GOVERNMENT OF THE REPUBLIC OF SERBIA
Office of the Deputy Prime Minister for EU Integration
and Ministry of Education and Science

Serbian position paper on the next EU framework programme for research and innovation

as a response to the EC Green Paper „From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation Funding“

Belgrade, May 19th, 2011

Introduction

As an associated country to the Seventh Framework Programme and one that is on the path of joining the European Union, we take this opportunity to present our views and comments on the EU Green Paper “From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation funding“ [1].

Serbia has, at the initiative of the President of the Republic of Serbia, prepared a comprehensive Serbia 2020[2] strategy which corresponds to the European path mapped out in Europe 2020[3]. This national strategy recognizes Europe’s priorities in this decade but also address the specific issues which Serbia must tackle. Our ambitious, but realistic goal is to achieve 2% of GDP expenditures on science and technology by 2020. Half of this will come from public expenditures and the other half from private investment. We have a our work cut out for us in the upcoming decade, considering the fact that current public expenditures on R&D are estimated to be around 0,6% of GDP.

[1] Comments on ’GREEN PAPER:From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation funding’ - COM(2011) 48

[2] http://www.predsednik.rs/mwc/epic/doc/SRBIJA%202020%20FINAL%2018122010.pdf

[3] 'Europe 2020: A European strategy for smart, sustainable and inclusive growth' - COM(2010) 2020.

However, significant efforts have been made in this regard in the past three years and this has not fell unnoticed by our European partners. A national Strategy for Scientific and Technological Development of the Republic of Serbia 2010-2015 was adopted in March 2010. This Strategy was the basis for launching the Serbian R&D Infrastructure Investment Initiative which is supported through a 200 million EUR program with the European Investment Bank (EIB), a 35 million EUR program with the Council of Europe Development Bank (CEB) and a 25 million EUR project financed through IPA funds. Additional negotiations are underway for an additional 70 million EUR with the CEB and a 50 million EUR World Bank operation. Through bringing national research infrastructure to a higher level and increasing the number of supported researchers we aim to achieve our national goals outlined in the Strategy, but also to become a more interesting and relevant partner within the European Research Area.

Systematic changes in the way research is financed in Serbia have also been aimed at increasing the competitiveness of Serbian science. A new legal framework for science and innovation was adopted in April 2010, and the biggest national call for projects was launched in May of the same year. This call for projects introduced new incentives such as participation of foreign researchers in national projects, inclusion of young researchers and gave extra points to those researchers which have successfully participated in FP7 and other international programs, as well as to those which hold positions in editorial boards on scientific journals.

In that same call, Serbia also introduced an ERC-like grant scheme allowing the best young researchers to lead their own research teams, therefore gaining experience and increasing their chances within future ERC calls.

Even though Serbia is far from a European average in terms of scientific excellence, the abovementioned initiatives and other national programs since 2000 in the area of science and technology are already starting to give results. Serbia has tripled the number of internationally recognized scientific publications in the last ten years and individual research teams in various fields have had success in FP7.

Comments and recommendations

To achieve the greatest contribution of Serbian researchers to this document, and to ensure that this document is based not only on Serbia’s strategic goals in the area of science and technology, but also on the experience of our researchers within FP7, a national consultation process was held. Researchers were invited to send individual responses to the Ministry of education and science, and also to participate in roundtables organized at national, regional and institutional levels.

This document aims to best summarize the results of this consultation process within the themes defined in the Green paper itself: Working together to deliver on Europe 2020, Tackling societal challenges, Strengthening competitiveness and Strengthening Europe's science base and the European Research Area.

Working together to deliver on Europe 2020

Recognizing the complexities of the framework programme, it will nonetheless be useful to know the moving target we should aim at. Enough specificity in defining Europe's research priorities is needed to orient individual countries towards the European perspective: topics, methods, types of infrastructures required. Even though it is impossible to predict now the course of 7 years, particularly in an area as dynamic as is science and new technologies, a general path needs to be precisely outlined. Incentives can be given to associated countries to focus their efforts on European priorities and therefore accomplish greater success in limited and focused areas. Here we address the topics outlined in the Green paper as being needed for accomplishing the goals of Europe 2020.

Simplification of procedures is possible and needed in the future.

