation of the SO.
- OP RDE interventions have a very strong link to all relevant national and European strategies and other selected documents in the field of education, research and development, which the OP RDE fulfils.
- At the SO level, significant factual progress has been made through the implementation of projects. It manifests itself both at the level of fulfilment of output and result indicators and especially at the level of real results and benefits of projects (e.g. modernisation of

infrastructure for higher education, building and functioning of excellent research teams or development of exchange of experiences among schools).

- The most significant factual progress is reported by the SOs within PA3, especially PA3 IP1 SO2. SO also show significant progress, which includes projects from the first OP RDE calls within PA1, especially PA1 IP1 SO1. Many indicators have already experienced a very significant overfulfilment of the target value.
- Within the implementation of the OP RDE, there was no change in the development needs of the OP RDE or in the change of the SO OP RDE relevance. The existing indicator system is valid and relevant, except for the revision of the target values of some indicators it does not require adjustments or additions.
- In 2018, the OP RDE was revised. This was triggered by the current state of implementation of OP RDE, its absorption capacity in individual PAs and also the original setting of indicators. The proposed revision of the OP RDE was duly justified by MA OP RDE and the changes resulting from the OP RDE revision have no impact on the intervention logic and objectives of the OP RDE.

Evaluation of change in development needs of OP RDE, relevance of OP RDE SO including assessment of the validity of the change theory including evaluation of the existing indicator system, including possible suggestions

In the period under review since the previous specific report, there was a need to revise the OP RDE (version approved by the EC on 21 March 2018), which was triggered by the current state of implementation of the OP RDE, its absorption capacity in individual PAs and also by the original setting of indicators. The OP RDE revision covers four areas that are interrelated:

- Internal reallocation of ESF and ERDF;
- Adjustment of the performance framework in Priority Axis 1 (ERDF);
- Adjustment of the performance framework in Priority Axis 2 (ESF and ERDF);
- Adjustment of the performance framework in Priority Axis 3 (ESF).

The proposed revision of the OP RDE was duly justified by MA OP RDE and changes resulting from the OP RDE revision have no impact on the intervention logic and objectives of the OP RDE. All changes leading to the revision of the OP RDE are justified and supported by the relevant need to streamline the implementation of the OP RDE and achieve the objectives of the OP RDE.

## Fulfilment of SO through calls of OP RDE

All SO OP RDEs are covered by at least one completed or announced call. The most significant call coverage is in PA3 (27 calls), the smallest in PA4 (2 calls). At SO level, the biggest coverage is in the case of PA3 IP3 SO1, which is covered by a total of 14 calls, out of which 5 are linked to this SO only. The others in the order to meet the calls are PA3 IP1 SO5 Improving the quality of education and vocational training, including strengthening their labour market relevance and PA3 IP1 SO2 Improving the quality of education and achievement of students in key competencies, which are covered by a total of 13 calls. As of 31 December 2018, there were a total of 62 calls under OP RDE, out of which 47 were completed, representing 76% of all calls. Other 15 calls are announced, out of which 10 are announced as ongoing calls. Most of the calls cover only one specific objective (39 calls in total, representing 63% of all calls), more calls are covered by more SOs (up to 5 SOs - 1 call).

Not all type activities of some SOs in PA1 and PA2 are completely covered by declared or terminated calls. Some of these activities should be integrated into the calls included in the call schedule.

Targeting the vast majority of calls was appropriate in view of the high level of compliance of applicants' needs and expectations with the setting of individual calls. This is evidenced in a significant part of the calls by the excess of the required funds over the allocation.

Especially the definition of eligible beneficiaries and thus the "accessibility" of the call (all three PAs) were positively perceived by the beneficiary, while the PA3 also defines the territorial focus of the call. Conversely, the less positively perceived aspects of the calls included setting of the share of investment and non-investment costs and the limit on personnel costs. The share of investment and non-investment funds was negatively perceived due to insufficient funds to provide excellent members of the implementation team. These were calls that required the involvement of PA1 experts (e.g. calls 02\_15\_003 Promoting excellent research teams or 02\_16\_019 Excellent research) or some calls in PA3 (e.g. 02\_16\_038 Undergraduate Education).

