Collaborative Projects Commission

Working Group: Preparing the 9th Framework Programme for R&I

The ACI position paper on the 9th European Framework Programme for Research and Innovation

Association des Conseils en Innovation (ACI)

Collaborative Projects Commission
Working Group: Preparing the 9th Framework Programme

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Abbreviations list

ACI: Association of Innovation Consultants (*Association des Conseils en Innovation*)
ANR: the French National Agency for Research (*Agence National de la Recherche*)
BPI: the French Public Investment Bank (*Bpifrance*)
CCI: Chamber of Commerce and Industry
CII: Innovation tax credit (*Crédit d'Impôt Innovation*)
CIR: Research tax credit (*Crédit d'Impôt Recherche*)
CSA: Coordination and Support Action
EASME: Executive Agency for SMEs
EC: European Commission
EEN: Enterprise Europe Network
EIA: European Innovation Area
EIB: European Investment Bank
ERA: European Research Area
ERC: European Research Council
ERDF: European Regional Development Fund
ETI: Intermediate-sized enterprise
EU: European Union
FP: Framework Programme
IA: Innovation Action
ICT: Information and Communication Technology
IPR: Intellectual Property Rights
IRL: Innovation Readiness Level
KIC: Knowledge and Innovation Community
MS: Member States
NCP: National Contact Point
PISI: Strategic Industrial Innovation Project (*Projet d'Innovation Stratégique Industrielle*)
PMO: Project Management Office
PO: Project Officer
PSPC: Structural R&D projects for competitiveness (*Projets de R&D Structurants pour la Compétitivité*)
R&D: Research and Development
R&I: Research and Innovation
RDI: Research, Development and Innovation
RIA : Research and Innovation Action
SME: Small-to-Medium Enterprise
TRL: Technology Readiness Level

Context

From the launch of the first Framework Programme for Research and Development in 1984, through the constitution of the European Research Area at the turn of the 2000s to the creation of the European Research Council in 2007, the role and prerogatives of the European Union in the field of Research, Development and Innovation (RDI) have progressively been asserted. The FP9 must build on these foundations, while at the same time offering a **renewed and ambitious vision** of European policy for research and innovation.

The emergence of the 9th Framework Programme must meet the challenges of the young but rapidly changing 21st century and be able to serve multiple objectives in the service of the Union, its communities of research and innovation stakeholders, and finally its citizens. Its ultimate goal is to respond to the challenges of the present time, to accompany ongoing technical and societal revolutions and to create future revolutions.

This document contains a summary of the reflective work carried out by the working group on the 9th Framework Programme within the Collaborative Innovation Projects Commission of the French Association of Innovation Consultants (*Association des Conseils en Innovation - ACI*). This working group is made up of 8 consulting firms specialized in preparing proposals and managing European collaborative projects. The ACI Collaborative Innovation Projects Commission is made up of 37 consulting firms whose members have contributed their experiences, ideas and feedback on the present document.

The proposals we formulate here are intended to **contribute to the collective reflection and the debate initiated by all stakeholders involved in the preparation of the FP9,** the first of which are the Member States of the European Union, but also the European ecosystem of project's assistance and support stakeholders.

Our proposals revolve around 5 major themes:

- **Affirming the Union's ambitions**
- **Improving the participation of all stakeholders, especially SMEs**
- **Improving project evaluation**
- **Rethinking project management**
- **Promoting non-technological innovations**

To complete these five major themes, we have written technical notes dealing with the analysis of a particular problem (the difficulties encountered by biotech companies with the calculation rules for firms in financial difficulty), or a target theme (implementing a real gender equality in the FP), or a subject of particular debate (the legitimacy of the SME instrument funding programme).

The positions presented in this document were established after a preparation process of several months, starting with a phase of diagnosis and identification of key issues, followed by a phase for suggestions and creative thinking, concluded by a period of further reflexion and consolidation of the positions.

About the French Association of Innovation Consultants

The French Association of Innovation Consultants gathers 71 consulting firms, who collectively employ 3,100 staff.

