European and External Relations Committee

4th Report, 2012 (Session 4)

The EU's Horizon 2020 Programme for Research and Innovation

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European and External Relations Committee

Remit and membership

Remit:

The remit of the European and External Relations Committee is to consider and report on-

(a) proposals for European Communities legislation;
(b) the implementation of European Communities legislation;
(c) any European Communities or European Union issue;
(d) the development and implementation of the Scottish Administration's links with countries and territories outside Scotland, the European Communities (and their institutions) and other international organisations; and
(e) co-ordination of the international activities of the Scottish Administration.

(Standing Orders of the Scottish Parliament, Rule 6.8)

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INTRODUCTION

Background to Horizon 2020

1. The EU is committed to investing 3% of its GDP in research, development and innovation\(^1\) believing such an investment is the key to maintaining a competitive edge in the global market, creating growth and securing quality jobs. The Horizon 2020 programme is designed to achieve this end. The programme will cover the years 2014 to 2020 and has a proposed budget of \(€80\text{bn}\). The Commission’s proposals were published on 30 November 2011\(^2\).

2. The Horizon 2020 programme will combine all research and innovation funding currently provided through the Framework Programmes for Research and Technical Development, the innovation related activities of the Competitiveness and Innovation Framework Programme (CIP) and the European Institute of Innovation and Technology (EIT) and in so doing seek to deploy a common set of simplified rules.

3. The declared aims of the programme are to—

- Strengthen the EU’s position in science with a dedicated budget of \(€24.6\text{bn}\). This will support high-level research in Europe, (and include an increase in funding of 77% for the European Research Council (ERC)).

- Strengthen industrial leadership in innovation (€18bn). This includes major investment in key technologies, greater access to capital and support for SMEs.

- Provide €32bn to help address broad issues such as climate change, developing sustainable transport and mobility, making renewable energy more affordable, ensuring food safety and security, or coping with the challenge of an ageing population.

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1. Europe 2020 Strategy
2. Horizon 2020 Proposals
Tackle societal challenges by helping to bridge the gap between research and the market by, for example, helping innovative enterprise to develop their technological breakthroughs into viable products with real commercial potential. This market-driven approach will include creating partnerships with the private sector and Member States to bring together the resources needed.

4. The Committee welcomes the Commission’s Horizon 2020 proposals and the efforts by the Commission to simplify the programme procedures, whilst ensuring that excellence remains the key criterion for securing funds. The Committee recognises their importance to Scotland’s university and research sectors and to business, particularly SMEs.

5. A full briefing on the Commission’s Horizon 2020 proposals is included within Annex B.

Research in Scotland

6. In the most recent figures available, Scotland’s Gross Expenditure on R&D (GERD) decreased in real terms by 3.9% (£76m) between 2009 and 2010.

7. Higher education research and development (HERD) expenditure in Scotland in 2010 was £986m, 13.6% of the UK total and 0.81% of GDP. Scotland’s HERD as a percentage of GDP ranks top out of the 12 UK regions, and is the third highest among the OECD countries.

8. Scotland has been a major beneficiary of previous EU research programmes. In the current research programme (FP7) Scotland secured €351 million in funds.

9. Although Scotland’s research and academia sector has been successful in drawing down funds, Scotland’s business sector has fallen short of the EU target for SME participation in the programme (13.5% participation against a target of 15%). In 2010, Business Enterprise Research and Development (BERD) expenditure was £622m, 3.9% of the UK total and 0.52% of Scottish GDP. In comparison to the other 11 regions within the UK, Scotland ranks ninth in terms of BERD expenditure as a percentage of GDP. Scotland’s BERD as a percentage of GDP ranks in the fourth quartile of OECD countries that reported in 2010.

Committee approach to Horizon 2020

10. The Committee’s engagement with Horizon 2020 has been in two stages. The first stage involved fact finding sessions with key stakeholders, EU actors and the Scottish Government, details of which are included in Annex C.

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3 Scottish Government, Gross Expenditure on Research and Development Scotland 2010
4 GERD comprises the R&D undertaken by the Business (BERD), Higher Education (HERD) and Government (GoveRD) sectors. The decrease in GERD is a result of reduced expenditure across all three sectors: (i) BERD: £622m in 2010, a 3.9% (£25m) decrease in real terms since 2009; (ii) HERD: £986m in 2010, a 4.0% (£41m) decrease in real terms since 2009; (iii) GoveRD: £300m in 2010, a 3.3% (£10m) decrease in real terms since 2009.
5 Scotland Europa briefing to European and External Relations Committee, February 2012
6 Scotland Europa briefing to European and External Relations Committee, February 2012
11. Out of this stage emerged three key themes—

- **Awareness** – the Committee found that there was a poor awareness of European funding opportunities in general and Horizon 2020 opportunities in particular. Evidence received by the Committee show that business engagement in Scotland is lower than other parts of the EU.

- **Support** – the Committee learned that the key to accessing EU funds was the nature and scale of support available to applicants. The Scottish Government presently had two specific programmes of support: (i) PACER (Programme Assistance for European Research) which is undergoing a review; and (ii) SPAF (Scottish Proposal Assistance Fund) which is to be discontinued™.

- **Networks** – the Committee learned of the importance of establishing networks to share good practice, provide mentoring and resource and early warning offer of developments.

12. At its meeting of 31 January 2012, the Committee agreed to address these issues by staging a high-level conference. A conference format was deemed the most appropriate means to address the concerns raised in evidence by stakeholders since it would raise awareness, facilitate network building and provide exposure to the application support structures currently available. A conference would also provide a useful contribution to the on-going negotiations over the final structure of the Horizon 2020 proposals.

13. Horizon 2020 should not be considered in isolation. The Committee’s work on the EU Structural Funds, has demonstrated significant synergies between the Structural Funds and the Horizon 2020. The Scottish Government has also recognised these synergies, and recently submitted a report to the European Commission.

**HORIZON 2020 CONFERENCE**

**Format of the conference**

14. The Committee’s Horizon 2020 conference took place on 25 May 2012, full details of which are included in Annex E.

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7 In written evidence, the Cabinet Secretary for Finance, Employment & Sustainable Growth stated that although SPAF funding no longer exists, the support that was once offered through SPAF is now delivered by the enterprise agencies through a range of support mechanisms (16 January 2012. Annex D):

- Scottish Enterprise has integrated SPAF into its Innovation Support Service, which offers free advice to businesses on innovation activities. For SMEs this can include a specialised FP7 project surgery or two days of consultancy help to develop a project idea or proposal.
- For businesses seeking to participate in collaborative R&D programmes for the first time, funds are available through Scottish Enterprise’s Innovation Support Grant for their first project application. Similar support is offered by Highlands and Islands through its account management and Research and Development programmes.

8 Link to European and External Relations Committee report on Structural Funds

9 Meeting of Scottish Parliament, Ministerial Statement, 9 May 2012
15. The event took the form of a series of key note addresses followed by a series of breakout sessions exploring key themes. A list of the delegates is included in Annex F. Written evidence is included in Annex G and further evidence resulting from the conference is included in Annex H.

16. The event was addressed by

- Marion Dewar, Member of the Cabinet of Commissioner Maire Geoghegan-Quinn, European Commission;
- John Swinney MSP, Cabinet Secretary for Finance, Employment and Sustainable Growth, Scottish Government;
- David Willets MP, Minster of State for Universities and Science, UK Government; and
- Christina McKelvie MSP, Convener of the European and External Relations Committee.

17. The Committee would like to thank all the participants, speakers, chairs, facilitators and all those who assisted with the event. The Committee would also like to record its thanks to all those organisations whose early involvement with the Horizon 2020 proposals was crucial in the success of the conference.

18. The conference itself represents a contribution to the on-going negotiations on the future of the Horizon 2020 programme. Much of the discussion centred on the need to increase the participation of SMEs in research and innovation programmes, how Horizon 2020 can encourage and support greater collaboration between universities and SMEs, whether the necessary structures and mechanisms are in place to encourage this and how this can help SMEs and business increase their uptake of research and innovation investment and spending.

Key findings & recommendations

Bridging the gap between research and business: getting new ideas to market

19. Scottish Universities have been successful at accessing earlier EU research, with a significant proportion of Scottish University funding drawn from the EU. Scottish businesses have been less successful in drawing down EU funds, falling below the EU average for business participation.

20. Bureaucracy is considered to be the main barrier to business participation in the EU research schemes, both actual and perceived. Whilst the Commission is seeking to simplify the process, a perception lingers that accessing funds is complicated. There is therefore a need to raise awareness about accessing EU funds, a role that should be performed by the Commission at an EU level and the Scottish Government or its agencies (e.g. Scotland Europa) at a domestic level.

21. Delegates suggested that greater work must be undertaken on demand-side engagement, particularly with reference to SMEs. Further work is also required to
convince businesses of the value of participating in EU funding, by showing clear evidence of the potential return on investment and engagement.

22. To access funds and find partners, businesses require assistance both upstream (at an EU level) and bilaterally (with potential collaborators). This issue is particularly problematic for SMEs, which often lack the capacity and expertise. A strategic approach to providing this support is required.

23. Universities should be more proactive in engaging with SME’s. Universities can learn from their counter-parts in countries which have a reputation for business engagement. Delegates suggested that each university/college draft an SME engagement strategy would be an important contribution.

24. The Committee recommends that:

• The European Commission continues to increase its efforts to simplify the new programme to ensure it attracts interest from the business sector in general and SME in particular rather than deterring applications.

• The Scottish Government to continue to work with the UK Government to ensure that the interests of Scotland’s key stakeholders (universities, colleges, research community, business sector) are reflected/represented in discussions at UK and EU level.

• The Scottish Government and Scotland's MEPs ensure that excellence remains the principal criterion for assigning research funding under Horizon 2020.

• The Scottish Government undertake a gap analysis to establish which sectors of business were under-represented in the recent funding programme and the reasons for this.

• The Scottish Government develops a strategy aimed at the business sector (and particularly the SME sector) to encourage and facilitate engagement with the opportunities afforded by the Horizon 2020 programme.

• The Scottish Government gives consideration to the provision of funding to support organisations during the application process. In particular, the introduction of a formal mentoring scheme to assist applicants as a contribution to a more cohesive ‘Team Scotland’ approach would be welcome.

Funding innovation: investigating new opportunities.

25. Delegates noted there is no one size fits all approach. It is important the correct strategy is adopted, whether it be sectoral or market based, to create link to market opportunities. However, suggested that more work should be done at a UK and Scottish level to develop geographical links where there are common interests and synergies.
26. Competition for Horizon 2020’s funds will be intense. It is therefore important that Scottish participants are ready and able to take advantage of the opportunities when Horizon 2020 goes live. Ensuring academic, business and SME leaders are aware and ready for this date will be important.

27. Public procurement is an important driver of innovation and can present real opportunities, particularly in terms of encouraging and supporting innovation in SMEs.\textsuperscript{10}

28. Investing in cluster development could encourage and strengthen strategic innovation partnerships as well as a team Scotland approach. At present universities are good at this but it is important to explore practices that can strengthen innovation within both the academic and the private sector.

29. \textbf{The Committee recommends that:}

- The European Commission, the UK Government and the Scottish Government raise awareness of the Horizon 2020 programme in advance of its formal launch to encourage maximum participation, and readiness for the opening of the bidding process.

- The Scottish Government ensures that its procurement policies are structured in such a fashion as to encourage innovation.

- The Scottish Government explore at an EU level as well as a domestic level how the development of clusters within the academic sector can be translated into similar clusters within the business sector (allowing for issues of competitive advantage) and between the business and academic sectors.

- The Scottish Government ensures that any move toward a flat rate for indirect costs (\textit{i.e.} staffing), which is unlikely to fully fund the staff commitment, does not serve as a disincentive to certain research bodies.\textsuperscript{11}

\textit{Beyond the ‘usual suspects’: getting fresh talent into the system}

30. SMEs were identified as the group that has the greatest potential to improve its engagement with EU funding. Raising awareness within this sector is vital to achieve greater participation, \textit{e.g.} SMEs in certain Scottish priority sectors, such as finance and health, may be unaware of the Horizon 2020 programme entirely.

31. Delegates stated given that the development of Horizon 2020 is advanced, it is important that efforts are focused upon reacting to the policy rather than attempting to shape the regulation.

\textsuperscript{10} According to the Scottish Government’s Scottish Procurement Policy Handbook “The procurement of innovative goods, services and works by contracting authorities can contribute to improvements in the quality and delivery of public services and lead to growth in the Scottish economy by encouraging suppliers to invest in and deliver pioneering solutions to current and future public service needs”. \texttt{http://www.scotland.gov.uk/Resource/Doc/256155/0076031.pdf}

\textsuperscript{11} Recommendation based upon supplementary evidence received following the conference (Annex H)
32. The Committee recommends that:

- The Scottish Government develops a specific SME strategy, to both identify the obstacles to engagement and to provide support to overcome these obstacles.

- The Scottish Government ensures that a proportion of the available funds is ‘market reactive’, thereby allowing enterprises (particularly SMEs) to respond to market opportunities and emerging demands in the market place.\(^\text{12}\)

Role of Government: cutting red tape and securing value for money

33. The delegates noted that the scale and structure of Horizon 2020 means a degree of complexity and red tape is inevitable.

34. Improving networks and knowledge partnerships across Scotland is vital. Governments have previously recognised this and various schemes have been introduced to address this issue.

35. It is feared that introducing an additional level of assistance of screening will increase red tape. At the moment several portals exist within Scotland (such as that provided by Scotland Europa, Interface and some local authorities). There is a need to assess what portals are out there and how effective they are, and thereafter to build on what already exists.

36. The Committee recommends that:

- The UK and Scottish Governments make every effort to further simplify the processes for which they are responsible and facilitate engagement through signposting, navigating and providing necessary advice.

- The Scottish Government should assess the existing information portals and their utility with a view to developing a single comprehensive portal.

How to win the competition for funds

37. Delegates noted SMEs struggle with the length of the application process and its complexity. Arriving at the point of bidding for funds is often difficult and it can take up to 18 months to have a bid accepted. The Scottish Government fund (SPAF) that supported the organisations though the application process has been discontinued (although see footnote 6).

38. Although a lot of support is available, much of it exists in silos. There is a need to break down the walls of these silos and to share good practice more widely.

39. There is concern that there is only one national contact point for the whole of the UK compared to countries like Malta which has four national contact points. A

\(^{12}\) Recommendation based upon supplementary evidence received following the conference (Annex H)
greater number of contact points could benefit SMEs and universities and help ensure maximum participation in EU funding.

40. A focus on world-class research has the unintended consequence that much early-stage research can be overlooked. Match-funding was advocated as a means of addressing this and it was suggested that there is a potential role for Government in recognising and supporting such early level research.

41. The Committee recommends that:

- Given the positive comments of the delegates regarding the SPAF programme, the Scottish Government undertakes a comparative study to determine whether the new funding arrangements to support applicants (i.e. arrangements post-SPAF) are an adequate successor to the popular SPAF programme.

- The Scottish Government ensures that the PACER programme (currently undergoing review) is maintained.

- As a matter of urgency, the Scottish Government and its agencies raise awareness within the business sector (particularly amongst SMEs) of the Government support available to assist applicants through the funding application process to ensure maximum uptake.

- On the issue of national contact points, the UK and Scottish Governments should collaborate to ensure that there are an adequate number of national contact points.

- The Scottish Government channels funds for early research programmes (which may not yet have demonstrated world class credentials) along with a commitment to multi-year funding for projects to ensure an innovative beginning does not falter.

42. The Committee notes the on-going negotiations between the Scottish and UK Governments and the EU institutions on Horizon 2020, and asks the Scottish Government to provide regular progress reports.

43. The Committee calls on the UK Government to recognise the significance of Horizon 2020 to the EU’s growth agenda in the on-going negotiations on the Multiannual Financial Framework (2014 – 2020).

44. The Committee recommends that the Scottish Government continues to be involved in key discussions at the UK level to ensure that Scotland’s particular research and innovation needs and concerns are reflected in the negotiations.

45. The Committee calls on the Scottish Government to ensure that Scotland’s voice is represented within the European Parliament and the EU Competitiveness Council.
46. The Committee would welcome regular updates from the Scottish Government on developments on the EU negotiations on Horizon 2020.
Annex A - Extracts of Minutes of the European and External Relations Committee

7th Meeting, 2011 (Session 4)

Tuesday 15 November 2011

2. **Horizon 2020**: The Committee took evidence in a round-table discussion from—

   Professor Pete Downes, Chair of the Research and Knowledge Exchange Committee, Universities Scotland and Principal, University of Dundee;

   Sandhya Kapitan, Senior Policy Officer, and Professor Paul Hagan, Director of Research and Innovation, Scottish Funding Council;

   Luca Polizzi, Senior EU Policy Executive - Research and Development, Scotland Europa;

   David Smith, Innovation and Enterprise Services Director, Scottish Enterprise;

   Morven Cameron, Head of Research – University of the Highlands and Islands and learning infrastructure, Highlands and Islands Enterprise.

6. **Horizon 2020 (in private)**: The Committee agreed to appoint a reporter, Aileen McLeod MSP, to attend a conference on Horizon 2020. The Committee also considered the evidence taken earlier in the meeting and agreed to write to the Scottish Government to ask for a response to the key points considered in the evidence.

8th Meeting, 2011 (Session 4)

Tuesday 13 December 2011

5. **Horizon 2020**: The Committee considered a report on a conference regarding Horizon 2020 from the Committee’s reporter, Aileen McLeod MSP.

8. **Horizon 2020 (in private)**: The Committee considered a report from its 15 November round table discussion with stakeholders regarding Horizon 2020. The Committee agreed to send the report and follow-up questions to the Cabinet Secretary for Finance, Employment and Sustainable Growth.

1st Meeting, 2012 (Session 4)

Tuesday 10 January 2012

4. **Horizon 2020 (in private)**: The Committee agreed a draft approach for an inquiry on Horizon 2020.
5. **Horizon 2020 (in private):** The Committee agreed to a proposal for a conference on Horizon 2020 and delegated the Convener to finalise the arrangements for the conference.

7th Meeting, 2012 (Session 4)

Tuesday 17 April 2012


10th Meeting, 2012 (Session 4)

Tuesday 19 June 2012

3. **Horizon 2020 (in private):** The Committee considered a draft report on the recent conference and agreed to consider a revised draft at its next meeting. The Committee also agreed to appoint Aileen McLeod as a reporter for the Committee's forthcoming seminar in Brussels, and to agree a further reporter by correspondence.

11th Meeting, 2012 (Session 4)

Tuesday 26 June 2012

1. **Horizon 2020 (in private):** The Committee considered a draft report on its recent conference. Various changes were agreed to and the Committee agreed to publish its report subject to final amendments by correspondence.
Annex B – Horizon 2020 Briefings

Horizon 2020 - the EU Framework Programme for Research and Innovation

Introduction
The Horizon 2020 programme will be the principal EU fund for innovation and research for the years 2014 to 2020, with a budget of €80bn. The programme is the 8th in a series of research funding programmes previously termed the Framework Programmes. (The EU is currently approaching the end of its 7th Framework Programme, 2007 - 2013).