In general, respondents from field surveys reported as the greatest specific reservations the problems associated with the length of evaluation and subsequent issuance of legal acts, including the potential negative impact on subsequent implementation of projects as the greatest specific reservations. This problem occurred primarily in calls under the so-called "Quadrouplecall" and other calls falling under the "first calls" of the OP RDE. Other negatively perceived aspects were the ambiguity and unclarity of the call rules and, in the case of two-round calls, their time, administrative and financial demands.

On the basis of all analysed calls announced or completed as of 31 December 2018, it is possible to conclude that all SO OP RDE will be fulfilled, to which the OP RDE calls are linked. This also applies to specific PA4 objectives covered only by one call.

## **OP RDE Financial Progress**

Financial progress is only partially in line with the programme's implementation. As of 31 December 2018, 84.5% of the OP RDE allocation was covered by approved applications. The greatest progress in terms of the volume of approved applications for allocation is shown by PA2 IP1 SO1 Improving the quality of education at universities and its relevance for the needs of the labour market, when this ratio is higher than 200%. Further significant progress is made in the following SOs (ranked according to progress):

- PA3 IP1 SO5 Improving the quality of education and vocational training, including strengthening their labour market relevance (133.1%);
- PA1 IP1 SO1 Improving international quality of research and its results (114.5%);
- PA1 IP1 SO2 Building capacity and strengthening long-term co-operation of research organisations with the application sphere (110.1%);
- PA2 IP2 SO1 Improving the 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 (108.4%).

The second view is the ratio of total eligible expenditure in legal acts to allocation. The overall ratio for the OP RDE is 76.5% of the OP RDE allocation, while the highest share is reported by PA2 IP1 SO1. Further significant progress is reported by these SOs:

- PA3 IP1 SO5 Improving the quality of education and vocational training, including strengthening their labour market relevance (124.6%);
- PA1 IP1 SO1 Improving international quality of research and its results (104.1%);
- PA1 IP1 SO2 Building capacity and strengthening long-term co-operation of research organisations with the application sphere (103.1%).

The third view is the ratio of the volume of funds paid to the beneficiaries to the allocation. The overall OP RDE ratio is 38.8% of OP RDE allocation, while PA2 IP1 SO1 has the highest share. Increasing the quality of higher education and its relevance to labour market needs, when this ratio is almost 70.1%. Further significant progress (more than 50%) is reported by these SOs:

- PA3 IP1 SO2 Improving the quality of education and achievement of students in key competencies (61.8%);
- PA3 IP1 SO5 Improving the quality of education and vocational training, including strengthening their labour market relevance (61.6%);
- PA2 IP2 SO1 Improving the 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 (51.1%).

#### Evaluation of the Fulfilment of Financial Indicators of the Milestones for Year 2018

Evaluation of financial indicators of milestones for 2018 was prepared on the basis of data on certified funds as of 31 December 2018. Based on these data, it is possible to evaluate the achievement of financial indicators of milestones for 2018 in individual POs according to funds and categories of regions as follows:

- At the PA1 level, the financial indicator of the milestone is fulfilled with a sufficient margin for both LDR and MDR, only with the inclusion of certified expenditure as of 31 December 2018.
- At PA2 level, the fulfilment of the financial indicator of the milestone is sufficient for the ERDF and MDR as well as for the ESF and the LDR, only when the volume of certified expenditure is included as of 31 December 2018. In contrast, for the ERDF and the LDR as well as the ESF and MDR, the level of fulfilment is below 85% as of December 31, 2018. Including the expenditure submitted for certification on February 28, 2019, the required minimum of 85% is achieved in both cases (ERDF and LDR as well as ESF and MDR) with sufficient margin.
- At PA3 level, both financial indicators are achieved at the required minimum of 75%, with a view to meeting the factual milestone indicators for 2018 at over 85%.

