



STEPHANIE Action Plan for Prague – 2020 - 2021











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Information about the project STEPHANIE

Space technologies based on photonics are considered as one of Europe's areas of key industrial competence. They have huge potential to address a number of today's grand societal challenges, in particular health and wellbeing, climate action and secure societies. However, this potential will be wasted if public policy fails to address the gap between space research and its application on the ground. A long-term challenge is to ensure that R&I investments exploit the opportunities offered by space (e.g. huge availability of data and signals) by ensuring that applications and services are produced to address societal challenges and that they reach the market.

Recognizing the role played by EU regions in space policy, both in strategic development and territorial impact, STEPHANIE brings together 8 partners from 7 areas to exchange knowledge on how to ensure that policy is designed to guarantee real benefits from space technology based on photonics, particularly in space and Earth observation. Partners have recognized two pillars that their ERDF policy instruments can focus on to support this R&I delivery: using quadruple helix cooperation along the technological value chain at regional and interregional level; co-ordinated and simplified funding schemes for the development of marketable and society orientated products and services.

Partners and regional stakeholders cooperate over three years of interregional learning, leading to regional Action Plans that detail concrete measures for policy improvements. They continue to cooperate while implementing these measures, using interregional exchange for further stimulus and monitoring.

Policy changes will deliver long-term impact to regional competitiveness and socioenvironmental wellbeing, thanks to collaborative innovation and innovative products addressing socioenvironmental needs. They will open new markets for enterprises and improve capacity of regions to direct European space policies and strategies.

Project	STEPHANIE, Space Technology with Photonics for market and societal challenges	
Partner organisation	Capital City of Prague	
Country	The Czech Republic	
NUTS2 region	Prague	
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Part I – General Information





Part II – Policy context

Name of the policy instrument addressed:

Operational programme Prague, Pole of Growth of the Czech Republic

The Operational Programme Prague – Growth Pole of the Czech Republic ("OP Prague") is multi-funded.

It supported from the European structural and investment funds (ESIF), especially from European Social Fund (ESF), which invests in people, focussing on the improvement of employment and training opportunities and also trying to help people who are disadvantaged for any reason, whether due to physical or mental disability, or because of the social conditions in which they grew up and live.

The second fund is the European Regional Development Fund (ERDF). Its aim is to ensure that the economic and social disparities among the individual areas diminish. Out of all funds it has the largest amount of money that can be invested in manufacturing, transport, education, construction of social and health centres.

The total sum of the Operational Programme is 201 590 104 EUR for the period 2014 to 2020. Since the City of Prague is a more developed region, the European Commission has set a condition for it of 50% co-financing of the EU sources, therefore another EUR 201 590 104, paid from national sources, must be added to that amount. Those include public resources (sourced from the City of Prague budget) and private sources (funding invested into projects by the grant beneficiaries).

The Prague operational programme is divided into four areas, designated priority axes:

- 1. Strengthening research, technological development and innovation
- 2. Sustainable mobility and energy savings
- 3. Promoting social inclusion and combating poverty
- 4. Education and learning and support of employment

STEPHANIE project is focussed on Priority Axis 1. This priority offers support for the following type of projects:

Proof-of concept projects - verification of the feasibility of research outcomes, verification of outcome commercial potential, preparation for the implementation of outcomes into practice, increase the technology and knowledge transfer between research organisations and the world of application.

Innovation demand for the public sector – realisation of public procurement for services in the field of research and development, the objective of which is to develop new solutions meeting the needs of the public sector

Innovation and specialised voucher types – promoting co-operation between research institutions and small and medium-sized enterprises, supporting business development and product / production innovation of start-ups

Technology parks and incubators – expansion and improvement of space capacities, specific equipment and facilities, human resources' development and development of technology parks and incubators

Development of starting innovative enterprises – supporting innovative enterprises by using financial instruments (non-subsidy aid)

The main applicants in this priority axis are organisations for the research and dissemination of knowledge and the City of Prague.

Every call has own specific conditions but there are several unique conditions for the Operational Programme since all projects must be realised in the area of the capital city of Prague and must be completed until 2023. The applicant can be the City of Prague, Prague city boroughs, organisations for research and the dissemination of knowledge, business, non-governmental non-profit organisations etc., depends on priority axe and this specific call.





Environment for innovation of the space sector in Prague (Quadruple Helix model)

The environment for innovation in space technology was described by a SWOT analysis of the regional vision. The quadruple helix model of innovation environment for space technology in Prague derives from all sectors and it is created from several levels: A) European, B) national and C) regional.



Fig. 1: Environment for innovation of the space sector in Prague (Quadruple Helix model).

A) European level – key players in the Czech Republic

The Czech Republic is a member of European Space Agency (ESA) more than 10 years. ESA programmes are the main instrument for the development of the Czech space industry and scientific excellence in space science. From 2019, the government allocated 33.2 million euros per year to strengthen the Czech Republic's participation in ESA programmes.

The city of Prague is proud to be home to the European Global Navigation Satellite System Agency (GSA) which is currently preparing for transformation into the EU Agency for the Space Programme.

ESA BIC Prague is branch of the European Space Agency (ESA) network of business incubators since 2016. It gained its leadership in Central and Eastern Europe and. Under the auspices of Czechinvest (Ministry of Trade and Industry) helps selected start-ups start their business. In March 2018, ESA BIC Prague expanded its operations in the Czech Republic by opening a branch in Brno (South Moravia region).

The Prague office of the European Space Education Resource Office is part of the ESERO project led by ESA Education. ESERO office in Prague is led by a consortium of educational and research institutions.





B) National level

The government approved a new National Space Plan for 2020 to 2025 (Government resolution No. 732, 14. 10. 2019). Besides others, the government recommends by this resolution to the Mayor of the City of Prague to use the Plan for further processing and updating of strategic document of the City.

For this reason, the Action Plan for Space Technology for Prague City is anchored in the National Space Plan.

The National Space Plan 2020 is a strategy of the Czech Republic for the development of capacity and capabilities of its industry and academia in the field of space activities. Czech companies will be supported to supply more complete systems of satellites and launchers, such as whole instruments or satellite platforms. The plan also focusses on education in technical subjects, technology transfer, promoting promising ideas and marketing them, and closer co-operation between universities and industry.

The Ministry of Transportation is the key executive managing authority in the Czech Republic for space activities and the key authority in negotiation with the EU, ESA and other international actors in space. The Co-ordination Council for Space Activities of the Government of the Czech Republic is a permanent co-ordination, initiation and advisory body based at the Ministry of Transport.

Other ministries will follow the National Space Plan 2020 to support space and satellite-related activities.

Raising awareness and PR activities are needed. This need is recently being fulfilled by many activities of key players in Prague: e.g., the Czech Space Portal is an integrated web portal for space activities of the Czech Republic and also brings information dealing with outer space issues from other countries. The contents of the pages is formed and supervised by the members of the Co-ordination Council of the Minister of Transport for Space Activities: Ministry of Transport, Ministry of Education, Youth and Sports, Ministry of Environment, Ministry of Defence, Ministry of Industry and Trade, Ministry of Foreign Affairs and the Government Office of the Czech Republic. The portal is operated by Ministry of Transport.

C) Regional level

The Prague region is a strong innovator with increasing innovation potential (Regional Innovation Scoreboard 2019).



Fig. 2: Innovation potential of the Prague region (Regional Innovation Scoreboard 2019).





