

Theses Paper for shaping the next (9th) EU-RTD Framework Programme

By the Austrian FP9 Think Tank

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The Think Tank in alphabetical order

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Foreword from the Rapporteur

The EU RTD Framework Programmes and the establishment of the European Research Area are of great importance for Austria. Being a medium sized, highly industrialized, high wage country with an open economy in the middle of Europe, the process of European integration in the area of research and innovation offers enormous opportunities for Austria through collaborating, learning, sharing and competing. Therefore Austria's intention has been to be an active partner for the European commission and our partners all over Europe by contributing actively in driving the ERA forward and by putting considerable efforts into a successful participation in the Framework Programmes.

When it comes to discussing and designing the next Framework Programme (FP9), Austria wants to be active again. This was the reason to initiate the Austrian FP9 Think Tank as a group of people highly experienced in the field of European RTI policy. The Think Tank discussions were inspired by the vision of strengthening the entire European integration project by a more coherent and integrated European RTI policy and focussed primarily on ways to improve the effectiveness and efficiency of the Framework Programme. Austrian national interests have certainly not been excluded from the discussions but did not play a dominant role.

The Theses Paper is the result of these discussions and is purely built on the ideas, opinions and views of the Think Tank members. Naturally compromises had to be made by the individual members to achieve a commonly agreed result.

As Rapporteur and being responsible for organizing the process, I would like, on behalf of the Austrian Ministry of Science, Research and Economy, to thank the Members of the Think Tank for contributing their time and expertise and for their enthusiasm and creativity. Further thanks for their contributions and support go to: Christian Naczinsky, Armin Mahr, Michael Weber, Elke Dall, Martin Hartl, Alexander Degelsegger and Markus Hametner.

Martin Schmid (Rapporteur)

Executive Summary

This paper is the result of the discussions of the Austrian FP9 Think Tank taking place between May and September 2016 in Vienna. The task of the Think Tank was to develop ideas and proposals for a future European Research, Technology and Innovation (RTI) policy and specifically a more effective and efficient Framework Programme as an input for the discussions and preparations of the next (9th) Framework Programme (FP9) in Austria, in Brussels and across Europe. To this end, the Think Tank produced 10 Theses as the main outcome of its work. The Thesis in brief:

Thesis 1: The EU needs a common Research, Technology- and Innovation Policy (CRTIP) to enable the complementary use of all its structures and mechanisms in an efficient and sustainable way and to serve as a common framework to align all EU and national policies that are of relevance for RTI. This must include a close partnership between the EC and the Member States.

Thesis 2: The best way to prepare for future challenges and opportunities consists in a triple investment into the development of world class human resources, into frontier research and into world class research infrastructures. These elements should therefore play an important role in the future FP.

Thesis 3: With respect to the part of the programme aiming at improving European competitiveness and innovation, the FP should move towards a more integrated programme for European economic policy through Research, Technology and Innovation. It should therefore give a strong role to partnership approaches (PPPs), focussing mainly on transformative innovation and include elements such as smart regulation and innovative procurement.

Thesis 4: Contributing to the grand societal challenges of our times and bringing science closer to the people should be main objectives of FP9. With respect to the societal challenges element of the programme, a redesign is required to give full justice to the specificities of new mission-oriented programmes.

Thesis 5: The Future Framework Programme needs to focus on a limited number of priority areas both in a competitiveness pillar and in a societal challenges pillar. These priority areas should be given the appropriate budget in order to create critical mass, high visibility and strong impact in general.

Thesis 6: The Framework Programme (including all initiatives funded by it) should have few and clear objectives, a clear and easy-to-comprehend structure, and a single set of instruments as simple and as unbureaucratic as possible.

Thesis 7: We see the necessity to considerably strengthen the strategic intelligence for programme governance and management as well as for the design of future programmes in the FP. To this end, a profound and independent monitoring and evaluation culture, equipped with sufficient resources should be established.

Thesis 8: Each priority area of the future FP should have a dedicated and comprehensive Strategic Programme Management provided by the European Commission, in close collaboration with the implementing agencies and containing an effective interface with the Member States. The Programme Management shall focus on optimizing the impact of the programme and enabling effective Alignment with national and transnational activities.

Thesis 9: The next FP should contain a more strategic, proactive and enduring approach for the cooperation with third countries.

Thesis 10: The compatibility and complementarity of the FP and the cohesion funds need to be improved significantly for the next programming period.

1. Introduction

1.1. The General Context

The EU Research Framework Programme has grown into being the largest RTI Programme in the world over the last decades. It can be considered as one of the cornerstones of the European integration project. Horizon 2020 with its roughly 80 bn. € has become a major determinant of RTI policy and a major source of competitive RTI funding for all types of RTI organisations in the EU. The EU Framework Programme is also the major determinant of the European Research Area, providing glue money for the necessary joint funding.

In view of the challenging overall situation the EU is facing, a new Framework Programme should, above all, instil a renewed sense of purpose and belief into the future of Europe and the European Union, based on the enormous potential that science, research, technology and innovation continue to generate in Europe. As a leitmotif of FP9 this has to be the foundation of the programme and all its elements in order to creating an irresistible new momentum and driving force which moves Europe forwards in a globalised world. Where else, if not in science and through science, is the place to start with a renewed effort – knowing very well that Europe will hardly be given another chance?

Bearing this context in mind, the discussions on the future of the European RTI policy and more concretely the preparations for the next EU Framework Programme should receive maximum attention. We need to build on successful achievements and we need to improve, adapt and make the next FP fit for current and future challenges.

