1. **Introduction**

The Communication on the Europe 2020 flagship initiative Innovation Union, adopted in October 2010, was a major step in the right direction for European economic recovery and renewed competitiveness. It proposes many ideas and tracks with a view to develop Europe into a true Innovation Union. To attain this objective, the Common Strategic Framework for Research and Innovation 'Horizon 2020', starting in 2014, is set to be the largest programme for research and innovation in Europe, as is currently the Seventh Framework Programme for Research and Technological Development.

In this context, the European Commission presented on 9th February 2011 a Green Paper to which all interested parties were invited to react and send their views. It attracted more than 1300 responses to an online questionnaire and more than 750 written responses have been received.
Subsequently thematic workshops were held to elaborate on a number of key perspectives, notably the interface of Horizon 2020 with the 23 million Small and Medium Sized Enterprises (SMEs) in the European Union, which create more than 80% of new jobs.

DG Research and Innovation and DG Enterprise conjointly organised two seminars devoted to "Innovation in Small and Medium Enterprises". They aimed at receiving ideas and feedback on how Horizon 2020 could benefit and be accessible to the widest range of SMEs in their efforts to innovate and be competitive.

A first expert workshop on 21 June looked specifically at which type of support which SMEs need from the EU level. It reflected on synergies and cooperation with national and regional programmes. Most importantly it considered the best approach to cover the whole innovation cycle to bring SME ideas and R&D results to the market.

Building on the results and recommendations of the June workshop, a second workshop on 12 July considered policy options for implementing an SME strategy in Horizon 2020 aiming to facilitate the access and to enhance the involvement of SMEs in European research and innovation funding.

1.1. Participants

Both SME workshops met with a lot of interest and were very well attended despite the holiday period.

The June workshop involved more than 70 experts of SME research and innovation from European and national SME and industry associations, from SME support organisations and wider stakeholders such as R&I institutions and academia.

The July workshop was intended to be more political and stronger addressed Member States' representatives. The nearly 80 participants were Members of the FP7 SME Programme Committee, participants from governmental bodies suggested by ERAC, SME National Contact Points, some important stakeholders, who had already attended the first workshop and wished to follow the further discussion, as well as some speakers of the June workshop.

1.2. Objectives

Capitalising on the innovation potential of SMEs is one of the key policy objectives of EU2020 and its flagship initiative Innovation Union to revitalize the EU economy and tackle societal challenges. A particular focus is directed on companies with potential for growth and internationalisation to compete on global markets. The EU funding for research and innovation will be a vital tool in delivering on the ambitions of the Innovation Union. Building on successful experiences in the current Research Framework Programme (FP7) and the Competitiveness and Innovation Programme (CIP), the aim is to reach more innovative SMEs in the next programming period, create a greater leverage effect and generate more economic and social impact. That is why the Commission is committed to design a simple and easily accessible EU support system that is better targeted and customized to the R&D and innovation needs of SMEs and provides them with a one-stop-shop for EU research and innovation funding. The workshops were to assist in defining the parameters of future R&I support for SMEs within Horizon 2020 so as to ensure better involvement and more benefits for SMEs, in close connection with national and regional programmes.

The following questions were asked to guide the discussion:
- Which SMEs need which type of support from EU level?
- How does the CSF need to be designed and implemented to make it attractive for SME?
- How can research, demonstration and technology transfer be orientated to fit the needs of SMEs and to cover the entire innovation cycle?
- How can synergies with national and regional research and innovation programmes be enhanced, including Article 185 TFEU initiatives?

2. Key messages

Both workshops generally confirmed and reinforced the results of the Green Paper consultation with regard to SMEs, notably:

- There is overwhelming support for SMEs as important players in Horizon 2020. All innovative SMEs should be able to benefit from support at EU level.
- Adequate SME involvement in Horizon 2020 should be mainly ensured through dedicated actions corresponding to SME needs, comprising all forms of innovation and covering the whole innovation cycle from idea to market. This includes also strengthening the innovation capacity of SMEs.
- There is strong support for a bottom-up approach of the SME specific measures as well as for more demonstration and market replication activities and links to financial instruments closing the gap to the market.
- For SMEs it is indispensable to have simple rules and administrative procedures (e.g. open calls) and a short time-to-grant corresponding to the short innovation cycles of smaller companies.
- Finally it is important to ensure a clear delimitation and definition of EU action based on EU added-value. Proliferation and overlaps of programmes and instruments at EU, national and regional should be avoided, but cooperation and synergies need to be continued and reinforced.

