



Final Programme Report Norway Grants 2009-2014

**Programme CZ09 – Czech-Norwegian Research
Programme**

Reporting period: 25.02.2013 – 31.12.2017

Programme Operator: Ministry of Education, Youth and Sports

Programme Partner: none

Donor Programme Partner: Research Council of Norway

Contents:

1. Executive summary.....	3
2. Programme area developments	4
3. Reporting on Programme outputs.....	5
4. Reporting on Programme outcome(s).....	7
4.1. Horizontal concerns	11
4.2. Cross-cutting issues	12
4.3. Capacity building.....	16
5. Reporting on bilateral relations.....	17
5.1. Bilateral outcomes.....	17
5.2. Donor partnership programmes.....	20
5.3. Complementary actions.....	21
6. Reporting on sustainability	23
7. Project selection and implementation	24
7.1. Project selection	24
7.2. Project implementation.....	26
8. Monitoring and audit.....	27
9. Irregularities.....	29
10. Risk management	30
11. Information and publicity	31
12. Conditions set in the Programme Agreement.....	33
12.1. Compliance with conditions	33
12.2. Changes to the programme	34
13. Attachments to the final programme report.....	35
Annex 1: Project list (DoRIS)	37
Annex 2: List of irregularities (DoRIS)	41
Annex 3: Audit overview.....	42
Annex 4: Overview on bilateral initiatives approved within the Fund for bilateral relations	48
Annex 5: Evaluation of external and internal risks identified in the Programme	51

1. Executive summary

Science and research try to find answers on various questions connected to our everyday life. They also introduce new directions and visions. To succeed, research is becoming increasingly a global activity. Globalization enables to bring together individuals from different countries and disciplines and to create international scientific teams. These diverse connections boost new knowledge. The Czechs and Norwegians, both small nations, understand this opportunity and find necessary to support bilateral either multilateral cooperation so that they could improve through discoveries and knowledge their economic and social conditions, reduce mutual disparities and stay competitive in the world. A joint research programme, a unique tool of this initiative, was needed, through which would be realized and achieved common demands and goals.

The Czech-Norwegian Research Programme (CZ09) (hereinafter referred to as “Programme”) with the total allocation of EUR 17,078,091 (CZK 452 551 173), which had one main objective – **to enhance research-based knowledge development in the Czech Republic through research cooperation between Norway and the Beneficiary countries** – was implemented from 25 February 2013 to 31 December 2017. The Programme was set out to create benefits and opportunities for researchers including postgraduates, postdoctoral candidates and graduates as well as research organizations, small and medium-sized enterprises. The primary outputs of the Programme bilateral cooperation were research outcomes, including scientific publications and improvement of conditions for young researchers and female researchers, including those who have returned from maternity leaves.

Regarding its significant achievements, the Programme actually **supported 57 international cooperations**, of which 23 research projects realised basic and applied research and experimental development in the priority areas – *Environment, Health and Social Sciences and Humanities* – and 34 bilateral initiatives with the purpose of increasing research collaboration between Norway and the Czech Republic. These **supported research projects and bilateral initiatives were implemented and completed** by the Programme Operator (hereinafter the PO).

The targets of the set output indicators, such as numbers of international cooperation projects, of female researchers (661, including 32 returnees after their maternity leave), of PhD students and Post-docs involved (539) and of internationally refereed (joint) scientific publications (228) **were approached** during the Programme implementation period. Moreover, a patent regarding biodegradation (7F14045) and a certified methodology in air pollution area (7F14330) have been delivered.

To strengthen bilateral relations and cooperation, 90 study and work trips, 53 events, 27 publicity actions and 5 preparations of joint proposals were supported. The PO also organised a match-making event for seeking project partners.

Concerning increasing awareness of the Programme and Norway Grants 2009-2014, three Programme conferences and six information meetings with applicants were realized. Programme information and results were also disseminated at an outreach event in Oslo and on the Norwegian Day in Brussel, Belgium, an Estonian final conference in Laulasmaa, EARMA conference in Lulea, Sweden, the Science, Research and Innovation Fair in Brno, and through dozens of contributions at the Programme’s website and social media – Twitter and Facebook.

The PO allocated the total sum of CZK 518,160,000 (EUR 19,553,207) from Norway Grants and the ministry's budget in the period 2014-2017 for research and developing bilateral relations at the project level, 99.7% of institutional support (including Norway Grants 2009-2014). It **met its obligations** towards the project promoters.

The PO also **fulfilled its obligation to place at least 20% of the allocation for the research projects to the Social Sciences and Humanities area**, as stipulated in the Programme Agreement.

Although risk factors influenced the implementation, the PO managed them. The programme **budget was modified several times to allocate funds effectively** and to the benefit of the research community.

In conclusion, the targeted indicators stipulated in the Programme Agreement **were accomplished during the implementation period**. The Programme has strengthened bilateral relations and stimulated long-term Czech-Norwegian cooperation, mobility of researchers, capacities of young and female researchers and enhanced to create new knowledge and know-how exchange which contributed to solving current environmental (air and water pollution, biodegradation, carbon storage, dangerous radiation, fish distribution, decrease of original fruits, energetic self-sufficiency), medical (treatments of Huntington's and eye diseases, tumour, cancer, DNA damages, spinal cord injuries or mental and physical disabilities) and social (unemployment, insufficient social services for the retired and families, fading languages, missing cognitive abilities and social isolation) issues and problems.

The majority of **principal investigators are planning further research collaboration** with the Norwegian entities (22). They have already prepared new applications (8) or even received funds from other programmes (5), so some partnerships may be sustained for the future. New knowledge and research activities will emerge from the established partnerships and achieved results.

The Programme has enhanced research-based knowledge development in the Beneficiary state through research cooperation between Norway and the Czech Republic as well as the **achievement of the overall objectives of the Norwegian Financial Mechanism 2009-2014 to strengthen bilateral relations through financial contributions to bridge social and economic disparities between Norway and the Czech Republic**, although the delivered outcomes may prove that after a time interval.

More detailed information can be found in the relevant chapters of the final programme report.

2. Programme area developments

According to the Government of the Czech Republic, expenditures on science, research and innovation during the period of 2013-2017 increased by CZK 9 billion, an increase of almost 34%. This has also resulted in the overall stabilisation of the area, giving financial security to scientists and, moreover, promoting better targeting of research resources.

The rules for financing and evaluating research results have been also changed, which may support the international competitiveness of Czech science.

The government also adopted the *National Policy for Research, Development and Innovation of the Czech Republic* for 2016-2020, which sets out the main directions of development at the national level and also focuses on supporting applied research for the needs of the economy.

Another completed commitment was the setting up of a network of scientific diplomats¹ and the strengthening of bilateral cooperation in science with non-European countries. Since October 2015, the Czech Republic has had its first scientific diplomat in Israel and since July 2017 a scientific diplomat in the US.

Regarding future plans, the government recommends focusing primarily on systemic measures such as the adoption of a new law on the promotion of science, research and innovation and the establishment of a separate Ministry for Research and Development. It will also be necessary to ensure sufficient funding after the 2014-2020 programming period. In 2020, spending on science, research and innovation might reach at least 1% of the Gross Domestic Product.

The main fulfilled commitments of the government ruling between 2013-2017 in the field of science and research are as follows:

- The Act on the Support of Research, Experimental Development and Innovation – the harmonisation of directly applicable European legislation with national legislation in the area of terms used.
- The National Policy for Research, Development and Innovation of the Czech Republic for 2016-2020 – main directions of development in the area of research, development and innovation at the national level.
- The National Research and Innovation Strategy for Intelligent Specialisation of the Czech Republic - targeting resources for activities leading to strengthening innovation capacity.
- A new methodology for evaluating research organisations and targeted support programmes – greater efficiency in spending public funds.
- A new Information system for research, development and innovation which has been running since 2017.
- Budgetary stabilisation - increasing the budget to support personnel capacity or more effective coordination of national and European resources.
- Establishment of a network of scientific diplomats of the Czech Republic on international platforms.

3. Reporting on Programme outputs

The Programme² had a single outcome: ***“Increased research cooperation between Norway and the Czech Republic”*** stipulated in the Programme Agreement. This outcome was split into three outputs:

Output (1) - International research cooperation projects

Output (2) - Suitable conditions and environment for young researchers

Output (3) - Internationally refereed (joint) scientific publications published as part of the programme

¹ Networks of diplomats are mostly staff working abroad, under the authority of the government and mostly under the Ministry of Foreign Affairs. These employees can be divided into several different aspects of career diplomats who deal with science, research and innovation as their main occupation during their stay abroad, employees posted to ministries or other organisations, or contractually employed workers. An appointed and contracted staff member may temporarily use a diplomatic status.

² In 2013, the Programme was retitled from the Research Support Fund on the request of the Donor state.

which were approached in the end as follows:

Output (1) - International research cooperation projects

Output indicator: Number of cooperation projects – target 40

The target value – 40 supported cooperation projects – had been set for the open call(s) by an estimate via a regranting³ allocation to be distributed among research projects (R&D) of a roughly estimated size (up to EUR 1 m per project). In fact, the promoters mostly applied for the maximum grant (i.e. EUR 1 m), thus only 23 projects could be covered from the regranting allocation⁴ (19 originally approved + 4 from the reserve list).

Nevertheless, 35⁵ more bilateral projects (referred to as initiatives) were approved for funding from the Fund for bilateral relations (hereinafter “Fund”) and duly 34 implemented (one withdrew). Thus, reaching the target can be seen as having been fulfilled although not solely from the regranting⁶ item (23 + 34 bilateral projects implemented). For more details, see Annexes 1 and 4.

Output (2) - Suitable conditions and environment for young researchers

Output indicators:

- ***Number of female researchers involved – target 20***
- ***Number of PhD students and Post-docs involved – target 20***

Both target indicator values were achieved in the supported cooperation projects as follows:

661 female researchers in total (206 R&D + 455 Fund)

Of which those who returned after maternity leave: 32 (19 R&D+13 Fund)

539 PhD students and Post-docs

Of which 317 PhD students (112 R&D + 205 Fund)

Of which 222 Post-docs (90 R&D + 132 Fund)

The target indicator values were highly overfilled. The high number of participating female researchers might have been influenced by the division of the projects according to their fields. Health and Social Sciences and Humanities are usually female-dominated domains (e.g. 7F14083, 7F14156, 7F14236, 7F14369, 7F14500).

Due to economical discrepancies (such as lower personnel costs in the Czech Republic) the Czech entities could involve high numbers of young researchers in the projects and bilateral initiatives. The numbers include researchers who performed research and development activities, and also researchers who actively took part in the supported activities in the initiatives, or were for instance part of the audience.

This showed that Czech research organisations have a relatively sufficient capacity of young researchers and that a large number of women work in research (at least in the selected fields and areas).

³ The PO additionally increased support for research projects (so called regranting) by 20% in the amount of CZK 98.502 m.

⁴ *Increased research cooperation between Norway and the Beneficiary States* item (hereinafter “regranting item”).

⁵ The promoter of the 7F16041 initiative requested to be withdrawn from institutional support, so 34 of the 35 selected bilateral initiatives were actually executed.

⁶ 99.6% of funds to the research projects and 99.8% to the bilateral initiatives.

Output (3) - Internationally refereed (joint) scientific publications published as part of the programme

Output indicator: Number of Internationally refereed scientific publications – target 40

The output's target was 40 and this was set as an estimate related to the 40 planned projects (1 publication per project at least). The final total number of internationally refereed scientific publications originating from the research projects within the Programme and published achieved a total of 228 internationally refereed scientific publications (more in Section 4). This showed that basic research is able to produce many publications, even international.

Researchers are very hard-working, enthusiastic and highly motivated workers and they are able to produce many results in a limited time. All of the principal investigators planned more or even far more than two publications per project, more it was presumed by the PO. The bilateral collaboration between Czech and Norwegian researchers proved to be productive and a very potential and prospective method of creative work which resulted in internationally refereed resources of joint knowledge publications.

The output indicators were multiply exceeded, which is a positive outcome. The principal investigators delivered more project outcomes and involved more young researchers than it was expected. While the Programme concept was preparing, the PO supposed that up to 40 research projects might be supported where a young researcher per project could participate and an internationally refereed joint publication per project could be delivered. It was very hard to forecast relevant balanced targets compared to outcomes achieved later in the middle-term period.

Good examples: Concerning outputs not captured by the agreed output indicators, the 7F14045 project achieved a patent in the field of biodegradation. Two PhD students from the 7F14156 projects received international prizes in the field of eye medicine awarded by the European Eye Bank Association and European Tissue Bank Association, and the 7F14330 project approached a certification of a methodology related to air pollution in industrial regions.

Lessons learnt, assessment and recommendations:

- The set indicators should have been clearly and specifically defined in the Programme Agreement, such as numbers of PhD students and Post-docs in correlation with full-time equivalents, or at least 0.5 workload (according to Royal HaskoningDHV, the external evaluation pursuant to Chapter 9.1 of the Regulation).
- The project proposal template could have included, for example, a separate section regarding the project-level indicators.
- The project contract could have stipulated that only publications actually published in the implementation period could be reported. However, high-quality research is usually very risky and publication in top scientific journals often takes longer, beyond the project end.

There were no pre-defined projects and no small grant scheme applicable in the Programme concept.

4. Reporting on Programme outcome(s)

To achieve the outcome ***“Increased research cooperation between Norway and the Beneficiary States”***

(including the Czech Republic), the PO had available total funds in the amount of CZK 501,453,000⁷ (including 20% co-financing at project level from the PO) for the research projects (so-called regranting items).

The grants from the regranting item were actually allocated in the amount of CZK 499,665,000 in the period 2014-2017, so the PO met **99.6%**⁸ of its total commitments stipulated in 23 project contracts. All payments were transferred by the PO to the project promoters' bank accounts according to the issued project contracts and in compliance with the national legislation.