The preparations for the next Framework Programme at European level have already started. The European Commission is currently setting up a High Level Group which shall develop “Future Orientations” for the EU Framework Programme. Due to the elections of the new European Parliament in May 2019 and due to the end of the term of the current European Commission in October 2019 the preparation process must start earlier this

time. The EC plans to put forward its proposal on the financial framework before the end of 2017. The proposal for the next Research Framework Programme is expected for spring 2018.

This means that now is the time to discuss the future of European RTI policy. Now is the time to discuss how the EU Framework Programme can be developed further, and can be strengthened regarding its efficiency and effectiveness for the benefit of the EU, its Member States and its citizens.

1.2. The Austrian discussion process and the role of the FP9 Think Tank

Austria will hold the Council Presidency of the EU in the 2nd half of 2018. As it seems now, this will be the start of the in depth negotiations of the EC proposal for FP9. This also means that for Austria it will be difficult to push its own interests during an important phase of the negotiations. Even more, it is important that Austria expresses its views and opinions in an early phase of the FP preparations.

The Federal Ministry of Science, Research and Economy therefore initiated a process to discuss the future of European RTI policy and the role and functionalities of the future Framework Programme with all interested parties in Austria. In the initial phase of this process, a number of reputable Austrian experts in the field of RTI policy were invited to form a "Think Tank" and to develop ideas and put them forward in a paper to serve as a basis for further discussions in Austria as well as an input for the discussions on the European level.

The paper at hand is the result of the first deliberations of the Think Tank. It contains 10 Theses as major ideas for the future of the European RTI policy and more specifically the next Framework Programme.

Starting with a Stakeholder Event on 10 October 2016, a broader discussion involving all Austrian Stakeholders will follow, including an online consultation on the Austrian ERA Portal.

1.3. The self-conception of the Think Tank, its composition and working methods

The idea behind setting up the Think Tank was as follows:

1. Bring together a number of experts with a lot of experience and knowledge in the area of RTI policy in general and in particular in European RTI policy and the functionalities of the FP
2. Ask these experts to discuss the future of European RTI policy and in particular the future of the RTD Framework Programme
3. Have a Rapporteur to deduce and formulate the 10 most relevant conclusions from these discussions and make them the core of the "Theses Paper"
4. Finalize the Theses Paper in an iterative process so that all members of the Think Tank can sign on to it

Furthermore it shall be noted that the Think Tank members do their work unsalaried. They do not represent the organization they work for but act on a personal capacity and they jointly have the authorship of the Theses Paper. The members were not selected to represent sectors of the RTI landscape or types of institutions but purely on the basis of their expertise.

Previous publications and assessments, notably the FP7 ex post evaluation have been taken into account. The opinion of the Think Tank does not constitute a position of the Austrian government, even though the process is governed by the Federal Ministry of Science, Research and Economy.

1.4. General Observations

From the extensive discussions during the Think Tank meetings some general observations can be deduced and should be put ahead of the specific conclusions in the form of the 10 theses.

There is an overall agreement on the achievements of the Framework Programmes over the last decades and on the value of having a well-established supranational funding programme to build on in the future. The

Think Tank gives the Framework Programmes specific credit for the following achievements:

- There is manifold evidence that the FPs have considerably improved the level of transnational collaboration throughout the EU and fostered the building up of transnational networks. Collaborative research laid the cornerstones of the European Research Area and continues to be a relevant objective for future Framework Programmes, not as end in itself, but as a condition of improving the quality, relevance and impact of research and innovation utilising the potential distributed across Europe.
- By establishing the ERC, the FP set up of an internationally recognized pool of funding for frontier research. The number of ERC grants given to an institution has even developed into a measurement for the excellence for European science institutions.
- The FP has become a major source of funding for many research organisations in the EU and an important supporter for innovation and the creation of critical mass in industry-oriented research. It complements national funding and in many Member States constitutes a considerable part of competitive RTI funding.
- The FP has become an internationally recognized flagship of European Integration.

On the debit side the following issues should be outlined:

- Success rates have recently reached a critically low level. In order to ensure a sustainable and attractive FP9, measures need to be taken to counteract that development.
- The EU Framework Programme is not sufficiently embedded in a coherent policy framework of the EU and its Member States. We believe that a closer and systematic connection of the FP to other EU policies and to Member States' RTI policies and initiatives is needed in order to lift its full potential. To achieve this, appropriate interfaces between research and other policy fields are needed while at the same time overloading the individual programmes and

instruments with multiple goals must be avoided. At the interface between the EU and national levels we believe that a “new deal” between the EU and its Member States is needed in order to apply the principle of subsidiarity wisely and to assure that every level is in fact contributing to the common goals.

- More emphasis and more resources must be invested into managing the programme, not for the sake of increased bureaucracy and control, but for improving the uptake and impact of the research funded. Therefore a comprehensive programme management should be provided by the European Commission for every priority area of the FP in order to enable a strategic pursue of the programme objectives and maximising the impact of the programme.
- The EU Framework Programme, despite all of the simplifications, is still complex, particularly concerning all the “attached initiatives” funded or co-funded by the FP and the interventions are dispersed. The Think Tank believes that more than ever this is the time for the FP to define clear priorities, create critical mass and put the focus even more on creating impact.
- Society is at present not sufficiently involved in European RTI. The FP should develop a stronger involvement of stakeholders, users and more broadly civil society into the programme design and implementation. This also encompasses demonstrating and communicating the results of its initiatives and achievements to the public.