As regards the fulfilment of financial indicators of milestones at the level of individual funds, a significant difference between individual funds is evident, with the ERDF showing a significantly higher degree of fulfilment of the financial indicators of the milestone, especially thanks to the high degree of fulfilment of the financial indicator of the milestone in PA1. This share is still significantly higher for the ERDF, taking into account the volume of expenditure submitted for certification on 28 February 2019 included in PA2 and PA3.

## Evaluation of the Fulfilment of Factual Indicators of the Milestones for Year 2018

All milestone indicators for all PAs for 2018 were met with a significantly high level of performance, which was up to a multiple of 85% of the threshold. The factual indicator of the milestone in PA1 (in the form of indicator 24000 - The number of newly built, expanded or modernised research

infrastructures and centres of excellence) shows a very high degree of fulfilling both the LDR and in particular the MDR. In both cases, a sufficient 85% threshold is significantly exceeded. All four milestones in PA2 show a very high degree of performance, in particular indicator 30600 - Acquired information sources in LDR, where the level of performance significantly exceeds 1,000%. In general, for all four factual indicators of the PA2, there is a higher degree of fulfilment for LDR. The milestone factual indicator in PA3 (indicator 60000 - Total number of participants) shows a high degree of performance, especially in LDR, where the degree of fulfilment is almost 200%.

#### Assessment of Fulfilment of the Milestone

Milestones for all PAs were achieved, while in the case of PA1 a milestone was achieved thanks to the fulfilment of all indicators of the milestone (financial and factual) to a minimum of 97%. In the case of PA2, milestones were achieved by offsetting the expenditure submitted for certification on 28 February, 2019, exceeding the required minimum of 85% for all milestone indicators. In PA3, the milestone was achieved thanks to exceeding the 75% threshold for the financial indicators of the milestone and meeting the factual indicators of the milestone.

## **Factual Progress of the Individual SO**

Evaluation of factual progress at the level of concrete results for individual SOs including examples of good practice is summarised in the following table:

Table 1 Assessment of factual progress at the level of individual SOs

#### PA1 IP1 SO1 Improving international quality of research and its

results

#### Assessment of factual progress<sup>1</sup>

In the field of oriented research and development, there is a shift towards excellence both in the research itself and in the research teams. Here, the selection of high-quality projects, where high-quality projects were selected in Excellent Research and Support of excellent research teams, as the analysis of the scoring of these calls showed. This is followed by the creation and development of strategic partnerships both in the research itself and for the preparation and subsequent submission of applications in international grant competitions (in particular Horizon 2020). Another important factor is the further development of RD centres created within the OP RDI.

Top RD workers (in terms of the value of the so-called H-Index and previous cooperation) from related or follow-up fields, with a significant share of foreign RD workers, are involved in the project implementation teams. Thus, the capacity of research teams is expanded, both in terms of number of members and in particular of quality, by experts who would have difficulty obtaining let alone maintaining the OP RDE support. At the same time, the interest of PhD students participating in the project is evident - given the long-term character of the project (by 2022), this is an ideal opportunity for the dissertation work.

Teaming and Teaming II contribute to upgrading existing research centres in the Czech Republic based on a partnership with a leading international scientific institution, in line with the call Teaming from Horizon 2020

PA1 IP1 SO2 Building capacity and strengthening long-term cooperation of Strengthening the cooperation of research organizations (ROs), both among themselves and with the application sphere, is very important in the framework of calls for pre-application research and long-term cross-sectoral cooperation. It is suitable in such projects for continuity with previous successful cooperation with companies in the given region and other small and medium-sized enterprises from the Czech Republic. An example of good practice may be the creation of a research team composed of universities, public and