Extent of cooperation, shared results, improved knowledge and mutual understanding, wider effects

The outcome of the Programme was composed of three outputs (see Section 3) but had an outcome indicator, which was stipulated in the DoRIS system according to the FPP, Article 3.5.3:

- **the number of cooperating research institutions by country involved in supported projects.**

The target value was 50. With respect to the documentation of supported projects and initiatives, the total number of cooperating institutions was 66⁹ of 57 international cooperations approved by the PO and actually implemented.

Number of involved cooperating research institutions: 66

To illustrate the relation of the reached indicator value to other statistics of involvements in the Programme, please see the following overview:

Number of project promoters:	29 ¹⁰ (16 in R&D projects + 13 in bilateral initiatives)
Number of Czech project partners:	10 ¹¹ (8 in R&D projects + 2 in bilateral initiatives)
Number of Norwegian entities:	26 ¹² (13 in R&D projects + 13 in bilateral initiatives)
Number of third parties involved:	1 (1 R&D organisation from Lausanne, Switzerland)

In relation to the main achievement, the Programme helped to implement 23 medium-sized research projects on various subjects (**7 in Environment, 7 in Health, 3 in Social Sciences and Humanities, 6 interdisciplinary**) and 34 small-sized bilateral initiatives.¹³ The numbers of international cooperation hide the various numbers of supported target groups, research teams, types of organisations, research subjects (mostly completely different from each other) and groups of scientists which have brought

⁷ The Programme contribution (without 20% co-financing by the PO) made up CZK 401,162,400. The share of this item was 89% of the Programme budget.

⁸ The difference mentioned above was caused by the 7F14500 project that did not fulfil the condition of using at least 70% of the previous payment for 2016, so they did not reach the last payment; nevertheless, they delivered outcomes. Perhaps their project budget was overestimated.

⁹ The number does not include SMEs without the status of the research organisation (4) which participated in the research projects. The reported figure illustrates the number of co-operating institutions (universities). Some of them (e.g. Charles University in Prague, Masaryk University in Brno, Oslo University, Oslo University Hospital, NTNU in Trondheim, etc.) were running more projects and bilateral initiatives but are counted as one occurrence.

¹⁰ Some entities took part in more projects and initiatives but were summed only once.

¹¹ Some entities took part in more projects and initiatives but were summed only once.

¹² Some entities took part in more projects and initiatives but were summed only once.

¹³ For more details, see Chapter 5.

numerous kinds of scientific outcomes.

A total of **70 eligible stakeholders were involved in the Programme**, of which 66 were research organisations and four small and medium-sized enterprises without the status of research organisation (but with research as a target business). The share of the private sector was insignificant. The low number of SMEs might be caused by the lower proposals submitted in the calls or by their lower capacities (such as personnel, time). Therefore, many opportunities can be found in the next Norway Grants period 2014-2021.

Concerning the geographical aspect, the implementation of the research projects was strongly concentrated in the capitals of both countries. The majority of research activities were executed in Prague (17) in the Czech Republic and Oslo (10) in Norway. Seventeen organisations had headquarters in Prague and 6 in Oslo. There was a numerous group of project partners (5) from Trondheim and a higher number of projects (4) implemented in Brno by two project promoters – Masaryk University and the Institute of Biophysics of the Czech Academy of Sciences, v.v.i. Only 4 project promoters based in Czech regional cities led research projects.

The Czech promoters often signed partnerships with Norwegian research organisations from Oslo and Trondheim such as the University of Oslo, University Oslo Hospital and Norwegian University of Science and Technology. The third party had no serious impact on enhancing bilateral collaboration since it occurred in only one case, the 7F14287 project (Swiss Federal Institute of Technology, Lausanne).

The top three beneficiaries were as follows:

Charles University.....CZK 62.3 m (EUR 2.3 m)
Oslo University Hospital.....CZK 35.8 m (EUR 1.3 m)
Oslo University.....CZK 35.5 m (EUR 1.3 m)

The Programme aimed at supporting young researchers and female researchers, to create more suitable conditions and environment. There were 539 PhD students and Post-docs (202 in research projects) and 661 female researchers (206 in research projects) in total involved in the research and bilateral activities. They engaged with the international cooperation and environment, for example sitting in an audience at a seminar, or even fully worked on their scientific subjects. The support also helped to bring female professionals back to their branch in 32 cases (19 in research projects). In conclusion, since it is hard to raise new talents and return people back to work after a long break, the Programme served very well in this matter. As feedback, this quality of the Norway Grants 2009-2014 was very positively acknowledged by the participants because it is almost impossible for young researchers to get professional experience. Returnees after maternity leave had an opportunity to be employed and get back to practice which would might help them to generate own proposals and request for grants. Therefore, the stakeholders could increase their staff capacities and society did not lose qualified workers. This was also a benefit from the macroeconomic perspective (increasing the employment rate). The support of talent and returnees ought to be kept for the further programming periods of the Norway Grants 2014-2021.

Top female researcher supporters (based on project promoters' reporting):

1. 7F14156 EYEFORTX supported 21 female researchers
2. 7F14308 HUNTINGTON supported 20 female researchers
3. 7F14045 PASSES supported 17 female researchers

Top PhD students and Post-doc supporters (based on project promoters' reporting):

1. 7F14156 EYEFORTX supported 21 PhDs and Post-docs
2. 7F14308 HUNTINGTON supported 17 PhDs and Post-docs
3. 7F14236 HCENAT supported 16 PhDs and Post-docs

As far as scientific publications are concerned, the principal investigators and their teams were very productive. A total of 228 internationally refereed publications originated from 23 research projects. Some of them have just been submitted to publishers. Nevertheless, the data will be uploaded in the national information system for research and development (*the Register of information on results*).

Top producers of international publications (based on project promoters' reporting):

1. 7F14047 HABIT achieved 44 internationally refereed publications
2. 7F14236 HCENAT achieved 24 internationally refereed publications
3. 7F14316 MACFISH achieved 18 internationally refereed publications

Frequent publishers (based on project promoters' reporting):

1. Springer – New York City, USA (22 times)
2. Elsevier – Amsterdam, Netherlands (14 times)
3. Wiley / Wiley-Blackwell – Hoboken, USA (10 times)
4. Taylor & Francis – Milton Park, United Kingdom (6 times)

Research projects in Health generally reached higher impact factors compared to the Environment, Social Sciences and Humanities areas. 7F14155 (Impact factor=30.41 in Cell), 7F14156 (IF=10.93 in American Journal of Human Genetics), 7F14061 (IF=9.79 in EMBO Journal); or 7F14057 (IF=8.64 in Small magazine).

Concerning other project outcomes, the 7F14330 ISOFIN project lead by the Czech University of Life Sciences in Prague in cooperation with NIBIO and Norwegian Geological Survey succeeded in certifying a methodology regarding air pollution in industrial areas. Devices for radiation detection arose in cooperation of the Czech Technical University in Prague and Integrated Detector Electronics, Oslo from the 7F14358 AD-BANG project. On top of these, the 7F14045 PASSES project realized by Charles University in cooperation with Dekonta and ALS Laboratory Group Norway AS completed a technology patent process in the subject of biodegradation.

Good example: The results of the 7F14045 PASSES project from the Environment area run by Charles University with Dekonta company and ALS Laboratory Group Norway AS have high application potential, as has been clearly demonstrated by creating patent-protected intellectual property on the method allowing *“assessing and monitoring of contaminated sites to obtain accurate information on them. The technologies developed within the project are a tool that should provide exact information for decision making and designed remediation should be more effective and sustainable.”* More details at <http://passes.cz>.

Good example: The 7F14009 MTBA project resulted in *“nanostructures with unprecedented possibility of fine-tuning: adjustable size in suitable range, temperature- and pH-sensitivity, suitable targeting moieties on the surface and ability to release active components in a controlled way. In addition,*

the same type of systems may be used not only for targeted delivery and controlled release of therapeutics, but also for simultaneous diagnostic imaging. This allows for therapeutic feedback allowing further customization of the treatment.” More details at <http://www.mtba.cz/index.php/en/>.

Overall, the quality and benefits of the outcomes will be revealed later; nevertheless, it is certain compared to the Programme in the previous EEA/Norwegian Financial Mechanisms which supported 82 institutions and 152 experts that the Programme has increased bilateral mobility of the researchers and scientific capacities, having experience with the Czech-Norwegian collaboration. It also enhanced research-based knowledge development in both states and enriched society with new knowledge more than it was expected, and they (or others) may make progress in the current state-of-the-art and use the gathered knowledge in their further activities. More about mutual understanding and wider effects can be read below in this Section and also in Section 6.

Lessons learnt, assessment and recommendations:

- Principal investigators are highly determined people who are able to deliver more outcomes than stipulated in the project contract if they can. It should be enabled them to produce more outcomes.
- The quality of partnership often relies on (long-term) personal relationships.
- Researchers need freedom, funds and time, but the price is higher responsibility for the delivered outcomes and financial issues.

4.1. Horizontal concerns

Generally speaking, it can be stated that international cooperation is very important for the Donor and Beneficiary countries. It enables comparison of levels of the state of research, knowledge and know-how, to open societies, develop mutual and multicultural understanding, awareness and capacities, learn from lessons, be inspired by each other and compare social, cultural and economic standards and practices.

Furthermore, it is a necessary activity for promoting tolerance and peace in Europe, building bridges between both nations and bringing opportunities which will fade any discrepancies. On the other side, social and economic differences may endorse growth and wealth. Through the Programme, both countries might also help each other to expand in research and development.

The Programme was not primarily focused on solving horizontal concerns but they “walked” hand in hand with the bilateral collaboration. Since science and research have become global human activities, researchers speak English professionally, they move from one place to another, so horizontal concerns (such as tolerance, multicultural understanding, equal opportunities, lack of xenophobia, etc.) are naturally incorporated in the community, although there might be rivalry and competition. These concerns may bring indirect results and also enrich and cultivate the social environments in the collaborating states.

These horizontal concerns were also part of the Programme and financial mechanism documentation which provided the essential framework for an approach which might also be reflected in the topics of some supported projects. The INN CARE project (7F14058) targeted the retired, the HACENAT project (7F14236) studied possibilities for improvements for the cognitively disabled, the PERIF project (below) tried to improve the economic position of peripheral regions, and PSYCHPAT (7F14500) studied the inclusion of the mentally disabled, to improve tolerance among people.

This has also been proved by the final numbers of dozens of entities, hundreds of researchers involved

in 23 research projects and 34 bilateral initiatives and the final number of publications originating from the research projects, not only the studied topics (more in Sections 3 and 4).

Good examples: The main reason for the 7F14442 PERIF project was to contribute to more effective cooperation and knowledge transfer between universities and peripheral regions using the Czech and Norwegian experiences to decrease economic and social disparities. The main impact would be sharing the results with the involved public. The PERIF partnership has opened a new perspective for research in the area of regional development. More at www.perifproject.eu.

The 7F14500 PSYCHPAT project has contributed to the fading of social discrepancies through increasing the quality of life of psychiatric patients, who tend to have a short life expectancy and high comorbidity. They worked with the motivation of staff in psychiatric hospitals on special courses (based on the self-determination theory of motivation and motivational interviewing), and then with psychiatric patients (motivational physical activity intervention), so they expected that some changes in motivation towards physical activity would be sustained. Psychiatric hospitals will continue to use aspects of the motivational movement programmes. More at <http://projekty.ujep.cz/nrp/>.

4.2. Cross-cutting issues

Good governance

The PO respected good governance which meant being inclusive, accountable, transparent, responsive, effective and efficient, and following the rule of law. Its actions were regulated by many rules at different levels – European, Norwegian financial mechanisms, national and internal – while the Programme was under preparation and implementation. These rules were taken seriously by the PO to accomplish all the requirements.

The PO approached European and national legislation as it referred to public support of research and development and also Norwegian standards of governance, so the Programme implementation resulted in a complex of European-Norwegian-national rules and standards. However, the stricter rules had to be followed.

The PO established financial, management and control systems and also took measures to secure due an efficient management of funds which were provided from the state budget and the Norway Grants 2009-2014 (the so-called Manual of the Programme Operator). All procedures at both programme and project level were specified in detail in the Manual. It compiled the European, Financial Mechanism, national and internal rules. The systems were mainly based on the Regulation on the implementation of the EEA and Norwegian Financial Mechanisms 2009-2014 and its Annexes 4 and 12, the Programme Agreement, Act no. 130/2002 Coll., on the Support of Research and Development from Public Funds and on the Amendment to Related Acts (the Act on the Support of Research and Development), as amended, Act no. 218/2000 Coll., on Budgetary Rules and on the Amendment of Some Related Acts (The Budgetary Rules), as amended, and Act no. 255/2012, the Control Act, as amended. The Manual was approved by the FMO. The Manual included references to the Methodology of Financial Flows and Controls and Guidelines of the National Focal Point regarding the eligibility of costs and small-scale procurement and the call documentation developed by the PO.

Project promoters and project partners were required by the PO to follow the selected rules related to the project realisation and public support of research stated in the project contract.

The PO always intended to be understandable and transparent and wanted to avoid any conflicts of interest, fraud and irregularities. There was zero tolerance of corruption in the system. This attitude was emphasised at meetings with applicants and project promoters. In the end, no suspicions

of corruption were detected.

As to the issue of fraud and conflicts of interest, which is a very serious threat in the evaluation process, the evaluation of project proposals was organised at the international level and the PO addressed independent and qualified experts from abroad (a minimum from the Beneficiary and Donor states), thus potential conflict of interest was eliminated to a negligible level (see Section 7). Additionally, the staff who worked for the PO undertook through declarations to respect impartiality and confidentiality and to avoid any conflict of interest (such as no vote for a member of the Committee if applicable for a proposal or a project which was submitted or run by the same employer).