The fact that administrative obstacles for researchers within FP7 have been recognized and are addressed as an integral part of the green paper speaks of the EU's readiness to tackle this issue and make significant improvements in the next period.

One the potential ways the Common Strategic Framework could make EU research and innovation funding more attractive and easy to access for participants is to reduce the volume of necessary paperwork. Although every application to some of the EU calls demands a thorough and precise explanation, it is possible to reduce it in a functional way, leaving what is truly essential. In our experience, many researchers are discouraged to establish a consortium at the very beginning because the volume of paperwork demands too much time and often noone is willing to act as a project coordinator. In addition, experiences from US, Canada or Australia. confirm it is possible to make the process of application simpler.

These countries also demonstrate the possibility to integrate simplicity and efficiency. The said unique set of rules must be updated and thus able to recognize the actual needs of the research organizations and SMEs, as well as to foresee the future trends and the ways to answer them. The degree of flexibility and diversity must be carefully attested and set since only in that way will the EU be able to both acheive the objectives of different instruments and respond to the needs of beneficiaries.

Furthermore, additional flexibility in deadlines for project submission, would allow researchers to create a good project based on the idea that they have in mind. Very often good project proposals were rejected only due to small errors in the text of the proposal, or because of missing deadlines by minutes. The procedures for project submission process should allow more interaction with EC staff, and more stages. We strongly support a two-stage application process in which the first stage requires a brief project proposal outlining key ideas and goals while the second stage requires a full application.

SME participation is needed for completing the full innovation cycle, from research to market uptake.

The structure of the Seventh Framework Programme has made a significant progress in covering the full innovation cycle from research to market uptake in comparison to the Sixth Framework Programme. This trend needs to be continued in the future. It will surely encourage more SMEs to participate and give its contribution to the application of the results of basic science. The future calls should further support universities and research institutions, as carriers of basic science, to link with various organizations close to the market in order to accelerate the application of their achievements according to the needs of EU citizens.

While it is essential that the initial phases of the innovation cycle are funded at high reimbursement rates for all participants, strong participation and performance of SMEs has to be ensured by co-funding. On the other hand, in regions lacking in the corresponding R&D sectors and/or where SME market is underdeveloped, its participation has to be further stimulated by higher funding rates. In final stages of the innovation cycle, however, SMEs and industries should be stimulated to take the lead and invest by providing additional co-funding, especially for activities close to market uptake.

More flexibility in defining achievements and final innovation goals would also allow for greater SME involvemnt. The number of small pilot application-oriented projects should be increased that will help in more rapid transfer of knowledge to the market.

Other sources of funding should be leveraged for better coordination, greater impact and greater investments in science in technology, particularly in less developed areas.

EU should certainly leverage and complement other sources of funding, especially at the national level. However, it should be also used as one of the most important instruments to bridge developmental and innovation gaps between different regions at the European level, and stimulate better inclusion of less developed regions into ERA. Leveraging other sources of funding should not however become a new barrier (as a “must”).

If a sustainable model of development is desired for countries that are on their EU integration path in line with the Europe 2020 goal of smart, sustainable and inclusive growth, than it is important to ensure a significant knowledge component of IPA and structural funds. In difficult times, there is a tendency to focus these resources on survival, as opposed to development. FP8 will remain competitive and excellence driven, and therefore stochastic in the amount of support for R&D going to an individual country. The stable flow of structural funds can make up for these fluctuations and ensure the presence of long-term knowledge and innovation oriented investments in associated countries. Country matching of funds can be required, and the overall investment will be the base for creating more competitive societies and economies.

Joint Programme Initiatives between groups of member states should be supported by all means. In that way, EU research and innovation funding will be used in the best possible way to pool Member States' own research and innovation resources. It will acknowledge the achievements of the core research countries on one side and increase the visibility of the institutions from younger Member States or Associate Countries.

This is in principle sensitive and quite difficult question, since regional/national funding policies could vary significantly, and could even be adjusted in relation to the change of EU policies. Only in the ideal case of coherent national policies, EU funding could be used primarily as a tool to achieve pooling of resources, and to strengthen competitiveness in research oriented toward common goals. While it is still possible to significantly complement national funding along these lines, more emphasis should be given to the thematic priorities and goal-oriented research, which gives equal opportunity character to the funding.

