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Framework programme 7

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The following paper provides information on Framework Programme 7 and the regional distribution of participants and funding under the scheme.

Key Points

Framework Programme 7 is the principal delivery mechanism of research policy and funding at European level.

As of 1 April 2011, 110 projects in Northern Ireland have participated in the programme, with a requested financial contribution of €30m.

Participation in Northern Ireland is greatest in the Higher Education sector with 71 participants, 65% of total participation in Northern Ireland, requesting €21m.

FP7 has a particular focus on SMEs, targeting 15% participation from SMEs in the Cooperation sub-programme. To date €1,779.7m, or 14.4% of the Cooperation budget, is going to SMEs.

Over the entire FP7 programme 10,127 participant SMEs; receiving an average contribution of €249,000.

With regard to the 15% target, Northern Ireland is in the 5-10% category, and somewhat short of reaching its target (see Figure 17).

The three major barriers to participation identified by SMEs as:

- Finding the correct cooperation partner;
- Accessing funding; and
- The cost of participating.

The European Commission has reformed FP7 to assist SME participation, with the most recent changes made in January 2011.

Horizon 2020 will replace FP7, with simplification likely to be a key priority.

Executive Summary

Framework Programme 7 is the principal delivery mechanism of research policy and funding at European level.

FP7 has been in operation since 2007 and will be replaced in 2013. The programme's budget FP7 is €50.5bn across its seven year lifespan, with an additional €2.7bn made available through the Euratom programme for the first five years.

Five programmes make up FP7:

- The Cooperation Programme,
- The Ideas Programme;
- The People Programme;
- The Capacities Programme; and
- The Euratom programme.

Of these, the greatest proportion of funding is earmarked for the Cooperation Programme - €32,365m.

Activities funded through FP7 must have a '*European Added Value*'. To meet this objective projects often have a transnational element, incorporating consortia of participants from different member and non-member states.

FP7 does allow for '*individual teams*' to be funded for research that has no transnational element. The work of such teams is deemed to meet the '*European Added Value*' criteria if it promotes competition on a national or European level amongst scientists working in '*fundamental frontier research*'.

FP7 is open to:

- research groups at universities or research institutes;
- companies intending to innovate;
- small or medium-sized enterprises (SMEs);
- SME associations or groupings;
- public or governmental administration (local, regional or national);
- early-stage researchers (postgraduate students);
- experienced researchers;
- institutions running research infrastructures of transnational interest;
- organisations and researchers from third countries;
- international organisations; and
- civil society organisations.

In the first four years of FP7 12,000 projects have been funded – involving 69,000 participants. The level of participation has led to a funding request of €20.4bn.

Germany, England and France have had the greatest involvement in FP7 measured by number of participants and funding requested.

Northern Ireland has the lowest number of participating FP7 projects (110) of all the UK regions and requested the lowest level of financial contribution (€30m) as of April 2011.

The greatest number of participants in Northern Ireland was located in the ICT (and SEC joint calls) and the People: Marie-Curie streams.

The largest proportion of money requested by Northern Ireland participants was in the Health stream – €5.9m equivalent to 20% of the total money requested by Northern Ireland participants (€30m).

Participation in Northern Ireland is greatest in the Higher Education sector with 71 participants (65% of total participation) in Northern Ireland – this mirrors the proportion coming from this sector in the UK as a whole.

A total of 28 participants (25% of total Northern Ireland participation) came from the private commercial sector. This again reflects the situation in the UK as a whole.

As of 1 April 2011 a total of €21m was requested by the Higher Education sector and €6.7m was requested by the private commercial sector in Northern Ireland.

SMEs contribute significantly to the European Economy accounting for 99.8% of all European companies and contributing to 65% of Europe's GDP.

FP7 has a target of ensuring 15% of the funding available under the 'Cooperation' programme is made available to SMEs. To date €1,779.7m, or 14.4% of the Cooperation budget, is going to SMEs. Over the full FP7 programme 10,127 of participants SMEs, receiving an average EU contribution of €249,000.

With regard to the 15% target, Northern Ireland is in the 5-10% category, and somewhat short of reaching its target (see Figure 17).

The three major barriers to SME participation have been identified by SMEs as:

- Finding the correct cooperation partner;
- Accessing funding; and
- The cost of participating.

The European Commission recognises that barriers do exist and is undertaking a process of reform to address these barriers. In January 2011 it introduced the following changes:

- Allowing more flexibility in how personnel costs are calculated so that EU research grant-holders can apply their usual accounting methods when requesting reimbursement for average personnel costs;
- SME owners whose salaries are not formally registered in their accounts can now be reimbursed, through flat-rate payments, for their contribution to work on research projects.
- A new steering group of senior officials from all the Commission departments and agencies involved will remove inconsistencies in the application of the rules on research funding.

Horizon 2020 will replace FP7 post 2013. Consultation on its direction raised the following issues:

- Simplification was considered as a key priority;
- An approach that links research and innovation to EU policy on tackling societal change, which includes climate change, energy security and efficiency, demographic aging, and resource efficiency;
- Continuity of existing programmes that are considered successful;
- Calls for funding opportunities are less perspective and more open;
- EU support across the innovation chain;
- Support for both 'curiosity-driven' and 'agenda-driven' research; and
- Support for 'bottom-up' innovation.

The expected date for the adoption of draft proposals is 30 November 2011.

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1 Introduction

The Seventh Framework Programme (FP7) is the EU's main instrument for funding research across Europe. This paper provides background information on the programme and the distribution of participation and funding under the scheme.

2 Seventh Programme for Research and Technical Development

2.1 What is Framework the Seventh Framework Programme?

FP7 was launched in 2007 and will end in 2013. The programme collects all EU research related initiatives together under one roof, and is aimed at contributing to wider EU goals – growth, competitiveness and employment.ⁱ

The budget for FP7 is €50.5bn across its seven year lifespan, with an additional €2.7bn made available through the Euratom programmeⁱⁱ for the first five years.ⁱⁱⁱ

FP7 is made up of four main programmes plus a fifth programme targeting nuclear research. The programmes, and their constituent parts, are as follows:

- The Cooperation Programme, which focuses on research into:
 - Health;
 - Food, agriculture and biotechnology (KBBE);
 - Information and Communication Technologies (ICT);
 - Nanosciences. Nanotechnologies, Material and new production technologies (NMP);
 - Energy;
 - Environment (including climate change) (ENV);
 - Transport (including aeronautics) (TPT);
 - Socio-economic sciences and humanities (SSH);
 - Security (SEC); and
 - Space (SPA).

- The Ideas Programme which covers activities implemented by European Research Council, focusing upon Frontier research actions;

- The People Programme which is targeted towards improving the human resource potential in European research and development landscape. The programme focuses on:
 - The initial training of researchers;
 - Life-long training and career development-
 - Industry-academia pathways and partnerships;
 - International cooperation; and
 - Excellence awards.
- The Capacities Programme which is targeted on improving the European research infrastructure including its optimisation and development, focussing on:
 - research infrastructure;
 - research for the benefit of SMEs;
 - regions of Knowledge and support for research-driven clusters;
 - the research potential of Convergence Regions;
 - Science in society;
 - Supporting the coherent development of research policy; and
 - International cooperation.
- The Euratom programme, which is made up of two sub-programmes:
 - Fusion energy research; and
 - Nuclear fission and radiation protection, the nuclear activities of the Joint Research Centre (JRC) included within this sub-programme.^{iv}

Figure 1 provides a breakdown of FP7 funding. The largest proportion (€32,365m) of funding is targeted toward the Cooperation Programme; this is further broken into programme streams as illustrated in Figure 2. Within Cooperation the largest proportion of funding is targeted toward the Information and Communications Technology programme stream (€9110m), followed by Health (€6050m) and Transport (€4180m).^v

Figure 1: FP7 funding breakdown by programme (€m)^{vi}

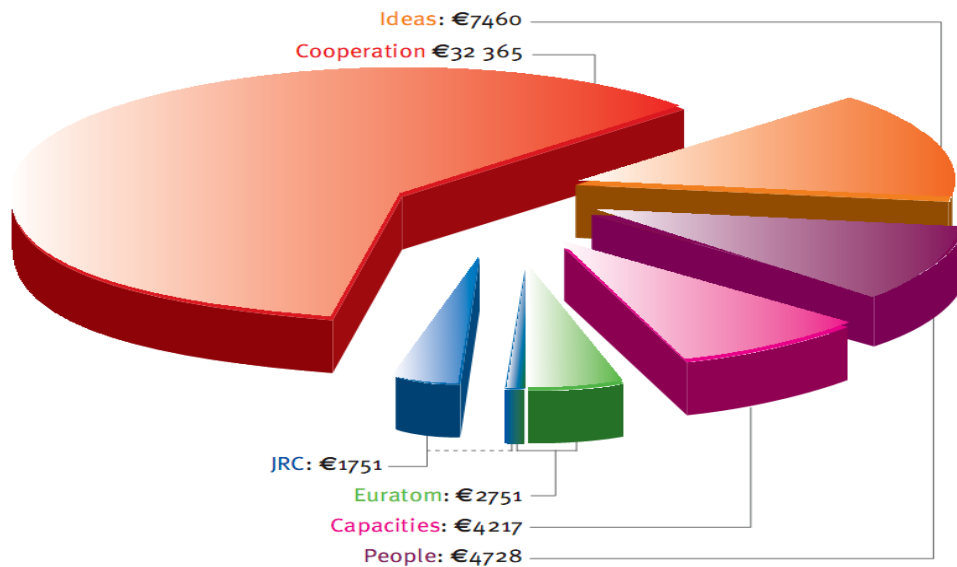
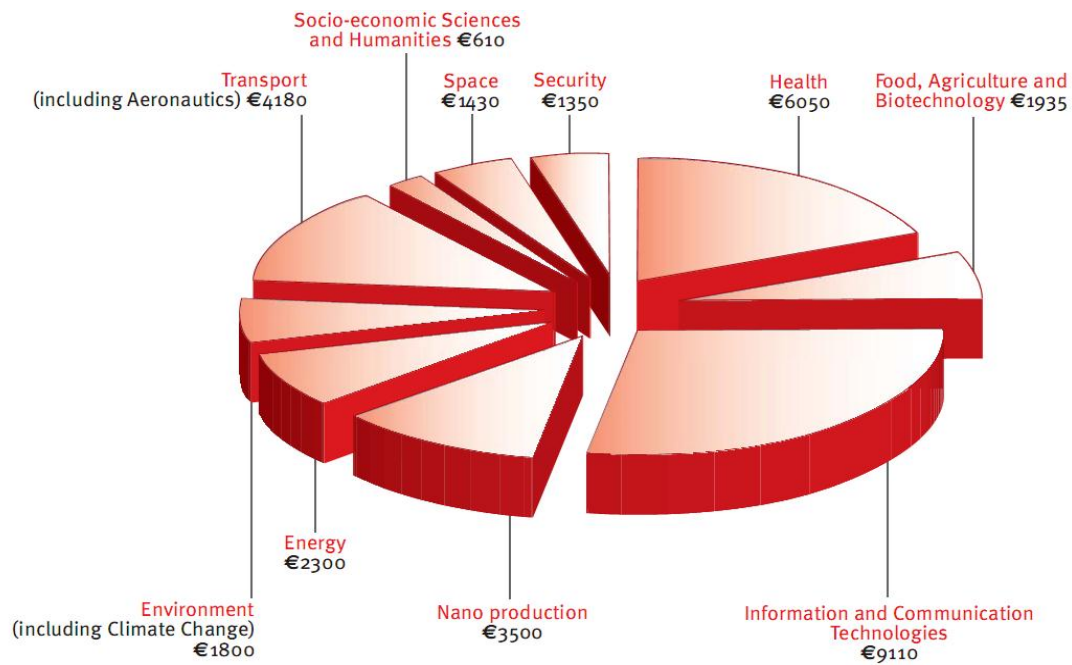


Figure 2: FP7 funding breakdown of Cooperation programme (€m)^{vii}



2.2 How is FP7 funding accessed?

The FP7 budget is allocated to grant funding. Grants are provided to ‘research actors’ throughout Europe and abroad, to co-finance research projects. Grants are determined on the basis of calls for proposals and peer review.

