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**COMMISSION STAFF WORKING PAPER**

**Annual Report on the progress achieved by the Joint Technology Initiatives  
Joint Undertakings in 2009**

*Accompanying document to the*

**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND  
THE COUNCIL**

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## TABLE OF ABBREVIATIONS

<b>ABAC</b>	Accrual Based Accounting System
<b>ACARE</b>	Advisory Council for Aeronautics Research in Europe
<b>AENEAS</b>	Association for European Nanoelectronics Activities
<b>AIP</b>	Annual Implementation Plan
<b>ASP</b>	ARTEMIS Sub-Programme
<b>CfP</b>	Call for Proposals
<b>DG</b>	Directorate-General
<b>EC</b>	European Commission
<b>ED</b>	Eco-Design
<b>EFPIA</b>	European Federation of Pharmaceutical Industries Association
<b>EFTA</b>	European Free Trade Association
<b>EOI</b>	Expression of Interest
<b>ESR</b>	Evaluation Summary Report
<b>ETP</b>	European Technology Platform
<b>EU</b>	European Union
<b>FCH</b>	Fuel Cells and Hydrogen
<b>FP7</b>	Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013)
<b>FPP</b>	Full Project Proposal
<b>GA</b>	Grant Agreement
<b>GAM</b>	Grant Agreement with Members
<b>GRA</b>	Green Regional Aircraft
<b>GRC</b>	Green Rotorcraft
<b>ICT</b>	Information and Communications Technologies
<b>IER</b>	Individual Evaluation Report
<b>IMI</b>	Innovative Medicines Initiative
<b>ITD</b>	Integrated Technology Demonstrator
<b>JTI</b>	Joint Technology Initiative
<b>JU</b>	Joint Undertaking
<b>MAIP</b>	Multi-Annual Implementation Plan
<b>MASP</b>	Multi-Annual Strategic Plan
<b>NEW IG</b>	NEW Industry Grouping

<b>NSRG</b>	National States Representatives Group
<b>PO</b>	Project Outline
<b>PRO</b>	Public Research Organisations
<b>R&amp;D</b>	Research & Development
<b>RTD</b>	Research, Technological Development and Demonstration
<b>SAGE</b>	Sustainable and Green Engines (SAGE)
<b>SFWA</b>	Smart Fixed Wing Aircraft
<b>SGO</b>	Systems for Green Operations
<b>SMEs</b>	Small and Medium-Sized Enterprises
<b>SP</b>	Sub-Programme
<b>SRA</b>	Strategic Research Agenda
<b>TE</b>	Technology Evaluator
<b>TEC</b>	Treaty establishing the European Community
<b>TFEU</b>	Treaty on the Functioning of the European Union

## 1. INTRODUCTION

Each Council Regulation setting up the individual Joint Technology Initiative (JTI) Joint Undertaking<sup>1</sup> (JU) requires in Article 11(1) that: *"The Commission shall present to the European Parliament and to the Council an annual report on the progress achieved by the [name of the JTI] Joint Undertaking. This report shall contain details of implementation including number of proposals submitted, number of proposals selected for funding, type of participants, including SMEs, and [country statistics]"*<sup>2</sup>.

This Commission Staff Working Document further describes in more detail the progress made by each JTI JU in the year 2009. It merges contributions on all five JTI JUs and provides information on the timetable, topics, budget, proposals received, evaluation procedure, evaluation outcome, and grant agreements.

In 2009, the details of implementation related to the progress made in 2008 were provided in the form of one annex per JU attached to the Commission Staff Working Document<sup>3</sup> accompanying the 2009 Annual report on RTD activities (Article 190 of the Treaty on the Functioning of the European Union (TFEU) (ex Article 173 of the Treaty establishing the European Community (TEC)).

The details of implementation related to this 2010 report, showing the progress made in 2009, are presented in a stand alone format and further harmonise the information across JTI JUs in order to provide more visibility and to improve ease of reference.

## 2. PROGRESS ACHIEVED BY THE INNOVATIVE MEDICINES INITIATIVE (IMI) JU

### IMI JU objectives and stakeholders

The Innovative Medicines Initiative Joint Undertaking (hereinafter referred to as "IMI JU") is a public-private partnership between the European Union (EU), represented by the European Commission (EC), and the European Federation of Pharmaceutical Industries Association (EFPIA).

The IMI JU is implementing the Joint Technology Initiative on IMI and is established on the basis of Article 187 of the TFEU (ex Article 171 of the TEC).

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<sup>1</sup> The five JTI JUs are: **Innovative Medicines Initiative** (supporting the development of new knowledge, tools and methods for new medicines, Council Regulation 2008/73/EC, <http://imi.europa.eu>), **Clean Sky** (seeking to increase the competitiveness of the European aeronautics industry while reducing emissions and noise, Council Regulation 2008/71/EC, <http://www.cleansky.eu>), **Fuel Cells and Hydrogen** (speeding up the development and deployment of hydrogen supply and fuel cell technologies, Council Regulation 2008/521/EC, <http://www.fch-ju.eu>), **ARTEMIS** (addressing embedded computing systems, Council Regulation 2008/74/EC, <http://www.artemis-ju.eu>), and **ENIAC** (targeting the very high level of miniaturisation required for the next generation of nanoelectronics components, Council Regulation 2008/72/EC, <http://www.eniac.eu>).

<sup>2</sup> In the case of Clean Sky, Article 11(1) also foresees that *"this annual report will include assessment results of the Technology Evaluator referred to in Article 8(1) of the Statutes, as appropriate"*.

<sup>3</sup> SEC(2009)1380 of 22.10.2009.

The IMI JU objective is to significantly improve the efficiency and effectiveness of the drug development process, with the long-term aim that the pharmaceutical sector produces more effective and safer innovative medicines.

The maximum EU contribution to the IMI JU covering running costs and research activities shall be 1,000 M€. The contribution is paid from the appropriation in the general budget of the European Union allocated to the "Health" theme of the Specific Programme "Cooperation" implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013) (FP7).

EFPIA provides a monetary contribution to the IMI JU running costs, in an amount equal to the contribution of the EU. The pharmaceutical company members of EFPIA jointly fund the IMI research activities through contributions in-kind at least equal to the financial contribution of the EU.



*Figure 1: Funding of the IMI JU*

The IMI JU supports collaborative pre-competitive research projects pooling resources from various stakeholders (industry, academia, small- and medium-sized enterprises (SMEs), regulatory authorities, healthcare providers, patient organisations).

Supported projects focus on four key research priorities: better prediction of safety, efficacy of new medicines, better knowledge management, and strengthened education and training.

Support for projects is granted following open and competitive calls for project proposals, peer review evaluation and the conclusion of grant agreements and project agreements.

Academia, patient organisations and SMEs are eligible for IMI JU financial support. The pharmaceutical company members of EFPIA are not eligible for IMI JU financial support and participate with their own resources (contribution in-kind) in the research projects.

#### Main activities in 2009

The IMI JU became "autonomous", i.e. it gained operational capacity to implement its budget on 16 November 2009. Until this point, the European Commission (EC) was responsible for the establishment and the initial operations of the IMI JU in collaboration with the other

founding member (EFPIA) in accordance with Article 16 of the Council Regulation establishing the IMI JU.

The IMI JU Executive Director, Michel Goldman, was appointed by the Governing Board on 10 June 2009 and took up his position on 16 September 2009. Until this date, the Interim Executive Director appointed by the European Commission, Alain Vanvossel, fulfilled the duties of Executive Director. In 2009 the IMI JU also recruited its first 12 staff members.

The Governing Board had 3 meetings in 2009. The Scientific Committee had 3 meetings and the States Representatives Group – 2 meetings.

Besides the appointment of the IMI JU Executive Director, the IMI JU Governing Board also approved i.a. the IMI Financial Rules, the IMI Model Grant Agreement, the list of proposals selected following the IMI JU first Call for Proposals, the IMI Internal Control Standards, the publication of the IMI second Call for Proposals, the IMI Staff Policy Plan 2010-2012 and the IMI Annual Implementation Plan 2009.

The first Call for Proposals was launched in 2008. Its Stage 2 Evaluation, with the assistance of independent experts, and the project negotiations were processed in 2009. More details are provided in section 2.1. below.

The IMI JU also launched its second Call for Proposals on 27 November 2009.

In terms of communication activities, the IMI JU has developed a communication strategy, a visual identity and organised the following events:

- A major press event was organised on 14 September 2009, with the participation of Commissioner Potočnik and the EFPIA President Higgins. It was attended by 43 journalists and by members of the IMI States Representatives Group. The Executive Director Michel Goldman was introduced, and the topics of the IMI JU second Call for Proposals were presented. This event generated 187 articles in national and thematic journals in the EU as well as in the USA and other countries.
- An open information day was organised on 17 November 2009 and attracted some 420 participants. The event was open to all stakeholders and aimed at informing all interested parties about the second Call for Proposals, which was launched by the IMI JU on 27 November 2009.

Besides, three press releases were published in 2009, one about the selection of the Stage 2 first call projects (18 May 2009), second – at the time when the Executive Director took up his position (16 September 2009), and third – at the launch of the second Call for Proposals (27 November 2009).

Finally, the IMI JU has been presented at numerous national and international conferences in Europe and around the world throughout 2009, including at the AAAS Annual Meeting in Chicago, EuroBio in Lille, DIA Innovation Forum in London, ECB-14 in Barcelona and World Health Summit in Berlin, Bayern Innovative Event and European Congress of Immunology in Berlin.



## **2.1. Call IMI\_Call\_2008\_1**

### *2.1.1. Summary information*

The first Call for Proposals was published on 30 April 2008 and included 18 topics based on the 2008 Scientific Priorities. The call process was managed under the responsibility of the Interim Executive Director based on the principles of excellence, transparency, fairness and impartiality, confidentiality, efficiency, speed and ethical considerations. The call process is detailed in section 2.1.3. below.

The total budget for the first call included a financial contribution from the EC to the IMI JU of a maximum of 125.6 M€ (including 2.9 M€ EFTA contributions) and contributions in-kind estimated to 172 M€ by the research based companies that are members of EFPIA ("in-kind" meaning non-monetary contributions such as personnel, equipment, consumables, etc.).

The timelines of the IMI JU first Call for Proposals were:

- Call publication: 30 April 2008
- Deadline Stage 1: 15 July 2008
- Evaluation Stage 1: August-September 2008
- Launch Stage 2: 23 October 2008
- Deadline Stage 2: 20 January 2009
- Evaluation Stage 2: February-May 2009
- Negotiation Stage 2: May-November 2009

18 topics were included in the call with the following titles:

- Pillar I: Improving the Predictivity of Safety Evaluation
  1. Improve predictivity of immunogenicity
  2. Non-genotoxic carcinogenesis
  3. Expert systems for in silico toxicity prediction
  4. Improved predictivity of non-clinical safety evaluation
  5. Qualification of translational safety biomarkers
  6. Strengthening the monitoring of the benefit/risk of medicines
- Pillar II: Improving the Predictivity of Efficacy Evaluation
  7. Islet cell research
  8. Surrogate markers for vascular endpoints
  9. Pain research
  10. New tools for the development of novel therapies in psychiatric disorders
  11. Neurodegenerative disorders
  12. Understanding severe asthma

13. COPD patient recorded outcomes

- Pillar IV: Education and Training

14. European Medicines Research Training Network

15. Safety sciences for medicines training programme

16. Pharmaceutical medicine training programme

17. Integrated medicines development training programme

18. Pharmacovigilance training programme

The whole call organisation and process were done in accordance with the "IMI Rules for submission, evaluation and selection of Expressions of Interest and Full Project Proposals" adopted by the IMI JU Governing Board on 10 October 2008.

### 2.1.2 Analysis of proposals submitted

#### Stage 1: Expressions of Interest

In total, 138 Expressions of Interest (EoI) were submitted to the IMI JU under the 18 topics, whereof four were deemed ineligible (i.e. not submitted before the deadline or for lacking necessary documents as stated in the call).

More than half of the EoI have been submitted in Pillar II "Efficacy Evaluation". Nearly 1/3 of all EoI have been submitted in Pillar I "Safety Evaluation" and 14.2% have been submitted in Pillar IV "Education and Training" (see Figure 2).

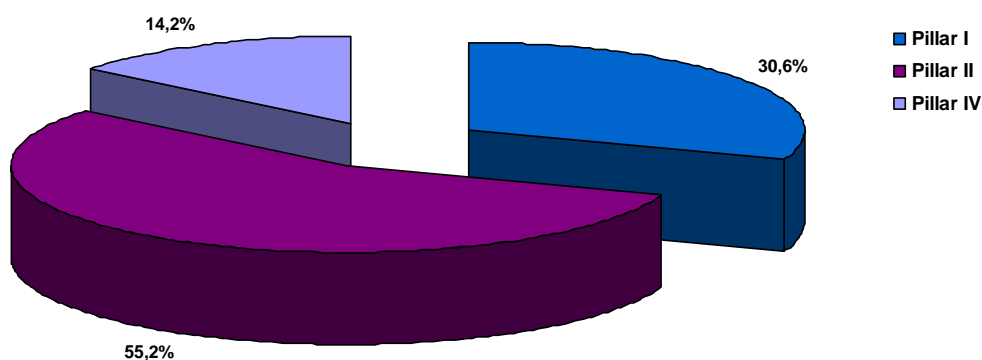


Figure 2: EoI submitted per pillar

Close to 1,300 applicants participated in the submitted Expressions of Interest. In detail, 77.3% of these participants came from academia, 17% were SMEs and 5.7% were other legal entities (including patient organisation, agencies / regulatory organisations, other industry associations or companies (non-EFPIA) which were larger than SMEs).