The members of the Association offer their expertise across the full range of innovation consulting services and work alongside all stakeholders in the innovation ecosystem (businesses of all sizes, research and higher education, public bodies) to reinforce, develop and strengthen economic competitiveness and territorial attractiveness.

The Association brings together a diverse range of expertise from its members; which is articulated through the Association's specialized commissions and working groups. These forums for reflexion encourage dialogue between members regarding their professional practice and the innovation ecosystem. The Association also publishes its work (practical guides, white papers, position papers…) as open access documents.

The Association comprises the following Commission groups:

- Public policies for innovation and their evaluation, coordinated by Florian Knecht and Patrick Eparvier,
- Innovation marketing, coordinated by David Rekangalt,
- Collaborative innovation projects, coordinated by Emma Balayre,
- Fiscal funding for innovation, coordinated by Olivia Cerveau Reynaud,
- Innovation processes, coordinated by Guillaume Gogué-Meunier.

The Collaborative Innovation Projects Commission brings together 37 consulting firms. Its members have both theoretical & practical knowledge and expertise in projects funded under the EU Framework Programme, in all of its dimensions (pillars, stakeholders, project value chains…)

The international experience of some of the Commission's members also made it possible to bring a European perspective on the implementation of the FP9 in other European countries and beyond.
The Commission and the Working Group also benefitted from its members' cumulated experiences in other public Research and Innovation funding programmes.

The Association's position on FP9 also follows up on the position paper "5 Recommendations for H2020", which was released and published during the course of the current Framework Programme's preparation.

Affirming the Union's ambitions

Continued investment in Research and Development (R&D) and Innovation is key to the dynamism and success of the Member States. A strong capacity in fundamental research is vital for any country that wants to understand and change its environment and society, and to design cutting-edge technologies and services for ever-changing markets. In the face of global competition, cooperation is a clear factor for success, both in terms of the distribution of research effort & knowledge sharing, as well as maximising potential effects of scale. In a nutshell: the field of research and innovation is one of the most manifest segments in a European area that must continue to assert its place at global level.

It is therefore essential to design European funding programmes that guarantee both **a high level of excellence and fundamental research capacity, as well as support for innovation-oriented projects that are close to the market** and to their ecosystems. This guarantees the development of both Europe's economic fabric and its scientific knowledge.

The mid-term evaluation of the Horizon 2020 programme has shown that some parts of the programme do not have the financial capacity for their ambitions, resulting in non-funding of otherwise excellent projects.

This is particularly the case for the SME Instrument, for which the creation of the "Seal of Excellence" can only be considered as a temporary response to the lack of funding. The Seal of Excellence currently functions only as a "symbolic" reward, which **is not destined to offer access to funding programmes that offer attractive conditions similar to the SME Instrument**.
To avoid penalizing the exceptional companies that are not funded by Horizon 2020, the possibility of mobilizing national or regional financing programmes for the "Seal of Excellence" projects was raised. While some initiatives of this sort have been applied in other countries, other Member States did not, or by different means, levels, not mentioning that integrating a H2020 project into other innovation programmes, with their own rules, can be a reengineering challenge.

In a nutshell: **funding excellent European projects on a national or regional basis is neither a fair nor a simple solution**. **The solution is therefore to give European programmes the means to achieve their ambitions.**

Proposed measures:

- Guarantee a place for both R&D and Innovation within the next Framework Programme: these two strands are not opposed but complementary
- Favour instruments adapted to innovation and adapt them for short-cycle innovations that generate socio-economic impacts by including, in particular, start-ups - for example by drawing inspiration from KIC operations
- Increase the overall budget of the Framework Programme to fund all projects evaluated as "excellent"
- Improve the participation of companies and industrial stakeholders in the construction of the work programmes
- Further diversify the topics of call for proposals, to ensure that certain areas are not over-prioritized (health and ICT for example)
- Publish clearer details on both the expectations of the funding instruments and the details of calls for projects, so that RD&I stakeholders can better identify relevant calls
- Clarify the process and stages of establishing the work programmes, to improve the participation of stakeholders in their construction

- Continue to simplify the funding instruments
- Set more ambitious goals and resources for international relations

Improving the participation of all stakeholders, especially SMEs

H2020 has proven its capacity to improve the participation of all the research and innovation value chain stakeholders, as well as its attractivity.
Nevertheless, these improvements shall be pursued as the high competition and complexity of the programme tends to concentrate the funding received for a shortlist of the same big players.