<sup>&</sup>lt;sup>1</sup> Evaluation of material progress is a synthesis of information and conclusions from focus groups, a questionnaire survey (for selected PA3 calls) and evaluation of progress in calls that were not subject to field investigations.

so	Assessment of factual progress <sup>1</sup>
research organisations with the	private RD representatives from various fields in a project based on looking for batteries usable in battery production.
application sphere	Projects in this SO focus on current social challenges as well as on a wider range of specific areas with significant impact (animal welfare - implementation of a project focusing on animal health and welfare), on the technologies of Industry 4.0 (robotic and control technologies, diagnostic and decision-making technologies, monitoring technology), on introduction of diagnostic methods for the selection of individualised immunotherapy for patients with haemato-oncological disease.
PA1 IP1 SO3	See PA2 IP1 SO1 up to SO4 and PA2 IP2 SO1 , PA1 IP1 SO3
PA1 IP1 SO4 Improving strategic management of research at national level	In the area of Improving Strategic Management of Research at the National Level (PA1 IP1 SO4) the individual system project National Centre for Electronic Information Resources - CzechELib is supported, the subject of which is a systemic change in ensuring access to RDI information sources in accordance with the National RIS3 Strategy in order to improve RDI performance building the CzechELib National Licensing Centre. By combining the know-how and concentrating funds, greater efficiency in acquiring and managing the EIZ will be achieved.
to SO4 and PA2	In the framework of projects under the so-called "Quadrouplecall", there is generally a significant modernisation of the education infrastructure in Bachelor, Master and Doctoral programmes. The realisation of these projects enabled universities, including Prague, to acquire state-of-the-art equipment.
	Currently, the accreditation and re-accreditation of new and innovated study programmes, including the promotion of newly accredited and innovated doctoral study programmes, is currently under way. This promotion takes place primarily within the framework of the given higher education institutions among students of the 4th and 5th year of the Master's degree programmes, as well as outwardly among the students of the last two years of the Master's degree programmes.
	In the framework of projects supporting doctoral study programmes, the involvement of doctoral students in research is evident right from the beginning of their studies, the interconnection of their doctoral theses with the research carried out at the given university and the permeability of successful doctoral students to research carried out at a given university / university organisations.
	During the preparation and implementation of the so-called "Quadrouplecall", cooperation was also established with foreign universities and universities, both for the implementation of joint doctoral study programmes and for the involvement of practitioners in the preparation of study programmes and their subsequent involvement in teaching. Part of the beneficiaries also used foreign internships to inspire more modern concepts of teaching.
	The so-called "Quadrouplecall" include the ESF and ERDF calls for universities focusing mainly on Bachelor's and Master's degree programmes covering both the whole Czech Republic and structurally affected regions.
	Within the specific objective of PA2 IP2 SO1, projects from the so-called "Quadrouplecall" and projects of the call Support of the Study Environment Development at Universities are implemented. Thanks to these

<sup>2</sup> PA2 IP1 SO1 Improving the quality of education at universities and its relevance for the needs of the labour market,

PA2 IP1 SO2 Increasing the participation of students with special needs, from socioeconomically, disadvantaged groups and from ethnic minorities in higher education, and decreasing the drop-out rates of students,

PA2 IP1 SO3 Improving the conditions for lifelong learning at higher education institutions,

PA2 IP1 SC4 Setting up and developing an evaluation system and ensuring the quality and strategic management of higher education institutions,

PA2 IP2 SO1 Improving the 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, PA1 IP1 SO3 Improving the infrastructure for research in education.