The overall participation of the different types of applicants in the Expressions of Interest is displayed in the table below (Table 1).

Non-EFPIA				
Academia	SMEs	Others		
Participants	1,000	220	74	1,294
Total	1,294			
%	77.3%	17.0%	5.7%	100%

*Table 1: Typology of applicants in Stage 1*

Organisations from 36 countries have applied in the first call. The table below indicates the number of applicants per country and the overall participation rate.

Country	Total	Participation
UK	238	18.4%
DE	170	13.1%
IT	145	11.2%
FR	126	9.7%
NL	80	6.2%
ES	75	5.8%
SE	74	5.7%
CH	48	3.7%
BE	44	3.4%
AT	43	3.3%
DK	42	3.2%
GR	29	2.2%
FI	28	2.2%
IL	19	1.5%
PT	16	1.2%
IE	15	1.2%
PL	14	1.1%

Country	Total	Participation
HU	13	1.0%
NO	12	0.9%
CZ	9	0.7%
EE	9	0.7%
US	7	0.5%
BG	5	0.4%
LV	5	0.4%
RO	5	0.4%
SK	5	0.4%
RS	4	0.3%
IS	2	0.2%
LT	2	0.2%
LU	2	0.2%
RU	2	0.2%
SI	2	0.2%
AU	1	0.1%
CY	1	0.1%
HR	1	0.1%
TR	1	0.1%
<b>Total</b>	<b>1,294</b>	<b>100%</b>

*Table 2: EoI – applicants per country in Stage 1*

#### Stage 2: Full Project Proposals

A total of 18 Full Project Proposals (FPPs) – one per topic – were submitted under the Stage 2. They were all eligible.

In total, 490 applicants participated in these 18 FPPs (Table 3), including the EFPIA member companies which accounted for 41.2% of all applicants. Academia had approximately the same percentage of applicants (42.7%) as the EFPIA members, followed by SMEs (7.6%),

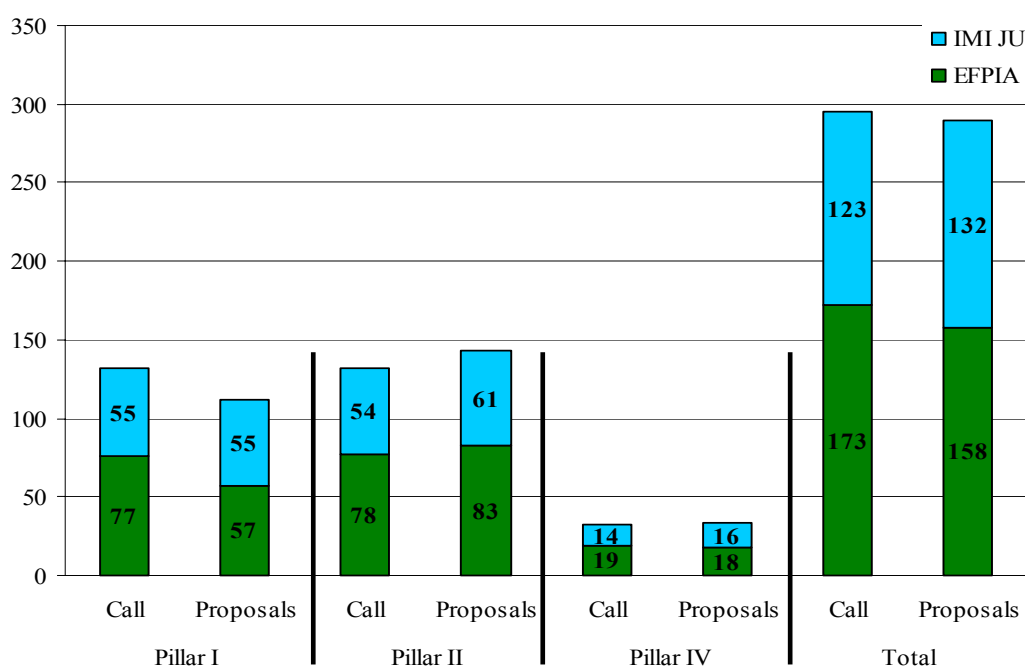
and other type of participants (8.5%), including patient organisations, agencies / regulatory organisations, industry and associations.

In total, 24 EFPIA companies participated in the FPPs and they account for a total of 202 participations.

	EFPIA	Non-EFPIA			
		Academia	SMEs	Others	
Participants	202	209	37	42	490
Total	202	288			
%	41.2%	42.7%	7.6%	8.5%	100%

*Table 3: Typology of applicants in Stage 2 submitted proposals*

The budget requested by Full Project Consortia in each of the three pillars was very close to the available budget published in the call (Figure 3). Whereas the EFPIA in-kind contribution was a bit lower (-8.6%) than the indicative contribution published in the call, the requested IMI JU contribution was 7.3% higher in the Full Project Proposals than the indicative budget mentioned in the call.



*Figure 3: Budget requested by Full Project Consortia vs. indicative budget in the call in M€*

Among the **non-EFPIA participants** at this stage, SMEs requested contribution was 17.2% of the total amount requested to the IMI JU, which made it higher than the 15% objective of EU funding dedicated to SMEs in FP7 (see Table 4).

Full Project Proposals submitted to Stage 2				
Number of submitted proposals	Requested contribution to IMI JU (all IMI JU eligible beneficiaries) (€)	Requested contribution to IMI JU by SMEs (€)	Requested contribution to IMI JU by SMEs (% of total funding)	Industry in-kind contribution (EFPIA member companies) (€)
18	131.856.992	22.679.403	17,2	157.763.164

*Table 4: Requested contribution (total and per SME)*

Among the **non-EFPIA participants**, organisations from some 22 countries took part in Stage 2. The UK had the highest participation rate, followed by Germany and France which were very close in terms of participation. Two Member States from the 2004 Enlargement (Hungary and Poland) and four Associated Countries (Switzerland, Israel, Iceland and Norway) have had participating organisations in the FPPs. See Table 5 for more details on the participation rate per country.

Country	Total	Participation
UK	56	19.4%
FR	35	12.2%
DE	37	12.8%
NL	23	8.0%
CH	17	5.9%
SE	19	6.6%
ES	19	6.6%
DK	12	4.2%
IT	19	6.6%
BE	15	5.2%
IE	6	2.1%
AT	10	3.5%
FI	6	2.1%
IL	2	0.7%
IS	1	0.3%
HU	3	1.0%
GR	1	0.3%
PL	1	0.3%
LU	1	0.3%
NO	1	0.3%
PT	2	0.7%
RS	1	0.3%
Non spec.	1	0.3%
<b>Total</b>	<b>288</b>	<b>100%</b>

*Table 5: Submitted FPPs – applicants per country*

### 2.1.3 Evaluation procedure

#### Call process

The IMI JU applied a two-stage call process. The first stage of the call invited Expressions of Interest from applicant consortia (e.g. collaborations between academia, SMEs, patient organisations, non-EFPIA industry, etc.) to be submitted in response to the call topics included in the call. The deadline for the EoI submission was 15 July 2008.

At the second stage, the best ranked EoI submitted in each topic of the call have been invited to form joint consortia with pre-established EFPIA consortia already associated with the topic, and to submit Full Project Proposals. The deadline for the FPPs submission was 20 January 2009.

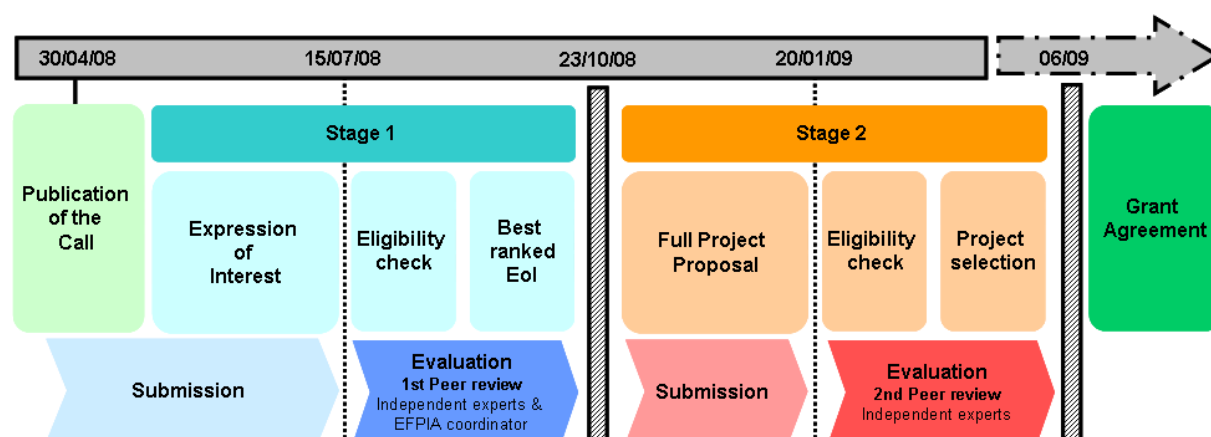


Figure 4: Timeline of the IMI JU first Call for Proposals

#### Evaluation Stage 1 (performed in 2008)

The eligible Expressions of Interest were evaluated by peer review committees composed of at least 5 independent experts, in addition to the co-ordinator and the deputy co-ordinator of the EFPIA consortium associated to the topic evaluated by the panel. The evaluations were conducted via individual remote evaluation followed by consensus meetings in Brussels. A total of 150 experts participated in the evaluations of the EoI, for a total of 12 Evaluation Panels.

The Expressions of Interest were evaluated against the following four criteria:

1. Scientific and/or technological excellence: *total score 20, threshold 14*;
2. Partnership case (i.e. quality and experience of the individual partners): *total score 10, threshold 7*;
3. Quality of the applicant consortium as a whole: *total score 5, no threshold*;
4. Quality and soundness of the work plan, including the budget: *total score 5, no threshold*.

#### Preparation and launch of Stage 2 (performed in 2008)

Further to the Stage 1 Evaluation, preliminary discussions in view of forming a Full Project Consortium and preparing a Full Project Proposal were conducted between the pre-established EFPIA consortium in each topic and the top-ranked EoI applicant consortium in each topic.

Following the confirmation from all 18 EFPIA consortia to proceed with the respective top-ranked EoI applicant consortium and jointly form a Full Project Consortium, the IMI JU invited the 18 Full Project Consortia to prepare a Full Project Proposal to be submitted to the second stage of the first call. The second stage of the call was launched on 23 October 2008 and the Full Project Consortia were requested to submit a FPP by the deadline of 20 January 2009.

An information meeting for all coordinators was organised by the IMI JU on 6 November 2008.

#### Evaluation Stage 2 (performed in 2009)

The evaluation of the 18 received Full Project Proposals, one for each of the 18 topics of the first call, was conducted with independent external experts as evaluators. The eligible FPPs were evaluated by peer review committees composed of at least 5 independent experts. In The same experts as in the first stage – except for the EFPIA co-ordinator and deputy co-ordinator who did not participate and with the addition of ethics experts – participated in the Stage 2 Evaluation. The evaluations were conducted via individual remote evaluation followed by consensus meetings in Brussels. A total of 150 experts participated in the evaluations of the FPPs, for a total of 12 Evaluation Panels. The ethics experts were present to perform a review of the ethical issues in each proposal.

The Full Project Proposals were evaluated against the following four criteria:

1. Scientific and/or technological excellence: *Acceptable (excellent) / Acceptable (subject to specified adjustment) / Not acceptable (note: leads to “overall not acceptable”)*;
2. Excellence of the project implementation plan: *Acceptable (excellent) / Acceptable (subject to specified adjustment) / Not acceptable (note: leads to “overall not acceptable”)*;
3. Consistency with call topic and stage 1: *Acceptable (excellent) / Not acceptable (note: leads to “overall not acceptable”)*;
4. Potential impact of project results: *High impact / Medium impact / Low impact*.

#### *2.1.4 Evaluation results*

##### Stage 1: Expressions of Interest

Out of the total 134 eligible EoI evaluated by the peer review committees, 56 (41.8 %) were favourably evaluated, i.e. ranked above the defined threshold. Ranked lists with the highest scoring EoI were established for each topic. The remaining non-ranked EoI had failed at least one threshold. Table 6 below shows that 48.8% of all EoIs have passed the threshold in Pillar I, 39.1% in Pillar II, and 36.8% in Pillar IV.

The average success rate at Stage 1 was 13.3%. Pillar II "Efficacy Evaluation" received the most important number of EoI and therefore the success rate is the lowest –9.4% of all EoI



selected for Stage 2. It was followed by Pillar I "Safety Evaluation" (14.6%) and Pillar IV "Education and Training" (26.3%).

Pillar number	Pillar short name	Topic number	Stage 1 – EoI				
			EligibleEoI	Above threshold		Selected EoI for Stage 2	
I	Safety Evaluation	1	1	1	100.0%	1	100.0%
		2	9	6	66.6%	1	11.1%
		3	11	5	45.4%	1	9.1%
		4	9	3	33.3%	1	11.1%
		5	3	2	66.6%	1	33.3%
		6	8	3	37.5%	1	12.5%
		Total	41	20	48.8%	6	14.6%
II	Efficacy Evaluation	7	8	3	37.5%	1	12.5%
		8	12	4	33.3%	1	8.3%
		9	15	8	53.3%	1	6.7%
		10	12	7	58.3%	1	8.3%
		11	16	3	18.7%	1	6.3%
		12	6	2	16.6%	1	16.7%
		13	5	2	40%	1	20.0%
		Total	74	29	39.1%	7	9.4%
IV	Education and Training	14	6	2	33.3%	1	16.7%
		15	2	1	50%	1	50.0%
		16	1	1	100.0%	1	100.0%
		17	6	2	33.3%	1	16.7%
		18	4	1	25%	1	25.0%
		Total	19	7	36.8%	5	26.3%
		TOTAL	134	56	41.8%	18	13.4%

Table 6: Success rate per pillar and topic in Stage 1

#### Stage 2: Full Project Proposals

The Stage 2 evaluation resulted in 15 proposals passing the necessary thresholds to be funded. Three proposals (Topics 1, 4, 17) were judged not to be of a sufficient quality for funding. As a consequence, three topics opened in the IMI JU first Call for Proposals were not supported (Table 7).