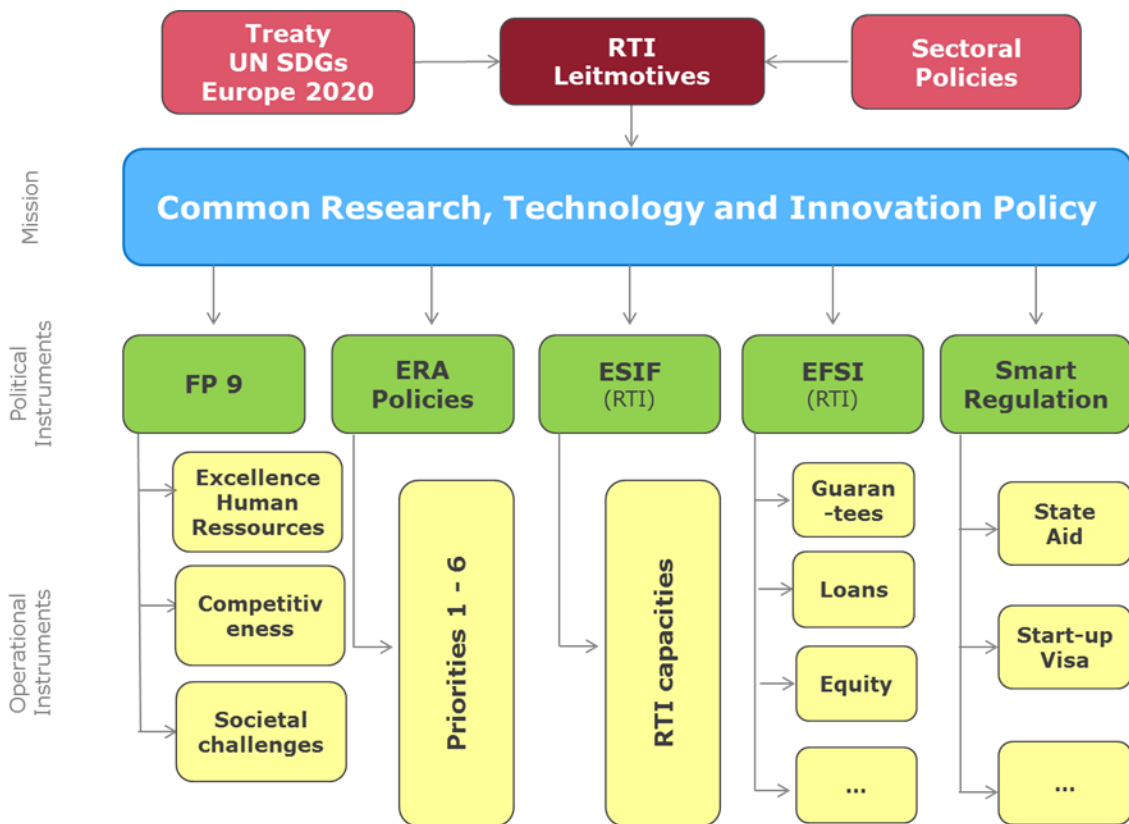
2. The 10 Theses

The Think Tank has decided to structure its paper along 10 Theses which reflect the major strands of its discussion process. This chapter attempts to present the 10 theses in a concise and comprehensible manner.

Thesis 1: A common Research-, Technology- and Innovation Policy for the EU (CRTIP)

The EU needs a common Research, Technology- and Innovation Policy (CRTIP) which could enable the complementary use of all its structures and mechanisms in an efficient and sustainable way. For this purpose the coaction of the Framework Programme with the EU Cohesion Policy and other EU policies must be further developed and intensified. The same goes for the coaction of the EU RTI policy instruments with the respective policies and instruments of the Member States, recently discussed under the term "Alignment". The CRTIP should be developed on the basis of the objectives laid down in the treaties as well as in the Europe 2020 Strategy (or a possible Europe 2030 Strategy) and the Sustainable Development Goals of the UN Agenda 2030.

Illustration 1: Possible structure and elements of the Common RTI Policy



In the context of a CRTIP the EC and the MS in a true partnership should

- Create a common framework to align all EU and national policies that are of relevance for RTI, such as RTI-intensive sectoral policies, structural funds, RTI funds and programmes.
- Develop smart governance for the EU RTI instruments in order to combine the EU RTI policy with other EU policies such as education, transport, energy, environment, social cohesion, security, migration etc.
- Move towards a next stage of ERA policies and ensure a close partnership between the Commission and MS/AC.
- Make a "new deal" between the EU and MS/AC in order to ensure the complementary tackling of joint tasks such as the societal challenges, the international competitiveness or building up of excellence throughout the EU. This would require developing smart in-

terfaces between the EU and national levels and the commitment of dedicated funds on the side of the Member States. Such a new deal could enable an enhanced collaboration with complementary interventions and joint instruments.

- Define the need for innovation friendly and smart regulation in order to improve the framework conditions for RTI in Europe in areas like State Aid, innovative procurement, innovation-friendly environmental and safety regulations, mobility of researchers, etc.

Some of these points are already partly in place or under discussion. Some would require a paradigm change. For the EU to increase its credibility and demonstrate its ability to bring Europe forward such an endeavour would be crucial.

With regard to the next FP in the context of the CRTIP the following steps would be necessary:

- Define the main purposes and objectives of the EU-RTD Framework Programmes
- Ensure a budget for the next FP which is sufficient to make the implementation of the defined objectives possible.
- Clearly define what shall be the added value of the interventions of the FP compared to other EU instruments and/or national/regional instruments
- Clearly define what is better done by other EU instruments or, following the principle of subsidiarity, on national or regional levels and should therefore not be a task for the FP.
- Define the role of the EU cohesion policy for RTI and how to use the FP and ESIF in a complementary manner
- Ensure that the shifting of funds from the FP to other (financial) instruments (such as EFSI) is avoided

Thesis 2: Foster Human Resources and Frontier Research for diversity of future options

If Europe aims at economic growth and more security to better confront the enormous challenges ahead - it needs to acknowledge and safeguard the role of science which will be crucial for these and other as yet unknown developments and transformations. Whatever an inherently uncertain future will bring, the societal response will largely depend on human resources and on the knowledge, skills, mind-set and creative energy that people, and especially the next generation, will be able to master. Fostering human resources now therefore holds the key to Europe's future.

