

FP6 PARTICIPATION

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EXECUTIVE SUMMARY

The available data on FP6 participation are of three kinds: proposals submitted, proposals retained, and contracts. We selected the latter category for the bulk of the analysis as it includes the actual funding contribution of the Commission. For the reported success rates (in obtaining funding) we also used data on submitted proposals.

We have examined:

- Financial contribution of the European Community by funding instrument
- Financial contribution of the European Community by type of beneficiary
- Proposal success rates by priority area and funding instrument
- Proposal success rates by country across priority areas
- Participation by priority area and funding instrument
- Participation by priority area and type of beneficiary
- Participation by priority area and country
- Contract coordinators by priority area and country
- Participation by funding instrument and country
- Contract coordinators by funding instrument and country
- Participation by country and type of beneficiary

The analysis is based on a population of 74,400 participants in 10,058 contracts. The total financial contribution by the EC amounted to EUR 16.7 billion. Of this, EUR 15.3 billion was the total financial contribution of FP6 to all participants from the twenty-seven member states. In addition, FP6 contributed EUR 954.1 million to the participants from five associated countries and EUR 375.9 million to participants from several other countries.

Combined, the new instruments – integrated projects (IP) and networks of excellence (NOE) – accounted for nearly half (47.5%) of the total EC contribution. Specific targeted research projects (STREP) accounted for a further 26.9%.

A relatively small proportion of the total contribution (18.2%) went to industry as compared to higher education organizations (36.9%) and research centers (31.3%). Small and medium-sized enterprises (SMEs) accounted for 6.1% of the total EC financial contribution. As stressed in the introduction of this Report, however, there may be problems with SME data.

The global success rate of proposals across all priority areas was 18.6%. There was, however, extensive variation among priority areas. Support for the coordination of activities, research and innovation, aeronautics and space, and research infrastructures registered success rates of 30% or more. Information

Society technologies, coherent development, international cooperation, and SME activities registered success rates of less than 15%.

These numbers again mask significant differences in proposal success rates across funding instruments.

The overall success rates for proposals that included participants from EU15 member states are comparable to the overall success rates of proposals that included participants from new member states (10+2). This despite the late entry of the second group.

The priority areas have been categorized in three Groups. *Group 1* includes the first seven areas of the set “integrating and strengthening the ERA”, representing the main funding categories of the Framework Programme (EUR 11.1 billion to member states):

- Life sciences, genomics and biotechnology for health;
- Information society technologies;
- Nanotechnologies and nanosciences, knowledge-based multifunctional materials and new production processes and devices;
- Aeronautics and space;
- Food quality and safety;
- Sustainable development, global change and ecosystems;
- Citizens and governance in a knowledge-based society.

Group 2 includes the remaining five areas of the set “integrating and strengthening the ERA” (EUR 1.5 billion to member states):

- Policy support and anticipating scientific and technological needs;
- Horizontal research activities involving SMEs;
- Specific measures in support of international cooperation;
- Support for the coordination of activities;
- Support for the coherent development of research & innovation activities.

Group 3 includes the four categories of the set “structuring the ERA” (EUR 2.5 billion to member states):

- Research and innovation;
- Human resources and mobility;
- Research infrastructures;
- Science and society.

The importance of the funding instruments differs across the three Groups of priority areas. Most participations in Group 1 materialized through IP and STREP. Excluding the big outlier of SME actions (SME) which is specific to one programme, STREP, coordinated actions (CA) and specific support actions (SSA) are responsible for most remaining participations in Group 2. Finally, excluding the big outlier of Marie Curie actions (MCA), SSA primarily followed by

CA are the funding instruments of choice in Group 3. The relative importance of each instrument differs across priority areas.

In Group 1 priority areas, universities and research organizations are the top participants in five out of seven areas. Industry holds top position in two areas, Nanotechnology and Aeronautics, and comes second in a third, IST. In Group 2, research organizations remain fairly strong and vie for first place with universities in two areas: Policy support and International cooperation. Industry dominates Horizontal activities for SMEs. Finally, in Group 3 universities and research organizations dominate two areas: Mobility, and Infrastructures. The relatively low participation of industry in Human Resources and Mobility is noticeable.

Overall, industry appears heavily concentrated in Group 1 priority areas with one exception: horizontal activities for SMEs in Group 2.

There are not many surprises in the absolute number of participations by countries in Group 1: the big four member states each account for a large number of participations. They are followed by a small, second tier of mid-sized countries, especially Spain and the Netherlands. In turn, these are followed by a group of smaller, active countries including Sweden, Greece, Belgium, Denmark, and Austria. The picture changes dramatically, however, when the numbers are normalized in terms of overall population and number of active scientists in member states. Now, smaller countries such as Greece, Estonia, Slovenia, Sweden, Finland, Denmark, Austria, Belgium, and Cyprus seem to be doing much better than any of the larger member states. At least in terms of participation numbers, we take the message that FP6 has operated as an equalizer, connecting organizations from all over Europe to their peers in the Community.

EU15 organizations have served as coordinators throughout FP6. Within this set of countries, the distribution is more or less as expected on the basis of size and stage of development. The only relative anomaly is the UK, which ranks somewhat lower in terms of coordinators for Group 1 priority areas than other large country members but shows disproportional activity in terms of coordinator in Human mobility programs. It is possible that language explains part of this differential performance.

There are no surprises in terms of absolute numbers of participations by instrument and country: large, industrialized member states dominate, especially IP and STREP. Large, advanced country members also maintain clear majorities in terms of aggregate numbers of coordinators across various instruments.

In terms of participations by type of beneficiary, one observes some differences among member states. Participation has been balanced among different kinds of organizations in Germany and fairly balanced in Italy. On the contrary, British universities greatly outdid other British organizations (same for Sweden) whereas

in France research organizations were the most active with some distance from industry (second) and universities (third). Other countries seem somewhat balanced but in most of them universities come out on top, nonetheless. If universities and research organizations are grouped together in terms of research interests and strengths (more basic and generic than applied research), there would seem to be an imbalance to the detriment of the short- to medium-term needs of industry. Assuming the latter to be of maximum priority, one could argue for greater industry participation in FP7 and beyond.

1. INTRODUCTION

The material in this Report is based on statistical data provided to us by the Commission on July 16, 2008.¹ The available data on FP6 participation are of three kinds: proposals submitted, proposals retained, and contracts. We selected the latter category for the bulk of the analysis as it includes the actual contracts signed with the Commission, i.e., actual funding contribution. For the reported success rates we also used data on submitted proposals.

The presentation is divided into two Sections. Section A deals with the financial contribution of the Community and proposal success rates. It uses data on proposal submissions and signed contracts to graph the following:

- Financial contribution of the European Community by funding instrument;
- Financial contribution of the European Community by type of beneficiary;
- Proposal success rates by priority area and funding instrument;
- Proposal success rates by country across priority areas.

Section B deals with participation rates across countries, funding instruments, and participants. It uses data on signed contracts in order to graph the following:

- Participation by priority area and funding instrument;
- Participation by priority area and type of beneficiary;
- Participation by priority area and country;
- Contract coordinators by priority area and country;
- Participation by funding instrument and country;
- Contract coordinators by funding instrument and country;
- Participation by country and type of beneficiary.

The analysis in this Report is based on a population of 74,400 participants in 10,058 contracts. The total financial contribution by the EC amounted to EUR 16.7 billion.

Two data quality problems exist. First, the data on the small and medium enterprise (SME) status of participants is non-validated and perhaps incomplete. This hurts the validity of our presentation on this very important matter accordingly.² Second, there can be multiple entries for the same participant. Both problems are the result of the lack of a central registry for participants. In the absence of ways to check the extent of these problems, it is left to the reader to apply caution to relevant comparative results

¹ The same dataset was utilized by the Commission, Directorate A, DG Research, in its related paper “FP6 Final Review: Subscription, Implementation, Participation” (made available to us in early October 2008). Our analysis purports to be largely complementary to, and enhances the presentation of, FP6 participation in the paper by the Commission.

² The participation of SMEs in the Framework Programmes for Research has been debated for a long time. The basic reasons for the debate are (i) SMEs may hold most promise for radical innovation, (ii) SMEs may be in greater need for resources than their larger counterparts, (iii) SMEs directly relate to the effort of the Community to increase entrepreneurship, and (iv) the FP rules have allegedly become increasingly complicated, thus decreasing the ability of large parts of the SME population in Europe to participate.

SECTION A

I. Financial contribution of the European Community by funding instrument

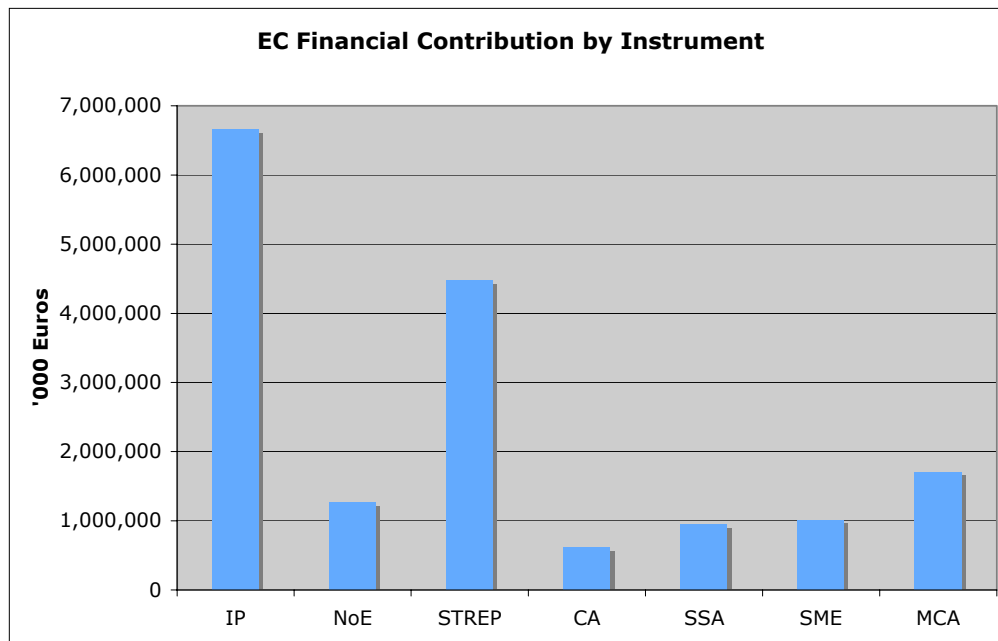
Seven funding instruments have been used by the Commission in the Sixth Framework Programme:

- Integrated Projects (IP)
- Networks of Excellence (NOE)
- Specific Targeted Research Projects (STREP)
- Coordination Actions (CA)
- Specific Support Actions (SSA)
- SME Actions (SME)
- Marie Curie Actions (MCA)

Two of these were narrowly applied. SME was used in two priority areas (Horizontal Actions for SMEs, Research Infrastructures) and Euratom whereas MCA was used in only one priority area (Human Resources and Mobility).

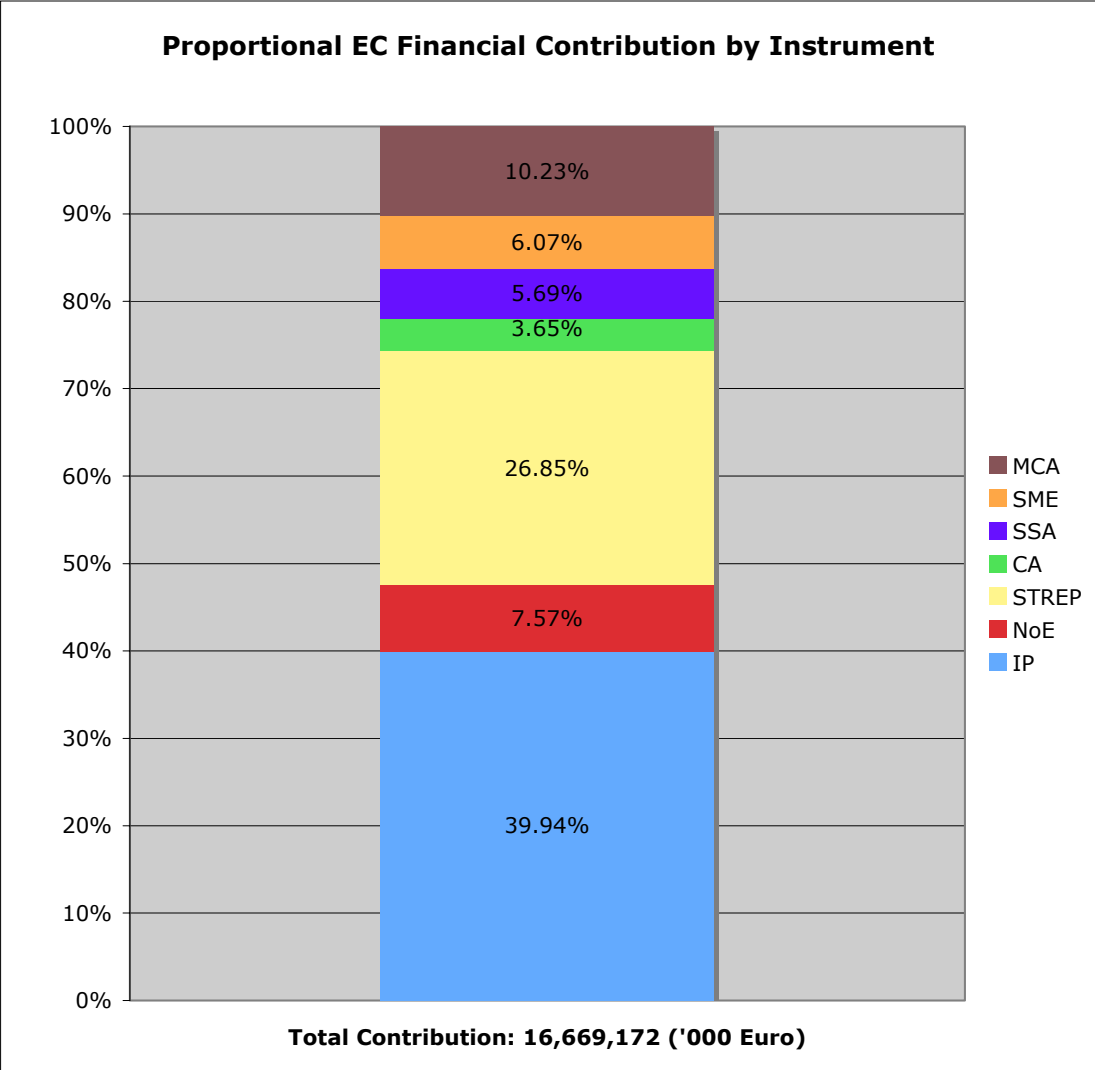
Figures 1 and 2 below graph the contribution of the Community by funding instrument. Figure 1 plots the raw data for EC financial contributions to each instrument. Figure 2 shows how the contributions break down as proportions of the total EC financial contribution.