Pillar number	Pillar short name	Topic number	Stage 2 – FPPs				
			Eligible FPPs	Above threshold		Selected for negotiation	
I	Safety Evaluation	1	1	0	0%	0	0%
		2	1	1	100%	1	100%
		3	1	1	100%	1	100%
		4	1	0	0%	0	0%
		5	1	1	100%	1	100%
		6	1	1	100%	1	100%
		Total	6	4	67%	4	67%
II	Efficacy Evaluation	7	1	1	100%	1	100%
		8	1	1	100%	1	100%
		9	1	1	100%	1	100%
		10	1	1	100%	1	100%
		11	1	1	100%	1	100%
		12	1	1	100 %	1	100 %
		13	1	1	100%	1	100%
		Total	7	7	100%	7	100%
IV	Education and Training	14	1	1	100%	1	100%
		15	1	1	100%	1	100%
		16	1	1	100%	1	100%
		17	1	0	100%	0	100%
		18	1	1	0%	1	0%
		Total	5	4	80%	4	80%
		TOTAL	18	15	83%	15	83%

Table 7: Success rate per pillar and topic in Stage 2

In total, 395 applicants participated in these 15 Full Project Proposals (Table 8), including the EFPIA member companies which accounted for 40.5% of all applicants. Academia had approximately the same percentage of applicants (45.1%) as the EFPIA members, followed by SMEs (6.1%) and other type of participants (8.3%) including patient organisations, agencies / regulatory organisations, industry and associations.

In total, 21 EFPIA companies participated in the FPPs and they accounted for a total of 160 participations.

	EFPIA	Non-EFPIA			
		Academia	SMEs	Others	
Participants	160	178	24	33	395
Total	160	235			
%	40.5%	45.1%	6.1%	8.3%	100%

*Table 8: Typology of participants in Stage 2 selected proposals*

Among the **non-EFPIA participants**, the total IMI JU contribution requested by the 15 selected proposals reached 109,593,433 €, including a total IMI JU contribution requested by SMEs of 13,994,672 €, which represents **12.77% of the total IMI JU contribution** (Table 9). The part not committed amounting to 16,039,097 € (125,632,530 € – 109,593,433 €) has been carried over to 2010 budget appropriation according to Article 10 of the IMI's Financial Rules which allow IMI to carry commitment appropriation over maximum 3 years.

Full Project Proposals selected for funding				
Number of selected proposals	Requested contribution to IMI JU (all IMI JU eligible beneficiaries) (€)	Requested contribution to IMI JU by SMEs (€)	Requested contribution to IMI JU by SMEs (% of total funding)	Industry in-kind contribution (EFPIA member companies) (€)
15	109.593.433	13.994.672	12,8	132.613.466

*Table 9: Requested contribution (total and per SME)*

Among the **non-EFPIA participants**, organisations from some 22 countries were included in the projects selected for funding. The UK had the highest participation rate, followed by Germany and France which were very similar in terms of participation. Two Member States from the 2004 Enlargement (Hungary and Poland) and five Associated Countries (Switzerland, Israel, Iceland, Serbia and Norway) have had participating organisations in the selected FPPs. See Table 10 for more details on the participation rates per country.

Country	Total	Participation
UK	48	20.4%
FR	30	12.8%
DE	30	12.8%
SE	17	7.2%
SP	17	7.2%
NL	15	6.4%
IT	16	6.8%
DK	9	3.8%
BE	9	3.8%
AT	8	3.4%
FI	6	2.6%
IE	3	1.3%
HU	3	1.3%
GR	1	0.4%
PL	1	0.4%
LU	2	0.9%
PT	1	0.4%
CH	13	5.5%
IS	1	0.4%
IL	2	0.9%
NO	1	0.4%
RS	1	0.4%
Non spec.	1	0.4%
<b>Total</b>	<b>235</b>	<b>100%</b>

*Table 10: Selected FPPs – participants per country*

#### *2.1.5 Grant Agreements signed*

Grant Agreements (GA) were negotiated from May till November 2009. The 15 Grant Agreements were signed in 2010. No change occurred in the list of proposals proposed for funding compared to the list of Grant Agreements signed.

The table annexed below provides details on the 15 GAs proposed for funding.

*Annex 1: Table of projects for which Grant Agreements have been signed (in €)*

<b>Nº</b>	<b>GA number</b>	<b>Project acronym</b>	<b>Project title</b>	<b>IMI JU financial contribution to beneficiaries eligible for IMI JU funding</b>	<b>Additional own resources of beneficiaries eligible for IMI JU funding</b>	<b>In-kind contributions from industry companies members of EFPIA</b>	<b>Member States contribution</b>	<b>Total contributions</b>
<b>1</b>	<b>115001</b>	<b>MARCAR</b>	BioMARKers and molecular tumor classification for non-genotoxic CARcinogenesis	<b>6,049,578</b>	<b>2,114,051</b>	<b>5,155,604</b>	<b>N/A</b>	<b>13,319,233</b>
<b>2</b>	<b>115002</b>	<b>e-TOX</b>	Integrating bioinformatics and chemoinformatics approaches for the development of expert systems allowing the in silico prediction of toxicities	<b>4,737,991</b>	<b>1,238,361</b>	<b>6,997,915</b>	<b>N/A</b>	<b>12,974,267</b>
<b>3</b>	<b>115003</b>	<b>SAFE-T</b>	Safer and Faster Evidence-Based Translation	<b>13,901,971</b>	<b>4,113,964</b>	<b>17,855,120</b>	<b>N/A</b>	<b>35,871,055</b>
<b>4</b>	<b>115004</b>	<b>PROTECT</b>	Pharmacoepidemiological Research on Outcomes of Therapeutics by a European ConsorTium	<b>11,009,715</b>	<b>8,816,164</b>	<b>9,984,734</b>	<b>N/A</b>	<b>29,810,613</b>
<b>5</b>	<b>115005</b>	<b>IMIDIA</b>	Improving beta-cell function and identification of diagnostic biomarkers for treatment monitoring in diabetes	<b>7,074,760</b>	<b>3,250,920</b>	<b>15,081,800</b>	<b>N/A</b>	<b>25,407,480</b>

<b>Nº</b>	<b>GA number</b>	<b>Project acronym</b>	<b>Project title</b>	<b>IMI JU financial contribution to beneficiaries eligible for IMI JU funding</b>	<b>Additional own resources of beneficiaries eligible for IMI JU funding</b>	<b>In-kind contributions from industry companies members of EFPIA</b>	<b>Member States contribution</b>	<b>Total contributions</b>
<b>6</b>	<b>115006</b>	<b>SUMMIT</b>	Surrogate markers for Micro- and Macro-vascular hard endpoints for Innovative diabetes Tools	<b>13,999,979</b>	<b>4,457,229</b>	<b>9,992,200</b>	<b>N/A</b>	<b>28,449,408</b>
<b>7</b>	<b>115007</b>	<b>EUROPAIN</b>	Understanding chronic pain and improving its treatment	<b>5,999,344</b>	<b>719,279</b>	<b>11,513,835</b>	<b>N/A</b>	<b>18,232,458</b>
<b>8</b>	<b>115008</b>	<b>NEWMEDS</b>	Novel Methods leading to New Medications in Depression and Schizophrenia	<b>8,211,206</b>	<b>2,608,120</b>	<b>13,196,110</b>	<b>N/A</b>	<b>24,015,436</b>
<b>9</b>	<b>115009</b>	<b>PHARMA-COG</b>	Prediction of cognitive properties of new drug candidates for neurodegenerative diseases in early clinical development	<b>9,658,388</b>	<b>7,860,646</b>	<b>10,187,989</b>	<b>N/A</b>	<b>27,707,023</b>
<b>10</b>	<b>115010</b>	<b>U-BIOPRED</b>	Unbiased Biomarkers for the Prediction of Respiratory Disease Outcomes	<b>8,976,474</b>	<b>1,334,568</b>	<b>10,374,199</b>	<b>N/A</b>	<b>20,685,241</b>
<b>11</b>	<b>115011</b>	<b>PROactive</b>	Physical Activity as a Crucial Patient Reported Outcome in COPD	<b>6,767,597</b>	<b>1,743,482</b>	<b>8,225,389</b>	<b>N/A</b>	<b>16,736,468</b>

<b>Nº</b>	<b>GA number</b>	<b>Project acronym</b>	<b>Project title</b>	<b>IMI JU financial contribution to beneficiaries eligible for IMI JU funding</b>	<b>Additional own resources of beneficiaries eligible for IMI JU funding</b>	<b>In-kind contributions from industry companies members of EFPIA</b>	<b>Member States contribution</b>	<b>Total contributions</b>
<b>12</b>	<b>115012</b>	<b>SafeSciMET</b>	European Modular Education and Training Programme in Safety Sciences for Medicines	<b>2,216,405</b>	<b>786,041</b>	<b>3,391,459</b>	<b>N/A</b>	<b>6,393,905</b>
<b>13</b>	<b>115013</b>	<b>Pharma Train</b>	Pharmaceutical Medicine Training Programmes	<b>3,510,300</b>	<b>0</b>	<b>3,143,288</b>	<b>N/A</b>	<b>6,653,588</b>
<b>14</b>	<b>115014</b>	<b>EU2P</b>	European programme in Pharmacovigilance and Pharmacoepidemiology	<b>3,479,725</b>	<b>0</b>	<b>3,791,161</b>	<b>N/A</b>	<b>7,270,886</b>
<b>15</b>	<b>115015</b>	<b>EMTRAIN</b>	European Medicines Research Training Network	<b>4,000,000</b>	<b>0</b>	<b>3,722,663</b>	<b>N/A</b>	<b>7,722,663</b>
<b>TOTAL</b>				<b>109,593,433</b>	<b>39,042,825</b>	<b>132,613,466</b>	<b>N/A</b>	<b>281,249,724</b>

## 2.2. Call IMI\_Call\_2009\_1

### 2.2.1. Summary information

The second Call for Proposals was published on 27 November 2009 and included 9 topics based on the 2009 Scientific Priorities. The call process was entirely managed under the responsibility of the autonomous IMI JU based on the principles of excellence, transparency, fairness and impartiality, confidentiality, efficiency, speed and ethical considerations. The call process has been similar to the first call.

The total budget for the second call included a financial contribution from the EC to the IMI JU of a maximum of 76.8 M€ (not taking into account EFTA contributions) and indicative contributions in-kind estimated to 79.3 M€ by the research based companies that are members of EFPIA ("in-kind" meaning non-monetary contributions such as personnel, equipment, consumables, etc.).

The timelines of the IMI JU second Call for Proposals were:

- Call publication: 27 November 2009
- Deadline Stage 1: 9 February 2010
- Evaluation Stage 1: February-March 2010
- Launch Stage 2: 17 March 2010
- Deadline Stage 2: 28 June 2010
- Evaluation Stage 2: July 2010
- Negotiation Stage 2: August-November 2010

9 topics (based on the Scientific Priorities) were included in the call with the following titles:

- Pillar II: Improving the Predictivity of Efficacy Evaluation
  1. Oncology – Target Validation
  2. Oncology – Molecular Biomarkers
  3. Oncology – Imaging Biomarkers
  4. Infectious Diseases – Diagnostic Tools
  5. Inflammation – Aberrant Adaptive Immunity
  6. Inflammation – Translational Research
- Pillar III: Knowledge Management
  7. Knowledge Management – Drug/Disease Modelling
  8. Knowledge Management – Open Pharmacological Space
  9. Knowledge Management – Electronic Health Records (EHR)



The whole call organisation and process were done in accordance with the "IMI Rules for submission, evaluation and selection of Expressions of Interest and Full Project Proposals" adopted by the IMI JU Governing Board on 26 November 2009.

#### *2.2.2. Analysis of proposals submitted*

The submission and evaluation of the Expressions of Interest (Stage 1) and the Full Project Proposals (Stage 2) have been planned for 2010 and will be detailed in the next Annual Report on the progress achieved by the Joint Technology Initiatives Joint Undertakings.

### **3. PROGRESS ACHIEVED BY THE CLEAN SKY JU**

The Clean Sky Joint Undertaking (hereinafter referred to as "Clean Sky JU" or "Clean Sky") is a public-private partnership aiming at developing environmental technologies impacting all flying segments of commercial aviation in order to contribute to the targets set by the Advisory Council for Aeronautics Research in Europe (ACARE) for reduction of emissions and noise in air transport in Europe. To implement Clean Sky, the European Commission and the major aeronautics stakeholders have agreed to set up a Joint Undertaking for a period up to 2017.

Clean Sky JU is organised around 6 Integrated Technology Demonstrators (ITD), which develop a large set of innovative technologies covering all segments of commercial aviation:

- Smart Fixed Wing Aircraft (SFWA) led by Airbus and Saab;
- Green Regional Aircraft (GRA) led by Alenia Aeronautica and EADS Casa;
- Green Rotorcraft (GRC) led by Agusta-Westland and Eurocopter;
- Sustainable and Green Engines (SAGE) led by Rolls-Royce and Safran;
- Systems for Green Operations (SGO) led by Thales Avionics and Liebherr Aerospace;
- Eco-design (ED) led by Dassault Aviation and Fraunhofer Gesellschaft.