Strategic regional policy instruments for innovation and focus on space technology

The Prague Regional Innovation Strategy ("RAS3") is one of the 14 regional annexes of the National Research and Innovation Strategy for the Smart Specialisation of the Czech Republic (National S3). National S3 strategy is a mandatory document at national level approved by the government in 2016 and updated in 2018 and 2019 and it meets the ex-ante conditionality for using support from the European Structural and Investment Funds for 2014 to 2020.

RAS3 is thus a key strategic base for Operational Programme Prague – Growth Pole of the Czech Republic. RAS3 elaborates selected targets of the Prague Strategic Plan focussing on innovation. RAS3 is regularly updated for a two-year period in co-ordination with the process of regular update of National S3; currently valid is RAS3 for the period 2018 – 2019.

The **Prague Innovation Council (PIR)** is the informal group established for the purposes of creating and implementing of the RAS3. PIR is the leader of **working groups** (innovation platforms) to develop **entrepreneurial discovery process** with the direct involvement of actors in the region's innovation system.

The RAS3 consists of two main parts: analytical and strategic. The analytical part is based on analysis of participation in EU funds (FP7, H2020), financial sources, personal capacities and organization in R&D sector and a SWOT analysis of innovation potential of the city of Prague. The strategic part describes **regional domains of specialisation: four clusters of knowledge** (Life Sciences; Creative Sciences; Emerging Technologies; Services for the innovative sector - KIBS).

New emerging technologies are the sector with high added value, utilising the latest trends (Industry 4.0, Internet of Things). In RAS3, the **emerging technologies** are described as electronics, biotechnologies and robotics, related to the innovation sector and to the results of R&D activity. "**Space and aerospace technologies**" are mentioned as the part of this cluster; more detail specification is, however, missing. The RAS3 emphasises the importance of large European research infrastructures in emerging technologies sector located in suburban surroundings of the Capital City of Prague – e.g., HiLase (experimental development of a new generation of high energy, diode-pumped, solid-state laser systems with high repetition rates), or ELI Beamlines aiming to operate the world's most intense laser system as a part of the ELI (Extreme Light Infrastructure) pan-European project.

The RAS3 is being implemented through a regularly-updated biennial **Action Plan of Prague Regional Innovation Strategy** (currently approved for 2019-2020), describing a set of short- to medium-term projects to be supported and implemented by the City of Prague and by the Prague Institute of Planning and Development (IPR Prague). The RAS3 action plan (2019-2020) supports two specific projects in the space sector: **The Business Incubation Centre of the European Space Agency (ESA BIC Prague) and a new project, Improvement of Co-operation with the GSA in Prague.**

The Capital City of Prague is the managing authority of the Operational Programme Prague – Growth Pole of the Czech Republic (OP Prague), as the source of funding for innovation, possible a and suitable to use for support of space technology.

The OP Prague does not mention space and the aerospace sector specifically, because it is open for funding of quality innovation projects with impact in the Capital City of Prague and supports these projects in all sectors in regularly announced calls for proposals.

Innovation Potential of the Capital City of Prague for space technology

Prague as a capital city has an advantageous geographical and political position in the space sector by comparison to the rest of the Czech Republic and it has direct opportunities to co-operate with the EU and national key players. The Capital City of Prague does not, however, take the role of co-ordinator of the innovative environment for space technology. This role belongs to Ministry of Transport and other key players.





The main advantage of Prague is based on its capacity for high innovation in the space sector, the concentrated co-existence and growing co-operation of actors in upstream (all areas directly pertinent to or supporting satellites, satellite operations, launchers, and ground-segment – both technology development and mission planning and implementation), midstream (data pre-processing, storage, archiving and distribution) and downstream activities and processes, which use the space infrastructure and space based data to provide tools and services for general users.

The specific strength of the Prague region is a high potential of photonics in all areas of the space sector.

As a capital region, Prague has the advantageous geographical and political position in space sector in general comparison of the Czech Republic. The managing authority for space sector at national level – Ministry of Transportation – is also based here. The Czech Academy of Sciences (CAS) based in Prague, is the leader of the research Strategy AV21 based on co-operation between scientific fields and institutions, which includes the research programme "Space for Mankind". Many public research institutes and universities focussed on space technology are seated here (Institute of Physics, CAS, Institute of Photonics and Photo-electronics, CAS, Czech Technical University etc.), or in the city's suburbs (HiLase, ELI). Other key stakeholders, like the ESA BIC cluster, the GSA, the Czech Space Alliance, etc., are here.

The Capital City of Prague is the key stakeholder and also managing authority for regional funding and the OP Prague. Prague City is the founder of or principal partner in several sectoral organisations which are the target users of satellite data or space technologies: the City of Prague is the founder and sole shareholder of the Prague Public Transport Company, Ltd., or the Operator ICT, Ltd.

Space technology industry has a strong tradition in the Czech Republic. Many small and medium-size enterprises in the business sector are based in Prague and are key innovators in the space technology.

Prague is also a school founder and governor of most of elementary and secondary schools in the Prague region; students and young people are an important part of the quadruple helix model. Raising awareness and PR activities are the part of the work at this level managed by the Prague-based European Space Education Resource Office (ESERO).





S.W.O.T. part of the regional vision

Strengths	Weaknesses
 High potential for capacity for R&D in the space sector, and in the business sector (ESA BIC) – the action plan specifically addresses this aspect the Capital City of Prague has a highly- qualified labour force. the European GNSS Agency is based in Prague 	 in spite of long tradition in the Czech Republic – Aero Vodochody, Let Kunovice, Avia aerospace & space sector is not actually well-developed but there is slowly-increasing modernisation and development of the sector. Administrative burdens for SMEs in project funding from public sources, with strict and rigid process for some calls – the action plan specifically addresses this aspect Less developed joint venture funding of the projects
	-Lack of co-operation between public research organisation and business sector - the action plan specifically addresses this aspect
	 Insufficient system for intellectual property rights protection in public research sector generally.
	 Development of innovative products or technologies often stops at lower technology-readiness levels and are not completed to the commercialisation and market stages Administrative burden for micro-SMEs to propose a common project in ESA tenders/calls.
<u>Opportunities</u>	Threats
 R&D organisations: modernised equipment, high expert capacity in space & photonics. Increasing the absorption capacity among applicants. High innovation capacity for joint projects in Prague – the action plan specifically addresses this aspect The Space and GNSS sectors are both very innovative with high added value. 	 Currently there is a low unemployment rate, so it is challenging to find qualified labour force. Legal barriers for joint projects (public + private capital).

Main outputs

High potential of Prague as a region in space sector Needs:

- ii) More intensive mutual communication and co-ordination of space activities
- iii) Information, raising awareness and PR activities are needed

iv) Increasing of inter-sectoral co-operation – identification of public needs; support of joint projects and creation of opportunities for co-operation of all sectors \rightarrow the Action plan specifically addresses this aspect.





Funding of space activities in Prague region



Fig. 3: Funding scheme of space activities in the Prague region

The figure above shows public/private funding (red line distribution) in several levels:

- 1) European level of funding consists of ESA funding, which is related to our national payments to ESA, frameworks programmes funding (H2020, FP9) and also other funding schemes of international cooperation (Interreg, ERA-NET).
- 2) Operational programme 'Prague Pole of the Growth of the Czech Republic' is the main funding and policy tool for this action plan. The programme is mixture of ERDF and national funding.
- National funding for the space sector, national funds for innovation enterprises and/or experimental development are suitable – Operational programme for Innovation and Competitiveness and Technology agency programmes.
- 4) Regional funding regional funding is made by regional grant for business development. Then also Prague parts could be the co-investor of R&D projects TACZ.
- 5) Private funding consists of business investments, bank loans, capital funds or investors. The lack of common projects between private and public (mostly at early technology-readiness stages).