Special measures should be introduced in the future RTD programme for countries or regions lagging behind in innovation culture as well as industry involvement in RTD. Considering the conditions in the WBC region, regional innovation can be tailored in the future RTD programme for those conditions. In this sense, innovation for the enlargement countries shall refer to developments new to the region in addition to the developments new to the world. Assistance IPA should be rendered much more accessible for research and innovation capacity building and infrastructure support in the enlargement countries. EC funding should be always be a dominant part of total funding of a program designed for less development regions of the EU, as less developed Member States or the enlargement countries cannot finance regional collaboration programmes alone, without a contribution from EC (30-70%) depending of the programme.

In addition EU could consult databases on national and regional research programmes and, accordingly, send adequate information of relevant, large/strategic EU programmes to be disseminated at a national/regional level.

Both smaller, targeted projects and larger, strategic ones are needed.

The balance between smaller, targeted projects and larger, strategic ones is essentially needed in order to contribute to the general, long-term trend in the EU R&D vision in the best possible and the most efficient way. The larger, strategic projects are there to set and maintain such trend, while the smaller, targeted projects are there to work out it into needed details and give the trend its needed diversity. Both must be in a kind of organic unity, because only in such way they will be able to answer the demands for both efficiency and economy of the invested funds.

Measures of success and performance indicators should be clear and flexible, supporting scientific excellence while ensuring an integrating ERA

While the most relevant performance indicators are relatively easy to identify (number of patents, number of scientific articles assessed by their impact and citation factors, average time to market for innovations, increased involvement of SMEs in R&D jointly with academia, etc.), identification of the appropriate measures of success is quite a challenging problem. The effect of EU funding cannot be easily assessed (e.g. maybe other sources would work out quite equally), nor the targets for indicators can be set without a major effort for the corresponding analysis. One possibility, which is far from ideal, is to monitor the relative advancement (or gap) of the EU in comparison to other world regions, and to use it as a success indicator.

Considering a lack of homogeneity in the geographic and national distribution of research excellence, performance indicators need to take into account these differencses and be as flexible as possible and yet not to decrease the current trend of supporting excellence. More specifically, these indicators should encourage the participation of organizations from younger Member States and Associate Countries and assist them in achieving excellence in the shortest term to their own benefit and to the benefit of the ERA.

Furthermore, for each category of projects and activities of the innovation chain, different performance indicators should be used, as is the case for each stage of the project (in application stage, during project implementation, after the project completion). In all these cases, it is important to analyze what was promised or expected, and what was accomplished. For instance, in the case of product development, market success is the most important indicator. Performance indicators should be clear, as simple as possible and implementable. Projects should not be expected to produce massive reports, but tangible results appropriate for the type of research being conducted.

Tackling Societal Challenges

Focus on societal challenges, or “grand challenges” (such as energy and food supply, health and climate change etc.) is a good orientation and society is expecting better solutions for problems to come from the research community. However, we need also to maintain a balance between top-down and bottom-up approaches.

A thematic approach should constitute the backbone of an ERA focused on tackling societal changes.

Recent orientations to move beyond a thematic approach for strategic partnerships may tend to abolish the thematic focus in Framework Programmes. This is expected to result in a loss of structuring effect which has provided significant contribution to the European Research

Area (ERA). Thematic funding at EU level is crucial in the sense that it fleshes out national research potential for the sake of European added value and provides the basis for efficient results to be attained by grand scheme political mechanisms. Thematically oriented collaborative research should sustain and constitute the backbone of the responses sought to the grand challenges. The thematic approach in research funding bolsters the links among the researchers across the nations involved and structures the European Research Area. The interdisciplinary nature of the current thematic approach constitutes an important asset to building a strategic respons in the face of grand challenges. Curiosity-driven research should be supported, as it generates new ideas. But, the most of funding should be allocated to "grand challenges" and for achieving concrete results for the most important societal challenges.

Bottom-up activities are needed in the innovation cycle.

Bottom-up activities are necessary and have an important role in innovation development. Innovations cannot be planned. The process for development of innovations can be planned. Whether it will produce a result or not, cannot be known in advance. Therefore, top-down R&D is a normal practice of innovation development. But, it should be balanced with bottom-up activities. Creativity and generation of new ideas requires flexibility and quick actions. Small, bottom-up project should be supported. Some of them can be part of generally top-down programs or a preliminary stage for much larger, top-down programs or projects.