A Technology Evaluator (TE) led by Thales Avionics and DLR is at the core of Clean Sky JU with the purpose of assessing the environmental performance of the technologies developed in Clean Sky.

On 16 November 2009 Clean Sky JU gained operational capacity to implement its budget and therefore became "autonomous". Until that point, the European Commission was responsible for the establishment and the initial operations of the Clean Sky JU in collaboration with the other private founding members and in accordance with Article 16 of the Council Regulation establishing the Clean Sky JU.

The Clean Sky JU Executive Director, Eric Dautriat, was appointed by the Governing Board in April 2009 and took up his position on 15 September 2009. Until that date, the Interim Executive Director appointed by the European Commission, Liam Breslin, fulfilled the duties of Executive Director. In 2009 the Clean Sky JU also recruited its first 10 staff members.

The Governing Board had 7 meetings in 2009. The National States Representatives Group (NSRG) had 6 meetings. The Chairman of the NSRG attended the Governing Board meetings as an observer.

Two major communication events took place in 2009. An open information day was held on 10 July 2009 to communicate information on the first call to potential applicants. A second open information day was held on 15 December 2009 with the purpose of providing information on the second Call for Proposals.

### **Activities of the Clean Sky Members:**

#### ***Grant agreements with named beneficiaries:***

The majority of the work inside the Clean Sky JU has been carried out by its members, under the form of Grant Agreements with named beneficiaries. The first Clean Sky JU Grant Agreements with its members (GAM) were negotiated in November 2008 and signed in November and December 2008. 7 GAMs were concluded: one for each of the 6 ITDs, and a supplementary one for the activities of the Technology Evaluator. These Grant Agreements were to remain in place up to 31 December 2017. Each year, an amendment should be signed in order to update the annual description of work (Annex IB of the GAM) with the corresponding JU financial contribution.

The amendments for 2009 were signed in December 2009 for a total value of 70,614,612 €, handled by the Joint Undertaking following its autonomy. No new named beneficiaries joined the JU in 2009.

#### ***Calls for Proposals:***

According to the Clean Sky Regulation and Statutes 25% of the EU funding to the Clean Sky JU are to be allocated to partners selected via Calls for Proposals. Topics are defined by each ITD. They serve the dual purpose of widening the participation in Clean Sky to further organisations and to identify R&D performers who will participate in the mainstream activities of Clean Sky.

The calls are meant to supplement the technical competences of the members by performing highly specific activities, which are meant to "slot in" with the overall technical work plan of the Clean Sky JU. For this reason, only one contract is awarded for each of the topics that are published, and compliance with the technical description is imperative. However, due to the very specific nature, it is fully possible to respond as a single entity (as allowed by the rules for submission for Clean Sky).

The first Call for Proposals was launched on 15 June 2009 and 57 projects were negotiated successfully, following the evaluation carried out in September with the assistance of independent experts. The second Call for Proposal was launched by the Clean Sky JU on 26 November 2009 with a deadline in February 2010.

### **3.1 Call SP1-JTI-CS-2009-01**

#### ***3.1.1 Summary information***

The first Call for Proposals, identified as "SP1-JTI-CS-2009-01", was published on 15 June 2009, consisting of 72 topics based on the 2009 programme of work. The topics were distributed across 5 ITDs, as illustrated in the table below. The deadline was 31 August 2009. The call process was managed by the newly recruited Clean Sky team, under the responsibility of the Interim Executive Director.

Integrating Technology Demonstrator (ITD)	Research Areas	Open Research Topics	Maximum Budget [M€]	Maximum Funding [M€]
Green Regional Aircraft (GRA)	5	34	4,888	3,666
Green Rotorcraft (GRC)	3	4	4,367	3,275
Sustainable and Green Engine (SAGE)	2	8	11,200	8,400
Smart Fixed Wing Aircraft (SFWA)	3	9	4,250	3,188
Systems for Green Operations (SGO)	2	17	9,530	7,148
Eco-Design (ECO)	No topics open in this call			
Technical Evaluator (TE)	No topics open in this call			
<b>Total</b>	<b>15</b>	<b>72</b>	<b>34,235</b>	<b>25,677</b>

*Table 11: Budget per topic under the Clean Sky JU first Call for Proposals*

The table shows the budget, which covered the total value of work of the activities to be performed inside the proposals. This total budget for the first call included a financial contribution from the EC to the Clean Sky JU of a maximum of about 26 M€, corresponding to the maximum funding of 75% of the call value and contributions in-kind estimated to 9 M€ by the applicants.

Important budgetary note:

The original intention was to launch the first Call for Proposals still in 2008, but due to delays in setting up the Clean Sky JU and reaching an agreement with the industrial members of the Joint Undertaking about their involvement in the call process, the launching of the call had to be deferred. In order to secure the 28.9 M€ allocated to the call, a global commitment was made from the 2008 operational budget, as well as a separate Financing Decision.

It was on the basis of this global commitment from 2008 that the call was eventually launched and evaluated under the Commission's responsibility (in the interim phase prior to the autonomy). The negotiation, individual commitments and signature of the Grant Agreements was carried out by the Clean Sky JU after the autonomy.

It should be also noted that the Annual Implementation Plan 2008 had foreseen a Call for Proposals up to a maximum funding of 28.9 M€, whereas the finally published call represented topics up to a maximum funding level of 25.7 M€. This difference is due to the fact that the calls form an integral part of the overall work programme of Clean Sky, and are launched to bring in skills and contributions that need to harmonise with the activities of the named beneficiaries.

Due to the delay in launching the call, some topics originally foreseen were no longer relevant at that stage and have been removed from the call text. The unspent budget remained to be re-allocated to other topics, keeping in mind that the Clean Sky JU has the obligation to allocate at least 200 M€ via Calls for Proposals across its entire duration.

### 3.1.2 Analysis of proposals submitted

A total of 216 proposals were submitted in response to the call SP1-JTI-CS-2009-01. These proposals addressed 65 of the 72 topics open. The number of proposals per topic varied between 1 and 10 proposals.

Out of the 216 proposals received, 42 failed to meet one or more of the eligibility criteria referred to in the call and in the "Rules for participation and rules for submission of proposals and the related evaluation, selection and award procedures". 32 of these proposals were considered ineligible as the maximum total budget related to the topic had been exceeded. Seven proposals were considered ineligible due to being completely out of scope.

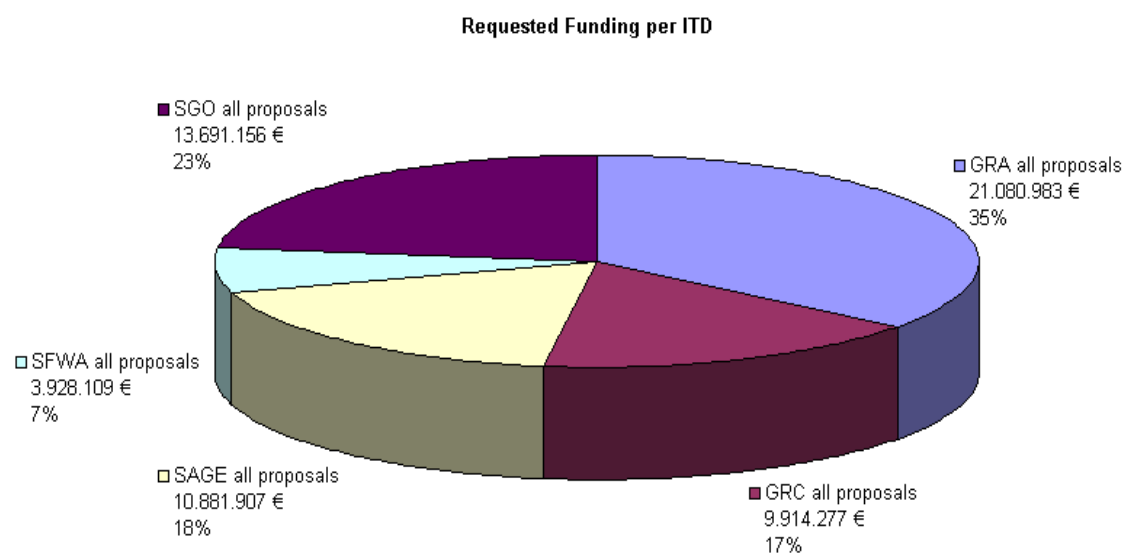
A summary of the number of topics submitted and eligible for each of the ITDs is provided in the table below:

Integrating Technology Demonstrator (ITD)	Number of topics			Submitted proposals	Ineligible proposals	Eligible proposals	Ranked proposals
	Open in call	Covered by submitted proposals	Covered by ranked proposals				
Green Regional Aircraft (GRA)	34	32	28	124	21	103	65
Green Rotorcraft (GRO)	4	4	3	12	3	9	4
Sustainable and Green Engines (SAGE)	8	7	7	18	2	16	11
Smart Fixed Wing Aircraft (SFWA)	9	7	7	23	3	20	15
Systems for Green Operations (SGO)	17	15	15	39	4	35	27
<b>Total</b>	<b>72</b>	<b>65</b>	<b>60</b>	<b>216</b>	<b>33</b>	<b>183</b>	<b>122</b>

Table 12: Analysis of the submitted proposals in the first call

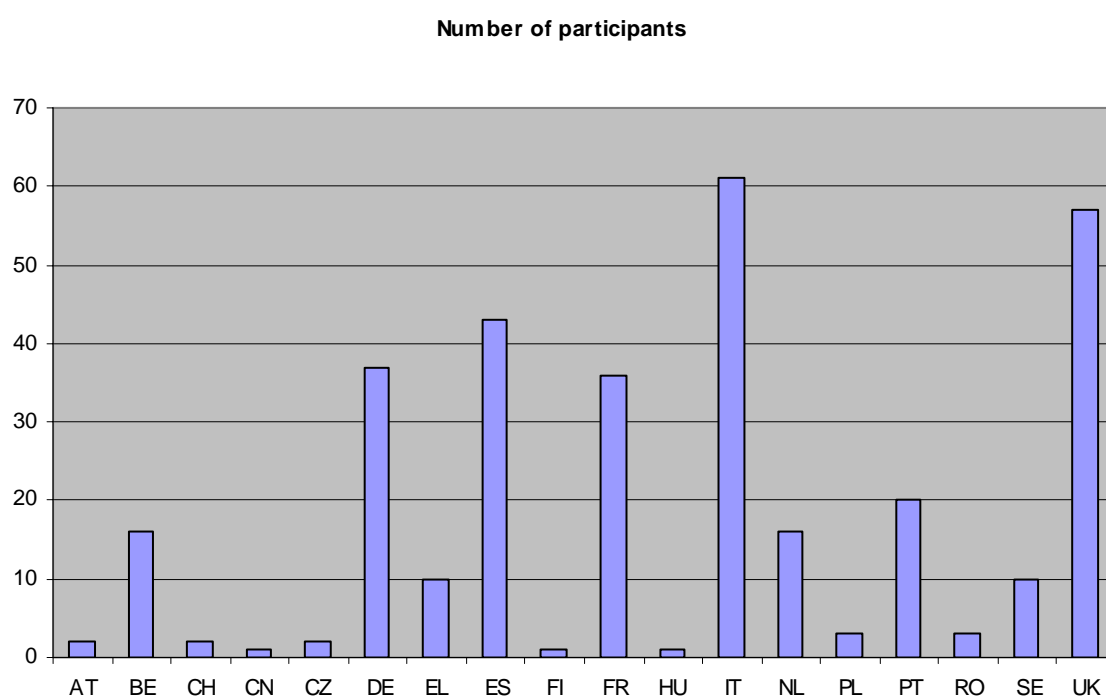
In total, 405 entities applied for the call, requesting a total contribution of 59,496,432 €. Of the 405 entities, 182 (or 45%) declared a SME status, with a total combined requested contribution of 35,641,111 € (or 60%).

For the eligible proposals, a total funding of 41,920,565 € was requested, of which 21,236,828 € (50.6%) was requested by SMEs. A distribution of the requested funding across the ITDs is shown in the graph below:



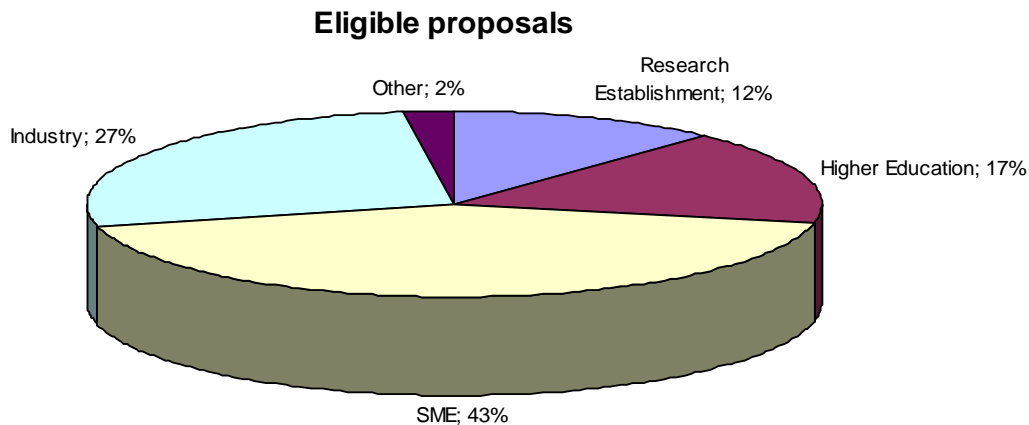
*Figure 5: Requested funding per ITD in the first call*

The number of eligible applicants per country is shown in the graph below:



*Figure 6: Participants per country in the first call*

The distribution across the type of participants is shown in the graph below:



*Figure 7: Typology of participants in the first call*

### *3.1.3 Evaluation procedure*

The evaluation of proposals was carried out at the Commission's evaluation premises in Brussels during the period from 14 September 2009 to 18 September 2009 with the assistance of 125 experts in accordance with the procedures laid down in the call "Rules for participation and rules for submission of proposals and the related evaluation, selection and award procedures". The ITD leaders nominated 62 internal experts and the Commission selected 63 independent external experts from the experts' database. The experts have been carefully selected to avoid potential conflicts of interests.