Activities funded through FP7 must have a ‘*European Added Value*’. The foremost aspect of this is that funded activities often have a transnational nature in the sense that research projects are carried out by consortia which include participants from different European and non-European countries. Similarly, fellowships funded under FP7 should involve cross-border mobility.^{viii}

The minimum conditions for consortia participation in ‘*indirect actions*’^{ix} require that:

...at least three legal entities must participate, each of which must be established in a Member State or associated country, and no two of which may be established in the same Member State or associated country.^x

However, when indirect actions call for ‘*specific cooperation actions dedicated to international cooperation*’ at least four entities must participate, two must be from member states (but not the same member state) or an associated country. In addition, in this scenario, at least two of the participants must be from an ‘*established international partner*’ (but not the same country).^{xi}

The legal entities must also be independent from each other. ‘*Independent*’ is defined as follows:

Two legal entities shall be regarded as independent of each other where neither is under the direct or indirect control of the other or under the same direct or indirect control as the other.^{xii}

‘*Control*’ is defined as:

...the direct or indirect holding of more than 50 % of the nominal value of the issued share capital in the legal entity concerned, or of a majority of the voting rights of the share- holders or associates of that entity.^{xiii}

Or:

...the direct or indirect holding, in fact or in law, of decision-making powers in the legal entity concerned.^{xiv}

However, entities will be deemed independent if:

...the same public investment corporation, institutional investor or venture-capital company has a direct or indirect holding of more than 50% of the nominal value of the issued share capital or a majority of voting rights of the shareholders or associates.^{xv}

Similarly entities will be deemed independent where they are owned or supervised by the same public body.

Unlike its predecessor, FP6, FP7 does allow for '*individual teams*' to be funded for research that has no transnational element. The work of such teams is deemed to meet the '*European Added Value*' criteria if it promotes competition on a national or European level amongst scientist working in '*fundamental frontier research*'.^{xvi}

Help and advice is offered to researchers and organisations wishing to apply for FP7 funding through their National Contact Point, details of which are available on the CORDIS website.^{xvii}

2.3 Who can apply for funding under FP7?

FP7 is open to a range of individuals and organisations:

- research groups at universities or research institutes;
- companies intending to innovate;
- small or medium-sized enterprises (SMEs);
- SME associations or groupings;
- public or governmental administration (local, regional or national);
- early-stage researchers (postgraduate students);
- experienced researchers;
- institutions running research infrastructures of transnational interest;
- organisations and researchers from third countries;
- international organisations; and
- civil society organisations.

As noted above a range of countries may also participate in FP7 by virtue of being an associated country or through international cooperation provisos.

An 'Associated country' is defined as '*a third country which is party to an international agreement with the European Community, under which it makes a financial contribution to FP7*'.^{xviii} On this basis the following countries can participate in FP7: Albania; Croatia; Iceland; Israel; Liechtenstein; the Former

Yugoslav Republic of Macedonia; Montenegro; Norway; Serbia; Switzerland; and Turkey.

The following countries may also participate, on the basis of participating in an EC agreement on Science and Technology: Argentina, Australia; Brazil; Canada; China; Egypt; India; Japan; Republic of Korea; Mexico; Morocco; New Zealand; Russia; South Africa; Tunisia; Ukraine; and the United State of America.

The following countries can participate on the basis of being part of the European Neighbourhood policy: Algeria; Armenia; Azerbaijan; Belarus; Georgia; Jordan; Moldova; Palestinian-administrated areas; and Syrian Arab Republic.^{xix}

3 Country Participation in FP7

The size of the FP7 project is illustrated by the number of applications received. In the first four years there were 245 concluded calls for proposals receiving 77,000 proposals, out of which 12,000 – involving 69,000 participants – were retained for negotiation. The level of participation has corresponded to an EU funding request of €20.4bn.

Figures 3 and 4 provide two different measures of the comparative performance of countries participating in FP7. In both figures the data for each country is shown by type of participant as follows: higher or secondary education (HES); private for profit (excluding education) (PRC); public body (excluding research and education) (PUB); research organisation (REC); and other (OTH).

Figure 3 ranks the 27 EU Member States by the number of FP7 participants; whereas Figure 4 ranks them by the financial contribution they have received through the programme. In both cases, Germany, England and France have the greatest involvement in FP7. In the case of Germany there has been a relatively even (in participant and financial split) between the higher or secondary education sector, the private sector and research sector. In the UK, the higher or secondary education sector has been the largest source of participants and received the largest financial contribution. In France's case the number of participants and overall funding received is weighted towards the research sector. Throughout the 27 Member States the public sector tends to supply the smallest proportion of participants and receive the smallest proportion of finance. The Republic of Ireland has the 16th highest number of participants and received the 13th highest amount of funding.

Figure 3: EU27 Member State participants 2007-2010 by type of participant organisation

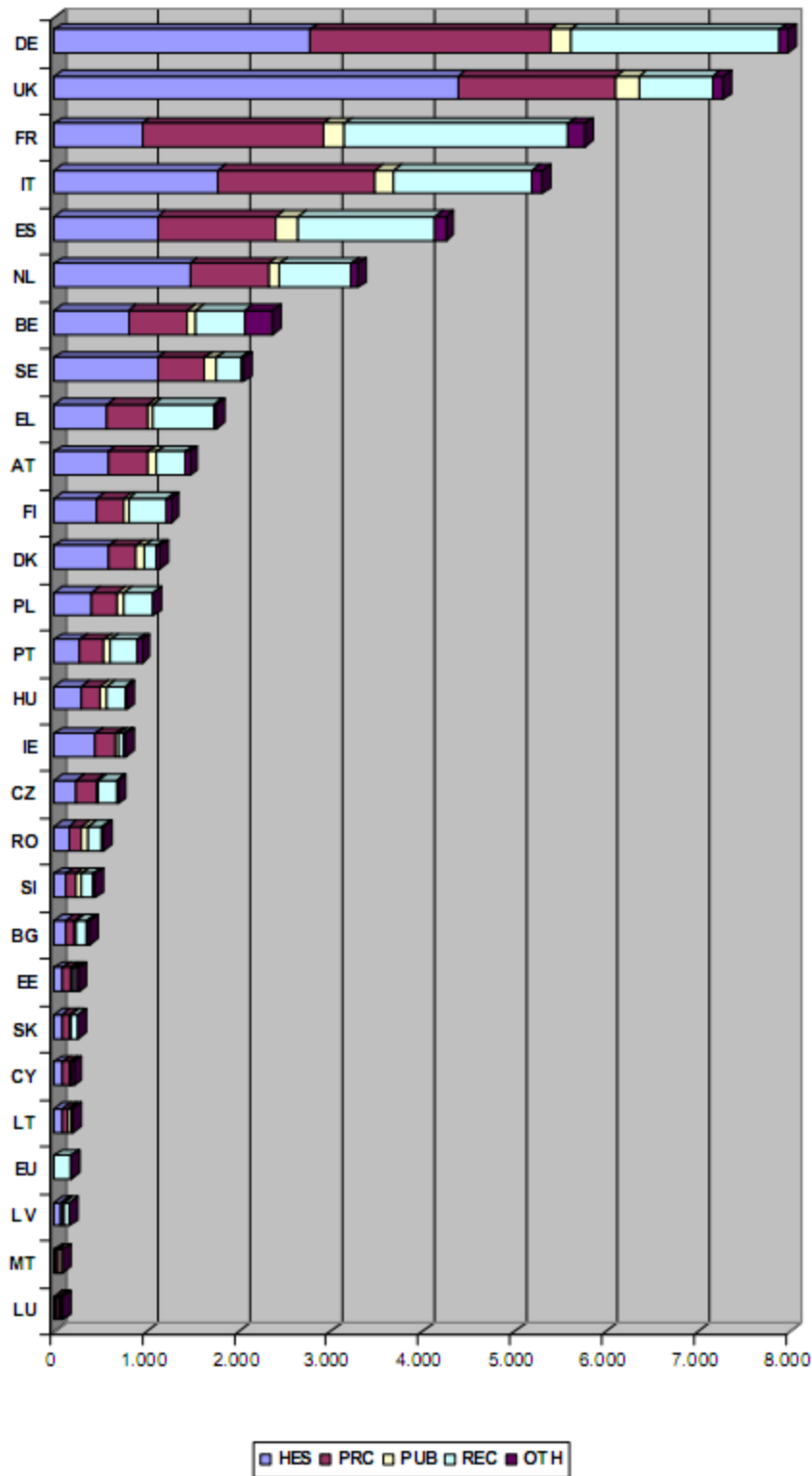
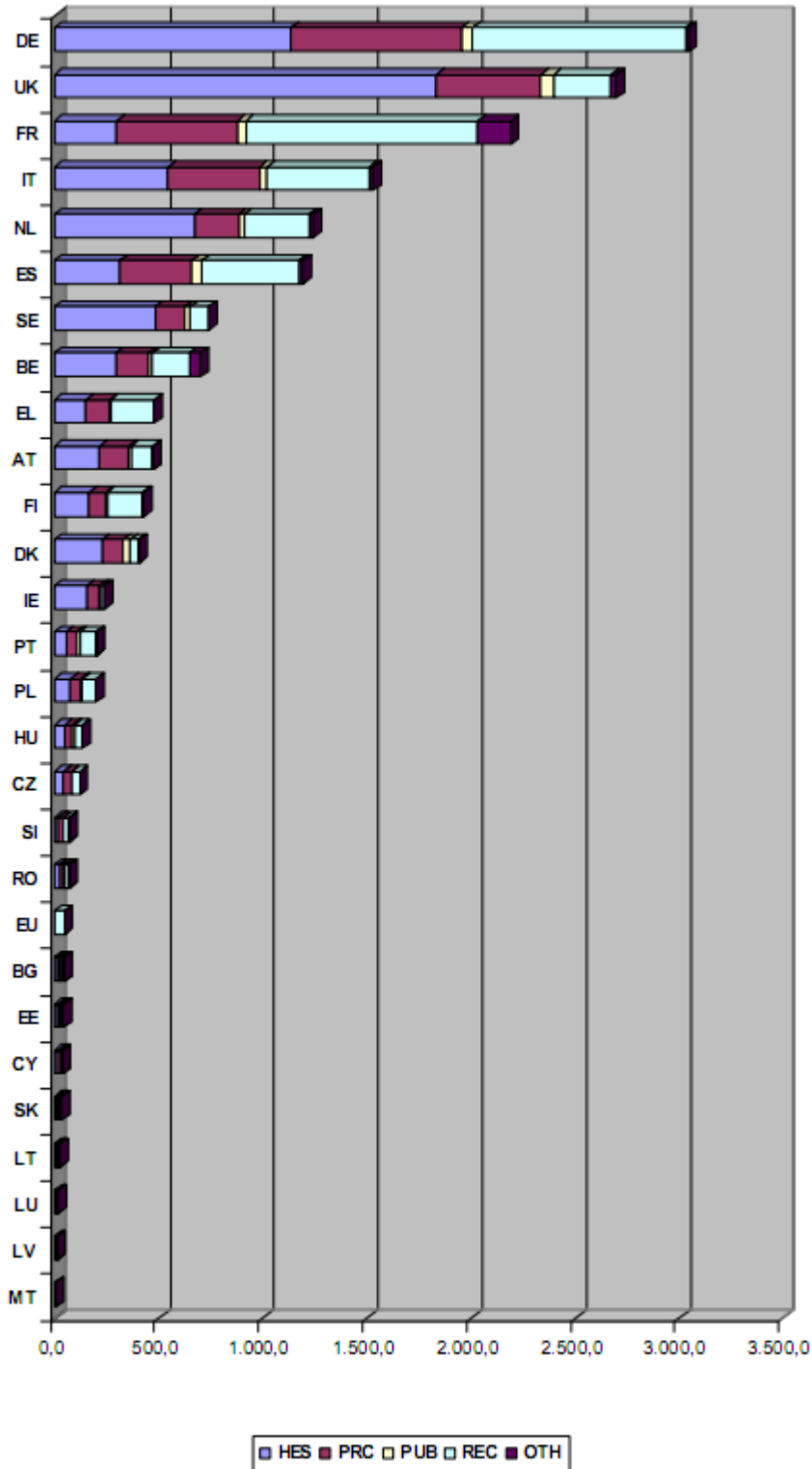