2.1. Results of the SME workshop of 21 June 2011

The expert workshop was intended to collect evidence and opinions of experts on specific SME questions in relation to the boosting SME participation in Horizon 2020 and ensuring benefits for companies and the EU economy at large (for programme see annex 3.1.).

Panel 1 "Meeting SMEs' needs to achieve more impact"

In the first panel, the workshop discussed the highly heterogeneous group of companies, which is assembled under the term of "SME". Common size-related features are the small number of employees, generally little resources and negotiation power, the fragility in the face of economic difficulties, but also the strong innovation power and flexibility.

Most of the speakers, but also during the discussions, agreed that "innovation" should be seen in broad terms and not just driven by technology, including, for example, service innovation,
new business models or customer innovation. However, R&D is very necessary in understanding these new forms of innovation.

At European level, the interest is not just in SMEs, but in SMEs with growth potential. The approaches to define such "gazelles" may differ, but it is agreed that they are not just high-tech, research intensive SMEs, but often highly innovative companies in very traditional industrial sectors.

Researchers tend to collaborate with industry in order to advance their science rather than to commercialise results. Any new programme aiming to support SMEs should contribute to change this paradigm in order to bridge the gap between research, innovation and competitiveness.

When designing future support programmes, it should be kept in mind that they will deal to a large extend with companies of the future addressing future business opportunities based on new technological possibilities in a fast changing world. Consequently the programmes need to operate in an adaptive way. IT literacy remains a problem for many small companies.

The panel discussed notably how to support SMEs to define, realise and profit from research and innovation projects. SME growth champions have a better performing innovation management. However, SMEs too often do not formulate innovation projects as strategic goals. SME support should help them to identify their strategic values through coaching and mentoring and along the full innovation cycle, i.e. beyond the R&D phase. The person-to-person interaction is thereby very important; powerful and modern IT systems could support these activities. However, whatever the methods for support are, quality assurance is an important aspect. The Enterprise Europe Network provides innovation support services with EU added value and could broaden these.

Panel 2 "Seamless support from research to market"

The second panel looked into national programmes designed or inspired by the U.S. SBIR programme that is generally considered as being very successful in funding research and innovation in SMEs and promoting market take-up of innovations.

The first presentation was on the U.S. programme itself. The programme, founded in 1982, focuses on early stage, high risk research activities and technological innovation through a seamless 3-stage layout covering feasibility, R&D and commercialisation aspects. The SBIR administration emphasised that the programme should not be seen and should avoid becoming a procurement process. If it was possible to improve the scheme further, the administration would include more possibilities for bottom-up activities.

In contrast the UK SBRI programme is more focused on later stage innovation activities through a procurement scheme. It targets clear routes to market and trying to attract the public sector as lead customers for the companies involved, thereby mobilising procurement as innovation driver. It is not restricted to SMEs.

The Swedish Research and Growth programme had been designed with SBIR in mind. It is a modular grant programme comprising a feasibility module, a R&D module and possibilities for needs analyses and market replication activities.
Differently from the previous programmes the Swiss start-up support scheme does not directly finance companies but "motivates" researchers to become entrepreneurs, develops role models and coaches entrepreneurs into "investor readiness". Where R&D grants are involved, the funds are not given to the companies but to research performers similar to the current FP7 "Research for the benefit of SMEs" scheme.

Panel 3 "Combining support instruments and creating synergies"

This panel considered possibilities to combine, complement and streamline regional, national and European research and innovation programmes for SMEs. Impulse speeches were provided based on the examples of Denmark, Spain and the European regional development agencies.

The session raised more questions than provided answers highlighting the difficult equation on how to organise complementarities and links between EU, national and regional funding. More formats are needed to work with Member States and regions.

One question is, for example whether activities combining regional, national and European activities should be planned and mainstreamed throughout or whether a highly competitive approach between the support programmes is the better approach.

Very often competitive research and innovation support programmes dedicated to SMEs do not exist at national or regional level. SMEs are often not aware of regional innovation programmes and less so at the European level. Support measures for awareness rising underlining the strategic importance of such programmes are still very necessary.