Consequently, the Think Tank believes that the best way to prepare for future challenges, opportunities and options consists in a triple investment:

- into the development of world class human resources,
- into frontier research
- and into world class research infrastructures

Thus, similar to H2020, one pillar of FP9 should be dedicated to what we want to call "excellent research to increase the diversity of future options". This pillar should comprise the ERC, the Marie Skłodowska Curie actions (MSCA), FET activities, COST and support for setting up and running of world class Research Infrastructures.

Both the ERC and MSCA should serve their goal in a clear and simple way, unencumbered by any mission orientation, industrial leadership focus or any other added components. Close links between ERC, MSCA and FET activities should be ensured in order to achieve more synergies between these parts of the programme. This applies to programme design, programme management and to research results

The FP should also strengthen its role as a facilitator of world class research infrastructures in Europe focussing especially on their long term sustainability.

The following points should be considered for design and implementation of the “Excellence Pillar” of FP9:

- Appropriate success rates have to be considered to ensure a sustainable global attractiveness of MSCA and ERC, measures.
- Equipping researchers with the appropriate knowledge, capabilities and skills fostering excellent research while preparing them for contributing to innovative activities in science, business and other societal sectors.
- On the operational level, continuous efforts to further improve the evaluation procedure, e.g. with respect to interdisciplinary proposals; potential biases (e.g. gender, host institution/country) should be ensured.
- The regular provision of adequately detailed data required by Member States to be able to monitor their performance in ERC and MSCA in a meaningful way should be a matter of course, in accordance with the confidentiality rules.

Thesis 3: A focus on competitiveness and transformative innovation

Global competition gets fiercer, entire economic sectors keep on consolidating, and other global regions make significant progress in catching up. The commitment to strengthen Europe’s global competitive position as a “knowledge-based economy” in action and enhancing its attractiveness as location, investing in research and innovation (including eco-innovation) has to be high on the strategic agenda. Investments in key industrial technologies, maximization of the growth potential of European companies and support of innovative SMEs are key issues. The previous framework programme and H2020 succeeded in extensively involving both large corporations and SMEs through increased public-private-partnerships (PPPs) and SME specific programmes.

Building on the positive developments of Horizon 2020 and in line with our proposal for a Common Research, Technology and Innovation Policy of the

EU, the “competitiveness pillar” of FP9 should move towards a more integrated programme for European economic policy through Research, Technology and Innovation. This should entail the following elements

1. The selection of a limited number of priority areas on the basis of an assessment of the major future opportunities for Europe. These priority areas should as much as possible be articulated with other EU policy areas (energy, mobility, health, environment, security etc.) and should receive an appropriate amount of funding to enable a comprehensive set of measures and to achieve tangible impact on a global scale
2. For these priority areas a strategic programme management shall be installed, see Thesis 8.
3. Under the supervision of the programme management PPPs (JTIs as well as contractual PPPs) should be established (or continued) in line with guiding principles addressing the needs of European added value, global impact and good governance. Additionally, PPPs should serve as a platform to design and implement RTI measures in close collaboration with relevant stakeholder groups (representing consumers, societal actors, etc., to ensure potential links to the societal challenges addressed in the third pillar.
4. In order to effectively foster transformative innovation (i.e. ground-breaking innovation, potentially transforming whole systems), the selected priority areas should be addressed also by other specific measures such as:
 - A supportive policy and business ecosystem for RTI, particularly with respect to regulation enforcing fitness for global competition (e.g. green regulation, a European state aid regime that does not put Europe at a disadvantage to its main competitors, the creation of truly common markets with the perspective to create ‘lead markets’).
 - Creating markets for innovations from Europe by using PCP (Pre Commercial Procurement) and PPI (Public Procurement of Innovation). Improved approaches shall be developed to

overcome previous implementation obstacles while, at the same time, the MS need to be involved in a more comprehensive way. This should be accompanied by tailor-made legislative measures.

- Measures and resources for RTI-risk finance instruments should be part of FP9 while ensuring clear governance with implementing bodies (EIB, EIF, etc.); EFSI should be focused mainly on non-RTI related activities (despite the fact that there is no definitive separation line).
5. As another element of the “competitiveness pillar”, bottom-up RTI measures in general (with an emphasis on start-ups and SMEs) should be foreseen. For bottom up measures, subsidiarity and complementarity must be guiding principles – including all levels of policy intervention (European, national, regional, intergovernmental/EUREKA) Therefore the focus shall be put on activities with specific European Added Value such as creating new/lead markets, allowing for market introduction at high TRL levels, framework-conditions conducive to rapid scale-up efforts etc. The activities discussed under the term “EIC” should not exceed the totality of these bottom-up oriented measures.

Thesis 4: An enhanced focus on societal challenges

Contributing to the grand societal challenges of our times and bringing science closer to the people should be one of the main objectives of FP9. We are fully convinced of the high added value of tackling the grand challenges on a European level. We therefore think that at least one third of the FP 9 budget should be allocated to this part of the programme.

FP7 and Horizon 2020 started already the development of mission orientation in the Framework Programmes. It must be stressed, however, that the intervention logic and programme designs of H2020 for the third pillar are still based on the intervention logic of past technology-centred framework programmes. Themes and topics often follow a technological fixing-the-

problem approach instead of addressing societal causes and major transformation processes. A redesign in order to give full justice to the specificities of new mission-oriented RTI programmes is therefore required. Experiences of national and multi-lateral programmes in this field (e.g. JPIs) should be taken as sources of inspiration for this redesign. The integration of social sciences and humanities should be high on the agenda.