From funding schemes part of the vision these are main outcomes:

- public funding (grant, projects often are not appropriately set up for space sector (long implementation phase, administrative burden for SMEs, not enough awareness about funding possibilities among potential beneficiaries).
- from 2019, the government allocated 33,2 million EURO per year to strengthen the Czech Republic's participation in ESA's ESA programmes , (equal with other ESA members).
- EU funds spending and success rate is still not at same level as in EU15. The opportunity for promoting the space sector is closer cooperation of Prague City with the GSA in Prague, with the Ministry of Transport and with other key players on EU and national level.





The policy instrument that the Action Plan aims to impact

Investment for Growth and Jobs programme

YES / NO

Operational Programme Prague - Pole of the Growth of the Czech Republic ("OP Prague")

The OP Prague is the funding tool for the Prague region for the period 2014 -2020 concerning support for Smart specialisation, Smart infrastructure and Smart creativity.

The programme is multi-funded. There is a sum of 201 590 104 EUR available in two funds (European Regional Development Fund and European Social Fund). 50% co-financing of the EU sources, therefore another EUR 201 590 104, is paid from the national sources, - sources from the City of Prague budget and private sources (funding invested into projects by the grant beneficiaries).

Other:

YES / NO

Prague Regional Innovation Strategy ("RAS3") and its action plans.

Prague Regional Innovation Strategy ("RAS3") is one of the 14 regional annexes of the National Research and Innovation Strategy for the Smart Specialisation of the Czech Republic (National S3) RAS3 is regularly updated for two-years period.

The RAS3 is being implemented through a regularly updated biennial **Action Plan of the Prague Regional** Innovation Strategy.

Responsibility for the Action Plan

The city of Prague is the Czech partner in the STEPHANIE project. Prague City Council appointed the European Funds Department at Prague City Hall as the entity responsible for managing the STEPHANIE project. The European Funds Department is a department of the Municipality established to ensure the implementation of the Operational Programmes of the Prague region, including the current Operational Programme Prague - Growth Pole of the Czech Republic ("OP Prague") in the period 2014 - 2020. OP Prague supports activities, which are outlined in the operational manual and which had a high priority when the operational programme was prepared. The STEPHANIE project was submitted for approval under Operational Programme activities, which are suggested in this action plan and are not already in the operational manual. For these reasons implementation of the Action Plan will be financed mostly from the city of Prague sources. Despite the limited budget and a cost-effective implementation team, the European Funds Department is ready to continue to support the action plan.

Prague City is one of the stakeholders in the innovative environment for space technology in the Prague region. Prague City may not take the role of co-ordinator of innovative environment for space technology. This role belongs to the national Ministry of Transport and other key players.

Through the STEPHANIE project, the project team of the city of Prague has linked many stakeholders and key players and opened new platforms for communication and opportunity for co-operation. This strength gained during Phase I of the project provides a strong base for the activities proposed by the action plan in Phase II of the project. Activities in the action plan, 'Innovative breakfasts' will make a small but significant contribution to the development of and innovative environment for space technology in Prague and better communication and co-operation via the 'quadruple helix' and support R&D&I delivery.

To support R&D&I delivery, the project team focusses also on co-ordinated and simplified funding schemes for the development of marketable and society-orientated products and services.





For the above reasons, the action plan cannot be over-ambitious. Thanks

to the active network of co-operating key players and stakeholders created in Phase I of the project, it is possible to implement the proposed action plan, even with a small team.

Specific objectives of the Action plan focus on three levels:

1. Strategic: to improve the RAS3 by delivering expert papers and recommendations for decision-making and for the update of RAS3. This strategic objective will be fulfilled by Action 1.

2. Governance: to increase policy effectiveness by simplification of rules for applicants and beneficiaries of OP Prague projects in co-operation with OP Prague managing authority. This strategic objective will be fulfilled by Action 2.

3. Projects: to increase the absorptive capacity for new space technologies. This strategic objective will be fulfilled by Action 3.





Part III – Details of the actions envisaged

TITLE: ACTION 1: Establishing the sectoral participatory process for regular update of the RAS3 – with the space sector as a show case

1. Overall Topic and	Description of the proposed Policy Improvement	
	Operational programme Prague, Pole of Growth of the Czech Republic is the policy instrument which should be in line with thematic specialisation set up by Smart specialisation strategy.	
	Prague Regional Innovation Strategy ("RAS3") was updated at the end of 2018; the next update is expected during 2020. The body responsible for RAS3 updating is the Institute for Planning and Development (IPR). Space and aerospace technologies are described as part of the emerging technologies cluster in RAS3.	
	Specific objective: to improve the RAS3 by delivering expert papers and recommendations for decision-making and for the update of RAS3.	
	The expert papers and recommendation will be:	
	 more specific description of space technologies in Prague region 	
	 more accurate description of variety of topics in space technologies in Prague region 	
2	 based on evidence of the potential of development of space and photonics sector in Prague region 	
	 created in close co-operation and partnership with stakeholders in space sector in Prague region 	
Overall Topic	Justification: The main reason is that space sector is very progressive, so the information about potential technologies should be regularly updated. The other reason is that Prague "space sector" potential has increased in several last years (ESA BIC cluster), GSA enlargement.	
	Elaboration in the Phase I of STEPHANIE project:	
	Lessons learned by staff exchanges:	
	 During the update and re-evaluation of S3 strategy, we will benefit from good practice from the Tuscany region (learned during staff-exchange in January 2019). The key aspect of the practice was how to deal with SMEs and different sector in the regional innovation ecosystem and include their needs in the S3 review. Tuscany has a high share of SMEs and so it is well-experienced and inspiring in this field. 	
	Results from Phase I:	
	i) establishment of co-operation with the Institute for Planning and Development as the managing authority for RAS3 update	





	ii) the background analysis for RAS3 to proof the impact of that strategic space sector for Prague business environment.
	 Sector for Prague business environment. Knowledge, skills and ability gained in Phase I: networking with key players and stakeholders in the innovation environment for space in the Prague region (e.g., see list of participants of SPIA meetings) desk research, SWOT analysis and vision, desk research of "space technology" based projects supported in the Czech Republic, created in Phase I knowledge, analysis, Czech vision and measurements learned thanks to the National Cosmic Plan 2020 -2025, approved by the government on 25th of October 2019, will be suitable support for the RAS3 update start of co-operation with managing authority of RAS3 (Institute for Planning and Development). European GNSS Agency (GSA) potential and long-term vision and mission of that organisation seated in Prague – introduced on the SPIA meeting in November 2019 by Mr. Dobeš, governmental deputy for the GSA.
	Expected long-term impact: To establish the participatory methodology for regular RIS3 update.
Specific Description	 Activities in the Phase II, from January 2020: The specific objective will be reached by a participatory process in co-operation with key players and other stakeholders in the space sector in Prague: To update space-oriented desk research and to consult it with stakeholders in the space sector; to create an expert paper as a base for further negotiation during RAS3 updating. The analysis will contain: Space, photonic R&D project and technologies potential in Prague region, Analysis of space technologies in S3 strategies in European context. Analysis of added value of space technologies for general public/public services of Prague City To describe the potential of space technologies/application in the Prague region and to consult with stakeholders in the space sector; to create an expert paper a base for further negotiation during RAS3 updating. Participatory process – invite space and photonic Prague target group (by e-mail); explaining participatory process to all identified stakeholders; sending off the results of desk research; collecting feedback and comments, by e-mail, by e-questionnaires, by interviews or on workshop; Elaboration of the expert document and recommendation for the RAS3 update based on evidence and feedback from stakeholders.