The Joint Research Centre can provide support in policy-making and determining forward-looking activities.

- JRC – IPTS must extend activities on countries / regions with neglected foresight practice and knowledge, becoming leading partner in national foresight exercises rather than organizer of workshops and trainings for foresight practitioners. JRC should be responsible for projects that will determine the strategic directions of development of EU.

Societal challenges can only be tackled through broad engagement of countries, research institutions, industry and society.

Societal challenges, such as those related to health and environment are common to Serbia and all EU countries alike. The demographic challenges Europe is facing are especially evident in our country and medical research and new technologies in this field are crucial, but require a strong focus on applied research and innovation, so that the results have a positive impact on the life of our citizens. In the example of health, but also in other challenges Europe is facing, non-technological and social innovation can also play a significant role. It is of great importance to have broader public engagment in these programs so that applications of new technologies can be quicker implemented for best results. Exchange of knowledge between institutions, and between EU member states and enlargment countries is needed to avoid fragmentation and duplication of efforts, and to bridge societal gaps. More than in all other

aspects, when dealing with societal challenges, a transnational and inclusive concept is needed. This requires a higher level of coordination at national and EU levels.

We support Europe's priorities with regards to societal challenges as they are in line with global tendencies and the developmental needs of all European countries.

Strengthening competitiveness

It is often noted that SME participation in associated countries is low. However, regional initiatives, such as the Western Balkan Technology Fund, which Serbia and other WB countries have been promoting for the past two years, are met with caution from European partners. The risk of introducing financing mechanisms for innovation in the WB is recognized, yet without addressing the clear market failure in this area, Serbia and WB countries cannot expect to meet the Innovation Union goals. Here we address the key points outlined in the Green paper regarding support for innovation and strengthening competitiveness.

The broad nature of innovation, including non-technological innovation, eco-innovation and social innovation should be accounted for, as well as the different levels of economic and technological development existing in European countries.

Open, light and fast implementation schemes that will enable SMEs and other stakeholders from industry and academia to explore new ideas and opportunities are needed. PPP models should be developed for all stages of the innovation cycle, starting from education and research, and resulting in commercialization of innovative products. EU funding should not be orienting only on immediate application or commercialization of technological innovation but it should be oriented on long-term non-technological, eco or social benefits. Investments in basic research which doesn't have immediate application or commercialization should not be diminished.

FP8 should use more open calls and simplified, more efficient application procedures, particularly in attracting SME participation. EU Equity and Risk Sharing Platform mechanisms for commercialization of R&D results should be strengthened. Different funding schemes and incentives should be offered to companies in different stages of their development. Suport for universities and research institutes in opening their business incubators, would help their reserarchers in commercializing their results and starting their own companies.

European Technology Platforms should proceed being an essential tool of horizontal linking and transferring the knowledge from basic science to applied research. Joint Technology Initiatives and different forms of 'public private partnership' should be supported in such a way that would ensure easier concentrated actions between public and private organizations,

as well as greater interest of the industry sector in participating in such projects in order to ensure the application of their results.

SMEs with experience in technological innovation or cooperation with research institutions are a valuable resource and should be supported.

While individual SMEs from all fields of R&D could be supported through targeted initiatives on equal footing as academic and research institutions, their major contribution can be achieved through larger consortia working on Joint Technology Initiatives. Complementing national funding, the EU may focus on technologically oriented SMEs, especially in collaborative environments, since they are less likely to obtain national funding.

At EU level, SMEs that have a wider research base and interest should be specifically supported. Also, those that have wide access and high market success should be encouraged to join as well. Their experience in the final application of the results of any EU-funded project is essential and must be acknowledged. Perhaps there should be more flexibility when an SME applies for a grant and participates in a consortium regarding its general data and more emphasis should be put upon the benefit the project may have from its participation.

All SMEs introducing technological innovations as direct transformation of R&D results both internally and externally realized into new processes and products should be encouraged.

Encouraging SME participation requires more dynamic and simplified application procedures.

At least for small, proof of the concept type of the project, permanently open calls should be in place. Funding schemes for SMEs should be open all the time, at least for small, proof of concept types of the projects.Any proposal that satisfies specified criteria should be supported, if the financial participation is relatively small (e.g., 50.000 Euro). For higher amounts, more demanding application procedures can be required. EU support for SMEs could be in part conditioned with national contribution as part of national innovation support mechanisms.