Furthermore, the programme governance of the third pillar of H2020 does not mirror the characteristics of societal challenges and follows a top-down approach rather than involving citizens and society in a substantial manner. Although participatory elements have been strengthened, research agenda setting and work programme development is often perceived as taking place behind closed doors and highly important concerns of European citizens are only marginally addressed (e.g. social cohesion, European integration and combating unemployment). This can increasingly jeopardise political and social acceptance of public expenditure for European research funding. In addition the participation of citizens and civil society (organisations) in FPs is marginal. Future Framework Programmes will have to address citizens' concerns better and to involve them in a more substantial role.

The following elements should be incorporated into the societal challenges pillar of FP9:

1. A limited number of challenges with defined key issues should be selected. The selection should be based purely on the relevance of the respective challenge to the European citizen. The UN Sustainable Development Goals and the European Sustainable Development Strategy serve as a framework for this exercise.
2. Within the challenges, clear mission targets shall be defined while at the same time giving room for new approaches and using bottom up instruments. Funding of both the creation of new knowledge relevant for understanding interdependencies within the challenge, and the development and implementation of new solutions shall be part of the programme to address the mission targets. It will be necessary to choose or develop adequate intervention logics considering the specific character of the societal challenges.

3. The selected challenges should be given the appropriate budget in order to create critical mass and considerable impact.
4. A part of the budget should be reserved for new upcoming relevant issues. Mechanisms should be in place for timely and flexible response.
5. A strategic programme management should be installed for each priority area. See Thesis 8.
6. Collaborative projects of the appropriate size for the theme or question at stake should be the standard instrument for the priority areas. Cross-disciplinary aspects in these projects need to be strengthened. In addition, P2Ps, the use of research infrastructures, specific actions with third countries etc. could be provided for.
7. In each priority area, smart interfaces between EU and national levels should be installed in order to enable an enhanced collaboration with complementary interventions on national/transnational level and joint instruments (P2Ps). Joint standing committees should be established for this task involving, where existing, JPIs or other transnational structures
8. Following the Subsidiarity Principle, other issues will be dealt with on national or transnational level. The ERA-Net-instrument should continue to support the coordination of national RTI in domains of European relevance.
9. Specific projects or support should be provided for the use and transfer of the created knowledge, including open data; mapping activities; public relations activities, etc. (see also Thesis 8). A systemic approach to foster impact within the societal challenges will be necessary. In addition demonstration/ dissemination/ test-bed/ diffusion projects should be used. This will require in many incidents as a precondition the readiness of public stakeholders and structures to engage in innovative experiments.
10. Stakeholders and civil society organizations should play a more prominent role in research agenda setting and in specific partnership programmes. Citizens and stakeholders should be engaged in a dialogue about the purpose and benefits of research and the way it is conducted.

11. Responsible Research and Innovation (RRI) has enriched the traditional view of excellence in research with consideration of impact and sustainable development, coupled with societal responsibility and institutional change. Solid mechanisms to strategically embed RRI throughout and across future Framework Programmes are required and goals for civil society participation should be considered

Thesis 5: A strong focus on impact I: Concentrate on a limited number of priority areas

In order to create critical mass and high visibility and to achieve strong impact in general, the Framework Programme needs to focus on a limited number of priority areas both in the competitiveness pillar and in the societal challenges pillar.

The current practice of making head-categories of themes under which to subsume all sorts of topics should not be continued. Instead, a transparent process conducted by independent experts should lead to the selection of priority areas (challenges/ technological fields). The selection of the themes should be based purely on relevance to the European Society and/or economy and not on national or sectoral lobbying. Each of these priorities should have a dedicated programme management (see Thesis 8) and should be given the appropriate budget in order to create critical mass and considerable impact. We must have the courage to set priorities and accept that the FP is not big enough to cover (almost) everything. This, however, must not be used as an argument to reduce the budget of FP9.

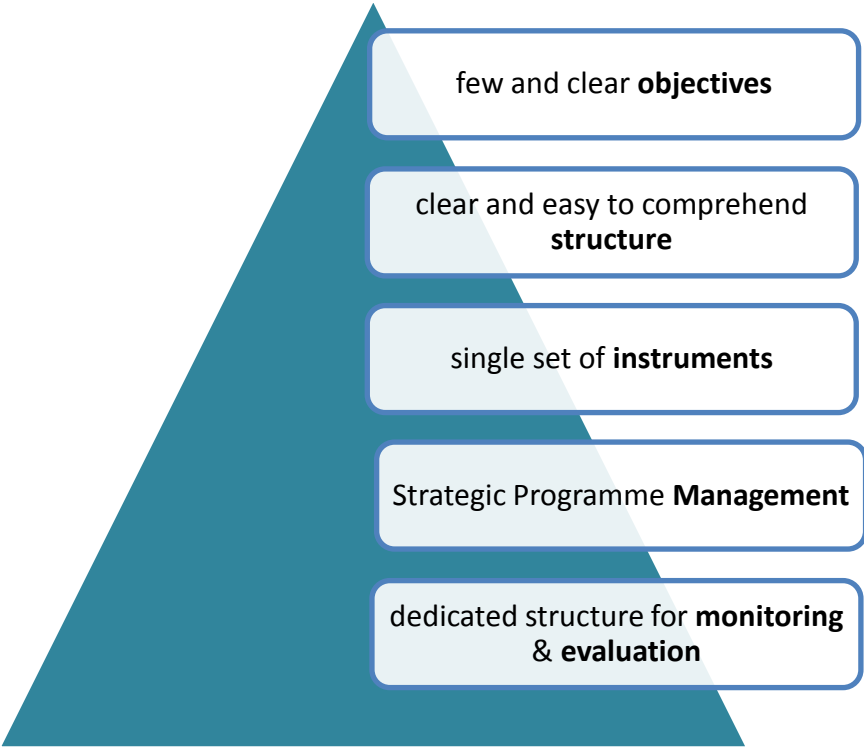
Besides the selection of clear and ambitious priority areas, the FP should have a structure which ascertains the necessary flexibility and is the basis for having a true "learning programme" in two ways: (1) an appropriate part of the budget or a budget for contingencies should be reserved for new upcoming issues of effective relevance. If not needed, the reserved funds can be used for the priority areas. (2) For both the societal challenges and the technological fields which have been selected as priority areas, sufficient

flexibility must be provided for the programme management to develop the programme according to new developments. See also Thesis 3 and 4.