Regional activities are mostly concerned with structural developments and smart regional specialisation. A combination with the competitive European programmes is not straightforward.

It is also not always easy to reconcile the ambition of simplification and easier access for SMEs to EU R&D funding with the political goals like tackling grand societal challenges. This is connected to the question whether Europe should support industry sectors lagging behind at world scale or rather areas where Europe has the leadership.

The creation of a European market for R&D results was suggested.

2.2. Results of the SME workshop of 12 July 2011

Taking account of the results of the first SME workshop, the second seminar focused on discussing the pros and cons of several approaches and ideas for the design and implementation of research and innovation support benefiting SMEs in the framework of Horizon 2020 (for programme see annex 3.2.).
Panel 1 "From idea to market"

The panel started by an introductory statement outlining requirements and proposals from the perspective of SMEs (UEAPME) followed by the replies of the other panellists and discussion with the workshop participants (for programme see annex 3.3.).

The interventions mainly commented on three statements that derived from the deliberations of the first SME workshop in June and were presented to guide the discussion of this panel. These were the statements for reflection:

- Ensure adequate SME involvement in Horizon 2020 through dedicated actions corresponding to SME needs, comprising all forms of innovation and covering the whole innovation cycle from idea to market. **For example**, establish an SME window inspired by the US-SBIR scheme in all relevant parts of Horizon 2020, notably those linked to societal challenges, with the following characteristics: early stage and market-oriented, competitive, grant-based and staged funding, simple administration, SMEs in driving seat, bottom-up.

- Clearly define EU action based on EU added-value; avoid proliferation and overlaps of programmes and instruments at EU, national and regional level, but provide for links, cooperation and synergies as well as simple design and implementation paying particular attention to clients’ needs according to the type of their innovation projects. **For example**, extend Eurostars to cover also the outsourcing of R&D by SMEs in cross-border collaborations or design a new Article 185 initiative to cover non-research intensive SMEs.

- Strengthen the innovation capacity of SMEs and promote at the same time the internationalisation of innovative SMEs with growth potential. **For example**, upgrade the Enterprise Europe Network with view to Horizon 2020 by foreseeing improved information and advice services, mentoring, coaching and partner search activities for SMEs wishing to develop cross-border innovation projects and enhanced innovation support services.

The general objectives formulated in the three points were fully endorsed by workshop participants. The debate on how to translate these objectives into concrete measures reflected mostly converging, but partly different opinions and demands.

There was consensus that SMEs should be important actors and addressees of Horizon 2020 underlining their role as conduits to bring research results to the market. SME support should be broad and part of the strategy to better integrate research and innovation. It should aim to boost break-through innovations in technologies, business models, products and services, whereas more incremental forms of innovation, still forming the majority of innovation processes in SMEs, could be best supported at regional and local level and in particular by EU cohesion policy. EU activities must be distinguished by clear EU added value. For many types of SME support proximity at regional and local level is crucial.

Workshop participants agreed that specific SME measures in Horizon 2020 should cover the whole innovation cycle from an exploratory phase through research and demonstration activities to market application. Bottom-up approaches would best suit the needs of these companies and projects should be business driven. It was demanded to provide more support
to close the gap from the development of a new technology or idea to the risky market introduction and commercial exploitation. Demonstration, testing, prototyping, market replication and IPR issues were mentioned as well as access to private finance.

There was support to continue, in one form or another, elements of the current Framework Programme, which were considered successful and on which Horizon 2020 should be built. This included the 15% budgetary target for SMEs in the Themes of the Cooperation Programme, the support for technology acquiring companies to subcontract R&D like the FP7 "Research for the benefit of SMEs" scheme or the Eurostars Joint Programme. At the same time there was agreement to encourage and facilitate SME participation by streamlining and simplifying the programme design as well as administrative rules and procedures.

The new idea of providing a SME-window inspired by the US-SBIR programme (grant-based and staged funding) across all pertinent parts of Horizon 2020 was generally welcomed. It met with so much interest that discussions with Commission services and expressions of support continued also after the workshop. On the other hand some participants, e.g. from the business side, advocated a single umbrella programme for innovative SMEs within Horizon 2020.

