

Position Paper of the Federation of Austrian Industries

for

**the 8th Framework Programme for Research, Development and
Innovation**

Key Ideas

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Introduction

The framework programmes have been and are central instruments of the EU for promoting research. The current 7th is and the 8th Framework Programme will be cornerstones of the realization of the European Research Area (ERA).

Fundamental to a future framework programme is the firm conviction that we need

- to enhance the innovative capacities of Europe
- to motivate industry and business to participate more actively and broader in the European Framework Programme
- to advance the 8th framework programme as a valuable tool to contribute to reach the 3% target throughout the European Research Area
- to boost growth and employment in Europe

Several elements should be included in a future framework programme.

Guiding principles for a future framework programme

There has been some discussion whether there should be a new Framework Programme for Research and Development after 2013. Business and industry advocate such an 8th Framework Programme for R&D, albeit there have to be some very clear reforms.

Rename the Framework Programme

Research & Development and Innovation together with Education are parts of the Knowledge Triangle. This position paper is titled „**8th Framework Programme for Research, Development and Innovation**“ on purpose, as these different spheres are interlinked.

Cooperation and Consistency

European research policies have to interlink. The citizens and firms of Europe are often lost in a programme jungle of regional, national and European initiatives. Nobody knows how many programmes there are, which are best suited for specific problems, where there are interdependencies or where there are may even be discrepancies.

Although the 7th Framework Programme programmatically states that „mutual synergies and complementarity should be assured with Community policies“, so far this has remained only a notice of intent. The 8th framework programme should make a step change in this direction.

What holds true on the level of research and innovation likewise should hold true on the level of the **bureaucratic institutions** governing research policies: on all levels of activity cooperation is a prerequisite. This means that different European institutions,

different Directorates-General engaged in research topics have to cooperate and streamline their programmes.

New policy schemes, if perceived necessary, should be based upon existing institutions as far as this is possible and feasible.

Programme Logic

There is not only the need for reform in the governance structure, the Programme itself has to be reformed: The structure of the 7th Framework Programme is overburdened and inconsistent: It seems that one tried to put all different themes under one very elaborate structure without thinking about what the users want to reach with these themes and what are the larger aims. A more “explicit” programme logic would have produced a clearer picture of the aims of the 7th Framework Programme. The 8th Framework Programme should have a clear, easily understandable and logical structure. We propose a structure that is only based on two columns, basic research being the first and industrial research/innovation and cooperative research being the second: The people scheme as well as the research infrastructure instruments of the 7th Framework Programme should be a component of either the basic research scheme or the industrial research/innovation/cooperative research theme within the 8th Framework Programme thus contributing directly to tackling the grand challenges.

Basic Research	Industrial Research	Innovation	Cooperative Research
<p>To be defined by the European Research Council (ERC)</p> <p>Including:</p> <ul style="list-style-type: none"> - Human Resources - Mobility - Research Infrastructure 	<p>Grand Challenges</p> <p>Including</p> <ul style="list-style-type: none"> - Human Resources - Mobility - Research Infrastructure 		

The role of the Framework Programme vis a vis member states and stakeholders is not well defined but will become an ever increasing topic. The **Joint Technology Initiatives**¹ (JTI) and the **European Technology Platforms** (ETP) have turned out to

¹ A Joint Technology Initiative (JTI) is a public-private partnership using the 'Joint Undertaking' model. The European Commission has identified JTIs as a new strategy of implementing the Seventh Framework Programme (FP7) according to the goals of the Lisbon Strategy to support, in a limited number of cases, large scale initiatives that could not be implemented efficiently, using the other R&D funding mechanisms. A JTI focuses on one specific industrial area, has a well defined objective, addresses a market failure and is funded by a combination of private and public investments. In the light of the stage of development of the Strategic Research Agendas of European Technology Platforms at the time of the FP7 proposals, six areas were identified where a JTI could have particular

be valuable tools for identifying the needs of industry and should be strengthened further. The topics identified are topics of European interest. Therefore strengthening JTIs and ETPs further would be necessary. With regard to JTIs, nevertheless, a real public-private partnership model where all partners are equal should be introduced.

The proposals towards **Joint Programming**² are first steps in this direction of strengthening the links with member states but many ideas are still vague and the consequences for member states, regions but also industry and academia are not yet clear. Industry sees the potential for more co-ordination between the European Commission and the member states and therefore salutes initiatives of Joint Programming as long as they are designed to address actual needs on the one hand and facilitate regional and national priority setting through national programmes on the other hand. Joint Programming can offer the unique opportunity to support the innovative capacity of complete supply chains across borders which would be unique in the world.

One feature of joint European research projects is to include partners from different European countries. Another important feature is size. In some of the projects there is the need for large research infrastructure which one country, much less one partner institution alone cannot finance. As stated already in the 7th Framework Programme some research infrastructure is expensive, needs a broad range of expertise to be developed, and should be used and exploited by a large community of scientist and customer industries on a European scale. So there is enough rationale for supporting such **research infrastructure** on a European level, but it is not clear why this must be a separate column in the 7th Framework programme. Large research infrastructure might be needed to tackle specific grand challenges but then this would be part of the column industrial research/innovation/cooperative research. The same holds true for the needs of basic research for large infrastructure.