The EU has been seeking to increase its levels of investment in research and development for some time, believing this to be a key factor in maintaining a competitive edge in the global market, creating growth and securing quality jobs. This is the overarching ambition of the Europe 2020 growth and jobs strategy just as it was with the preceding Lisbon Strategy. Specifically, the EU is committed to investing 3% of its GDP in research, development and innovation.

In a departure from previous programmes, Horizon 2020 will combine all research and innovation funding currently provided through the Framework Programmes for Research and Technical Development, the innovation related activities of the Competitiveness and Innovation Framework Programme (CIP) and the European Institute of Innovation and Technology (EIT) and in so doing seek to deploy a common set of simplified funding rules.

The Horizon 2020 programme
The Horizon 2020 proposals13 were published on 30 November 2011, with the declared aims of:

- Strengthening the EU’s position in science with a dedicated budget of €24.6bn million. This will support high-level research in Europe, (and include an increase in funding of 77% for the European Research Council (ERC)).
- Strengthening industrial leadership in innovation (€18bn). This includes major investment in key technologies, greater access to capital and support for SMEs.
- Providing €32bn to help address broad issues such as climate change, developing sustainable transport and mobility, making renewable energy more affordable, ensuring food safety and security, or coping with the challenge of an ageing population.
- Tackling societal challenges by helping to bridge the gap between research and the market by, for example, helping innovative enterprise to develop their technological breakthroughs into viable products with real commercial potential. This market-driven approach will include creating partnerships with

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13 The Horizon 2020 package consists of: (i) a proposal laying down the general objectives, the financial envelope and provisions on control, monitoring and evaluation; (ii) a proposal for a single specific programme to implement Horizon 2020, laying down the implementation measures; (iii) a single set of rules, covering funding/ reimbursement, conditions for participation, selection and award criteria and rules on ownership, exploitation and dissemination of results; and (iv) a separate proposal dealing with atomic issues. The proposals are accompanied by impact assessments. In addition a separate proposal deals with revision of the EIT Regulation.
the private sector and Member States to bring together the resources needed.

**What is innovation and how will Horizon 2020 capture it?**

While innovation is generally understood as the commercial introduction of a new or significantly improved product or service, innovations can also be for non-commercial applications such as for better public services or for addressing social needs (‘social innovation’). As a result, Horizon 2020 will aim to support all forms of innovation. This includes innovation that results from research and development (R&D) activities. It also includes innovation that results from other activities, such as finding new uses or combinations of existing technologies or developing new business models or new ways of interacting with users.

Horizon 2020 will increase support for testing, piloting, and demonstrations of new technologies, so that their potential in the real world can be determined. It will also support the market demand for innovation, including through the development of specifications for new standards and through supporting public bodies to procure research & development services or innovative products and services. New approaches are also foreseen, such as inducement prizes that reward the achievement of specific goals, encouraging a wider range of innovators to become involved. Furthermore, bottom-up activities are to be strengthened, with call topic descriptions to be less prescriptive, thereby encouraging greater freedom of interpretation.

Importantly, Horizon 2020 will introduce a new SME instrument specifically designed to help and support SMEs to innovate. This instrument is intended to fill the gaps in funding for early-stage, high-risk research and innovation by SMEs as well as stimulating breakthrough innovations. It is anticipated that some €6.8bn will be devoted to SMEs.

Further, Horizon 2020 will scale up financial instruments in which the public sector shares the risk with the private sector to make investments available for the development of innovative companies or projects.

**New features of Horizon 2020**
The Horizon 2020 proposals include a number of features significantly different from earlier research funding programmes. Important aspects include:

- A single programme for all EU-managed research and innovation funding, with a single set of participation rules.
- Full integration of innovation within the programme, which means that more support is provided for ventures closer to market application (e.g. demonstration projects, support for SMEs, innovation services, venture capital).
- Simplified access for participants, including a single web portal for all information and projects, a reduction in the application paper work, and fewer controls and audits.
- A more inclusive approach with specific actions to encourage the participation of researchers and innovators from across the EU, together with reinforced support for partnerships with the private and public sectors in order to pool resources and build more effective programmes.
• A particular focus on the major societal challenges facing Europe and the world. This will mean marshaling different technologies, sectors, scientific disciplines, social sciences and humanities, and innovation actors to address these challenges.

Features similar to previous programmes
While Horizon 2020 represents a departure from past programmes there are also a number of continuing elements, including:
• The continuation of the financial instruments of both the Framework Programmes and the CIP.
• A strengthening of the role of the European Research Council as a point of reference for frontier research.
• A reinforcement of the Marie Curie actions for training, mobility and career development of researchers.
• An extension of the collaborative research actions, which have been core to earlier Framework Programmes, to include ‘innovation’ aspects such as market-replication, demonstration, involvement of users, design, IP and standardisation issues.
• A continuation of the demand-side measures to stimulate innovation (in particular the public procurement of innovative solutions), support through clusters, Intellectual Property Rights management and exploitation, and SME innovation capacity support.

Although aligned with the strategy of Horizon 2020, the European Institute of Technology & Innovation (EIT) will maintain its mission of integrating the ‘knowledge triangle’ and experimenting with new approaches for innovation, notably involving the business community.

A challenge-based approach
Compared to earlier programmes, Horizon 2020 will adopt a challenge-based approach where it applies to ‘Societal challenges’. The challenges proposed for Horizon 2020 include:
• Health, demographic change and wellbeing;
• Food security, sustainable agriculture and the bio-economy;
• Leadership in enabling and industrial technologies which will cover ICT, Space and nano-sciences;
• Secure, clean and efficient energy;
• Climate action, resource efficiency and raw materials;
• Smart, green and integrated transport; and
• Inclusive, innovative and secure societies.

In addition, certain elements of the current themes cut across several of the Horizon 2020 challenges and the enabling and industrial technologies will also be supported through the Future and Emerging Technologies objective.

How will Horizon 2020 funding work?
There are presently two main EU financial instruments supporting research and innovation, the Risk-Sharing Finance Facility (RSFF) and the High-Growth and Innovative SME Facility (GIF). The RSFF combines EU funds and European
Investment Bank funding to share the risks associated with investing in projects: RSFF loans are available to public and private sector promoters of any size and ownership from the Member States. By mid-2011, funding for 91 projects worth over €9bn had been approved. A specific facility for SMEs has already begun.

The GIF provides venture capital for SME financing. Managed by the European Investment Fund, the GIF covers both early and growth-stage investments. By the end of 2010, some €222m had been committed to 19 funds supporting a target fund size of some €1.5bn.

In Horizon 2020, these financial instruments will be expanded in both scope and scale. A debt facility will provide loans and guarantees, and an equity facility will provide finance for early and growth stage investments. Their aim will be to support the achievement of the research and innovation objectives of all sectors and policy areas necessary for tackling societal challenges, to enhance competitiveness and to foster sustainable growth. It is intended that they will be implemented via a mandate to, or a partnership with, the European Investment Bank group and/or other international financial institutions and national intermediaries.

Greater use of financial instruments will help leverage further private research and innovation investments, including venture capital investments for innovative, high-tech companies, and in particular SMEs.

The proposed simplification of the funding rules

Following on from criticism of earlier funding programmes, the Commission has sought to introduce further simplification of the application procedure with the aim of: (i) reducing the administrative costs for participants; (ii) accelerating the process of proposal and grant management; and (iii) decreasing the financial error rate. These general objectives will be achieved through the introduction of a simpler programme architecture, which brings together all research and innovation funding in one programme. This includes a single set of participation rules covering all components of the programme. Clearer funding rules including:

- Simplified reimbursement of real direct costs, with a broader acceptance of beneficiaries' usual accounting practices.
- Using unit personnel costs (average personnel costs) for beneficiaries for which this is their usual accounting method, and for SME owners without a salary.
- Simplification of time-recording by providing a clear and simple set of minimum conditions, in particular abolition of time-recording obligations for staff working full time on the EU project.
- Only two reimbursement rates for all types of participants: 100% for research activities, 70% for piloting and demonstration and one single flat rate of 20% to cover indirect costs.
- Output-based funding with lump sums for whole projects in specific areas with fewer ‘ex-ante’ financial capacity checks and a reduced number of certificates on financial statements. (Ex-ante financial capacity checks to be required only for co-ordinators)
With the adoption of these measures, the Commission deems it possible to reduce the average time to grant in Horizon 2020 to only 100 days. Further simplification of research and innovation funding will result from the revision of the Financial Regulation (e.g. no declaration of interest on pre-financing, eligibility of VAT, limitation of extrapolation of systematic errors).

The whole set of practical arrangements for proposal and project implementation will also be revisited and streamlined. This includes the detailed provisions on the content and shape of proposals, the processes for turning proposals into projects, the requirements for reporting and monitoring, as well as the related guidance documents and support services. A major contribution to reduced administrative costs for participation will come from a single user-friendly IT platform for all interactions with participants, based on the current FP7 Participant Portal.

**Horizon 2020 and the other EU funding sources**

It is also important to remember that Horizon 2020 will not exist in isolation. There is already substantial interaction between the EU’s research and innovation policy and its Cohesion policy. For example in the current research and innovation funding programme, investments in building excellence and innovation capacity are made through the ‘Regions of Knowledge’, ‘Research Potential’ and ‘Research Infrastructures’ actions. At the same time, Member States and regions have committed some €86bn from the EU’s cohesion budget for actions supporting research and innovation.

For the next programming period, Horizon 2020 will also contribute to research and innovation in the regions mainly by improving policy support, in order to build efficient, smart specialisation strategies in full co-operation with Cohesion policy. An increased effort is to also be made in the new Cohesion policy funds where support for research and innovation is to be one of the top investment priorities, to assist the less developed Member States and regions to climb the ‘staircase to excellence’.

**What happens next?**

The Horizon 2020 proposals are currently the subject of co-decision negotiations between the European Parliament and Council in Brussels. As would be expected these discussions will depend upon the simultaneous negotiations taking place on the future Multi Annual Financial Framework, which will of course determine the funding that will underpin the ambitions of Horizon 2020. It is anticipated that these negotiations will be brought to a satisfactory conclusion by the end of 2013, allowing for the launch of Horizon 2020 on 1 January 2014.
Early analysis shows that Scotland’s performance in the first years of the FP7 programme is very encouraging. The total amount of funds secured in Scotland from 2007 to April 2012 is equal to €351 Million, with a national success rate of about 20%. Participation is particularly high across the country, with 789 Scottish organisations being involved in a total of over 4000 projects submitted at the EU level. The number of leading organisations is also growing, with 255 Scottish leaders directly involved in managing large projects with a long term and increased impact on the local growth. According to European foresighting analysis, the impact on local growth from European projects is 20% higher when participating as a leader than as partner.

When comparing Scotland’s engagement to wider UK, data shows Scottish participation accounts for 9.27% of organisations engaged securing 9.3% of the total money awarded to the UK (Wales 2.6% participation for 2.16% money; Northern Ireland 1.5% participation – 1.11% money). English participation accounts for the majority (86%) of UK participation and the money awarded is equal to 87.4%.

Looking at a breakdown of Scottish participation up to April 2012, we see that Scotland has exceeded the EU’s target of 15% SME involvement, with an overall participation rate of 18%. The percentage goes down to 12% if we consider purely business engagement however. (The 18% figure includes SMEs which are not purely business, such as some research entities formally established as limited companies). This represents a 17% increase in SME participation from FP6/FP5.

Scottish business altogether accounts for 8% of the total money going to Scotland, bearing in mind these figures include both large, and small and medium-sized enterprises.

In Scotland, as anywhere else in Europe, the Programme remains dominated by the Further Education and Research sectors that together account for 71% of the total Scottish participation of securing 84% of the total money awarded in Scotland.

Overall FP7 has a budget of 52 billion Euros, covering a funding period running from 2007 to 2014, when the new programme Horizon 2020 will start. The majority of the money in FP7 is allocated to the cooperation sub-programme, accounting for 32 billion Euros. The cooperation programme is supporting collaborative science projects, whereas the rest of the money is divided between frontier research (ERC – European Research Council grants), mobility (People programmes - Marie
Curie grants) and capacity building and infrastructure (research capacity for SMEs and regional actors).

The analysis of Scottish engagement in the Cooperation programme therefore gives useful information about sectors of excellence, strengths where Scotland as a country can play a leading role at the EU level, and areas where Scotland has clear and demonstrated expertise and assets which could be better exploited for its economic and social growth. The analysis is based on the period running from 2007 until the end of February 2012.

Health (life sciences), ICT, agriculture/bio-economy, nano-materials (photonics, nanotechnologies and new materials) are the sectors whereby Scotland is performing extremely well, and it is in these sectors in which the majority of the Scottish engagement is concentrated (24% health; 28% ICT; 15% KBBE; 9% NMP). Whereas participation in the ICT sector secured 58 million Euros under a theme which accounts for 28% (€9.1bn) of the total budget of the cooperation programmes (€32bn), participation in the health/life science sector secured a similar amount of money (€50 million) under a theme which accounts only the 18% of the budget available. Equally in the agriculture/bio-economy sector Scotland secured €30 million under a theme receiving just the 6% of the budget available.

Worthy of note is also energy sector engagement, whereby the Scottish participation base is almost 4%, securing 3.8% of the money awarded to Scotland through a programme receiving only 7% of the total cooperation budget available at the EU level. On the other hand, engagement in ocean research activities is limited to 1% for a total of 2.2 million Euros secured.

These data demonstrate areas of considerable strength in Scotland, telling us where potential growth lies, based on skills, science and research products available nationally. They equally tell us which sectors might need additional support in terms of fostering a higher engagement based on natural assets and available skills which are not being fully exploited.
Scottish positioning in FP7 across themes – money secured and % of interest

Maximising Scottish participation - Building SME R&D Collaborative Capacity in Scotland

Scottish Enterprise is the lead partner in the Enterprise Europe Network Scottish consortium. Partners are Highlands & Islands Enterprise, Highland Opportunity Ltd and the European Commission. Since its launch in 2008, the Enterprise Europe Network Scotland team contributed to raise awareness in Scotland with a series of events, providing information and general assistance to Scottish businesses keen to be involved in FP7 applications.

Scotland Europa has over 10 years experience supporting Scottish Higher Education/Research sector members to engage in the EU Framework programmes. For FP7 these services were refreshed and resources increased, with support from Scottish Enterprise/SDI, to widen this to the Scottish business community. Scotland Europa is now offering a suite of services including; strategy development for influencing calls and priorities; strategic intelligence; projects clinics and one-to-one meetings with selected companies; capacity building and troubleshooting with Commission services; access to FP7 proposal writing support for strategic projects; and support for Scottish applicants looking for project partners.
Case studies

**Northern Seas Wind Index Database (NORSEWIND)**, is an FP7 funded project launched in 2008 to accurately capture wind speed data in the Baltic, Irish and North Seas. NORSEWIND is the result of the co-operation among 15 transnational partners from small and large companies, Universities and Public Agencies. This €4million project is co-ordinated by Oldbaum Services; a Scottish based R&D SME, operating in the wind industry. Scottish partners include the Strathclyde University and Scottish Enterprise. Scotland Europa has worked closely with the Scottish organisations, providing support, from consortium building to negotiations with the European Commission thus helping a young SME to build the capacity to lead a highly innovative and large scale transnational project. NORSEWIND is currently one of the biggest dedicated instrumentation networks to measure wind speed data offshore.

**STMicroelectronics** is a leading and experienced European supplier in broad-range microelectronic components with a large amount of experience in the silicon technologies. With joint assistance from Scotland Europa and the National Contact Point preparing and analysing the proposal, STMicroelectronics submitted a project under the FP7 funding programme to develop a new photonic component for large format, rare-event imaging. Also involving the University of Edinburgh, the SPADNET project, was successful in creating a multinational consortium which obtained €3.7 million of EU funding for Scottish research.

**Onorach Clinical** is a small, newly formed Scottish SME specialising in supporting clients to set up and deliver clinical trials. The firm had had no previous participation in EU collaborative R&D, but in collaboration with Scotland Europa and the Enterprise Europe Network (EEN). Scotland Onorach has recently submitted a successful application under the 2010-11 FP7 call to commence a five-year research study. The assistance helped Onorach to develop its own understanding of the complexities, challenges and requirements for successful research collaboration, and created a profile which could be subsequently used to promote the company to potential project partners as a specialist in the field of health science. Although the support could have benefitted from better access to technical experts, the assistance the firm received was instrumental in helping the firm to overcome the knowledge and experience gaps in partner-searching and submitting a successful application for European funding under the FP7 programme.
Bridging the gap between research and business: getting ideas to market

The challenges of translating research ideas into market-ready products and services are the subject of much discussion, and in particular the challenges in linking the research and business communities. University-business linkages are an important aspect of this. In a recent report, the Institute for Public Policy Research noted that “universities appear… to be a small influence on private sector innovation in general, but those firms that do collaborate do seem to show better performance.”

In Scotland, 55% of businesses describe themselves as “innovation active” but, of these, only 13.5% co-operate with universities and only 10% consider universities to be important in terms of innovation sources and requirements. Indeed, research has further suggested that Scottish universities tend to have closer links with overseas or UK-owned firms than indigenous SMEs.

While these statistics highlight that challenges undoubtedly remain, there has been considerable progress in strengthening links between universities and businesses. At a UK level, external income generated by universities through engagement with business and community has more than doubled in real terms since 2001 to £3 billion.

The importance of networking, both formal and informal, to the development of effective collaboration is critical and a range of intermediaries exist to support this process. These range from service provided by in-house technology transfer or research commercialisation offices within universities, to more informal networking facilitation through organisations such as Scottish Enterprise. The Interface initiative, funded by the Scottish Funding Council, aims to provide information on the specialist expertise available in universities and research institutions and facilitate collaborations.

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15 Community Innovation Survey 2009
16 Scottish Enterprise, research forthcoming
18 http://www.publications.parliament.uk/pa/cm201012/cmselect/cmsctech/writev/valley/valley00.htm
Funding Innovation: investigating new opportunities

According to the OECD, “innovation performance is a crucial determinant of competitiveness and national progress”. The Horizon 2020 proposals claim that the new programme will support innovation in its widest sense. As well as R&D activities, the intention is to capture innovation which results from other activities, such as finding new uses or combinations of existing technologies or developing new business models or new ways of interacting with users. The programme proposals also note that innovations can also be for non-commercial applications such as for better public services or for addressing social needs (‘social innovation’).

In Scotland, evidence from the Community Innovation Survey\(^ {19} \) suggests that innovative activity has reduced in recent years, a factor likely to reflect the economic downturn. Other findings from the same survey include:

- Innovation activity levels tend to increase with business size
- Those firms which are innovation active show significantly higher turnover growth rates
- Innovation active firms are more likely to be exporters and to collaborate with others on innovation

The challenges in stimulating innovation, particularly during an economic downturn, have led to a broader assessment of potentially untapped areas. The potential role of public procurement as means for stimulating innovation is one such area. Representing 17% of EU GDP, public procurement is a major market with scope – if designed appropriately – to encourage innovation in areas such as construction, health care, transport and energy.\(^ {20} \) Public sector agencies in Scotland are actively considering how best to exploit the opportunities presented by public procurement.