According to the Call Rules 27 topic managers, nominated by the ITDs, represented the topics and gave additional information on request. In addition, an independent observer was appointed by the Commission to offer an independent advice on the conduct and fairness of the evaluation sessions, on the application of the evaluation criteria and on ways to improve processes. This observer was Mr Mark P. Pfeiffer who wrote a report on the evaluation.

Compared to Calls for Proposals (CfP) in Collaborative Aeronautics Research several differences should be mentioned:

- DG RTD.H.3 Aeronautics ran this call and the evaluation, as the Commission was responsible for the establishment and the initial operation of Clean Sky during the interim period before the autonomy. The Clean Sky JU staff contributed to the evaluation of the CfP.
- In this Clean Sky call very specific topics related to 5 ITD platforms have been defined. Only one eligible proposal per topic would have to be funded.
- While FP7 aeronautics calls define funding limits by instruments, the Clean Sky CfP define maximum topic budget values.
- While FP7 aeronautics CfPs have different funding schemes, the Clean Sky CfP had only one uniform funding scheme for all activities, areas and topics.
- The proposals to Clean Sky CfP were evaluated by a topic specific evaluation panel consisting of at least 4 experts. The evaluation panels were composed of external experts nominated by the Commission, and of internal experts nominated by the ITDs. The composition of the evaluation panels was balanced between internal and external experts. The evaluation panels in FP7 aeronautics CfPs consist of external experts only.

- Each topic was represented by a topic manager who could give technical clarifications on request.
- The number of evaluation criteria has been increased from 3 in FP7 aeronautics CfPs to 6 in Clean Sky CfPs.

### ***Evaluation of proposals***

At the start of the evaluation, all experts, topic managers and ITD representatives were briefed on the process and procedures, as well as on the applicable evaluation criteria and the objectives of the research area under consideration.

The confidentiality requirements of the whole process including conflict of interests and the respective obligations of the experts were emphasised during the briefing. All experts got access to the call-specific documentation with respect to the call text, the rules, etc. prior to the briefing.

Each proposal was assessed independently by at least 2 internal experts nominated by the ITDs and at least 2 independent external experts chosen by the Commission from the pool of experts taking part in this evaluation.

### ***Eligibility criteria***

In line with the Clean Sky "Rules for participation and rules for submission of proposals and the related evaluation, selection and award procedures", the following eligibility criteria were applied to all proposals submitted in this call.

Proposals had to fulfil all of the eligibility criteria if they must have been retained for evaluation. These criteria were rigorously applied. A proposal was only considered eligible if it met all of the following conditions:

- Receipt of proposal by the Commission before the deadline date and time established in the call;
- The proposal was in scope with the topic and addressed fully this topic; a proposal was only deemed ineligible on grounds of "scope" in clear-cut cases;
- The proposal total budget did not exceed the maximum topic total budget specified in the call text;
- The proposal contained both part A and part B, and both parts were complete.

Additionally, the Clean Sky "Rules for participation and rules for submission of proposals and the related evaluation, selection and award procedures" specified which legal entities were allowed to apply to the call.

Further eligibility criteria have not been specified in the call text.

### ***Evaluation criteria, scoring, thresholds***

All eligible proposals have been evaluated according to the six pre-determined evaluation criteria set out in subsection 4.6 of the Call Rules mentioned below:

- Criterion 1: Technical excellence;

- Criterion 2: Innovative character;
- Criterion 3: Compliance with the Call for Proposals specification and timetable (relevance);
- Criterion 4: Adequacy and quality of respondent's resources, management and implementation capabilities and track record;
- Criterion 5: Appropriateness and efficient allocation of the resources to be committed (budget, staff, equipment);
- Criterion 6: Contribution to the European competitiveness.

### Thresholds

Thresholds were set for each of the criteria on a score of 3 out of 5 points. Any proposal failing to achieve all threshold scores has been rejected. In addition, an overall threshold was set on a score of 20 out of 30 points. The thresholds to be applied to each criterion as well as the overall threshold have been announced in the call text.

### Individual evaluation of proposals

The topic specific evaluation panels consisted of at least 2 internal experts nominated by the ITDs and at least 2 independent external experts chosen by the Commission from the pool of experts taking part in this evaluation. 65 evaluation panels have been defined to evaluate 216 proposals which were assigned to 65 of the open 72 topics.

Each proposal was evaluated against the applicable criteria independently. The experts filled in and signed Individual Evaluation Reports (IER) giving scores and comments on each evaluation criterion.

### Consensus

For each proposal a consensus meeting was convened. The outcome of the consensus meeting has been recorded in a consensus report.

The consensus report reflected the common view of the experts on a particular proposal as a result of their consensus meeting. It has been the basis for the Evaluation Summary Report (ESR) of the proposal.

### Topic review

Finally, the panels have been convened for each topic. The evaluators reconsidered and reviewed their work at the end of their evaluation week and provided their input to the appropriate final ranking for each topic.

They produced ranking lists according to the quality of the proposal(s) related to a specific topic in order to define the winning proposal and – if possible – a ranked list serving as a reserve list in case of later failure of the winning coordinator during the negotiation phase.

This has been the final step involving the experts. It allowed them to formulate their recommendations to the Commission having had an overview of the results of the consensus step.



The main task of these panels was to examine and to compare the draft ESRs in a given topic, to check on the consistency of the marks applied during the consensus discussions and, where necessary, propose a new set of ESR scores.

The tasks of the panels also included recommending a priority order of proposals to be retained for a potential reserve list; this would have included a decision on priority order of those proposals with the same scores. The case of two equally-scored top ranked proposals did not occur hence no priority order was set.

The panels were chaired by a representative of the Commission, supported by the related topic manager. They ensured fair and equal treatment of the proposals in the panel discussions. Panel rapporteurs have been appointed to record the panel's advice and to draft the panel report.

### Topic evaluation report

The outcome of each topic review, which is the analogue to the panel review known in FP7 calls, was a report including the following:

- An ESR for each proposal, including comments and scores, taking account of any hearings where applicable;
- A list of proposals passing all thresholds, along with a final score for each proposal passing the thresholds and the panel recommendations for priority order (no need for priority order as described above);
- A list of evaluated proposals having failed one or more thresholds;
- A list of any proposals having been found ineligible during the evaluation;
- A summary of any recommendations of the panel.

#### *3.1.4 Evaluation results*

Overall, out of a total of 174 eligible proposals (average 2.5 proposals per topic) 118 (68 %) proposals (average 1.7 per topic) passed all thresholds set out in the call. Proposals were selected for negotiations covering 60 of the 72 topics launched. Topics not covered by a successful proposal could be reconsidered in subsequent calls. As indicated above, only one proposal per topic was proposed for funding.

The average number of participants in the proposals proposed for funding was 2. About 50% of the proposals proposed for funding involved only one participant. This is linked to the particular features of the Clean Sky topics, which involve a precise description of work, well focused on a contribution to the demonstrators (models, innovative equipment or material, innovative test, etc.).

The number of participations in proposals proposed for funding by country is shown in the following chart:

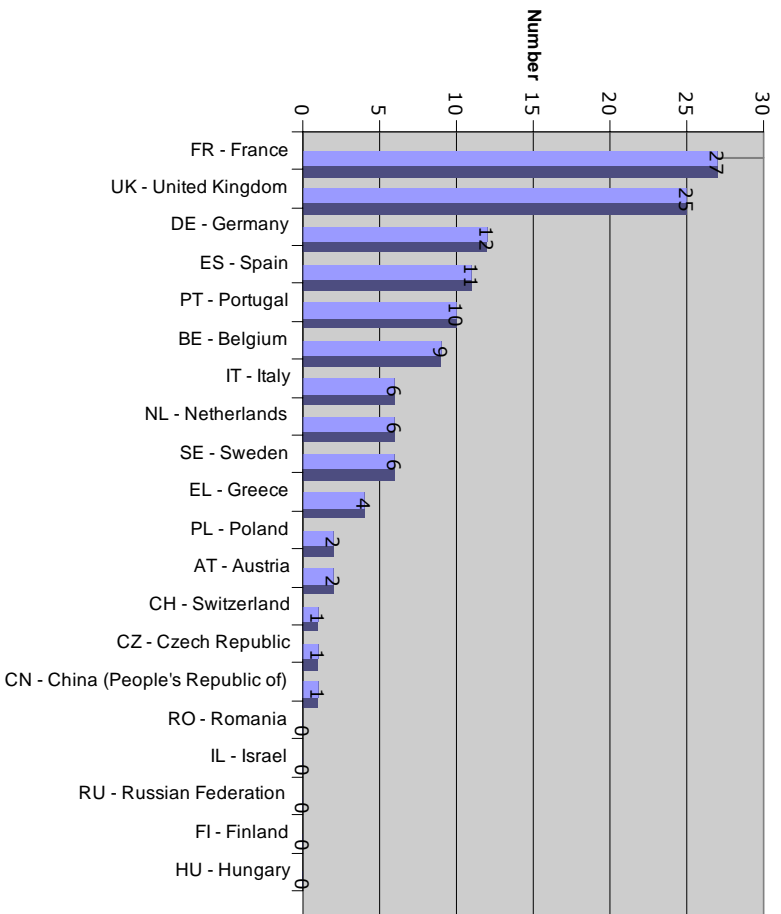


Figure 8: Number of participants in proposals proposed for funding per country

The requested budget distribution across Member States is given in the chart below:

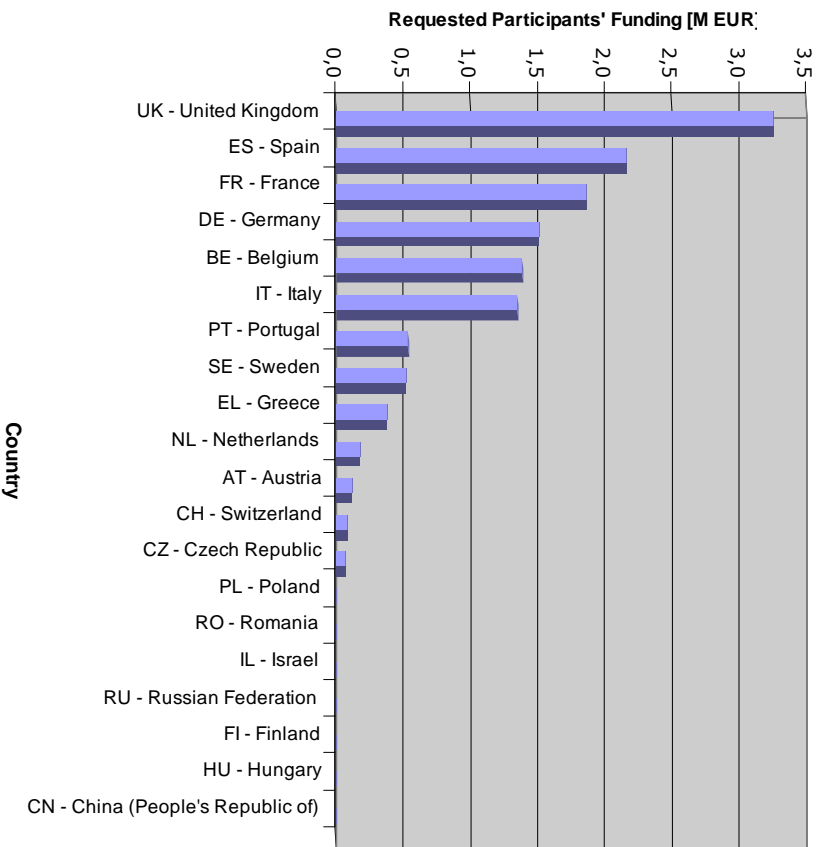
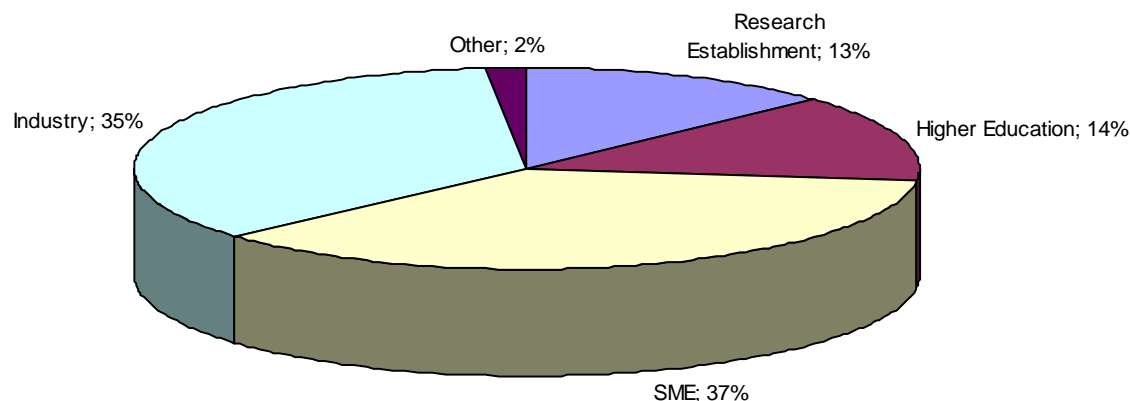


Figure 9: Requested funding per country

Among the successful projects proposed for funding selected in this first call:

- Out of 116 participants, 42 declared a SME status (36%);
- Out of the 14 M€ total budget, 5.6 M€ were for SMEs (40%).