STEPHANIE – City of Prague Action Plan





 the Institute for Planning and Development; 	
 the Prague Innovation Council (PIR); 	
 working groups (innovation platforms) of the IPR. 	
 To evaluate, describe and establish a methodology for a particip process for a regular update of the RAS3 for the space sector i 	atory n the
context of National Cosmic Plan (2020 -2025).	

2.	Need	addressed
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As the main strategic document in R&D&I funding – RAS3 could **help in better co-ordination of space activities in quadruple helix innovation environment** and in focused funding, complementarity and synergy of projects.

The lack of co-ordination and focus was one need addressed by the regional vision.

The other need of proposed action is **increasing the number of potential beneficiaries from the space sector** in OP Prague. Prague space technologies potential has increased in recent years (ESA BIC establishment, GSA enlargement, R&D potential of public research in optics, photonics...). Combining all these factors and focussed public funding (using updated RAS3) could make the synergy, highly competitive businesses and other outputs.

3. Relevance to the STEPHANIE project		
Details of proposed Policy improvement	Links with interregional input (including details of activities, good practices and knowledge shared)	
RAS3 would emphasize more the higher potential of space sector in Prague thus leading to more projects financed in this topic.	 The project team participated in a staff exchange in the Tuscany region in March 2019. The main topic of the exchange was the management of innovation at the level of public authority. During the visit, they presented us with quite interesting practice - S3 monitoring and evaluation (Tuscany Region) in updating and evaluation S3 strategy to be maximally tailor-fitted to the regional needs and updated with current business trends (Industry 4.0). The thematic approach and also detailed mapping were used. The main points of the practice in Tuscany were: sectoral approach of analysis – identify the key sectors and also sectors which are endangered by the Industry 4.0 trends (because of insufficient technical capacities and equipment). territorial approach – to analyse and evaluate the region by comparison with others in the EU. Regarding the S3 actualisation, we plan to propose the partial implementation of good practice in S3 evaluation and update from Tuscany. They are mapping the potential of the region, thematic approach among beneficiaries etc. While analysing this activity, we will use the results of STEPHANIE project. The regional vision of other partners will be especially used as a background document. 	





4. Specific Activities and time-frame		
Activity Number	Activity Description	Timing (with details)
1.1	Analysis update: Space sector situation in the Capital City of Prague	1 st quarter 2020
1.2	Analysis update: Space, photonic R&D project and technologies potential in Prague region,	1 st quarter 2020
1.3	Analysis of space technologies in S3 strategies in European context.	1 st quarter 2020
1.4	Analysis of added value of space technologies for general public/public services of Prague City	2 nd quarter 2020
2.1	E-mails and interviews with key players and stakeholders – collecting feedback to analysis, expert recommendations, feedback on participatory process	1 st - 3 rd quarter 2020
2.2	Elaboration of the expert document and recommendation for RAS3 based on evidence and feedback from stakeholders.	3 th quarter 2020
3.	Negotiation about analysis and expert recommendations for RAS3 update with managing authority	1 st - 3 rd quarter 2020
4.	Evaluation and description of a participatory methodology for a regular update of the RAS3 for the aerospace sector in the context of National cosmic plan 2020 -2025	1 st quarter 2021
4.	Final methodology for RAS3 update	2 nd quarter 2021

5. Players involved		
Name of Organisation	Role in Action Plan Implementation	
Department of European Funds, Prague City Hall	Action leader, participation in RAS3 update working group and other meetings with IPR (managing authority), management of the participatory process (consultation and commenting in co- operation with other stakeholders)	
Institute for Planning and Development (IPR)	Managing authority for RAS3 update	
Department of Business Development Support (PRI)	Department for feedback from the role of the City as an innovation actor - project beneficiary	
Research organisations – potential beneficiaries in photonics, space (<5).	Stakeholders and potential beneficiaries in photonics, space in future R&D projects – desk research activities, RAS3 update working group	
Technology Agency of the Czech Republic – branch for Prague City	Desk research activities, participation in RAS3 update working group	





6. Risk and Contingency Plans			
Description of Risk	Level of probability (High, Medium, Low)	Description of Contingency Plan	
Not enough sources for analytical part of activity	Low	The background documents for the analytical part are already available as the results of STEPHANIE project Phase I, so the costs will be relatively low, mostly up-dating of data.	
Prague has not enough capacity to provide the action	Low	RAS3 is the key document at the Prague regional level and also the space sector is becoming more important with the GSA Agency.	
Partners will not be interested in activity	Low	RAS3 update is mandatory activity in which all above-mentioned partners are already involved.	
		The network for participatory process is being established from Phase I.	
		The participatory process is essential for the RAS3 up-date.	
Space sector specifics – technical aspects	Medium	Space technologies are potentially utilised by many sectors of smart city services; expert capacities in Prague region are sufficient.	
To ambitious time schedule	Medium	Methodological background document (space technologies, national space plan) were partly analysed during phase 1, so we will continue this process in phase II.	
Limited open calls and free allocation in OP Prague	Medium	Regarding the actual plan, from the last planning committee in October 2019 there will be at least several open calls in 2020 (IP protection, innovation incubators and innovation vouchers).	
Limited internal funding sources, no next project funding	Medium	Prague has sufficient financial capacity to cover the activities and has the capacity of Prague to fulfil the indicators.	

7. Costs

Regular meetings on RAS3 innovation platforms will be organized by the City of Prague. We expect that costs like personnel (0.05 FTE) will be covered by the internal budget for communication with stakeholders. Total staff costs estimated for 2020/2021 are: **4 750 €**.

Desk research and analytical part of methodology will be done by stakeholders from the space industry. Estimated total costs for that part: **3 300 €** (0,2 FTE for six months) **Total costs: 8 050 €**





8. Funding sources

Internal sources from Prague City and/or new project funding.

The Operational Programme Prague – Growth Pole of the Czech Republic is supporting particular activities, which are defined in the operational manual and which have had high priority when the Operational Programme was prepared.

Because the STEPHANIE project was submitted after the approval of the Operational Programme, activities, which are suggested in this Action Plan, are not contained in the operational manual. Therefore, all implementation activities will be funded from other the sources of the city of Prague.

9.	9. Monitoring			
(de too	Monitoringtools(description of the tools and how they will be applied)Feedback from stakeholders collected during the participatory process o analysis, expert paper and recommendation for space sector potential will b 			ecommendation for space sector potential will be back will be collected by e-mails, e-questionnaires,
Indicators NB: The indicator included in the Application Form should be reported here, as well as any other indicator deemed necessary		Target amounts	Means of Verification	
1	Performance indicato Stronger participatory players and stakehold co-operation during e analysis, expert paper recommendations	r process of key ers thanks to laboration of	Min. 10	Min. 10 key players or stakeholders will be involved in the participatory process by individual interviews, e-questionnaires or by commenting joint papers
2	Output indicator: Number of potential k identified in the analy sector in Prague		20	The beneficiaries will be described in desk research analysis for the RAS3 update
3	Document – analysis of space sector		1	 1 document involving desk research and comments of stakeholders, describing: - space sector situation in the Capital City of Prague - space, photonic R&D project and technologies potential in Prague region - space technologies analysis in S3 strategies in a European context. - added value of space technologies for the general public/public services of Prague City.