Regarding transparency, communication channels towards the beneficiaries in the Czech Republic and Norway were worked on to find efficient and improved methods of communication. Furthermore, another way to manage the Programme more efficiently was to organise training for applicants and project promoters in the Czech Republic and Norway, or to arrange regular meetings with stakeholders (RCN, NFP). The management at the programme and project levels were educated through the PO's statements published on the programme website and interpretations in a "Frequently asked questions" section (FAQ). All necessary documents and information sources were also accessible on the PO's website (see Section 11).

Finally, the PO closely consulted on issues and cooperated with the Research Council of Norway, National Focal Point, the Certifying Authority and the Programme Committee via personal meetings or correspondence ("per rollam").

The operational, flexible and intensive cooperation with the NFP and CA should be emphasised. There were regular meetings on recent issues at programme and project level (such as fund spending, calls for proposals, bilateral and complementary actions carried out, reporting, eligibility of costs, etc.) with the NFP at least once a year in the implementation period. The PO, NFP and CA were in touch via frequent email correspondence or phone calls. The authorities also attended events and Programme Committee meetings.

The PO established a Programme Committee (hereinafter "PC") of 5 members and their deputies (4), consisting of representatives from the Donor state and the Beneficiary state in April 2013. The PC included members of the research community and significant users of research in both states. The Donor Programme Partner appointed members from CICERO (expertise in the Environment area) and Arctic University of Norway (Social Sciences and Humanities area and Health area). The PO appointed members from Charles University (Health), from Masaryk University (Social Sciences and Humanities) and from Institute of Organic Chemistry and Biochemistry ASCR, v.v.i., (Environment), and the vice members from Global Change Research Institute CAS (Environment), from Institute of Sociology CAS (Social Sciences and Humanities) and from Czech Technical University in Prague (Environment). The PC was chaired by the expert from Charles University, Prague.

The PC met regularly once a year, usually in the spring (second quarter of the calendar year). Representatives of the FMO, NFP, CA and Royal Norwegian Embassy were present at the meetings as observers. The meetings were called by the PO. All documents regarding the Programme were in English, and the PC meetings were conducted in English. Crucial issues (for instance texts of calls and guidelines, evaluation of proposals or progress in running projects, selection of proposals) were debated and approved at the meeting. Central elements of the discussion and decisions from the meeting were recorded in agreed minutes. The agreed minutes were drafted by the PO and sent to members of the PC not later than 10 working days after the meeting, and were approved by the members "per rollam" (such as via e-correspondence). The PC worked responsibly on its tasks which included:

a) approving the selection criteria and the texts for the calls for proposal; b) recommending to the PC

which proposals to select for funding and final awarding of grants; c) reviewing progress made towards achieving the objectives of the Programme; monitoring the implementation of the research programme by the PO; e) reviewing annual programme reports; f) proposing revisions to the research programme likely to facilitate the achievement of the programme's objectives to the Donor state(s) and Beneficiary State; and g) adopting a Guide for Applicants and Guidelines for Evaluators.

At the project level, the PO executed controlling activities according to the FM and national rules. They were applied from the desk (such as monitoring periodic reports) and at the premises of the entity (public-law controls). For more see Section 8.

Principles of good governance were used and followed in the project selection procedures which are described in Section 7.1.

Lessons learnt and recommendations:

- This kind of programme requires larger personnel capacities which should be composed of methodologists, controllers, lawyers, event and marketing staff, etc.
- An information and reporting system is necessary to implement the Programme in a more efficient and user-friendly way.
- The PO and DPP should work with Norwegian project partners more directly and ask for contacts working on projects for the partners.
- The Donor country should become familiar with the legal framework of the Beneficiary states.
- It is recommended that the Donor country develop common FM reporting and financial templates.
- The PC is able to provide feedback and ideas which improve the quality of the Programme implementation.

Sustainable development

The Programme officially ends on 31 December 2017 but it is believed that the achieved outcomes will affect participants' future plans and work and have effects on the next bilateral collaboration in 2014-2021 (see Sections 3 and 6). The results originating in the research projects within three priority areas will continue to resonate in various thematic fields such as environmental preservation, medicine, healthcare, protection and services, social services, therapies, water management, air pollution, fishery, carbon capture and storage and industrial production after Programme completion.

From a different point of view, all the research projects (environmental, health, social) worked on finding facts, data, knowledge, approaches and solutions to solve issues and problems touching a local area or a small community that may directly or indirectly affect the national economy positively and increase social welfare. The references of the publications will be stored in the national information system for research and development.

The Czech-Norwegian projects that were for instance environmentally friendly in their cross-cutting activities will contribute to raising awareness about the importance of environmental policy at local, regional and national level and may contribute to enhance living standards (such as the 7F14045 PASSES, 7F14330 ISOFIN and 7F14341 AQUARIUS projects).

The outcomes of the research projects from the Social Sciences and Humanities priority area may also contribute to social sustainability and understanding (7F14047 HABIT, 7F14058 INNCARE, 7F14442 PERIF) by doing research with, on and for diverse target groups in terms of age, status or gender (e.g.

young researchers, experienced ones, families, inhabitants, the disabled, patients, the unemployed and female researchers after maternity leave) that experienced participating in project activities.

Gender equality

Since science and research are part of everyday life, women are naturally involved in this area. No legislation existed in either country that would restrict women in research. Nevertheless, they may have more difficulty building their careers because their path can be interrupted by childbirth, therefore, they as well as their partners may need familial or societal support and assistance to return back to work. Responsibilities for child care can pull them away from, for instance, building their career, higher incomes, promotion, professional qualifications, status, social and work connections, etc. In the Czech Republic, maternity and parental leave can last up to three years, one of the longest in the European Union. During this period women, especially single women, have a worse position when returning to their profession and catching the “flow”.

Due to their physical conditions, experience, upbringing, education, talents and skills, based on biological differences, women are able to come up with new solutions, approaches and ideas that present another perspective, thus increasing women’s involvement may positively influence the supported area and our society.

The Czech Republic follows trends coming from the Western European countries. There has been a trend to encourage women to get involved in areas where men have dominated. Roles and human activities are also becoming more universal. The traditional understanding of men's and women's roles is fading. However, the gender proportion may be influenced by subjects, the attraction of fields (such science vs. social sciences and humanities), organisations’ policies, life experience, biological phase (maternity leave), or generational strength.

In the first place, the Programme was not set up to solve gender issues in its implementation period but supported scientific excellence which did not exclude women from the Programme at all. Gender issues were taken into consideration both during the drafting of the Programme (such as output indicators) and its implementation (such as designing calls). The Programme aimed at increasing the participation of female researchers, including the involvement of researchers who have returned from maternity/parental leave (see Sections 3 and 5.1), so it contributed to the gender equality topic.

The calls for proposals with the same requirements and information sources were accessible for both genders. The project proposals submitted by male and female researchers were treated equally under an identical evaluation procedure. When the project proposals were assessed, the principles of the equality of men and women and equal access of women and men to education were followed as a one of the sub-criteria.

The PO also monitored the number of female researchers in the projects (see Section 3). The 7F14058, 7F14208 and 7F14442 projects together gave jobs to six returnees, two each. 7F14156 even brought in three female scientists who were returning from their maternity leaves.

Lessons learnt and recommendation:

- Share of participation of both genders cannot be forecasted.
- Support of researchers who have returned from maternity or parental leave should continue.

- The gender equality aspect is worth including in the Programme concept.

4.3. Capacity building

As for capacity building, according to Annex 12 of the Regulation “*The research programmes shall strengthen capacity and build the competence of Programme Operators, Project Promoters, project partners as well as researchers*”. Capacity and competence building was conducted at the programme and project level. It could be carried out through the openness of the calls (young researchers, graduates, or even undergraduates in bilateral initiatives as target groups), training, study and work trips, mutual discussions and meetings, preparation of joint project proposals, writing (joint) publications, or networking. On the other hand, competence might also be obtained thanks to personal experience and lessons learnt.

At the programme level, thanks to the Norwegian financial mechanism, the PO interacted with the Norwegian financial and administrative environment and practices, different values and attitudes. Through Programme funds, the PO’s staff attended two two-day training courses, *Finance in FP7 and into Horizon 2020*, conducted by Singleimage in Cambridge, UK and Brussels, Belgium. The training concerned issues of consortium projects, budgeting, direct and indirect costs, timesheets, subcontracting, terminology, financial reporting and payments plus practical exercises. The PO also executed study trips to explain the rules of the Norwegian financial mechanism and the Programme, to get more experience in European research programme management, and in Norwegian institutional culture and practice (visits to the DPP’s and project partners’ premises in Oslo and Trondheim in April and September 2015). This might bring Czech programming closer to European standards.

At the project level, the most valuable and very positive attribute of the Programme was that it allowed young researchers got work and international experience, which is rare in recent running programmes, mostly set up for experienced scientists. They could begin and evolve their careers faster and establish their own teams sooner. This has had a multiple positive impact on the whole area and society as well.

Assessment

On the other side, the Programme had one very significant effect on all stakeholders. It revealed the weaknesses of stakeholders, for instance a lack of qualified and English-speaking workers (e.g. accountants), missing or insufficient technical, legal and administrative support, missing information systems, miscommunication between participants or in-house. However, the positive effect could be that this experience forced stakeholders to change their thinking on how to prepare project proposals better next time, how to reorganise internal structures (establishment of projects and law departments), how to strengthen personnel in terms of numbers and competencies, and how to improve the organisational background to prevent or decrease financial damage and time loss in the future.

Regarding the private sector, the number of involved small and medium-sized enterprises (hereinafter “SMEs”) was low in the research projects (4). This might have been caused by the grand competition or by limited capacities of SMEs to apply for funds, which resulted in a low number of submitted proposals. Overall, there is space to encourage SMEs to participate in such bilateral cooperation.

Lessons learnt, recommendations and added values:

- Courses that provide current information on programme and project management are useful.
- The Czech stakeholders at the project level usually called every programme “the Norway Grants”. They did not distinguish among programmes and providers.
- It is necessary to exchange information about national customs, practices and legal frameworks

with stakeholders, connect them with consequences and explain them.

- Complementary actions improving the competences of the PO's staff are considered very useful (see Section 5.3). It is recommended to begin studies as early as in the preparatory period.

5. Reporting on bilateral relations

5.1. Bilateral outcomes

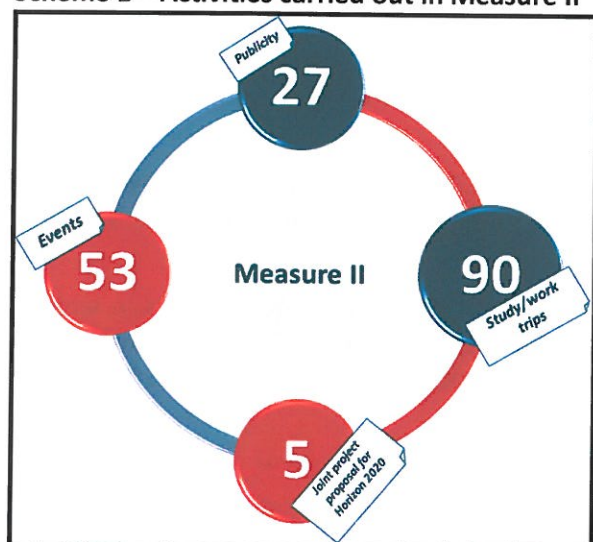
The PO had 699,084 EUR (4% of the Programme budget) available for enhancing bilateral relations between the Donor country and the Czech Republic above project level under the Fund for bilateral relations. This item was intended to support establishing new relations and deepening partnerships not only in the starting project phase but during the implementation in order to encourage preparation of applications in the major call for proposals (Measure I) and still boost establishing new and developing already established bilateral relations (Measure II).

In **Measure I**, the PO utilised CZK 532,000 (4% share of Measure I) to reimburse preparatory costs of those applicants that applied for the costs and succeeded in the major call in 2013. Only 5 selected projects¹⁴ (7F045, 7F14341, 7F14358, 7F14466, 7F14500) requested to reimburse the preparatory costs. The unused funds were shifted to Measure II and used in later call for proposals in 2016.

Extent of cooperation, shared results, improved knowledge and mutual understanding, wider effects

In **Measure II**, regarding final main achievements and output indicators, the Programme supported 455 female researchers (13 of them returning from maternity leave), 205 PhD students and 132 Post-docs from the Fund for bilateral relations.

Scheme 1 – Activities carried out in Measure II



Based on the submitted final reports, study and work trips were the most popular type of activity (90 times). The second most popular activity was organising and/or participating in bilateral events (53). The participants chose publicity activities 27 times and preparation of joint proposals 5 times. The PO's and PC's intention was to encourage more sustainable collaboration through joint proposals with wider effects of additional funding and extending research activities, capacities, competences and knowledge. It also relied on the timing and demand of forthcoming and available calls in the Horizon 2020 programme. However,

preparing and organising work and study trips might be the easiest activity for the applicants considering the short realisation time. See Scheme 1.

¹⁴ Preparatory costs were reimbursed only the successful research projects.

Good example of study and work trip (extent of cooperation): Agrovyzkum Rapotin arranged a study trip for Czech staff to the Norwegian Institute of Bioeconomy Research's Norwegian research stations in Tromsø and Tjøtta. They exchanged knowledge in the following research areas: 1) Climate change; 2) Grassland biodiversity and productivity; 3) Remote sensing; and 4) Soil quality and plant production (7F16018, Final project report, p. 2).

Good example of events (improved knowledge and mutual understanding): VŠB-Technical University of Ostrava and the Norway Institution Stiftelsen Tel-Tek, Porsgrunn organised two bilateral sessions about bilateral cooperation and exchange of expertise in the field of the transport processes of bulk materials. They also demonstrated the equipment in their testing laboratory for measuring and characterising the properties of bulk materials (7F16032, Final project report, p. 2).