New technologies and social media also present new opportunities for helping to address the difficulties many innovators encounter in accessing funding. ‘Crowd funding’ is one such approach which is attracting much attention. The internet is used to contact a wide audience and seek funds, with each funder potentially contributing a small amount of the overall total. Various models exist and one of the challenges faced by governments is in ensuring that an appropriate legal framework exists to support such models (which are an example of innovation in themselves) without stifling their potential to provide much-needed funds.

\(^ {19} \) http://www.evaluationsonline.org.uk/evaluations/Browse.do?ui=browse&action=show&id=490&taxonomy=ISB
\(^ {20} \) http://www.bis.gov.uk/assets/biscore/science/docs/f/11-901-funding-eu-research-innovation-from-2014
Beyond the ‘usual suspects’: getting fresh talent into the system

A criticism of FP7, the current research and innovation programme that will be succeeded by Horizon 2020, is the limited participation from businesses, and in particular, small and medium-sized enterprises (SMEs). In terms of business participation, FP7 showed a poorer performance than FP6, with participation from industrial companies dropping from 34 per cent to 26 per cent. Scotland’s performance has been slightly better than the EU averages. According to Scotland Europa, Scotland has exceeded the EU target of 15% SME involvement, with an overall 18% participation from SMEs, accounting for 10% of the total Scottish funding. This represents a 17% increase in SME participation from FP6/FP5. However, Scotland Europa concede that, in Scotland, the Programme remains dominated by the Further Education and Research sectors that together account for nearly 80% of the funding attracted to Scotland.

These issues are not unique to Scotland. According to Jack Metthey, Director, Framework Programme and Inter-institutional Relations at DG Research and Innovation, “We want to lower the barriers to entry to get new entrants. We want new blood. We don't want a closed club – it's not healthy and it's not necessarily the most productive.”

Horizon 2020 will include a dedicated funding stream for SMEs, proposed to provide for funding of around 15%, or €6.8 billion, of the total combined budgets of the ‘Tackling societal challenges’ Specific Programme and the ‘Leadership in enabling and industrial technologies’ objectives.

Scotland Europa and partners acknowledge that the level of research capacity and capability required to successfully compete for EU funding may not yet be present in some R&D SMEs. In survey work conducted by Scotland Europa, SMEs had highlighted the value of external support to stimulate initial engagement in EU Programmes. Over 50% of those responding had been introduced to the programme via parts of Scottish Enterprise and had used their support and services to facilitate engagement.

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21 http://www.sciencebusiness.net/news/75699/Horizon-2020-Different.-But-different-enough75699
22 http://www.scottish.parliament.uk/S4_EuropeanandExternalRelationsCommittee/Inquiries/Submissi on_from_Scotland_Europa_Scottish_Enterprise_Highlands_and_Islands.pdf
Role of Government: cutting red tape and securing value for money

The problems facing businesses generally, and SMEs in particular, in accessing EU funding streams have been widely aired. These include:

- Rigid qualification criteria, including financial requirements
- The complexity of rules and procedures, including monitoring arrangements
- The costs of accessing programmes, described by Jack Metthey, Director, Framework Programme and Inter-institutional Relations at DG Research and Innovation as “lethal” for SMEs

Successive Framework Programmes have aimed to reduce complexity, but comments from participants suggest that this has not been achieved. The Horizon 2020 proposals again set out to reduce complexity, reflecting a desire to attract more top researchers and a broader range of innovative enterprises. The changes proposed include simplification of eligibility criteria, funding rates, audit controls and accounting methods – all areas that have been subject to criticism in previous programme rounds. According to the Commission, the proposed changes should reduce the turnaround time from grant submission to decision from the current 350 days to 250 days.

Once the new proposals come into force, the Scottish Government cannot do anything to alter the requirements placed on applicants. However, the Scottish Government, and its agencies, can and do offer support to applicants, such as through the Enterprise Europe Network. Evidence suggests that such support can be valuable. The UK Government also offers advice and guidance, which can be accessed by Scottish applicants.

However, the extent to which awareness of these services is sufficiently widespread is unclear and there could be a case for wider dissemination of information on the support available to ensure that the pool of applicants is broadened. Evaluation of existing support services has highlighted some challenges in identifying the appropriate target audience.

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24 See for example: http://www.scottish.parliament.uk/S4_EuropeanandExternalRelationsCommittee/Inquiries/EFPC.pdf
26 http://www.evaluationsonline.org.uk/evaluations/Browse.do?ui=browse&action=show&id=466&taxonomy=INO
How to win the competition for funds

According to the European Commission, the success rate for FP7 applicants in 2010 was 24%. The UK performance was slightly above average, at 25.6%. It is widely recognised that businesses, and SMEs in particular, find the process of applying for EU funding complex and bureaucratic. There is guidance available from the European Commission, but many countries, including Scotland, provide additional support to potential applicants. This reflects the complexity of the process and the need for additional guidance.

Research conducted by Scotland Europa in 2007 identified that other European countries were committing a higher level of resource than Scotland to supporting applicants for European R&D Framework Programmes. This led to the development of a more extensive support framework targeted at the needs of potential FP7 applicants and aimed at tackling the barriers to participation.

Enterprise Europe Scotland, which works in partnership with Scotland Europa, provides a dedicated service to support Scottish organisations and help them to capitalise on the opportunities that exist for European Research and Development funding opportunities. Enterprise Europe Scotland runs events and provides advice to potential applicants, including support in identifying suitable partnerships and submitting proposals. Feedback from those who have received support through these channels has generally been positive, although it is unclear how many others could have benefitted from such support, but may have been unaware of its availability.

28 http://www.evaluationsonline.org.uk/evaluations/Browse.do?ui=browse&action=show&id=466&taxonomy=INO
Annex C

Background to Horizon 2020

1. The proposal for a successor to the EU's 7th Framework Programme (FP7), which supports research & innovation, is a declared priority of the Committee. The new programme has been named 'Horizon 2020'.


3. Horizon 2020 is the financial instrument designed to implement the Innovation Union (a Europe 2020 flagship initiative which itself is aimed at securing Europe's global competitiveness). It will combine all research and innovation funding currently provided through the Framework Programmes for Research and Technical Development, the innovation related activities of the Competitiveness and Innovation Framework Programme (CIP) and the European Institute of Innovation and Technology (EIT).

4. The declared aims of the programme are to:

- Strengthen the EU’s position in science (with a dedicated budget of €25bn).
- Strengthen industrial leadership in innovation through investment in key technologies, greater access to capital and support for SMEs (€18bn).
- Address major concerns such as climate change, developing sustainable transport and mobility, making renewable energy more affordable, ensuring food safety and security, or coping with the challenge of an ageing population (€32bn).

5. Following publication, the proposals were discussed at the Competitiveness Council on 6 December 2011. The legislation will now be discussed and agreed between the co-legislators, the Council (representing the Members States) and the European Parliament during 2012 - 2013.

Background to Committee’s inquiry on Horizon 2020

6. The Committee agreed at its business planning day that it would adopt a new two-stage approach to future inquiries. Stage one would be a period of fact-finding and would involve roundtable discussion, correspondence with interested parties, and informal briefing and dialogue with the European Commission. This process would allow the key aspects of the issue to emerge; so allowing for stage two, the development of a detailed remit for the inquiry which would lead to a focused report.
Stage 1 of inquiry

7. Accordingly, the Committee began this inquiry with a variety of fact-finding activities. The Committee hosted a roundtable discussion on the subject on 15 November 2011. In attendance were representatives of the university sector, funding bodies and enterprise agencies. A report of the discussion is appended in Annex 1.

8. The Committee also met with Keith Sequeira of the Directorate-General for Research and Innovation at the European Commission during their visit to Brussels (29 November 2011). A summary of his presentation is included in Annex 2.

9. In addition the Committee appointed Aileen McLeod MSP as a reporter to attend a seminar on the subject organised by the Scottish Government and Scotland Europa in Scotland House, Brussels (1 December 2011). A verbal report of this event was provided to the Committee on 13 December 2011, details of which can be accessed via the Official Report (Col. 276):


10. Following the roundtable discussion the Committee wrote to the Scottish Government seeking clarification and information on several points. The exchange of correspondence will be circulated shortly.

The draft Horizon 2020 regulation

11. During the early stage of the Committee’s engagement with the issue, the draft Horizon 2020 Regulation and accompanying documents was published (30 November 2011)

Emergent themes

12. Following the completion of this first stage of the committee’s inquiry, it has been possible to identify a number of specific aspects of the EU’s proposed Horizon 2020 Strategy that require further examination, namely (a) awareness, (b) support, and (c) networks.

Awareness

13. This theme is focused on the manner in which interested parties are made aware of European opportunities in general and Horizon 2020 opportunities in particular.

Background

14. Scotland has been successful in securing significant funds from the Framework Programmes. Up to the mid-point of 2010, Scotland had secured
£256m from the current programme, a 40% increase in funding over a similar point in the previous programme. Despite this, Scotland fell short of the EU target for SME participation in the programme (13.5% participation of SMEs against a target of 15%).

15. However, early evidence presented by Scotland Europa shows that business engagement is still lower in Scotland than other parts of the EU. It was for this reason that Scotland Europa and Scottish Enterprise/SDI have committed increased resource to working with companies to develop awareness and involvement in these programmes.

Proposed areas to be explored (i): awareness of funding opportunities

- What is the role of the Scottish Government and its agencies in raising awareness amongst potential participants in the funding programmes? Have adequate funds been allocated for this venture?
- What other bodies could have a role in raising the profile and participation in the funding scheme?
- How can the participation of SMEs be increased? Should a specific scheme be created tailored to the specific needs of the SME sector?

Proposed areas to be explored (ii): awareness of collaboration opportunities

- Is there a role for academic institutions to promote the commercial opportunities raised by their research amongst the commercial (particularly the SME) sector? If so, how could this undertaking be supported and delivered?
- Should a forum be established to bring together representatives of the academic and commercial sectors to encourage both collaboration and joint funding applications? If so, who would be responsible for such a forum?
- How can academic institutions encourage entrepreneurship amongst their graduates? Should entrepreneurship be a part of all/certain degree courses? Who would fund this innovation, the academic institutions themselves or government?

Support

16. The second themes relates to the nature and level of support available to interested parties (educational institutions, commercial enterprises and importantly SMEs) as they engage with the Horizon 2020 application process.

Background

17. Two specific schemes have been developed by the Scottish Government (and the earlier Scottish Executive) to provide support to potential research fund applicants:

- PACER (Programme Assistance for European Research); and
- SPAF (Scottish Proposal Assistance Fund).
18. The PACER scheme, which began in 2003, was designed to assist Scottish research institutions in preparing submissions to European research funds. A Scottish Government review of 2006 noted that in the financial year 2004 - 2005 institutions received £104,290 of PACER funding and attracted £9,895,295 of research funds. Six of the nine institutions making applications to PACER were successful in attracting FP6 funding. The PACER scheme is currently undergoing review.

19. The SPAF scheme provided grant support for Scottish companies preparing proposals for the EU’s Framework Programme. The scheme provided financial assistance to small and medium sized companies (SMEs) based in Scotland. The grant (of up to 50% of eligible costs) could be used to engage a consultant to assist in the preparation of an application and/or to contribute towards travel costs to meet potential consortium partners. The Scottish Government announced the end of the scheme in the recent 2011 spending review.

Proposed areas to be explored

- What is the role for the government and its enterprise agencies in this support function?

- What schemes are likely to be available to support educational institutions and commercial enterprises (particularly SMEs) in the application process?

- How will these schemes be administered and funded?

- Given that the European Commission is considering the creation of a dedicated SME instrument to encourage SME participation, what involvement has the Government and its agencies undertaken/propose to undertake to engage with the process?

Networks

20. The final theme relates to the importance of established networks and the prospect of new networks to share good practice, provide mentoring support and early warning with regards the application (and later with regard the auditing) process.

Background

21. A number of contributors to the Committee’s roundtable discussion noted that stakeholders from across Scotland and Europe have worked together for the first time to develop a more co-ordinated and strategic Scottish approach to being engaged in European R&D activity. The Scottish Steering group included the Scottish Government, Scotland Europa, Scottish Enterprise, Highlands and Islands Enterprise and the Scottish Funding Council.

22. The aim of the group was to help to raise Scotland’s profile and the level of influence at a strategic level. The group sought to share expertise, increase the
participation of the business community while also maintaining and improving our academic engagement.

Proposed areas to be explored

- Is there a permanent role for the Scottish steering group to provide a network for the sharing of good practice, a one-stop-shop for advice, and a means of engaging directly with the EU?

- Is there a role for a website/web portal to provide a one-stop-shop facility for all parties?

- Should the government provide support/funding for these proposals?

Proposed action

23. To address these themes it is proposed to schedule 3 panels of witnesses (see below for the proposed participants) over two Committee meetings in February and March. A report will be drafted for consideration by the Committee following these meetings. Possibilities for follow-up action are to invite the Scottish Government’s views on this report or to present it to the European Commission.

24. A list of suggested participants for evidence panels on Horizon 2020 is included in Annex 3 for discussion.

25. To compliment this approach it is proposed that an open call for written evidence be issued to ensure all interested parties have an opportunity to contribute.

Recommendation

26. The Committee is invited to agree to the proposed actions and suggested witnesses for its inquiry on Horizon 2020.

Committee Clerk
January 2012
Annex 1 - Horizon 2020 – summary of roundtable discussion

Background

27. The Committee staged a roundtable discussion on the implications for Scotland of the EU’s proposed Horizon 2020 (Framework Programme 8) Strategy at its meeting of 15 November 2011.

28. The participants were:

- Professor Pete Downes, Universities Scotland
- Sandhya Kapitan and Professor Paul Hagan, Scottish Further & Higher Education Funding Council
- Luca Polizzi, Scotland Europa
- David Smith, Scottish Enterprise
- Morven Cameron, Highlands & Islands Enterprise

29. The report addresses a single broad theme, namely what are the lessons to be learned from the application of the current framework programme and how can the successor programme address these shortcomings while building on Scotland’s strengths in research and innovation.

30. Full details of the discussion can be accessed in the Official Report of the meeting.

General points

31. European funding represents one of the most significant opportunities for Scottish institutions. Scotland has been successful in securing significant funds from the current programme. Up to the mid-point of 2010, Scotland had secured £256m from FP7, a 40% increase in funding over a similar point in the previous programme.

32. Scotland’s colleges and universities are competitive in their endeavours to secure funding. However, there has been a greater pooling of research between the universities allowing for joint applications – a Team Scotland approach.

33. The generally egalitarian research culture in Scotland may be responsible for broadly high levels of achievement in research but an absence of a significant number of areas of world class excellence. In the future a sharper focus on a more limited number of research endeavours may be productive.

34. The FP programmes are primarily focused on research establishments. As a consequence funds tend to be directed toward universities rather than to colleges. However colleges with a strong research base can apply and have been successful, notably the University of the Highlands & Islands with regards marine science and biofuels.
Lessons from Framework Programme 7 (FP7)

35. A weakness in Scotland’s current engagement with FP7 is the link between commercial organisations (notably SMEs) and the academic community. Scotland has a high level of funding of institutions relative to the rest of the UK, but a low level of SME-related funding. This area is widely considered a potential growth area for funding.

36. The majority of funds secured by SMEs in this regard are directed toward companies that have been ‘spun off’ from a university.

37. To secure monies from Europe, Scotland’s research establishments need to be more proactive in engaging with EU institutions. There was a general agreement that Scotland Europa had been a successful vehicle for such engagement, acting as both an informed conduit and as a source of intelligence. The role of the Scottish Government in opening doors in Brussels was also appreciated. Scotland Europa and Scottish Universities also take advantage of engagement with the relevant UK departments, and with the UK representation in Brussels.

38. Scotland Europa has played a significant role in improving awareness and engagement between Scottish institutions and the institutions of the EU. Within Scotland, Scotland Europa has organised a series of workshops and has consulted widely within the research sector. Scotland Europa has also engaged directly with the Commission, lodging 45 specific recommendations on how to improve access to Horizon 2020.

39. There is still a weakness in the engagement of individual academic staff with the funding opportunities offered by Europe. This weakness is often born out of unfamiliarity with the EU process and players, the complexity of the process, the length of time taken to secure funds (which can act as a deterrent) and the manifest differences between EU and UK funding procedures.

40. Creating partnerships between academia and the private sector is considered essential. This often requires a culture shift amongst academics from the pure research and its publication to a more applied approach, engaging directly with those who can use the technology/concepts.

41. Of significant importance in addressing these shortcomings has been PACER (Programme Assistance for Co-ordinating European Research) which provides supports to funding applicants, notably in developing internal capacity and proving guidance on the application processes. Importantly PACER funding comes to an end in 2012. The employment of consultants to assist in the application process can also be of value, with Dundee University securing a six fold increase in funding between FP6 and FP7 through the use of consultants.

42. A similar weakness is also evident in the SME sector, which often finds the application process for FP funding complex, time consuming, jargon heavy and overly bureaucratic. Presently 13.5% of the participants in FP7 are SMEs, below the EU target of 15%.
43. The elimination of SPAF (Scottish Proposal Assistance Fund) in the most recent spending review may well have contributed to the difficulties in getting SMEs engaged, since it was specifically designed for this purpose. However, both Scottish Enterprise and Highlands & Islands Enterprise have striven to provide direct support, either through mentoring or individual companies/clusters or through relationship management between commercial enterprises and academia.

44. Also of concern in the academic sector is the relatively low number of Scottish Universities ‘leading’ applications (as opposed to being a partner in them).

**Early engagement with Horizon 2020**

45. Scotland Europa established an informal steering group in 2009 to lead Scotland’s engagement with preparations for Horizon 2020. The group comprised the Scottish Government, the Scottish Funding Council, Scottish Enterprise, Highlands & Islands Enterprise and Universities Scotland. The first stage of engagement has been with the Commission, phase two will recognise the important new role for the European Parliament.

46. The Horizon 2020 programme is expected to place a strong emphasis upon ‘smart specialisation’, *i.e.* research focused upon addressing specific societal changes and themes. This is broadly supported by the round table participants.

47. The new approaches expected in the Horizon 2020 programme have been broadly welcomed by Scottish institutions. There is support for the Marie Curie actions and for the broader European Research Council. In terms of join programming, Scottish institutions are well placed to take advantage of this initiative.
Annex 2 Summary of presentation on Horizon 2020 by Keith Sequeira, Policy Officer, DG Research & Innovation, European Commission

Background

- The previous research initiative, known as Framework Programme 7 (2007 – 13), provided €54 billion of funding for R&D. The money was disbursed via four main programmes:
  - Co-operation (collaborative research)
  - Ideas (European Research Council)
  - People (Marie Curie actions on training & mobility)
  - Capacities (Infrastructures, SMEs, Regions)
- This approach was complemented by a Competitiveness and Innovation Programme, and the European Institute of Innovation and Technology.
- The successor programme, Horizon 2020 has:
  - 3 priorities: smart, sustainable and inclusive growth;
  - 5 headline indicators, including 3% of GDP on R&D;
  - 7 Flagship initiatives, including Innovation Union.
- The Commission is proposing a budget of €80 billion (2014-20, in constant 2011 prices), which would increase the share of stable EU Budget (up to 8.5% of overall EU budget).
- The new policy will have: (i) common objectives based on Europe 2020 and Innovation Union; (ii) integrate research and innovation in a single programme; (iii) apply a challenge based approach; and (iv) apply common rules across all of Horizon 2020.