so	Assessment of factual progress <sup>1</sup>
	projects, the equipment of higher education institutions is modernised and supplemented, for example, by equipping libraries, reading rooms, language and computer classrooms or lecture halls.
PA2 IP1 SO3 Improving the conditions for lifelong learning at higher education institutions	Projects aimed at increasing the competences of university staff for lifelong learning programmes and the creation of career-oriented lifelong learning programmes contribute to the development of lifelong learning at universities. In the alternative, projects are also aimed at supporting the development of environment for lifelong learning programmes at the institution level.
PA2 IP1 SO5 Improving the conditions for education related to research and for the development of human	Mobility projects, both inbound and outbound, are implemented in this specific objective. The positive effect of these projects in the case of access mobilities is the possibility to ensure the arrival of top foreign researchers who also participate in RD or as Ph.D. students. In addition to expanding qualifications and language skills, RD staff and Ph.D. students also have a side effect of increasing the skills of administrative staff to carry out their activities in organising mobility not only for the purposes of OP RDE projects, but also other activities in the field of mobility and international cooperation.  As part of projects aimed at improving the quality and effectiveness of strategic management of research
resources in research and development	organisations, activities are carried out to map out all processes and procedures within universities and make them more effective, including the removal of inefficient procedures and processes.
	No less important are the projects for the creation and operation of Smart Accelerators (SA) in individual regions following the implementation of regional RIS3 strategies, including mapping of changes and the development of the innovation environment in the region, educational activities of members of the SA executive unit, partners and representatives of the region.
PA3 IP1 SO1 Improving the quality of pre- school education, including facilitating the transition of children to primary school	On the basis of field surveys of concrete results of the calls for the Capacity Building for Development of Schools and Development of Key Competencies within the field didactics, it was found that the experiential forms and methods are involved in the kindergartens, which leads to better development of the abilities and potential of children, improvement of their mutual cooperation and cooperation with the teacher, improving communication, independence and solving problems and conflicts. At this stage of education, there is also the advantage that teachers and educators can easily transfer and use the information and methods obtained in the project at other schools, because the SEP of the kindergarten generally defines the outcomes and objectives of education more freely than the SEP of elementary schools. Thus, kindergarten teachers tend to focus on the development of key competences of children rather than achieving a specific level of knowledge. In some cases, the exchange of experience between kindergartens has already taken place prior to the project, mainly on the basis of informal links between teachers, but projects have helped bring exchanges between schools and teachers involved and helped set up platforms for discussion and sharing of experiences. The introduction of systematic sharing of experiences within schools but also with the surrounding environment leads to the development of teaching staff. As part of the sharing of experience, the participating teachers tend to deepen and broaden their knowledge of methods and forms of teaching, which they then use in practice.
	Simplified projects for kindergartens and elementary schools, so-called templates, for which the 2nd wave is in progress, and two conceptual projects focused on the implementation of the digital education strategy, which will be followed by projects under the Implementation of the Digital Strategy, also significantly contribute to the objective. Education II.
PA3 IP1 SO2 Improving the quality of education and achievement of students in key competencies	Among teachers and schools involved in projects, it is possible to observe a shift from frontal teaching to experiential, research and project methods and forms of teaching on the basis of field research. These methods are used to engage pupils more actively in the lessons and practical demonstrations of the subject matter, which contributes to a better and more comprehensive understanding of the curriculum than when simple facts are presented to pupils frontally. Primary schools, especially at the first level, apply the application of modern methods and forms of learning to the involvement of emotions in education. Learning through experiences is a much stronger impulse for learners to understand and memorise things learning through a pedagogical frontal interpretation. At the same time, at the first level, the teacher teaches all subjects to the pupils and can interconnect and build on the knowledge gained in one hour for the others.

SO

#### Assessment of factual progress<sup>1</sup>

As a result of the supported activities, new technologies and aids (e.g. tablets and readers) are acquired in schools and involved in teaching. This equipment could not be purchased without project finance and it brings benefits to pupils and educators (e.g. individualised approach to pupils, faster error correction and the possibility of immediate discussion and so on).

The aforementioned factors should lead to better teaching, more individualised approach to children and pupils according to their needs and consequently improvement of school results through the development of key competences (learning competences, problem solving, communicative, social and personal, civic) children and pupils. Currently we can observe partial successes in the development of key competencies and literacy (e.g. improvement of expressive abilities of pupils, their greater autonomy in problem solving etc.) among students.