Good example of publicity (shared results): The Norwegian University of Science and Technology, Trondheim and Brno University of Technology in project 7F16025 made leaflets related to a workshop, a presentation by Norwegian researchers and posters at a workshop and conference (7F16025, Final project report, p. 4).

Good example of joint proposal preparation (wider effect): Brno University of Technology prepared and submitted in cooperation with the Norwegian Institute for Water Research, Oslo a joint proposal to the challenges of "Widespread: Twinning" (7F16021, Final project report, p. 5).

Besides the output indicators, bilateral initiatives (34) were usually composed of one Czech promoter and one Norwegian partner (besides the 7F16034 initiative which had 3 partners, one from Norway). The partnerships were often put together by research organisations. No SME participated in the initiatives.

Masaryk University in Brno (9) and Brno University of Technology (3) on the Czech side and the University of Oslo (6) and the Arctic University of Norway in Tromsø (4) on the Norwegian were the most active and successful applicants. Compared to the first call in 2013, new applicants from regions were selected in the second call and participated in the initiatives, which was a positive phenomenon, less concentrated in the capitals.

Regarding types of entities, 26 universities were involved (12 Norwegian), 2 small and medium-sized enterprises (0 Norwegian), 10 institutes (8 Norwegian), 2 foundations (2 Norwegian) and 1 university hospital (0 Norwegian).

Medicine (4 times), the environments (3) and chemistry were the most frequent fields in which the participants were exchanging knowledge and strengthening bilateral collaboration. Study and work trips and events were the most popular activities. Joint project proposals for the Horizon 2020 programme appeared 5 times in the contracts (see the scheme).

The principal investigators Mrs Jirsová from 7F14156, Mrs Žáčková from 7F14236 and Mrs Bártová from 7F14369 who were running their research projects succeeded with their initiative proposals, got their bilateral activities funded and extended the bilateral dimensions of their projects.

In Measure II, the call for proposals no. MSM20167F001 was launched by the PO on 18 July 2016. It was opened by 20 January 2017 and accessible to all eligible entities, not only to project promoters. A total of CZK 17,993,000 was available in the call. The allocation to the call was increased via PA

amendments¹⁵ in order to utilise funds from regranting which had remained during the implementation thanks to savings or favourable procurement results. The bilateral funds should enhance reaching the bilateral goals and encourage the scientific community to establish or extend already established partnerships, networking, sharing knowledge and experience, organising or attending bilateral events, preparing joint research proposals in the Horizon 2020 programme to build up capacities and sustain research cooperation between entities (research organisations and SMEs) from the Czech Republic and Norway.

In this call, 42 proposals were submitted between 18 July 2016 and 20 January 2017. Seven of them had to be declined by the PO due to irrelevant subjects to the call topic. Overall, 35 proposals were selected in cooperation with the PC for funding to a total amount of CZK 17,963,000. The success rate was 83%. In the end, 34 initiatives completed their activities. One initiative was not finished.¹⁶ The promoters actually incurred CZK 13,881,227 in total (77%), see the table below. This lower spending could be credited to overestimated budgets and shorter realisation times.

The PO fulfilled its commitment towards the promoters and transferred all payments to their bank accounts according to the project contracts. CZK 6,606,000 (36%) went to the Norwegian partners.¹⁷

Table 1 – Total allocation and grants actually allocated by the PO within Fund bilateral relations in the eligible period (in CZK)

Fund for bilateral relations Total allocation		
	18,525,726 (EUR 699,084)	4% of the Programme budget
Measures / Expenditures	Actually allocated by PO between 2013-2017	Actually incurred by PPs between 2013-2017
Measure I – preparatory costs	532,000	532,000
Measure II – bilateral relations	17,963,000	13,881,227
Total expenditures (in CZK)	18,495,000	14,413,227

Note: PPs = project promoters.

Lessons learnt, wider effects, assessment and conclusions on what did and did not work:

- The Czech research community was very interested in participating in a match-making event organised by the PO in Prague. On the other side, it was expected larger attendance of Norwegian representatives (9 representatives). Total attendance: 136 attendees.
- The RCN's database of research organisations helped searching for a potential Norwegian project partner.

According to discussion with Czech principal investigators at the final conference, networking

¹⁵ The PO also requested the FMO and NFP to have the Programme agreement modified in association with Measure II being opened to all eligible entities beyond the Programme, so not only stakeholders from running research projects could apply. The modifications were approved by the FMO and NFP.

¹⁶ The 7F14041 initiative had its support withdrawn on the request of the promoter because the Norwegian partner, the Norwegian University of Life Sciences, Ås stopped communicating.

¹⁷ A few promoters paid for the activities of their project partners from Norway from their budget.

and establishing new research partnerships and scientific teams or developing already established cooperations increase researchers' chances of being successful in their careers. They could see that their routine work may be common but new impulses possibly emerge from international collaboration which can improve their expertise. Researchers from both countries found how different or similar both countries are in their values, organisation, life style, countryside, social issues, legislation, work methods and approaches, technical and personnel support, concepts of smart cities, agronomy, culture, art, etc.

For the Czech scientists, the successful establishment of new partnerships depends on serious negotiations, concrete actions and the partners' real intentions, attitude and determination: simply if Norwegian partners mean and take (starting) cooperation seriously.

In some cases, a pleasant working atmosphere helped to create the essential background for friendly relations or even friendships. This proves that personal factors play a very significant role in bilateral collaboration. Contrarily, irresponsible behaviour, miscommunication, disrespect for rules and requirements and broken deals did not work and ruined the partnerships (e.g. 7F16041).

5.2. Donor partnership programmes

There was one Donor Programme Partner (hereinafter "DPP") – *the Research Council of Norway* (hereinafter "RCN") based in Oslo – involved in the Programme.

The DPP served as an advisory body on research policy issues and the system of the Donor state. It introduced and explained Norwegian international cooperation objectives, strategies, policies, focuses, priorities in research (for instance distribution of responsibilities and structures). It established contacts among applicants between both countries in preparatory phases of projects. It was also able to identify the needs of the research community in Norway and generally. It fostered cooperation and sharing of lessons learnt and experience with particular programme implementation among the POs from the Beneficiary states. It also facilitated and organised their meetings as well as study trips to Norway, sessions with the Norwegian project partners and publicity for all research programmes co-funded from EEA/Norway Grants 2009-2014 (such as outreach events – a Norway Day in Brussels and Oslo, an EARMA conference in Lulea, poster presentations, POs workshops, see Section 5.3). In general, it very much enhanced constructive dialogue, the quality of the Programme implementation and the competences of the PO.

Furthermore, the colleague from DPP actively participated in designing the Programme concept, the Programme Committee, the calls for proposals and relevant call documentation (such as guides), helping with information meetings with the Norwegian project partners and providing information about the DPP organisation. It attended PC meetings as an observer. It reported the Norwegian project partners' concerns and protected their interests as well as balancing the PO's opinion. Sometimes it mediated dialogues between the PO and the Norwegian project partners.

On the other side, the information campaign on the RCN's website could be improved. It would be appreciated if more detailed orientation on the programming, technical practice and legal national framework of providing public support in research area in Norway was provided.

Overall, no doubt the DPP contributed to the development of bilateral relations at the interstate and programme level. It positively affected the implementation and it could supplement the PO's actions, too. In general, the DPP fulfilled its role stated in the Programme concept, because the partnership between the PO and DPP lead to enhancement of the programme objective and outcome achievement.

Concerning partnerships at the project level, the PO made sure that joint research projects and bilateral initiatives would involve at least a couple of Czech and Norwegian eligible entities, so they had to

contain one Czech and one Norwegian research organisation or SME an. This condition was mandatory in the calls (for more see Section 7). The eligibility of entities was defined in the Community Framework for State Aid for Research and Development and Innovation (2006/C 323/01). There was no formal limit as to the maximum number of partners (Czech or Norwegian). A third party could also participate but without any financial support.

The Programme was open to partnerships with or without additional funding from other sources; with different kinds and numbers of project partners; based on already established cooperation between partner(s), as well as projects establishing and building new partnerships; or with or without a link to other programmes (including other Norway/EEA Grants programmes). These conditions (existing additional funding, number of partners, etc.) did not place any project in a more favourable position compared to others in the evaluation process.

The establishment of such partnerships was encouraged and facilitated through organising one matchmaking event in May 2013 (see Section 11) and providing consultations and a database of Norwegian entities in cooperation with the DPP. On top of that, the successful applicants received a lump sum in the amount of CZK 128,000 per project to cover their preparatory costs in Measure I (Section 5).

The PO required all consortiums to adjust and regulate their mutual relationships, activities and roles in a partnership agreement in line with the requirements set out in Article 6.8 of the Regulation and with the national legislation and call conditions. Making such an agreement tailored to the particular proposal was the responsibility of the applicants. However, the PO provided a template "for inspiration". A draft had to be attached to the project proposal but the signed partnership agreement had to be submitted to the PO before issuing the project contract.

The expected outputs to be achieved by the bilateral consortiums included: internationally refereed (*joint scientific*) publications published on the basis of the results of the project; active involvement of female researchers; active involvement of PhD students and Post-docs; involvement of researchers who have returned after maternity leave; close cooperation between the partners involved in the project from the Czech Republic and Norway with the aim of building sustainable cooperation for future activities; knowledge transfer, sharing of experience and best practices; research and development results including e.g. patents, models, prototypes, designs, and plant varieties.

For the achievements and their assessment, see Sections 3, 4 and 5.

Lessons learnt, assessment and recommendations:

- Having the DPP in the Programme was very helpful.
- Applicants underestimated the importance of the partnership agreement for project realisation.
- The submission of the partnership agreement as an attachment to the project proposal was troublesome for the applicants due to lack of time and technical support given by employers. They considered this condition an administrative burden.
- Setting out involvement of at least Czech-Norwegian couples of eligible entities is found useful as a guarantee of future collaborations and to avoid their degradation during the implementations.
- The mobility of research staff pertained to favourite activities which might increase their motivation.

5.3. Complementary actions

The PO had EUR 147,059 available in the Complementary action item for strengthening cooperation between the PO and similar entities within the Beneficiary States and Norway, as well as international

organisations, and exchanging experiences and best practices related to the implementation of the programme.

However, due to lack of personnel capacity, this budget item was modified and the budget decreased from EUR 147,059 to EUR 90,781. The amount was shifted to the Fund for bilateral relations to use these funds efficiently at the project level. The modification was approved by the NFP and FMO.

The PO consumed only 22% of the budget for covering participation of the programme management team at joint events and seminars organised by the FMO or international stakeholders (costs: travel allowances, air tickets, accommodation, refreshments, rental). Nevertheless, representatives of the PO were active and attended meetings of the programme operators from the Beneficiary countries such as Estonia, Latvia, Poland and Romania with the Donors and international conferences and shared their experience and best practices in administrative issues, for instance communication, social media, settings of calls for proposals, evaluation processes, programme concepts, co-financing, reporting, differences and obstacles in the programme and project implementations, so several actions were carried out as follows:

In November 2013, the PO attended an international meeting of programme operators from the Beneficiary states with the Donors (Research Council of Norway – RCN, the Donor Programme Partner) in Warsaw, Poland. The goal of this meeting was to discuss technical and administrative issues such as preparation of calls for proposals, processes and evaluating submitted proposals.

In June 2015, the PO joined a workshop for programme operators organised by the Financial Mechanism Office in cooperation with the Research Council of Norway in Brussels, Belgium. It was focused on communication and publicity in research in general and the Financial Mechanism's publicity rules in compliance with Annex 4 of the Regulation. The session provided training in communication skills, knowledge and tips to promote research and projects in programme implementation. The POs shared their experience with publicity for projects in their countries and discussed how to improve publicity for research and running projects. There was also an outreach event "Norway Day" where POs presented basic data of their programmes and had a panel to respond to queries on progress and lessons learnt from invited representatives of European entities seated in Brussels.

In October 2015, the PO participated in another POs workshop organised by the RCN in Oslo. This was targeted at reporting at all levels. The POs learnt about Norwegian international research cooperation with EU and non-European states. They also presented their systems of research support in their countries to an audience from the RCN and embassies. The meeting included reporting from a project partner, programme operators and Financial Mechanism Office representatives. The participants compared their own report templates, shared experiences and practices and discussed procedures and measures associated with reporting process.

In June 2016, the PO attended a workshop for programme operators organised by the RCN, and the annual conference of the European Association of Research Managers and Administrators in Lulea, Sweden. The subject of the event was an exchange of experiences and good practice in the implementation of bilateral research programmes, ensuring that the experiences and lessons learned from the current programming period were formulated and communicated to relevant actors working with the preparation of the next funding period.

In November 2016, the PO organised a conference regarding the interim results and sharing experience in Prague. The PO and selected principal investigators presented the programme, projects, and experience to the public and stakeholders.

Assessment and lessons learnt:

- The complementary actions were found useful because of team building, seeking administrative

synergies, comparisons of programme practices and settings, exchange of knowledge and experience and capacity improvement at the programme operators and the Donor side.

- Not all Norwegians have awareness of the Norway Grants.

6. Reporting on sustainability

The sustainability of bilateral research cooperation and its results can hardly be assessed immediately after the Programme closure, since there needs to be some time for it to be proved later on, especially when most of the outcomes arose and activities belonged to basic research.

The Programme has opened “doors” widely for Czech scientists to Norway and enhanced international cooperation more intensively between the two states, ensured stronger connections between them, encouraged transferring methods, know-how and knowledge, and increased the capacity of young researchers and scientific mobility within the research project and the bilateral initiatives. This period of Norway Grants 2009-2014 has established many functional ties that persist and are sustainable.