Figure 4: EU27 Member State financial contribution in FP7 signed grant agreements 2007-2010 by type of participant organisation



3.1 Regional Participation in FP7

Figure 5 shows the European regional distribution of FP7 beneficiaries in the cooperation programme, the figure measures the number of signed contracts per region. The regional division used is NUTs II.^{xx}

Northern Ireland falls into the 51-100 category (fourth lowest category of number of signed contracts) and is in a comparable position to a number of UK regions, including: Derbyshire and Nottinghamshire; Leicestershire, Rutland and Northamptonshire; Greater Manchester; West Yorkshire; Devon; West Wales and The Valleys; and East Wales.^{xxi}

A number of UK regions fall into the lowest category, namely: the Highlands and Islands; Cumbria; Cheshire; Lincolnshire; and Cornwall and Isles of Scilly. Of the UK regions with the most contracts signed Eastern Scotland and the Gloucestershire, Wiltshire and Bristol/Bath area fall into the 201-300 contracts signed category, whereas East Anglia and the Surrey, East and West Sussex region were in the 301-400 category.^{xxii}

In comparison with the Republic of Ireland, Northern Ireland entities signed a similar number of categories as those in the Border, Midland and Western NUTs II region. The Southern Eastern NUTs II region was home to 401-500 signed contracts, outperforming any area in the neighbouring regions (Northern Ireland, England, Scotland and Wales).

The regions with the greatest number of contracts signed as of 1 April 2011 were:

- Île de France – 2675 contracts signed;
- Oberbayern, Germany – 1200 contracts signed; and
- Comunidad de Madrid – 901-1000 contracts signed.^{xxiii}

Figure 6 presents similar information as Figure 5 but by monetary value. Again Northern Ireland, receiving €10-25m through the FP7 Cooperation programme, performed at a similar level to a number of UK regions and The Border, Midland and Western region of the Republic of Ireland. Three of the regions with which Northern Ireland was broadly comparable in Figure 5, received a higher value of funding for contracts signed than Northern Ireland – West Yorkshire, Derbyshire and Nottinghamshire, and Leicestershire, Rutland and Northamptonshire.^{xxiv}

The Southern Eastern Region of the Republic of Ireland received a similar value of funding as East Anglia and the Surrey, East and West Sussex regions (€100-200m) despite receiving a higher number of signed contracts.^{xxv}

The Île de France received the greatest financial contribution from the FP7 programme, €1045m, followed by Oberbayern which received €500-600m.^{xxvi}

Figure 5: Cooperation Programme FP7: Regional Distribution of Beneficiaries in signed contracts as of the 01 April 2011^{xxvii}

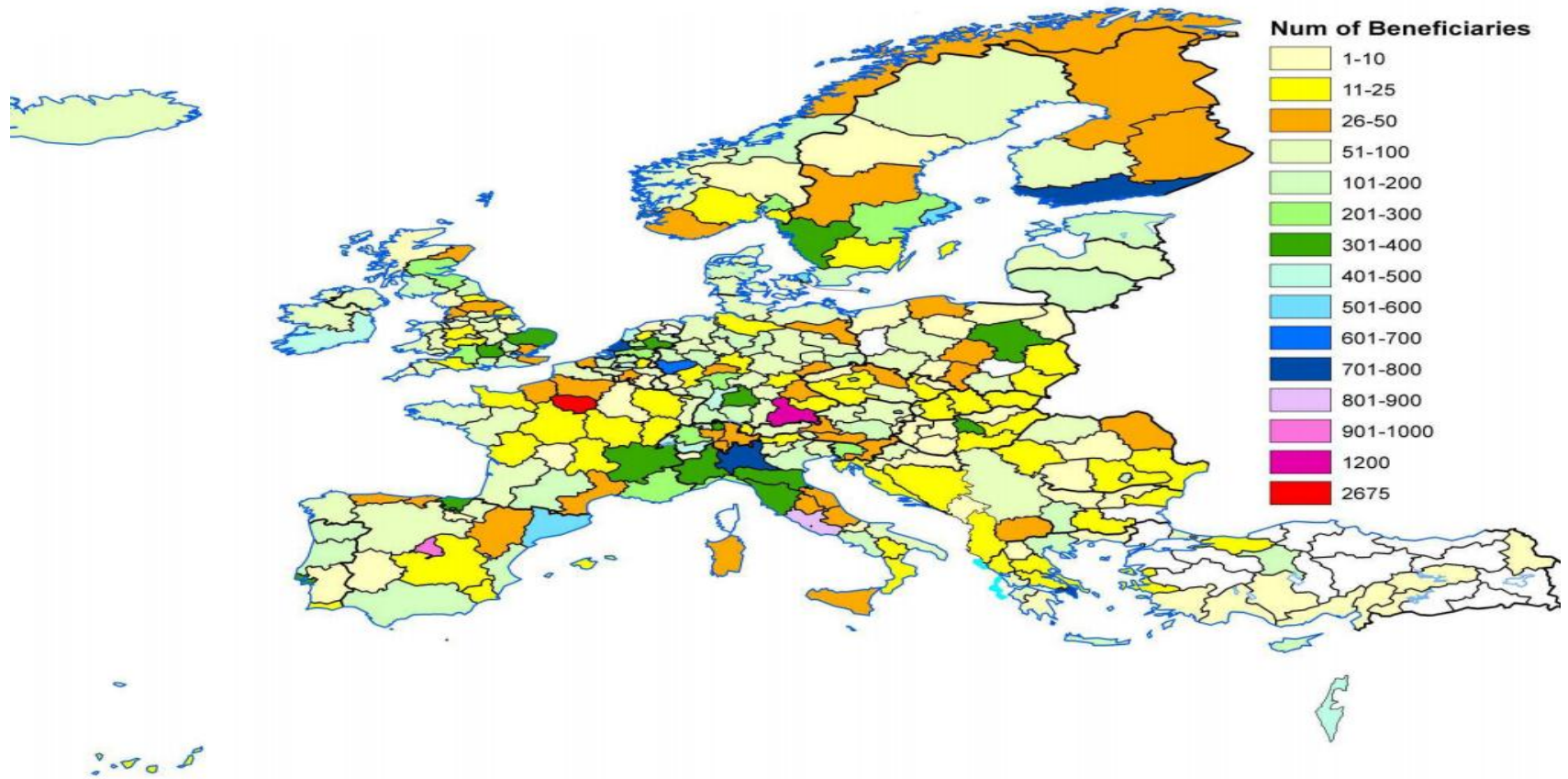
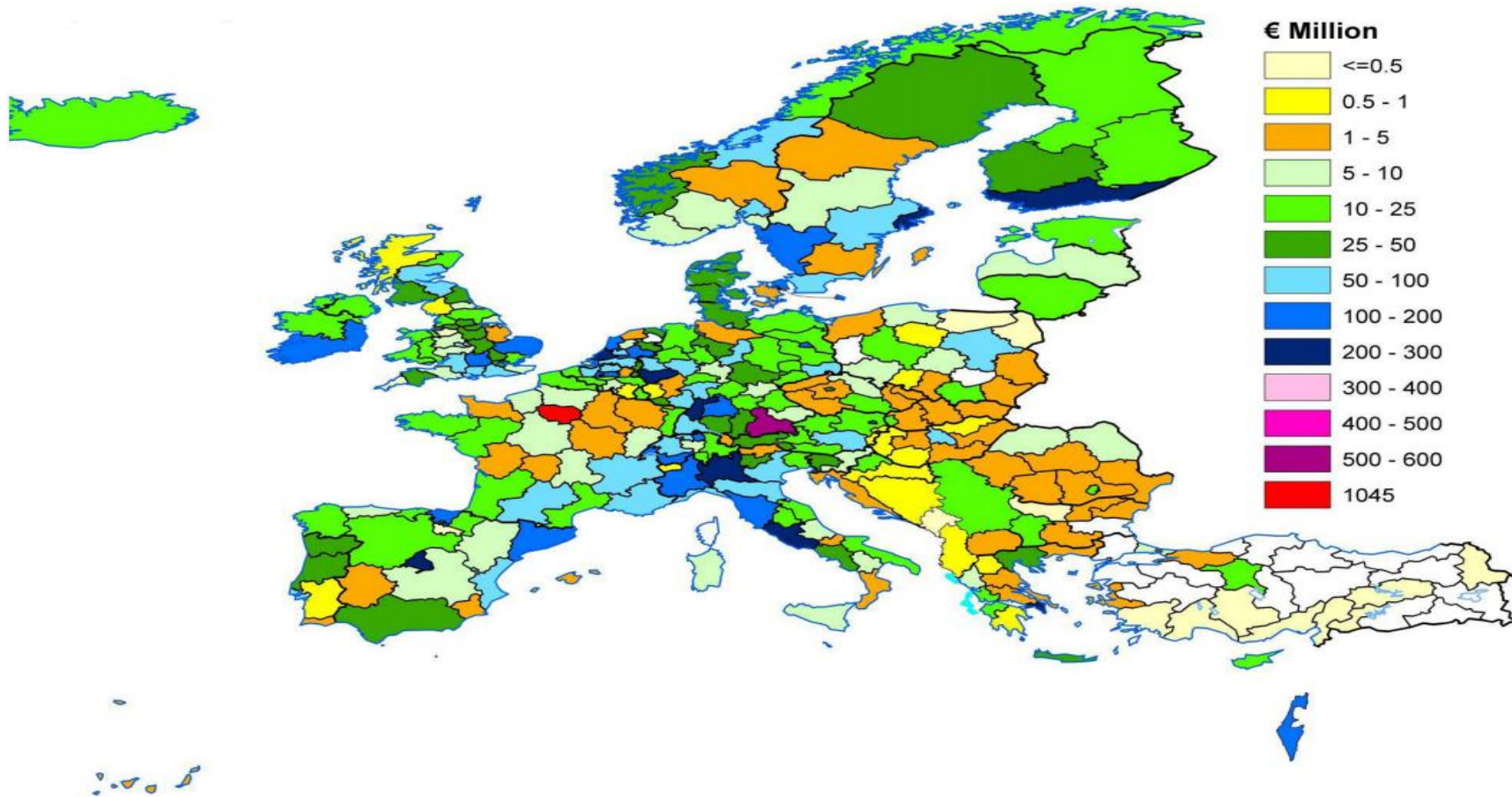