Simplified projects for kindergartens, elementary schools, secondary schools and vocational schools, socalled templates, for which the 2nd wave is in progress, contribute significantly to the fulfilment of the given objective in addition to the concrete results of the evaluated projects called Building Capacity for School Development and Development of Key Competences within Subject Didactics. In digital education and the development of informative thinking of pupils, there are projects to support the implementation of the digital strategy.

PA3 IP1 SO3 Developing a system of strategic management and quality assessment in education To develop a system of strategic management and quality assessment in education, individual projects contribute to system and individual projects with a conceptual character, in particular with the aim of deepening cooperation among schools, founders and other relevant actors in the area. Systematic support for spatial action planning and strategic school management provides effective school support and investment concentration through identification of needs. In the case of LAP and RAP projects, there is a significantly greater than expected involvement of schools and employer representatives within the platforms. At the same time, these projects show greatest progress in terms of outputs and results achieved, especially at the following level:

- Developed Regional Action Plans for Education Development.
- Developed Local Action Plans for Education Development.
- Developed and functioning platforms for professional and thematic meetings.
- Implemented inclusive school surveys.
- Training of teachers and principals.

PA3 IP1 SO4 Improving the quality of the preparation of future and beginning teaching staff Projects funded by this specific objective create the conditions for better preparation of undergraduate training for future teachers and support conceptual changes in their initial education. The undergraduate education challenge is focused on supporting the reflective practices of students - future teachers and developing the competences of academic staff - university teachers who educate future teachers, thereby improving the quality of future teachers (especially kindergartens and primary schools). By supporting these projects, future teachers will improve their skills in educating a heterogeneous team of children and pupils. On the basis of field surveys of concrete results of projects Development of key competencies within the field didactics, the project activities are considered by the target group (pedagogical staff) to be highly beneficial. The experience gained through the community of practice supported by the projects is used by teachers in practice. The main benefits of project activities are seen by teachers in the possibility to share their experiences with teachers of the same focus (horizontal cooperation). The involvement of faculties of education at universities in the discussion platforms (vertical cooperation) is also positively evaluated. Among the teachers, interest in similar activities prevails in the future. The result of the projects is the finding that educators and schools involved in the practice community are diverging from the frontal teaching.

PA3 IP1 SO5 Improving the quality of education and vocational training, including strengthening their labour market relevance The connection of theory and practice, i.e. cooperation of school and employees, is mainly targeted by simplified projects, the so-called templates, which are intended for secondary and tertiary professional schools, in particular by supporting the co-ordinator of the school and employer who is the mediator between the school and employers, and the support of the school career counsellor acts as a support for secondary school pupils and university students in the search for future focus of education and professional orientation.

In schools, careers can be seen to suppress gender stereotypes in the choice of field of study and career guidance (e.g. the stereotype that boys mostly do not work as hairdressers). At the same time, the historically prevailing interest of girls, for example in sociological and health sciences and the boys' interest in technical fields of study, is taken into account. Schools and educators (career counsellors) involved in

#### O Assessment of factual progress<sup>1</sup>

project activities are trying to explain to pupils and students that they can focus on a different direction than usual in their neighbourhood.

Activities of Building Capacity for School Development also contribute to this objective. Field surveys of the concrete results of this call showed that in experiential / research methods and forms of learning in practice, for example, teachers in physics and chemistry often use practical demonstrations, laboratory work and experiments that better prepare pupils and students for practice. However, the survey also included the finding that secondary schools are limited in the involvement of experiential forms and learning methods by the space defined by the SEP. Secondary school curricula usually contain a greater amount of knowledge and competence that pupils have to master during the year. Teaching through innovative methods and forms of learning tends to be time-consuming, so it is more difficult to implement these methods and forms in teaching.

The activities of OP RDE projects supporting regional action planning (RAP and system project Support of regional action planning) are beneficial for the education and training of graduates for the labour market thanks to cooperation in the territory and taking into account regional specifics.