4	Expert papers and recommendations for space sector development in Prague addressed to the managing authority for the RAS3 update	1	1 document involving desk research and comments of stakeholders, describing expert views and recommendations for space development
5	Evaluation of participatory process	1	Document describing the efficiency of participatory process based on the ratio of expert recommendations accepted by the managing authority for RAS3 update and the evaluation of the process based on questions "what went well" / "even better if".
6	Established methodology for RAS3 participatory process	1	Document and methodology for "sectoral participatory approach" for RAS3 update.





TITLE: ACTION 2: Simplification of rules for applicants and beneficiaries of OP Prague projects in co-operation with OP Prague managing authority

1. Overall Topic and Description of the proposed Policy Improvement				
	Specific objective: To increase policy effectiveness by simplification of rules for applicants and beneficiaries of OP Prague projects in co-operation with OP Prague managing authority			
	Justification:			
	Simplification of rules decreases barriers to enter the process of application in OP Prague especially for SMEs and therefore supports space & satellite projects.			
	Lessons learned in the STEPHANIE project help to improve the attitude of the managing authority to applicants and beneficiaries in OP Prague, by introducing a continuous improvement process based on feedback from applicants and beneficiaries of projects in OP Prague.			
	Elaboration in the Phase I of STEPHANIE project:			
	Lessons learned by staff exchanges:			
	Simplifications were adopted thanks to the good practices, mainly the attitude to target groups, during staff exchanges:			
Overall Topic	i) a decrease of administrative burden in the project proposal application (innovative vouchers practice from Tuscany region);			
	ii) faster evaluation procedure of project proposals in OP Prague/and or other public funding scheme (innovative vouchers practice from Tuscany region).			
	Prague project team of STEPHANIE participated in two staff exchanges in the Phase I (Durham and Tuscany). Representative of managing authority (Prague City Hall) participated as a stakeholder of those exchanges. During both exchanges, we visited regional authorities in Tuscany Region where their funding schemes and good practice were presented.			
	The Tuscany Region Innovation vouchers good practices were focussed on:			
	 Decreasing of administrative burden during project application – replacement the number of mandatory official annexes by one sworn statement or cooperate with other state registry to check this information. 			
	 Fasten the evaluation process of voucher scheme – minimize the time between submitting the project proposal and the signature of the grant agreement. 			
	 Sectoral approach – focussed communication with potential applicants and beneficiaries in space sector 			





Participatory attitude to potential applicants-

Results of the Phase I – established process of continuous improvement:

1. Feedback collected from the target group and applicants

Feedback from seminars, workshops and proposal consultation with applicants is recorded by the project department of OP Prague (involved in the STEPHANIE project).

The other important source of feedback is the communication of the ESA-BIC with the target group and discussion at SPIA groups. It helps to record specific needs of space and satellite potential applicants and future beneficiaries. To this sectoral approach we will add the good practices gained during STEPHANIE project phase I – see the section below for more specific description.

2. Feedback collected from beneficiaries during their project implementation

The project department also records administrative errors monitored during project implementation which have arisen from misunderstanding difficult rules, and actively proposes simplified or better explanations and descriptions of the rules for beneficiaries.

3. Elaboration of simplified rules

Following Phase I outputs proposals for simplification are continuously being prepared. Proposals for simplification are prepared using an OP Prague methodology.

4. Presentation of any necessary changes by the Planning Committee

Before a new call for proposals is announced, the project department prepares the complex proposal for simplification of rules and presents and negotiates it at each Planning Committee of the OP Prague meeting.

Milestones for the change of rules (simplification) are dates for finalisation of new calls for proposals and planning committee meetings. Changes have to be agreed before a new call is announced by the Planning Committee and by the managing authority. The exact term depends on the OP Prague schedule – by the end of the year 2019 and also during the year 2020.

5. Acceptance of rules.

Until recently, the planning committee accepted all 15 proposed changes for simplification in documentation, based on the process in the Phase I of the project.

Accepted rules in the document "*Rules for applicants and beneficiaries*", version 4.1, 4.3, 4.4, 4.5:

Simplification of rules to reduce the administrative burden:

 Simplification of rules for application documents, interim and final reports (e.g., attachments, introducing the possibility to submit reports electronically, a simple scan of attachments needs to be attached to the support

Simplification of documentation to prove wage expenditure instead of time-





sheets in interim and final reports – common documents will be used (wage assessments, contracts, etc.).

- Simplification of appendices to the project proposal (e.g. bank statement)
- Removing administrative requirements (e. g., the obligation to add a copy of the statement form to publicly accessible databases, the obligation to plot land / objects in the image from the cadastral map or the obligation to document the lease of the property for the entire project implementation and sustainability - can be now replaced by the owner's consent; bank statement to prove).
- Increase the project budget limit for the audit obligation.
- Improved and simplified template of the participant's card.

Better explanations and refinement of rules to increase understanding, legal certainty and readiness of the applicant or beneficiary:

- Simplification of rules for providing advance payments.
- For on-the-spot check: notice that verification of the original documents submitted electronically as plain copies / scans by the applicant can be part of the on-the-spot check and in addition of what is to be verified during expost check on-the-spot.
- Adjustment and clarification of rules for income in projects.
- Specification of the definition of indirect costs consumable.
- Explaining the difference between simple scan and authorized conversion of the document.
- Added examples of business interconnections under the de minimis regime. Added instructions for filling in information about ownership and control structure.
- Added definition of research infrastructure, removed irrelevant definitions and abbreviations.
- Updated examples of mandatory and optional publicity tools (especially logolink) including related texts.
- Added rules for monitoring horizontal principles to avoid common beneficiaries' errors

Knowledge and skills gained in Phase I:

- Setting up the process of collecting feedback, elaboration and approval of rule changes .

Expected long-term impact:

Specific

Description

- Improvement of 2020+ implementation

Activities in Phase II, from January 2020: the utilisation of results of the Phase I





1. Changed rules shall be included in new guidelines for applicants and beneficiaries for call for proposals with deadlines in 2020

2. Collecting feedback from applicants and beneficiaries in new OP Prague calls for projects using simplified and fully-adopted rules

3. Recommendations for further improvement of guidelines based on survey with applicants and beneficiaries.

2. Needs addressed

(please provide a brief summary of the NEED that you wish to address with this policy improvement)



Regarding to our regional vision, the action addresses these needs, barriers & weaknesses concerning the Quadruple Helix model:

Needs

 \checkmark To establish conditions for effective technology and knowledge transfer to maximise the impact of both developing and innovative space technologies on the business sector – thus, increasing researchers' motivation.

✓ To reduce the administrative burden for participation in OP Prague funding scheme.

Barriers

✓ The administrative burden on micro SMEs wishing to propose a common project in ESA tenders/calls.

Weaknesses

✓ Insufficient capacity, bureaucracy and administrative burdens related to project implementation are the most cited weaknesses of Czech funding scheme - mainly for SMEs and the business sector generally.

Detailed description of relevant needs, barriers and weaknesses:

There are some weaknesses in the business sector and funding schemes. Public calls are often much too bureaucratic and restricted that companies often prefer their own research. Other weakness of the funding schemes include that it is very common that public financing often stops at patent application and that it would be difficult to find other funds.