Figure 6: Cooperation Programme FP7: Regional Distribution of Beneficiaries in signed contracts as of the 01 April 2011^{xxviii}



4 Northern Ireland’s participation in FP7, further details

As of the 1 April 2011 7,290 UK organisations were participating in FP7. Figure 7 shows the regional distribution of participants as a proportion of the UK total. With 110 participants, 1.5% of the UK total, Northern Ireland has the smallest proportion of participants of all the UK regions. London is home to the greatest proportion of participants of all the UK regions. London is home to the greatest proportion of FP7 participants (1,803 participants or 24.7% of the UK total).^{xxix}

A similar picture emerges if regional requested financial contribution is compared to the UK total (Figure 8). As of April 2011 Northern Ireland’s FP7 participants requested a financial contribution of just under £30m, which was 1.1% of the total amount requested by FP7 participants (approximately £2.7bn). The largest financial contribution was requested by participants in London, £700m, or 26% of the total.^{xxx}

Figure 7: UK regions total FP7 projects as a proportion of the UK total (up to 1 April 2011) (%)^{xxxi}

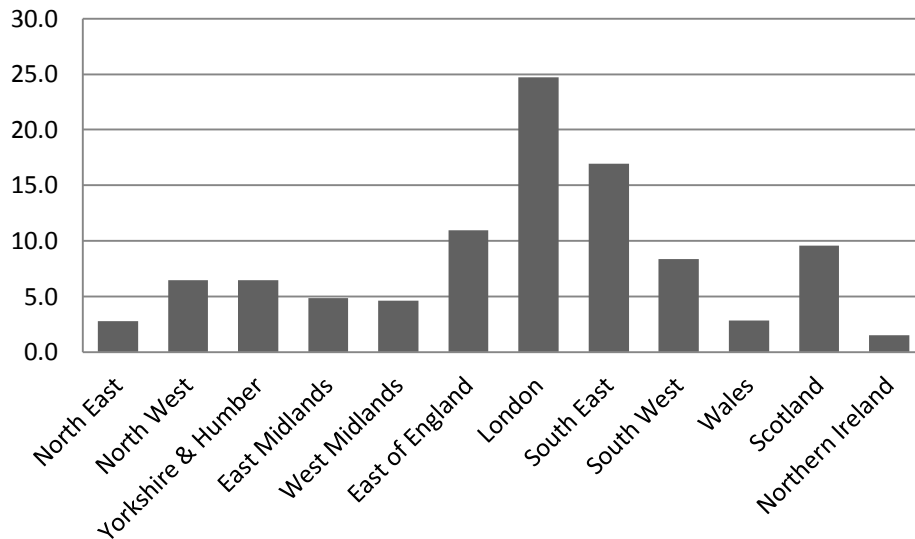
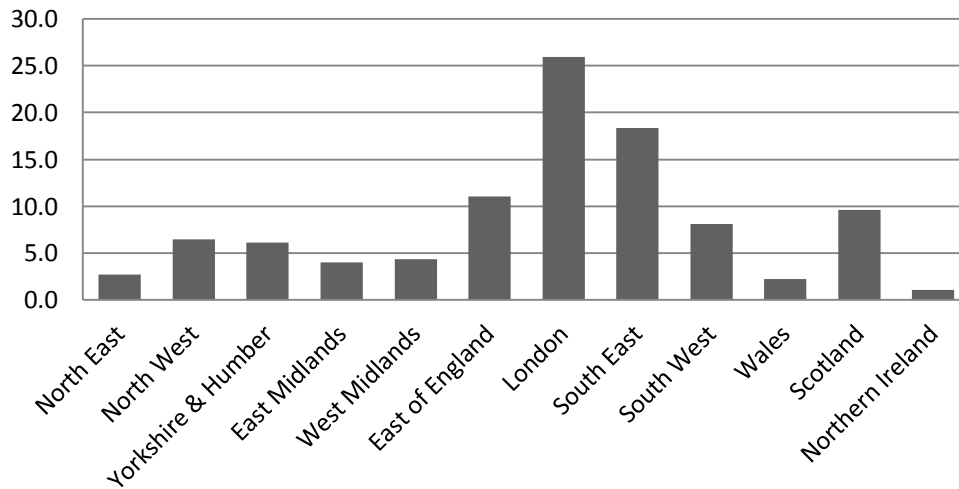


Figure 8: UK regions total requested financial contribution from FP7 as a proportion of UK total (up to 1 April 2011) (%)^{xxxii}



Figures 9 and 10 provide further details of Northern Ireland’s 110 participants, showing how these participants are spread across the various FP7 funding streams and the level of funding requested under each stream. The ICT (and SEC joint calls) and the People: Marie-Curie streams have seen the greatest Number of Northern Ireland participants (18 participants each, or 16.4% of total participation). This was, however, equivalent 1.6% and 1.2% of the UK total participation under these schemes respectively (UK total for ICT was 1,159 participants, for People: Marie-Curie it was 1,481). Northern Ireland has had 13 participants under the SMEs stream (11.8% of total participation); this was, however, 2% of the total UK participants under this stream (578 in total). Northern Ireland also had 13 participants under the Health stream, equivalent to 1.55% of the UK total (875). Northern Ireland has had no participants under the Regions of Knowledge (UK=24), Research Potential UK=3), Coherent Development (UK=6) and INCO schemes (UK=14).^{xxxiii}

With regards to requested financial contribution (Figure 10) the largest proportion of money requested by Northern Ireland participants was in the Health stream – €5.9m equivalent to 20% of the total money requested by Northern Ireland participants (€30m) but just 1.4% of the total funding requested by participants in the UK under this scheme (€409m). A total of €5.6m (19% of the Northern Ireland total) was requested under the ICT stream (1.2% of the total requested in the UK under this stream), and €5.5m (18% of the Northern Ireland total) was requested under the People: Marie-Curie funding stream (1.5% of the total requested in UK under this stream). A total of €1.3m (4.4% of the total Northern Ireland request)

was requested under the SME scheme (1.6% of the total requested in the UK under this stream).^{xxxiv}

Figure 9: Northern Ireland Number of FP7 participants by funding stream (up to 1 April 2011)^{xxxv}

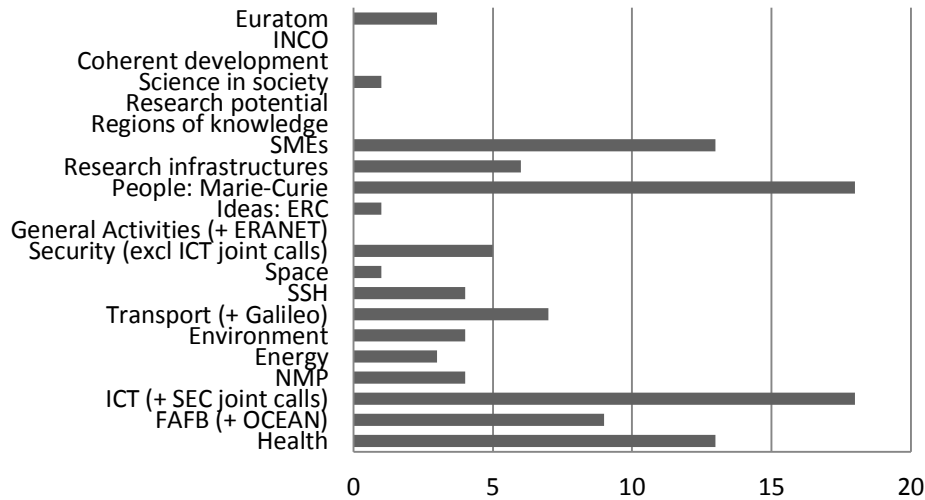
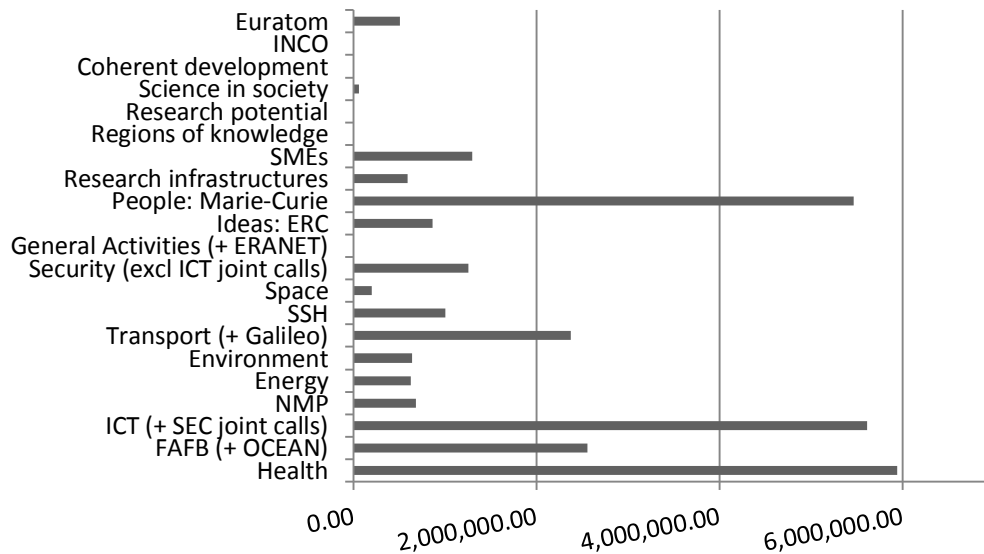