PA3 IP2 SO1 Quality conditions for inclusive education Inclusion and Inclusive Education have successfully implemented Inclusion Peer Support Centres, including education among schools involved in these centres, as well as educators open to the idea of inclusion. Schools also play an important role in collaborating on the development of methodological materials for the education of children and pupils with SEN so that these methodologies are practice-based (e.g., developing comprehensive methodologies for the inclusion of pupils with SEN of a different nature - physically handicapped, visually impaired, with Asperger syndrome - in close cooperation with the schools in which such pupils occur. Within the projects, there is the possibility of purchasing the necessary teaching aids, which leads to the development of the children's potential and improving of SEN.

Within this objective, the Call for Support of Pupils with Disabilities I (APIV Implementation) was specifically announced.

PA3 IP3 SO1 Social integration of children and pupils including the integration of Roma children into education The field survey of the call of inclusive education has shown that projects supported by this call effectively aim to fulfil their defined goals. For example, courses or individual tutoring are very positively evaluated, where pupils can work on their homework under the supervision of a teacher, or discuss with them the material they have not understood during their regular lessons. The opportunity to finance projects as a psychologist is highly appreciated, giving the teacher a recommendation based on the pupil's diagnosis regarding cooperation with the pupil. It is also possible to give recommendations to the pupils' parents regarding the home preparation of the pupil, etc. This kind of pupil support measures is perceived as effective, as pupils can see specific improvements in access to school education and their home preparation for teaching. Also aids for pupils with special educational needs are appreciated.

At the level of schools and school facilities, this objective is supported by simplified projects, the so-called templates, which enable specific funding for this purpose in particular schools (staff assistants, school specialists, school psychologists, social educators), education of teaching staff, sharing experience and new methods in education.

Inclusive and quality education in areas with socially excluded localities is focused on a system project implemented by the Agency for Social Inclusion, which integrates illusion education into local strategic documents through intensive support of key actors in the area and it creates conditions for maintaining and developing measures to support it. In order to improve the quality of education of children and pupils in the areas of socially excluded localities, projects are also implemented within the calls of CASEL I and II and the call of SEL I.

## Processes of Territorial Dimension Implementation in OP RDE

Setting up the territorial dimension process includes the following basic mechanisms for implementing the territorial dimension:

- RIS3 strategies including regional annexes;
- Integrated Territorial Investments (ITI);
- Local action plans (LAP) a Regional action plans (RAP).

Setting of territorial dimension implementation processes related to RIS3 strategy, including regional annexes for PA1 and PA2 as well as LAP and RAP for PA3, should be implemented within OP RDE. For both mechanisms, partial opportunities for improvement were identified, which should lead to optimisation of the settings and the real benefits of these mechanisms to the fulfilment of the relevant SO OP RDE. However, the ITI mechanism has proven not to be an entirely appropriate tool for supporting oriented research in PA1.

The RIS3 strategy, including regional annexes, is a pivotal strategic document to support OP RDE oriented research. The main importance of regional annexes for small regions of the Czech Republic lies in possible cooperation across regions (e.g. research organisations in Zlín closely cooperate with VÚT in the field of aviation, cooperation of companies from all regions of the Czech Republic with the Technical University of Liberec in the field of nanomaterials, etc.). The defined domains of specialisation for individual regions demonstrate the great variety of focus of regional RIS with possible intersections for the purposes of supra-regional and international cooperation. For the future programming period, an update of the RIS3 strategy is required, involving all relevant stakeholders and ensuring greater coherence of the national RIS3 strategy and regional innovation strategies.