Figure 1



Combined, the new instruments (IP and NOE) accounted for nearly half (47.5%) of the total EC contributions. STREP accounted for a further 26.9%.

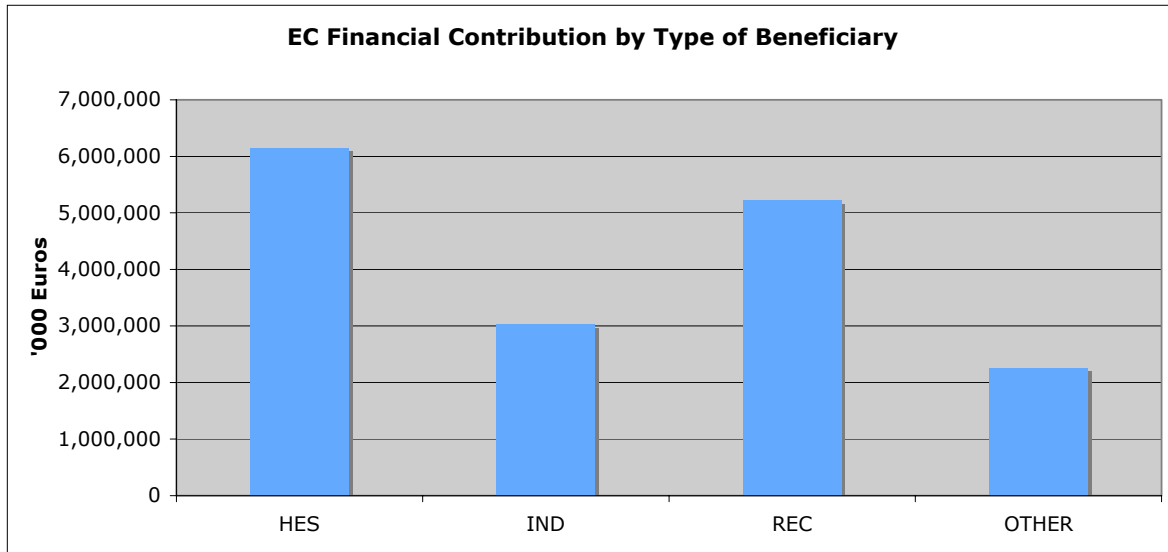
Figure 2



II. Financial contribution of the European Community by type of beneficiary

Figures 3 and 4 below are again different representations of the same data. Figure 3 plots the raw data for EC financial contributions to each type of beneficiary (participating organization). Figure 4 indicates how the contributions break down as proportions of the total EC financial contribution.

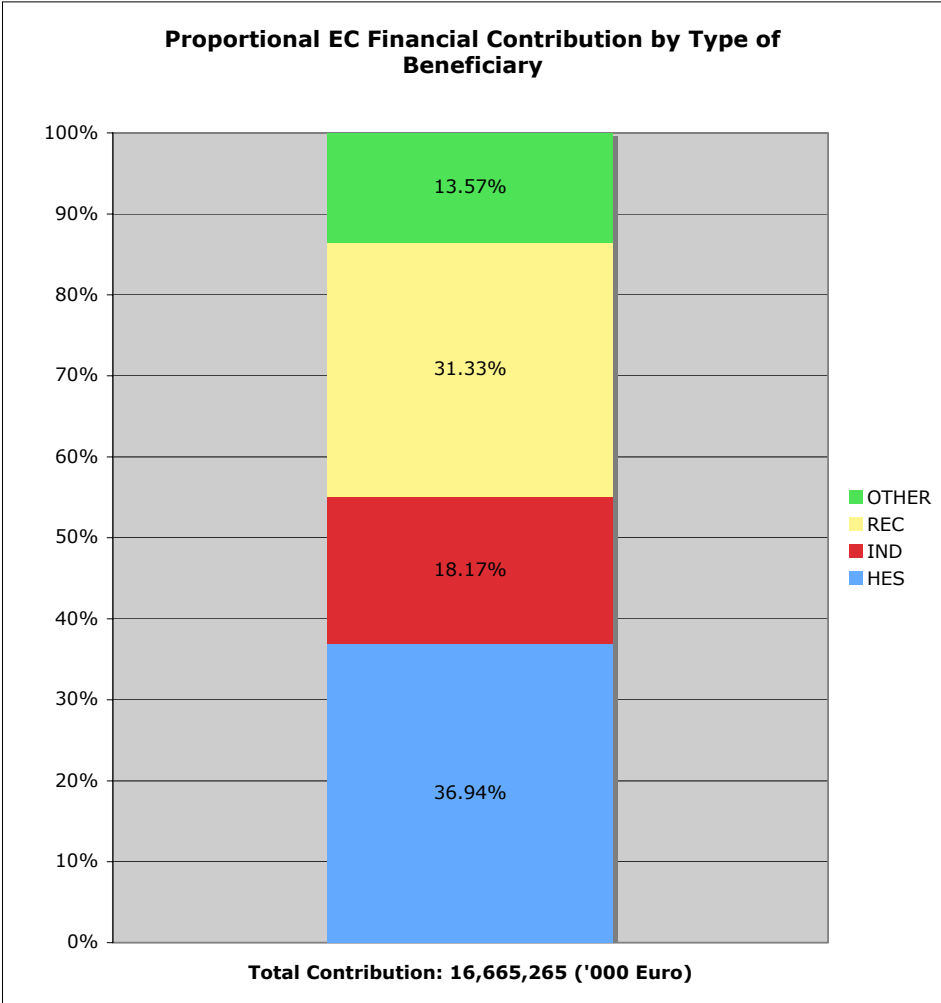
Figure 3



Industry makes up a relatively small proportion of the total contribution (18.2%) compared to higher education organizations (36.9%) and research centers (31.3%).

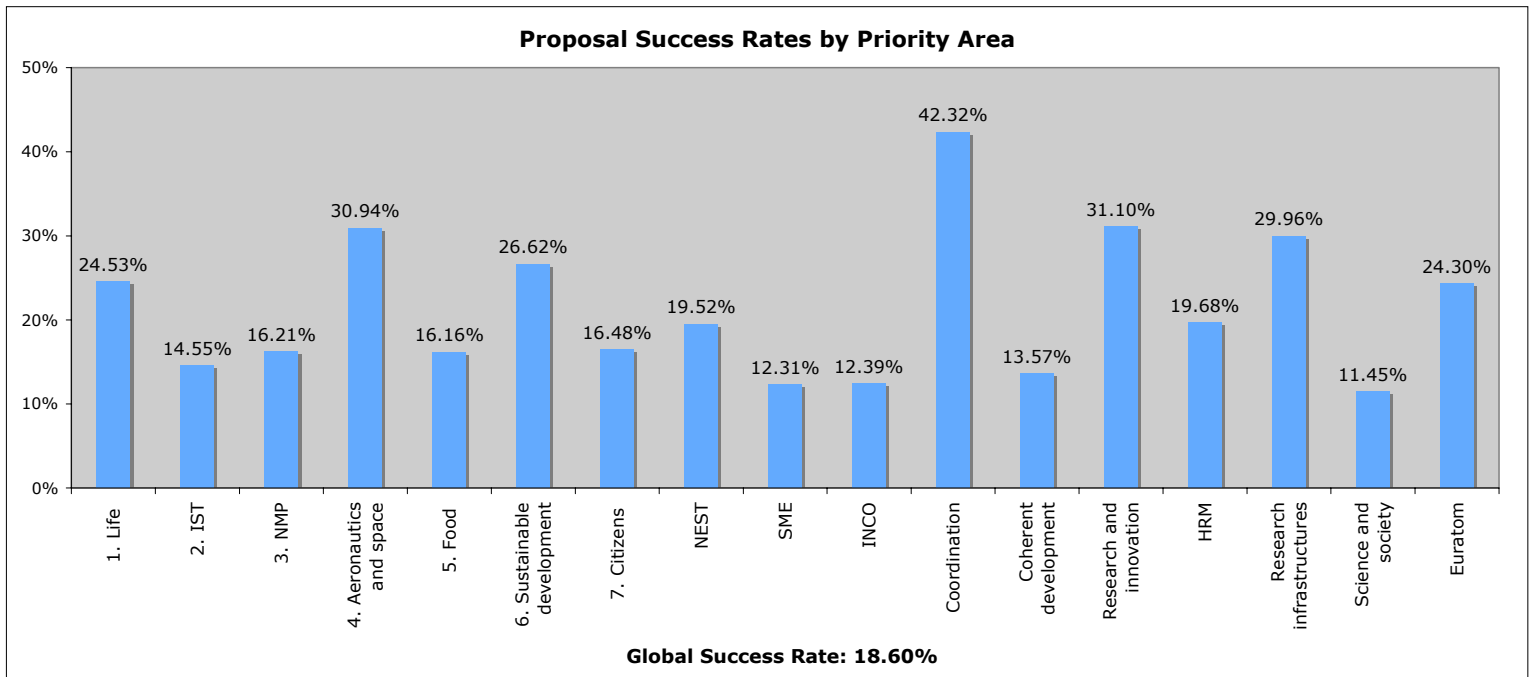
SMEs account for 6.1% of the total EC financial contribution. This is captured latently in these two charts as roughly one-third of the contribution to industry.

Figure 4



III. Proposal success rates by priority area and instrument

Figure 5



The global success rate across all priority areas is 18.6%. The following priority areas have success rates higher than the global rate:

- *Support for the Coordination of Activities: 42.3%*
- *Research and Innovation: 31.1%*
- *Aeronautics and Space: 30.9%*
- *Research Infrastructures: 30.0%*
- *Sustainable Development: 26.6%*
- *Life Sciences: 24.5%*
- *Euratom: 24.3%*
- *HRM: 19.7%*
- *NEST: 19.5%*

The following priority areas have success rates lower than the global rate:

- *Citizens and Governance: 16.5%*
- *NMP: 16.2%*
- *Food: 16.2%*
- *IST: 14.6%*
- *Coherent Development: 13.6%*
- *INCO: 12.4%*
- *SME: 12.3%*
- *Science and Society: 11.5%*

The numbers above are very aggregate, however, incorporating all funding instruments. Table 1 below shows success rates in more detail, accounting for each funding instrument and each priority area.

Table 1: Proposal Success Rates by Priority Area and Funding Instrument^{3,4}

Priority Area	IP	NoE	STREP	CA	SSA	SMEs	MCA
1. Life	21.0%	28.6%	24.2%	46.2%	26.4%		
2. IST	23.0%	23.3%	11.7%	19.6%	17.2%		
3. NMP	13.5%	10.3%	16.0%	22.1%	35.0%		
4. Aeronautics and space	59.4%	30.0%	28.5%	34.6%	26.8%		
5. Food	11.2%	25.5%	21.4%	25.9%	14.6%		
6. Sustainable development	29.5%	25.3%	22.6%	38.6%	30.0%		
7. Citizens	8.0%	12.6%	18.9%	21.7%	53.1%		
NEST			16.3%	38.4%	32.4%		
SME	0.0%		0.0%	<i>800.0%</i>	28.6%	11.8%	
INCO			15.2%	19.0%	10.3%		
Coordination				42.6%	41.7%		
Coherent development				11.1%	80.0%		
Research and innovation				20.8%	34.0%		
HRM					66.4%		19.4%
Research infrastructures				<i>116.7%</i>	<i>128.6%</i>	19.3%	
Science and society			20.5%	14.7%	10.7%		0.0%
Euratom	72.2%	50.0%	35.6%	45.7%	29.4%	3.5%	

³ Each funding instrument carries a different weight for each priority area as reflected in the number of proposals represented there. One cannot simply average out the percentages in one row of Table 1 in order to arrive at the aggregate percentage for the specific priority area shown in Figure 5. For example, while the success rates of IP, NOE, STREP and CA are very high in Euratom, the overall success rate (24.3%) is weighted down by the disproportionately large and very unsuccessful proposals submitted for SME actions in that area.

⁴ Success rates higher than one hundred percent (in italics) are due to the data indicating a larger number of contracts signed than proposals submitted.