Figure 10: Requested Financial Contribution by funding stream (up to 1 April 2011) (€)^{xxxvi}



Figures 11 and 12 outline Northern Ireland’s participation in FP7 by organisation type. Participation is greatest amongst the Higher Education sector in Northern Ireland, with 71 participants (65% of total participation in Northern Ireland) coming from that sector. This reflects the situation in the UK as a whole, where 4,391 (60%

of total participation) participants came from the Higher Education sector. A total of 28 participants (25% of total Northern Ireland participation) came from the private commercial sector. This again reflects the situation in the UK as a whole, where 25% participants are from this sector (1,726 participants). The level of participation in Northern Ireland has been smaller in public and research organisations sectors (7% and 3.6% of total participation respectively).^{xxxvii}

Northern Ireland’s requested financial contribution by sector as outlined in Figure 12 reflects sectoral participation. A total of €21m was requested by the Higher Education sector (72% of the total requested by Northern Ireland participants, and 1.7% of the total requested by this sector in the UK as a whole). A total of €6.7m was requested by the private commercial sector (23% of the total requested by all Northern Ireland participants, and 1.35% of the total requested by this sector in the UK as a whole). The public sector requested €1.09m in this period (7% of the Northern Ireland total, 0.16% of the total requested by this sector in the UK as a whole) and €453,339 was requested by research organisations (4% of the Northern Ireland total, 1.7% of the total requested by this sector in the UK as a whole).^{xxxviii}

Figure 11: Number of participants in FP7 by organisation type (up to April 2011)^{xxxix}

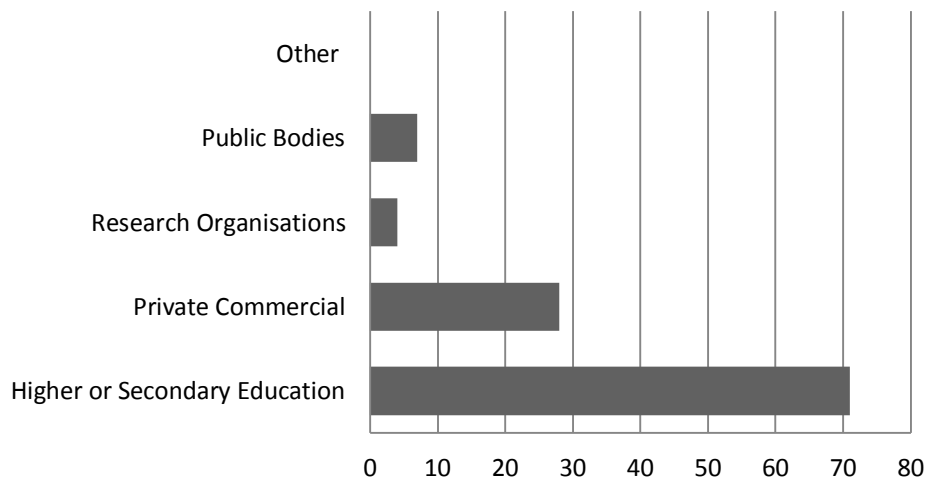
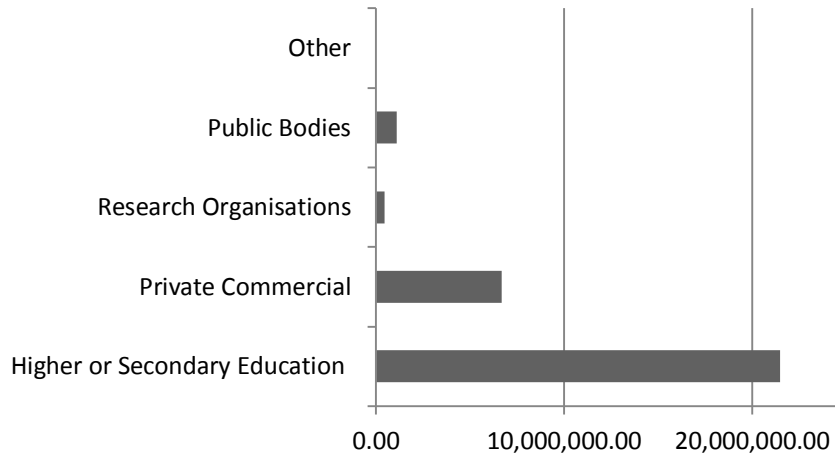


Figure 12: Requested funding contribution by organisation type (up to 1 April 2011) (€)^{xl}



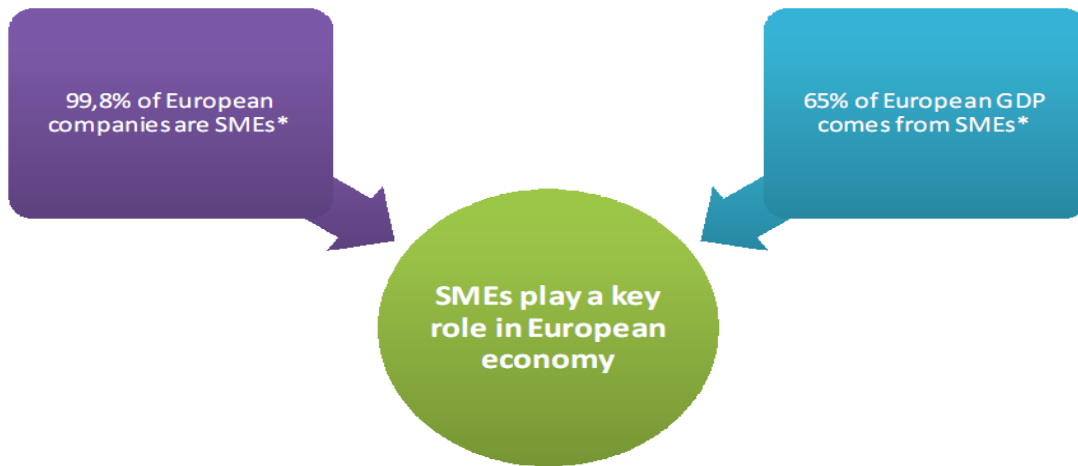
5 Small and Medium Enterprises in FP7

Small and Medium Enterprises are defined by the European Commission as:

The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro.^{xi}

Their contribution to the European economy is substantial as demonstrated in Figure 13. It demonstrates that 99.8% of all European companies are classed at SMEs, contributing to 65% of Europe's GDP.

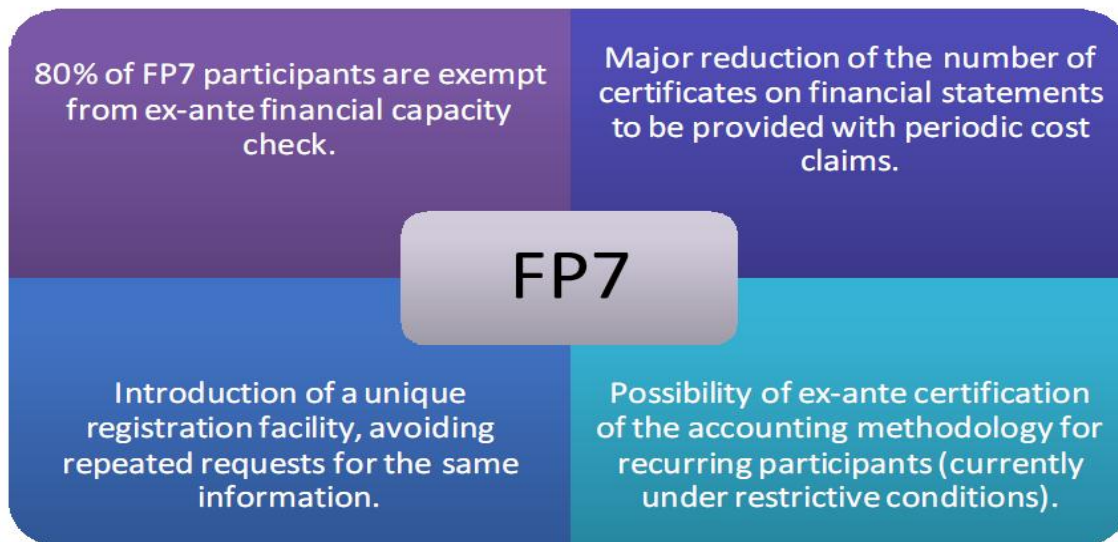
Figure 13: SME contribution to European economy^{xliii}



Source: MAPEER SME

Recognising this contribution FP7 included certain measures in its design to ensure it was more SME friendly than its predecessor (FP6). In a general sense, FP7 introduced a number of changes to the administrative process to make it easier for SME participation, as outlined in Figure 14.

Figure 14: SME friendly measures introduced to FP7^{xliiii}



Source: MAPEER SME

Some FP7 programme streams have also been tailored to promote SME interest. The cooperation programme, for instance, contains provisos that state:

*Particular attention should be paid to ensuring the adequate participation of SMEs, in particular knowledge-intensive SME in transnational cooperation. Concrete measures, including support actions to facilitate SME participation, will be taken throughout the 'Cooperation' part of the programme in the framework of a strategy to be developed under each theme. These strategies will be accompanied by quantitative and qualitative monitoring against the objectives set. **The aim will be to enable at least 15 % of the funding available under the 'Cooperation' part of the programme to go to SMEs.**^{xliv} (Emphasis added)*

Given that the budget for the Cooperation programme is €32,365m this means that a total of €4855m in funding will have gone to SMEs as part of the programme should the 15% target be met.

The Capacities programme has a specific thematic division that is dedicated to SMEs – *Research for the benefit of SMEs*. The theme has two central objectives:

- To strengthen the innovation capacity of European SMEs and their contribution to the development of new technology-based products and markets; and
- To bridge the gap between research and innovation by helping SMEs outsource research, increase their research efforts, extend their networks, better exploit research results and acquire technological know-how.

To achieve these aims two major activities are proposed:

- Supporting small groups of innovative SMEs to solve common or complementary technological problems; and
- Supporting SME associations and SME groupings to develop technical solutions to problems common to large numbers of SMEs in specific industrial sectors or segments of the value chain.