3. Relevance to the STEPHANIE project		
Details of proposed Policy improvement	Links with interregional input (including details of activities, good practices and knowledge shared)	
Introducing facilitation tool and simplification of rules to increase absorptive capacity for new space technologies by a public authority and firms and to simplify conditions and rules for project administration by beneficiaries.	Lessons learned for "Simplification of rules for applicants and beneficiaries"" In March 2019, the Prague City project team participated in the staff exchange in the Tuscany region, the other public authority in the project consortium. The main topic of the exchange was the management of innovation. Among the main points from the practice in Tuscany in March 2019 was an interesting specific focus on how to motivate SMEs as beneficiaries – participatory attitude and collecting feedback, lowering the administrative burden of support, sectoral approach, minimising the administrative burden when submitting a proposal	





and fixing the evaluation period – these were main points from their good practice.
Regarding "simplification", we used practice learned already from Phase I of the project and we will continue in Phase II during rest open voucher calls in 2019/2020.
The next good practices (voucher scheme funding tools) were gained during the staff exchange in Tuscany Region. The innovation voucher scheme, provided by the Tuscany Region as a regional managing authority, was especially inspiring in this context. This good practice would be used in the Phase II only if the call for proposal is approved by the managing authority of the OP Prague. We expect the decision about a new call for proposals in 2020 based on the evaluation of previous calls; therefore, the use of information from Tuscany region for "vouchers" in OP Prague in the Phase II would be an added value and it is not a binding part of this action plan.

4. Specifi	4. Specific Activities and timeframe			
Activity Number	Activity Description	Timing (with details)		
1.	Publication of new calls in OP Prague with improved guidelines with deadline in 2020. Following guidelines with simplified rules published in May 2019 are announced calls for proposals in accordance with the Schedule of calls of OP Prague.	Call 55: Improving the quality and efficiency of the operation of innovation support infrastructure IV, announcement: 19. 11. 2019, deadline: 1. 5. 2019.		
	(http://penizeproprahu.cz/harmonogram-vyzev- na-rok-2019/ http://penizeproprahu.cz/harmonogram-vyzev- rok-2020/	Call 56: Inovační poptávka veřejného sektoru III, announcement: 19. 11. 2019, deadline: 1. 5. 2019.		
	Calls supporting projects focused on space technology are within Specific objectives of OP Prague: 1.2 Easier establishment and development of knowledge intensive companies; 1.1 Increased cross-sectoral cooperation stimulated by regional self-government; 2.1. Energy savings in urban buildings also achieved through the use of appropriate renewable energy sources, energy-efficient equipment and intelligent management systems.	Call 50: Business Advisory Services (SME), announcement: 21. 1. 2020, deadline: 5. 1. 2021. Call 33: Energy savings in urban public transport, announcement: 14. 1. 2020, deadline: 29. 1. 2021.		
2.	Collecting feedback among applicants and beneficiaries about their experiences with improved guidelines	January 2020 to April 2021		
3.	Recommendations for further improvement of guidelines based on survey with applicants and beneficiaries.	June 2021		

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5. Players involved

Name of Organisation	Role in Action Plan Implementation
Department of European Funds, Prague City Hall	Leader of the action, main responsibility
Applicants and beneficiaries in the call of proposals	Feedback on rules in the OP Prague
Participants of the Action 2 and Action 3	Feedback on rules in the OP Prague

6. Risk and Contingency Plans

(please describes any potential risks to Action Plan implementation and eventual contingency plans – add as many lines as necessary)

Description of Risk	Level of probability (High, Medium, Low)	Description of Contingency Plan
No opportunity to apply in practice simplified rules from Phase I	Low probability	The Prague City is preparing and announcing new calls for proposals
Simplified rules will not ensure 3E or transparency rule in using ESIF for projects	Low probability	Guidelines published by the National Co-ordination Authority (NCA), which is a central methodological and co-ordination entity for the implementation of programmes co-funded from the European Union funds in the programming periods 2007–2013 and 2014–2020.
		The operational manual of OP PRAGUE must follow the frame of guidelines of the NCA.
		All changes in rules have to be negotiated and agreed by methodises of the OP PRAGUE and then agreed by the Planning Committee of the OP PRAGUE and by the managing authority of the OP PRAGUE.

7. Costs (please describe the costs required to implement the Action Plan. This can refer to human resources and external costs required to set up the actions and to any funding required (e.g. if the Action refers to a call for proposals / a funding scheme)

Simplification will be managed by the City of Prague. We expect that costs like personnel (0.05 FTE) will be covered by the internal budget for administrative work, collecting feedback from stakeholders and negotiation of new simplification for beneficiaries.

Total staff costs estimated for 2020/2021 are: 4 750 €.





8. Funding sources

Internal sources from Prague City.

9. N	9. Monitoring		
Monitoring tools (description of the tools and how they will be applied) Managing documents for calls for proposals and beneficiaries			
Indicators		Target amounts	Means of Verification
1	Performance indicator: satisfaction of applicants and beneficiaries with the rules	75%	75% of respondents will be satisfied with new rules.
2	Lower administrative burden for applicants and beneficiaries.	Min. 10% less	List of requirements for applicants and beneficiaries - comparative table based on "Rules for applicants and beneficiaries" valid for calls for proposals with deadline in 2017 (beginning of the Phase I) and in 2021 (end of the Phase II).
2	Calls for proposals with deadline in 2020-2021 with new simpler rules will be incorporated and used in "Rules for applicants and beneficiaries" validated	Min. 3	Calls for proposals with deadline in 2020-2021 and documentation for calls





TITLE: ACTION 3: Innovation breakfasts

1. Overall Topic a	and Description of the proposed Policy Improvement
	Specific objective: to increase the absorptive capacity for new space technologies
	Justification:
	During the project Phase I, we defined the variety of possible needs/problems and their potential solution by in the area of space technologies and satellite data (public transport GPS system; potential of green roofs; environmental issues in forestry, water management).
	To increase the OP Prague absorption capacity, we focus on the ability to prepare good-quality projects, i.e., on the capacity of the absorption on the side of the beneficiaries of the funds.
	Elaboration in the Phase I of STEPHANIE project:
	Lessons learned by staff exchanges:
	Representative of managing authority (Prague City Hall) participated as a stakeholder and visited regional authorities in Durham County where there are funding schemes and good practice.
	The Durham County good practices were following:
	 A sectoral approach (Satellite application catapult) towards the space & satellite sector stakeholders to find the new topics for future projects – this good practice will be adopted in Phase II.
Overall Topic	 More emphasis and exchange of the future project topic in smart region concept (Smart County Durham).
overan ropic	 "Innovation breakfast meeting", presented during the staff exchange in December 2018 (04/12/2018 to 05/12/2108).
	Results of the Phase I:
	The preparatory activities started in phase 1 of STEPHANIE project with the analysis of projects of applied and basic research in the area of space technology , supported by the Technology Agency CR, Ministry of Trade and Industry, OP Prague and other relevant institutions, implemented in 2014 – 2025, based on desk-research using STARFOS database. Beneficiaries and partners of these projects (research institutions, companies) were included in the "broad target group" together with public institutions and networks co-operating already with the STEPHANIE project, marketing companies and start-up supporting companies (innovation centres)
	The broad target group members were invited the SPIA group meeting (5 th November 2019) organised by the project and communication manager of the STEHPANIE project team.
	At the SPIA meeting we:
	- presented outputs of the STEPHANIE project (list of space technologies & city problems/needs; benefits of space & satellite technologies for a city; pilot projects and experience;
	 involved stakeholders (potential beneficiaries) in consultation process about topics in the area space & satellite for Prague for next programming period - round table;