IV. Proposal success rates by country across priority areas

Figure 6

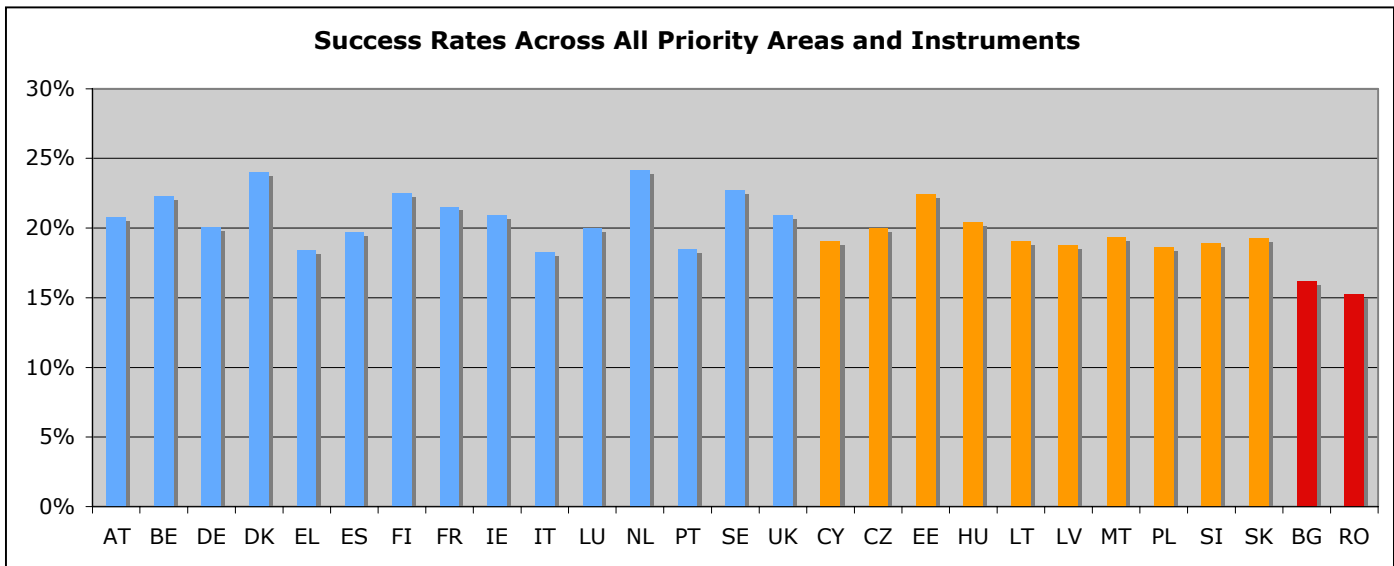


Figure 6 shows the total success rate for each country, including all thematic areas, instruments, and beneficiaries. These success rates can be interpreted as follows: of all proposals submitted that involved at least one participant from a country X, the indicated proportion resulted in signed contracts.⁵

Based on the raw data on each member state, the success rate (as interpreted above) for EU15 member states (in blue) is 20.8%. The success rate for new member states (10 + 2, orange and red) is 18.9%. The two rates are comparable, especially given the late entry of the second group of countries.⁶

The next two tables (Tables 2 & 3) show proposal success rates in some detail, differentiating on the basis of both country and priority area. Table 2 includes the EU15 member states. Table 3 includes the twelve new member states. Again, these numbers can be interpreted as follows: of all proposals submitted under priority area 1 that included at least one participant from a country X, the indicated proportion resulted in signed contracts. Success rates above 30% and below 10% are highlighted in blue and

⁵ Consequently, a given contract (proposal) can be counted multiple times when calculating the above success rates: once for each nationality represented on the contract (proposal).

⁶ The double counting on both sides of the ratios mentioned in the previous footnote plus the fact that the success rates of non-member states (which are relatively lower) are part of the calculation in Section III make for the slight differences between the success rates reported in Sections III and IV. Rather than being buried in the detail, the reader should look for the comparative statics in this Section.

red colour respectively. The numbers at the bottom of the two tables indicated as “Total” are those plotted in Figure 6 above.

Table 2: Success Rates EU15

Priority Area	AT	BE	DE	DK	EL	ES	FI	FR	IE	IT	LU	NL	PT	SE	UK
1. Life	27.0%	26.6%	26.9%	32.8%	18.4%	26.7%	29.5%	28.6%	27.5%	24.1%	21.7%	30.1%	23.8%	29.4%	27.2%
2. IST	19.5%	18.8%	17.0%	18.2%	14.1%	15.8%	20.0%	19.1%	15.6%	15.4%	15.3%	21.3%	15.1%	18.3%	16.1%
3. NMP	18.6%	21.6%	19.1%	20.5%	16.2%	18.8%	21.5%	19.0%	21.7%	16.9%	24.1%	20.7%	17.6%	18.5%	18.4%
4. Aeronautics	34.5%	44.5%	33.8%	38.9%	35.2%	36.7%	32.5%	35.1%	38.3%	32.1%	22.2%	36.8%	35.1%	35.3%	33.3%
5. Food	22.7%	27.4%	21.3%	27.1%	23.0%	21.8%	33.3%	25.4%	29.9%	20.5%	0.0%	28.1%	15.2%	29.7%	24.6%
6. Sustainable dev	38.9%	38.3%	32.1%	38.3%	28.8%	31.0%	36.4%	36.2%	32.7%	30.3%	47.8%	35.8%	30.2%	38.9%	30.5%
7. Citizens	19.6%	22.5%	19.0%	20.5%	18.0%	17.3%	15.3%	22.3%	20.7%	17.6%	8.3%	23.1%	17.5%	20.5%	19.7%
NEST	20.0%	25.2%	22.2%	32.6%	20.3%	22.5%	26.6%	26.2%	25.3%	20.6%	60.0%	31.2%	21.3%	27.2%	23.4%
SME	11.4%	12.2%	12.5%	15.7%	11.9%	13.9%	14.1%	12.3%	18.8%	11.8%	2.5%	14.2%	11.7%	14.0%	16.1%
INCO	15.7%	16.7%	14.1%	22.5%	16.6%	17.1%	14.6%	15.5%	7.1%	15.2%	8.3%	16.3%	16.6%	17.4%	14.3%
Coordination	52.3%	53.1%	47.1%	60.4%	42.0%	46.4%	53.6%	46.4%	47.2%	43.0%	66.7%	52.3%	49.2%	49.4%	50.4%
Coherent dev Research and innovation	40.0%	20.8%	14.3%	9.1%	3.8%	13.3%	4.5%	13.6%	9.1%	9.0%	0.0%	36.8%	0.0%	23.3%	19.6%
HRM	27.0%	26.2%	28.5%	26.3%	26.9%	25.4%	28.0%	27.7%	19.7%	28.3%	25.6%	26.8%	22.9%	30.2%	28.9%
Research infrastructures Science and society	14.2%	14.7%	17.3%	16.9%	18.9%	17.6%	14.8%	17.4%	17.8%	14.9%	15.0%	18.4%	14.5%	15.5%	20.2%
Euratom	34.7%	36.4%	34.3%	30.6%	36.2%	36.2%	28.9%	34.5%	50.0%	38.4%	33.3%	36.8%	33.8%	35.6%	36.3%
	19.3%	18.1%	15.2%	17.8%	10.0%	10.1%	12.2%	16.6%	6.7%	11.9%	9.1%	18.9%	13.4%	16.5%	15.8%
	29.0%	40.0%	34.0%	46.2%	38.1%	48.4%	50.8%	36.1%	45.5%	38.9%	66.7%	50.0%	50.0%	51.3%	43.7%
TOTAL	20.9%	22.3%	20.1%	24.0%	18.4%	19.7%	22.5%	21.5%	20.9%	18.3%	20.0%	24.2%	18.5%	22.7%	20.9%

Table 3: Success Rates New Member States

Priority Area	CY	CZ	EE	HU	LT	LV	MT	PL	SI	SK	BG	RO
1. Life	16.7%	28.7%	28.8%	21.3%	17.7%	14.7%	0.0%	19.7%	22.8%	15.9%	15.3%	7.1%
2. IST	14.6%	14.5%	18.3%	18.8%	17.1%	14.1%	19.4%	14.8%	14.2%	16.0%	11.9%	11.8%
3. NMP	10.0%	15.1%	19.0%	16.8%	10.1%	16.7%	20.0%	18.6%	18.6%	17.4%	19.0%	14.4%
4. Aeronautics	53.8%	36.2%	33.3%	32.1%	14.3%	30.0%	44.4%	30.9%	36.0%	20.0%	20.0%	27.9%
5. Food	20.8%	24.0%	28.9%	22.9%	24.0%	12.7%	17.9%	22.9%	19.2%	17.4%	13.3%	10.6%
6. Sustainable dev	25.3%	31.4%	32.3%	30.2%	32.0%	29.3%	23.3%	29.7%	35.3%	26.8%	29.4%	25.9%
7. Citizens	13.0%	17.3%	17.4%	21.1%	11.9%	24.5%	17.1%	17.6%	19.9%	14.6%	17.6%	14.0%
NEST	22.8%	27.3%	25.5%	23.4%	19.6%	30.5%	15.6%	22.8%	23.4%	23.1%	24.4%	20.0%
SME	6.7%	13.1%	20.8%	13.2%	18.0%	10.3%	12.8%	13.2%	10.2%	12.9%	10.7%	11.2%
INCO	27.1%	14.8%	11.1%	9.0%	10.3%	11.4%	20.0%	7.6%	11.8%	4.4%	7.0%	6.2%
Coordination	53.8%	60.7%	50.0%	52.5%	30.8%	54.5%	37.5%	52.6%	52.5%	40.0%	40.0%	48.4%
Coherent dev Research and innovation	0.0%	31.6%	30.0%	8.7%	6.7%	42.9%	0.0%	7.9%	15.4%	40.0%	23.5%	18.2%
HRM Research infrastructures Science and society	24.1%	25.0%	23.4%	20.5%	31.6%	28.3%	47.4%	26.1%	27.0%	27.6%	24.5%	16.4%
Euratom	33.3%	12.5%	13.0%	19.6%	16.1%	10.1%	17.6%	14.1%	12.7%	18.8%	10.3%	15.2%
	60.0%	36.4%	29.6%	35.4%	27.6%	25.0%	57.1%	39.8%	44.0%	29.4%	34.1%	44.2%
	6.8%	16.5%	24.4%	16.3%	20.8%	17.5%	13.5%	10.7%	20.5%	16.7%	13.1%	14.3%
	75.0%	52.1%	50.0%	42.2%	28.6%	50.0%	0.0%	41.7%	50.0%	44.7%	41.7%	39.4%
TOTAL	19.1%	20.0%	22.4%	20.4%	19.1%	18.8%	19.3%	18.6%	18.9%	19.3%	16.2%	15.3%

SECTION B

The priority areas have been categorized in three Groups:

- (a) Group 1. The first seven areas of the set “integrating and strengthening the ERA”. These represent the main funding categories of the Framework Programme. They include:
- Life sciences, genomics and biotechnology for health (life sciences);
 - Information society technologies (IST);
 - Nanotechnologies and nanosciences, knowledge-based multifunctional materials and new production processes and devices (nano);
 - Aeronautics and space (aeronautics);
 - Food quality and safety (food);
 - Sustainable development, global change and ecosystems (sustainable development);
 - Citizens and governance in a knowledge-based society (citizens and governance).
- (b) Group 2. The remaining five areas of the set “integrating and strengthening the ERA”. They include:
- Policy support and anticipating scientific and technological needs;
 - Horizontal research activities involving SMEs;
 - Specific measures in support of international cooperation;
 - Support for the coordination of activities;
 - Support for the coherent development of research & innovation activities.
- (c) Group 3. The four categories of the set “structuring the ERA”. These include:
- Research and innovation;
 - Human resources and mobility;
 - Research infrastructures;
 - Science and society.