Whilst the central focus of FP7 is the support of research projects, additional assistance is provided to 'national schemes providing financial means to support SME associations and SME groupings to develop technical solutions to problems common to large numbers of SMEs in specific industrial sectors or segments of the value chain'.^{xlv}

5.1 SME Participation in FP7

The European Commission's SME Participation in FP7 Report Spring 2011, offers the most recent assessment of SME engagement with the framework programme. The report's headline findings note:

- Focusing on the SME participation in the Thematic Priorities, €1,779.7m, or 14.4% of the Cooperation budget, is going to SMEs;
- For the 6,544 SME participations in Thematic Research Projects so far, the average EU contribution is €272,000;
- Over the full FP7 programme, including Research for the Benefit of SMEs and the Marie-Curie Actions, 10,127 of the participations are by SMEs, receiving an average EU contribution of €249,000;
- The Cooperation Programme still has €19,893m available to spend (61.7% of the total budget in the remaining years of the Framework Programme, until 2013). From this remaining budget, 15.4% (€2984m) should go to SMEs in order to reach the 15% target for the whole period.^{xvi}

Table 1 looks at the five programme streams in detail. Significantly, it shows SME participation in each programme as a proportion of total participation and EU funding to SMEs in each programme as a proportion of total funding within that programme. Overall, SMEs have made up 16.6% of all participants of all FP7 programmes, receiving 13.2% of total funding. The largest proportion of SME participation is found in the Capacities programme, where they have made up 30.1% of all participants. SMEs have received 31% of the total funding in this programme. In the Cooperation programme, SMEs have made up 16.6% of all participants, receiving 14.1% of all funding (just shy of the 15% target).^{xvii}

Table 2 examines the Cooperation programme in more detail, significantly it shows the proportion of SMEs participating in each Cooperation sub-stream and the proportion of funding SMEs have received in the that sub-stream.

The largest proportion of SMEs is found in the nanosciences, nanotechnologies, materials and production technologies stream (NMP), where they have made up 27.3% of all participants, receiving 22.7% of all funding. This is followed by the Security Research theme where SMEs have made up 20.4% of all participants, receiving 20.4% of all funding. SME participation has been lowest in the Socio-economic Sciences and Humanities Research theme, where they have made up 4.7% of all participants and received 4.4% of funding.^{xviii}

Figures 15, 16 and 17 provide a regional breakdown of SME participation in Cooperation programme of FP7 according to NUTs II regional classification. From the figures we can state the following about the participation of Northern Ireland SMEs:

- The number of SMEs to have signed contracts under the Cooperation Programme is in the second lowest category 1-5 (see Figure 15), on this measure the performance is equivalent to the North of Scotland and parts of the

South West of England. It has been out performed by both of the Republic of Ireland NUTs II regions;

- With regard to financial contribution Northern Ireland has fared better, with SMEs receiving €1-2.5m from the Cooperation programme (Figure 16). As a point of comparison the Southern Eastern NUTs II of the Republic of Ireland has received amongst the largest EU contribution (€25-50m) of all European regions;
- With regard to the 15% target, Northern Ireland is in the 5-10% category, and somewhat short of reaching its target (Figure 17). The Highlands and Islands region has reached the target despite having a low number overall signed contracts and SME signed contracts, and receiving a relatively small financial contribution.^{xix}

Table 1: SME Participation in FP7 by programme (until 1 April 2011)¹

Programme	Signed Grant Agreements	SMEs Participations	All Participants	% of SMEs	EU Contribution to SMEs (€m)	EU Contribution to all (€m)	% Contribution to SMES
Cooperation	9,663	6,671	40,132	16.6	1,797.28	12,711.96	14.1
Ideas	1,595	8	1,767	0.5	8.92	2,507.76	0.4
People	4,732	470	8,173	5.8	110.26	1,752.74	6.3
Capacities	1,016	2,907	9,649	30.1	589.96	1,902.86	31.0
Euratom	83	71	1,136	6.3	10.92	204.26	5.3
All	11,089	10,127	60,857	16.6	2,517.34	19,079.31	13.2

Table 2: SME Participation in the Cooperation Programme (until 1 April 2011)ⁱⁱ

Sub Programme	Signed Grant Agreements	SMEs Participations	All Participants	% of SMEs	EU Contribution to SMEs (€m)	EU Contribution to all (€m)	% Contribution to SMES	Average Contribution per SME (€)	Average contribution per participant (€)
Health	559	728	6,179	11.8	254.16	2,465.97	10.3	349,117	399,090
KBBE	233	376	3,101	12.1	62.71	749.90	8.4	166,783	241,825
ICT	1,185	1918	11,280	17.0	573.34	3,991.85	14.4	298,927	353,887
NMP	362	1229	4,498	27.3	322.44	1,420.34	22.7	262,358	315,772
Energy	197	401	2,206	18.2	142.88	768.32	18.6	356,312	348,285
Environment	272	438	3,801	11.5	73.72	810,368.00	9.1	168,299	213,282
TPT	535	926	4,605	20.1	214.27	1,211.52	17.7	231,393	263,079
SSH	142	62	1,307	4.7	10.32	233.11	4.4	166,456	178,356
SPA	110	206	1,217	16.9	39.54	297.79	13.3	191,939	244,987
SEC	110	260	1,275	20.4	86.28	422.11	20.4	331,839	331,070
All	3,522	6544	39,467	16.6	1,779.65	12,371.61	14.4	271,952	313,467

Figure 15: Regional Distribution of SMEs in signed contracts as of 01 April 2011 – Cooperation Programmeⁱⁱⁱ

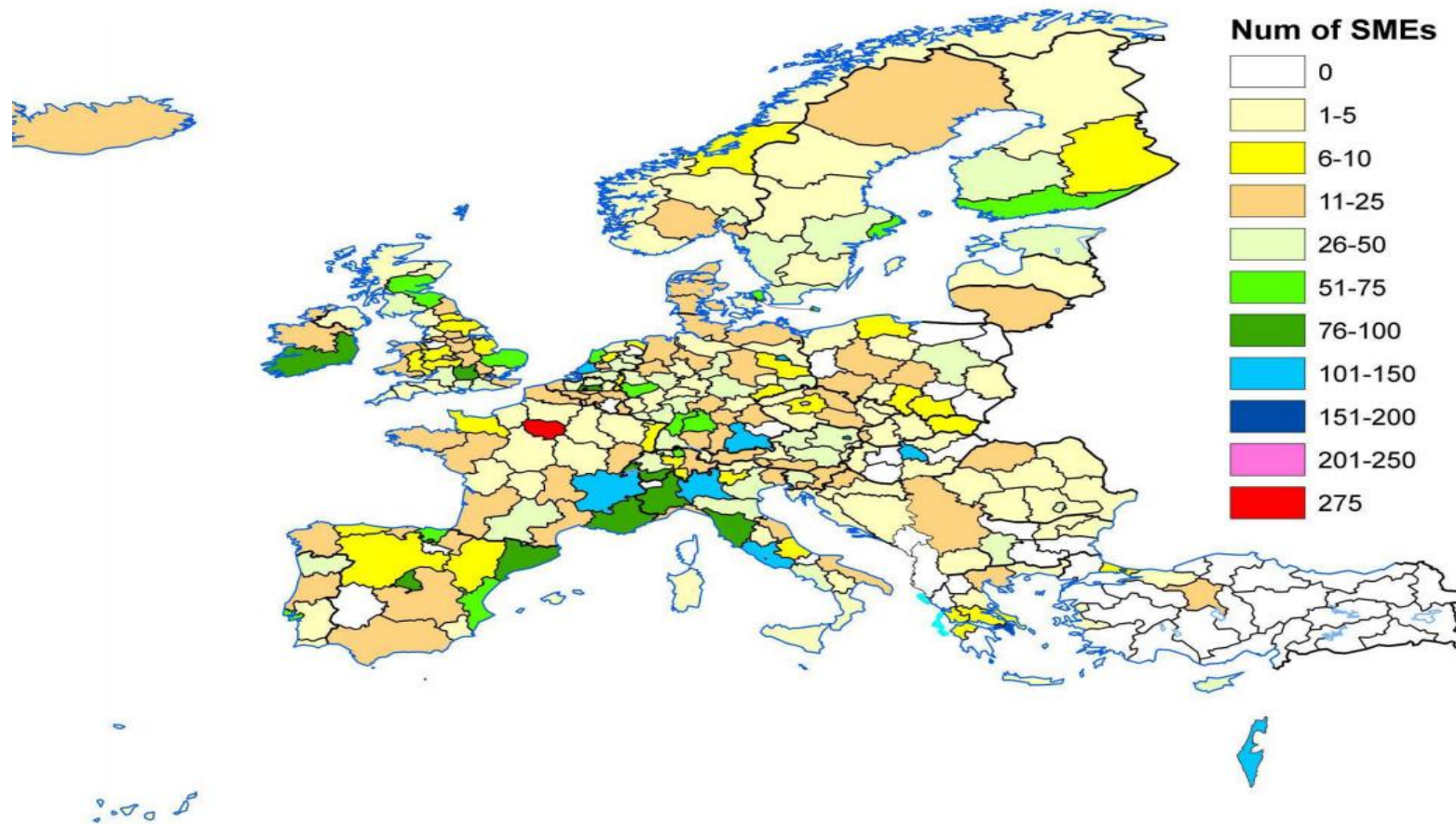


Figure 16 Regional Distribution of SMEs in EU €m contribution as of 01 April 2011 – Cooperation Programme^{liii}