Regarding the sustainability of the outcomes originating in the research project, according to the post-completion conditions in the project contracts and the national legislation, the project promoters have a duty to keep the purchased technologies in ownership, provide proper maintenance and assurance, and to inform about the research outcomes of the projects via the Ministry of Education, Youth and Sports in the **national information system for research, development and innovation**, where they will be stored and made accessible to the wider public and research community.

Concerning the sustainability of bilateral cooperation, based on the submitted final project reports, the majority of the principal investigators (73%) responded that they are planning further projects with their Donor project partners (see the table below). Two out of the 23 projects confirmed that they have even signed formal agreements for the forthcoming period. The established partnerships will continue in almost all of the institutions: only one project announced that the cooperation has no further follow-up for the immediate future.

What is more, eight joint project proposals have been submitted to other programmes (Eurostars, Horizon 2020, operational programme for research, development and education, programmes run by the Research Council of Norway), and five new joint projects have arisen from the current partnerships and have generated additional funds to the amount of around CZK 100,000,000. These results of the “survey” are promising for the future programme period 2014-2021.

Table 2 – Sustainability of bilateral research cooperation reported in final project reports

Will cooperation with the Donor project partner(s) continue after the project is completed?							
Yes – a formal agreement	2	Yes - planned	17	MAYBE – no plans yet	3	NO	1
Total number of joint applications for further collaboration						8	
Total number of long-term cooperations (new projects) resulting from the partnership						5	

Good examples of sustainable collaboration:

The 7F14358 AD-Bang project by the Czech Technical University in Prague and a small and medium-sized enterprise Integrated Detectors Electronics AS from Oslo has received another grant from the Eurostars programme and is seeking new opportunities to elaborate a sensor device.

The Institute of Thermomechanics of the CAS, v.v.i. from Prague, the project promoter of the 7F14466 CCSPHase project, together with Sintef from Trondheim, have prepared two joint project proposals and have had a new project titled “*BIO-CCS/U – Research centre for low-carbon energy technologies*” funded from the operational programme for research, development and education.

Masaryk University from Brno, the project promoter of the 7F14058 INNCARE project, along with NOVA from Oslo succeeded with a NEGOTIATE project in the Horizon 2020 programme.

Lessons learnt and recommendation:

- Based on participants’ feedback, the keystones of cooperation sustainability and its development are long-term personal relations and personal contacts.
- Impacts of the research outcomes can be visible for a longer time since their submission.
- It is advisable to enable to implement projects beyond their eligible period even without funding from the Programme, for instance 6 months, to complete activities and deliver elaborated results.

7. Project selection and implementation

7.1. Project selection

Two calls for proposals were organised by the PO in the eligible period – one major call in 2013/2014 under the main outcome *Increased research cooperation between Norway and the Beneficiary States* in compliance with the Norwegian financial mechanism (Annex 12 of the Regulation) and national rules (Act 130/2002 Coll.) and one under the Fund for bilateral relations in 2016/2017 (separately described in Section 5). The calls were characterised by applicants’ interests, but the Czech and Norwegian research communities were enormously concerned about the first call. That is why Section 7.1 is dedicated to it, since 89% of the Programme budget was allocated to basic activities and applied research and experimental development in three priority areas – *Environment, Health and Social Sciences and Humanities*.¹⁸ The Programme targeted research organisations and SMEs.

The major call for proposals was announced on 29 November 2013 and closed on 3 February 2014. There were 389 proposals submitted in the call: 6 proposals did not meet the eligibility criteria which was checked by the *Commission for proposals submission*, and therefore were rejected from the evaluation process.

In the next step, according to Annex 12 of the Regulation, 383 project proposals were evaluated by international independent experts – three evaluators per project application – from around the world (Japan, the European Union, non-EU countries, the US, Canada, Australia, Chile). Due to a reconstruction of the EU expert database, the task was very challenging for the PO and the PO had to face obstacles in finding thousands of potential independent evaluators, including distant communication, receiving evaluation reports from them on time and assessing all proposals in the limited time period to meet the deadlines. The proposal evaluation period lasted from 4 February 2014 to 10 June 2014. During this

¹⁸ The structure of the priority was simplified to three main areas compared to the Programme concept. Funding basic and applied research and experimental development remained. Research organizations obtained up to 100% funding. SMEs received co-financing up to 100% in basic research, 50% in applied research and 25% in experimental development.

period the PO was mainly searching for international independent experts as potential evaluators, addressing them, collecting individual and consensus reports evaluating projects and verifying the received reports.

After the evaluation reports were gathered, a ranking list of proposals based on consensus reports was submitted to the PC. The PC was composed of five voting members – three from the Czech Republic and two from Norway, pursuant the PA. The PC recommended what proposals ought to be selected for funding at a meeting at the premises of the Ministry of Education, Youth and Sports in Prague on 11 and 12 June 2014. The selection procedure following the requirements of Annex 12 of the Regulation was conducted under the monitoring of the DPP and NFP, the FMO and the Norwegian embassy in the role of observers. The DPP assisted the PO to carry out the selection process correctly in compliance with the principles of good governance and the financial mechanism rules (helping with the meeting organisation, giving explanations of the FM's rules and ideas in the discussion, overseeing a calculation of 20% for the SSH area, cutting budgets, making the reserve list, etc.).

On the basis of the PC's recommendation, the minister approved grant awards to 19 project proposals listed according to their rating with an emphasis on research excellence and also meeting the 20% share of the regranting item for the Social Sciences and Humanities area set as obligatory in the Programme Agreement. The success rate was 4.9%. An additional seven good-quality project proposals were on the reserve list which could not be currently supported due to using the whole call allocation. In total 357 project proposals could not be supported. The results of the call were announced on the PO's website on 15 July 2014. The results can be found at: <http://www.msmt.cz/vyzkum-a-vyvoj/czech-norwegian-research-programme-cz09-announcement-of-the>.

Subsequently, at the end of 2014, Masaryk University in Brno, one of the project promoters, withdrew Project 7F14183 from the Social Sciences and Humanities area from the grant due to personnel reasons and returned the payment back without delay. Therefore, the PO substituted this project with another project with ID 7F14442 within the same priority area from the reserve list. After that, there was no "social" project left on the reserve list. The project contract for 7F1442 was issued in May 2015. This "social" project had a lower budget than the originally supported one (i.e. 7F14183), so there still remained funds to be allocated with the aim to approach a minimum 20% share for the Social Sciences and Humanities priority area (SSH area) in the budget, pursuant the PA.

In 2015, the CZ09 Programme underwent a substantial modification – there was a reallocation of funds remaining from the CZ08 Programme so the PO could support further research projects from the reserve list. Additional funds were sufficient to support four of the reserve projects. However, all of the budgets of the reserve projects had to be slightly cut down. The projects with IDs 7F14045, 7F14122, 7F14155 and 7F14392, mainly from the Health and Environment priority areas, located in Prague (3), were decided to be funded according to the ranking, and the PC confirmed the decision at the meeting on 27 May 2015. To sum up, four reserve projects were supported after the Minister's approval on 7 July 2015, i.e. in total 23 projects (19 + 4) started and were completed.

In the first and second quarters of 2016, the PO adopted measures to allocate leftovers for research activities in the SSH area to the Programme Agreement condition. So the funds reserved for the SSH area were offered in an addressed call to the already running research projects to realise additional social activities in accordance with Article 6.9 of the Regulation to meet at least 20% dedication to the priority area of Social sciences and Humanities. Nevertheless, not all the remaining funds were still contracted (see section below).

By the deadline, five proposals for additional funding had been submitted by project promoters. One project promoter from Project 7F14058 from Masaryk University did not meet the formal criteria. Then the other four submitted proposals (7F14047, 7F14122, 7F14236 and 7F14341) were evaluated by foreign independent experts, approved for funding within the social and humanities activities

and received additional grants to a total of CZK 8,953,000 (approx. EUR 337,849) for the 2016-2017 period (ending on 30 April 2017). The revised project contracts were issued and signed by the PO in August 2016. The number of the 23 supported research projects remained until the end of the programme. The list of projects can be found at: <http://www.msmt.cz/vyzkum-a-vyvoj-2/projects>.

In 2016, the PO requested the Financial Mechanism Office and the National Focal Point to modify the Programme Agreement in order to shift the leftovers from the “regranting item” to the Fund for bilateral relations to support more bilateral activities within the prior programme area (see Section 12.2). Then another open call was announced within the Fund for bilateral relations at programme level – see more in Section 5.1.

7.2. Project implementation

Twenty-three research projects were funded in the Programme (see Annex 1). The reason why “only” 23 research projects were funded was that most selected project promoters requested and gained nearly the maximal limit of a single grant – i.e. €1,000,000, so the call allocation would cover fewer than 40 projects. Besides, the PO did not decrease the grants to all projects to approach the target because this could jeopardise their outcome deliveries which would also undermine the achievement of the main goal of this Programme. However, the project implementation brought many positives (Sections 3, 4, 5):

- Their maximum eligible period lasted up to 33 months – from 15 July 2014 to 30 April 2017. Projects from the reserve list which started in May or July 2015 had less time for realisation.
- The Programme opened “the doors” for Czech researchers to costly Norway and stimulated interest in Norwegian-Czech scientific collaboration based on the enormous number of submitted applications (389).
- New partnerships or contacts have been launched and already established partnerships have been deepened (e.g. 7F14083, 7F14358, 7F14208).
- Many talented young researchers were involved in the projects and their expertise was improved.
- The Programme obtained additional allocation from the Ministry of Finance of CR enabling it to fund four reserve research projects.
- The principal investigators (hereinafter “PIs”) delivered new knowledge and more outcomes than was promised and planned.
- All projects contributed to the Programme output indicators (Ph.D. students, Post-docs, etc.).
- The project promoters usually communicated and consulted on administrative issues.
- The project coordinators and even PIs were present at the information meeting organised by the PO.
- The PIs always attended on-the-spot controls at their premises.
- No corruption cases occurred.
- The PC assessed most of the research projects as outstanding (13), 7 very good and 3 good (average).
- All projects physically finished their activities on 30 April 2017 except one (7F14392 on 20 April 2017).

Despite the positives, there is still much space for improvement. From the PO’s experience and

observation, the stakeholders had to cope with several obstacles and issues in the Programme and project implementation which brought lessons learnt.

- The PO and the participants had to follow many different rules – European, financial mechanism of Norway, national and internal rules.
- The administrative burden (financial, legal, publicity, distant cooperation) was underestimated by the PO and participants at the beginning when they were preparing their proposals.
- The modification of projects during implementation led to additional administrative work – if the project budget was not set up properly in the proposal, it brought an extra administrative burden to adjust it.
- Weak or missing technical support to the principal investigators such as from 7F14122, 7F14341, 7F14369 projects brought time and financial losses.
- Differences in project management practices in the Czech Republic and Norway such as accounting and financial reporting created difficulties and misunderstandings on both sites.
- Intensive and personal communication was crucial. Distant and impersonal communication in a third language created difficulties, especially in lower positions at the Czech entities, and misinterpretations occurred easily between the partners.
- Different economic and cultural customs and standards such as living costs, number of holidays, work regimes, values (free and family time, trust) and attitudes influenced the programme and project implementation.
- The project participants struggled with financial issues such budget modifications, transfers between years, proving at least 70% spending of the previous payment, reporting actually incurred costs (different exchange rates), delivering audit reports or setting indirect costs in the proposals and later their calculations.

The PO observed the projects and put measures in place such as more transparent information sources, personal or on-the-spot consultations, direct communication with participants and training (Section 11). All project participants contributed to the achievement and fulfilment of the main objective of the Programme if the targeted values and actual state are compared (Section 3).

8. Monitoring and audit

During the reporting period, the PO undertook according to the Programme Agreement to monitor and report the progress and state of the implementation (financial, outputs, etc.), as did the project promoters (scientific and financial progress and outcomes).

At the programme level, a detailed annual monitoring plan of the PO was conducted of a sample of projects, selected on the basis of risk assessment and including random samples. Detailed monitoring for the projects was presented in the Annual Programme Report. Information on monitoring was outlined in the description of the Programme's management and control systems according to Article 4.8.2 of the Regulation. The PO controlled at least 5% of the research projects, additionally at least 5% of the provided institutional support in a particular calendar year (according to Act no. 130/2002 Coll.).

The PO in cooperation with the Department of Controls, responsible for controlling actions at the Ministry, set up a control plan. The controls were executed in compliance with Act no. 133/2002 Coll. and Act no. 255/2012 Coll., on Financial Control, as amended. Between 2015 and 2017, the PO

controlled six projects at their premises: 7F14047, 7F14156, 7F14208, 7F14341, 7F14358, 7F14500.

Furthermore, the project promoters were obliged to meet reporting and management requirements as stipulated in the project contracts. The PO controlled the reports formally (annual spending, respecting percentage of indirect costs, submission of annexes, accounting records, samples of documentation if necessary, etc.). When the report had been formally accepted, the PO sent an email message or an official letter (at final closing) to provide feedback to the project promoters.

Moreover, monitoring (scientific and financial aspects) of the projects was secured by the PO through the following tools and measures:

- Periodic project reports (regularly once a year – deadline on 31 January) aimed at scientific and financial progress.
- Final project reports (once for the whole realisation – after the end of the project by 30 June 2017 at latest) focused on project achievements and financial final balances.
- External evaluators (periodically once a year and final; regarding scientific progress in reaching outcomes, objectives, work packages, risks, ethical issues, result dissemination and final state, etc.).
- Reporting on spending at least 70% of the previous payment.
- Reporting on scientific publications pursuant to Article 5.1.3 in Annex 12 of the Regulation.
- Information system of research and development the Register of information on results.
- Periodic scientific external examination after two years of project realisations (irregular).
- Final scientific external examination after project realisation (once per realisation).
- Auditor's report at the project level according to Article 5.3 in Annex 12 of the Regulation if relevant.
- PC assessment of the project reports submitted to the PO (regularly once a year).