Group 1 accounts for a total financial contribution of EUR 11,088,400 by the EC to all twenty-seven member states. Group 2 accounts for a total financial contribution of EUR 1,486,863 and Group 3 for EUR 2,508,019 to member states. The remaining EUR 172,002 is accounted for by Euratom.^{7,8}

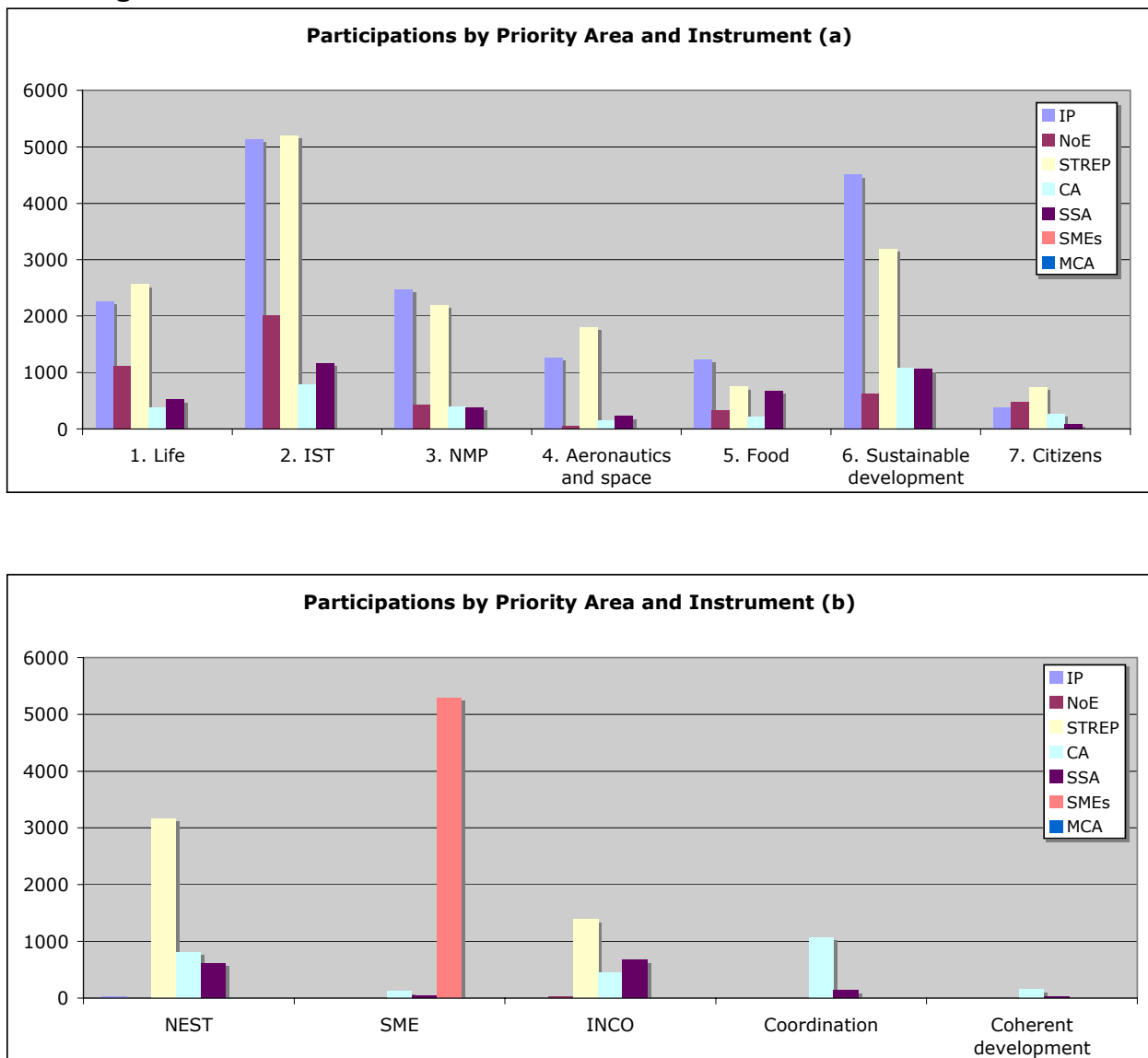
⁷ Numbers in 000's.

⁸ This amounts to an overall EUR 15,255,285 – to be viewed as the total financial contribution of FP6 to all participants from the twenty-seven member states. In addition, FP6 contributed EUR 954,088 to the participants from five associated countries and EUR 375,908 to participants from several other countries.
Source: European Commission data, Table 3c: FP Contracts

V. Participation by priority area and funding instrument

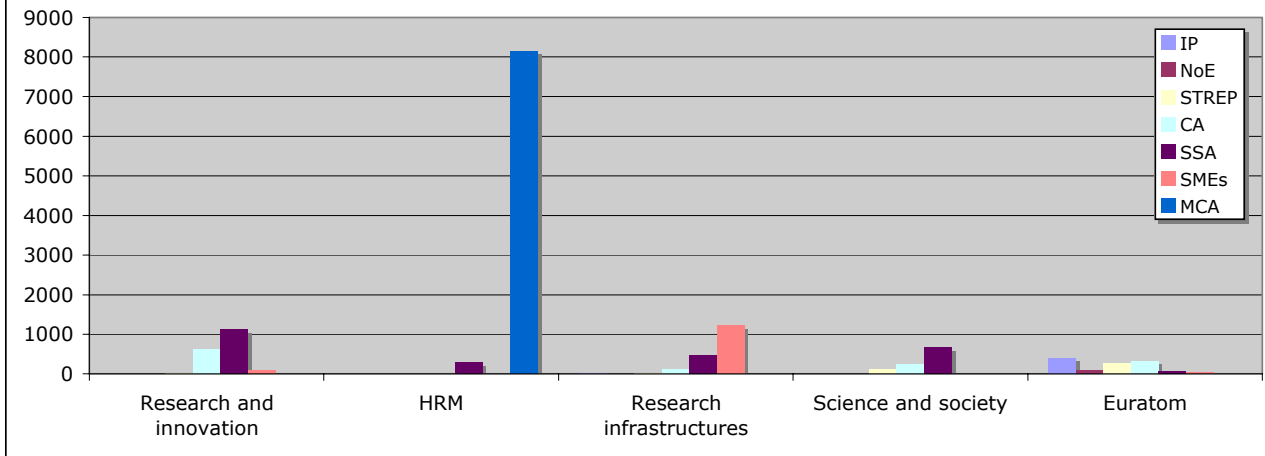
The importance of the funding instruments differs across the three Groups of priority areas. Most participations⁹ in Group 1 are through integrated projects (IP) and specific targeted research projects (STREP). SME actions (SME) is the big outlier in Group 2. STREP, coordinated actions (CA) and specific support actions (SSA) are responsible for most remaining participations in that Group. Marie Curie Actions (MCA) is the big outlier in Group 3. It is followed by SSA and CA. The relative importance of each instrument differs among priority areas.

Figure 7



⁹ The terms “participant” and “participation” are used interchangeably in this Report.

Participations by Priority Area and Instrument (c)



VI. Participation by priority area and type of beneficiary

Higher education organizations (HES) account for 35.5% of total participations in FP6. The corresponding share for research centers (REC) is 27.7%, for industry (IND) 18.7% and for other organizations (OTH) 17.9%.¹⁰

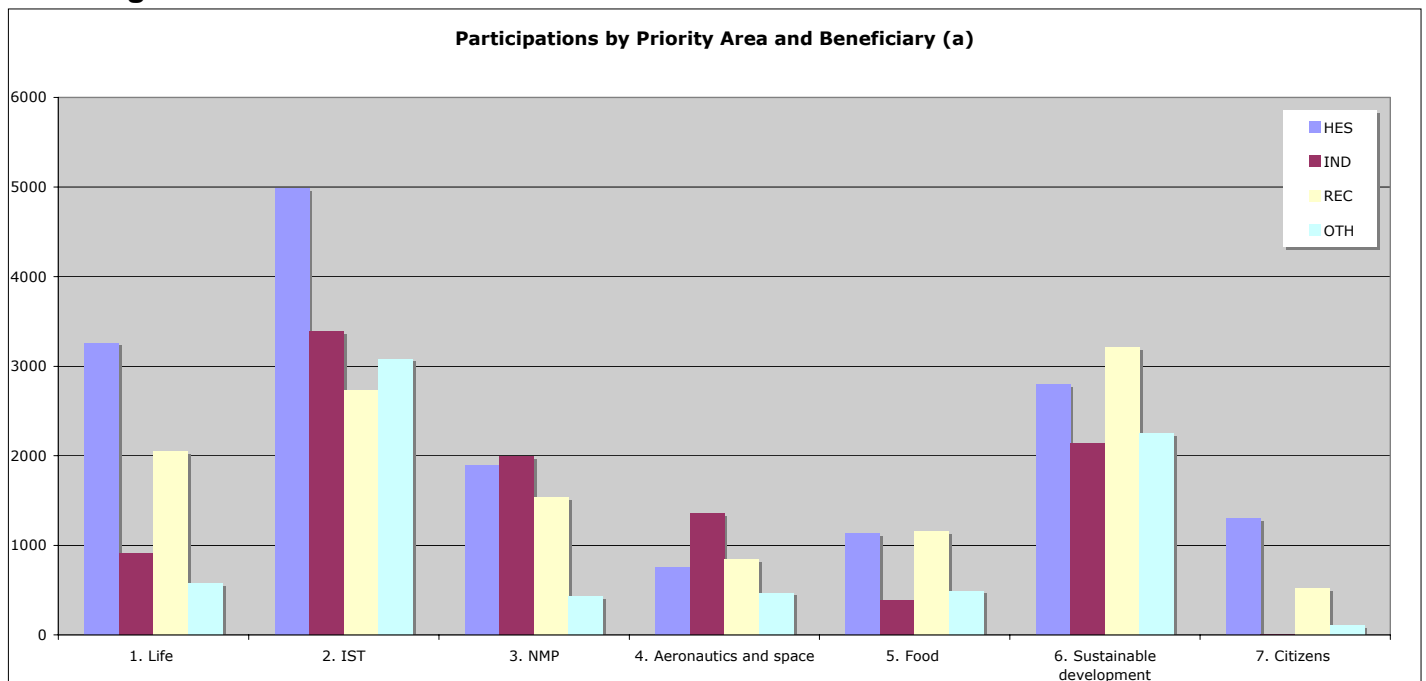
Group 1 (Figure 8)

Universities are the largest single beneficiary in three of the seven priority areas: Life sciences, IST, and Citizens and governance. They are also vying for top place in two more: Nanotechnology and Food. Universities also appear strong in the remaining two areas: Sustainable development, and Aeronautics. (Figure 8)

Research organizations also demonstrate a strong presence. They hold the top positions in two priority areas (Sustainable development, Food), second place in three areas (Life sciences, Aeronautics, Citizens and governance), third place in Nanotechnology, and fourth in IST.

Industry comes first in Nanotechnology and Aeronautics, second in IST, third in Life sciences, and a close fourth in both Food and Sustainable development.

Figure 8

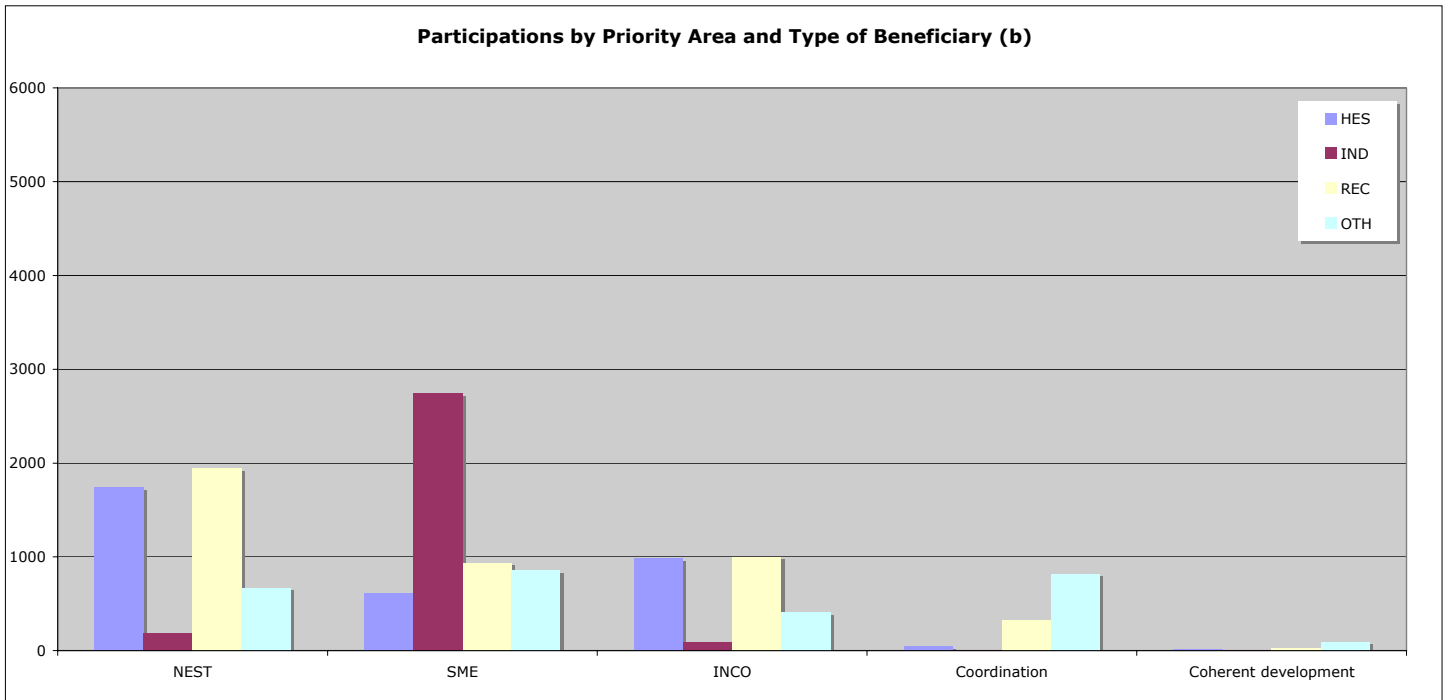


¹⁰ Roughly keeping the proportions of funding for each beneficiary type reported earlier in Section A (Figure 4).

Group 2 (Figure 9)

Group 2 appears fairly different (Figure 9). Research organizations remain fairly strong and vie for first place with universities in two areas: Policy support and International cooperation. Industry dominates Horizontal activities for SMEs. The role of other organizations becomes more visible across various priority areas.