The ACI considers it is urgent to **reduce the perception of European programmes as prohibitively complex** and to **identify** but also to **encourage** new players likely to participate in the FPs, in order to optimise all potential stakeholders' participation in the European research and innovation programme.

The stakes are not only financial (ensuring a return on investment of at least 1 for the funds invested by France into the programme budget) but also have an important impact on **scientific development**, the **ecosystem** and **entrepreneurship**.

Proposed measures:

Communication and information

- Improve communication on the FP
    - For example, by offering regular training courses for public and private support experts, developing a more ambitious communication strategy on social networks...
- Promote a single information channel for participants with an optimized search engine that enables applicants and beneficiaries to search via keyword, typology or project theme and not only by call and/or funding programme
- Improve visibility of the benefits for SMEs and mid-caps
    - For example, by intensifying and improving the networking of SMEs and mid-caps with their European networks of excellence: cooperation and opening up to new markets are their main motivations for participating in a European project
- Map the interactions between different European funding instruments and with national/regional schemes, in order to include European funding opportunities in a global perspective of RDI funding and in a continuum of funding according to the maturity of the participants – particularly in the private sector - and their projects
- Map the funding available at a regional level in order to identify, promote and, where appropriate, develop efforts devoted to supporting the preparation of excellent proposals
- Systematically publish the provisional work programmes in order to allow better anticipation within innovation ecosystems on the identification and preparation of project proposals
- Organise information days that have greater focus on deciphering the Commission's calls and expectations and less focus on formal criteria for participation
- Develop a first-time applicant kit providing resources developed and pooled by the accompanying ecosystem (e. g. models for budgeting);
- For large corporations that coordinate or participate in projects, develop strong incentives to include SMEs/mid-caps.

Support

- Provide greater involvement for consulting firms as stakeholders and participants in the support ecosystem (e. g. by playing a diagnostic role, or by associating them in the NCPs)
- Deploy at national/regional levels an incentive human resources strategy (bonuses, working time discharges, taking into account career development), to enable better involvement of laboratories and research centres in European funding programmes
- Limit repeated applications without a minimum score/over time:

- For example, by improving the upstream targeting of projects in relation to financing instruments and calls for proposals in order to avoid uncalibrated projects;
- For example, by improving communication on explicit and implicit expectations of instruments with blank calls.

Improving project evaluation

Project evaluations are often the subject of controversial discussions regarding their modalities, criteria and relevance. Many improvements are possible in this area on a number of topics.

In particular, the following points emerged from the day-to-day experience of consulting firms involved in writing Horizon 2020 project proposals:

- Scoring on a small number of points for each criterion does not make it possible to significantly differentiate projects. This generates frustrations for project leaders. It is difficult to explain to our clients that, when two projects obtain the same score, one can be funded and not the other.
- The reduced number of evaluators per project, the time allotted to them, and the results provided to project leaders limit the evaluations' pertinence and relevance. The results of these evaluations do not always match the considerable financial and human efforts consecrated to the preparation of the proposal.
- The non-technological criteria should evolve to better match non-technological innovations. This point is the subject of specific recommendations.
- Taking into account gender, which is a transversal priority and an obligatory aspect of the proposal, does not seem to have any real impact on projects either *à priori* or *à posteriori*. The requirement to achieve real equality between women and men in the short term cannot therefore be satisfied with this tool and must therefore be the subject of other measures in the FP9. This point is the subject of a specific technical note (see annexes).

The measures proposed below aim to improve the transparency, quality and relevance of evaluations, in order to **optimize the selection of projects**.