Higher risk taking on behalf of the EC needs to be introduced through different financial instruments including equity and debt based tools.

The use of different financial instruments including those equity and debt based tools in addition to grants for the benefit of innovation, should be designed in an inclusive manner to enable access for the associated countries as well. Such particular instruments could be developed for clusters of countries and needs to be strongly supported by the EC. The EC needs to adopt a risk tolerant approach in financing innovation with various financial tools. A number of special joint venture funds specially set for technology-based innovations should

offer equity-based financial supports to innovative SMEs. It is risky for SMEs to accept loans, as innovation development is, in principle, a risky operation. Loans may be implemented if they are accompanied by appropriate guaranties provided by EC or nationally supported organizations or funds. Each joint venture fund should be highly specialized in order to have experts to evaluate requests according to both business- and technology-based criteria.

Current intellectual property rules governing EU funding can be further improved to motivate dissemination of scientific results and provide assistance to SMEs in handling IP issues.

Intellectual property rules governing EU funding striking the right balance between competitiveness aspects and the need for access to and dissemination of scientific results have already been established in a good, efficient and useful way. They can be refined to bring a more lasting and beneficial balance between these two basically opponent but genuinely possible to integrate poles. Research organizations should be encouraged to consider wider access to their scientific results as a tool of their wider application and something that promotes and acknowledges their excellence. There is a need for a database of results (deliverables, patents) of EU funded Such a tool would greatly increase visibility and dissemination and help future collaborations. Also, the capacity of different participants (particularly SMEs) in taking advantage of the opportunities provided by IP rules in EU funding is limited. Instruments for assisting SMEs in preparing IP strategies or covering the costs of patenting results are needed.

Strengthening Europe's science base and the European Research Area

The goal of a country such as Serbia, in a time in which EU member states are lacking a young and educated workforce, has to be achieving mobility as opposed to brain drain. Cohesion policies must address not only the general population but must ensure enough brain power for the development of all. In particular, young researchers must be enabled to have equal opportunities as their EU colleagues while pursuing scientific careers in Serbia. Mobility without emigration can be accomplished through limited contracts and strengthening international collaboration. A strong ERA requires that all countries develop their science base and research capacities. Here we discuss initiatives mentioned in the green paper regarding mobility, support for young researchers, research infrastructures and other issue crucial to the future of the ERA.

The role of the European Research Council in supporting world class excellence should be strengthened and ERC's support should be extended to more researchers.

The role of the European Research Council has been established on a solid and realistic basis. It must continue with its strategic mission of both promoting the excellence of European research and also increasing the global benefit and application of European results at various international levels. The European Research Council should be able to follow the activities of

both European and non-European organizations and apply any experience that may contribute to the strategic European R&D agenda. More flexibility for the ERC should be provided as well as the ability to shape its own policies. Broader financial instruments for funding of targeted mobility (ingoing and outgoing) need to be established, with targets related to current priorities, but also emerging research areas.

Smaller size ERC grants for more junior researchers, with the same focus on excellence, would create a pipeline of researchers qualified for more significant grants further in their careers.

There is a danger that countries with weaker economies and R&D sectors be put at an even further disadvantage. Therefore, even though excellence should remain a priority, capacity building should be supported and should not be neglected at the expence of excellence.

EU funded programs should help ERA countries in building excellence.

First of all, excellence should be properly defined. From an innovation point of view, excellent research, characterized with excellent scientific publications, is not enough as it does not reflect commercialization of RTD results. New and more appropriate performance indicators for applied RTD and innovation development need to be specified. Often, only the number and quality of published research papers is accepted as a measure of excellence. This favors basic research and reduce the interest of researchers for applied research and commercialization of research results. The EU should assist Member States to specify more elaborated performance indicators appropriate for all activities of an innovation cycle.

Secondly, the use of results-based funding and establishing databases of research and development or innovation results with the constant monitoring could increase the competition between research groups and guarantee longterm participation of excellent researchers.

EU support in building up excellence by paying enough attention to various regional and national peculiarities in all stages of project development, ranging from the early recognition of EU research priorities, over defining the content of calls to reviewing applications. Each member of the ERA should be given equal opportunities in building up its excellence in diverse research fields.