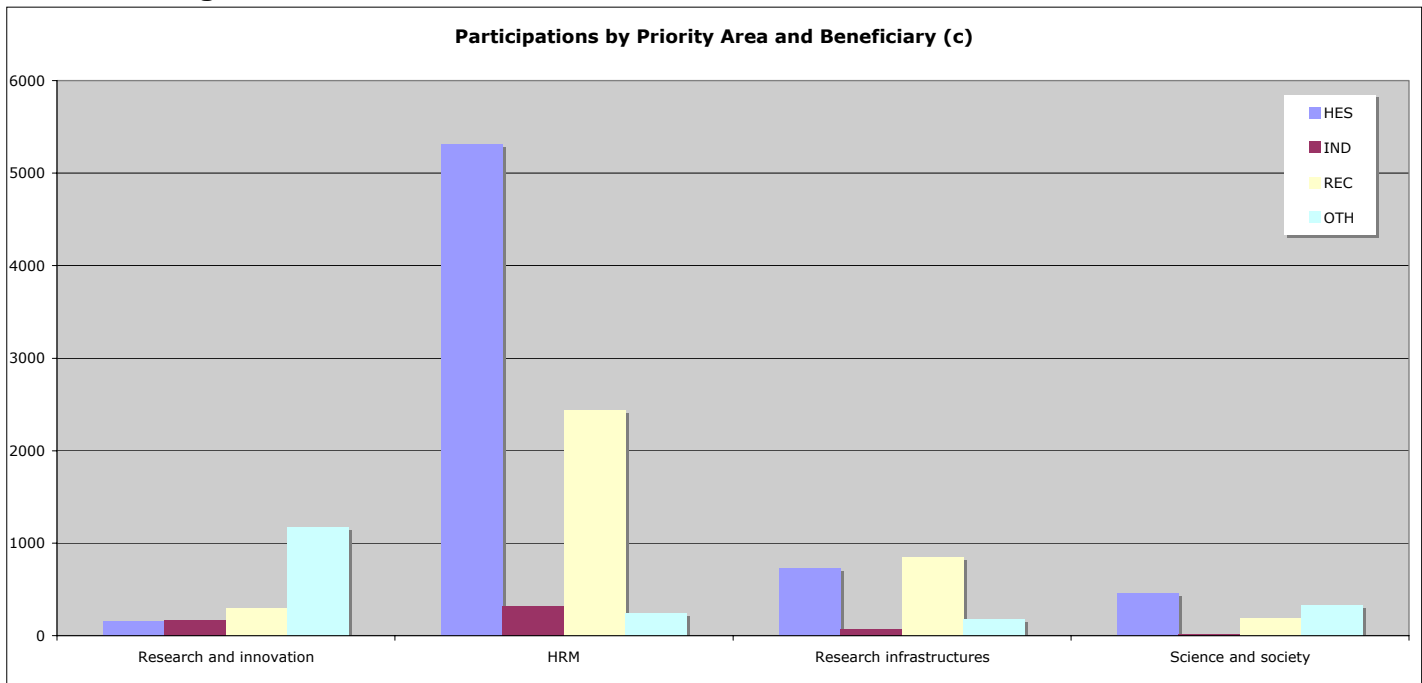
Figure 9



Group 3 (Figure 10)

Universities and research organizations dominate two areas in this group: Mobility, and Infrastructures. The relatively low participation of industry in Human resources and Mobility should be noted.

Figure 10

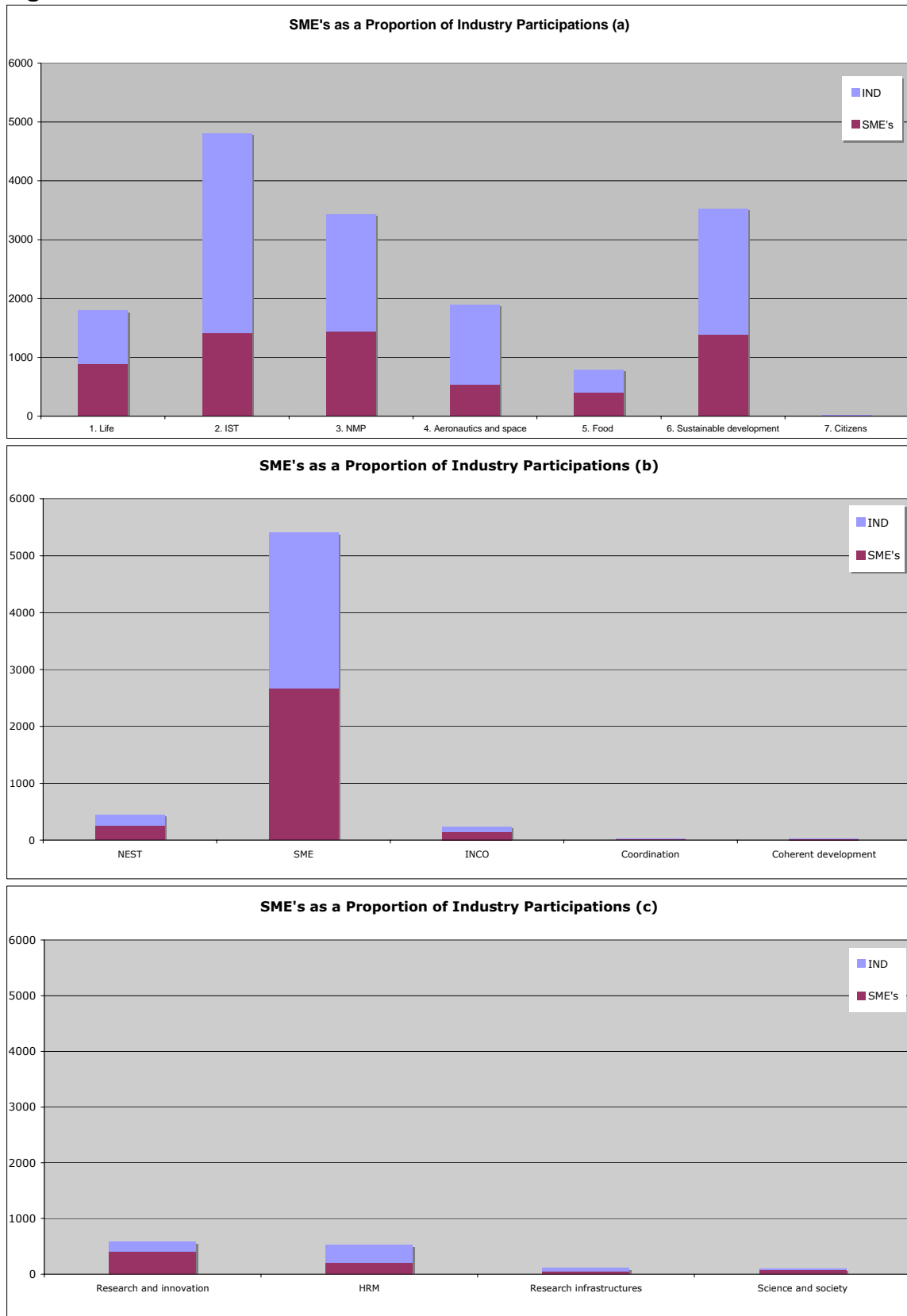


Overall, industry appears heavily concentrated in Group 1 priority areas with one exception: horizontal activities for SMEs in Group 2.

Figure 11 breaks down the participation of industry in the different priority areas of FP6 into that of small and medium-sized enterprises (SMEs) and larger size industry. Each of the three graphs corresponds to one of our three Groups of priority areas. It comes as no surprise that Horizontal activities for SMEs accounts for the largest number of SME participations. Besides that, only Group 1 priority areas demonstrate significant SME activity.

The caveat here is the data problem mentioned in the introduction of this Report.

Figure 11



VII. Participation by priority area and country

We report results here on the basis of the three Groups of priority areas described above.

Group 1

There are no surprises in the absolute number of participations by member states: the big four each account for a large number of participations. They are followed by a small second tier of mid-sized countries, especially Spain and the Netherlands. In turn, these are followed by a group of smaller countries that appear quite active, including Sweden, Greece, Belgium, Denmark, and Austria (Figure 12).

The picture changes dramatically, however, when the numbers are normalized in terms of population and active scientists.¹¹ Now, smaller countries such as Greece, Estonia, Slovenia, Sweden, Finland, Denmark, Austria, Belgium, Malta and Cyprus seem to be doing much better than any of the larger member states. This is significant because it is the large four countries that have most high-tech industrial capabilities overall – with some notable exceptions, of course – indicating that the Programme assists smaller players to connect.¹²

Groups 2 and 3

Similarly, the large countries stand out in Group 2 in terms of absolute numbers of participations. The normalized numbers, however, are much more evenly distributed across all countries (Figure 13), with Malta, Estonia, Slovenia, and Cyprus possibly standing out above the rest. A similar story arises with the third Group of priority areas (Figure 14).

In all three groups of priority areas, the normalized numbers also indicate countries with weaker participation rates including some of the new member states such as Poland, Latvia, Czech Republic, Bulgaria, and Romania. None of the larger EU15 states such as Italy and Spain, and maybe Germany and France, may also have room for improvement.

All in all, and at least in terms of participations, we take the message that FP6 has operated as a grand equalizer, lifting up and connecting organizations from all over Europe to their peers in the Community. This can be viewed as a very significant contribution of the Programme to European cohesion.

¹¹ The numbers of active scientists are taken from the report “Human Resources employed in Science and Technology Occupations”, Eurostat, Statistics in Focus, 77/2008, Table 5. (Human resources employed in S&T occupation as professionals and technicians).

¹² It would be useful to check how this phenomenon also translates into budgets.

Figure 12

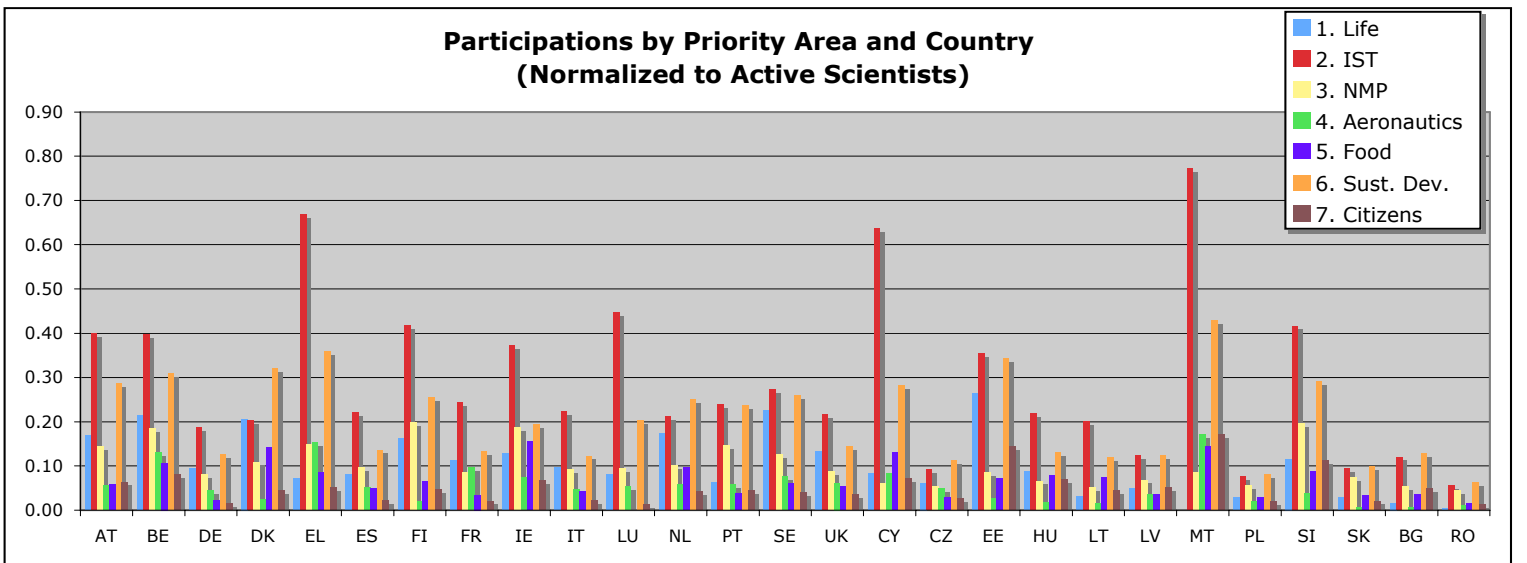
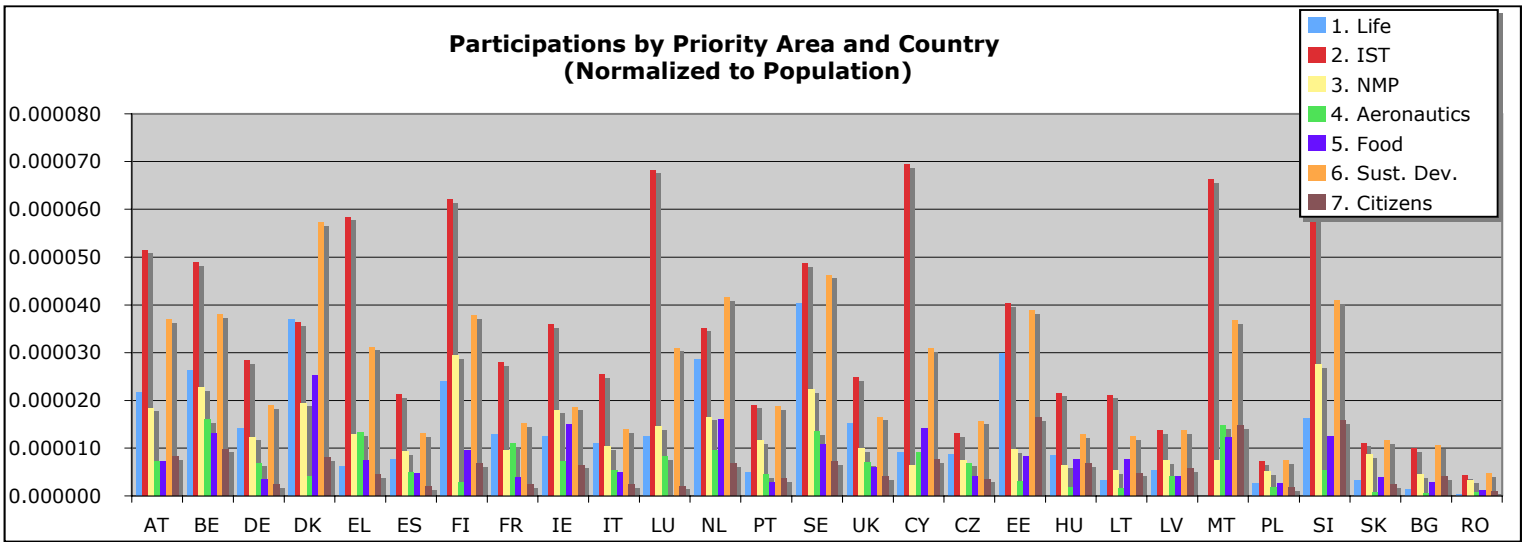
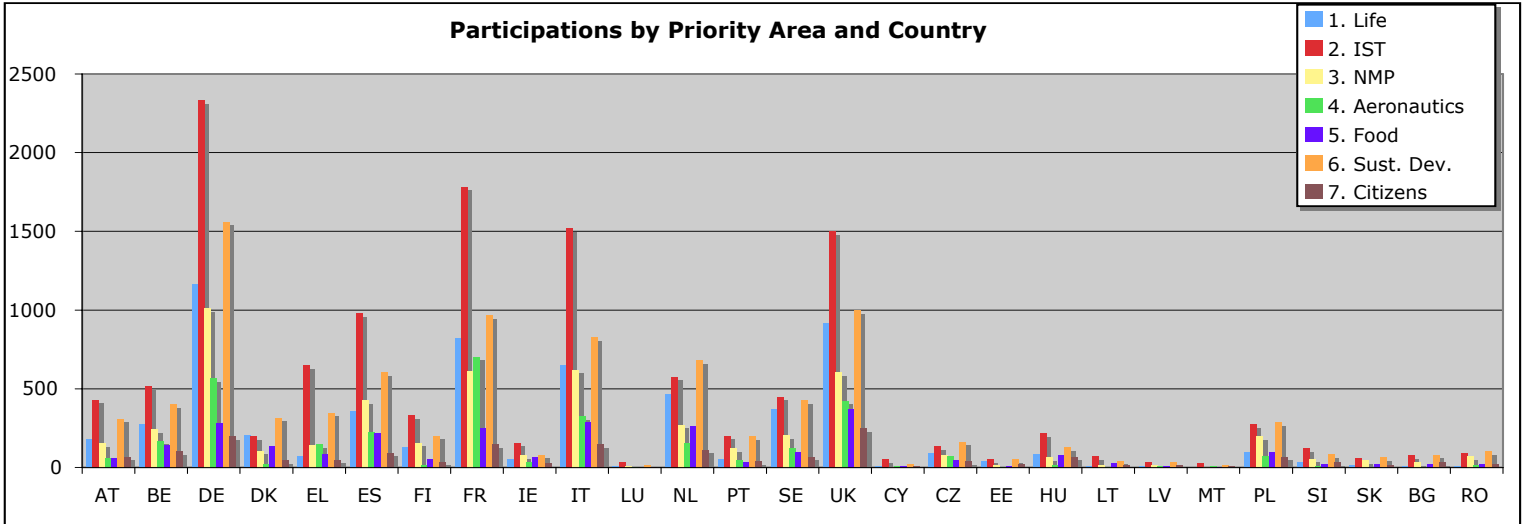