The same can be argued for the **mobility schemes** of FP7, especially Marie Curie: They are highly successful, they should be continued, but they do not necessarily have to be a programme of their own. Instead these successful instruments should be integrated into either the basic research or the industrial research/innovation/cooperative research schemes.

Basic Research - High level frontier research

The support of frontier research is one of the major aims to boost Europe's competitiveness. The rationale stated in the 7th Framework Programme that basic research is a key driver of wealth and social progress is true: Basic research opens new

relevance: hydrogen and fuel cells, aeronautics and air transport, innovative medicines, nanoelectronics (ENIAC), embedded systems (ARTEMIS) and global monitoring for environment and security (GMES).

² Joint Programming is an initiative by the European Commission and still in an early stage of development. The goal of this initiative is to pool national research funding programmes (e.g. develop common evaluation criteria, common calls, pooling of money etc.).

opportunities for scientific and technological advance and is instrumental in producing new knowledge leading to future applications and markets.

Basic research must be as far as possible unhampered by guidelines - as long as they are within clearly defined ethical limits. Nevertheless the research community should also be to a certain extent being involved in tackling Grand Challenges.

Therefore the sole criterion why projects should be funded is **excellence**.

But one thing is clear: Researchers do have a responsibility towards society. They have to raise their voices in social and political discussions and they have to be able to explain what they are doing to broader audiences. It is one thing to be free to do research on whatever one wants (within given ethical limits), but another thing that needs to be improved considerably is to communicate the research results also to the general public and not only to a sector specific “elite”.

Industrial Research – Innovation – Cooperative Research

The future of EU competitiveness depends on the effectiveness of its innovation given the increasingly global competition for higher added-value activities. One target has to be that to remain competitive, **production facilities** in Europe are key and have to be strengthened. This means that besides product innovation other forms of innovation, notably process innovation should move into the focus.

The link between research, education and innovation is still insufficiently encouraged and developed on the European level. Innovation very often is seen as the unloved stepchild of nobler R&D - this disregards the important role of innovation which is bringing knowledge to market and helping to deliver new products, new services and new solutions in a world of limited resources.

This paper therefore proposes a closer linkage of **support programmes for innovation** with those of R&D and to account for innovation also in the 8th Framework Programme. Therefore we suggest combining elements of industrial research, innovation and cooperative research in one broad scheme. Within this scheme a strong focus has to be set on **innovation** i.e. the transfer of knowledge to new products, processes and services. One of the major European challenges is to invigorate the innovation potential in Europe. FP8 can play a major role in this.

The support of innovation should also be linked where feasible to initiatives of the European Investment Bank and the European Investment Funds respectively.

Research Programmes have to have top priority in being of **use to society and economy** but they also have to be practicable for industrial research. While basic research is important, the larger part of funding has to be aimed at application oriented research.

There is declining industry participation (both SMEs and large companies) in the European Framework Programmes from FP 4 (almost 40%) to FP 5 (34%) and FP 6 (30%). There are signals that this trend is continuing also in FP7. This is an alarming

signal. This indication is worrying because the conclusion can be that Framework Programme activities do not live up with the overall goal of stimulating competitiveness in Europe.

Link to other instruments of the ERA:

The European Institute of Innovation and Technology (EIT) is to be strengthened and the Knowledge and Innovation Communities (KICs) are to be enlarged and broadened. It is important to focus on already existing institutions so that they can become even more successful and sustainable - this is to be preferred to inventing any new initiatives.

Accessibility

One of the reasons for the relatively low take-up, both of SMEs and large industry, is that there are considerable barriers to access to the Framework Programme.

Preparing propositions for research projects has become a discipline of its own. Even for large companies it is difficult to keep up with all regional, national and international programmes and initiatives. For small enterprises that do not have the resources to keep track of all existing and newly created programs and very often neither have the resources to apply properly nor in all demanded elaborateness this task seems unmanageable. At the same time it is very important to enable SMEs to participate so that results can disseminate as broadly as possible. Therefore programmes must be made **more easily accessible** to industry and particularly to SMEs.

The rate of projects that cannot be funded due to tight budgets should be decreased considerably. For many companies this is a major barrier of participation.

Simplification

This paper proposes a simplification of rules and procedures. Bureaucracy should support partnering and not hinder it - documents have to become more user-friendly, eg. it would help to have understandable executive summaries for each document; only necessary data should be requested, etc.

It is absolutely necessary to follow **a trust based and risk tolerant approach** for funding. Research and innovation inherently have an element of risk. This needs to be considered in the guidelines and the selection processes.

Intellectual Property Rights

Firms do have a legitimate interest to protect their proprietary data. This can become a conflict of interest when cooperating with partners under an EU Programme. Although it is clear that public subsidies have to be made transparent and evaluable, some details need to be left to the participants. It does not need too many detailed prerequisites.