If the project promoters met the requirements stated in the project contracts, particular payments could be transferred by the PO to the project promoters' bank account. The payments were usually processed internally within 14 calendar days. All payments were carried out except the last payment to the 7F14500 project which did not meet the conditions from the Programme Agreement but the project has delivered its outcomes.

Moreover, the Programme itself was monitored very closely and audited by controlling bodies annually. The programme was audited 14 times in total between 2013 and 2017, two or three audits per year.

The audits were performed by the PO itself (internal control), the Audit Authority, the Supreme Audit Office, or contracted by the Financial Mechanism Office (Moore Stephens) and the National Focal Point (Deloitte). Several of them addressed both levels – the programme as well as a sample of projects, some were focused on the system of providing support and/or financial flows.

Additionally, the Certifying Authority verified the programme expenditures actually incurred in the reporting period and reported on the IFR five times. The actual expenditures were successfully (100%) certified every time.

The external auditors mostly verified the PO's management, financial and control systems as well as the procedure of the calls (such as project/initiative selection, evaluation procedures). The performed audits also focused on operations (incurred expenses) whether they were done in accord with the criteria of the Norwegian Financial Mechanism 2009-2014 and conditions stipulated in the project contracts.

Their checks often included on-the-spot controls of sampled research projects (e.g. 7F14009, 7F14045, 7F14057, 7F14061, 7F14083, 7F14208, 7F14236, 7F14287, 7F14358, 7F14369, 7F14466, 7F14500).

Whereas the internal audits made sure that the administrative and financial processes were

implemented in accordance with the Manual of the Programme Operator (management and control systems) and internal rules, they additionally targeted cash flows (payments), changes in research projects, following measures established after previous internal audits and compliance with the Manual of the Programme Operator.

Additionally, the FMO monitored interim financial reports (hereinafter “IFR”) annually which contained activities and costs actually completed and spent and proposed activities and costs for the next reporting period. The IFR was always approved by the FMO.

In order to support the common monitoring tools at the national level, the PO also maintained mutual communication with the NFP. Regular NFP/PO meetings took place at least officially once a year during the implementation period; however, flexible consultations were held whenever necessary, especially to negotiate and prepare changes or adjustments in the programme – to solve project realisations, to modify the Programme Agreement (see Section 12), to reach the minimum 20% share for “social” research projects in the regranting allocation, to pre-negotiate with the Donor procedures for awarding grants for social activities to already running projects, to formulate and launch the open calls including comments to guidelines, and/or to provide relevant publicity. The NFP attended all PC meetings, seminars, workshops and conferences held by the PO.

An overview of the internal and external audits carried out during the programme period can be found in Annex 3.

Conclusions:

Few minor findings (see Section 9) that would not jeopardise the achievement of the programme outcome were found. However, the PO successively implemented measures to improve the financial and controlling system. There is a space for improvements (see the assessment in Section 7.2).

In 2018, the PO will track the outcomes reported by the project promoters in the national information system of research and development.

9. Irregularities

The PO made an effort to prevent, detect and nullify the effects of any cases of irregularities (see Sections 8 and 11). Similarly, any suspected or actual cases of irregularities were reported to the Certifying Authority according to the FM rules.

The Programme and projects were under monitoring and closer inspection of internal or external entities (see Section 8). At the project level, a higher amount of irregularities began occurring more often at the final stage of the project realisations because of the set annual monitoring system – and especially during submission of the final financial project reports and the auditors’ reports performed as referred to in Annex 12 of the Regulation (Section 5.3) and getting a more coherent picture of the project management.

In fact, mainly suspicions of irregularities have been identified so far and the process of justification and/or resolving them will overflow beyond the Programme implementation period. Irregularities have then mostly applied to delayed payments to the project partners, incurred costs in breach of the project contract (such as budget modifications unapproved by the PO in advance, higher deducted indirect costs, errors in public procurement processes, insubstantial results dissemination and publicity etc.). No criminal offences connected to fraud, bribery or embezzlement or the serious presence of mismanagement have been detected.

On the other hand, the irregularities showed up with delays, and the PO usually had problems with prompt reaction and investigation on-the-spot due to the amount of detected suspicions and its

limited capacities.

For more details, see Annex 2.

10. Risk management

The Programme Operator/Programme was part of wider political, economic, social and legal framework systems. It did not stand on its own as a single element. The PO belonged to the group of stakeholders and other authorities participating in the financial mechanisms and national systems, and it had to collaborate with them and react to their actions which might cause modification to the management and/or implementation.

The Programme implementation (management) was influenced by *external and internal factors* (see Annex 5) which might or did cause modifications in its management positively or negatively. Therefore, the PO had to manage many challenges and obstacles that emerged unexpectedly and were not in the PO's power to affect changes and issues (such as updates of acts and EU rules, the reconstruction of the EU experts' database and national information system for R&D, the results of political elections or quality of job applicants). These might and did produce risks that could have influenced or strongly influenced its plans and schedule (such as delays).

Regarding external factors, the political situation was peaceful and stable without any critical disturbances in the Czech Republic or Norway. The Czech political leaders and the parliament approved the state budget on time every year. This enabled grants to be provided without delays, thus one of the essential conditions for successful implementation was met in the Programme period.

On the other hand, some external matters had medium impacts on the Programme as follows:

- Updated European (such as the Framework) and national acts (such as the Act on the Support of Research, Experimental Development and Innovation and Budgetary Rules) related to providing public support in research had effects on the settings of the project contracts and preparation of the calls in 2014 and 2016.
- The non-operational EU experts' database disrupted the evolution process of the project proposals in 2014. The PO had to search for other sources of independent evaluators (for instance in ministry sources, other EEA/Norway Grants programmes, COSTS, EUROSTARS, etc.).
- The national Information system for research, development and innovation did not operate for almost 6 months between 1 June and 20 November 2016, which negatively affected the work schedule unpleasantly and postponed the announcement of the call for proposals under the Fund for bilateral relations by 45 days, and also delayed the payments for the project promoters.
- The resignation of Project 7F14183 created difficulties for the PO with grant distribution and reaching the minimum 20% share for the Social Sciences and Humanities area. This case brought extra administrative burden for the PO and postponed the work schedule.
- According to the update to the Act on the Support of Research, Experimental Development and Innovation, the Ministry of Education, Youth and Sports became a new administrator of the list of research organisations in the Czech Republic. The previous list stopped being valid. This reorganisation slowed down the selection procedures in the second call under the Fund for bilateral relations in 2016/2017.

Concerning internal issues, the PO had to cope with personnel fluctuation in the top management (five ministers and three deputy ministers in five years) as well as in the unit responsible for Programme implementation during the reporting period. It did not succeed in building a larger team (maximum up to three full-time employees plus one to two part-timers) since the unit had to contend with internal

reorganisations caused by changes of minister and related staff changes in the top management of the ministry.

It was proved that the Programme needs much care and complex technical and personnel support. Competent and experienced staff with detailed knowledge (in management, methodology, organisation, budgeting, planning, accounting, payroll, languages, promotion, controlling, legislation, information technologies, etc.) are necessary and essential. The many requirements of the Programme demanded much attention because its administrative burden was high, especially without a sophisticated information and reporting system.

On the other hand, risks with high impact in the form of corruption, low Programme absorption capacity, failure of the Programme management and control systems settings did not manifest. Nevertheless, limited time and accumulated delays in the schedule caused strong pressure and could have threatened the achievement of the Programme's objectives and outcome. It was proved that time is a very precious value and the time risk should be considered seriously.

Despite the difficulties, the PO made progress and developed the Programme to reach the outcome. Although the unit dealt with the issues, the emerging obstacles slowed down the Programme implementation, generated more administrative burden for the staff, postponed and changed its time and work plans, and finally, took time that was necessary for the projects.

Overall, at the programme level, the PO used the *Manual of the Programme Operator* to deal with the challenges or consultations with the NFP and CA. It continuously informed the NFP and updated the *Risk Analysis of the Programme* and consulted on it with the. Potential and identified risks were reconsidered and adjusted in the document which was reported as part of the *Strategic Report CR*.

At the project level, the project promoters had a duty to inform the PO about changes which may have an impact or would have affected their project realisations, pursuant to the project contract.

11. Information and publicity

According to Annex 4 *Information and Publicity Requirements EEA and Norwegian Financial Mechanisms 2009-2014* of the Regulation and the communication plan (Annex II of the Programme concept), the PO was committed to supporting the overall objectives of the financial mechanisms which would be in line with the Communication and Design Manual.

In the Programme period, the PO worked on visibility, transparency and public awareness and was working actively to provide information about the Programme, its progress and results (such as the calls, events, running projects, guidelines and requirements, FM rules, information sources) as well as Norway Grants and the Norwegian Financial Mechanism 2009-2014, aiming at the stakeholders involved in the financial mechanisms and the general public (see below).

For this purpose, the PO used accessible tools and set up measures (such as a change to the ministry's website) to fulfil the Donor's requirements and communicate with stakeholders and the general public, which were described in detail in the annual programme reports submitted to the Donor, as follows:

- Three obligatory conferences in May 2013 (launch), November 2016 (interim) and November 2017 (closing) – for more read below in this section.
- One matchmaking event for applicants and Donor partners took place on 30-31 May 2013 – one of the biggest events with aims to enhance bilateral relations and support Czech-Norwegian partners searching before opening the call. 9 Norwegian representatives and 125 Czech people attended the event. Potential applicants were divided into 3 groups according the Programme priority areas. The

attendees introduced their employers, expertise, research activities and plans. Go to <http://www.msmt.cz/vyzkum-a-vyvoj-2/prezentace-ucastniku-akce-matchmaking-event-30-31-kvetna>

- Six information meetings with applicants related to the Programme and the calls for proposals (2013, 2016).
- Eleven seminars for project promoters and their partners concerning financial and administrative issues, small-scale tenders, publicity, audit at project level, periodic and final reporting and the Fund for bilateral relations (2014-2017).
- One event at the Science, Research and Innovation Fair in Brno in March 2016 (cooperation with the CZ07 programme).
- Hundreds of contributions on social media Facebook and Twitter (245).
- 23 articles in the ministry's newsletter.
- Articles on the NFP's website www.eeagrants.cz.
- Articles on the DPP's website https://www.forskningsradet.no/en/Home_page/1177315753906.
- Europe Direct network in the Czech Republic – the network of the European Commission.
- One press conference with Czech Television in 2013, part of the Launch conference.

To communicate with the stakeholders, the PO used tools such as:

- A website dedicated to the Programme in the native language and in English:
Link in English> <http://www.msmt.cz/vyzkum-a-vyvoj-2/czech-norwegian-research-programme>
Link in Czech> <http://www.msmt.cz/vyzkum-a-vyvoj-2/norske-fondy>
- Social media – Facebook:
<https://www.facebook.com/Czech-Norwegian-Research-Programme-CZ09-1927542060815607/>
- Twitter:
<https://twitter.com/MSMTCZ09?t=1&cn=ZmxleGlibGVfcmVjc18y&refsrc=email&iid=07eccc097b0e4c0697e300aed5b41ba2&uid=719799287694102528&nid=244+272699405>
- The newsletter of the ministry.
- 27 Roll-ups dedicated to the Programme and the Norwegian financial mechanism (the roll-ups were lent to the project promoters).
- Electronic correspondence related to administrative issues, reminders, explanations, deadlines (data service, outlook).
- Regular mail.
- Open doors – possibility of personal consultations.
- Promotional items branded with the financial mechanism (pens, textile bags, paper folders, USB sticks, key cases).
- NFP's website <http://www.eeagrants.cz/cs/programy/norske-fondy-2009-2014/cz09-cesko-norsky-vyzkumny-program>.
- DPP's website
<https://www.forskningsradet.no/servlet/Satellite?c=Page&pagename=ForskningsradetEngelsk%2FHovedsidemal&cid=1179127750262&querystring=czech-norwegian+&spell=true&isglobalsearch=true&configuration=nfrsearchersppublished>
- Official EEA and Norway Grants website – information about the supported projects in DoRIS, to be displayed on the official website <http://eeagrants.org/programme/projectoverview/CZ09/PA23>.

The most important publicity achievements were the programme conferences with representatives of the Donor organised for stakeholders and the public. On 21 May 2013, the Programme, the financial mechanisms and Norway Grants 2009-2014 were introduced. This was an official opening ceremony and included a press conference with Czech Television. On 8 November 2016, the interim conference titled *2nd Czech-Norwegian Research Conference – Prague 2016* presented progress and interim results with experience sharing. Seven research projects introduced their objectives and interim outcomes. The audience got a glance at the future programme period of 2014-2021. On 7 November 2017, the *Final Czech-Norwegian Research Conference* included the outcomes of the Programme and eight research projects, approaches of bilateral activities with lessons learnt and a glance at the future programme period 2014-2021. The events contributed to networking and socialising among stakeholders. All events took place in Prague and were visited in total by around 300 guests.

More at: <http://www.msmt.cz/vyzkum-a-vyvoj-2/events>.

Conclusions and lessons learnt:

Communication was a crucial key of the successful management at programme and project level. Distant communication in a third language brought misinterpretations and misunderstandings, so the PO carried out measures such as organising seminars, personal consultations and direct messaging to principal investigators and project coordinators to prevent risks and avoid losses.

Public relations, communication with media and press were the most major challenges where there was still space for improvements. Establishing contacts with media and the ministry's PR department was very sporadic compared to the expectations mentioned in the concept.

At project level, communicating research in a simple and understandable way was a real challenge in general. Researchers are not still used to promoting their results and doing publicity. This needs extra time and experts which means extra costs, taking from budget for research activities. On the other side, **good examples** of communication and promotion should be highlighted such as

The 7F14045 project <http://passes.cz/en/> - results, downloads and design; 7F14058 project <http://innccare.fss.muni.cz/> - a professional web page; 7F14208 <http://ecology.cts.cuni.cz/> - design, kids' section; 7F14316 <http://www.macfish.net/> - a great photo gallery; 7F14358 <http://ad-bang.utef.cvut.cz/en/about/> - very active on social media (Twitter); 7F14083 presented the subject at an outdoor event called "The Festival of Science" in Prague <http://www.3dcolony.cz/en/publication/>.