### **Integrated Territorial Investments (ITI)**

The Integrated Territorial Investment Mechanism is not an entirely appropriate tool to support OP RDE oriented research. Its use has a significant limitation and potentially lower contribution to the fulfilment of relevant SO OP RDE, especially for the following reasons:

- The disadvantage of separate calls of ITI is the possibility of supporting the same or similarly focused research in multiple regions (territories) if the evaluation is carried out separately without possible identification of such duplicate support.
- There was no nationwide competition for ITI calls, due to local allocation there is a possibility
  of lower competitiveness with the possibility of supporting lower quality projects than if there
  was a nationwide competition. This may be related to setting up an evaluation system where
  ITI calls have been evaluated separately and not with a call without an ITI tool, and therefore
  projects rated under these calls have a differently based benchmark

An important condition for using ITI is a clear strategy of the given regions and possibly a territorial definition of more regions. For ITI calls, areas such as technology transfer or support for secondary education (e.g. dual education, which is regionally managed) would be more appropriate. Such areas clearly have a primarily regional impact and there is justification for taking into account the promotion of integrated development of the area.

#### Mechanisms of territorial dimension of LAP / RAP

Setting the territorial dimension implementation processes through LAP and RAP can be considered as a suitable tool in relation to the needs and specifics of regional education based on feedback from implementers. RAP and LAP projects are not only actively involved in schools in individual regions, but employers are also involved in the platforms, even more than anticipated.

At the same time, LAPs and RAPs are linked to long-term plans and strategic documents of other beneficiaries. There is administrative and political support from beneficiary organisations for LAP and RAP projects, but ensuring the sustainability of LAP and RAP outputs will be a significant future risk if funding is not provided outside the beneficiary's budgets. Negative factors influencing the success of LAP and RAP implementation and their contribution to the fulfilment of relevant OP RDE objectives

are mainly changes in methodological instructions during project implementation and very demanding administration with regard to the number of persons involved.

Strong link between calls for strategic documents, in particular overarching strategies at national level. The Link of OP RDE Interventions to Strategies and Strategic Documents

OP RDE interventions have a very strong link to all relevant national and European strategies and other selected documents in the field of education, research and development, which the OP RDE fulfils. The highest number of calls and, at the same time, the highest volume of allocated funds, is linked to larger strategies and documents, whose framework is defined in a more general way. This confirms the same order of the number of links and the financial allocation for the first four strategic documents:

- 1) National RIS3 strategy (total of 33 links to calls with a total allocation of CZK 62.5 billion);
- 2) Education Policy Strategy of the Czech Republic up to 2020 (25 links to calls with a total call allocation of CZK 28.6 billion);
- 3) Long-term plan for education and development of the education system of the Czech Republic for 2015-2020 (15 links to calls with a total allocation of CZK 22.2 billion);
- 4) National Reform Programme of the Czech Republic 2014, i.e. National Reform Programme 2016 (13 links to calls with a total allocation of calls of CZK 15.9 billion).

A relatively high linkage of OP RDE interventions to strategic documents and concepts was identified in the case of the Long-term Plan for Education and Development of the Education System of the Czech Republic for 2015-2020 and the Tertiary Education Development Framework up to 2020 (10 links to calls with a total allocation of 26.2 billion Digital Education Strategy up to 2020 (9 links to calls with a total allocation of CZK 15.5 billion) and the Action Plan for Inclusive Education for 2016-2018 (8 links to calls with a total allocation of CZK 7.6 billion).

Strategic and other documents that have a specific, detailed focus cover fewer calls and their financial allocation. On the other hand, the evaluated calls in most cases have a direct link to the strategy, where the call activities directly target the strategy.

OP RDE calls are linked to all strategic documents listed in Chapter 1 of the OP RDE programming document in terms of their focus and supported activities. Most of the calls contain specific strategic documents to which the call is linked.

The contribution of the individual calls for the fulfilment of strategic documents can be measured at the level of the achieved values of the output and result indicators when most of the calls already show non-zero values of the monitoring indicators. This applies in particular to the calls falling under the category of "first calls", including the so-called "Quadrouplecall", which, as a complex, also contribute to the fulfilment of R&D strategic documents and higher education.

#### Disclaimer:

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