Thesis 6 Simple, clear, explainable – a plea for a radically simplified programme

When designing the next Framework Programme specific attention should be given to achieve a simple, clear and explainable structure of the FP and all its parts including all initiatives funded by it.

Illustration 2: Elements of a desirable programme structure



According to the illustration above, this should entail the following elements:

- **Few and clear objectives**

The main objectives of the FP should be (1) to foster excellent research in order to increase the diversity of future options, (2) to foster the competitiveness of the EU and its economy and (3) to contribute to meeting societal challenges. In a similar way, the concept of European Added Value (EAV) should be streamlined and simplified and limited to the most relevant aspects.

- **A structure which is clear and easy to comprehend**

The structure of the FP should follow the main objectives as leitmotivs and as guiding principles of their primary intervention logic. The three main objectives mentioned above cannot be combined since as leitmotif they potentially contradict each other. Not excluded is certainly that other aspects and objectives are relevant for the respective part.

- **A single set of instruments**

The funding activities across the entire framework programme should be organized with a single set of instruments (toolbox) which should also apply to initiatives funded or co-funded by the FP. Each of the instruments shall have its clearly defined objective, avoiding an overload of expected impacts at the same time. Without neglecting the need for financial control the instruments should be as few, simple, un-bureaucratic and flexible as possible. Important is a clear priority on grant-based instruments since loan based instruments are not suitable for the vast part of RTI funding. The implementation of new instruments should take place in close coordination between DGs and MS. The importance of transparent and coherent communication, participation and contacting procedures shall also be underlined here.

- **Strategic Programme Management**

See Theses 8

- **A dedicated structure for monitoring and evaluation**

See Theses 7

Thesis 7: A strong focus on impact II: Strengthening monitoring and evaluation with an independent outside view

A programme of the size and ambition of the EU RTD Framework Programme requires substantial and excellent strategic intelligence for Programme governance and management as well as for the design of future programmes. Furthermore, we believe that the FP should be a learning programme, able to react to future developments and able to adapt and develop structure, instruments and content on the basis of professional and profoundly informed decisions. We also believe that such an approach should be developed and applied across the FP.

We therefore propose to considerably strengthen the evaluation and absorption capacity of the Framework Programme management by giving sufficient resources and granting independence to the services responsible for monitoring and evaluation. This should enable

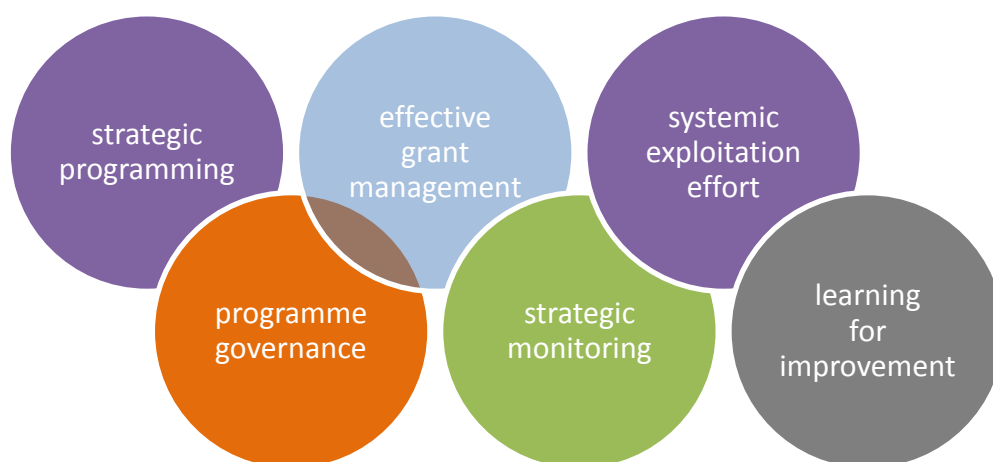
1. To develop and apply coherent monitoring and evaluation standards across the FP and all the initiatives funded or co-funded by it
2. To provide comprehensive and systematic monitoring and evaluation of the overall programme and the initiatives funded by it
3. To get an independent outside view on the Programme and its implementation, progress and shortcomings
4. to conduct relevant strategic studies

Monitoring and evaluation activities should support the achievement of the programme objectives. In addition to performance indicators output/outcome indicators shall be emphasized in order to foster impact orientation of the framework programme. A close collaboration of such a dedicated structure with the services and agencies implementing the programme (programme management, see Thesis 8) would be crucial in order to avoid a defensive attitude towards evaluations.

Thesis 8: A strong focus on impact III: Installing a comprehensive strategic programme management in the priority areas

Creating impact, making the most out of the created knowledge, having a true learning programme and realising an effective mission orientation requires for each priority area a dedicated strategic programme management to be installed. The Strategic Programme management should be provided by the European Commission and should entail close collaboration with the implementing agencies, also to improve the coherence of the entire FP. The Strategic Programme Management should install an interface with the Member States and with societal stakeholders (joint standing committees), which shall oversee the e alignment with national activities as well social and economic needs.