12. Conditions set in the Programme Agreement

12.1. Compliance with conditions

No post-completion conditions were set in Article 2.5 of the Programme Agreement, thus proof of fulfilment is not relevant. However, the general conditions set in the Programme Agreement were duly fulfilled, i.e. the main outcome and output indicators, co-financing, providing information, regular reporting, a minimum 20% for the SSH area (see Sections 3, 4 and 5 above). The progress of the implementation (subject and financial) was regularly reported in the annual programme reports and interim financial reports submitted to the FMO.

Condition in Article 2 in Annex I of the Programme Agreement:

"1) The National Focal Point shall ensure that any public support under this Programme complies with the procedural and substantive State Aid rules applicable at the time when the public support is granted. The Focal Point shall, by way of the Programme Implementation Agreement, ensure that the Programme Operator maintains written records of all assessments concerning compliance with State Aid rules, particularly decisions to award grants and set grant rates, and provides such records to the NMFA upon request. The approval of the Programme by the NMFA does not imply a positive assessment of such compliance."

Statement: The Programme Operator has maintained written records of all assessments concerning compliance with State Aid rules, particularly decisions to award grants and set grant rates, and provided such records to the NMFA upon request.

Condition:

"2) Bilateral indicators and outcomes indicators shall be reported on in the annual programme report. This shall include a bilateral indicator reflecting the increased knowledge of the cooperating countries and their research systems."

Statement: Bilateral indicators and outcomes indicators were reported in the annual programme report. This included the bilateral indicator reflecting the increased knowledge of the cooperating countries and their research systems.

Condition:

"3) Together with the Strategic Report, the National Focal Point shall provide the FMO with a statement of all co-financing provided or obtained by project promoters to projects during the previous calendar year. The National Focal Point shall ensure that it obtains the necessary information in a timely manner from the Programme Operator by way of appropriate provisions in the programme implementation agreement."

Statement: Information in a timely manner by way of appropriate provisions in the Programme implementation agreement was given by the PO to the National Focal Point.

The Programme implementation was based on the Regulation on the implementation of the Norwegian Financial Mechanism 2009-2014 and its Annexes 4 and 12, the Programme Agreement, national legislation such as Act no. 130/2002, Coll. on the Support of Research and Development from Public Funds and on the Amendment to Some Related Acts (the Act on the Support of Research and Development, as amended). A few modifications of the Programme happened in the implementation period (see Section 12.2).

The controlling and financial system was anchored in the Programme Operator's Manual which referred to the NFP guidelines and the call documentation. This was verified and approved by the FMO.

12.2. Changes to the programme

The PO had to react to changes which mainly came from the external environment, so the Programme were modified several times in compliance with article 5.9 of the Regulation. The changes were necessary to enhance the impacts of the Programme and mitigate risks. In general, all adjustments were carried out on favour of the research community and because of the effective distribution of the allocation (no management costs were increased). The changes and supplements were discussed with and approved by the NFP and FMO. The modifications were duly approved by the NFP and the FMO in the DoRIS system.

These modifications were carried out as follows:

- In 2015, the Programme budget was increased by EUR 2,016,377 i.e. CZK 53,433,991 (exchange rate

26.5 CZK/€) due to reallocation from the CZ08 programme titled *Carbon Capture and Storage CZ08 in the following areas: Pilot Studies and Surveys on CCS Technology*. The new total amount made up EUR 17,078,091 and the relevant budget items (such as the Fund for bilateral relations, etc.) were increased proportionally.

- The PO modified the definition of activities supported from the *Fund for bilateral relations at programme level*, referring to Section 5.1 PA, in order to strengthen the absorption capacity of these funds and to open the Fund for bilateral relations, not only for running projects but also for other potential applicants. Thereby, the PO made the Fund open to the wider public. A new formulation corresponded to the definition in accordance with Article 3.6 (1b, 2) of the Regulation on the implementation of the Norwegian Financial Mechanism 2009-2014. This enabled broader utilisation of the disposable means in favour of bilateral relations and potential partnerships with Donor state institutions.
- In 2015 and 2016, Annex II of the Programme Agreement was amended after further strengthening of the allocation of the Fund for bilateral relations by EUR 449,913 (EUR 699,084). These financial means were brought from the remaining Management costs (minus EUR 100,000), the “regranting” item (minus EUR 269,913) and Complementary action (minus EUR 80,000). The budget modification regarding the “regranting item” was requested by the PO after several unsuccessful attempts to allocate the remaining “regranting funds” to Social Sciences and Humanities (pursuant the minimum 20% condition). The Programme proved capacity to absorb the unutilised funds via bilateral initiatives between the Czech Republic and Norway which have strengthened the achievement of the programme outcome, enhancing bilateral relations and supporting the scientific communities in both countries.

Obviously, the revisions of the definition and of the programme budget brought benefits to the scientific community, and enabled the extension of the bilateral cooperation to other cities and the use of disposable funds in favour of bilateral relations and potential partnerships with research institutions from the Donor state, not only to promoters of the running CZ09 projects but also to relevant applicants currently outside the programme. Nevertheless, lack of time was the main reason why 77% of the provided grants were consumed at the project level, although the PO distributed more than 99%.

13. Attachments to the final programme report

Annex 1: Project list (DoRIS)

Annex 2: List of irregularities (DoRIS)

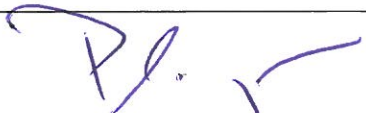
Annex 3: Audit overview

Annex 4: Overview of bilateral initiatives approved within the Fund for bilateral relations

Annex 5: Evaluation of external and internal risks identified in the Programme

SIGNATURE:**For Programme Operator**

I certify that I am duly authorised to sign this Final programme report and that I have thoroughly reviewed the progress of the programme, reporting on outcomes and outputs and risk management provided in this report and the information is correct and accurate.

				Optional second signature		
Name	Ing. Robert PLAGA, PhD					
Position	minister					
Organisation	Ministry of Education, Youth and Sports					
Signature						
Date	Day	Month	Year	Day	Month	Year
		February	2018			

For the National Focal Point

The National Focal Point certifies that the status of reporting of the programme described above is accurate.

				Optional second signature		
Name	Mgr. Tereza VAVREČKOVÁ			Ing. Martina GASSENBAUEROVÁ		
Position	Acting Director of the Department of International Relations and Head of the Unit			Head of the Monitoring Unit		
Organisation	Ministry of Finance of the Czech Republic			Ministry of Finance of the Czech Republic		
Signature						
Date	Day	Month	Year	Day	Month	Year
		February	2018	12	February	2018

Annex 1: Project list (DoRIS)

		Project partnerships					
Project categories at programme completion	Number of projects	Total donor partner-ships	From Norway	From Iceland	From Liechtenstein	Other partner-ships	Project grant
Completed projects	23	30	30	0	0	14	€17,661,290
Total	23	30	30	0	0	14	€17,661,290

Completed projects								
Project number	Project Promoter	Project title	Number of donor project partners	Small grant scheme	Project (physical) completion date	Project cost	Project grant	Project grant excluding programme co-financing
CZ09-0001	Institute of Macromolecular Chemistry AS CR	Macromolecular toolbox for biomedical applications	2		30 Apr 2017	€884,464	€707,571	€601,435
CZ09-0002	Masaryk University, Brno	Harvesting big text data for under-resourced languages	1		30 Apr 2017	€913,500	€913,500	€776,475
CZ09-0003	Institute of Experimental Medicine	Biomaterials and stem cells in the treatment of stroke and spinal cord injury	1		30 Apr 2017	€639,151	€639,151	€543,278
CZ09-0004	Institute of Molecular Genetics of the ASCR	Phosphorylation-mediated signalling in DNA damage response and cancer	1		30 Apr 2017	€968,900	€775,120	€658,852
CZ09-0005	Masaryk University, Brno	Governance, social investments and social INNOvation in CARE services in the Czech Republic and	1		30 Apr 2017	€606,725	€485,380	€412,573

		Norway						
CZ09-0006	Institute of Information Theory and Automation	Source-Term Determination of Radionuclide Releases by Inverse Atmospheric Dispersion Modelling (STRADI)	1		30 Apr 2017	€795,541	€636,433	€540,968
CZ09-0008	Institute of Biophysics Academy of Sciences of the Czech Republic	Nuclear Architecture in the regulation of autophagy, DNA repair and gene expression	1		30 Apr 2017	€961,372	€961,372	€817,166
CZ09-0009	Charles University, Faculty of Science	3D yeast colony genomics: A model for cancer progression and development of drug resistance in biofilms	1		30 Apr 2017	€958,037	€958,037	€814,331
CZ09-0010	Czech Technical University in Prague	Advanced Detectors for Better Awareness of Neutrons and Gamma Rays in Environment	2		30 Apr 2017	€942,042	€942,042	€800,736
CZ09-0011	Charles University in Prague	Human, Agricultural, and Climatic Impact on Ecological Rules: macroecological analysis of palaeobiological datasets	2		30 Apr 2017	€957,296	€957,296	€813,702
CZ09-0012	Czech University of Life Sciences Prague	A new methodological approach for identification of industrial pollution: Isotope fingerprinting and bacterial community changes	2		30 Apr 2017	€645,281	€645,281	€548,489
CZ09-0013	Czech University of Life Sciences Prague	Assessing water quality improvement options concerning nutrient and	1		30 Apr 2017	€912,016	€912,016	€775,214

		pharmaceutical contaminants in rural watersheds						
CZ09-0014	Institute of Thermomechanics AS CR	Phase behaviour in CCS systems	1		30 Apr 2017	€619,179	€619,179	€526,302
CZ09-0015	Charles University in Prague	Tissue engineering of genetically competent corneal/conjunctival cells for subsequent grafting in human medicine	2		30 Apr 2017	€872,500	€872,500	€741,625
CZ09-0016	Institute of Animal Physiology and Genetics AS CR	Comparative study of Huntington's disease using biochemical, immunocytochemical and molecular genetic methods on the mouse, minipig and human tissues and cells	2		30 Apr 2017	€841,207	€841,207	€715,026
CZ09-0017	Jan Evangelista Purkyně University in Ústí nad Labem	Physical Activity as a Part in Treatment of Psychiatric Patients	1		30 Apr 2017	€692,597	€692,597	€588,707
CZ09-0018	Biology Centre of the Academy of Sciences of the Czech Republic	Structuring effect of submerged macrophytes on trophic relationships and distribution of fish in deep lakes	1		30 Apr 2017	€824,259	€824,259	€700,620
CZ09-0019	University of West Bohemia	Naturalness in Human Cognitive Enhancement	2		30 Apr 2017	€995,670	€995,670	€846,320
CZ09-0022	Centre for Higher Education Studies	The contribution of higher education institutions to strengthen socio- economic development of peripheral regions in Norway and the	1		30 Apr 2017	€749,899	€749,899	€637,414

		Czech Republic						
CZ09-0023	Charles University in Prague	Phosphine Ligands for Environmentally Friendly C-C Bond Forming Reactions	1		20 Apr 2017	€425,675	€425,675	€361,824
CZ09-0024	Charles University in Prague	Utilization of long term (passive) sampling methods combined with in situ microcosms for assessment of (bio)degradation potential	1		30 Apr 2017	€636,208	€636,208	€540,777
CZ09-0025	Crop Research Institute	Conservation and breeding potential of native fruits in the Czech Republic and Norway	1		30 Apr 2017	€613,484	€613,484	€521,461
CZ09-0026	Masaryk University, Brno	Regulation of Plant Cell Wall Metabolism by Cytokinins: Novel Developmental Mechanisms for Biomass Improvement	1		30 Apr 2017	€857,413	€857,413	€728,801

Annex 2: List of irregularities (DoRIS)

Irregularities detected at Programme level

Irregularity case	Irregularity status	Case opened	Case closed	Irregularity period	Followed up	Initial nature of irregularities	Amount of recovered funds	Grant amount reduced
IR-0310	Closed	22/02/16	09/11/17	2015Q4	2017Q2	error in payment claim	€ 0	€ 0
IR-0784	On going	31/08/17		2017Q2	2017Q3	deviation from project contract		
Total							€ 0	€ 0

Irregularities detected at project level

Irregularity case	Irregularity status	Case opened	Case closed	Irregularity period	Followed up	Initial nature of irregularities	Amount of recovered funds	Grant amount reduced
IR-0640 (7F14358) CZ09-0010	On going	28/02/17		2016Q4	2017Q3	deviation from project contract		
IR-0724 (7F14045) CZ09-0024	On going	31/05/17		2017Q1	2017Q3	deviation from project contract		
IR-0725 (7F14155) CZ09-0026	On going	31/05/17		2017Q1	2017Q3	deviation from project contract		
IR-0726 (7F14156) CZ09-0015	On going	31/05/17		2017Q1	2017Q3	deviation from project contract		
IR-0809 (7F14047) CZ09-0002	On going	29/11/17		2017Q3		deviation from project contract		
IR-0810 (7F14236) CZ09-0019	In Review	29/11/17		2017Q3		deviation from project contract		
IR-0811 (7F14500) CZ09-0017	On going	29/11/17		2017Q3		deviation from project contract		
Total								

Annex 3: Audit overview

Type of audit	Extraordinary
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Ministry of Finance – Auditing Authority
Period covered	22.10.2013-29.8.2014
Date of final report	16.12.2014
Audit Opinion	Settings of the management and control systems in line with the Regulation on implementation of the Norwegian Financial Mechanism 2009-2014.
Summary of findings	No findings.
Follow-up measures	--

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Ministry of Finance – Auditing Authority
Period covered	2013
Date of final report	13.11.2015
Audit Opinion	Settings of the management and control systems in line with the Regulation on implementation of the Norwegian Financial Mechanism 2009-2014. The expenditures in the amount of CZK 1,433,930 of the reporting period incurred in compliance with national law, internal practices except the finding below.
Summary of findings	Ineligible costs in the amount of CZK 7,283 (regarding personnel costs in December 2013).
Follow-up measures	Not to repeat the same mistake in the next certification.