Proposed measures:

- Improve the consideration of gender issues in project evaluation (*for further information, please see the note on better consideration of gender equality in FP9, in the annexes of this document*)
- Generate greater value from evaluators' work by providing the project leader with the detailed evaluations of the evaluators, including constructive criticism, in particular for the lowest scores. This data will be useful for project leaders, allowing them to evaluate the weaknesses of their applications and rework their proposals
- Improve transparency on the rating criteria and sub-criteria and the number of evaluators involved
- Increase the grade scales - for example from 5 to 10 marks - to allow for better differentiation and more precise ranking of projects
- Publish advanced statistics on each call: ranking of submitted projects, scoring of each project, standard deviations, requested funding ...
- Guarantee the multidisciplinary and complementary skills of evaluator panels.

Rethinking project management

European collaborative projects are complex: they coordinate different types of organizations, often from several disciplines, with different ways of operating. Many project participants must also adapt to communicating in their non-native language. **The management and implementation of these projects therefore require specific skills and adapted tools,** yet these specificities are rarely (or not at all) considered in the current Framework Programme.

Despite the proposals considered as "excellent" by the European Commission at the time of selection, **less than one-third are considered as "good to excellent" once they are implemented**. However, experiences show that the influence of effective and professional project management has a positive impact on project performance and results. This has encouraged the ACI to make recommendations for rethinking project management in the next Framework Programme.

The measures proposed by the working group aim to ensure, for future European projects, effective strategic management as well as professional administrative and financial management.

Proposed measures:

- Promote the impact of a real expertise in management (whether this expertise is internal or external, public or private):
  - By clearly allowing the participation of other partners, not just the coordinator, in the Project Management Office (PMO) – which has sole responsibility for the execution of the project vis-à-vis the Commission. This participation may possibly be considered under certain preconditions, such as obtaining a certification aimed at guaranteeing the capabilities of the non-coordinating partner to perform the PMO functions
  - By removing the exclusion of subcontracting in coordination tasks
  - By allowing the PMO to use the "in-kind contribution from third parties against payment"
  - By removing the reference to the prohibition of project management by a subcontractor in the standard grant agreement
- Improve the quality of project management
  - For example, by adding a project management plan as mandatory deliverable at the beginning of the project - up to M3.
- Increase the involvement of Project Officers (POs) in projects[1], in particular by improving the interactions between the PO, the project coordinator and the consortium:
  - For example, by establishing telephone meetings or regular monitoring meetings between the PO and the project coordinator, encouraging or making mandatory the regular participation of POs in consortium meetings, decentralizing POs in order to promote proximity with coordinators
  - Increasing interactions and continuous monitoring by integrating an online document to facilitate monitoring and exchanges with the PO. In return, this monitoring would eliminate the interim reports
- Reduce the heterogeneity of monitoring of ongoing projects[2] by establishing a common monitoring framework, adaptable to the projects' size and type
- Promote interactions through the POs, between projects applied on the same call or the same topic, to allow sharing of projects' knowledge and results located in the same branch thus promote cross-fertilization both at the level of excellence and impact

[1] This implies reducing the number of projects monitored by each PO

[2] A project may, for example, have no interaction with the PO throughout its lifetime, while others will have at least one annual review meeting.

- Encourage collaboration/exchange between project promoters and EC Communication Officers to improve communication on ongoing projects
- Continuously improve IT tools for project monitoring by developing adequate tools for first-time beneficiaries (e.g. training videos, creation of tutorials, etc.)
- Make dissemination actions eligible at the end of the project
- Promote the exploitation of results during the project:
    - For example, by allowing each project to associate to each mid-term review, a component of the Common Exploitation Booster program – analysis of exploitation risks; business strategy seminar; development of business plans; Networking and pitching events – funded by the EC.

Promoting non-technological innovation

Service innovation recently gained a place in the innovation ecosystem, with promising results and perspectives on tackling societal challenges.
One of the best-known examples of that trend is the rise of the Social Enterprise economy. **Numerous other innovations are needed for a sustainable development of our societies**.