Agreements and arrangements on intellectual property rights, on joint ownership and on transfers of ownership are in the sphere of the participants and it should be sufficient to inform the Commission ex post. Moreover the rules of information should account for practicability and have to regard the needs of partners who are part of a wider group of companies (where intellectual property will be used in several legal entities). There are several companies do not participate in the current Framework Programme because the IP Regulations do not protect the knowledge sufficiently.

Budget

The budget required to manage a well structured and well implemented 8th Framework Programme will be considerably more than is currently provided to the 7th Framework Programme.

It is important that the 8th Framework Programme triggers a step change of European research and innovation. The 8th Framework Programme should not be seen as an addition to national funding sources but should become an integral part of any industrial research strategy. Moreover the requirements to realize a European Research and Innovation Area demand considerably more money. Therefore the budget of the 8th Framework Programme should be **two to three times** the budget of the 7th Framework Programme.

This budget increase should be achieved by **shifting money** from other areas of the EU budget (e.g. agriculture) to research and innovation without exceeding the overall 1% budget quota of the EU.

Additionally the **European Investment Fund** (EIF) should intensify its activities towards entrepreneurship by offering financial contributions to spin-offs/start-ups to a larger extend than is currently done via the Competitiveness and Innovation Programme (CIP). The creation of spin offs and start ups should also be an option within FP8 co-financed by the EIF.

The **European Investment Bank** (EIB) should also play a major role in financing research and innovation activities of enterprises. This could be achieved by developing a new facility within the EIB that focuses on the financing of innovation and follow-up financing of high-potential projects.

Public Interest

The target group of research policies should not only be researchers (both in industry and in academia) but also the broader public. If we want to become a real knowledge society it cannot be enough to have some excellent researchers. The European people have to be curious and enthusiastic for research topics. And there is much need for a **change in attitude** here!

Therefore we need projects that can be explained to people and that inspire European citizens. Young people have to see research as an exciting and promising career possibility, women have to be motivated to become researchers and every citizen in Europe has the right to know for what purpose his and her taxes are used.

What research fields should be supported in the future?

It is important to streamline policies in general and funding schemes in particular. For more coherent funding we need a more limited choice of instruments.

We therefore propose a radical new approach. We do not need horizontal and vertical structuring and branch line projects and whatsoever but we need to get back to the principal question of „Why do we research?“

Of course it is human nature and curiosity which drive research. But why should we support research? The answer to this is that we believe that the results of research, development and innovation will make our life easier and better and that they will help to solve the grand challenges. Therefore one should start to look at these problems: What are the challenges of the future and how can research help to solve or mitigate these?

Challenges for the future

So far we have talked about organisational details: Which groups should be reached by the 8th Framework Programme, what to do about easier accessibility and simplification and how to make the Framework Programme more consistent with other programmes and policies?

But the key question is: What should be the content of European wide research projects? The 8th Framework Programme has to be one of **excellence**: Projects financed by this programme have to be exceptional and excellent - peer reviews and scientific assessment should guarantee this claim.

The initiative to form European Technology Platforms³ (ETPs) is very important as a participation tool for industry: Industry was given the chance to address bottom up

³ A European Technology Platform (ETP) is a European network bringing together researchers, industry and other relevant stakeholders in a particular technological field in order to foster European research and development in the concerned area. The first European Technology Platform, ACARE, was launched in 2001 in the field of aeronautics. In a first phase, stakeholders of a specific area, led by industry, come together to agree on a common vision. The second phase is the defining of a Strategic Research Agenda, setting out the medium- to long-term objectives for the technology. In a third phase, stakeholders implement the Strategic Research Agenda with the mobilisation of significant financial and human resources. European Technology Platforms provide frameworks to define research and development priorities, timeframes and action plans on different strategically important issues. Some European

needs and develop a strategic research agenda that is a guideline for research needs for the next 20-25 years. This is to be continued: The ETP should have a major role in the future in identifying new challenges and to specify research themes in the list of challenges.

The basic idea and radical change compared to previous Framework programmes is to define **grand challenges** with European wide or global effects and allow bottom up approaches and projects that contribute to mitigate and solve these challenges. With this approach Europe can show by highlighting benefits added value to its citizens, foster inter- and transdisciplinary research and innovation and provide the motivation to transfer the gained knowledge to new products, processes and services. In all the initiatives a strong (and funded) focus on innovation should be a prerequisite.

Within the defined grand challenges industry would like to see a **bottom up process**. There should be no picking the winners with regard to technology fields but the aim should be to strengthen the research base as such.

Technology Platforms have become engaged in public-private partnerships, the Joint Technology Initiatives, further contributing to the renewed Lisbon Strategy and to the development of a European Research Area of knowledge for growth. They are proving to be powerful actors in the development of European research policy, in particular in orienting the Seventh Research Framework Programme to better meet the needs of industry. What is more, ETPs mobilise public authorities at national and regional levels.