	- helped to find and to connect the compatible partners from public, private and research sector to potentially prepare the future innovation project solving public sector need and utilising the space technologies; e.g., ROPID is in touch with ESA technology transfer broker (Mr. Habarta) and actively searching for a solution for public transport in Prague region.
	Knowledge and skills gained in the Phase I:
	During Phase I, among others, key stakeholders in the space sector were identified and connected with the managing authority of OP Prague (SPIA meeting), using also the technical expertise of ESA technology transfer broker and the first bilateral meetings on specific topic were organised.
	We were inspired by this concept during the staff exchange in Durham at the end of 2018. Here the innovation breakfast connects the sectoral regional stakeholders on very informal but regular meeting organised by regional authority.
	Expected long-term impact:
	The tool (innovation breakfast) could help in enhancing the innovation environment in Prague and so it should help in establishing new future project partnerships and proposals. In a long-term perspective, Prague beneficiaries could be more effective in the next programming period in future calls for R&D&I projects space and photonics.
	Activities in the Phase II, from January 2020:
	Innovation breakfast introducing, implementation, monitoring and evaluation
	For Phase II, following good practice from Durham County Council - STEPHANIE partner, we shall introduce "Innovation breakfasts" meetings on specific problems; such actions to be the first impulse/meeting of new innovative projects, including space technologies,
	The Innovation breakfasts were announced as a kick-off activity at the SPIA group meeting for broad target groups; They will be based on the bilateral meeting of ESA technology transfer broker with expert organisations of Prague City.
	1.1 Reaching the target group for bilateral meetings "Innovation breakfast"
Specific	An on-line tool based on a Google Forms (or similar) questionnaire to register for the innovation breakfast will be offered:
Description	- to participants at the SPIA meeting
	- to organisations implementing space & satellite projects recently or in the past, based on desk-research of the STARFOS database
	- by direct-e-mail to a broad target group
	This way we can create a list of organisations interested in creating a project partnership, or interested in using the results of space technology.
	1.2 "Innovation breakfasts" events
	The "Innovation breakfast" is the concept of regular, informal, networking events of stakeholders in the innovation environment on the specific topic or just to exchange the experiences. We follow the methodology as it was introduced by Durham County (see part 3. Relevance to the STEPHANIE project).
	The goal and the description of the activity:

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- To introduce effective tool in bridging the gap between know-how holders (research sector, SMEs) and public authorities (Prague City Department, Prague districts).

- To introduce project outputs (a list of space technologies and city problems/needs) to public authorities, mainly to the Institute of Planning.

- To find and connect compatible partners from public, private and research sectors to potentially prepare the future innovation project, solving public sector need and utilising space technologies. To strengthen the inter-sectoral co-operation and connect the space technologies with public authorities and end-users.

- To inspire, foster and facilitate possible new project ideas/proposals for OP Prague calls and also to obtain feedback from previous calls and their limitations and barriers.

Methodology

The methodology of innovation breakfast event is quite intuitive and easily implemented. To begin, the general topic is established (e.g., satellite data in environment applications). Then, relevant stakeholders (and potential beneficiaries of OP Prague) are identified. Finally, the event is organised as an open talk workshop with a short warm-up presentation. The main capacity of the event is like B2B talks in small groups on actual topics, prepared project or solved problems of the city government.

The event should be quite useful and effective in setting up new projects and or establishing the new partnership. During the meeting, the participants built new co-operations and/or new project consortium. Real common projects or outputs or business contracts are signed at the next stage – common topics, co-financing...

Concept paper: Innovation breakfasts step by step

1. Select a topic (such as Satellite Data in Applications in the Environment) in cooperation with key players: consult the topic with the EU and national key players; look into the National Space Plan 2020.

2. Identify relevant stakeholders (and potential beneficiaries of OP Prague).

3. Do not forget to identify stakeholders from all sectors of the innovative quadruple helix model:

- public administration (Prague City departments)
- business
- academic research
- older pupils and students from elementary and from secondary schools
- funding sources, consultancy services on funding sources
- infrastructure, including the digital infrastructure

4. Co-operate with EU and national key player by identification of relevant stakeholders, e.g.:

- use the list of enterprises and academic research published of the Czech Space Portal – information website of the Co-ordination Council of the Ministry of Transport;





- use the knowledge and experience of the technology transfer broker of the technology centre;
- ask ESA BIC, Czech Space Alliance or ESERO for help in identification of stakeholders.
5. Invite relevant leaders or key-note speakers.
6. Ensure you have a facilitator and suitable technology for a facilitator (flipchart, or interactive presentation, others).
7. Ensure really good and comfort environment with good breakfast. Accessible for all. Non-smoking.
8. Create a database of stakeholders to invite. Send invitation questionnaires to identify stakeholders (based on Google Forms, or similar). Create a database of responses.
9. Organise as an open discussion workshop with a short introductory presentation.
10. Organise B2B interviews in small groups on current topics, upcoming projects or solved problems of city administration. Bilateral meetings of ESA technology transfer broker with expert organizations of Prague City (Operator ICT, Ropid Co. Inc., Prague Public Transit Co. Inc., Prague forests Co. Inc. and others) will be part of "Innovation breakfasts".
11. Facilitate possible new project ideas / proposals for OP Prague calls and also get feedback from previous calls and their limitations, barriers.
Time framework:
60 minutes for narrowly focused events (5-7 persons)
120 minutes for broad events (15 – 20 persons).
1.3 Monitoring of results and evaluation of "Innovation breakfasts"
Monitoring of results will be based on analysis of quantitative indicators:
- number of "innovative breakfasts" events
- number of participants
- number of project ideas discussed
- number of new space & satellite project applications proposals submitted for OF
Prague or other sources following the innovation breakfasts
The evaluation of Innovative breakfasts will be done as a qualitative discussion of the team after every session, based on questions: "What went well?" and "Even bette if"
<u>1.4 Presentation of the STEPHANIE project and its impact on the absorption</u> capacity of OP Prague
Presentation of STEPHANIE project – Committee for EU Affairs
The Committee for EU Affairs is the advisory board of Prague council with the EU
funds agenda and the OP Prague as the only ERDF funding and policy tool. Presenting
the outputs of STEPHANIE to this board could help in i) setting up the Prague strateg
for international projects in R&D and in ii) promoting and utilising the potentia
of Prague space sector in terms of public sector needs and solutions and in term
of EU funding (ESA, FP9 projects, Interregional projects).





2. Needs addressed

(please provide a brief summary of the NEED that you wish to address with this policy improvement)



Regarding our regional vision, the action addresses these needs, barriers & weaknesses concerning the Quadruple Helix model: Needs

 \checkmark Establish conditions for effective technology and knowledge transfer to maximise the impact of developing and innovative space technologies in the business sector – motivation for researchers

- Motivate and support SMEs increase their capacity and knowledge in the protection of intellectual property, technology transfer and common projects with public research organisations.
- ✓ Increase the awareness about space activities in the Czech Republic PR, these activities should also be targeted at the public (PR activities, workshops, and seminars – presentation of examples of good practice. Space is a popular topic and should be used to inform about successes of the Czech space technology sector and to justify public expenditure in these activities.

Barriers

- \checkmark Lack of co-operation between public research organisation and business sector
- ✓ Insufficient system of intellectual property rights protection in public research sector generally
- Development of innovative products or technologies often stops at the lower Technology readiness level and are not completed to commercialisation and market stages

Weaknesses

Detailed description of relevant needs, barriers and weaknesses:

Competitiveness in space technology as a hi-tech branch is dependent on the co-operation of the business sector with research organisations to use the most modern processes, procedures and mechanisms. There are obstacles on both sides which should be overcome; clear and effective system of technology transfer should be set up on the side of public research and fair trade conditions should be offered from business partners. These issues are related to intellectual property protection in public research organisations. Intellectual property should be considered and protected as the main product of these organisations and not only used for the national research evaluation system as a ranking factor. Research outputs should be proofed by business sector, updated and maximally turned into market products: fully commercialised.