Compared to FP7, H2020 made significant progress in supporting non-technological innovation. However, compared to the available public funding for technological developments, this domain is still at a significantly low level, despite its potential to generate sustainable and economic growth. The EU, through its R&I Framework Programme, should **exploit this growth potential with the ambition to take a global lead on the creation of innovative services**.

The following propositions aim to improve the service innovation part of the future FP.

Proposed actions:

- Dedicate specific calls for proposals on the improvement of services (methods, productivity, organization optimisation and/or transition…)
- Dedicate specific calls or a pillar to non-technological innovation (Social Enterprise, Social Sciences, Business Models…)
- Adapt evaluation criteria, including:
    - Use of adapted TRL for non-technological innovations[3], for instance by introducing an Innovation Readiness Level scale.
    - Introduction of societal and environmental criteria for evaluation of the project impacts, including the substitution of the "Impact" criteria for a "Social Impact" level
        - This also requires that a common methodology is adopted for all evaluations
- Adapt the composition of evaluators' panels by:
    - Training evaluators with a technical background to the specificities and characteristics of non-technological innovation
    - Integrating other profiles such as business model experts, social enterprise specialists…

[3] Such criteria already exist in the fields of some disciplines (e.g. GML in humanities and social sciences)

Annex 1: Note on the challenges for biotechnology companies with regards to the calculation rules for firms in difficulty

In its communication "Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty" (2014 / C 249/01), the European Commission considers a company to be in difficulty if at least one of the following circumstances occurs:

- Where the undertaking is subject to collective insolvency proceedings or fulfils the criteria under its domestic law for being placed in collective insolvency proceedings at the request of its creditors,
- In the case of a 3 years old company (with limited liability or where at least some members have unlimited liability), where more than half of its capital has disappeared as a result of accumulated losses.

From this definition, a check is made by the following calculation, based on the undertaking balance sheet data:

Line heading of the balance sheet	*Line code of the balance sheet*
(share or individual capital + paid-in-capital)/2	(DA+DB)/2
+ reserves (legal, statutory, regulated, other)	+DD+DE+DF+DG
+/- retained earnings +/- result	+DH+DI
TOTAL	=

With regards to the European definition, the company is in difficulty if TOTAL < 0

This rule is particularly disadvantageous for drug biotech companies, whose sector is characterized by the significant time lapse between invention and clinical validation (> 3-5 years) and the marketing of a product (> 8-10 years), and the particularly high research and development costs. Biotech companies consume several hundred thousand or even millions of euros before they are able to demonstrate the effectiveness of their therapeutic approach in humans (clinical phase 2 and beyond).

Since investments in research and development are recorded as a loss, **biotech companies most often fall within the definition of a company in difficulty**, particularly when finalizing regulatory studies (GMP production cost, toxicology, etc.). whose results are usually a condition for success of the fundraising necessary to carry out the clinical trials. They may, therefore, encounter real difficulties in accessing state funding at the times when they most need it.

Proposed measures:

- Adapt the conditions for considering companies as being in difficulty for drug biotechnology companies:
  - By changing the 24(b) of the 2014 / C 249/01 communication from the European Commission that “an SME that has been in existence for less than **three** years will not be considered to be in difficulty” to “a drug biotech SME that has been in existence for less than **five** years will not be considered to be in difficulty” in order to take into account the particular cycles of this sector
  - By eliminating the division by two in the verification calculation for firms in difficulty (share or individual capital + paid-in-capital, NOT divided by 2)

Annex 2: Note on better consideration of gender equality in FP9

Context and objectives

Gender in Research is a theme that emerged at the end of the 20th century with the acknowledgment that there is a **clear disparity in the participation and representation of women in the research community**, particularly in scientific research. While women now account for between 40% and 60% of all graduate students able to enter the research world, the number of European women researchers hardly exceeds 33%. This gap widens according to the country considered (25.6% of female researchers in France) and the disciplines observed, and the representation of women declines further when only science and technology disciplines are taken into account.