The distribution across type of entity of proposals proposed for funding is given in the chart below:



*Figure 10: Breakdown of the total number of participants involved in the proposals proposed for funding by type of organisation*

### *3.1.5 Grant Agreements signed*

The evaluations led to 60 proposals proposed for funding which were therefore moved forward in order to initiate negotiations. However, it became clear that 3 proposals would not complete negotiations:

- For one proposal, the single participant informed the JU that they were no longer intending to proceed with the negotiation of the contract;
- For two proposals, the invitation for negotiation was sent by the Clean Sky JU on 2 October 2009. During the checks according to the internal legal and financial procedures, one organisation (only participant in both proposals), has been found to be an "affiliate" entity of an ITD Member, being under the same direct or indirect control as ITD System for Green Operations Members. According to the rules for participation, an affiliate of a member cannot participate in a Call for Proposals from its ITD. For this reason, the Clean Sky JU has consequently decided to terminate the negotiations.

The negotiations with the remaining 57 projects selected for funding in the first Call for Proposals started in early October 2009 and were concluded by the end of November 2009. Grant Agreements were sent to proposal coordinators by the JU within 15 December 2009 and 70% of the Grant Agreements were countersigned by the JU within 2009.

The table annexed below shows the 57 proposals, for which negotiations have been successfully concluded.

Annex 2: Table of successfully negotiated projects from the first Call for Proposals

Topic	ACRONYM	Prop Nbr	Project total costs (€)	CS total contribution (€)	Funding percentage
GRA-01-001	WEMACS	255877	74.971	42.898	57,2%
GRA-01-002	FOSAS	255865	159.900	119.925	75,0%
GRA-01-003	InFlightFOS	255768	239.846	169.896	70,8%
GRA-01-004	SMACMP	252045	149.700	74.850	50,0%
GRA-01-005	SMASH	255741	417.130	312.847	75,0%
GRA-01-006	SENCEs	255837	549.596	367.572	66,9%
GRA-01-007	THERMOCS	255755	99.000	74.250	75,0%
GRA-01-008	CNMD	252044	249.600	124.800	50,0%
GRA-01-009	Intelli-SHM	255734	297.727	223.295	75,0%
GRA-01-010	INDUCER	255770	200.000	149.998	75,0%
GRA-01-011	PASSS	255666	78.000	39.000	50,0%
GRA-01-012	RemFOS	255820	79.998	59.998	75,0%
GRA-01-013	Sandwich foam cores	251789	77.000	41.073	53,3%
GRA-01-015	MAPS	255670	44.566	33.425	75,0%
GRA-01-017	FusDesOpt	255806	99.635	74.726	75,0%
GRA-01-018	AU-BB/EMI sensor nod	255711	58.345	43.759	75,0%
GRA-01-019	AirWISE	255776	115.312	86.483	75,0%
GRA-01-020	OPTIMUMS	255724	30.000	22.499	75,0%
GRA-01-021	ORGANOCS	255760	59.999	44.999	75,0%
GRA-02-001	ALONOCO	255714	300.000	227.500	75,8%
GRA-02-003	VELOCIRAPTOR	255797	145.682	109.261	75,0%
GRA-02-004	ADOCHA	255783	200.000	150.000	75,0%
GRA-03-001	SYS-ARCHITECTURE GRA	255795	169.096	126.822	75,0%
GRA-04-001	GRA3M	255772	49.820	24.910	50,0%
GRA-05-001	AERODESIGN	255851	189.395	115.630	61,1%
GRA-05-002	CAA-NLH	255860	100.000	75.000	75,0%
GRA-05-003	FRARS	255689	49.860	37.395	75,0%
GRA-05-004	ROM&O	255779	59.945	44.959	75,0%
GRC-01-001	MulticompAct	255774	300.000	206.250	68,8%
GRC-05-001	EMICOPTER	251798	399.391	299.543	75,0%
GRC-05-002	GARDEN	255886	586.770	370.231	63,1%
SAG-02-001	OREAT	255762	766.700	388.601	50,7%
SAG-02-002	ABAG	255034	598.300	299.150	50,0%
SAG-05-001	ThetaGen	255853	871.504	474.971	54,5%
SAG-05-003	ActiPPTSens	255909	799.544	599.658	75,0%
SAG-05-004	COTSTEM	255848	761.299	570.974	75,0%
SAG-05-005	HIGHTECS	255749	1.408.360	704.180	50,0%
SAG-05-006	HP-SMART EMA	255819	1.917.111	1.160.164	60,5%
SFW-01-001	AFC-TEFL-HLC	255739	299.990	224.993	75,0%
SFW-01-002	OPTLAM	255732	200.000	150.000	75,0%
SFW-01-003	LEBox	255752	298.663	223.997	75,0%
SFW-02-001	DINNO-CROR	255878	400.000	305.867	76,5%
SFW-02-002	DECORR	255863	194.150	145.612	75,0%
SFW-02-004	IDOHAP	255782	180.000	135.000	75,0%
SFW-02-005	GKN GBSSD	255731	250.000	125.000	50,0%
SGO-02-001	ACOC-TH	255881	299.284	224.463	75,0%
SGO-02-003	EHWAZ	255866	398.388	199.194	50,0%
SGO-02-004	SONEWIPS	255780	1.475.000	737.500	50,0%
SGO-02-005	SIPAL	255742	498.041	266.091	53,4%
SGO-02-006	SLD_scoop	255656	173.026	129.770	75,0%
SGO-02-008	ASE-TB	255730	250.977	183.908	73,3%
SGO-03-001	TURBOGAS	255674	297.360	218.751	73,6%
SGO-03-002	FLIGHT-NOISE	255750	329.924	247.443	75,0%
SGO-03-003	COMET	255718	99.850	74.889	75,0%
SGO-03-004	CARING	255875	953.760	647.334	67,9%
SGO-03-005	MAS_Lab	255907	500.000	250.000	50,0%
SGO-03-006	SIMET	255740	599.831	449.873	75,0%
			20.451.347	13.031.176	63,7%

### **3.2. Call SP1-JTI-CS-2009-02**

The second Call for Proposals was published on 26 November 2009 with a closing date 23 February 2010. The evaluation of the proposals took place on 22-26 March 2010. The call was open for 24 topics covering activities within all ITDs except for Smart Fixed Wing Aircraft (SFWA) and Technology Evaluator (TE). The full call process has been managed by the autonomous Clean Sky JU, according to the same principles of excellence, transparency, fairness and impartiality, confidentiality, efficiency, speed and ethical considerations applied by the Commission in the first call.

The total budget for the second call included a financial contribution from the EC to the Clean Sky JU of a maximum of 16 M€, following the same scheme of a maximum contribution of 75% to the call value of 3.3 M€. This call was entirely financed from the 2009 budget.

The final published value was for a total scope of work of 11,170,000 € and a maximum funding of 8,377,500 €.

The difference between the originally forecasted value and the finally allocated amount was due to the fact that the calls formed an integral part of the overall work programme of Clean Sky, and were launched to bring in skills and contributions that needed to harmonise with the activities of the named beneficiaries.

Some of the originally foreseen topics were finally not launched, due to reasons of relevance or quality of the topic descriptions. The unspent budget remained to be re-allocated to other topics (including re-launches of unanswered ones), keeping in mind that the Clean Sky JU has the obligation to allocate at least 200 M€ via Calls for Proposals across its entire duration.

## **4. PROGRESS ACHIEVED BY THE FUEL CELLS AND HYDROGEN (FCH) JU**

The Fuel Cells and Hydrogen Joint Technology Initiative (FCH JTI) is a novel public-private partnership supporting research, technological development and demonstration (RTD) activities in fuel cell and hydrogen energy technologies in Europe<sup>4</sup>. Its aim is to accelerate the market introduction of these technologies realising their potential as a vector in a carbon-lean energy system.

FCH JTI brings together businesses representing the entire supply chain for FCH technologies, the European Commission and research institutions. A coordinated approach is proposed in order to pull together resources and coordinate RTD efforts of different stakeholders in order to identify and overcome technical and non-technical barriers to market-introduction of FCH technologies. In order to meet the objective of market deployment, industry has a lead role in defining RTD priorities and timelines, in consultation with the European Commission and the research community.

To implement the JTI, the founding members, the European Union and the NEW Industry Grouping (NEW IG), have agreed to set up a Joint Undertaking (JU) as a legal entity for the

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<sup>4</sup> Europe in this context means: Member States and countries associated to the 7<sup>th</sup> Framework Programme (FP7) i.e. Albania, Bosnia & Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Iceland, Israel, Liechtenstein, Montenegro, Norway, Serbia, Switzerland, Turkey.

period up to 2017, which the N.ERGHY Research Grouping joined as the third member as of 14 July 2008.

The objective of the Fuel Cells and Hydrogen Joint Undertaking (hereinafter referred to as "FCH JU") shall be achieved through the support of research, technological development and demonstration activities that pool resources from the public and private sectors, through open and competitive Calls for Proposals. Calls for Proposals are published annually in the period of 2008 to 2013 and in the period of 2014 to 2017 the projects that are still running will be brought to conclusion.

Until the FCH JU had its full operational capacity to implement its own budget, the European Commission was responsible for the establishment and initial operation of the FCH JU in collaboration with its other members, and with the involvement of the competent bodies in accordance with Article 16 of the Council Regulation. The FCH JU gained its financial and operational autonomy on 15 November 2010.

In 2009, FCH JU had two main objectives. Firstly, to prepare the legal and financial framework and to procure the necessary services and infrastructure to prepare for the "autonomy" of the FCH JU in 2010. Secondly, to execute the operational budget of the FCH JU by the conclusion of Grant Agreements for projects selected in the first Call for Proposals of 2008 and by launching of the 2009 Call for Proposals.

All bodies described in the Regulation setting up the FCH JU were established and fully active from January 2009 on. As in 2009 the FCH JU was not "autonomous", the Interim Executive Director, Mr Philippe Vannson, supported by an Interim Programme Office, was in charge of the daily management of FCH JU under the auspices of the European Commission. He was also supported by Commission staff<sup>5</sup>.

Important progress was made during the year towards reaching autonomous status for the FCH JU.

With regards to staffing, 18 vacancy notices for Temporary Agent positions were published in 2009, including the one of the Executive Director. A majority of the posts have been filled in 2010 including the Executive Director Mr Bert De Colvenaer, who took office on 1 September 2010. The FCH JU moved to its temporary premises at the Covent Garden building in December 2009. The FCH JU office was expected to move to its permanent offices, together with the other four JTIs, in early 2011. An IT-assisted accounting system, the Accrual Based Accounting System (ABAC), was chosen and has been adapted for FCH JU needs.

On the operational side, the Governing Board adopted on 15 May 2009 the Multi-Annual Implementation Plan (MAIP) of the FCH JU, defining the scientific priorities for the duration of the programme. The MAIP will be translated into Annual Implementation Plans (AIP) each year, which set out the detailed topics for Calls for Proposals. The FCH JU Grant Agreement, governing the relationship between the FCH JU and beneficiaries participating in projects, was also adopted on the same date.

Key communication activities in 2009 included the launching of the FCH JU website in May and the organisation of the Stakeholders General Assembly 2009 in October. The FCH JU

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<sup>5</sup> In accordance with Art. 16 of the Council Regulation (EC) No 521/2008 of 30 May 2008.

was also presented in various events in Europe and further afield. Cooperation with key stakeholders, in particular European Regions, Member States' programmes as well as international partners was actively developed.

Two Calls for Proposals were evaluated in 2009, the details of which are outlined in the sections below. The first Call for Proposals, launched in 2008, was brought to conclusion in December 2009. The evaluation of submitted projects was carried out in January-February by 19 independent experts. An independent observer monitored that the procedure was carried out in a fair, impartial and confidential manner. On 15 May 2009 the Governing Board approved a list of 16 project proposals for negotiations, which started on 5 June 2009. Negotiations were concluded and, following the approval of the Governing Board, Grant Agreements were signed for the funding of 16 projects in December. Of the preliminary budget of 28.8 M€, 27.2 M€ were committed to these projects<sup>6</sup>. Pre-financing was paid out to the selected beneficiaries by 31 December.

The Annual Implementation Plan 2009, setting out 29 topics for the Call for Proposals of that year, was adopted on 15 May and the corresponding Call, the second for the FCH JU, was published on 2 July with a preliminary budget for FCH JU contribution of 71.3 M€. The deadline for submission of proposals was 15 October and the evaluations took place in November 2009<sup>7</sup>. Out of 50 proposals submitted by the deadline, 31 passed the evaluation thresholds. The list of projects to enter into negotiations was approved by the Governing Board in the first quarter of 2010.