Innovation Union

- The purpose of the initiative is to provide for a strategic approach to EU R&D. This approach would necessarily tackle the weaknesses inherent in the earlier framework programme (namely under investment and fragmentation) as well as building upon its strengths (focusing on societal challenges, embracing a broad concept of innovation, and including and involving all actors).

European Research Area (ERA)

- The ERA is a ‘single market’ for free movement of knowledge, researchers, technology, open to the world. Its ostensive aim is to improve co-operation of research policies and programmes – avoiding duplication, improving efficiency.

Horizon 2020 priorities

- A world class excellence which develops and attracts talent
  - European Research Council
  - Future and emerging technologies
  - Marie Curie actions on skills, training and career development
  - Research infrastructures
- Industrial leadership & competitive frameworks capable of raising private investment
  - Enabling and industrial technologies (ICT, nano, materials, bio, manufacturing, space)
  - Access to risk finance (loans, equity)
o **Support for innovation in SMEs**

- Tackling societal challenges as defined in the other EU core policies
  - Health, demographic change & wellbeing
  - Food security, sustainable agriculture & bio-based economy
  - Secure, clean & efficient energy
  - Smart, green and integrated transport
  - Climate action and resource efficiency including raw materials
  - Inclusive, innovative and secure societies

- Tackling societal challenges as defined in the other EU core policies
  - Health, demographic change & wellbeing
  - Food security, sustainable agriculture & bio-based economy

- **Next steps**
  - The MAFF negotiations will determine the size of the funding pot.
  - The Horizon 2020 proposals will be published before the end of 2011, with legislative decisions taken during 2012 – 2013, with the new policy beginning in 2014.
  - Until then the current Framework Programme will continue to act as a bridge.
Thank you for your letter of 15 December 2011 seeking the Scottish Government views on certain issues arising from the Committee’s deliberations on the future European Framework Programme for Research and Innovation, Horizon 2020. Please find below my response to the specific questions raised by the Committee.

Q. The participants in the discussion were of the view that the Scottish Proposal Assistance Fund (SPAF), which was eliminated in the last spending review was instrumental in getting SMEs engaged in the application process for EU funding. Does the Scottish Government have any proposals to provide an alternative source of funding/application assistance?

A. Although the Scottish Proposal Assistance Fund (SPAF) no longer exists, the support that was once offered through SPAF it now delivered by the enterprise agencies through a range of support mechanisms.

To align the support available to SMEs, Scottish Enterprise integrated SPAF into its Innovation Support Service. The ISS offers free tailored assistance to all businesses in Scotland needing advice and guidance on innovation activities. For SMEs wishing to participate in the current EU Framework Programme (FP7), this can include a specialised FP7 project surgery or two days of consultancy help to develop an FP7 project idea or proposal. For businesses seeking to participate in collaborative Research and Development (R&D) programmes for the first time, provided they are eligible, there is also a small amount of financial support available through Scottish Enterprise's Innovation Support Grant for their first project application. Highlands and Islands Enterprise also offer similar support to companies through its account management and Research and Development programmes.
Recent data suggests a 17% increase in the engagement of Scottish SMEs in FP7 when compared against participation in previous Framework Programmes 5 and 6.

Q. The EU target for SME participation in the Framework Programme (FP) is 15%. In the FP7 programme Scotland secured only 13.5% participation of SMEs. Does the Scottish Government have a strategy to address this shortcoming in the next funding programme?

A. The information on SME participation levels in FP7 has been updated since the evidence meeting on 15 November. The latest available data shows an increase in Scottish SME participation to 18.44%, which is above the 15% threshold target set by the EU. In total 149 of a total of 808 FP7 projects undertaken from the start of the programme in 2007 until the end of October 2011 involved participation by Scottish SMEs. In terms of financial uptake, the share of EU funding received by our SMEs is circa €31.6 million of the total Scottish funding allocated (to date) of €304 million.

Whilst these figures are encouraging the Scottish Government’s objective remains to strengthen our performance. To help influence to encourage and stimulate engagement of the science base and industry with the European agenda and raise Scotland’s profile in Europe, the Scottish Government has established a multi-agency steering group, consisting of Scottish Government, Scotland Europa, Scottish Funding Council and our enterprise agencies, Scottish Enterprise and Highlands and Islands Enterprise.

Additionally, organisations such as Scotland Europa and Enterprise Europe Network Scotland continue to play a critical role in raising awareness and providing focused support on EU R&D opportunities. This co-ordinated approach has generated interest outwith Scotland; for instance Scotland Europa has been invited to address an InterTradeIreland/InvestNI/Enterprise Ireland joint conference as a best practice example.

Q. One of the shortcomings of the current programme was considered to be the awareness levels amongst SMEs and other commercial ventures, as well as amongst the academic community, as to the opportunities afforded by EU funding. What measures does the Scottish Government intend to introduce to address this deficit?

A. To raise awareness amongst our business base and encourage participation in European funded programmes our key partners work collaboratively to provide a co-ordinated approach and offer a range of support. Scotland Europa, whose membership base includes University, business and public sector organisations, provides assistance by offering one-to-one meetings with companies; advice and signposting to information resources; free FP7 proposal writing Masterclasses; and access to Europe’s largest business database for Scottish applicants looking for partners to work with on projects.

New initiatives to increase engagement in EU Framework Programmes are also being introduced. For example, the Scottish Funding Council is providing £250,000 funding this year in support of Pools Engagement in European Research (PEER). This new programme supports research pools to submit an application for FP7 funding and, as part of that process, engage and build partnerships with a Scottish SME. Each pool must provide evidence that a Scottish SME is participating in the FP7 project.

In addition the Scottish Funding Council is currently discussing with the sector and key stakeholders what form the recently announced single knowledge exchange office for
Scotland might take. Within this initiative there may be scope for a Scotland-wide office to improve support for business and academic collaborations on EU funding bids.

I hope that this response provides the Committee with the information it requires.

JOHN SWINNEY

Cc Fiona Hyslop MSP, Cabinet Secretary for Culture and External Affairs
Scottish Parliament

Horizon 2020

Friday 25 May 2012

[The Deputy Presiding Officer opened the meeting at 09:00]

Horizon 2020

The Deputy Presiding Officer (John Scott):
Good morning, ladies and gentlemen. As a Deputy Presiding Officer, I am delighted to welcome you to the Scottish Parliament for today’s horizon 2020 conference.

The conference has been organised by the European and External Relations Committee of the Scottish Parliament as part of its inquiry into horizon 2020 and the opportunities that it might provide for Scotland.

Seated around the chamber are delegates and key stakeholders who represent the various bodies and sectors that are at the heart of the issues that we are here to consider.

The committee’s inquiry seeks to identify how Scotland can best engage with the horizon 2020 proposals. In taking forward its work on the matter, the committee has sought to encourage dialogue between business and academia as well as between Government and Parliament.

That theme of co-operation and partnership working seems to me to be at the heart of today’s event and it is one that I am sure is certain to feature throughout today’s discussions.

To that end, I am delighted to note that the Scottish Government is represented at the conference by John Swinney, the Cabinet Secretary for Finance and Sustainable Growth. The aims of horizon 2020 tie in very closely with those of the Scottish Government, particularly when it comes to developing partnerships between businesses and universities, which is in itself a key aim of the Scottish Government’s economic strategy.

I am similarly very pleased that Marion Dewar, a senior adviser to the European Commissioner for Research, Innovation and Science, also joins us this morning, and that David Willetts MP, the United Kingdom Minister of State for Universities and Science, will join us a little later to provide the United Kingdom Government’s perspective on these matters.

It is clear that horizon 2020 represents a valuable opportunity for Scotland. Scotland already has both a contemporary and historically strong reputation for research and innovation, dating back from the great thinkers and scientists of the enlightenment to the present-day successes of our universities and research establishments.

It is crucial that Scotland now comes together to maximise its full potential to benefit from the proposals. The Parliament and Government in Scotland have seized the moment—motivated, perhaps, by the fact that the European Commission’s publication of its horizon 2020 proposals fell on St Andrew’s Day last year.

The European and External Relations Committee launched its inquiry even before the proposals were published and, to date, the committee has met the European Commission’s director general of research and innovation; held a round-table discussion, which included participants from the university sector, funding bodies and enterprise agencies; and carried out a number of fact-finding visits.

Today’s conference provides the committee with the chance to consider some of the issues that have arisen during the first stage of its inquiry and it allows delegates to feed into the committee’s deliberations.

As I am sure you already know, following this short opening session you will break into workshops to look at several of these issues. I look forward to hearing how those discussions went when we reconvene in the chamber later on.

Ladies and gentlemen, the Scottish Parliament was always intended to be open, accessible and responsive to the needs of the people of Scotland. Today, you occupy the members’ seats in this chamber. I invite you to contribute to these important discussions as we seek to explore the opportunities with which the horizon 2020 programme presents us. You are all very welcome here at Holyrood. I hope that you have an interesting, productive and enjoyable day.

It is now my great pleasure to introduce Marion Dewar, who is the senior adviser to the European Union Commissioner for Research, Innovation and Science. Marion has extensive experience in the EU, having worked for the socialist group in the European Parliament on the Economic and Monetary Affairs Committee for four years. Thereafter, in 1999, she joined the European Commission. She has worked in DG internal market, in the secretariat-general—in the Lisbon strategy unit—and most recently as a speech writer to President Barroso. Marion is now a member of the cabinet of Máire Geoghegan-Quinn, the Commissioner for Research, Innovation and Science, where she is responsible for the innovation union flagship initiative and the European research area.
Marion Dewar (European Commission): I am very glad to be here representing Máire Geoghegan-Quinn, who is the Irish member of the EC and is responsible for research, innovation and science. Of course, it is always a special pleasure for me to be in the Scottish Parliament. It is the second time that I have spoken here and it is always a significant and meaningful occasion for me.

I am to give you a bit of background before I plunge into the details of horizon 2020. You will know that, in Europe at the moment, we are in the fight of our lives to restore confidence and to generate growth and employment.

Last week, at the European summit, the leaders were entirely focused on the growth agenda and there was a lot of talk about European bonds to finance infrastructure projects, fresh injections of capital into the European Investment Bank, measures to get the single market working in the services sector, and measures to create a digital single market so that we can benefit from a digital revolution. The focus there was entirely on growth, whether we can get the economy back on track, and how the EU can contribute to that.

An important part of that whole story is the Commission’s proposal for the next EU budget, which will run from 2014 to 2020. The Commission has made its proposals for the budget, which we want to be focused on growth as we believe that it can be an important catalyst for growth. It is only 1 per cent of the overall EU gross domestic product, so it is very small, but because it is all spent on investment rather than consumption, it all goes back into the member states’ economies, bar 5 per cent, so we think that it can have an important galvanising effect.

In order to make sure that the budget is growth focused, the Commission has had the courage to redeploy funds towards areas that can improve competitiveness and productivity. Most notably, the Commission has proposed a massive increase in research spending. Within the context of a proposed budget that is fractionally larger than it was last time, we are proposing a 50 per cent increase in research funding. The share of research funding in the overall budget would increase enormously if the member states accept our proposals.

We are seeking to increase funding for research from €55 billion to €80 billion over seven years, although we do not know whether member states will accept that in the end, of course. We know that the budget discussions will be very tough, but it would be highly regrettable if that part of the budget got squeezed in the negotiations, because research is a proven growth driver. We know that countries that have continued to invest in research have weathered the crisis better and that cutting back on research spending at the moment is the wrong thing to do, so we hope that that part of the budget will not suffer in the negotiations.

I am here today to talk about horizon 2020, which is the new research funding programme, and about what we will do with the €80 billion if we manage to maintain that budget. The European Commission put the horizon 2020 proposal on the table in November—I had not made the link with St Andrew’s day, which is terrible—and the ball is now very much in the court of the member state Governments and the European Parliament. We will see whether the proposal is adopted. We hope that it will be by the end of next year.

I will say what we are proposing.

Horizon 2020 is much simpler, much more growth focused and much more focused on innovation. We want to continue to finance top-quality fundamental or pure science, but we are also interested in bringing bright ideas through to the market, so there is much more emphasis on pilots, demonstrators, applied research, which is closer to the market, and international openness. Many things have changed in horizon 2020.

The basic structure is around three blocks, the first of which is excellent science. As I said, much though we want to put the emphasis on innovation, fundamental science is the precursor to innovation. If we do not have good basic science, we will not have much innovation. We propose that the excellent science part of the programme should be worth around €24.6 billion. That would be focused on the European Research Council, which was set up in 2007 and is sensationally successful. It is amazing that an organisation that was set up so recently has achieved such an outstanding reputation. It funds individual researchers, there are no predetermined themes, the research is bottom-up research, and the approach is based entirely on excellence. The selection is made at the European level, of course. If you manage to get an ERC grant, that means that you are the best in Europe, so there is enormous international prestige attached to it. We want to strengthen the funding for the ERC.

The second block is industrial leadership. It is about strategic investment in key enabling and industrial technologies, such as information and communications technology, nanotechnology, advanced materials, microelectronics and space technologies. We will also finance innovative financing instruments relating to both debt and equity. Loans and venture capital will therefore be covered. We will do that through the European Investment Bank and the European Investment Fund. The idea is to channel money towards very innovative, research-based small and medium-
sized enterprises that currently find it very difficult to access funding because they are risky. Doing that is very difficult in the current environment. As part of the industrial leadership block, there is a specific programme aimed at small and medium-sized enterprises. It is mainly the Eurostars programme, which is another very successful programme from the current framework programme. We have tried to repeat what was successful last time.

The third block is the biggest one. It has €32 billion and focuses on the so-called grand societal challenges: health, demographic change, food security, clean-energy efficiency, sustainable transport and so on. In other words, it is the things that people actually care about and which are major challenges for society and major political priorities. The block also focuses on areas where there will be big economic opportunities.

There are therefore three blocks: the excellence in science, the industrial technologies and the challenge-based part, which ties in more closely to the political priorities. As I said, horizon 2020 has had key changes; it is much simpler, with simpler architecture, simpler participation rules and simpler auditing and reporting. We have gone as far as we can possibly go on that. I note that one of today’s breakout sessions is about bringing unusual suspects into the programme. We hope that by simplifying the rules we can help to make that happen.

The other thing that we want to do in horizon 2020 is widen participation to bring in parts of Europe that do not currently participate in the framework programme as much as they should. There tends to be a concentration of research excellence in certain places in Europe. Our programme is of course excellence based and there are no regional criteria for awarding funding. Nevertheless, we want to support regions where there are pockets of excellence and the potential for excellence. We want to help them to build that up in conjunction with the structural funds. I know that the European and External Relations Committee, which has organised today’s event, has focused a great deal on the next generation of structural funds and how the synergies between horizon 2020 and those funds can be exploited.

Interestingly, horizon 2020 focuses, as I said, a great deal on innovation, and not just research-driven innovation but social innovation, services innovation and how we can use public procurement to drive innovation and create markets for innovative products. All those things are covered in horizon 2020, assuming that we have the budget to do it.

I am here to talk about horizon 2020, and the first calls for that will be launched in 2014. However, do not forget that the final call under the existing research framework programme will be launched on 9 July this year. Over €8 billion is at stake there. In many ways, it is a sneak preview of horizon 2020. There will be lots of focus on growth and innovation, particularly on cross-cutting themes, such as oceans of tomorrow and smart cities. It is therefore worth while looking out for that final call. At the moment, funding is extremely hard to come by, so it is possibly a welcome port of call.

Thanks very much. I am happy to answer questions afterwards.

The Deputy Presiding Officer: Thank you very much, Marion. I will now call on John Swinney, the Cabinet Secretary for Finance, Employment and Sustainable Growth in the Scottish Government. John is a University of Edinburgh graduate. Prior to his election to Parliament he worked for the Scottish Coal Project, Development Options and Scottish Amicable. John was elected to Westminster for North Tayside in 1997 and has represented the same constituency in the Scottish Parliament since 1999, holding a number of posts, including leader of the Scottish National Party and convener of the European and External Relations Committee. Since 2007 he has served as Cabinet Secretary for Finance and Sustainable Growth, and we are grateful to him for taking the time to be with us today.

09:20

The Cabinet Secretary for Finance, Employment and Sustainable Growth (John Swinney): Thank you, Deputy Presiding Officer, and good morning ladies and gentlemen. It is a great pleasure to be here and I thank my colleagues on the European and External Relations Committee for organising the event. It is a great pleasure to share a platform with Marion Dewar and to welcome her again to the Scottish Parliament.

As the Deputy Presiding Officer said at the beginning of his contribution, this is a tremendous example of the ways in which we can try to draw together some of the thinking that is available within Scotland’s wider community to ensure that the Parliament’s deliberations are well informed by its experience and interests and the perspectives of its different elements. It is relevant to the horizon 2020 programme and the aspirations of the European and External Relations Committee to ensure that the Government is focused and ready to ensure that we can play our part in Scotland properly addressing its opportunities in horizon 2020. That was one of the lines of questioning that Aileen McLeod pursued with me when I appeared before the committee to speak to this inquiry earlier in the parliamentary session.
It is important that our approach to horizon 2020—Marion Dewar made this point very strongly—ensures that the steps that we take are focused on maximising opportunities for Scotland and her interests within the programme. That is a point well made and the Government focuses on it in all its European programmes, so that we are properly equipping ourselves to take advantage of emerging opportunities for investment.

As Marion Dewar said, that is becoming ever more important in the economic and financial circumstances that we face. In the debate that is dominating the EU about the strategy and approach that must be taken to resolve some of the key challenges that the euro zone faces, the focus is on the right approach to take to emerge out of the difficulties. That may be, as the G8 summit wrestled with, an approach that is focused on growth or one focused on austerity or a combination of both or whichever combination you take from that particular evaluation. I come away from that situation concerned to maximise the opportunities for growth and investment as a means of stimulating the economic activity that can address the strategic economic challenges that we face.

In trying to ensure that Scotland is equipped to deal with the economic challenges that we face, it is my opinion and the Government's that we must have a greater focus on growth. The opportunities that arise out of horizon 2020 and some of the short-term funding opportunities and the research and funding programmes that exist are so important in contributing to economic growth in Scotland.

At the heart of the Government’s economic strategy are two important principles. The first is that we should focus all the efforts of Government and public services in Scotland on supporting an economic growth agenda. We have pursued a consistent approach in respect of that principle and I am heartened by the way in which many organisations in Scotland have responded to that challenge and to Government leadership by ensuring that their activities and approaches are aligned to support the economic growth agenda. I particularly single out our universities, which have absorbed at the heart of their approach the concept of contributing to economic growth and have become significant engines of enabling major investments in Scotland because of the alignment of their activities that arises from that process.

The second important principle at the heart of the Government’s economic strategy is the focus on supporting key sectors in which we believe there to be great innovative potential. We see the capability of the Scottish economy in financial services, in the energy sector, in life sciences, in the creative industries, in the food and drink sector, in tourism and in the university sector as being the main focus for the opportunities that we think exist to generate the type of innovative growth that will deliver new economic opportunities for Scotland. As a Government, a huge part of what we do is to encourage the alignment of interests of a variety of players to support that economic agenda and to ensure that it manifests itself in the key sectors of the economy that we have identified.