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Ministry of Finance – Auditing Authority

Period covered	1.1.2014-31.12.2014
Date of final report	25.11.2016
Audit Opinion	Verification of the operation in the amount of CZK 12,753,736. The expenditures were incurred in compliance with national law, internal practices and the Regulation on implementation of the Norwegian Financial Mechanism 2009-2014.
Summary of findings	No findings.
Follow-up measures	---

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Ministry of Finance – Auditing Authority
Period covered	2013-2016
Date of final report	17.7.2017
Audit Opinion	Category 2 (of 4) – The system operates but it needs improvement.
Summary of findings	Deficiency of selection project samples for monitoring by the PO, settings of irregularity verification and procedures regarding project monitoring.
Follow-up measures	Update of the Manual of the Programme Operator. Development of procedures regarding irregularities.

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Financial Mechanism Office (executed by Moore Stephens)
Period covered	25.2.2013 – 9.2.2015
Date of final report	3.11.2015

Audit Opinion	In our opinion the Management and Control Systems set up and operated by the Entity were seen to be designed in compliance with all the regulatory / contractual requirements, were proportionate and operated effectively in the period from 25 February 2013 to 9 February 2015.
Summary of findings	Duties of staff within the Unit of Support for Universities and Research are not defined clearly. Project promoters unclear on their financial management responsibilities.
Follow-up measures	The PO improved communication towards the project promoters. The duties of staff were defined more clearly and specialised. Improvements in communications.

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Ministry of Education, Youth and Sports (audit unit)
Period covered	25.2.2013-13.10.2014
Date of final report	13.10.2014
Audit Opinion	Rating 2 of 4 grades The financial and controlling system are set up in compliance with the Regulation on the implementation of the Norwegian Financial Mechanism 2009-2014 and with the Guidelines of the National Focal Point.
Summary of findings	No findings.
Follow-up measures	---

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Ministry of Education, Youth and Sports (audit unit)
Period covered	14.10.2014-3.12.2015
Date of final report	3.12.2015

Audit Opinion	Rating: 2 of 4 grades (middle risk). The system of the Programme is operational. The Manual of the Programme Operator should be updated.
Summary of findings	The internal approval processes could be shortened and should be adjusted due to internal reorganisation of the ministry.
Follow-up measures	Update of the Manual of the Programme Operator such as selected European, national and internal rules, organisational structure.

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Ministry of Education, Youth and Sports (audit unit)
Period covered	4.12.2015-15.12.2016
Date of final report	15.12.2016
Audit Opinion	Rating: 3 of 4 grades (middle risk). The found facts did not affect the management and funding of the Programme.
Summary of findings	Deadlines were not met on time. Legislation and internal rules outdated in the Manual. Payment delays. Non-respect of established procedures and issuing revisions of project contracts but influenced by external factors (downtime of the national IT system of R&D).
Follow-up measures	Meetings of Programme spending, updating Manual of the Programme Operator (such as selected rules, budget, organisational structure, irregularities)

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Ministry of Education, Youth and Sports (audit unit)
Period covered	1.1.2017-27.10.2017
Date of final report	27.10.2017
Audit Opinion	Rating: 2 of 4 grades. The Programme operated in compliance with the Manual of the Programme Operator. The system was functional.

Summary of findings	There were minor discrepancies in the methodology of the Programme (the Manual) but it did not jeopardise the Programme implementation.
Follow-up measures	--- (due to the end of the Programme)

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Ministry of Finance – NFP (executed by Deloitte)
Period covered	25.2.2013-31.12.2017
Date of final report	18.7.2017
Audit Opinion	No opinion mentioned in the report.
Summary of findings	Not set binding indicators for the projects in the project contracts, unfulfilled declared outputs of the projects 7F14466 and 7F14287 (verified period from 1 Sept 2014 to 10 Nov. 2016 so interim results of those projects). No ineligible costs.
Follow-up measures	The PO may apply the recommendation regarding indicators of the audit to the next forthcoming programmes. However, due to the timing (closed projects) it cannot be implemented for the project contracts.

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	Ministry of Finance – Auditing Authority
Period covered	---
Date of final report	5.9.2014
Audit Opinion	<i>Opinion verifying compliance of the management and financial systems</i> - Based on the examination it is confirmed that the settings of the management and control systems at the programme level implemented within the European Economic Area (EEA)/Norwegian Financial Mechanism 2009-2014 met the requirements stated in the Regulation on the

	implementation of the European Economic Area (EEA)/Norwegian Financial Mechanism 2009-2014 and is in accordance with generally accepted accounting principles.
Summary of findings	No findings.
Follow-up measures	---

Type of audit	Planned
Entity subject to audit	Ministry of Education, Youth and Sports
Audit company / entity	National Supreme Office
Period covered	25.2.2013-31.12.2017
Date of final report	pending
Audit Opinion	
Summary of findings	
Follow-up measures	

Annex 4: Overview on bilateral initiatives approved within the Fund for bilateral relations

No.	Title	Promoter	Partner	Grants* €/CZK
1	7F16001 - <i>Establishment of bilateral cooperation and exchange of experience in the field of medical infrared thermography</i>	Masaryk University, Brno	Arctic University of Norway, Tromsø	12,452 330 000
2	7F16002 - <i>Structural analysis of supramolecular systems: The synergy between theoretical and experimental methods</i>	Masaryk University, Brno	Arctic University of Norway, Tromsø	27,924 740 000
3	7F16003 - <i>Spectrum - ceramic between art and design</i> Completed (but not settled yet)	Academy of Arts in Prague	Oslo National Academy of Arts	11,396 302 000
4	7F16004 - <i>Development of Czech-Norwegian partnership in ophthalmology, genotoxicity, and transplant medicine research</i>	Charles University in Prague	Norwegian Institute for Air Research, Kjeller	30,188 800 000
5	7F16005 - <i>Preparation of H2020 project on Characterisation of intrinsically disordered proteins from extracellular matrix and their role in inflammation processes, reactive calcification and adverse reactions to biomaterials</i>	Institute of Organic Chemistry and Biochemistry, v.v.i., Prague	University of Oslo	16,223 430 000
6	7F16007- <i>Methodology development for mass spectrometry-based proteomics</i>	Institute of Organic Chemistry and Biochemistry, v.v.i., Prague	University of Oslo	11,396 302 000
7	7F16008 - <i>Human Cognitive Enhancement: New Issues</i>	University of West Bohemia, Plzen	Oslo and Akershus University College of Applied Science, Oslo	20,188 535 000
8	7F16009 - <i>Legislating from Strasbourg: How international human rights law influences domestic legislation</i>	Masaryk University, Brno	University of Oslo	14,528 385 000
9	7F16010 - <i>Introducing post-normal science in the Czech Republic</i>	Masaryk University	University of Bergen	29,962 794 000
10	7F16012 - <i>Czech-Norwegian networking on nuclear structure and function</i>	Institute of Biophysics of Academy of Sciences of Czech Republic, Brno	University of Oslo	29,245 775 000
11	7F16013 - <i>Joint preparation of the H2020 proposal – FishBiometrics</i>	University of South Bohemia, Ceske Budejovice	Norwegian Institute of Food, Fisheries and Aquaculture Research, Tromsø	17,396 461 000
12	7F16014 - <i>Promoting environmental mobilities</i>	Masaryk University, Brno	Lillehammer University College	30,037 796 000

13	7F16017 - <i>Deciphering synaptopathy in Schizophrenia</i>	Masaryk University, Brno	University of Oslo	17,623 467 000
14	7F16018 - <i>Strengthening bilateral relations between the Czech Republic and the Norwegian Institute of Bioeconomy Research (NIBIO)</i>	Agrovyzkum Rapotin, Ltd.	Norwegian Institute of Bioeconomy Research, Ås	15,849 420 000
15	7F16019 - <i>Information Exchange within the field of nuclear research activities, infrastructure and know-how</i>	Research Centre Řež, Ltd.	Institute for Energy Technology, Kjeller	22,453 595 000
16	7F16020 - <i>Migration: Sociopsychological and cultural factors</i>	Technical University of Liberec	Arctic University of Norway, Tromsø	10,943 290 000
17	7F16021 - <i>Utilisation of wastewater as a secondary source of raw materials and exploitation of wastewater as an alternative water sources</i>	Brno University of Technology	Norwegian Institute for Water Research, Oslo	29,358 778 000
18	7F16022 - <i>Word order and information structure: a cross- and intra-linguistic perspective</i>	Palacký University Olomouc	University of Oslo	12,340 327 000
19	7F16023 - <i>Megaprojects – current best practices and future research opportunities</i>	Brno University of Technology	Stiftelsen SINTEF	22,943 608 000
20	7F16024 - <i>Development of Czech-Norwegian cooperation in the field of energy</i>	VŠB – Technical University of Ostrava	Oslo and Akershus University College of Applied Science	17,547 465 000
21	7F16025 - <i>Physical-chemical cooperation focused on biomaterial research</i>	Brno University of Technology	Norwegian University of Science and Technology, Trondheim	25,170 667 000
22	7F16027 - <i>Novel analytical strategies for control of contaminants mixtures in food: Development of joint platform</i>	University of Chemistry and Technology, Prague	Norwegian University of Life Sciences, Ås	25,962 688 000
23	7F16028 - <i>Deepening of cooperation in bioactive compounds research</i>	University of Chemistry and Technology, Prague	The Arctic University of Norway, Tromsø	29,849 791 000
24	7F16029 – <i>Environmental participation in comparative perspective</i>	Masaryk University, Brno	University College of Southeast Norway, Oslo	12,679 336 000
25	7F16031 - <i>Towards a collaboration on the production of recombinant vaccines in barley</i>	Palacký University Olomouc	Norwegian Institute of Bioeconomy Research, Ås	8,830 234 000
26	7F16032 - <i>Bilateral cooperation and exchange of expertise in the field of transport processes of bulk materials</i>	VŠB – Technical University of Ostrava	Stiftelsen Tel-Tek, Porsgrunn	16,226 430 000

27	7F16033 - <i>New beginning - cooperation between TUL (FE) and NTNU (FE)</i>	Technical University of Liberec	Norwegian University of Science and Technology in Gjøvik	23,887 633 000
28	7F16034 - <i>Development of Czech-Norwegian cooperation in the treatment of organophosphorus poisoning</i>	University Hospital Hradec Králové	Ministry of Defence – University of Defence; University Hradec Králové; Norwegian Defence Research Establishment, Kjeller	13,057 346 000
29	7F16035 - <i>Cooperation on conflict prevention and early warning research</i>	Masaryk University, Brno	Peace Research Institute Oslo	2,151 57 000
30	7F16036 - <i>Establishing long-term research cooperation on Giardia intestinalis Genom</i>	Masaryk University, Brno	University of Bergen	16,075 426 000
31	7F16037 - <i>Sharing experience: Co-production and use of a Czech-Norwegian resource for competence based education to support rural communities</i>	Charles University, Prague	Norwegian University College of Agriculture and Rural Development, Klepp stasjon	15,698 416 000
32	7F16039 - <i>Smart Rural Cities: Exchange of best practices with focus on effective cooperation between research and public sector</i>	Czech Technical University in Prague	Western Norway Research Institute, Sogndal	28,038 743 000
33	7F16040 - <i>The creation and support of the research team in the logistics industry as the foundation for bilateral cooperation</i>	Tomas Bata University in Zlín	Molde University College – Specialised University in Logistics, Molde	26,981 715 000
34	7F16041 - <i>Procedures of cattle breeding and genetic evaluation of yield traits in the Czech Republic and Norway</i>	Agrovyzkum Rapotin, Ltd.	Norwegian University of Life Sciences, Ås	15,849 420 000
35	7F16042 - <i>Initiative for joint Norwegian-Czech project proposal "Antibiotic residues and resistance monitoring and removal for reduced agriculture impact and environment safeguarding"</i>	Agrovyzkum Rapotin, Ltd.	Norwegian Institute for Water Research, Oslo	17,396 461 000

Note 1: *Used the fixed exchange rate of the Programme of 26.5 CZK/EUR.

Note 2: The listed 35 initiatives were approved by PO but 34 were actually executed (7F16041 resigned). The initiatives were completed.

Annex 5: Evaluation of external and internal risks identified in the Programme
(rating from 5 /highest/ to 1 /lowest/; Max. 25 points)

RISK <i>0-9 low; 10-19 medium, 20-25 high</i>		Impact (I)	Probability (P)	Significance (I*P=S)
1.	Financial intensity of the programme	2	5	10
2.	Type of programme operator	3	2	6
3.	Programme complexity	3	4	12
4.	Terms set out in the Programme Agreement	3	3	9
5.	Management and control systems, programme management	5	2	10
6.	Programme implementation system set-up	4	2	8
7.	Time risk - delays in contracting and drawing of funds	4	2	8
8.	Absorption capacity of the programme	5	1	5
9.	Changes in legislation	3	2	6
10.	Changes and irregularities in the programme	4	3	12
11.	Previous audits / Programme checks	3	2	6
12.	Number of partners in the programme	2	2	4
13.	Bilateral relationships	3	3	9
14.	Information system	3	4	12
15.	Corruption risk	4	1	4
16.	Programme specific risk 1 - Significant personnel changes at key positions not only by the PO	3	3	9
17.	Programme specific risk 2 - Administrative burden of the Programme	5	4	20