Figure 13

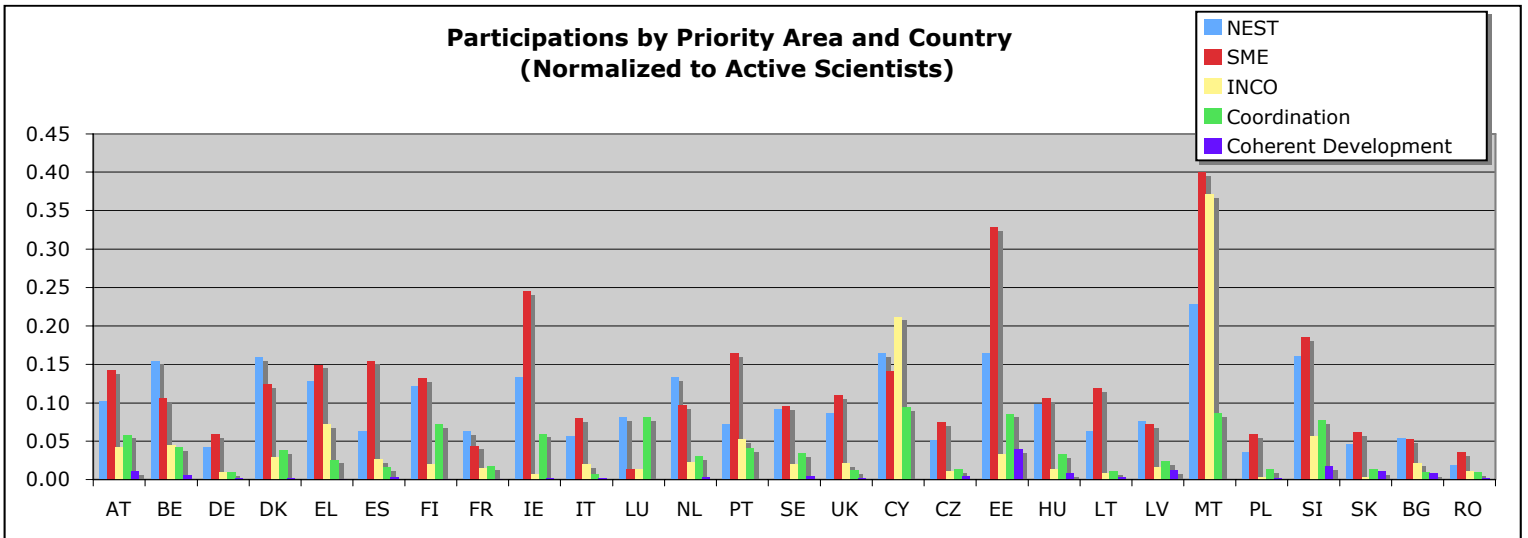
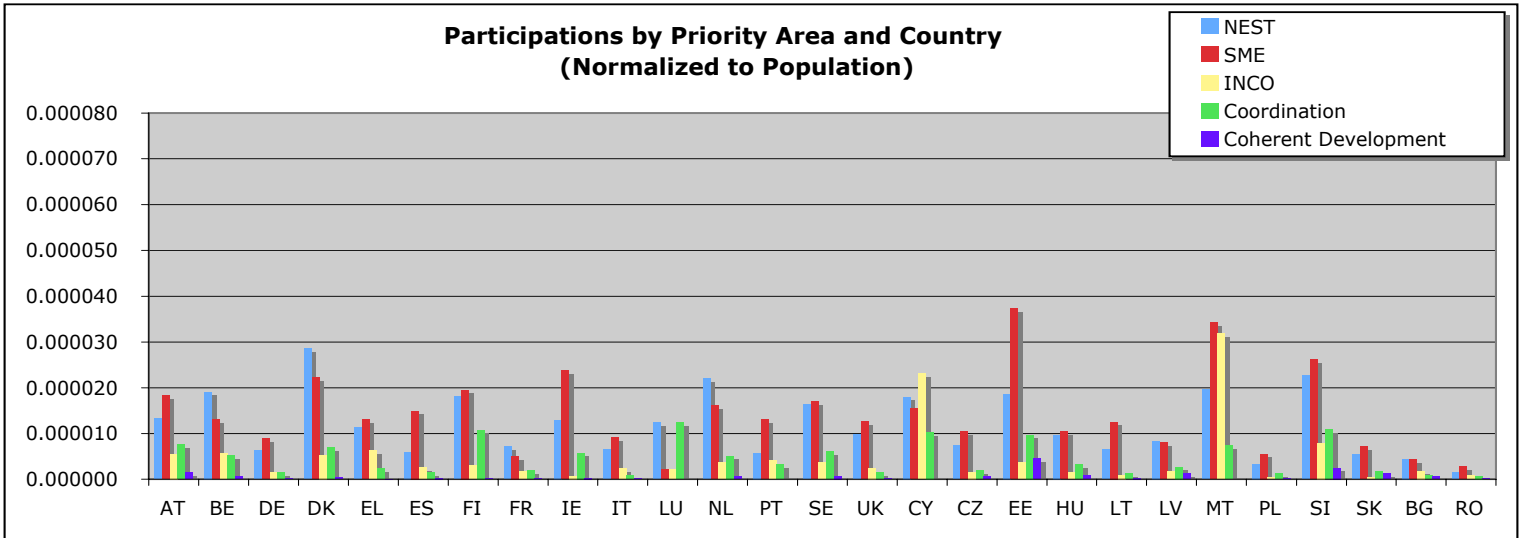
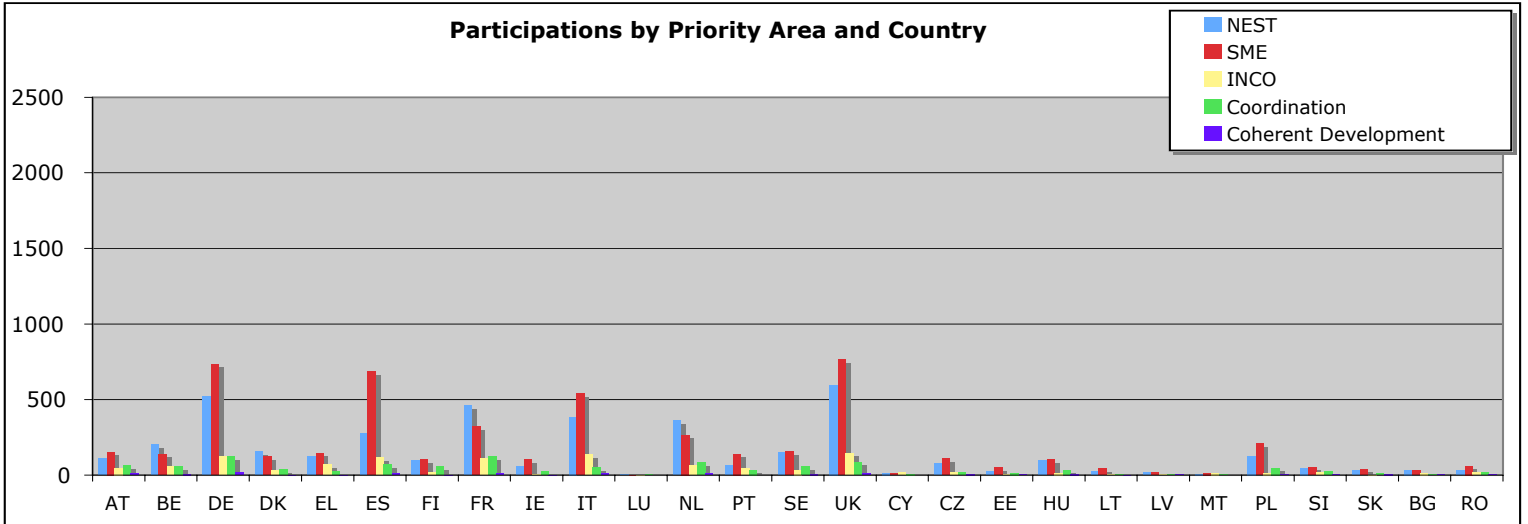
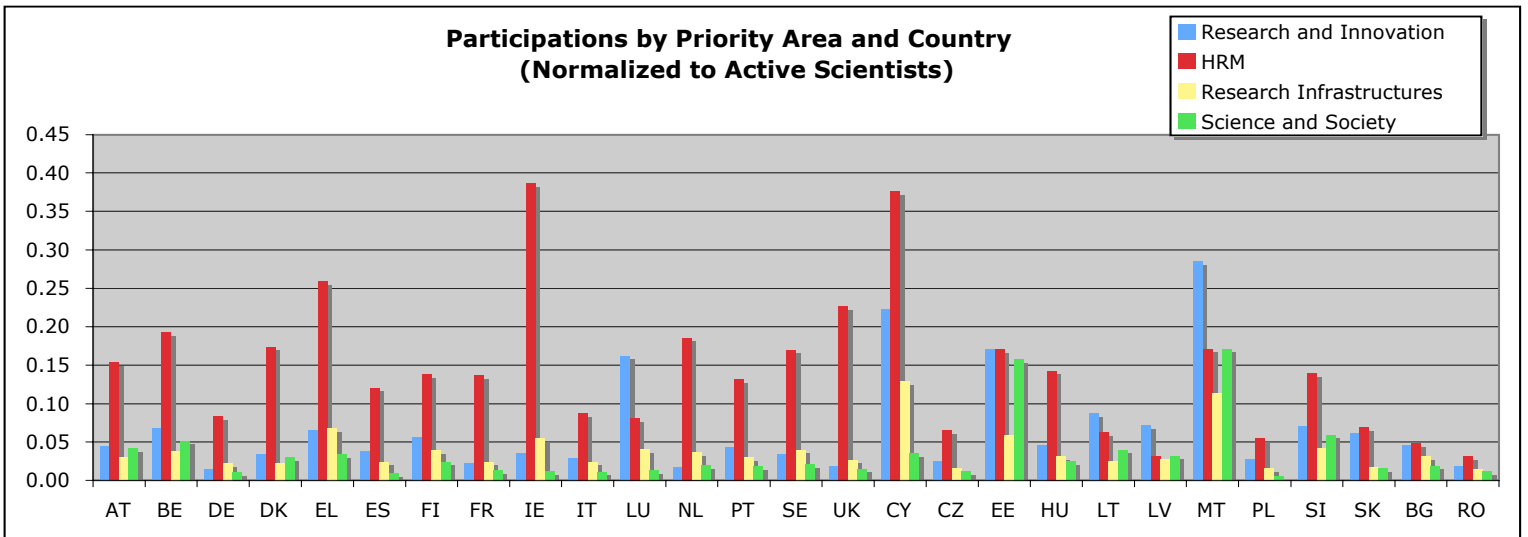
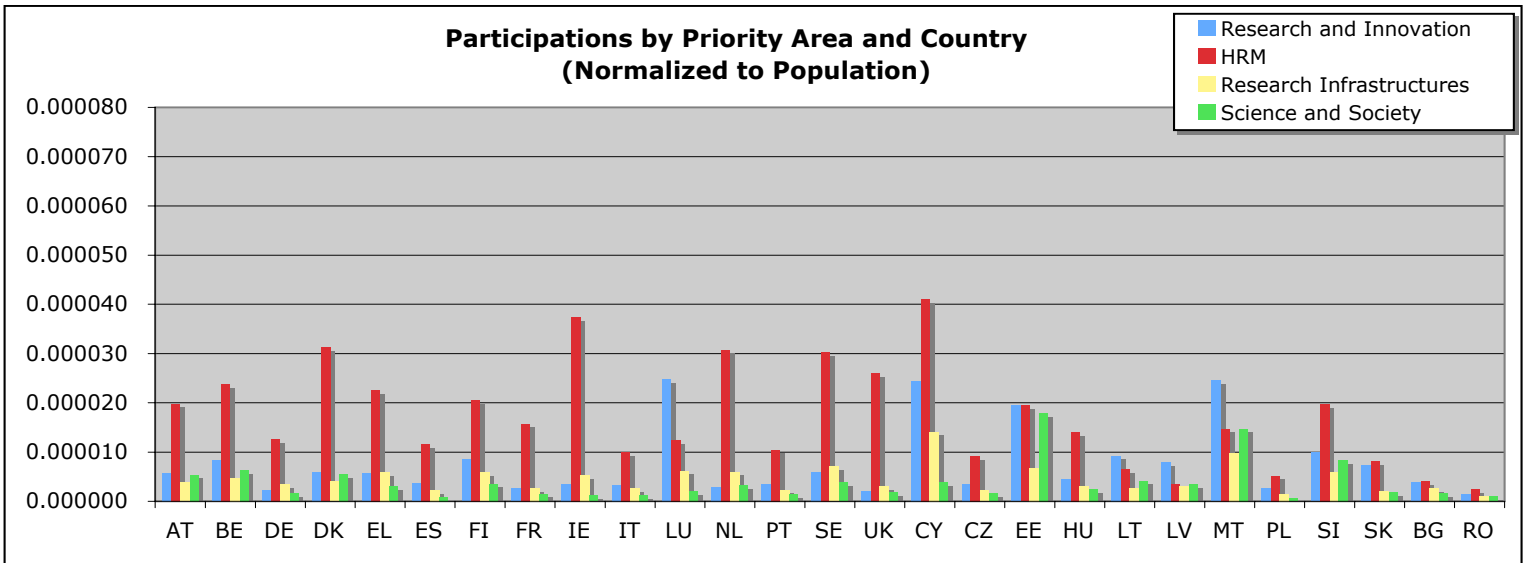
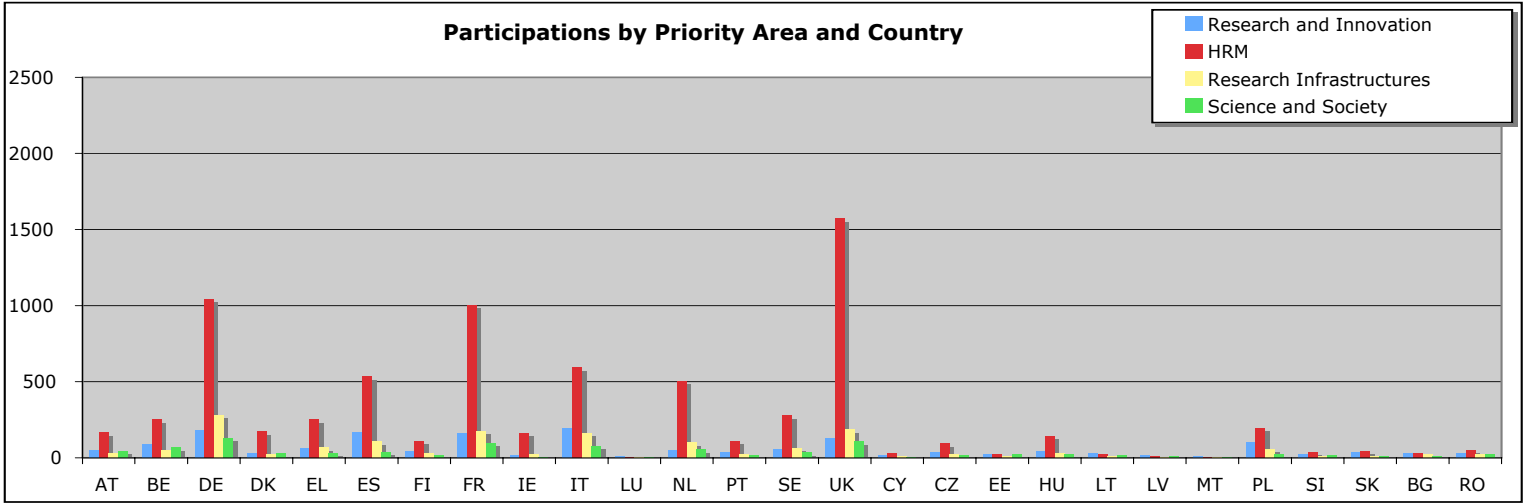