What is important is that we establish connections between those approaches and programmes to support the opportunities that can be accessed through many of the European programmes that are available, such as horizon 2020, which we have a particular focus on today.

One of Marion Dewar’s points was about the importance of sustaining investment in research and development. One of the aspects of the funding decisions that we, as a Government, have arrived at that I am most pleased about is that, despite the enormous public spending pressures that we face, the amount of funding that we have made available to support research and knowledge exchange though the Scottish Further and Higher Education Funding Council has increased in 2012-13 by about £12 million to £301 million. That is one example of how we make our choices about how to support innovation and creativity in the Scottish economy. That approach is reinforced by some of the funding decisions that other key Government agencies, such as Scottish Enterprise and Highlands and Islands Enterprise, have taken, through which we are increasingly focusing our efforts on supporting research and development in the Scottish economy.

Ensuring that we have a sustained process of funding support is essential to providing the backbone to the research and development programme in Scotland, but it is of equal importance that we encourage the process of collaboration between our higher education institutions and the private sector to ensure that the great reservoir of creativity that we have in our higher and further education institutions can be properly aligned with commercial opportunities in the private sector.

It is evident that that process is being strengthened in a number of areas, first and foremost through the willingness of the higher and further education communities to engage in such activity. There is a welcome enthusiasm in the sector to do that. Equally, we are encouraging the funding council and the enterprise agencies to ensure that their interventions support such activity. The Scottish Enterprise innovation support service offers focused assistance to individual companies to manage the process of innovation, to find out whether there are ways in which
collaboration with the private sector can be encouraged and to realise some of those opportunities. It provides the range of small and medium-sized enterprises that are participating in the EU’s FP7 framework programme with the opportunity to gain the tailored support that they require.

Interface is a great operation that is hosted by the University of Edinburgh. In essence, it connects businesses quickly and easily to the world-class research expertise, knowledge and facilities that are available in all Scotland’s universities and research institutes. It involves an extremely simple concept—the creation of a website that brings together information on research activities that are going on in various institutions across the country and making that readily available to people in the private sector so that they can identify where the action and the interest happen to be. It appears to me, as a layman in such matters, to be not much more complicated than that, but I know from my experience of Scotland’s company sector that there are tremendous examples of how that resource is bearing fruit. The focus on the formation of innovation centres is also important to ensure that companies are properly connected to opportunities.

I also want to mention the element of collaboration that is represented by the Scotland Europa network, which not only operates alongside the Government’s representative organisation in the European Union but actively supports individual companies to realise their potential in obtaining support and encouragement from EU innovation programmes. Scotland Europa has a good track record in establishing such connections and ensuring that companies receive the support that they require.

Finally, with regard to long-term budget support, the Scottish Government is, in its input to UK thinking on the EU budget, emphasising that EU budget decisions must be driven by opportunities to stimulate growth in the European economy. That must be the fundamental test of the EU budget, which, after all, is one of the principal sources of supporting and encouraging economic growth in Scotland as part of the EU, and we will argue very strongly to the UK Government and as part of the EU negotiations that that emphasis must be reflected in final budget decisions. That input is critical to stimulating growth in the economy, and I hope that that agenda receives a positive response.

This event provides a very welcome opportunity to exchange views and ideas on the opportunities arising from horizon 2020 and on behalf of the Scottish Government I am delighted to be able to play a part in today’s proceedings.

Thank you very much.

The Deputy Presiding Officer: Thank you, cabinet secretary.

The audience will now have an opportunity to ask John Swinney and Marion Dewar questions. I encourage everyone to participate as fully as possible. I will do my best to fit in as many questions as possible into this 10-minute session, but I ask everyone to keep their questions as short as possible. If you wish to ask a question, please raise your hand—and if you are invited to speak, please wait until the red light on your microphone comes on. Before making your point, you should announce your name and, if relevant, the organisation you represent. Before speaking, you should ensure that you are speaking down into your directional microphone—I notice that some of the microphones are not properly sited.

Let us make a start with the first question.

Professor Geoff Simm (Scottish Agricultural College): Although there is much to applaud in the horizon 2020 proposals and although we are certainly enthusiastic about taking part in them, we feel that the funding model might be a block. For many years now, we have been encouraged to move closer to charging full economic costs for the research that we carry out and, at the moment, the proposal to lower the rate for indirect costs to 20 per cent would mean that we would fall far short of that. In fact, in our case, it would provide only a third of the funding that we would need to meet full economic costs. Has that issue been recognised? Can Marion Dewar, in particular, indicate whether there might be a happy ending?

Marion Dewar: No—by which I mean not that there is no happy ending but that I am not qualified to talk about the issue. However, we can speak afterwards and, when I get back to Brussels, I can ask for a full briefing on the matter.

Professor Simm: Thanks. I should point out, though, that this will be a major problem for many other higher education institutions.

Marion Dewar: I am aware of the problem, but I am not prepared to delve into the technicalities as they are beyond me.

Mark Anderson (Glasgow Caledonian University): Marion Dewar said that the last round of funds for FP7 will be coming out in July and the first round for horizon 2020 will be 2014. Does that mean that there will be a hiatus before the 2013 round?

Marion Dewar: The last call for FP7 will be issued in the summer and the funding will start in 2013. There will then be a further call at the beginning of 2014. I know what you mean: there will be a slight hiatus. This final call in July is bridging to the beginning of horizon 2020. The
framework programme is back-loaded over seven years. This last call is the biggest and it will be the bridging call.

Melfort Campbell (IMES Group): IMES Group is a small group of engineering businesses in the energy, defence, marine and process industries. I have done my homework and read today’s papers and, from what I have heard, I feel that my business is irrelevant to this process. Is that correct? We are entirely focused on innovation and reacting to market opportunities, but I see nothing in the papers, or in what I have read online, about support for businesses that are reacting to and taking market opportunities, and then seeking academic input—ideas, thoughts and research—to help them to take up those market opportunities. Am I wrong? If so, how does it work? If I am not wrong, what support is there?

I highlight the fact that our general process is that we need to make a decision on an investment within two weeks and be implementing within three months. We never seem to be able to get funding to do what we need to do within that timescale.

The Deputy Presiding Officer: Cabinet secretary, that might be one for you.

John Swinney: Obviously, I am interested in following up some of the detail of your experience, Melfort. The system is designed—and this is the Scottish Government’s existing approach—to ensure that individual companies that have growth potential have access to the range of support that the Government and its economic agencies can make available. The system is supposed to be responsive to demand. It is not supposed to be saying, “I have this particular programme available, Mr Campbell—do you want it? It is all I can offer you.” The system is designed to ask where your business is, what the opportunities are and how we can support it most effectively. If that is not your experience, I am interested to hear that, because that is what I think your experience should have been. That is how the company development support that we now offer in Scotland is designed. As well as direct engagement between the Government and companies, it is about opening up access to various other avenues of support, some of which might be from the EU, given our knowledge about and connections with EU programmes. It might also be about opening up opportunities to work in collaboration with other research organisations in universities or wherever.

The theory behind the Government’s enterprise development support is to give direct support to companies to realise opportunities, some of which will be strategic developmental ones. For example, the Government is actively supporting companies to do long-term research to create the devices that will be able to realise renewable energy potential in the wave and tidal sectors. Equally, there will be projects that literally require a decision the next day about something that can happen over the weekend to make opportunities happen. We have the capability to do that, but if that is not your experience, I am happy to explore that further.

Marion Dewar: Mr Campbell, do you have a small business in marine process industries?

Melfort Campbell: We are a mid-size business in marine, defence, oil and gas, energy and process industries.

Marion Dewar: I take your point about speed. It has certainly been a problem under the framework programme. We are seeking to reduce the time to grant down to 100 days. That is not the two weeks that you spoke about, but it is considerably better than it was. You will also find that there will be plenty of calls around themes that are relevant to your business, Mr Campbell.

Perhaps I did not stress this enough earlier: Mrs Geoghegan-Quinn is committed to making the programme much more accessible to SMEs. We are going to hit the 15 per cent target for SME participation in the current framework programme. We will maintain that target in the new programme across the challenges block that I spoke about and the industrial technologies part—it may even go up to 20 per cent.

Do not forget the novel financing instruments on the debt and equity side that I mentioned earlier. That is through intermediaries—the European Investment Bank works through banks on the debt side. The European Investment Fund acts as a fund of funds on the venture side, investing in venture capital funds around Europe. Those instruments are designed to speed up the flow of either venture capital or credit to highly innovative, research-based firms. There is plenty in the programme that could benefit your business, Mr Campbell.

The support services that John Swinney spoke about are extremely important because, without that support, I accept that it is difficult for firms to access the programme. We hope that, with the simpler architecture and the simpler rules—controversial though they are—it will get easier.

The Deputy Presiding Officer: Thank you. After two final questions from Jim Mather and Professor Andrew Scott, we will wrap this up.

Jim Mather (Gael Ltd): I am chairman of Gael Ltd in East Kilbride. I was taken by the point about wider participation, particularly with other parts of Europe. That would obviously strengthen the case of many projects. We could take advantage of it in terms of our English-speaking capability. Are there any plans at European Commission level to facilitate the creation or identification of further opportunities to bring people together? Perhaps
this Parliament could be used again—we could invite people from other parts of Europe to come and start collaborative conversations with the Scots.

Professor Andrew Scott (University of Edinburgh): I ask Marion Dewar to say a few more words about the structural funds dimension, because it is not terribly widely known how the structural funds will interact with R and D.

Marion Dewar: We have tried to find a rational division of labour between horizon 2020 and the structural funds. It is important to realise that horizon 2020 is excellence driven—excellence is the sole criterion for deciding whether to award funding and there are no geographical criteria, whereas the structural funds are driven by cohesion policy, so there are geographical criteria. They are fundamentally different instruments. Horizon 2020 can do certain things well and the structural funds can do other things well. In essence, the structural funds help parts of Europe that, frankly, are not in the game—they do not have the research excellence and so cannot access horizon 2020. The structural funds can help those areas to build up that excellence.

In horizon 2020, we want to recognise areas where there are potential centres of excellence and niches. It might just be a faculty or a school in a university where there is genuine potential for excellence. We want to help those areas twin with other parts of Europe. Next year, we will pilot a scheme called ERA—European research area—chairs. The idea is that, where there is an identified pocket of excellence, there might be potential to fund a European research area chair, which we hope will help to attract investment and talent and will help that centre to move up the stairway to excellence. Those kinds of things are better done in horizon 2020, because it is an excellence-driven programme. If an area gets the imprimatur, the seal of approval, from horizon 2020 and an ERA chair, that has come not from a cohesion-driven programme but from an excellence-driven one. The structural funds money needs to come in and build up the infrastructure around that. That is roughly how we see it.

In Scotland, it is likely that the Highlands and Islands will be a transitional region next time round and the rest of the country will benefit from some structural funding, but no part of Scotland is now a less-developed region. There is earmarking within the structural funds, especially for the more developed regions, which Scotland now is. You will be obliged to spend a large percentage of the money that you receive on research and innovation. For Scotland, that will not be a constraint, as it is what you would want to do anyway, I think. Although we focus on horizon 2020, significant investment in research and innovation will come through the structural funds. The key is to make the instruments work together. For a transitional region such as the Highlands and Islands, the idea is, eventually, to move away from structural funding and get to a point at which the region can benefit from a purely excellence-driven programme such as horizon 2020.

John Swinney: I will deal with Jim Mather’s point. As I said in my comments, we are keen to encourage and maximise the collaborative approach. There are excellent examples of how that is bearing real economic fruit for Scotland through university and industry collaborations. Broadly, we want to encourage in every way possible the opportunity to spread that collaboration further afield and connect it with other parts of Europe.

On whether Parliament can be used for that purpose, I will not intrude on the domain of the parliamentary authorities and the Presiding Officer—I am much too careful to do that—but I am sure that Parliament will consider how it can play a part in that. The committee’s inquiry is an open one about trying to find those areas of collaboration for Scotland. The Government would be happy to support the committee and Parliament in their efforts in that respect.

The Deputy Presiding Officer: Many thanks. That concludes the question-and-answer session and the first part of the proceedings in the chamber. I thank our panellists, John Swinney and Marion Dewar, for their contributions and for taking the time to be with us.

We will now move to the breakout groups.

09:50
Meeting suspended.

11:31
On resuming—

The Deputy Presiding Officer: Welcome back, everyone. I hope that you all enjoyed and participated fully in your breakout groups. We will now hear the feedback from the five groups. First, we will hear from James Temple-Smithson, the chair of breakout group 1, which considered bridging the gap between research and business and getting ideas to the market.

11:33
James Temple-Smithson (European Parliament): The first point that was made in our group, which set the tone for everything that followed, was the need to recognise the scale of the problem. Whereas Scottish universities are good at accessing EU funding—30 per cent of the
University of Edinburgh’s funding comes from research grants, a large part of which comes from the EU—participation of Scottish companies in EU funding schemes is less than half the European average. That is a poor rate, and it is the major challenge. Given the scale and scope of EU regimes, unless participation improves there will be a major problem—not least with regard to the broader strategic aim of utilising the schemes to promote sustainable economic growth. That approach was encapsulated in the observation that we are good at turning money into knowledge, but less good at turning knowledge into money.

On the reasons for that, a point about the bureaucracy of the schemes was made and it was mentioned that the Commission is making big steps to improve matters in that regard through FP7 and Horizon 2020. However, the perception lingers that accessing those funds is complicated, so there is a need to help firms to get over that and to promote awareness that help in getting over the barriers is available through Scotland Europa and the European Commission.

The key thing that came out of our discussion was the need to work on demand-side engagement in relation to Scottish firms, particularly small and medium-sized enterprises. Work must be done to convince firms of the value of participating by showing clear evidence of the potential return on investment and engagement, which can be done through case studies. Some good examples were highlighted, including the energy technology partnerships and ScotCHEM.

A number of people pointed out the need to give firms assistance in engaging upstream, both at EU level and bilaterally. The Scottish proposal assistance fund was mentioned and there was talk about innovation vouchers and the need to facilitate associations because small firms, in particular, do not have the capacity to do that work themselves. A number of important ideas were mentioned. A point was also made about the importance of a more strategic level of helping firms to find partners in other member states, with the understanding that the need to find partners is a long-term strategic process in which assistance is required. On the importance of engagement at upstream EU level, a point was made about the importance of engaging when calls for tenders are prepared, so that they are suitable for, and accessible by, Scottish firms.

There was a discussion about the need for universities to be proactive in engaging with SMEs; universities in some other countries are said to be much better at that than the universities here are. A process is on-going whereby universities are being asked to provide a formal strategy on engagement with SMEs in their areas of expertise and it was suggested that Scottish Enterprise could do more to improve engagement and collaboration between universities and companies.

I will run through a few slightly eclectic points that I did not manage to fit into a comprehensive overview. It was suggested that there is a need to develop an innovation spectrum to describe the range of innovation in the commercial sectors, so that companies that might not think that innovation funding is for them can see how they might fit into the overall scheme, which would encourage people to access funding. It was also said that there is a need to recognise the range among universities—from those that do pure science research to those that do more applied research. That demonstrates that there is more of a continuum than people often think, and that organisations that might not see themselves as being potential applicants for funding should consider applying.

Finally a point was made about the need to promote awareness of existing technology among firms; it is felt that that is lacking in some areas.

The Deputy Presiding Officer: Thank you very much. I ask Dr Aileen McLeod, who is the chair of breakout group 2, to come forward. I believe that you discussed funding innovation and investigating new opportunities.

11:38

Aileen McLeod (South Scotland) (SNP): The group that I chaired did discuss funding innovation and the new opportunities that would come from that but, helpfully, we also discussed what success would look like for Scotland. We came up with some good ideas about the importance of the implementation of a strategy for a team Scotland approach.

We had a good discussion and some very useful contributions were made from around the table. The implementation strategy and the team Scotland approach are all about how to develop our business and research links so that they can be more effective and enable us to build our capacity.

We had a discussion about adopting a sectoral or market approach that is linked to market opportunities. There is a feeling that we should be doing more to develop our geographical links where there are common interests and synergies.

There is a sense that there is a need to do more to influence activity and to engage more effectively with the key players in Brussels, although it was recognised that Scotland Europa is able to facilitate such discussions for our SMEs. However, those who are involved in collaborations and the consortia themselves need to be clearer about
their objectives when they are putting forward a case in Brussels, and they need to ensure that more of their programmes are aligned to Scotland’s strengths.

We also know that competition under horizon 2020 is going to be tougher than ever, although the budget has been increased to €80 billion. The programme will not come on stream until 2014, but there is a feeling that we need to be fully ready and able to position ourselves to take full advantage of it as soon as it comes on stream. Its competitive nature means that we need to look at how we can ensure that our industrial leaders and our SMEs are fully prepared.

That said, there is recognition that our SMEs have limited capacity to access EU funding in the horizon 2020 programme, and limited capacity to engage, given the medium-term to long-term nature of the programme. It is well known that many do not have the necessary resources, expertise, experience or funding. On the plus side, those that have been able to engage with, for example, FP7, were able to speak of the benefits in building credibility and relationships with major corporations.

We also managed to have some discussion about public procurement and its importance as a driver of innovation. It is felt that these are early days, but we see public procurement as presenting a real opportunity, particularly in terms of encouraging and supporting innovation in our SMEs.

We discussed the importance of investing in cluster development, which we see as being key to encouraging and strengthening strategic innovation partnerships, and to the ability of team Scotland to compete. Although universities are good at that, we need to look at how we can further strengthen innovation, working with the universities and the private sector.

The Deputy Presiding Officer: Excellent, Aileen. Thank you very much.

I invite Marco Biagi, who chaired breakout group 3, to come forward. I believe that his group discussed the usual suspects—whatever that may mean—and getting fresh talent to the market.

11:42

Marco Biagi (Edinburgh Central) (SNP): Thank you, Deputy Presiding Officer. Your “whatever that may mean” comment is prophetic because, like students who are set a task in an exam, we spent the first chunk of time trying to define and work out what we were actually being asked. The wording was

“Beyond the ‘usual suspects’: getting fresh talent into the system”

and the first suggested question was,

“Who are the ‘unusual suspects’?”

I suspect that we might have gone over much of the territory of the other two groups, but that is part of the nature of such conferences and there is nothing wrong with doing so.

Given that our group included a number of representatives of SMEs and universities, together with statutory bodies that deal with those groups, it was always natural that our conversation would turn to SMEs as “unusual suspects” and how we can try to reach out not so much to business broadly—which the first group discussed—but particularly to organisations at the smaller end. There was, along the way, some consideration of the importance of individuals—for example, people who have just completed PhDs in scientific subjects—attempting to commercialise at that scale, but we moved on to the issue for SMEs in general.

It is fair to say that we had a heady dose of realism injected at one point, when the discussion turned to the likelihood of much of horizon 2020 having already been set, many of the processes having been set in motion, and there being a limit to how much the time to grant can be reduced. The aim is to reduce it from a year to 100 days, but to be frank even that might well be optimistic in practice. In facing those difficulties, the issue is perhaps not so much how we can shape horizon 2020, but how we can shape our reaction to it and how we can best support SMEs to engage.