Illustration 3: Key elements of a dedicated strategic programme management



It comprises three phases ("programming", "grant management" and "learning and exploitation"). As accompanying activities strategic monitoring

and learning exercises should establish a basis for a well-designed programme governance.

During these phases the programme management shall be in charge of:

- governing the programme implementation in close collaboration with implementing agencies both at EU and national levels
- ensuring that the programme concentrates its funding on clear priorities, which do not necessarily need to be identified and selected in a top-down manner but can equally result from smart and selective community-led processes
- the selection of appropriate instruments from a common set of instruments across the entire FP9
- providing an interface connecting the activities under the framework programme with national/transnational activities through “joint standing committees” including as appropriate existing international (already existing) fora such as JPIs or ETPs. The Standing Committee on Agricultural Research (SCAR) could serve as a role model here.
- Setting up platforms, exchange or commissioning of specific projects so that project results can be further elaborated or exploited to achieve the highest impact of investments. This should include structured engagement of societal stakeholders and providing input for political decision making.
- Supporting the monitoring and evaluation processes with the aim to ensure reflection and improve learning curves. First-hand knowledge of NCPs and national EU-monitoring units should be used as a source of expertise.
- Conducting additional strategic intelligence activities
 - through mapping and foresight exercises of the respective research field and associated societal needs in order to build a comprehensive knowledge base on which to draw for programming and exploitation purposes,
 - commissioning of specific projects to support the exchange, collection and use of and access to data and knowledge from

the funded projects (including results from bottom up instruments)

- adequate communication of key developments and results to the public.

Thesis 9: A Strategic approach and adequate instruments for sustainable collaboration with third countries

Openness and engagement with the world and thus fostering international cooperation (INCO) in research and innovation has to be a strategic priority for the EU's RTI policy. Changes in the global research landscape and the emergence of new knowledge powers make international cooperation a must for ensuring excellence and competitiveness.

So far, the EC followed a „dual approach strategy" focusing on general opening of instruments and on targeted international activities. The mainstreaming of international cooperation in H2020 is considered as not being successful and having low awareness and impact to achieve a sustainable position for Europe as a global player. The main reason is the abrupt change in the funding regime for third countries and the dismissal of the INCO support portfolio. Although the new approach of strategic programming and roadmaps including flagship initiatives for collaboration with specific third countries is promising, it will be necessary to develop a more strategic, proactive and enduring approach with the following characteristics:

- To organize international cooperation in FP9 into one coherent overarching EU Strategy and Programme for International RTI Cooperation as an integrated part of Common RTIP that is binding for the different RTI affiliated directorate-generals of the EC ("Research Family") and that is based on timely negotiations and agreements with third countries including co-funding arrangements

for their participation in FP9 and reciprocal access to their programmes where appropriate¹;

- To define an overall coordinating, facilitating supporting and monitoring function in the Commission with a clear cross-cutting mandate for the efficient implementation of the international cooperation strategy under FP9 supported by clearly targeted Coordination and Support Actions,
- To strengthen the cooperation between MS in variable geometry arrangements as well as the cooperation between MS and the Commission in programming, monitoring and review of international activities in order to overcome the fragmented presentation of Europe and the waste of resources due to parallel activities below critical mass;
- To strengthen the resources for strategic intelligence for information gathering, foresight and monitoring for international cooperation providing a sound and continuous knowledge base for the planning, implementation and accompanying review of the international strategy. In addition to an observatory for international RTI policies and activities in the Commission, a consortium of expert institutes in MS should follow developments of research and innovation worldwide and provide input in the continuous development of the activities using also input from EU and MS science counselors world-wide.

For the implementation of the new approach some measures should be developed:

- Considering the experiences in H2020, INCO-roadmaps with specific cooperation goals for top priority third countries shall be defined, taking into account regional differences and innovation systems of third countries and balancing MS interests and European added value perspectives,

¹ emerging economies and industrialised countries

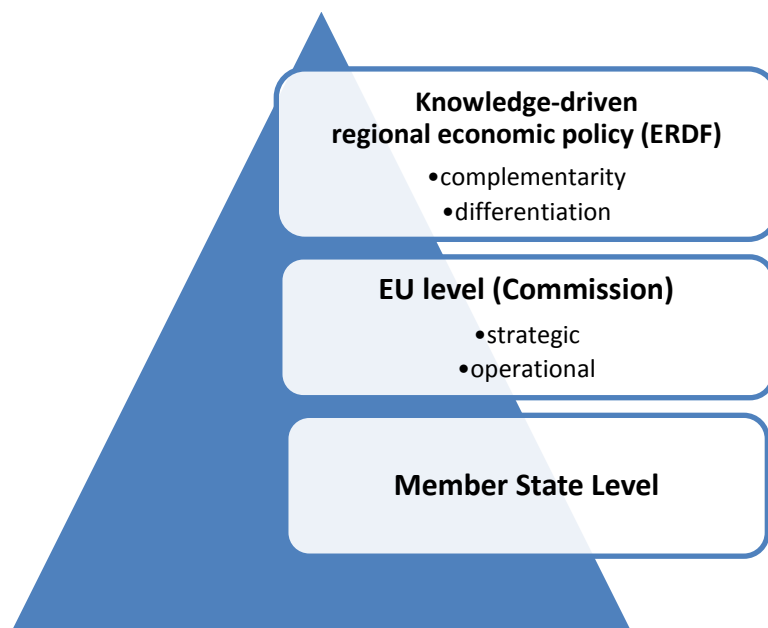
- In addition to flagship initiatives with strategic partner countries and regions, Europe should take the lead in global initiatives supported by MSs, the Commission, partner countries, private partners and others worldwide.
- Alignment of MS' internationalization strategies and initiatives where appropriate and ensuring concise communication of available funding possibilities;
- Strengthening cooperation between MS and the Commission utilizing the potential for international outreach of Joint Programming Initiatives through sustainable co-funding arrangements and inter-linking their activities with other international activities under FP9;
- Provide specific tools and instruments for multilateral co-operation with different countries and regions taking into account the maturity of the RTI systems as well as the breadth and depth of existing co-operations and the strategic goals toward a future co-operation.
- Ensuring appropriate framework condition (e.g. for IPR issues) for international cooperation in FP9;
- Take advantage of the competitive strengths of European research infrastructures and promote international access. They should be developed as attraction points for international talent and advanced researchers. In line with the Strategic Plan and Programme for International Cooperation and the Common RTIP, their long-term sustainability and strategic position as flagships of the ERA shall be ensured.
- In order to ensure and promote the global visibility of the European Research Area, a more strategic and comprehensive approach is necessary, going beyond the scattered activities of "Destination Europe" and "Tour of..." and complementing EURAXESS. There is a need to present European research worldwide research marketing ("Europe as a brand"), by appropriate actions and structures for promoting Europe as an attractive region for top researchers from all over the world.