## 4.1 Call FCH-JU-2008-1

### 4.1.1 Summary information

Call FCH-JU-2008-1 was published on 8 October 2008. The deadline for submission of proposals was 15 January 2009. The 15 topics addressed by this call are illustrated in the table below:

№	Topic	Scope	Indicative FCH JU funding (in M€)
<b>Area Transportation &amp; Refuelling Infrastructure</b>			<b>8.9</b>
<b>1</b>	Large-scale demonstration of road vehicles and refuelling infrastructure	Demonstration of second-generation hydrogen fuelled vehicles fleets with improved durability, robustness, reliability and efficiency in order to prove application readiness of the technology; demonstrate the feasibility of infrastructure for daily use; demonstration trials are supported by activities on public awareness, environmental and social assessment, and certification requirements.	

<sup>6</sup> The amounts include 2.4% EFTA contributions from countries associated to the 7th Framework Programme.

<sup>7</sup> Remote evaluations 3-13 November; Consensus and panel meetings 16-20 November 2009.

<b>№</b>	<b>Topic</b>	<b>Scope</b>	<b>Indicative FCH JU funding (in M€)</b>
<b>2</b>	European cluster for large-scale vehicle demonstration – Feasibility study	Feasibility study on large-scale demonstration of second-generation hydrogen fuelled vehicles fleets, including the development of criteria and framework for the selection of candidate regions.	
<b>3</b>	European fuel cell stack cluster – Feasibility study	Assessment of the potentialities for the formation of a European cluster of Industry, SMEs and research organisations for the establishment of a European transportation stack industry.	
<b>4</b>	70MPa compressed H2 onboard storage	Research and development to enable the application readiness of 70MPa on board H2 storage technology, with improved functional performance and cost reduction.	
<b>Area Hydrogen Production, Storage &amp; Distribution</b>			<b>2.9</b>
<b>5</b>	Development of low temperature, high efficiency electrolyser based on PEM technology	Development activities on low cost, low temperature electrolysers based on PEM technologies, including prototyping and testing; demonstration of the application and production readiness.	
<b>6</b>	Development of low temperature, high efficiency electrolyser based on alkaline technology	Development activities on low cost, low temperature electrolysers based on alkaline technologies, including prototyping and testing; demonstration of the application and production readiness.	
<b>7</b>	Thermo-chemical processes with solar heat sources	RTD activities on thermo-chemical processes coupled with solar including research on high temperature water decomposition processes	
<b>Area Stationary Power Generation &amp; CHP</b>			<b>12.0</b>
<b>8</b>	Operation diagnostics and control for stationary power applications	Development of control and diagnostics tools for operational performance including degradation and lifetime prediction (PEMFC, MCFC, SOFC technologies).	
<b>9</b>	Component and system improvement for stationary power applications	Development activities on component and system in order to meet application- relevant functional and performance criteria (PEMFC, MCFC, SOFC technologies).	
<b>10</b>	Degradation & lifetime fundamentals for stationary power applications	Research on factors impacting the degradation and lifetime of stacks (SOFC, PEMFC, MCFC technologies); exploration of synergies with back up and UPS units.	



<b>№</b>	<b>Topic</b>	<b>Scope</b>	<b>Indicative FCH JU funding (in M€)</b>
<b>Area Early Markets</b>			<b>2.6</b>
<b>11</b>	Demonstration of portable generators, backup and UPS power systems	Demonstration of application readiness with respect to cost-competitiveness, lifetime, logistics, environmental performance of portable generators, back-up and UPS-systems.	
<b>12</b>	Novel approaches for fuel supply technology for portable and micro fuel cell systems	Development of new fuelling systems for portable and micro Fuel Cells, including associated RCS, the requested fuel storage solutions, logistical and distribution requirements.	
<b>Area Cross-cutting Issues</b>			<b>1.7</b>
<b>13</b>	Planning of socio-economic activities	Comprehensive state of the art analysis of socio-economic activities, building and consolidating from previous EC co-financed projects; establishment of a framework for further socio-economic activities.	
<b>14</b>	Development of a framework for Technology Monitoring and Assessments (TMA)	Development of a comprehensive technology monitoring and assessment (TMA) framework to be used by the FCH JU for assessing progress towards achieving both FCH JU objectives and vis-à-vis major external developments.	
<b>15</b>	Development of a framework for Life Cycle Assessment (LCA)	Development of dedicated practice guidance for hydrogen and fuel cell technologies to be integrated with the International Reference Life Cycle Data System (ILCD) Handbook on LCA	
<b>Total indicative FCH JU funding</b>			<b>28.1</b>

*Table 13: Topics addressed in the call FCH-JU-2008-1*

The total indicative budget for the call of 28.1 M€ from the FCH JU was expected to be at least matched by the in-kind contributions from the industry participants in projects.

#### *4.1.2 Analysis of proposals submitted*

On receipt by the FCH JU, proposals were registered and acknowledged and their contents entered into a database to support the evaluation process. Eligibility criteria for each proposal were also checked by FCH JU staff before the evaluation began.

Table 14 below illustrates the number of proposals submitted by topic and those eligible for evaluation.

Topic/Application Area	Total number of proposals received	Number of proposals found ineligible		Number of proposals evaluated	
			%		%
Demonstration of hydrogen fuelled road vehicles and refuelling infrastructure	1	0	0	1	100
Preparation for large-scale vehicle demonstrations in Europe	1	0	0	1	100
European fuel cell stack cluster	1	0	0	1	100
Compressed hydrogen onboard storage	1	0	0	1	100
<b>Transportation and Refuelling Infrastructure (Total)</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>100</b>
Efficient PEM electrolyzers	3	0	0	3	100
Efficient alkaline electrolyzers	2	0	0	2	100
Water decomposition with solar heat sources	2	0	0	2	100
<b>Hydrogen Production &amp; Distribution (Total)</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>100</b>
Operation diagnostics and control for stationary applications	1	0	0	1	100
Component and system improvement for stationary applications	3	0	0	3	100
Degradation and lifetime fundamentals	11	0	0	11	100
<b>Stationary Power Generation &amp; CHP</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>100</b>
Portable generators, backup and UPS power systems	2	0	0	2	100
Fuel supply technology for portable and micro Fuel Cells	3	0	0	3	100
<b>Early Markets (Total)</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>100</b>
Planning of socio-economic activities	1	0	0	1	100
Technology monitoring and assessment (TMA)	0	0	0	0	0
Life Cycle Assessment (LCA)	0	0	0	0	0
<b>Cross-cutting issues (Total)</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100</b>
<b>TOTAL</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>100</b>

Table 14: Proposals submitted and eligible for evaluation by topic

Funding scheme	Proposals evaluated					
	Participation		SMEs			
	Total number of participants	FCH requested contribution (in M€)	Total number of SMEs		FCH requested contribution (in M€)	
				%		%
Collaborative Projects	211	66.37	73	35%	21.65	33%
Support Actions	32	2.07	5	16%	0.22	11%
<b>Total</b>	<b>243</b>	<b>68.44</b>	<b>78</b>	<b>32%</b>	<b>21.87</b>	<b>32%</b>

Table 15: Total funding requested by all proposals eligible for evaluation and total funding requested by their SMEs partners

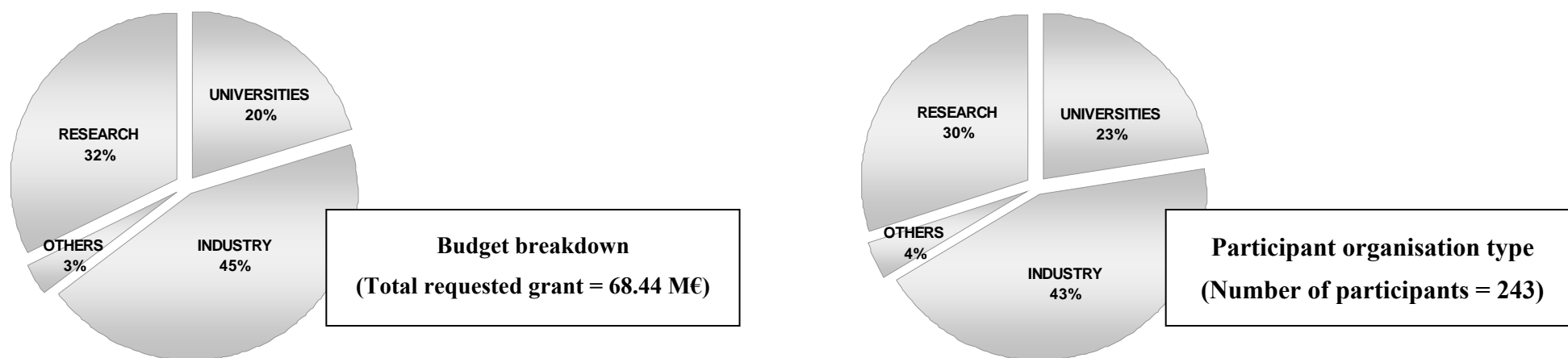


Figure 11: Breakdown of the total number of participants involved in the proposals eligible for evaluation by type of organisation

Table 16: Breakdown of the total number of participants involved in the proposals eligible for evaluation by country

Member States	Number of proposals	Requested Grant (M€)
AT	2	0.25
BE	6	0.05
BG	3	0.69
CZ	2	0.22
DE	45	14.69
DK	14	3.29
EL	15	4.97
ES	17	4.49
FI	9	2.65
FR	27	7.99
IT	23	7.31
NL	10	2.88
PL	4	0.84
PT	5	1.56
RO	1	0.14
SE	9	2.66
SI	1	0.27
UK	11	2.71
<b>Total</b>	<b>204</b>	<b>57.64</b>

Associated Countries	Number of proposals	Requested Grant (M€)
Croatia	1	0.20
Iceland	1	0.06
Norway	9	3.87
Switzerland	17	3.61
Turkey	10	2.79
<b>Total</b>	<b>38</b>	<b>10.52</b>
Third Countries	Number of proposals	Requested Grant (M€)
Russian Fed.	1	0.28
<b>Total</b>	<b>1</b>	<b>0.28</b>

#### 4.1.3 *Evaluation procedure*

As FCH JU was not in a position to implement its budget at the time of the first call, the call was managed by Commission officials and the infrastructure used for submission of proposals was the one of the Commission.

According to the Call for Proposals, submission of proposals was done in one stage.

The evaluation of proposals, carried out by independent experts, was in line with the principles contained in the FCH JU Rules<sup>8</sup>, ensuring that the process was fair and transparent. For the FCH JU 2008 Call, the database of experts established by the Commission was used.

Experts performed evaluations on a personal basis, not as representatives of their employer, their country or any other entity. They were expected to be independent, impartial and objective, and to behave throughout in a professional manner. They signed an appointment letter, including a declaration of confidentiality and absence of conflict of interest before beginning their work. Confidentiality rules were to be adhered to at all times, before, during and after the evaluation. Proposals were allocated to individual experts taking account of the fields of expertise of the experts, and avoiding conflicts of interest.

The evaluation comprised an individual remote evaluation between 30 January and 11 February and Consensus and Panel meetings in Brussels from 16 to 19 February 2009.

For the call FCH-JU-2008-1, there was an original list of 39 experts available for the evaluation. According to the number of proposals, 19 experts were asked to support the Commission throughout the evaluation. Ten of them acted as rapporteurs. The standard procedure was that 3 experts were asked to evaluate a proposal individually and to find a consensus during the Consensus Meeting that was moderated by Commission staff. For the large-scale demonstration project ("Demonstration of hydrogen fuelled road vehicles and refuelling infrastructure"), 5 experts were asked to evaluate the proposal. During the Consensus Meeting the rapporteur had no accentuated or leading role in the discussion. The discussion was chaired by the moderator. When possible, the group of experts was kept unchanged for a specific topic, so that one group evaluated all proposals for one specific topic.

In addition, an independent expert was appointed by the FCH JU to observe the evaluation process from the point of view of its working and execution. The role of the observer was to give independent advice to the FCH JU on the conduct and fairness of the evaluation sessions, on the way in which the experts apply the evaluation criteria, and on ways in which the procedures could be improved.

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<sup>8</sup> FCH JU Rules for submission of proposals, and the related evaluation, selection and award procedures (posted on CORDIS: [ftp://ftp.cordis.europa.eu/pub/fp7/docs/calls/cooperation/fchju\\_evrules\\_en.pdf](ftp://ftp.cordis.europa.eu/pub/fp7/docs/calls/cooperation/fchju_evrules_en.pdf)).