The contribution of Public-Private Partnerships like Joint Technology Initiatives in enhancing SME participation and fostering knowledge partnerships between different actors (SMEs, big industry, academia etc.) was underlined as well as the role of clusters.

Panel speakers shared the objective of strengthening the cooperation with and among national and regional SME programmes promoting research and innovation. Particularly representatives of national funding bodies suggested exploring new fields and modes of collaboration and joint implementation. The experience with the Eurostars Joint Programme was regarded a valuable asset in this regard. Most speakers, notably from Member States, spoke in favour of continuing and to improving Eurostars. However, some voices (SME stakeholders) preferred centralised management of EU funds criticizing that the burden for SMEs cooperating in one project was too great when each of them had to deal with a different national funding agency meaning different languages, different administrative procedures, different conditions etc.

The suggestion to pursue the "Research for the benefit of SMEs" scheme of FP7 as a Joint Programme like Eurostars was not backed by any workshop participant. It was argued that the number and size of similar national programmes was not sufficient to form a critical mass and to set up a joint programme according to Article 185 TFEU. Generally there were major doubts whether a high level of commitment could be ensured under the current budgetary constraints of most Member States. It might not even be possible to maintain the current level of funding for R&D acquiring SMEs under FP7 let alone to create a leverage effect.

Upgrading the Enterprise Europe Network to support the objectives of Horizon 2020 was generally supported
Panel 2 "From idea to market"

The second panel was mainly devoted to presentations of approaches and projects, which were financed under the Competitiveness and Innovation Programme (CIP) and provided interesting experiences for the development of Horizon2020. This included, for example, the support for eco-innovation, the Enterprise Europe Network, clusters and service innovation as well as strengthening the innovation capacity of SMEs.
3.1. Programme of the SME workshop of 21 June 2011

Innovation in Small and Medium Enterprises
Workshop I

21 June 2011, 10:00-17:00

Venue: Mission of Switzerland to the European Union
Place du Luxembourg 1, 1050 Bruxelles

Programme

9:30 – 10:00 Registration

10:00 – 10:10 Welcome
Clara de la Torre, Director Research and Innovation, DG Research and Innovation
Joanna Drake, Director SMEs and Entrepreneurship, DG Enterprise

10:10 – 10:30 General introduction on the Common Strategic Framework
Bernd Reichert, Head of Unit SME, DG Research and Innovation

10:30 – 12:30 Panel 1: Heterogeneous target group: meeting SMEs' needs to achieve more impact
SMEs are not a homogenous group even though they generally share most of the size-related problems such as lack of innovation capabilities and difficulties in accessing cross-border networks. This session will look at different types of SMEs, their specific needs and various modes of innovation with the aim to better identify the potential target group of EU funding as well as the requirements and conditions for its design, including the one-stop-shop idea, to ensure more scientific, social and economic impact.

- **Gazelles – high growth companies as drivers for innovation**
  Antje Schimke, Karlsruhe Institute of Technology (DE)
  Consortium Europe INNOVA Sectoral Innovation Watch

- **Service innovation and new challenges for R&D**
  Jette Nøhr, Confederation of Danish Industries (DK),
  Member of the Expert Panel on Service Innovation in the EU
• **Addressing the forgotten innovators - new and alternative forms of SME support for research and knowledge transfer**  
  (RAPPORT project)  
  Christoph Meier, Platinn (CH), and Andreas Wolf, Fraunhofer Institute for Factory Operation and Automation (DE)

• **Towards a one-stop-shop for SMEs – practical experiences of EEN members**  
  Maria Fernández, Andalusian Institute of Technology- IAT (ES)  
  Caroline Gray-Stephens, Enterprise Europe Scotland (UK)

• **Innovation management capacity and growth of SMEs**  
  Eva Diedrichs, AT Kearney (DE)

• **The SME viewpoint**  
  Ben Butters, Eurochambres

**Discussion**

12:30 – 13:30  
Lunch break

13:30 – 15:30  
Panel 2: Seamless support from research to market: experiences with the support of high tech SMEs  
Support for turning ideas into profit requires covering the whole of the innovation chain, from concept to market. In this context the US SBIR programme is considered a successful instrument to simulate technology innovation in SMEs. It has served as model for SME support in several countries all over the world. This session will provide the opportunity to study the US SBIR scheme and several facets of the SBIR approach in other countries as well as to discuss what inspiration can be drawn from these experiences for future R&I support in the EU.