A number of issues came out of that. Awareness is a key issue. A lot of SMEs in Scottish priority sectors such as finance and health might think that research is not for them. European research funding for health services is not necessarily the first thing of which a telehealth provider thinks, but telehealth is an area of great innovation, if not research. In that sense, the change in horizon 2020 is welcome and needs to be exploited through ensuring sufficient awareness.

It is fair to say that we had a division of opinion, which is always interesting. Unfortunately, the discussion about how best to build capacity among SMEs was just starting to get energetic when we had to pack up and return.

There was a range of opinion. Scott Johnstone from the Scottish Lifesciences Association promoted that association’s example of having taken an industry relatively organically and boosted its profile and the ability of SMEs to participate in obtaining funding, with relatively little central financial support from statutory partners. On the other hand, Kim Murphy from Glasgow described a more local engineering design and manufacturing project that used public sector
leadership—the example of Jim McDonald of the University of Strathclyde was highlighted—to bring together the relevant businesses to think about the opportunities that are available, as well as to build capacity to apply for funding.

Somewhere in between is the food and drink sector, which has had support from the Scottish Government, its agencies and local government and which is developing in its own way a sectoral capacity to participate in European funding streams. An issue in that is lack of awareness in a great deal of situations. Innovations that are attached to the food and drink industry might not be thought of as food and drink matters. The example of energy efficiency in distillery work was cited; I am familiar with that because of a project in my constituency.

There was no consensus on whether public sector interventions tend to trip over themselves or are invaluable in bringing together SMEs that have limited capacity, time and knowledge, but it was definitely accepted that we need capacity building that uses networks in a sectoral approach, of which many good examples exist. As the participants in the group were largely from SMEs and universities, examples of how universities have worked successfully with SMEs to build capacity were given.

That is broadly what we discussed. I am sure that the scribing will provide far greater detail about everything else. I am glad to have participated in and facilitated the discussion.

The Deputy Presiding Officer: Many thanks, Marco. I now call Liam McArthur, who chaired breakout group 4, which considered the role of the Government, cutting red tape and securing value for money. I am sure that those issues are dear to all delegates’ hearts.

11:48

Liam McArthur (Orkney Islands) (LD): While listening to James Temple-Smithson, Aileen McLeod and especially Marco Biagi, I have been struck that similar discussions took place in each breakout group. As Marco Biagi suggested, that is not necessarily a surprise. I will hold to the maxim that, although everything has been said, as long as not everybody has said it, I will crack on.

I am grateful to all the people in our breakout group and particularly to Professor Pete Downes, who was a very able facilitator and who brought insight to the deliberations. He was particularly helpful in pulling together the discussions at the end.

We all arrived at our breakout session with Melfort Campbell’s frustrations with the process still ringing in our ears. That brought home to us a live example of problems in accessing the current funds. We need to be cognisant of that in relation to horizon 2020.

As others have said, the significance of the opportunity needs to be underscored. That reinforces the fact that the Government at all levels and across its agencies needs to take a clear role in enhancing the ability of Scotland, which has a number of strengths to play to, to punch above its weight.

I think that it was accepted at the outset that, given the scale of horizon 2020 and the way in which it is structured, some complexity and red tape are inevitable. Our trying to kid ourselves that we can pare them back beyond a certain level is probably a little naive, but there is a real sense that there is a role across the Government in facilitating through signposting, navigating and providing the necessary advice.

The other conclusion that we drew on the scale and structure of the funds is that they absolutely require that consortia be built up and operate, because the funds do not really lend themselves to individuals seeking to make bids, particularly if they are looking for a quick turnaround of investment.

There are undoubtedly frustrations, but there are also examples of where Scotland is currently doing very well; the university sector is the obvious example. Marion Dewar talked about the success in accessing ERC funding. The fundamental research that our universities in Scotland are doing is playing out on a European scale: we have that strength. The UK punches above its weight and Scotland within the UK punches above its weight still more, but that is not being translated into innovation. We need to get far better at bringing in the SMEs. It is felt that SMEs in a number of member states appear to be benefiting from the fundamental research by Scottish universities and their success in accessing funding rather more than SMEs in Scotland are. We are keen to see how we could address that and the role that the Government would have in that respect.

It is also felt that we need to redouble our efforts on building up better networks within Scotland. I think that Marco Biagi made that point, and others have alluded to it. Successive Governments have recognised that as a priority, and various schemes have been introduced over the years. All those schemes have had some success, but it is clear that there is still a need to do more. The Scottish Government, its agencies and local government have a role to play in that respect.

Support for SMEs in developing their own European networks is thought to be important. We recognised that there are constraints on SMEs
because of their scale, but things can be done that
are mundane for those of us who have spent a
considerable number of years in Brussels, such as
going out to Brussels, putting faces to names and
simply building up networks. That can be a slow
and laborious process and there is often no
shortcut. A couple of other examples that were
cited in our group put more emphasis on
knowledge transfer partnerships as a way of
developing those networks. Horizon 2020 does not
seem to lend itself very much to that approach, but
the Scottish Government certainly has a role to
play in providing such fora for networks to
develop.

The view was expressed in the group that
universities need to be more proactive; perhaps
they could have more of an SME strategy. It is
clear that the expertise exists to develop
applications for funding; some applications under
the programmes have proved to be very
successful. It is an art form in itself. The research
needs to be of a certain quality, but there is a
knack in putting together such bids, and it is clear
that a number of our universities have expertise in
that. Perhaps we need to get better at sharing that
expertise more widely.

There was also a fair amount of discussion
about portals. We drew the conclusion that cutting
red tape is probably not best achieved by putting
in place an additional level of assistance or
screening. As well as portals such as Scotland
Europa and Interface, the enterprise agencies and
the local authorities are very active in this sphere,
particularly in areas in which there is close
collaboration with the universities. We could not
come up with a magic bullet for how the process
could work better, but there is definitely a feeling
that we need to assess what portals are out there
and how effective they are, and to build on what
we have, because it is clear that some things are
working, but not necessarily working as
extensively as they might. That points to some of
the issues that were touched on in the “beyond the
usual suspects” breakout group.

A number of other points were made, but those
were the general themes. Like Marco Biagi, I am
sure that the scribes will have caught the bits that I
have let slip through the gap.

The Deputy Presiding Officer: Thank you very
much, Liam. I now call Patricia Ferguson, the chair
of breakout group 5, which discussed how to win
the competition for funds.

11:56

Patricia Ferguson (Glasgow Maryhill and
Springburn) (Lab): As the Deputing Presiding
Officer indicated, our group looked at how to win
the competition for funds. I would particularly like
to thank our facilitator, Mike Rogers, who gave us
some very useful insights into a number of the
areas that we discussed, one of which was that the
European Commission needs to win the funds
in question from member states in Brussels, so it
is important that that process is successful. It is
also important that, once the framework
programme is agreed, there is certainty of funds
throughout the programme period.

As far as the role that Government and its
agencies can play is concerned, we felt that
getting to the point of bidding for funds is often
difficult, particularly for an SME. It was put to us
that it can take up to 18 months to have a bid
accepted, and that there are no funds that allow a
company to take forward its proposal. It appears
that there was such a fund in the past, but that it
has recently been discontinued. It was felt that that
would be a useful addition to the range of support
that is there.

In addition, like other groups, we felt that SMEs
needed a bit more support to help them to
compete for funds. We recognised Scotland
Europa’s role in supporting SMEs, but we felt that
that support was sometimes a little less visible
than some of the other good work that it does. We
also felt that it would be good to team up less
experienced SMEs with more experienced
partners in academia or research, to give them the
benefit of that experience. We felt that it would be
good to have some kind of linkage within each
sector to allow people to share their experiences
and their views of what was happening.

There was a feeling that although lots of support
was available, much of it was in silos, and that
there was a need to promote a broader range of
wider opportunities, which the support agencies
were not quite good enough at. To paraphrase
one of Marion Dewar’s analogies, there needed to
be a ladder of funding that organisations could
access.

On our second question, which was about
lessons learned from previous programmes, we
felt—again, this links back to something that we
talked about earlier—that we were not always
good at promoting success and that we needed to
do a bit more of that. In addition, it was pointed out
to us that in Malta there are four national contact
points, whereas in the UK there is only one, which
means that the folk in Malta who do that job can
get to know their industries and their SMEs much
better than is possible in some of the other
countries. Perhaps we could look at that.

It was also pointed out that it is possible for
SMEs and others to dip their toe in the water by
first subcontracting before seeking to lead projects
later. Although leading a project might be quite
attractive on paper, it comes with a lot of
headaches and might not be the way in which a
company would first want to engage with the process.

We felt that academia in our country is good at getting funding and at creating academic contact, but that horizon 2020 would present a challenge in linking academia with the SME networks, as others have suggested. We wondered how those links and partnerships could be better facilitated. We questioned whether European regional development funding could be used to promote those connections in the future.

We considered how we could look at early-stage research that could lead to world-class research, rather than just look at world-class research. We commented on the fact that there is increasing demand for funding and that, although funding has increased, so has the number of applications. I was interested to learn that, because of the respect that is given to the criteria that are used and the good reputation of the invigilation of those criteria that goes on in the Commission, some member states will fund bids that pass the quality criteria but are not funded through to the proposal stage. We wondered whether that could be considered.

We also felt that a match-funding element would be very important and that there might be a role for Government in ring fencing money for early research programmes. There is a need to ensure that a multi-year promise of funding for projects would be delivered, and the example was given of a situation in which that had not transpired. The work that is being done by the Scottish funding council to seed fund some projects was cited; that seems to be going well and is helping projects to grow. The Scottish funding council proposes that there should be more such innovation centres, which we thought would provide a helpful gravitational pull.

We had most difficulty with the area of non-technological innovation because it was not absolutely clear to us how that would develop. We felt that it would perhaps be difficult for the humanities areas of academia to understand and be able to participate in the horizon 2020 regime because that is not such a clear part of the programme going forward. We struggled slightly to see how that could be included in the societal element of the funding. We noted that some areas such as ICT are still recognised and that the UK does very well in those areas, but we felt that a little more could be done.

Near the end of our discussion, the interesting point was made that, although our academies are very good at working in partnership—as has been said before—those partnerships are sometimes with organisations, SMEs and others that are based overseas. Although those partnerships are useful in developing theories, processes and outcomes, they are occasionally aiding our industrial rivals. Therefore, it might be worth investing more in linking academia and SMEs going forward, particularly given the emphasis on that in horizon 2020.

We had a very good discussion, and I am sure that the scribes have many more notes than I have. We recognised some of the challenges and issues that other groups have identified, which I hope will be themes that we are collectively able to act on in the future.

The Deputy Presiding Officer: Thank you very much, Patricia. That was terrific. That concludes the feedback session. I thank all the reporters—James Temple-Smithson, Aileen McLeod, Marco Biagi, Liam McArthur and Patricia Ferguson—for their hard work and for the copious notes that they all took.

The next part of today's session is a closing speech from David Willetts MP, the UK Government's Minister of State for Universities and Science. David has been the MP for Havant since 1992. Prior to his election, he worked in the Treasury and the Number 10 policy unit. He served as Paymaster General in the previous Conservative Government and has held various posts in the shadow cabinet. He was a visiting fellow at Nuffield College, Oxford; is a governor of the Ditchley Foundation; and is a member of the council of the Institute for Fiscal Studies. David has written widely on economic and social policy and you will be delighted to know that his most recent book is entitled, "The Pinch: How the baby boomers took their children's future—and why they should give it back".

12:05

David Willetts MP (Minister for Universities and Science): Thank you very much indeed for the invitation to be here today. The plug for my book was a bonus that I was not expecting, so thank you for that, in particular.

This is a great opportunity to exchange information and for me to learn from the valuable feedback reports about ways in which we can make the most of the opportunities that face us as we construct horizon 2020. Of course, we all agree that horizon 2020 has potential to add real value to the research and innovation effort across the EU, especially at a time when the challenge is growth. We need to get our economies moving by backing the research and development and the innovation that will take us into the technologies and sectors of the future.

The opportunity to have this discussion is particularly valuable because it is happening at absolutely the right time. Next week, I will be attending the competitiveness council where my
continental European colleagues and I hope to reach political agreement on the content of the overarching horizon 2020 regulation. In the jargon, it is a partial general approach—as you become more familiar with European negotiations, you realise that putting together apparently contradictory terms is an important part of the process. A partial general approach means that you agree the substance of the proposal but leave the funding issues—the wider EU budget and the multiannual financial framework negotiations—to be decided at a later European Council. Our approach is clear. We believe that research and innovation should account for a larger proportion of an EU budget that is restrained, overall.

I should stress that, although a lot of work has been done to reach this stage, and I hope that we will take a crucial step on the road in Brussels next week, there are further stages of the co-decision process, which involves a crucial role for the European Parliament.

I express my appreciation of the excellent co-operation that Department for Business, Innovation and Skills officials and officials in the Scottish Government have shown during the process of preparing the British Government’s approach. Throughout, we have been able to benefit from the exchange of ideas and have established and refined a UK negotiating position that probably reflects the views of all the universities’ businesses that can hope to benefit from it. The text that we are likely to agree next week, on 31 May, has been improved in the course of the negotiations, which have drawn heavily on the expertise in Scotland.

Before I go through the particular features of the negotiations, I want to say that we can be proud of the quality of the research base that we have across the UK. Within that, I am aware of the distinctive strengths of the university and research base in Scotland. Scotland has some very distinctive and world-recognised research and business clusters, particularly in the life sciences, which have been on my mind this week as we have been doing a lot of work on them. We are absolutely committed to funding that work—indeed, after this conference, I will be off to the Roslin Institute for which, as I announced yesterday, we have been able to secure extra funding—and, of course, we continue to support excellence at institutions such as the University of Dundee, which I believe has secured some funding from the Medical Research Council. We also recognise the importance of the University of Aberdeen’s strengths in pharmacology and I have learned a lot from the University of Glasgow’s innovative open-access intellectual property work.

Retaining a focus on excellence is part of our shared approach. A lively debate has emerged in public and informal sessions of European ministerial meetings, with pressure from some countries to shift towards using horizon 2020 as a regional policy instrument. Our clear view is that structural funds play a very important role in that respect and are the correct instrument for delivering regional policy and that the criterion for allocating research funding must be excellence. That argument has been broadly won, although I must emphasise that those of us who have the advantage of universities with often extraordinary histories of research recognise the obligation to extend the hand of friendship and co-operation to some of the newer EU members that hope to grow their universities and, wherever possible, work with them in research projects.

We have retained in negotiations the concept of support right the way across the research and innovation cycle from very important blue-skies research to the delivery of new and innovative goods and services. Indeed, that issue, which has been crucial in the shaping of horizon 2020, has been touched on in some of the reports from today’s sessions.

Another important point that has not yet been mentioned is that it is always easy to focus on the physical sciences and high tech and that we must recognise that the social sciences and humanities are a crucial part of Europe’s research base. It is hard to think of any global challenge that we can tackle without harnessing the distinctive insights and expertise of those disciplines and we have secured a recognition of the contribution that research in social sciences and humanities can make in tackling the list of societal challenges that we face.

We have been able to secure excellent research in Scotland with funding from existing EU framework programmes. That said, we recognise—this is a theme that has emerged from reports that we have heard this morning—that although we have great strengths at the university research end, we have not always been so good at moving such strengths into commercial application. When I look at the balance of funding secured under the seventh framework programme, I can see that across the UK we have tended to do better at securing university funding than at securing funding for businesses. That pattern is even starker in Scotland and we must try to do better at getting representation for the business and commercial application end of things. That is why one of our shared objectives is to ensure that horizon 2020 is attractive to industry as well as to academia.

A crucial challenge in that regard, which we have heard about in some of the feedback reports, is to ensure that the simplification of procedures promised by the Commission in the rules of
participation really happens. Proposals for simplified time recording and near-to-market support and acceptance of participants’ normal accounting practices are positive moves, but one of our key aims in negotiating these rules will be to ensure that the Commission meets its target of reducing the time to grant by 100 days.

Another crucial objective, which has rightly been emphasised already, is that of securing a better deal for SMEs. We welcome the dedicated SME instrument in horizon 2020. It is important that that focuses on commercialisation and accelerating entry into the marketplace. Approaches such as pre-commercial procurement can play a key role in getting innovative products to market.

Another area in which we have a distinctive strength, although we can of course pursue it further, is financial services, not least in great cities such as London and Edinburgh. We are often looked to as a source of expertise on venture capital and innovative financing. We welcome the early-stage equity instrument and we are trying to shape the development of proposals for the pan-EU venture capital fund of funds.

Something else that is important and which has been mentioned is the European Institute of Innovation and Technology and its knowledge and innovation communities—the KICs—which have the potential to create networks linking universities and businesses across Europe. However, so far, British performance in securing high-level participation in the first round of KICs has not been as good as we had hoped. It was a particular disappointment that, when the original assessments were made back in 2009, Edinburgh put an enormous amount of effort into its bid for the ICT KIC, but lost out to a bid led from Sweden. I have great respect for Sweden. I have been to the Karolinska Institute to learn how it operated and managed its bid so that we can raise our game next time. It was clear that the institute put enormous effort into building strong European networks and understanding clearly the criteria and basis for judgment that were used in the decisions on the allocation of the KICs.

I am determined that, next time, leading research-intensive universities such as those that are represented today should have a better chance of appearing in more KICs. We will host a conference in London on 3 October to which we will invite people from across the UK research base to learn how we can improve our tactics. Representatives from the European Institute of Innovation and Technology will be there. That will be about learning exactly what we need to do to ensure that we get the best possible participation next time round.

I have heard people say that we hope to benefit from the proposed increase in the EIT budget. As I said, we are in principle in favour of research being a large part of an overall controlled budget. However, I should report that, in meetings of EU ministers, particularly in informal discussions, there is a degree of scepticism about the huge proposed growth in that particular strand of the budget. Some people want evaluations of the effectiveness of the 2009 round to be done before they agree to the large increase that the Commission proposes. That will be an interesting debate.

I accept the point that has been made about the national contact point and support system. That is another issue on which we clearly need to raise our game to ensure that our universities derive maximum benefit from participation in EU funding.

There is a lot to do, but I think that we are making progress. Today’s discussion has been helpful for me as we shape our views and move to the final part of this stage of the process. I again express my appreciation for the way in which officials and ministers in BIS have worked closely with the Scottish Government and the institutions that are represented here to ensure that the important concerns of the Scottish research and business community are properly reflected in our negotiating approach. I look forward to keeping in close touch with you on our progress. Thank you very much indeed.

The Deputy Presiding Officer: Thank you, minister, for that valuable and illuminating contribution. Obviously much has been done, but there is still much to do. Once again, I thank you.

I call on Christina McKelvie as the convener of the European and External Relations Committee to close on behalf of the committee.

12:20

Christina McKelvie (Hamilton, Larkhall and Stonehouse) (SNP): Scotland has always been at the forefront of innovation. We are a nation of inventors. There are few aspects of our daily lives that have not been improved by a Scot with an idea. As my granny used to say, sometimes necessity is the mother of invention.