The SMEs would gain benefits from common projects with research organisations - consultancy in projects' administration, funding for modern equipment, innovative technologies. SMEs could also use the ESA technology transfer broker tool to find out innovation possibilities – the Czech business sector could benefit from ESA technologies and gain competitive advantage owing to the Czech membership in ESA.

The academic sector should offer high quality expertise and outputs to at least maintain the expertise level and to fulfil the needs of the Czech space technology companies.

The last need is more effective public engagement and PR activities presenting space activities of the Czech Republic and its research organisations, companies etc. There is very little public awareness of Czech activities in the ESA.

There are also some weaknesses in the business sector and funding schemes. Public calls are often much too bureaucratic and restricted so companies often prefer their own research. The other weakness of funding schemes that it is very common that public financing often stops at the patent application and it would be difficult to find other funds.





3. Relevance to the STEPHANIE project		
Details of proposed Policy improvement	Links with interregional input (including details of activities, good practices and knowledge shared)	
Increasing OP Prague funds absorption capacity for space technology-focussed projects has a number of aspects, in particular, the ability to prepare good- quality projects expecting funding in advance. Introducing a facilitation tool and simplification of rules to increase the absorptive capacity for new space technologies by public authority and firms and to simplify conditions and rules for project administration by beneficiaries.	Lessons learned for the "Innovation breakfasts" During inter-sectoral meetings (when we try to find out some innovative space service or product to meet public sector needs) we plan to use good practice from the Durham staff exchange in December 2018 (04/12/2018 to 05/12/2108) designated "Innovation breakfast meeting". Two members of the project expert team participated and one representative of the stakeholder, Prague City Hall. Both experts from the team are involved in the regional vision implementation and action plan compilation. Lessons learned during the exchange to be transferred to Prague: Staff exchange participants joined the Innovation breakfast event, which is an interesting concept of regular informal meeting of regional stakeholders in R&D incl. SMEs. Other good practice focussed on SMEs was the North East Local Enterprise Partnership (NELEP). The NELEP is strategic regional umbrella organisation for inter-sectoral co-operation. It could also help private enterprises in finding funding sources or find the connection between their requirements and regional/national strategies. The Innovation breakfast was quite useful for a scale of local stakeholders (ca. 10) to exchange their current challenges and problems and potential future projects. The event is a good idea for Prague City Hall as the managing authority of the Prague operational programme; the only problem is the higher number of involved stakeholders in Prague. So the lesson learnt from Durham to OP Prague tool is in adopting a sectoral approach for meetings with potential beneficiaries from specific (space and satellite) sector —innovation breakfasts. These events we would adopt in the period 2020-2021.	

4. Specific Activities and timeframe			
Activity Number	Activity Description	Timing (with details)	
1.	Reaching the target group for bilateral meetings "Innovation breakfast" - see the methodology and concept paper.	1st. quarter 2020 1st. quarter 2021	
2.	"Innovation breakfasts" implementation, monitoring and evaluation	2020 – 2021; every 6 months	
4.	Mid-term report ready for Presentation of STEPHANIE project – committee for EU Affairs	2nd quarter 2021	
5.	Final report on "Innovative breakfasts" as a part of the final report	4th quarter 2021	





5. Players involved

Name of Organisation	Role in Action Plan Implementation		
Department of European Funds, Prague City Hall	Leader of the action, main responsibility for organising the events, for the mid-term report and the final report		
Committee for European Affairs (Prague City Council)	Advisory board of Prague City Council – presentation of space technology applications (based on Innovation breakfasts)		
Ministry of Regional Development	National Co-ordination Authority for ESIF		
Ministry of Transport	Department of Telecommunication, Space activities and R&D		
Ministry of Environment	Department of Air Protection (meteorology, climatology)		
Ministry of Agriculture	Section of EU funds		
Regional operator of Prague integrated transport (ROPID)	Participant of innovation breakfast event – space sector & public authority		
Operator of Information Technologies (Operator ICT)	Participant of innovation breakfast event – space sector & public authority		
The Prague Public Transport, Co.	Participant of innovation breakfast event – space sector & public authority		
Research institutes of the Czech Academy of Sciences and other research institutes - based on database of project in space sector	Participant of innovation breakfast event – space sector		
Universities or high schools - based on database of projects in the space sector	Participant of innovation breakfast event – space sector		
Target group – private sector – based on database of projects in the space sector	Participant of innovation breakfast event – space sector		
Elementary and secondary schools – selected students with interest in space area	Participant of innovation breakfast event – inspiration for future jobs in the area		
Funding sources - representatives of Czech national funding sources – e.g., OP Prague, Technology agency of the Czech Republic, Ministry of Trade and Industry, and others	Participant of innovation breakfast event – source of finance		
Consultancy agencies for advisory on source of finance	Participant of innovation breakfast event – advisory		





6. Risk and Contingency Plans

(please describes any potential risks to Action Plan implementation and eventual contingency plans – add as many lines as necessary)

Description of Risk	Level of probability (High, Medium, Low)	Description of Contingency Plan	
Small target group, not enough participants	low probability	research in public funded R&D projects, personal contact with beneficiaries	
Insufficient expert capacity	low probability	Prague City is in touch with ESA BIC and ESA TTO	
Collision of priorities of expert team (other projects, new tasks)	medium probability	Prague City will try to leverage the funds for space technologies and international cooperation.	
No accessible open calls or available funds for newly	low probability	Calls for proposals with the deadline in 2020 - 2021 are announced or under preparation.	
established partnerships and projects		Prague City is negotiating a new programming funding scheme period.	
		Other funding sources are available.	

7. Costs

(please describe the costs required to implement the Action Plan. This can refer to human resources and external costs required to set up the actions and to any funding required (e.g. if the Action refers to a call for proposals / a funding scheme)

The events and meeting will be organised in conference rooms of Prague City.

Total costs: 3 350 €

Staff costs: 0,05 FTE – total costs (2020-2021): 2 950 €

The costs are estimated for events (4 innovation breakfasts)

- small refreshment, up to the 100 € per event (sufficient for Prague budget;

the room will be kindly provided without any charge)

8. Funding sources

Internal sources of Prague City - the main source of funding,

Technology Centre AS CR – paid for services of ESA Technology Transfer Broker if needed

The Operational Programme Prague – Growth Pole of the Czech Republic - is supporting particular activities, which are outlined in the operational manual and which had high priority when the Operational Programme was prepared. Since the STEPHANIE project was submitted after the approval of the Operational Programme, activities suggested in this Action Plan, are not contained in the operational manual. Therefore, all implementation activities will be funded from the resources of the city of Prague.





9. Monitoring

Monitoring tools (description of the tools and how they will be applied)

For output indicators: Attendance lists, simple forms with new project ideas, simple forms for matchmaking and simple questionnaires used in the activity preparation and implementation.

In	dicators	Target amounts	Means of Verification
1	Performance indicator: number of new space & satellite project applications proposals submitted for OP Prague or other funding sources following innovation breakfasts	Min. 5	STARFOS database
2	Number of "innovative breakfasts" events	Min. 4	Attendance list, photo- documentation
3	Total number of participants at innovation breakfasts	Min. 20	List of attendants
4	Number of project ideas discussed during innovation breakfasts	Min. 6	Names of project ideas in simple forms
5	*Number of enterprises co-operating with a research institution on projects in the R&D area on Space Technology	Min. 6	Names of enterprises co- operating with a research institution on project ideas in matchmaking forms

*Official indicator included in the Application form. The target number was adjusted following the action plan and the specific activity "innovation breakfasts"





Part IV - Official Signature(s)

Date:	9. 1. 2020		
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