The poor participation of women has revealed wide disparities in terms of opportunities and treatment on various aspects: precariousness (11% of women have precarious temporary contracts compared to 7% of men), salary (the European average gross salary in research is 17.9% higher for men than for women), qualifications required and work-life balance, among others.

The European Commission has been tackling the issue since 1999 with communications on the subject. Little by little, gender has been integrated into the research policies of the EU and the Member States. In addition to specific measures and campaigns, the gender dimension has been gradually integrated into the FPs, first as a specific objective and then as a cross-cutting priority, as it is the case for H2020 and for the ERA. This transversal axis, which concerns all projects, is complemented by dedicated funding in pillar 3 - "Science with and for society" for the study of gender in research and society. Equality between men and women and in the research world today includes 3 essential issues:

Objective H2020: "gender balance and equal opportunities in research teams"

Participation of women in the last two FPs is very close to the 40% target (38% for FP7, 35.8% for the 2014-2015 period of H2020). However, these figures are not representative of the still very uneven situation according to the disciplines observed and to the position of women in these projects. The effects of the glass ceiling are considerable, both in European projects and in the world of research in general. Thus, for H2020 (2014-2015) there are **31% of female coordinators for all programmes combined, and 26% of them are scientific coordinators on collaborative projects.** This represents a fairly small increase over the last two decades (16% of female coordinators of collaborative projects for FP6, 19.2% for FP7). Generally speaking, we notice that **the higher we look within the hierarchy, the fewer women we see**, and this is especially true when we look at the sectors with the highest female presence (biology, social sciences, health, etc.).

Objective H2020: "gender balance in panels and advisory groups"

Overall, female participation in the construction of research policies and programmes is also very close to the 40% target set by the EU and has clearly increased since the previous FP. There were 33% of women present in the various FP7 advisory groups, while parity was achieved for the first period of H2020 with 51.9% of women in these groups. With regard to female participation in evaluation panels, there has been a clear increase from 27% in 2007 to 40% in 2013, but this has fallen to 37% for the 2014-2015 period. However, there are currently **only 31.1% of female experts listed in the evaluators database,** which makes the situation still fragile for parity in evaluation of proposals and FP construction.

Objective H2020: "gender balance in research content"

With regard to the funding of projects on gender in research, the budget contribution has doubled from FP6 to FP7. For FP7 it amounted to €30 million with 19 projects financed and an average contribution per project of €1.5 million. **However, these expenditures remain marginal**.

In H2020, EUR 460 million has been allocated to the "Science with and for society" strand, which also includes themes other than gender, 40% more than the previous programme for the same theme, while the overall budget of the Framework Programme has increased by 30%. It remains to be seen how this increase will be reflected in gender-specific projects for which we have no figures for the current programme.
For FP7, it is estimated that only 0.9% of funded projects not specifically dedicated to gender themes took gender into account, representing an EU contribution of €210 million.

Across FP7, 27% of projects claimed to have taken gender issues into account – although it must be considered that this criterion has often been interpreted differently by different participants. With regards to the first years of H2020, it is estimated that 36.2% of funded projects had an obvious gender dimension in the content of research and innovation.

Our objectives

Gender is gaining in importance in successive FPs and promises to be further strengthened. However, although improvements have been made on the main objectives, this development must be accelerated. In order to do so, gender has to be seen as a real and serious subject for all research and innovation ecosystems. Otherwise, the risk is to settle for declarations of intent without acting on the status quo... Stronger measures and associated resources, as well as greater mobilization of all stakeholders, are recommended to achieve this major societal objective as soon as possible.