Look at inventions from the casting of steel from wrought iron to the pneumatic tyre and tarmac, from the telephone, television and teleprinter to penicillin, beta blockers and Dolly the sheep. The Bank of England and the bank of France owe their origins to a Scot, as does the overdraft facility and the popularity of paper currency, but we need to work on the popularity of our bankers.

Scotland has a rich history of innovation and, as our conference has demonstrated, it also has a rich future. As we have heard today, horizon 2020 offers many opportunities for Scotland’s research
community and its business sector, big or small. From the last research funding programme, Scotland secured more than £350 million and 780 Scottish organisations were involved in more than 4,000 projects. That sounds like a lot, but I am sure that we can do a lot better.

What can we expect from the next funding programme? That is the question that we have asked you today. What opportunities are there? There is little doubt that Scotland has much to offer in the new areas of renewable energy, health and life sciences, nanomaterials, and communication technology. We have one very new OBE with us today that was granted for services to life sciences.

Today’s conference was about bringing people together. The Parliament is not just a legislature; it is a gathering place and a place of ideas. I tend to call it the people’s Parliament. It is always a good idea to have such discussions in the presence of those whom we wish to influence, and I thank John Swinney of the Scottish Government and David Willetts MP, who is the Minister of State for Universities and Science in the UK Government. I look forward to hearing how Mr Willetts gets on at his meetings next week. I am sure that the committee will be interested in that.

I also thank Marion Dewar of the EC for her participation today, which has been very valuable.

My committee will be in touch with you all very soon to echo and pursue the points that have been raised here. I heard some helpful and interesting feedback from our breakout chairs, and I thank them for the work that they did today.

I also thank the officials. We could not be here today without the behind-the-scenes contribution of the Scottish Government officials and Scotland Europa; they have worked very hard. We also appreciated having the Deputy Presiding Officer here. The staff of the Scottish Parliament also deserve our thanks; we have been looked after very well. In particular, I thank our committee clerks. I give special thanks to Jennifer Bell, who has worked very hard to pull all this together.

I thank the EC for its financial contribution to today’s event. We will have a nice lunch after the meeting.

I echo Marion Dewar’s call for the final call for funding for the FP7 programme, which is 9 July. We will try to say something about that so that everyone knows that that money is available and they can get their bids in.

Innovation is fostered by the information that is gathered from new connections—hopefully we have made some today—from insights gained by journeys into other disciplines or places, and from active collegial networks and fluid open boundaries. Innovation arises from on-going circles of exchange in which information is not just accumulated and stored, but created and, more importantly, shared. It is the knowledge that we have shared today that is helpful. When that knowledge is generated from new sources and connections that did not exist before, it can lead us into new and exciting places.

I hope that you have enjoyed today, and I hope that everything that you have contributed will help us to contribute to the magical process of taking forward Scotland’s innovation.

The Deputy Presiding Officer: Many thanks, Christina. That concludes today’s event in the chamber. I add my thanks to those of Christina and others to you all for coming. A networking lunch is now available in the members’ restaurant. I thank you for your contributions and your enthusiastic approach, and I hope that you have found the event to be interesting and informative. I hand you back to the events team who will guide you to lunch.

Meeting closed at 12:25.
## Annex F – List of attendees

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Annex G – Written evidence received

Submission from Heriot Watt University

Heriot-Watt University has had considerable success in securing research and related funding under the European Commission's Framework Programmes.

For example under the current programme (Framework Programme 7) we have been a partner in 48 successful projects and led a further 10 projects. This has amounted to nearly £14 million being securing just for the University (i.e. excluding those elements awarded to other partners in these projects).

As always the exact and detailed nature of the initiative will not be visible until the Work Programmes become available. However, we would make the following observations on Horizon 2020.

Structure

We welcome the bringing together of the Framework Programme for Research, the innovation related activities of the Competitiveness and Innovation Framework Programme and the European Institute of Innovation and Technology.

Content and Activities

The work programmes within Societal Challenges should ensure they will be supporting the developments, research, innovation and exploitation of the underpinning technologies required to deliver the identified ambitions of these themes.

Bringing together research, innovation and education is an important function and this has been identified as a key role of the European Institute of Innovation and Technology (EIT). We would wish to see more detail about how these connections will be brought about.

Financial

We welcome the increase in funding for the European Research Council. We welcome the increase in overall budget from €50M in Framework Programme 7 to €80M in Horizon 2020. However, we would wish to be reassured that the total for all elements in Horizon 2020 which support and bring together excellent researchers do not represent a decrease in funding compared to Framework Programme 7.

The financial regulations and eligible cost arrangements for Horizon 2020 should be arranged in such a way that UK Universities can recover their costs of engagement in the programme at a level comparable to the UK's Research Councils.

Simplification

We strongly support the ambition to make "a radical simplification of architecture, rules and procedures and control strategy, to attract the top researchers and the most innovative enterprises." However, there have been attempts to undertake this in previous Framework
Programmes and therefore this needs to be widely consulted upon and tested to ensure that it is delivered.

In general, we feel enthusiastic about the prospects of Horizon 2020 and will endeavour to successfully engage with it where possible.
Submission from EFPC (UK) Ltd

EFPC (UK) Ltd. and responders qualification

The company is a Scottish SME founded in 2004. We believe it is the most successful SME in Scotland measured by the number of its successes in EU RTD funding. We have completed 4 projects (1 as coordinator) and are currently working on an additional 3 projects. We also have several additional project proposals in evaluation.

M W Morron who is the CEO of EFPC (UK) has been involved with EU funded RTD projects since 1984 when he was involved with setting up the Framework Program. He has been a National Representative to two different FP Management Committees and has been personally involved in many projects since 1984 as well as having served as an evaluator 14 times.

Sources of understanding of Commission Proposals for Horizon2020

Our current formal understanding is based on the written documents produced by the Commission in December 2011 as clarified by meeting with Robert Jan Smits, Director General of Research of the Commission on 17 January 2012.

Background

Prior to making its detailed proposal in December, the Commission sought input from a wide set of sources. Those who provided input included several Scottish Universities, Scottish Enterprise and other senior Scottish bodies. However in our opinion it is too late to influence the proposal substantially but allows Scotland to organise so it maximises the benefits from it. The proposal still has the following problems from an Industrial point of view. Even though it is a stated aim to make the program more SME friendly, most of the major problems in FP7 that cause problems remain unaddressed.

Scottish Industry does badly in FP7. If one looks at the statistics, one sees that although Scottish Academics do reasonably (but not brilliantly), industrially we do very badly. In cash terms during first 5 years of FP7, Scottish Companies received 4% of UK industrial total. Scottish companies received 0.45% of the total FP7 funding but the rest of the UK companies received 10.65% of the industrial total. It is industrial performance that can improve the Scottish economy. (As an additional comparison, Israeli companies received six times that of their Scottish counterparts.) Even if Scottish companies received at the UK industrial rate, this would be an extra €5M per year. Because the Scottish perspective is generally ignored by the UK and the EU, the best approach is to try and change this in Horizon 2020.

I see the following Scottish industrial problems in FP and Horizon 2020 and suggest some solutions:

1. Complexity of the rules
2. Time to payment
3. The currency problem
4. Built in bias against small companies
5. Mistaken Commission reliance on SMEs being able to enforce contracts
6. Lack of industrial interest in Scotland
7. Inexperience of most auditors
8. Lack of Scottish representation

1. Complexity of the rules

Every new Framework Program has a stated goal to reduce complexity. None has succeeded in reality. As each successive FP has grown in size – mainly by incorporating other pre-existing programs – they have brought with them a variation in the rules. This always adds complexity.

2. Time to payment

Theoretically, within the Framework Program, there should be no cash-flow problems for SMEs – but in reality it is an enormous problem. Although pre-payments are normally made expeditiously, frequently it is not passed on expeditiously to partners. However the Commission takes an enormous time to make interim and final payments. It is not uncommon for final payments only to be made one year after a project ends. There are a variety of reasons but the Commission itself is extremely bureaucratic internally. This never used to occur when the Commission made payments directly to all participants instead of the current practice of making them via the coordinator. In effect the Commission passed the problem from themselves to the participants and as a result SMEs suffer.

3. The currency problem

All contracts and financial matters are in Euros. Thus payments and costs have to be in Euros. This creates financial risk for organisations outside the Euro zone. For SMEs it is particularly difficult. The prepayment is done in relation to a Euro budget generally created the previous year based on exchange rates at that time. When a payment is received one normally changes it to local currency at that time. However after say another year when a cost claim has to be made it generally uses the exchange rate of the first of the month after the accounting period. Thus one does not know during a period how the financial costs will relate to charges/budget. This is particularly difficult in the final cost period. Most SMEs overspend to ensure they can fully use their assigned budget in Euros.

4. Built in bias against small companies

The majority of the industrial budget is under Collaborative Research. However “impact” and “exploitation” are important factors in the evaluation. During the first four Framework Programs Technical Evaluations of Proposals were undertaken anonymously. i.e. the Evaluators could only evaluate the technology without knowing who the organisations were. Now it is not anonymous and there is an obvious bias towards known large companies/research institutions. This is especially true when “impact” and “exploitation” are taken into account as those
large organisations are generally assumed to be better at this. As this is scored during evaluations equally with the technology, it impacts SMEs in getting their ideas approved.

There is additional bias in that the SMEs do not have a strong voice in Brussels. This is best illustrated by Consortia Agreements. They are compulsory for Collaborative Research and are concluded between consortium members. The Commission promulgates, but does not officially endorse, “standard” CAs produced by large entities in Europe that are basically anti-SME. Most consortia are lead by large entities. One reason for this is that coordinators have to meet very strict financial criteria as all funding now passes via them. It is extremely difficult for an SME to meet these financial criteria, especially for the larger projects. The “standardised” CAs generally permit the coordinator to have SMEs pay not only their own bank charges but also those of the coordinator when money is transferred to them. In addition most coordinators do not transfer funding “expeditiously” as required but may take several months which makes time to payment worse. This is compounded by the next point.

5. Mistaken Commission reliance on SMEs being able to enforce legal contracts

Since the Commission tried to lower its own administrative overheads by working via the Consortia Leaders i.e. the Coordinators – unlike previously, when Commission funding was passed by the Commission directly to the recipients, it now goes via Coordinators. The Commission relies on partners taking Coordinators to court if they break signed agreements such as the CA. This is an unreasonable assumption, as an SME will only very rarely sue a large organisation and they seldom win in court. Coordinators frequently break the rules but there is little that SMEs can do. In the past the Commission dealt with it but they will not now.

6. Lack of industrial interest in Scotland

We are constantly surprised by the apparent lack of interest of Scottish SMEs in participating in FP funded projects. This is partially because of the difficulties outlined in this paper, but more importantly because of the lack of promotion, encouragement and support within Scotland. It is relatively easy for Scottish SMEs to receive some funding directly from Scottish Enterprise.

7. Inexperience of most auditors

There are two levels of audit; that provided within Scotland by accountants giving, as required, certification of costs incurred and external auditors appointed by the Commission to audit individual companies. There is no training for either type of auditor in the complex FP financial regulations. Even the auditors appointed by the Commission have little knowledge. The Commission contracts with an accounting company who send staff accountants for specific assignments that know little about the FP contract. This can result in an SME having its correct costs disallowed. The individual Scottish SME does not know enough to argue their case and as a result can lose much of their grant.
8. Lack of Scottish Representation

Scotland is unique in Europe in that it is a country – not a region of a Member State. Even so, it is treated as a region both by the UK representation and the EU. Some regions are treated better than Scotland in the FP Management Committees. Belgium is a classic example where each region is represented on the Management Committees. The UK is represented on all those Committees but in this respect UK is synonymous with England. Very little information is passed from the UK Management Committee representatives to Scotland. For example the delegates receive a list of all organisations that applied for funding but were unsuccessful. Do we get the Scottish list? A Scottish representative should be part of the UK delegation to each Management Committee. The Commission funds two people from each Member State to attend. Traditionally the UK used to send five or six representatives to the ICT Management Committee – with no-one from Scotland.

Immediate steps that could be taken to improve Scottish position

1. Set up a Scottish Framework Program office and assign a Scottish coordinator for each program
2. Insist that these coordinators participate as part of the UK delegation to each Management Committee.
3. Have a Scottish stand at important FP events/conferences
4. Ensure that as a precondition for application funding support, Scottish Universities take a Scottish Industrial company with them into projects.
5. Have Scottish Enterprise ensure that Industrial companies, where appropriate, have considered FP funding before giving them direct funding.
6. Encourage Scottish Industrial companies that are in foreign EU ownership to leverage their owner participation in funded EU RTD.
7. Set up an office to support Scottish SMEs regarding funding/legal issues.
8. Support Scottish SMEs legally against coordinators that do not hold to signed agreements/contracts.
9. Set up a fund that would hedge currency fluctuations for SMEs in a similar fashion to the EU Guarantee fund in Brussels.

M W Morrorn
6 February 2012
Submission from Scotland Europa, Scottish Enterprise, Highlands and Islands

Enterprise and The Scottish Funding Council

Introduction

The updated Scottish Government Economic Strategy sets out the importance of developing a culture of innovation across the Scottish economy in order to deliver on our strategic aims. In particular, innovation in its widest sense must be recognised and encouraged across the entire business base, whether large or small, long-term established or starting up, science and technology based or a more traditional or service-based business. Developing new processes, products, services, and business models to take advantage of global and market opportunities, often through incremental change, is vital to boosting growth.

In light of European Union 2020 policy and the desire to put innovation at the heart of future competitiveness policy, it is timely to consider the changing European landscape and the future direction of state aid frameworks and support mechanisms, such as the Horizon 2020 programme. The changing approach within the European Union will both complement and challenge how we intervene in support of our Innovation System and the economy more widely.

Innovation is one of the most fundamental processes underpinning economic growth and a key component in developing solutions to economic and social challenges such as climate change, ageing society, and sustainable energy. These societal challenges are powerful drivers of change and will also provide major new global market opportunities for businesses.

With an ageing population and strong competitive pressures from globalisation, Europe’s future economic growth and jobs will increasingly have to come from innovation in products, services, and business models. This is why innovation has been placed at the heart of the Europe 2020 strategy for growth and jobs. The scope of the Innovation Union agenda is extensive, and the Horizon 2020 programme a key pillar of the EU agenda for enhancing Europe’s global competitiveness.
We have an opportunity to shape and influence elements of this new policy agenda, to ensure that we maximise the opportunities it can open for Scottish companies and Scotland’s overall competitiveness.

**A new horizon for EU Research and Innovation**

On 30 November 2011 the European Commission published its proposals for future EU policy and funding to support Research and Innovation from 2014-2020. The Horizon 2020 programme, as it is called, is a financial instrument which aims to:

- **Strengthen the EU’s position in science** (with a dedicated budget of €25bn).
- **Strengthen industrial leadership in innovation** through investment in key technologies, greater access to capital and support for SMEs (€18bn).
- **Address major concerns** such as climate change, developing sustainable transport and mobility, making renewable energy more affordable, ensuring food safety and security, or coping with the challenge of an ageing population (€32bn).

For the first time, Horizon 2020 brings together all EU research and innovation funding under a single programme. It focuses more than ever on turning scientific breakthroughs into innovative products and services that provide business opportunities and change people’s lives for the better. At the same time it drastically cuts red tape, with simplification of rules and procedures to attract more top researchers and a broader range of innovative businesses. In order to deliver on these ambitions, the proposal from the Commission includes a budget increase of around 40% on the previous Research programme, to €80bn over 7 years.
Considering the scale of the opportunity presented, Scotland has contributed with a single voice to this process through a “Team Scotland” approach. To this end a Scottish Steering Group involving the Scottish Government, the Scottish Funding Council, Scottish Enterprise/Scotland Europa and Highlands and Islands Enterprise was set up in August 2010. The aim of such an approach was to increase Scotland’s influence in the policy framing and legislative processes and to strengthen our performance, particularly the participation of our business community. This will help to raise business research and development (R&D) and make a positive long-term impact on Scotland’s sustainable economic growth across key economic sectors, in line with Scottish Government Economic Strategy.

Milestones achieved by the steering group include the production of a Scottish position paper (submitted in November 2010) on Scottish key strengths and views on future EU R&D funding priorities; a series of events and workshops to raise awareness and facilitate the input of stakeholders, including business; the Scottish contribution (submitted in May 2011) to the EU consultation on Research and Innovation funding for the period 2014-2020); a position paper on the simplification of the participation rules and high level meetings between Scottish Government Cabinet Secretaries and Ministers and key EU institutional players.
Scottish response to EU consultation on Research and Innovation funding 2014-2020

In May 2011 Scotland contributed to the European Commission’s consultation on the Common Strategic Framework for Research & Innovation for 2014-2020. The response was the product of collaboration between the Scottish Government, Scottish Enterprise and Highlands and Islands Enterprise, Scotland Europa and the Scottish Funding Council and followed an extended consultation with stakeholders across the business (large and SMEs), academic and public sector communities in Scotland.

It identified areas for improvement in order for the new Programme to facilitate more business participation (particularly SMEs), stimulate innovation and ultimately growth:

Need for a more transparent, simplified and fast process for participation, selection, award of the grant and audit checks, with better balance between control based and trust-based systems.

More challenge-based calls are likely to stifle innovation and creativity

- Support to the entire innovation chain: from blue skies through to applied research towards the proof of concept stage to encourage more innovation
- More financial support to large scale demonstrators to reduce the risk being taken by the industry in testing new technologies
- Public procurement as an instrument with great potential to drive innovation and knowledge transfer

Some of these recommendations are now reflected in the structure of Horizon 2020.
Horizon 2020 – The economic opportunity for Scotland

1. Strengthening Scotland’s Science Capability

Scotland’s priority to deliver a collaborative research base that remains highly competitive internationally; nurtures, attracts and supports world-class international researchers in Scotland; and attracts high levels of project support from a variety of funding sources is entirely consistent with our aims to increase our participation in Horizon 2020.

Scotland has one of the strongest university research bases in the world. It received 1.8% of all world citations and has been the top 2 in the world in terms of impact of its research in recent years. A survey in 2009 of Scotland’s agricultural research institutes rated these first in the world for citations in agricultural science. These are considerable achievements for a nation of only five million people.

Importantly, Scotland’s main research strengths are already closely aligned with European priorities including:

- Low Carbon Energy Technologies and Climate Change (with expertise in Offshore Wind, Marine Energy, Carbon Capture and Storage and Power Systems) and Marine Technologies/Sustained environment
- Biomedicine and Life Sciences (including Regenerative Medicine, Stratified Medicine and other Priority Health Areas)
- Food and drink, including Animal Health
- Security (water, food, energy, information)
- Built environment, including Power Transmission and Transport Infrastructure
- Creative industries/digital media
- Mobile/digital technologies/informatics
- Medical imaging and diagnosis

The concept of "research pooling" has been developed in Scotland to encourage greater collaboration between networks of researchers across universities. Research pooling has helped to create a new and distinctive research landscape within Scotland. By concentrating investment on networks of excellence with our partners, we have created powerful, well resourced communities that are now attracting research talent from across the world. Scotland has funded 11 research pools covering a broad range of research expertise, with an emphasis on enhancing excellence and including life sciences, energy, imaging, informatics and computer science, marine science, engineering and geoscience.