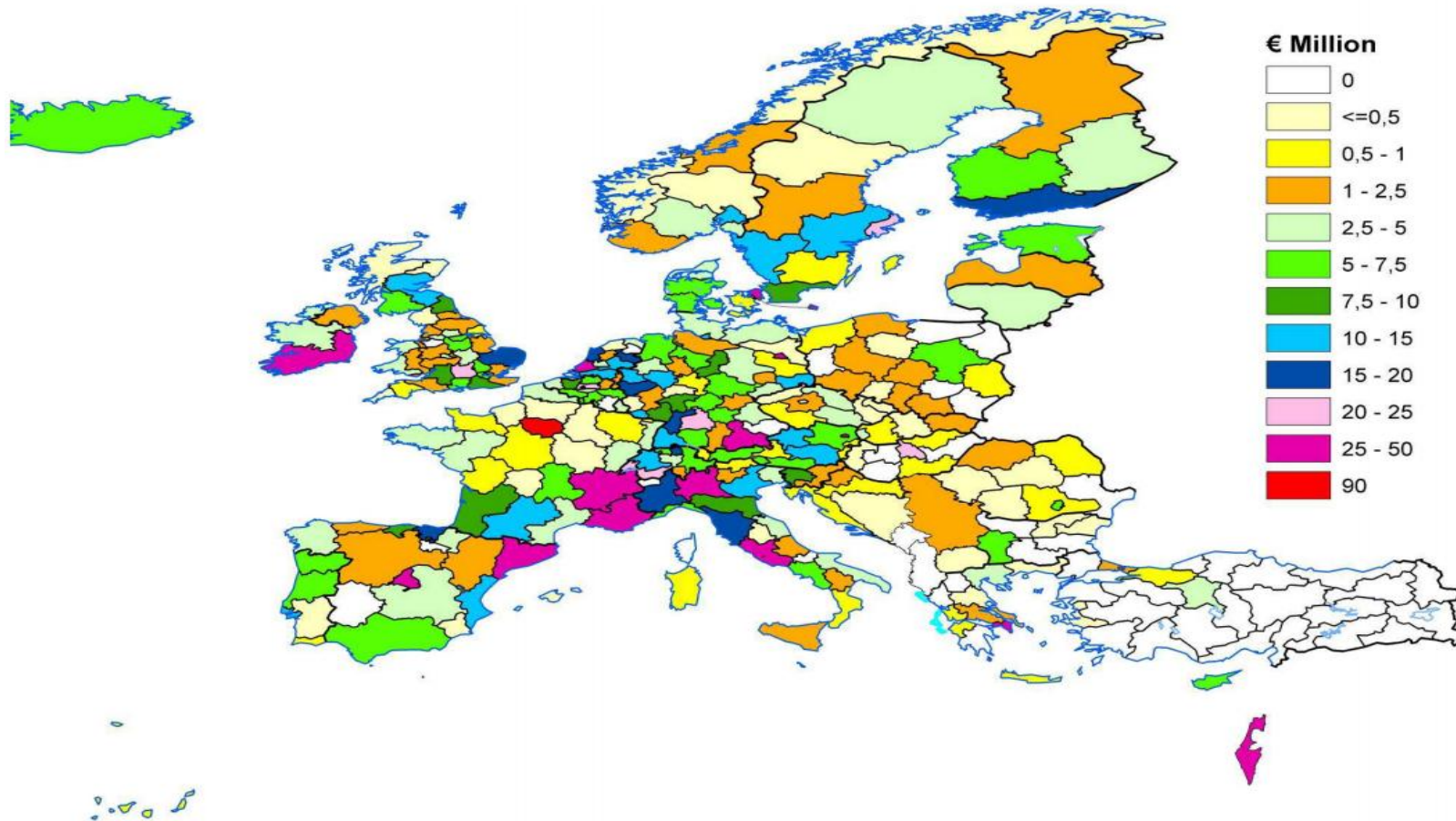
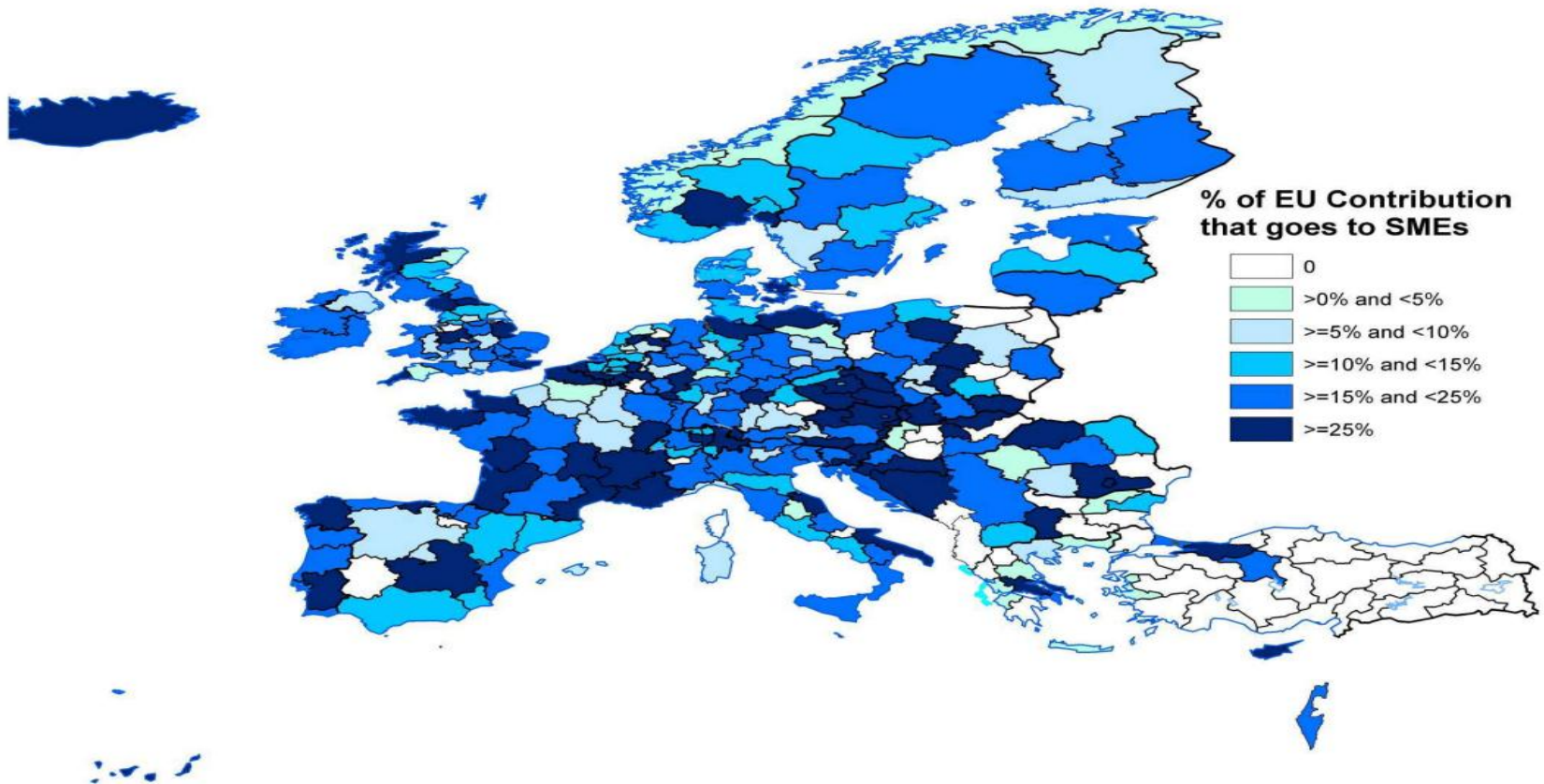


Figure 17 Regional Distribution of progress toward 15% as of 01 April 2011 – Cooperation Programme^{liv}



6 Barriers to SME participation in FP7

As outlined above, measures have been included in FP7 in an attempt to ensure SME participation is in its DNA. There are, however recognised barriers to SME involvement. Europa Bio, the European association for bioindustries have, for example, recognised the changes made to FP7 to facilitate SME inclusion, but have noted ‘most’ SMEs are not aware of these changes. The state:

...many of the SMEs in Europe remain badly informed, or are even misinformed, about the financial assistance available, the rules to apply for it and the conditions of assessment. This is a reason often cited for their hesitation to participate in large projects.^{iv}

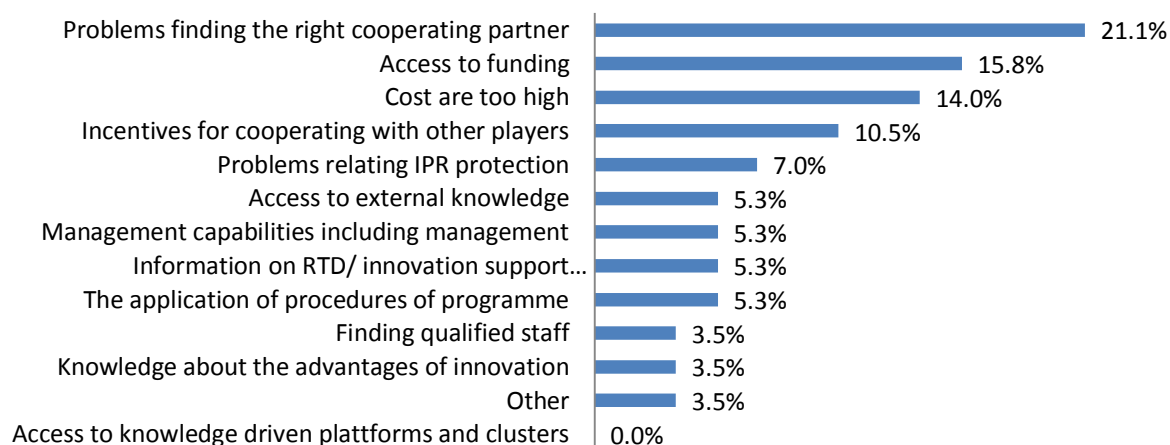
Continuing, they add:

We found that there is an important need for further advice for SMEs on how to prepare a proposal to maximise the chances of success. This needs to take into account the fact that most SMEs have a severely limited capacity in terms of human resources to deal with the necessary paperwork. Most SMEs clearly need help to navigate the system, to identify suitable options and to prepare good proposals.^{lvi}

In a more general sense, Figure 18 presents the results of a Networked Electronic Media (NEM) ^{lvii} initiative survey which addressed the barriers to SME participation in FP7. Based on the results of this survey, the three principal barriers to SME participation are:

- Finding the correct cooperation partner;
- Accessing funding; and
- The cost of participating.^{lviii}

The ‘*application of procedures of the programme*’, which could be broadly interpreted to mean the administration of FP7 programmes, was ranked relatively low. That so few respondents listed ‘*knowledge about the advantages of innovation*’ and ‘*finding qualified staff*’ as barriers is a positive finding of the survey.

Figure 18: Response to NEM survey on barriers to SME participation^{lix}

The European Commission, for its part, recognises the need to tackle the barriers to SME participation. In a 2010 communication, *'Simplifying the implementation of research framework programmes'*, the Commission identified a number of areas which continue to act as barriers to SME participation. Namely:

- access to programmes and the preparation of proposals is difficult, particularly for newcomers;
- the project administrative and accounting burdens are perceived to be too high;
- time-to-grant and time-to-pay times are too long.^{lx}

Recognising these short-comings, the Commission has proposed a programme of reform designed to simplify research support for SMEs in the future. The strategy is in three parts – changes under the current legal framework, radical changes, and changes which could be implemented under future frameworks.

- Proposed changes under the current legal framework include reducing the time taken to award grants or payments, fixing the calls for proposals' deadline to take account holidays and ensure projects can become active once the grant is known;
- Proposed changes under the second strand – radical changes – are focussed upon accounting procedures. They include increasing the use of 'average cost methodologies', introducing lump sum payments to participants without requiring that they record time spent on activities in accounts, and introducing a flat rate for charging indirect costs for all types of organisations and funding schemes.
- Proposals under the third strand – those which could be implemented under future frameworks – include moving from a cost based funding scheme to a results based funding scheme which would shift the framework from a input based funding system to one that is based on *'prior definition and acceptance or output/results'*. Three options for this are to be considered:
 - Project-specific lump sums as a contribution to project cost estimated during grant negotiation and paid against agreed outputs;

- Publishing calls for proposals with pre-defined lump sums per project in a given a subject area and selecting proposals based upon the value of scientific output promised;
- A high-trust award approach which distributes pre-defined lump sums per project without further Commission control. Such an approach would be based on a highly competitive process for granting of awards, after which there would be no further financial or scientific checking by the Commission. This is summarised as a 'high-trust, high risk' strategy.^{lxvi}

On establishing a way forward, the Commission's communication states:

The Commission calls on the other EU institutions to contribute to the debate and vie feedback on the options outlined in this Communication, in view of the future shaping of EU research funding.

The results of this debate will be introduced in the Commission proposals for the 'Innovation Union' flagship initiative under the Europe 2020 strategy and into the shaping of the next framework programme.