- **USA: Small Business Innovation Research – SBIR**  
  Beryl Blecher, U.S. Mission to the EU

- **UK: Small Business Research Initiative**  
  Mark Glover, Technology Strategy Board

- **Sweden: Research and Grow Programme**  
  Nina Widmark, VINNOVA

- **Swiss: How to kick innovation to global markets**  
  Beat Schillig, IFJ Institut für Jungunternehmen

**Discussion**

15:30 – 15:45  
Coffee break

15:45 – 16:30  
Panel 3: The right mix: combining support instruments and creating synergies  
Confronted with a multitude of national and regional programmes, intergovernmental initiatives and EU funding, the whole R&I support
landscape has become confusing for potential SME beneficiaries. Simplification and strong collaboration are necessary. EU support for SMEs shall complement and interface with national and regional activities, while putting the emphasis on European added-value and internationalisation. In this session these issues shall be discussed on the basis of two examples.

- **Complementarities and links between EU, national and regional funding – example Denmark**
  Kenneth Glarbo, Innovayt (DK)

- **Complementarities and links between EU, national and regional funding – example Spain**
  Arturo Azcorra, Centre for the Development of Industrial Technology - CDTI (ES)

- **Complementarities and links between EU, national and regional funding – the difficult equation**
  Christian Saublens, European Association of Regional Development Agencies (EURADA)

**Discussion**

16:30 – 16:45 **Summary and first conclusions of the workshop**

Bernd Reichert, Head of Unit SME, DG Research and Innovation
Sven Schade, DG Enterprise and Industry

16:45 – 17:00 **Closing remarks**

Clara de la Torre, Director Research and Innovation, DG Research and Innovation

Daniel Calleja Crespo, Deputy Director-General, Special Envoy for SMEs, DG Enterprise
3.2. Programme of the SME workshop of 12 July 2011

Innovation in Small and Medium Enterprises
CSF Workshop II
12 July 2011, 10:00-16:15

Venue: Madou Auditorium, Place Madou 1, 1210 Bruxelles

Programme

9:30 – 10:00 Registration

10:00 – 10:20 Welcome

Clara de la Torre, Director Research and Innovation, DG Research and Innovation
replaced by Herbert von Bose, Director Industrial Technologies, DG Research and Innovation

Philippe Jean, Acting Director Innovation, DG Enterprise
replaced by Peter Wragg, Head of Unit Business cooperation and support networks, DG Enterprise

10:20 – 10:50 General introduction to Horizon 2020 and conclusions of the expert workshop on 21 June 2011

Bernd Reichert, Head of Unit SME, DG Research and Innovation
Sven Schade, Unit Support for Industrial Innovation, DG Enterprise

10:50 – 12:45 Panel 1: From idea to market - benefiting from European knowledge networks and national and regional programmes

Introductory statement: Research and Innovation in SMEs
Andrea Benassi, Secretary General, UEAPME

Replies

Chris Hull, EARTO, Secretary General
Eric Dautriat, JTI Clean Sky, Executive Director
John Hill, TAFTIE, Member of Management Board
Luuk Borg, EUREKA, Head of Secretariat
Michel Ganoote, OSEO (example of national funding agency)

Discussion

12:45 – 14:00 Lunch Break

14:00 – 16:00 Panel 2: Strengthening the innovation capacity of SMEs and introducing innovation in the market

Introductory statement: Better Innovation support to SMEs requires a new cooperation between regions, Member States and the EU – lessons from CIP
Katja Reppel, Acting Head of Unit Policy Development for Industrial Innovation, DG Enterprise

Replies

Daniel Cloquet, BUSINESSEUROPE, Director Entrepreneurship & SMEs

Christian Saublens, TAKE It Up - the promotion pillar of Europe INNOVA

Sonja Kind, VDI/VDE, Berlin

Michal Miedzinski, Technopolis Group, European Eco-innovation Observatory

Sybil Scharrer, Investitionsbank Schleswig-Holstein / Enterprise Europe Network Hamburg – Schleswig Holstein

Discussion

16:00 – 16:15 Conclusions

Clara de la Torre, Director Research and Innovation, DG Research and Innovation
replaced by Ruxandra Draghia-Akli, Director Health, DG Research and Innovation