The evidence, so far, is of a significant added value in terms of the enhanced quality of research and competitiveness of Scottish science from harnessing our research and development operations within such structures. Our research pools are underpinned by excellence and are in a strong position to bring this expertise to bear on the Europe’s ‘Grand Challenges’. We would see considerable benefits in terms of global competitiveness in R&D and innovation emerging for Europe from linking research pools from different European member states.
2. Addressing Societal Challenges – An opportunity to support great Scottish ideas reach new markets

Scotland as a great deal of knowledge and expertise which it can contribute to the key themes identified within the Horizon 2020 programme. Horizon 2020 offers a win-win situation by supporting research that will both tackle problems related to health, food security, energy, transport, climate change and a secure society; and at the same time that will create new business opportunities for Scottish companies.

A major objective of the Horizon 2020 programme is to make public money work better by leveraging as much money as possible from other public and private sources.

Public Procurement

Public procurement accounts for some 17% of GDP in the European Union and offers an enormous potential market for innovation in products and services. Within the Construction sector 40% of all procurement at EU level is carried out by public sector and for defence, civil security and emergency operations sectors the figure is almost 100%. There is clearly a major role for public procurement to help develop new markets and to support innovation transfer.

Work is already underway in Scotland to consider how best to take forward procurement innovation to ensuring public procurement is open to new solutions and new suppliers with new ideas to underpin greater innovation.

Horizon 2020 offers an additional opportunity to bring excellent research and innovation results to market, through existing and new partnerships between researchers, businesses, governments and civil society.

In addition active participation in the Horizon 2020 will bring additional benefits in the form of knowledge transfer and innovative thinking to help Scotland tackle the societal challenges we face in the future.

3. Industrial Leadership - Building on Scotland’s strengths

As part of the Innovation Union agenda Europe’s regions are being encouraged to develop a strategic approach based on their unique competitive advantages – in so called “smart specialisation strategies”. This approach concentrates resources on the most promising areas of comparative advantage, e.g. on clusters, existing sectors and cross-sectoral activities, eco-innovation, high value-added markets or specific research areas.

Clearly Scotland has been pursuing a smart specialisation approach, without using the term, in its Key Sector focus. The Scottish Government’s Economic Strategy has already established a pathway for developing Scotland’s key sectors. The current focus is on developing niches within these sectors in which Scotland can
demonstrate European (and global) competitive advantage, and strengthening joined-up delivery of industry-led sector strategies across the public sector.

Scotland’s smart specialisation strategy focuses on

![Diagram showing Scotland's smart specialisation strategy]

Our niches within each of these (examples in brackets)

Horizon 2020 will provide an opportunity to leverage additional investment to strengthen our leadership in areas of comparative advantage and identify scope for increased collaboration and partnership with regions with complementary strengths. It will help inform future investment prioritisation in our key sectors in the context of where the greatest opportunities lie in global value chains.

Next steps in Scotland’s approach

The European Parliament is now considering its views on the Commission proposals, due to be adopted by mid-2012. The proposals will also be considered by the EU Member States in Council with the final adoption of the legislation foreseen by the end of 2013, to allow the first calls for projects funded under Horizon 2020 to be launched in 2014. Initial discussions in the European Parliament indicate they are keen to increase the budget for Horizon 2020 still further, up to €100bn.

Next steps for the Steering Group therefore include meetings with Scottish and UK MEPs and high-level Commission officials to make sure the legislative process will include Scottish views from both business and academia. We have also begun a productive process of engagement with the Scottish Parliament External and European Affairs Committee at the EU level to contribute to this influencing agenda. Meetings have been already facilitated between Committee Member Aileen McLeod MSP and the Secretary General of the League of European Research Universities, an extremely influential organisation in the development of Horizon2020.
The success of this strategy will see more coordinated influencing work at the Scottish level, more business engaged in the next framework programme, more funding available in Scotland for research and innovation and greater growth in key economic sectors such as renewable energy, life sciences, food and drink.

Maximising Scottish participation

In terms of the particular focus on business and SME engagement in the future programmes, and following discussions at the round table hosted by the Scottish Parliament External and European Affairs Committee, we have undertaken a new phase of evidence gathering.

Early analysis show that Scotland’s performance in the first years of the FP7 programme is very encouraging, accounting for 9.27% (participation) – 9.3% (for money awarded) of overall UK participation (Wales 2.6% participation 2.16% for money; Northern Ireland 1.5% participation 1.11% money). English participation accounts for the majority (86%) of UK participation whereas the money awarded is equal to 87.4%. These data includes public bodies, universities, research bodies and companies.

Looking at a breakdown of Scottish participation up to 31 October 2011, was can see that Scotland has exceeded the EU target of 15% SME involvement, with an overall 18.44% participation, with about 10% of the total Scottish uptake of €304,255,997. This represents a 17% increase in SME participation from FP6/FP5. In Scotland the Programme remains dominated by the Further Education and Research sectors that together account for nearly 80% of this funding attracted to Scotland.

Innovation and Internationalisation feature strongly as major priority themes in the business plans of SE, HIE and SDI. The current business plans highlight the investment and support, which has been targeted at enhancing the R&D capacity of SMEs and the outcomes achieved. The 2012-15 business plans will continue to place a strong emphasis on these priority themes particularly the importance of supporting companies to increase export activity.
Building SME R&D Collaborative Capacity in Scotland

Scottish Enterprise is the lead partner in the Enterprise Europe Network Scottish consortium. Our partners are Highlands & Islands Enterprise, Highland Opportunity Ltd and the European Commission. Since the launch in 2008, the Enterprise Europe NetworkScotland team have;

- Answered 5589 European business enquiries
- Published 359 partnering profiles across the Enterprise Europe Network databases on behalf of 321 Scottish companies
- Hosted or accompanied 584 Scottish companies taking part in Enterprise Europe Network brokerage events and company missions, supporting them in 691 transnational meetings.

Scotland Europa has over 10 years experience supporting our Higher Education/Research sector members to engage in the EU Framework programmes. For FP7 these services were refreshed and resources increased, with support from Scottish Enterprise/SDI, to widen this to the Scottish business community.

Building SME R&D Collaborative Capacity in Scotland (cont.)

Scotland Europa now offers a suite of services including:

- Strategy development for influencing calls and priorities
- Strategic intelligence, projects clinics and one-to-one meeting with selected companies
- Capacity building and trouble shooting with Commission services
- Advice and signposting to a range of information resources
- Access to FP7 proposal writing support for strategic projects
- Support for Scottish applicants looking for project partners

Scotland Europa support continues to reach the majority of Scottish Universities/research institutes. To date the new services have been accessed by nearly 300 companies and 41 projects submitted. The success rate from these projects was slightly over 35% (the EU average being 20-25%).

In February 2012 Scottish Enterprise/Scotland Europa surveyed a sample of Scottish companies with a view to capturing their experience of engaging with the EU Framework Programme and understanding the factors that will influence their continued engagement in Horizon 2020. The sample included a mixture of SMEs
(over 50%) and larger organisations with various rates of success and levels of participation.

From this work, and that of the steering group, a number of themes appear to be emerging:

1. Deepening SME's participation in Horizon 2020

It is recognised that FP7/EU Research and Innovation programmes represent a long-term game, which entails considerable investment in terms of time and resources that make the programme considerably different from national grants. Projects are implemented through transnational collaboration involving multiple partners from different countries. Applications must demonstrate state-of-the-art research at European level and an excellence and quality that is increasingly high. Such competition requires a significant level of research capacity and capability that not all R&D SME’s may have yet achieved.

It is therefore a “step change” for SMEs to embark in the FP7 learning curve for the first time. Key themes emerging from the survey were:

- All respondents to the survey recognised the value of some external support to stimulate initial engagement in EU Programmes, with over 50% having been introduced to the programme via parts of Scottish Enterprise and using their support and services to facilitate engagement.

- All companies were of the same view that organisations need to build and improve their own internal capacity and resource in preparing applications rather than making too heavy a use of external consultants.

- All participating companies praised the services that has been made available so far in Scotland and stressed the need for a continued targeted support that can meet the need of companies, particularly SMEs and “new comers” to embark and stay successfully engaged in Europe.

- They also criticised the length of time it takes, up to 18 months, to move from project concept to project start due to the lengthy evaluation and negotiation phase and the seeming lack of clarity in the selection process.

Case Study: SME Benefits of FP7 participation

Most respondents identified the opportunities for networking and for building the company’s profile and reputation at EU and international level amongst the most immediate short-term benefit of participating in Framework Programme projects in. According to one interviewed SME, in the short-term FP7 collaborations generate an increased capacity to offer advanced solutions and service to clients while enhancing the organisation competence and capacity to excel in the specific field. In the long term SMEs can gain capability to create and innovate in an international context, usually “in an area which is highly desirable” for companies but difficult to develop due to the limited in house resources.
EU R&D collaboration can indeed contribute to building SME capacity, as noted above. Scotland’s SME participation levels are already quite high in relation to the total number of SME’s with the necessary R&D needs and capabilities. In deepening SMEs participation in Horizon 2020 we therefore recognise the need to target those companies with high level of R&D “preparedness”, which we define as “the capacity and readiness to participate and benefit from the involvement in the programme”.

2. Improve the engagement of and support to sectors that are key to the Scottish economy

A sectoral approach is believed to provide an effective way to target and “cluster” companies to participate in European projects and ultimately create the necessary critical mass – by sector to effectively influence Europe. Engaging with the specific sectors and Industry Leadership Groups will also allow for a more strategic use of Horizon 2020 opportunities to support projects and sectors that are instrumental to realise the Scottish economy strategy - rather than potential Scottish participants competing with each other they could be supported to work together. We will look at increasing collaboration with all stakeholders including a better coordination with the Industry Leadership Groups to identify the priorities and the capacities in Scotland. Through a coordinated Team Scotland approach we could use Horizon 2020 funds to, for example, demonstrate those technologies that must be brought to market by 2020 to meet the EU’s targets for 2020 as well as targets for 2050 emissions reduction and low carbon economy goals. Developing particularly capacity in areas of strength will also support Scottish bids for other large scale EU funded R&D initiatives such as the Knowledge and Innovation Communities (KIC) under the European Institute of Technology.

3. Use Horizon 2020 to identify/support emerging growth potential sectors in Scotland

The two approaches highlighted above respond to the need of a two-pronged strategy to maximise Scottish uptake of Horizon 2020 money. It is however recognised that a sectoral approach cannot just be focused on those key sectors where Scotland has already demonstrated its strong innovation capacity. It was been noted by one company interviewed for this exercise, that Scotland will likely have successes in energy sector, green technologies, and health care. However, Horizon 2020 could also be used to support those sectors where technological innovation needs to be improved to provide additional funding for the risk of developing new technologies. Survey respondents commented that Scotland is already good at research but less good at innovation; Horizon 2020 could be better used to promote innovation, particularly in those sectors where Scotland has lost high-tech businesses. Horizon 2020 could help develop competence that specific clusters need in order to be competitive EU and worldwide. Equally, Horizon 2020 could support emerging high-growth potential sectors/companies increase their competitiveness.
4. Develop research/SME collaboration tools to support Horizon 2020 participation

In September 2011 Cabinet Secretary, Michael Russell, announced additional support for the research pools to encourage them to engage further in increasing collaboration with their European peers; continue to attract funding from Europe and engage with stakeholders, both at home and in Brussels, on the development of Horizon 2020. The main purpose of the Pools Engagement in European Research (PEER) funding is to encourage pools to submit applications for European funding under the FP7, with engagement with a Scottish business or businesses being expected as part of this. The funding will foster greater collaboration, greater business (particularly SME) engagement and will help to build further critical mass.

Our approach to research pooling could also be considered an example of best practice in the implementation of new and innovative instruments supporting the engagement of business in EU R&D and narrowing the gap between industry and academia.

Scotland wants to build on this expertise by working with research partners to establish new pools where there are benefits and clear links with European priorities, in particular, we will explore how we can bring together our research expertise and develop research pools that are aligned to the Joint Programming Initiatives and ensure improved exploitation of research results across the EU.

Scotland wishes to see greater translation of European research excellence into business opportunities and growth. Stimulating the development and alliances of ‘research pools’ across Europe, would ensure that that excellence in R&D that is distributed within and across member states is harnessed to best effect.

Scotland also has a wealth of expertise, including its experience of implementing successful knowledge transfer and commercialisation initiatives and supporting Scottish business to invest in innovation and R&D. A number of initiatives have already been successfully introduced in Scotland including SEEKIT, Interface, the Innovation Voucher Scheme and Proof of Concept. These programmes form a key part of the Scottish Government's framework for innovation, and aim to enhance collaboration between business and the science base; improve business innovation and investment in R&D; and therefore result in greater economic growth.

Interface

In terms of developing new instruments for Horizon 2020, Interface is a good practice example. Interface acts as a brokerage service and provides information to companies regarding specialist expertise that is available in Scotland’s 20 Higher Education Institutions and nine Research Institutes. Since 2005, over 1,000 businesses to academic partners have been introduced, and as a result more than 488 academic-industry collaborative projects have been initiated. This is a resource that could be further exploited to facilitate the development of collaborations for EU project development.
Annex H – Evidence following the conference

Submission from Melfort Campbell, IMES Group

I find I see things from a quite different perspective to those who set and implement policy in this area. With this gap I find that, as billions of pounds or euro’s are made available it means these funds are not available for the type of businesses I run. We carry on and some succeed but I am convinced my interest is in an area ignored in almost all other circles.

I think it is quite simple, all the funding and programmes are for the commercialisation of academic and scientific research, development and innovation. I describe it as supply push.

I have no argument with this as we, in Scotland, and to pretty much the same degree for the whole of the UK, are amongst the top of the league in academic and scientific research and its commercial exploitation. We are less good on ensuring this exploitation has a positive impact on the Scottish economy and this could be improved. I feel this is a vital focus and we should sustain effort and spend in this.

However, we are near bottom of the pile for what I term broadly as business innovation. Business spend on R & D is one measure but there are plenty more not least our continuing failure to catch up in productivity and competitiveness must also be measures that show a poor impact of our innovation activities compared with what we should be capable of. It is often referred to that we are inventive, creative, innovative, yet this does not show in these broader measures. I think I know why.

I have a number of businesses and their common thread is that they produce market reactive innovative solutions to capture market opportunities. The catalyst for the innovation is the demand need; new, emerging or unmet customer need, that represents an opportunity for a new or differentiated product or service.

This near to market driven innovation is where we perform poorly. Indeed so poorly that it is an area that is simply not mentioned in policy, not recognised by politicians or bureaucrats and is handled by the likes of Scottish Enterprise almost on the quiet so no one notices. However, it can and should be the catalyst for a great deal of our Research, Development and Innovation activity.

If we stimulate and support this activity, we have our companies finding demand need for new products and services, meeting those needs and so becoming more productive and competitive, and capturing more business. Further they develop the need for support from the intellectual, scientific and academic sectors as they seek new ways to exploit the market opportunities. This is what I call the demand pull. We need companies and individuals who have an identified market opportunity trawling our academic and scientific institutions for help, support and indeed existing technology to meet these opportunities.

What this signifies and argues is that we are keeping our intellectual innovation capability remote from our market reactive, demand need led, innovators. The reason I argue this with such strength is I have seen what happens on the rare occasions that a market oriented innovator introduces an intellectual innovator to an identified and relevant market opportunity.
If you want your report to make a difference, it will steer Scotland not to replace one with another, but to learn how to the two ends can meet and work together.

I do have plenty of ideas as to how this could be made to happen, but have so far failed to get them past bureaucrats who only understand supply push of academic and scientific research outputs.
Many thanks for hosting the Horizon 2020 Conference on 24 May which I found very useful.

I raised a question on the proposed funding model during the discussion, and I wonder if I could expand on the issue and ask that it is considered further by your committee?

As I mentioned during the conference, there is much to applaud about the Horizon 2020 proposals, and SAC is looking forward to engaging fully, as we do in Framework 7. However, if we understand the proposals correctly, participation for SAC (and other research organisations) would be less financially sustainable than with the current funding model, which already operates below full economic cost.

As we understand it, the suggestion is that indirect costs (‘overheads’) will be paid at the flat rate of 20% of all project work in many Scottish, other UK research organisations, and other European research organisations. Most research projects call for high levels of staff input (usually significantly more than 50% of total costs) and indirect/overhead costs on staff are usually around 100% of staff costs. A flat rate of 20% on total costs would rarely, if ever, meet the real overhead costs.

As you will be aware, research institutions and Universities in Scotland and the rest of the UK have moved significantly towards the adoption of Full Economic Cost (FEC) models as the basis for research funding. While there continues to be some element of ‘core support’ for research, this covers only a small part of the real total costs of research. Additional research projects that do not come with funds that approach FEC therefore become a net cost to research organisations – and a few such organisations can find ways to support those net costs.

Horizon 2020 puts a significant emphasis on innovation and practical impact to research with an applied flavour and with strong encouragement for industry involvement. This is the kind of research that fits more closely with organisations that are akin to Contract Research Organisations (CROs) than conventional academic organisations. CROs by their nature operate to FEC as a funding model. The suggested Horizon 2020 funding structure is likely, therefore, to be a disincentive to the very kinds of organisation that are likely to fit best to its stated purpose.

Scotland has a strong record of winning and delivering good science through EU funding. If the suggested ‘20%’ funding model were to be adopted for Horizon 2020 we believe that this would be a major disincentive for Scottish organisations to continue to be involved with major EU programmes; we simply could not afford to do the work on this basis. This would be a significant loss both in research income for Scotland and in science delivery.

The most desirable funding model would be FEC. If this is not deemed to be affordable by the EU, then a return to a ‘matched-funding’ model would be the next
best option. In this structure EU funded activity is aligned with relevant associated work supported from other sources e.g. on a 17:25% cost basis. The onus, on project proposers, is then to find support for work that can, appropriately, be aligned with EU supported activity. This model has applied in the past and can be made to work effectively. In our area of work (agriculture etc.) the majority of funded work that is likely to align with EU funding would probably come from Scottish and UK government sources. We have heard, indirectly, that IF there were to be a matched-funding model in Horizon 2020, Member State Governmental sources of funding may not be allowed to be used as matched funding. This, again, would be a major disincentive to compete for EU funds.

On a slightly separate point, you will be aware that some of the funds for agriculturally-related research in Horizon 2020 will be supported by the use of some funds from the CAP (€4.5bn has been mentioned). Pressures on budgets, and the ongoing uncertainties about the final outcome of the future CAP structure, may yet mean that this apparent good news will not materialise at anything like the current suggested level. We believe that it is very important that there is a significant commitment to funding agriculturally-related research through Horizon 2020 irrespective of the outcome of the CAP discussions.

It would be extremely helpful if your committee could raise these points on behalf of future Scottish interests in Horizon 2020. If you think that there is more information that we could provide to help with the presentation of a case to secure economically sound future engagement of research establishments in future EU research in agriculture, we would be happy to respond.

Prof Geoff Simm
Academic Director and Vice Principal Research
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