Depending on consensus obtained in response to this Communication regarding specific measures the Commission may present amendments still for FP7, following its interim evaluation.^{lxvii}

The interim report of FP7 (published November 2010) notes:

...the funding going to SMEs is now close to the target level of 15% for the Cooperation specific programme. There is, however, still a wide range of evidence that small businesses are more easily deterred by 'complexity' in procedures and delays in contracts.^{lxviii}

Within its ten recommendations the report states that the simplification process requires a 'quantum leap'. To this end it recommends that:

...all Directorates-General and agencies rapidly to implement the short-term simplification measures recently put forward in a Communication by the Commission and to ensure that they are applied rigorously from 2011-2013. Coherence of procedures and approaches between Commission Directorates General and the Executive Agencies responsible for administering FP7 is of crucial importance. The Expert Group proposes that the Commission consider the upcoming revision of the Financial Regulations as an opportunity to create more flexible conditions for research in subsequent FPs. In addition the Group pleads for the Commission to switch from its present low-risk/low-trust attitude to a more trust-based and risk-tolerant approach.

In January 2011 the Commission introduced three changes to FP7, with a view to simplifying the process for SMEs. All three measures came into force with immediate effect. The measures were:

- Allowing more flexibility in how personnel costs are calculated so that EU research grant-holders can apply their usual accounting methods when requesting reimbursement for average personnel costs. They will no longer need to set up entire parallel accounting systems just for this purpose;
- SME owners whose salaries are not formally registered in their accounts can now be reimbursed, through flat-rate payments, for their contribution to work on research projects.
- A new steering group of senior officials from all the Commission departments and agencies involved will remove inconsistencies in the application of the rules on research funding.^{lxiv}

7 Horizon 2020

Between February and May 2011 the Commission consulted on the development of Post 2013 arrangements for the funding of research and innovation.^{lxv} The consultation – *From Challenges to Opportunities: Towards a Common Strategic Framework for EU research and innovation funding* – was viewed as a key step in developing the Commission’s formal proposals for FP7’s successor, which is to be known as Horizon 2020.

In June 2011, the Commissioner for Research, Innovation and Science pointed toward ‘an emerging consensus’ commenting:

There is a clear desire for a much simpler funding landscape, with fewer instruments, improved coordination and elimination of unnecessary overlap. The rules and procedures should be simpler and applied more uniformly, however we have to square this with a demand for greater flexibility^{lxvi}.

She noted too that the new strategy would not simply mark a move from the ‘7th to the 8th Framework Programme’, but, rather, a ‘clear departure from business as usual’.^{lxvii}

The European Commission *Green Paper on a Common Strategic Framework for EU Research and Innovation Funding Analysis of public consultation* provides some indication of the direction and tone Horizon 2020 will take. The headline findings of this analysis suggest that the upcoming strategy will include:

- Simplification was considered as a key priority;
- An approach that links research and innovation to EU policy on tackling societal change, which includes climate change, energy security and efficiency, demographic aging, and resource efficiency;
- Continuity of existing programmes that are considered successful;

- Calls for funding opportunities are less perspective and more open;
- EU support across the innovation chain;
- Support for both ‘curiosity-driven’ and ‘agenda-driven’ research; and
- Support for ‘bottom-up’ innovation.^{lxviii}

The next steps in the development of Horizon 2020 are as follows:

- 30 November 2011 – proposed date for adoption by the European Commission of the draft legislative proposal for Horizon 2020 - the future Framework Programme for Research and Innovation;
- 5 December – 1st Innovation Convention;
- 6 December – Presentation of Horizon 2020 to the Competitiveness Council; and
- Discussions with the co-legislators: the Council of the European Union and the European Parliament (no date given).^{lxix}

ⁱ European Commission *CORDIS – The main objectives of FP7: Specific programmes*
http://cordis.europa.eu/fp7/understand_en.html (accessed 16/07/11)

ⁱⁱ Euratom is shorthand for the The European Atomic Energy Community which, amongst other things, works within the area of atomic research.

ⁱⁱⁱ European Commission, *FP7 Tomorrow’s answers today* http://ec.europa.eu/research/fp7/pdf/fp7-factsheets_en.pdf (accessed 16/08/11)

^{iv} European Commission, *FP7 Tomorrow’s answers start today* http://ec.europa.eu/research/fp7/pdf/fp7-factsheets_en.pdf

^v *Ibid*

^{vi} *Ibid*

^{vii} *Ibid*

^{viii} European Commission, *FP7 in brief – How to get involved in the EU 7th Framework Programme for Research* (2007) http://ec.europa.eu/research/fp7/pdf/fp7-inbrief_en.pdf

^{ix} Indirect actions refer to the types of activities funded through FP7, namely: collaborative projects, networks of excellence, coordination and support actions, support for frontier research, support for training and career development of researchers, and research for the benefit of specific groups (in particular SMEs). See Annex III of <http://cordis.europa.eu/documents/documentlibrary/90798681EN6.pdf> for further details

^x Official Journal of the European Union *REGULATION (EC) No 1906/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 laying down the rules for the participation of undertakings, research centres and universities in actions under the Seventh Framework Programme and for the dissemination of research results (2007-2013)* (2006) <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:391:0001:0018:EN:PDF> Article 5

^{xi} *Ibid* Article 7

^{xii} *Ibid* Article 6

^{xiii} *Ibid*

^{xiv} *Ibid*

^{xv} *Ibid*

^{xvi} European Commission, *FP7 in brief – How to get involved in the EU 7th Framework programme for Research* (2007) http://ec.europa.eu/research/fp7/pdf/fp7-inbrief_en.pdf

^{xvii} European Commission, *FP7 in brief – How to get involved in the EU 7th Framework programme for Research* (2007) http://ec.europa.eu/research/fp7/pdf/fp7-inbrief_en.pdf

- ^{xviii} European Commission *CORDIS – FAQs What are 'Third countries' and other non-EU entities that can participate in FP7?* http://cordis.europa.eu/fp7/faq_en.html#14 (accessed 17/08/11)
- ^{xix} FP7 People Network *Which Countries can participate in FP7?* <http://www.fp7peoplenetwork.eu/2008112419/content/which-countries-can-participate-in-fp7.html> (accessed 17/08/11)
- ^{xx} For a labelled map of NUTs 2 regions see <http://epp.eurostat.ec.europa.eu/cache/GISCO/yearbook2009/RYB-Full-NUTS2-2009-EN.pdf> A decoding table is available here http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=ACT_OTH_CLS_DLD&StrNom=NUT_S_33&StrFormat=HTML&StrLanguageCode=EN
- ^{xxi} European Commission, *SME Participation in FP7 – Report Spring 2011* http://ec.europa.eu/research/sme-techweb/pdf/smes-in-fp7-spring-2011_full-rep_en.pdf#view=fit&pagemode=none
- ^{xxii} *Ibid*
- ^{xxiii} *Ibid*
- ^{xxiv} *Ibid*
- ^{xxv} *Ibid*
- ^{xxvi} *Ibid*
- ^{xxvii} *Ibid*
- ^{xxviii} *Ibid*
- ^{xxix} From email correspondence with Department of Enterprise, Trade and Investment 06 September 2011
- ^{xxx} *Ibid*
- ^{xxxi} *Ibid*
- ^{xxxii} *Ibid*
- ^{xxxiii} *Ibid*
- ^{xxxiv} *Ibid*
- ^{xxxv} *Ibid*
- ^{xxxvi} *Ibid*
- ^{xxxvii} *Ibid*
- ^{xxxviii} *Ibid*
- ^{xxxix} *Ibid*
- ^{xl} *Ibid*
- ^{xli} European Commission *The new SME definition User guide and model declaration* (2005) http://ec.europa.eu/enterprise/policies/sme/files/sme_definition/sme_user_guide_en.pdf
- ^{xlii} MAPEER European Experts Panel on SMEs and *Research Measures to foster SMEs' participation in R&D&I activities and synergies' promotion in support of innovation and SMEs* (2010) http://ec.europa.eu/research/horizon2020/pdf/contributions/post/european_organisations/european_experts_panel_on_smes_and_research.pdf
- ^{xliii} *Ibid*
- ^{xliv} Official Journal of the European Union *REGULATION (EC) No 1906/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 laying down the rules for the participation of undertakings, research centres and universities in actions under the Seventh Framework Programme and for the dissemination of research results (2007-2013)* (2006) <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:391:0001:0018:EN:PDF> Article 5
- ^{xlvi} *Ibid*
- ^{xlvi} European Commission, *SME Participation in FP7 – Report Spring 2011* http://ec.europa.eu/research/sme-techweb/pdf/smes-in-fp7-spring-2011_full-rep_en.pdf#view=fit&pagemode=none
- ^{xlvii} *Ibid*
- ^{xlviii} *Ibid*
- ^{xlix} *Ibid*
- ^l *Ibid*
- ^{li} *Ibid*
- ^{lii} *Ibid*
- ^{liii} *Ibid*
- ^{liv} *Ibid*
- ^{lv} EURPOABIO *Improving SME Participation in the EU Framework Programme* http://www.europabio.org/sites/default/files/sme_participation_in_fps.pdf
- ^{lvi} *Ibid*
- ^{lvii} Note: NEM is a 'European Technology Platform under the Seventh Framework Programme. As an industry-led initiative, NEM aims at fostering the convergence between consumer electronics, broadcasting and telecoms

in order to develop the emerging business sector of networked and electronic media.’ For further details see <http://www.nem-initiative.org/facts-activities/what-is-nem.html>

^{lviii} MAPPEER SME, *Organising dialogue and synergy-searching between policies* http://mapeer-sme.eu/en/~media/MaPEer-SME/DocumentLibrary/Useful%20general%20documents/mapeer_d47_experts_panel_long_term_sustainability_v04

^{lix} *Ibid*

^{lx} European Commission *Simplifying the implementation of research framework programmes* (2010) http://ec.europa.eu/research/fp7/pdf/communication_on_simplification_2010_en.pdf

^{lxi} *Ibid*

^{lxii} *Ibid*

^{lxiii} European Commission, *Interim evaluation of the Seventh Framework Programme* (2010) http://ec.europa.eu/research/evaluations/pdf/archive/other_reports_studies_and_documents/fp7_interim_evaluation_expert_group_report.pdf

^{lxiv} Europa press release EU research and innovation funding – immediate changes to cut red tape for researchers and SMEs (24 January 2011) <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/57&format=HTML&aged=0&language=EN&guiLanguage=en>

^{lxv} European Commission *From Challenges to Opportunities: Towards a Common Strategic Framework for EU research and innovation funding* (February 2011)

http://ec.europa.eu/research/consultations/csfr/consultation_en.htm

^{lxvi} Europa Press Release *Máire Geoghegan-Quinn Commissioner for Research, Innovation and Science The future of EU-funded research and innovation programmes: an emerging consensus....and a new name Conference closing the consultation on the future Common Strategic Framework for EU Research and Innovation Bruxelles*, (10 June 2011)

<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/11/432&format=HTML&aged=0&language=EN&guiLanguage=en> (accessed 22/08/11)

^{lxvii} *Ibid*

^{lxviii} European Commission *Green Paper on a Common Strategic Framework for EU Research and innovation Funding Analysis of public consultation* (10 June 2011) http://ec.europa.eu/research/csfr/pdf/consultation-conference/summary_analysis.pdf

^{lxix} European Commission *Horizon 2020* http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=home (accessed 22/08/11)