Marie Curie Actions have played a crucial role in promoting researcher mobility and developing attractive scientific careers and should be continued in the next framework program.

Marie Curie Actions have established themselves as very attractive and rather practical tools of promoting research mobility and developing attractive careers and by all means should proceed in the future. One of the ways to strengthen them is to introduce more justified flexibility regarding the participation of Associate Countries and other non-Member States,

with particular reference in their taking the roles of coordinators or leaders of individual Work Packages.

It is highly important to continue with Marie Curie Action and to improve the programmes for early stage researchers in order to create attractive careers. We strongly support the Industrial PhD program which should be increased in the future. Further simplification of rules, more emphasis on the quality of candidates than hosting institutions (to strengthen the position of less developed countries and regions), or even targeted calls for specific regions are welcomed.

The role of women in science should be particularly supported in natural sciences and engineering.

All the current measures aimed at strengthening the role of women in science and innovation should be proceeded with. A certain flexibility should be allowed in the cases where the proportion of female researchers is dominant, as in cases of some research fields in some countries. Developing special programs for women in science could be considered e. g. possibility to influence social policy for women which are mothers, offering better child care organization, flexible working hours, etc.

The role of EFSRI should be strengthened in the future and a balanced distribution of infrastructure investments should be ensured.

European research infrastructures should be rendered more open towards enlargement countries. When networking between existing research infrastructures is supported, inclusion of enlargement countries could be favored. Partnerships among excellent infrastructures needs to be extended to include less excellent infrastructures in order to maintain harmony and balanced development. The enlargement countries which are associated to FP7, should be regarded as a location for important research infrastructures. A balanced distribution of research infrastructures, agencies and KICs should be ensured. A regional programs for e-Infrastructures should be supported and partially funded. EU Infrastructure investments can be further levereged if they are used to support individual country efforts.

International cooperation with non-EU countries should be strategically oriented towards grand challenges and reciprocity should be achieved.

International cooperation with non-EU countries should be carefully designed according to the specific needs in each research field in order to ensure the maximum benefit for both sides. Particular attention should be paid to Associate Countries and other regions geographically belonging to Europe by encouraging their participation and thus contributing to the building up of a functional, integrated and united enlarged European Research Area. International cooperation should especially focus on grand challenges such as climate change which require a global perspective.

Conclusion

As a brief conclusion, we would like to summarize the key points made in this document:

- Simplification of procedures is possible and needed in the future;
- SME participation is needed for completing the full innovation cycle, from research to market uptake;
- Other sources of funding should be leveraged for better coordination, greater impact and greater investments in science in technology, particularly in less developed areas;
- Both smaller, targeted projects and larger, strategic ones are needed;
- Measures of success and performance indicators should be clear and flexible, supporting scientific excellence while ensuring an integrating ERA;
- A thematic approach should constitute the backbone of an ERA focused on tackling societal changes;
- Bottom-up activities are needed in the innovation cycle;
- The Joint Research Centre can provide support in policy-making and determining forward-looking activities.
- Societal challenges can only be tackled through broad engagement of countries, research institutions, industry and society;
- The broad nature of innovation, including non-technological innovation, eco-innovation and social innovation should be accounted for, as well as the different levels of economic and technological development existing in European countries;
- SMEs with experience in technological innovation or cooperation with research institutions are a valuable resource and should be supported;
- Encouraging SME participation requires more dynamic and simplified application procedures;
- Higher risk taking on behalf of the EC needs to be introduced through different financial instruments including equity and debt based tools;
- Current intellectual property rules governing EU funding can be further improved to motivate dissemination of scientific results and provide assistance to SMEs in handling IP issues;
- The role of the European Research Council in supporting world class excellence should be strengthened and ERC’s support should be extended to more researchers;
- EU funded programs should help ERA countries in building excellence;

- Marie Curie Actions have played a crucial role in promoting researcher mobility and developing attractive scientific careers and should be continued in the next framework program;
- The role of women in science should be particularly supported in natural sciences and engineering;
- The role of EFSRI should be strengthened in the future and a balanced distribution of infrastructure investments should be ensured;
- International cooperation with non-EU countries should be strategically oriented towards grand challenges and reciprocity should be achieved.