Figure 14

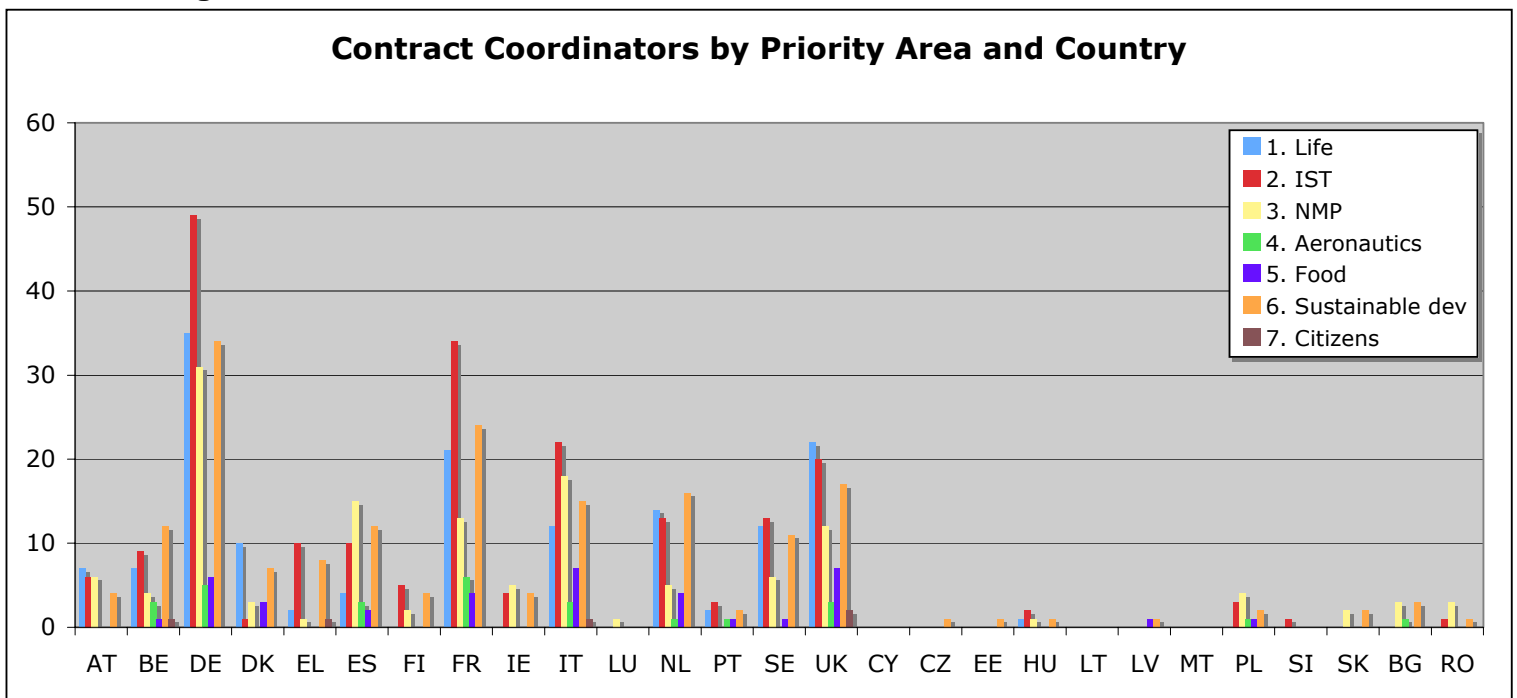


VIII. Contract coordinators by priority area and country

It is well known that project participations are not all of equal value. In particular, coordinators are said to play a much more important role in a research project than many other partners in terms of setting up the project, managing it, steering it, and finally exploiting the results. This comes as no surprise: several analyses have shown clearly that the projects tend to be closer to the coordinator's core capabilities and interests than those of other partners.¹³

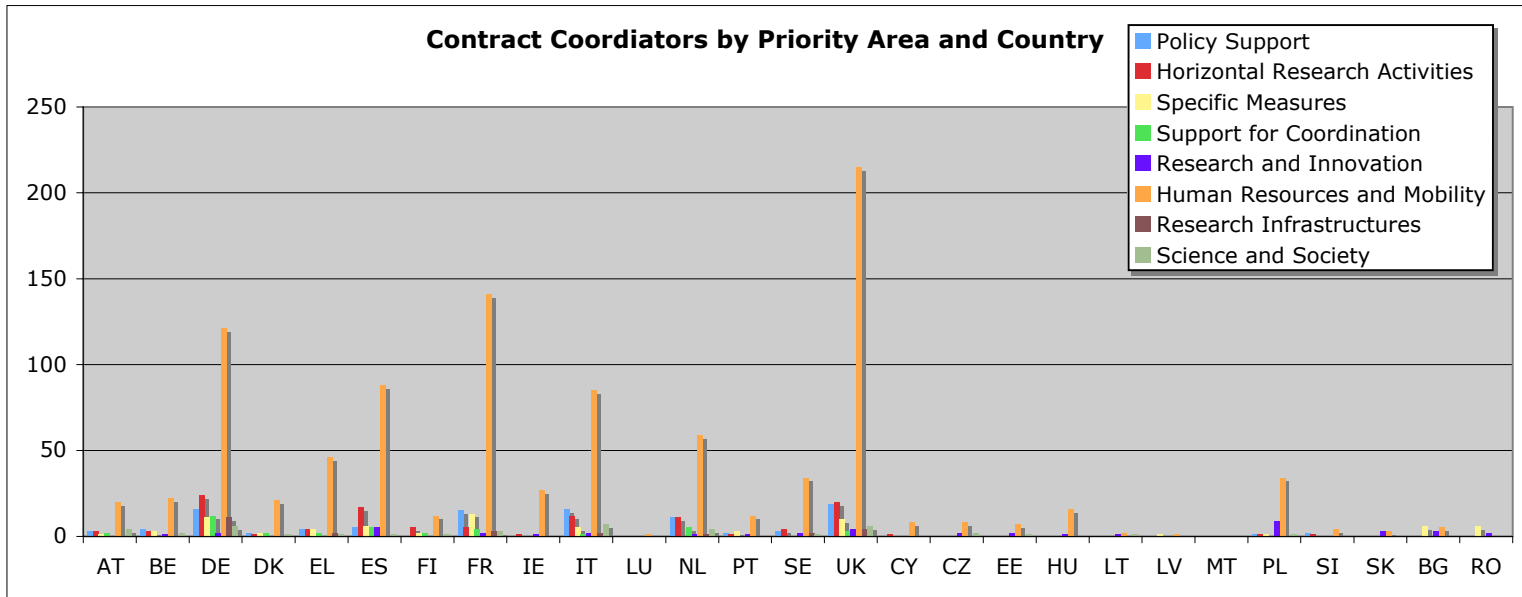
Figure 15 below distributes the coordinators in Group 1 priority areas among the twenty-seven members states of the European Union. Figure 16 does the same for Groups 2 and 3.

Figure 15



¹³ Analysing and Evaluating the Impact on Innovation of Publicly Funded Research Programmes: Lot 1 – Evaluation of the Impact on Innovation of Projects of Community 5th and 6th Framework Programmes, European Commission, DG Enterprise, 2008. (Robbert Fisher, Wolfgang Polt, Nicholas Vonortas coordinators.)

Figure 16



The clear picture emerging here is that organizations from the EU15 member states have served as coordinators throughout FP6. This is logical, of course, due to the fact that the expansion to twenty-seven members took place during the Programme, thus decreasing very much the chances of the organizations from new member states to play this role. One would expect to see an evolution towards a more even distribution between the two groups in future programmes.