Proposed measures:

Strengthen gender equality as a cross-cutting theme in FP9

- Give a bonus to projects proposing specific actions to improve the existing situation (this part would be funded at 100%)
- Reinforce gender content in the CSA by making it an evaluation criterion in itself
- Reinforce awareness by making gender a mandatory monitoring criterion (at least for the CSA) with the establishment of a database of common indicators (gender-sensitive content, number of women involved in the project, which functions)
- Systemize the existence of a Gender NCP to all countries participating in FP9
- Formulate the gender-related question differently in the proposal templates. For example, by asking for a justification for not taking gender into account (research content) and thus assuming that its inclusion is always relevant, barring exceptions. Consider that the mention of gender should appear elsewhere in the template (Impact section where relevant)
- Consider reducing funding for events, conferences and seminars where no women are represented (depending on the percentage of women in each sector)

Dedicate actions from FP9 to the theme of gender equality

- Strengthen the number and amount of funding for calls dedicated to gender equality within the Societal Challenges pillar, by mobilising all the instruments of the programme (CSA, RIA, IA, SME Instrument[4], Prizes, etc.)
- Make the possibility of funding actions for a better balance between personal and professional life (not necessarily only for women) and the training of researchers on gender in science more systematic and visible

Active involvement of the national and regional ecosystems

- Invest in supporting research and innovation stakeholders, to include Member States efforts on gender equality by setting national objectives that could be more ambitious than the objectives of FP9
- Make specific informative and training sessions on the subject with a dedicated gender NCP
- Introduce a national/regional bonus within the grants that fund the preparation of a project proposal for projects proposing gender specific actions
- Organize, through national/regional coordination, specific actions on the participation of women in H2020, for example by replicating the work done on the mission "increasing the participation of French players"
- Set up a monitoring system on national/regional participation in FP9 in terms of gender, by aligning it (as a minimum) with the indicators set by the programme.

[4] In the event of some instruments being grouped together within a European Innovation Council, the recommendation to strengthen calls and funding dedicated to the subject is transferable.

Annex 3: Note on the legitimacy of the SME instrument

This note was written in response to the positions of an expert group, who had written recommendations on FP9 for the French Ministry of National and Higher Education and Research.

Among other propositions, these experts recommended to withdraw Phase 1 of the SME Instrument and to assess the EU added value of Phase 2 before pursuing its renewal in FP9. Moreover, the expert group argued that "the purpose of the Framework Programme is to support research and innovation ecosystems rather than individual entrepreneurial projects".

Context and objectives

The EU can only attain its objectives and find sustainable solutions to its challenges if innovative services and products are deployed – including through economical projects – and, at the same time, if it supports a strong fundamental research ecosystem. In short, the ACI considers there is a continuum along the Research and Innovation value chain and that any opposition between these two activities is sterile.
That is why we need support for innovative projects – both conducted by public or private bodies – and thus why we need support for individual projects.
The ambition of H2020 is to "*deliver close-to-market outputs and diffuse innovation in products, services and processes".* This ambition should be kept, improved and amplified in FP9.

Moreover, it is well established that, while the EU performs well in fundamental research, there is a shortfall in the capacity to transform this research to create societal impact – whether these results are exploited by for-profit, non-profit or public organizations. Therefore, **the EU Framework Programme must act to close this gap and support innovation projects - while continuing to support research excellence**.

Support of ecosystems vs support of individual projects

For ACI, there is no "versus" in these supports; on the contrary, they complement each other. The only question that should be considered in the next FP is that of EU Added Value, which can be found both in R&I ecosystems (with the ultimate ambition to create the ERA, and even a EIA (European Innovation Area)) and in the development of EU champions. The SME Instrument, via the funding of excellent individual projects, is the tool required to support the development of EU champions.
At the EU level, the SME Instrument completes the MS funding and support programmes for SMEs, which are limited by distortion of competition rules.

Moreover, it is contradictory to celebrate the ERC's success (which is fully supported by the ACI) and to make it a role model, while at the same time rejecting the SME Instrument on the argument it supports individual projects. In a word: if the ERC's success proved anything, it is that supporting individual projects makes sense within the EU Framework.

Individual projects are the most adapted for SMEs, for instance in terms of IPR management. SMEs often do not have enough resources to build and maintain the type of networks needed for collaborative project schemes.

Finally, the SME Instrument has succeeded in opening access to the FP to newcomers and, more largely, to new communities such as the dynamic European start-ups and innovative SMEs ecosystem.

Results of the SME Instrument

The SME Instrument has achieved significant results, which are a proof-of-concept that this tool is adapted for its target audience and objectives. The European Commission acknowledged such results in the H2020 intermediary evaluation. However, even with these encouraging results, there are still improvements we should and must search for.