Thesis 10: A paradigm change for the use of the ESIF for RTI

The EU Framework Programmes and the structural funds have always had, and continue to have, different objectives and focuses. It is essential that each funding programme covers those subjects and areas which are most suitable for the respective programme (excellent research and innovation: FP9, cohesion: ERDF). However, in the future both programmes need to be understood and used in a synergetic manner in the RTI field. This is particularly relevant for the ERDF priority area 'innovation and research'.

Particular situations and needs, as well as the impact of the structural funds, differ considerably between the Member States. Differentiation must therefore constitute an essential characteristic of the next ERDF programming period in addition to complementarity.

Illustration 4: Schematic display of the three level system



According to a differentiated approach, other European Structural and Investment Funds should also be recognised as stairways to excellence. Hence, Member States should be invited to put emphasis on the priority ar-

ea of research and innovation suited to their respective situation. For example, the EAFRD could fund RTI consultation services on rural development, food security and environmental challenges, while the ESF could support inclusion through tertiary education, re-qualification for innovation and technological change or doctoral programmes promoting European cohesion.

The following major steps are necessary at EU level (EU Commission) and at Member State level to ensure a good programme implementation and use of synergies:

EU level

- Framework conditions must be created to allow Member States to improve the use of synergies. This includes necessary modifications of State aid rules which must serve the fundamental objective of strengthening research and innovation in Europe, just like FP9.

An amendment of State aid rules would enable Member States to take up results of H2020 and FP9 projects as well as (parts of) rejected FP9 proposals. In order to translate good projects or their results into innovations, their implementation would then be supported using national funding. ERDF funding could e.g. be used to support proposals with a 'Seal of Excellence' or ERC proposals which were rejected and taken over by a new beneficiary.

- At the moment, different rules for participation apply for each operational programme and even for programmes sharing the same objective. Therefore, the rules for the RTI part (ERDF and ERDF-ETC) should be unified. This would also bring simplifications for applicants and stimulate cross-border activities, e.g. in the area of ETC. An initiative aiming at unifying the rules can only be launched by the European Commission (problem of path dependence in decentralised management).

- There should be identical rules regarding cost reporting/eligibility of costs for the priority area 'innovation and research' and for FP9. Since many relevant players in the RTI area of ERDF are also involved in the framework programmes, the approximation of rules would lead to considerable simplification. These changes can only be introduced top-down by the EU Commission.
- Regarding project implementation, the proven Participant Portal should also be used for ERDF RTI projects, since the research community is already used to it.

Member State Level

A knowledge- and innovation-based regional economic policy should be the main aim of the new funding period. Therefore, smart specialisation will play an even greater role in the future. Regions will have to deal with their strengths, needs and framework conditions in a differentiated and even more intensive way and Member States shall aspire to a differentiation of objectives as well as management.

The EU 13 must be significantly strengthened by Structural Funds interventions. Due to the differentiated approach regarding objectives and due to shared management, the respective situation in each Member State can be taken into consideration and precisely focused on, leading to an even stronger concentration of funds. Thus, a critical mass for research and infrastructure measures can be mobilised even in states with relatively small ERDF budgets.

However, much stronger incentives are needed to use if ERDF funding for RTI measures. This could be done by earmarking budget and reducing ERDF funds of Member States which did not use the money earmarked for the intended purpose.

Another possible option is to use ERDF RTI funding to implement results of successful projects by bringing them to the market or using them for innovation and growth measures in a suitable region. That way, regional aspects would be taken into account and a tangible impact would be generated in the region, as well as regarding the exploitation of H2020/FP9 results (such

project results should be jointly evaluated by evaluators of DG RTI, DG Regio and experts of the region mentioned in the proposal).

The Austrian situation and implementation ideas

In the future, Austria should focus on fewer objectives and measures in order to achieve a greater impact. The main focus should be on establishing structures (infrastructures) rather than on projects which imply personnel costs (only when really necessary, such as in the case of ETC).

A dedicated Austrian ERDF RTDI programme would be desirable, uniting all funds under priority 1 (as for example in Slovenia). The necessary procedural involvement of the federal provinces would still need to be defined. After reviewing the federal provinces' RTI strategies with regard to synergies and complementarities, the federal provinces would jointly define (larger) projects according to their RTI strategies as a focus of funding. This would enable the realisation of larger projects, involving more than one province, which would need to comply with a future S3 strategy. From an RTI perspective, accelerating investments in larger research infrastructure and innovation projects is definitely desirable for the next Austrian ERDF programme.