The distribution of coordinators within the EU15 countries is more or less as expected on the basis of country size and relative capabilities (stage of development). The only relative anomaly is the UK, which ranks lower in terms of coordinators for Group 1 priority areas than other large country members but shows disproportional activity in terms of coordinator in Human mobility programs.

IX. Participation by instrument and country

The absolute numbers of participations reveal no surprise. Large, industrialized countries dominate, especially IP and STREP contracts. EU15 member states are in Figure 17. New member states are shown in Figure 18.

Figure 17

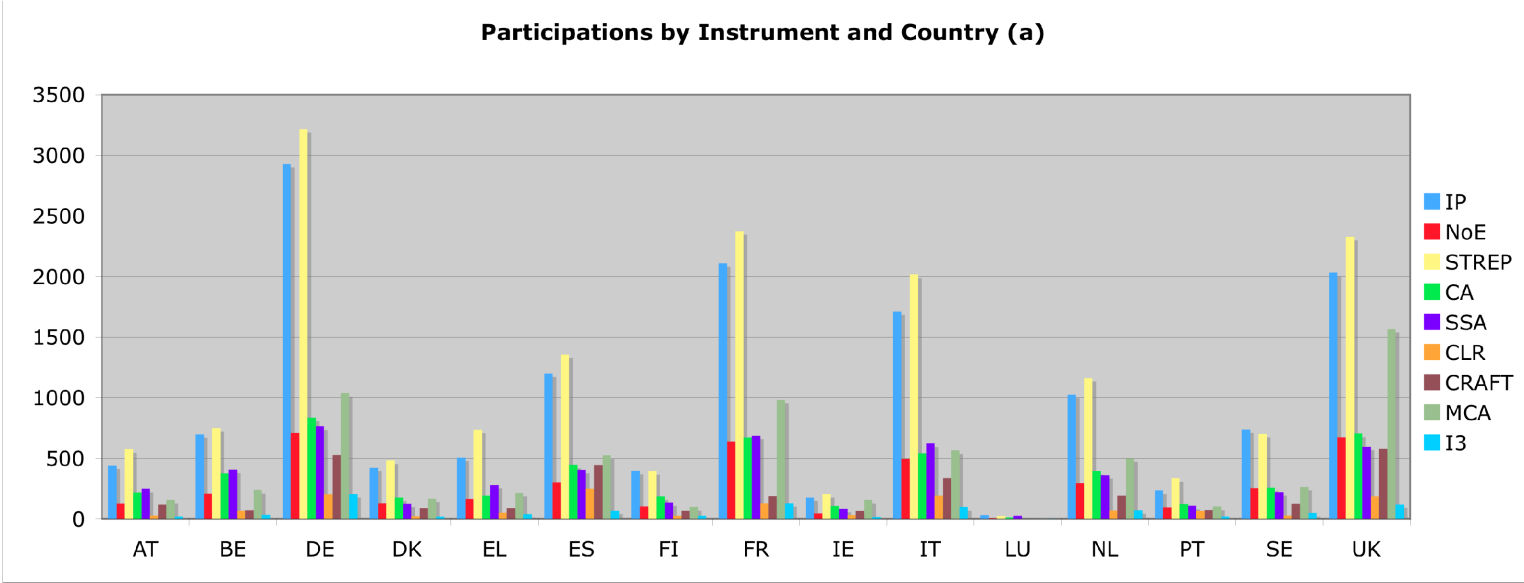
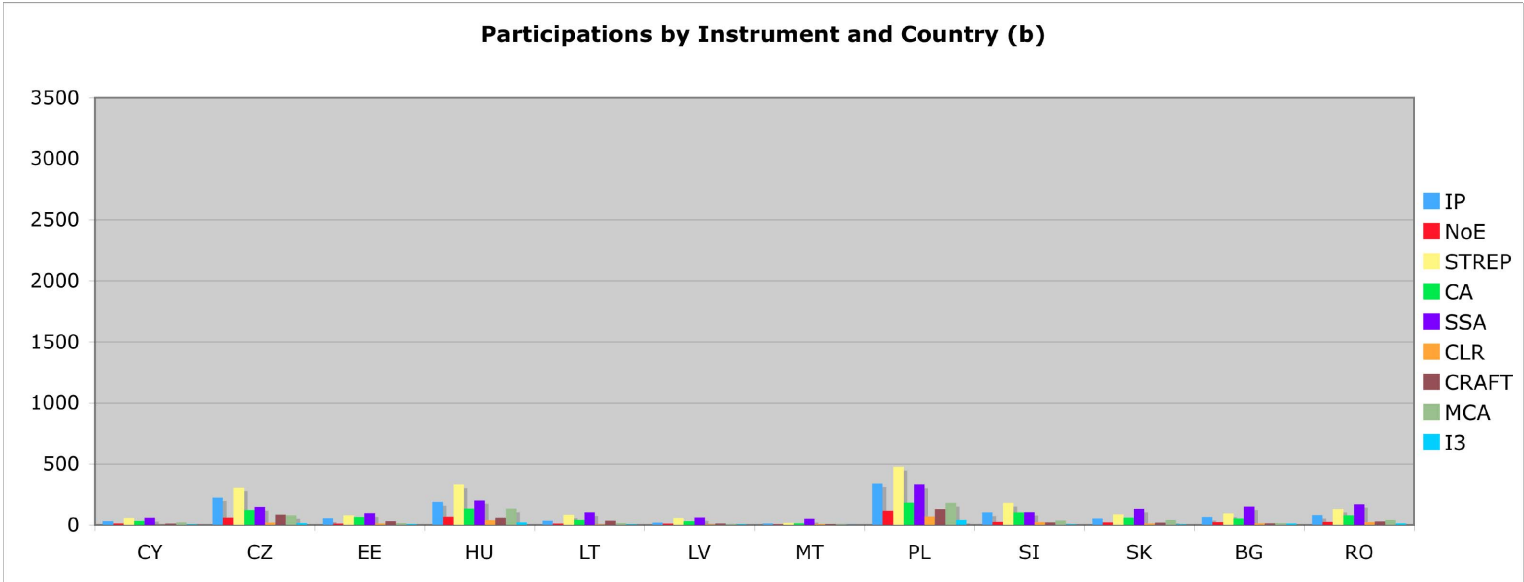


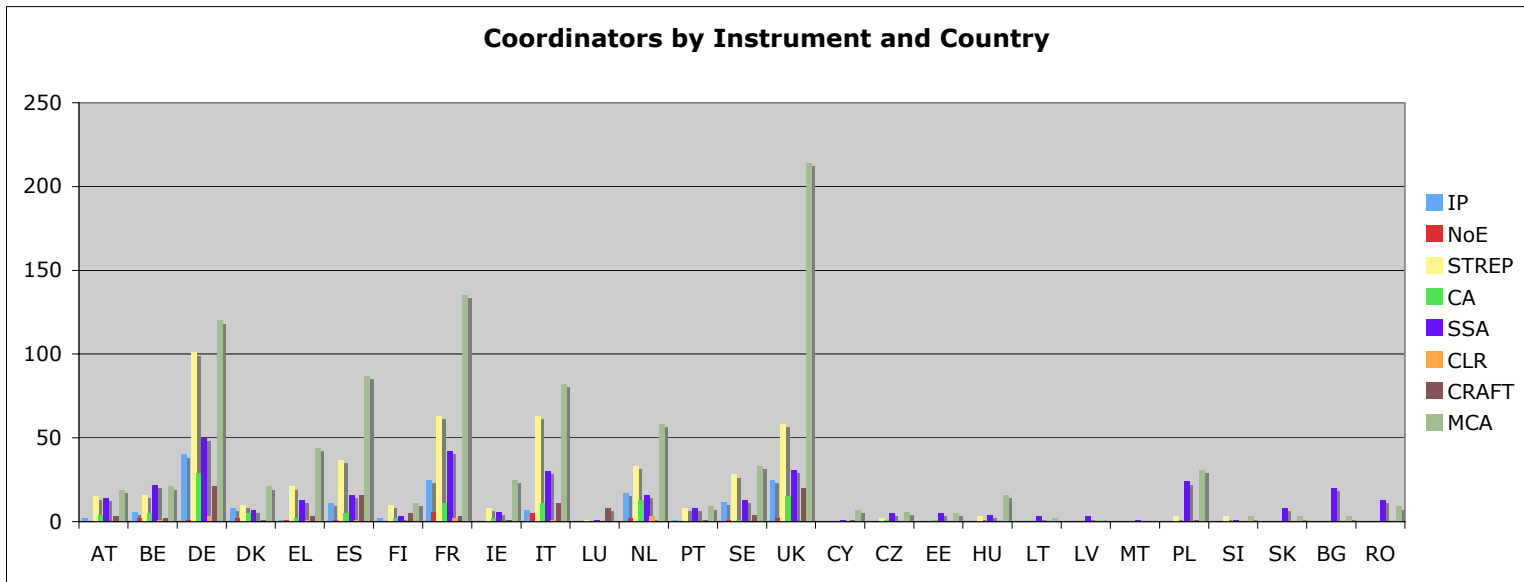
Figure 18



X. Contract coordinators by instrument and country

Again, there are no surprises in terms of aggregate numbers (Figure 19). Large, advanced countries maintain clear majorities.

Figure 19

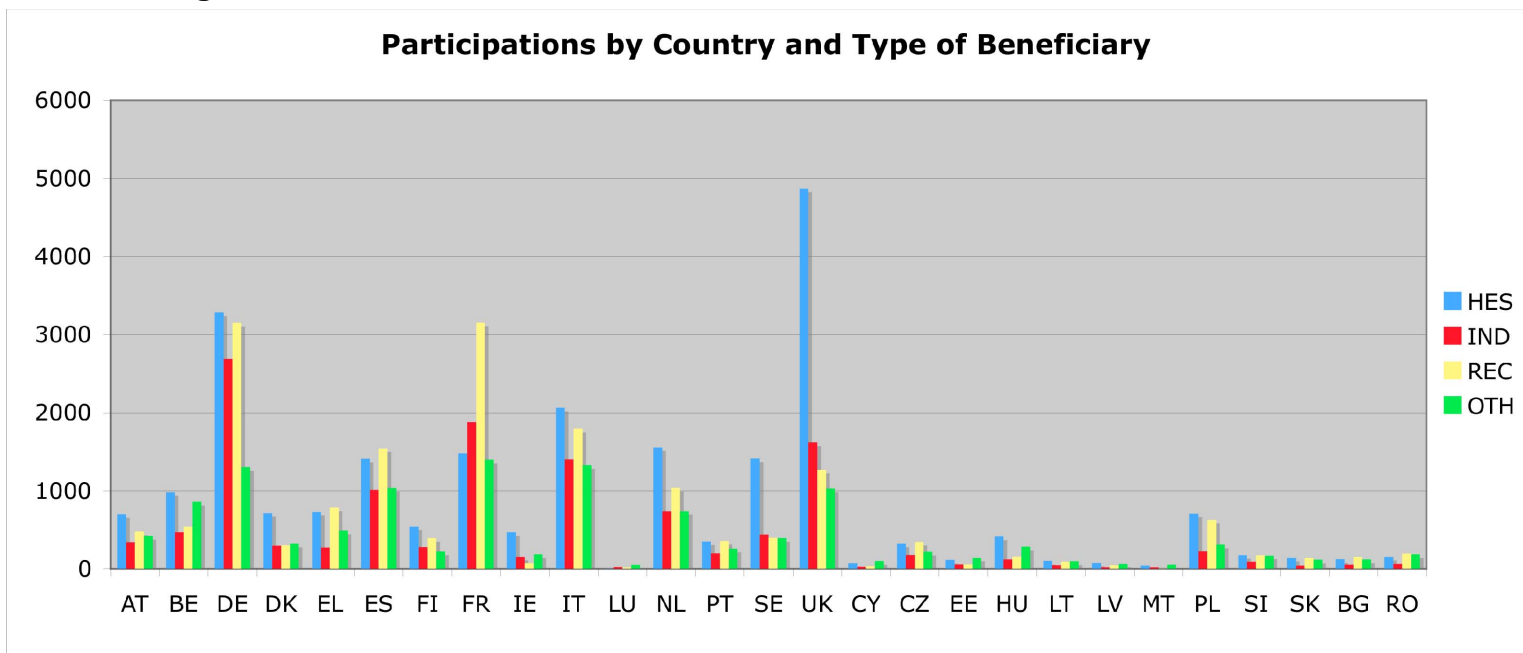


Country size and stage of development as well as language should explain a large part of the distribution of MCA across the top performers (UK, FR, DE, ES, IT, NL).

XI.Participations by country and type of beneficiary

Differences among nations can be observed in terms of relative extent of participation across different organizations (Figure 20). Participation has been balanced among different kinds of organizations in Germany and fairly balanced in Italy. On the contrary, British universities greatly outdid other British organizations (same for Sweden) whereas in France research organizations were the most active with some distance from industry (second) and universities (third). Other countries seem somewhat more balanced; in most of them universities tend to come out on top, nevertheless.

Figure 20



Assuming that universities and research organizations can be grouped together in terms of research interests and strengths (more basic and generic than applied research), then one may argue for a bias against the short- to medium-term needs of industry. Even so, the policy message is not straightforward but depends on the objectives of the Programme regarding industry competitiveness. To the extent that short- to medium-term competitiveness is the primary concern, then, the need of greater industry participation should be stressed. To the extent that longer-term competitiveness is the primary concern, however, the observed distribution of organizations may be appropriate.

The argument above must take into consideration the differences among priority areas that, in many cases, are quite considerable. That is to say, long-term for

aerospace is quite different from long-term for food. This subject, however, is beyond the scope of this Report.