More specifically, Phase 1 of the SME Instrument consumes less than 10% of the SME Instrument budget and engages three times more companies than Phase 2 (approximatively 750 companies per year). Phase 1 is an essential step which allows them to conduct a better evaluation of their international business potential.

EASME published its first report on the impact of the SME Instrument. This report points out the following achievements:

- Between 2014 and 2016, 240 patents have been filed by phase 2 projects: the SME Instrument generated 70% of all patents filed by H2020 projects, with only 4% of its global budget.
- Between 2014 and 2016, the EC invested 454M€ while the selected SMEs rose 480M€ of private investments. The leverage effect obtained is 1,05, which is far better than what can be observed in collaborative projects. SMEs acknowledged the importance of the SME Instrument as a facilitator to attract private investors (see Skeleton Tech testimony below)
- Between 2014 and 2016, 3 SMEs[5] entered stock market, only 3 years after the Programme begun. This is to compare with performance of High Tech Gründerfond (a EU reference in investment fund) that, during the same period, invested in 363 start-ups with only 2 of them entering stock market. Here again, SME Instrument was crucial for the companies' development.

Testimony of Tavi Maadiberk, CEO of Skeleton Technologies (Estonia):

The H2020 project played a major role in the capacity of Skeleton to produce high volumes of graphene, a material at the heart of ultracapacitors' performance. The project facilitated a huge investment of EIB. The technological and market impact for Europe has been amplified by the opening of a new plant in Großröhrsdorf, in Germany, which gave us the capacity to produce until 4 million ultracapacitors per year.
https://www.skeletontech.com/news/skeleton-technologies-opens-largest-ultracapacitor-factory-in-europe

[5] The report only mentions two SMEs (Immunovia and Svenska Aerogel), but a third company (Mantex) entered stock market in April 2017.

There is a need for SME Instrument

The problem with SME Instrument is its oversubscription – and its counterpart: low level of available funding – and thus rejection of excellent projects which could have had huge impacts for Europe's future sustainability, growth and competitiveness. In a word: **Europe is missing big opportunities**.

The SME Instrument attracts new profiles and types of beneficiaries into EU Programmes – hence acting as a promotion and attractivity tool for EU actions and impact.

Through the SME Instrument, companies often discover EU funding for the first time, as a majority of applicants are newcomers. Phase 1 for allows first-time participations at low risk and low costs, compared with Phase 2 and its success rates of less than 4%. Applying directly to phase 2 represents a high-risk investment for SMEs, as it is also widely recognised that a successful proposal mobilizes significant resources. Furthermore, with regards to success rates and the cost of investing in a proposal, applicants also call for better optimization of these investments, notably by using more 2-stage call systems.

Even if for the SME Instrument there is no automaticity between phase 1 and 2 (compared with a 2-stage calls system), phase 1 is a perfect occasion for SMEs to gain experience in EU funding. On this, see SOMA Analytics' testimony: https://www.youtube.com/watch?v=IqEjugI46F8

The importance of public investments in entrepreneurial ecosystem

The expert group argues that there is a decorrelation between virtual investments in so-called "IT unicorns" and the real economy. The group concludes that public funding in high potential start-ups should therefore cease. At the same time, this same expert group calls for the creation of "Airbus for the digital industry".

This is the same question as: should we have stopped investments in renewable energies during the 2000's, even if we knew there was an investment bubble for this sector at that time?
Nowadays those companies struggle to find private investments as different hot topics for investors have now emerged, such as Artificial Intelligence. The point is that the funding market has its failures or missed opportunities, generating needs the SME Instrument can cover.

The real economy is now strongly interconnected with IT players, who are not vanishing promises or fragile "unicorn fantasies", but strong companies based on real profits. None of the major companies are European and this must change.

Annex 4: Members of the Working Group – Preparing the 9th Framework Programme

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Euronovia - Virginie ROBIN, Jessica ZAPHIROPOULO

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