Table 17: Evaluation criteria used by experts for the FCH JU project proposals

<b><i>Evaluation criteria applicable to Collaborative project proposals</i></b>		
<b>S/T QUALITY</b> <b>“Scientific and/or technological excellence (relevant to the topics addressed by the call)”</b>	<b>IMPLEMENTATION</b> <b>“Quality and efficiency of the implementation and the management”</b>	<b>IMPACT</b> <b>“Potential impact through the development, dissemination and use of project results”</b>
<ul style="list-style-type: none"> <li>• Soundness of concept, and quality of objectives</li> <li>• Progress beyond the state-of-the-art</li> <li>• Quality and effectiveness of the S/T methodology and associated work plan</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriateness of the management structure and procedures</li> <li>• Quality and relevant experience of the individual participants</li> <li>• Quality of the consortium as a whole (including complementarity, balance)</li> <li>• Appropriateness of the allocation and justification of the resources to be committed (budget, staff, equipment)</li> </ul>	<ul style="list-style-type: none"> <li>• Contribution, at the European [and/or international] level, to the expected impacts listed in the work programme under the relevant topic/activity</li> <li>• Appropriateness of measures for the dissemination and/or exploitation of project results, and management of intellectual property.</li> </ul>

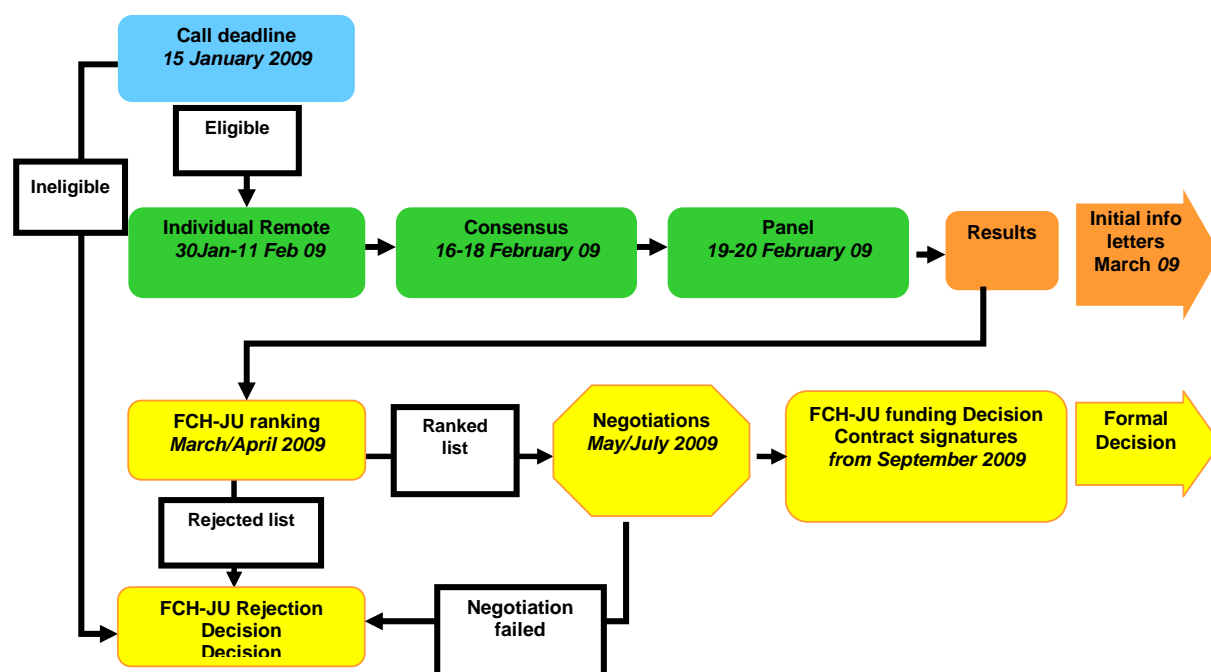
<b><i>Evaluation criteria applicable to Coordination and support actions (Coordinating)</i></b>		
<b>S/T QUALITY</b> <b>“Scientific and/or technological excellence (relevant to the topics addressed by the call)”</b>	<b>IMPLEMENTATION</b> <b>“Quality and efficiency of the implementation and the management”</b>	<b>IMPACT</b> <b>“Potential impact through the development, dissemination and use of project results”</b>
<ul style="list-style-type: none"> <li>• Soundness of concept, and quality of objectives</li> <li>• Contribution to the co-ordination of high quality research</li> <li>• Quality and effectiveness of the co-ordination mechanisms, and associated work plan</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriateness of the management structure and procedures</li> <li>• Quality and relevant experience of the individual participants</li> <li>• Quality of the consortium as a whole (including complementarity, balance)</li> <li>• Appropriateness of the allocation and justification of the resources to be committed (budget, staff, equipment)</li> </ul>	<ul style="list-style-type: none"> <li>• Contribution, at the European [and/or international] level, to the expected impacts listed in the work programme under the relevant topic/activity</li> <li>• Appropriateness of measures for spreading excellence, exploiting results, and disseminating knowledge, through engagement with stakeholders, and the public at large.</li> </ul>

<b><i>Evaluation criteria applicable to Coordination and support actions (Supporting)</i></b>		
<b>S/T QUALITY</b>  “Scientific and/or technological excellence (relevant to the topics addressed by the call)”	<b>IMPLEMENTATION</b>  “Quality and efficiency of the implementation and the management”	<b>IMPACT</b>  “Potential impact through the development, dissemination and use of project results”
<ul style="list-style-type: none"> <li>• Soundness of concept, and quality of objectives</li> <li>• Quality and effectiveness of the support action mechanisms, and associated work plan</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriateness of the management structure and procedures</li> <li>• Quality and relevant experience of the individual participants</li> <li>• Quality of the consortium as a whole (including complementarity, balance) [only if relevant]</li> <li>• Appropriateness of the allocation and justification of the resources to be committed (budget, staff, equipment)</li> </ul>	<ul style="list-style-type: none"> <li>• Contribution, at the European [and/or international] level, to the expected impacts listed in the work programme under the relevant topic/activity</li> <li>• Appropriateness of measures for spreading excellence, exploiting results, and disseminating knowledge, through engagement with stakeholders, and the public at large.</li> </ul>

Evaluation scores have been awarded for each of the three criteria, and not for the sub-criteria. The sub-criteria were addressing issues which the expert should consider in the assessment of that criterion. They also acted as reminders of issues to rise later during the discussions of the proposal.

The relevance of a proposal was considered in relation to the topic(s) of the Annual Implementation Plan open in the call, and to the objectives of the call. These aspects have been integrated in the application of the criterion "S/T Quality", and the first sub-criterion under "Impact" respectively. When a proposal was partially relevant because it only marginally has addressed the topic(s) of the call, or if only part of the proposal has addressed the topic(s), this condition was reflected in the scoring of the first criterion. Proposals that were clearly not relevant to a call ("out of scope") have been rejected on eligibility grounds. Each criterion was scored out of 5. Half marks could have been given.

Figure 12: Evaluation process and timetable for the call FCH-JU-2008-1





#### 4.1.4 Evaluation results

Application areas	Proposals submitted to evaluators	Below thresholds proposals		Proposals proposed for funding			Proposals on reserve list		
			%		%	Requested FCH JU contribution (in M€)		%	Requested FCH JU contribution (in M€)
<i>Transportation &amp; Refuelling Infrastructure</i>	4	1	25%	3	75%	12.1			
<i>Hydrogen Production &amp; Distribution</i>	7	4	57%	3	43%	4.54			
<i>Stationary Power Generation &amp; CHP</i>	15	6	40%	7	47%	15.18	2	13%	4.32
<i>Early Markets</i>	5	3	60%	2	40%	3.23			
<i>Cross cutting Issues</i>	1	0	0%	1	100%	0.27			
<b>TOTAL</b>	<b>32</b>	<b>14</b>	<b>44%</b>	<b>16</b>	<b>50%</b>	<b>35.32</b>	<b>2</b>	<b>6%</b>	<b>4.32</b>

Table 18: Proposals submitted to evaluators, projects that passed the threshold(s), but could not be funded and projects that scored below the threshold(s)

Activity	Area	Number of proposals			Number of participations in			Total costs (in M€)			FCH requested contribution (in M€)		
		Eligible proposals	Ranked list	Success rate	Eligible proposals	Ranked list	Success rate	Eligible proposals	Ranked list	Success rate	Eligible proposals	Ranked list	Success rate
Transportation & Refuelling Infrastructure	SP1-JTI-FCH.1	4	3	75.0%	41	35	85.4%	26.3	24.2	92.0%	13.5	12.1	89,4%
Hydrogen Production and Distribution	SP1-JTI-FCH.2	7	3	42.9%	47	18	38.3%	19.8	7.4	37.6%	13.3	4.5	34,2%
Stationary Power Generation & Combined Heat and Power (CHP)	SP1-JTI-FCH.3	15	9	60.0%	115	68	59.1%	55.9	30.9	55.3%	34.7	19.5	56,2%
Early Markets	SP1-JTI-FCH.4	5	2	40.0%	34	10	29.4%	14.5	4.2	29.1%	9.3	3.2	34,7%
Cross-cutting Activities	SP1-JTI-FCH.5	1	1	100.0%	6	6	100.0%	0.6	0.6	100.0%	0.3	0.3	100,0%
TOTAL		32	18	56,3%	243	137	56.4%	117.1	67.3	57.5%	71.1	39.7	55.7%

Table 19: Success rate per activity area

Funding scheme	Proposals evaluated						Proposals proposed for funding						Success rate (%)			
	Participation		SMEs				Participation		SMEs				Participation		FCH JU requested contribution	
	Total n° participants	FCH JU requested contribution (in M€)	Total n° SMEs		FCH JU requested contribution (in M€)		Total n° participants	FCH JU requested contribution (in M€)	Total n° SMEs		FCH JU requested contribution (in M€)		All Participants	SMEs	Total	SMEs
				%		%				%		%				
Collaborative Projects	211	66.37	73	35%	21.65	33%	105	34.89	23	22%	7.67	22%	50%	32%	53%	35%
Support Actions	32	2.07	5	16%	0.22	11%	32	2.07	5	16%	0.22	11%	100%	100%	100%	100%
<b>Total</b>	243	68.44	78	32%	21.87	32%	137	36.96	28	20%	7.89	21%	56%	36%	54%	36%

Table 20: Total funding requested by all proposals on ranked list<sup>9</sup> and total funding requested by their SME partners

<sup>9</sup> A "ranked list" covers all projects that passed the threshold, (includes reserve list proposals).

	Type of participants																											
Funding schemes	Public body (excl. research and education)					Research organisations					Higher or secondary education					Private for profit (excl. education)					Others					Total		
	Proposals		Ranked list		Suc-cess	Proposals		Ranked list		Suc-cess	Proposals		Ranked list		Suc-cess	Proposals		Ranked list		Suc-cess	Proposals		Ranked list		Suc-cess	Propo-sals	Ranked list	Suc-cess
	Nb	%	Nb	%	%	Nb	%	Nb	%	%	Nb	%	Nb	%	%	Nb	%	Nb	%	%	Nb	%	Nb	%	%	Nb	Nb	%
Collaborative Projects	1	100	1	100	100	63	89	34	81	48	54	98	26	96	47	86	82	41	68	39	7	64	3	43	27	211	105	50
Support Actions	0		0	-	-	8	11	8	19	11	1	2	1	4	2	19	18	19	32	18	4	36	4	57	36	32	32	100
Total	1	100	1	100	100	71	100	42	100	59.2	55	100	27	100	49	105	100	60	100	57.1	11	100	7	100	63.6	243	137	56

Table 21: Breakdown of the total number of participants involved in the proposals on ranked list by type of organisation

Table 22: Breakdown of FCH JU requested contribution in the proposals on ranked list<sup>10</sup> by country

Share of FCH JU requested contribution (in M€)									
Country	Collaborative Projects			Support Actions			Total		
	Proposals	Ranked list	%	Proposals	Ranked list	%	Proposals	Ranked list	%
BE				0.05	0.05	2.4	0.05	0.05	100
BG	0.69	0.15	0.4				0.69	0.15	21.9
CZ	0.20	0.20	0.6	0.02	0.02	0.9	0.22	0.22	100
DK	3.25	2.15	6.2	0.04	0.04	2.0	3.29	2.19	66.6
DE	13.64	9.84	28.2	1.05	1.05	50.8	14.69	10.90	74.2
EE									
IE									
EL	4.97	2.40	6.9				4.97	2.40	48.3
ES	4.49	0.87	2.5				4.49	0.87	19.4
FR	7.86	3.22	9.2	0.13	0.13	6.3	7.99	3.35	41.9
IT	7.19	3.93	11.3	0.12	0.12	5.9	7.31	4.05	55.5
CY									
LV									
LT									
LU									
HU									
MT									
NL	2.79	1.37	3.9	0.09	0.09	4.6	2.88	1.46	50.7
AT	0.16	0.16	0.5	0.08	0.08	4.1	0.25	0.25	100
PL	0.84	0.36	1.0				0.84	0.36	42.7
PT	1.56						1.56		
RO	0.14	0.14	0.4				0.14	0.14	100
SI	0.27						0.27		
SK									
FI	2.65	2.39	6.9				2.65	2.39	90.4
SE	2.55	1.82	5.2	0.11	0.11	5.3	2.66	1.93	72.7
UK	2.62	0.32	0.9	0.09	0.09	4.4	2.71	0.41	15.3
<b>Total EU Member States</b>	<b>55.85</b>	<b>29.33</b>	<b>84</b>	<b>1.79</b>	<b>1.79</b>	<b>87</b>	<b>57.64</b>	<b>31.13</b>	<b>54.0</b>
CH	3.48	2.00	5.7	0.14	0.14	6.6	3.61	2.13	59.1

<sup>10</sup> A "ranked list" covers all projects that passed the threshold, (includes reserve list proposals).

Share of FCH JU requested contribution (in M€)									
Country	Collaborative Projects			Support Actions			Total		
	Proposals	Ranked list	%	Proposals	Ranked list	%	Proposals	Ranked list	%
FYROM									
HR	0.20						0.20		
IL									
IS				0.06	0.06	2.7	0.06	0.06	100
LI									
ME									
NO	3.78	3.46	9.9	0.09	0.09	4.1	3.87	3.54	91.6
RS									
TR	2.79	0.10	0.3				2.79	0.10	3.7
<b>Total Associated Countries</b>	10.24	5.56	15.9	0.28	0.28	13.4	<b>10.52</b>	<b>5.84</b>	<b>55.5</b>
<b>ACP</b>									
<b>Asia</b>									
CN									
IN									
<b>Eastern Europe and Central Asia</b>									
RU	0.28						0.28		
<b>Latin America</b>									
<b>Mediterranean Partner Countries</b>									
<b>Western Balkans (Excl. FYROM, ME, RS)</b>									
<b>Total ICPC countries</b>	0.28						0.28		
<b>Total Third Countries</b>									
<b>TOTAL</b>	<b>66.37</b>	<b>34.89</b>	<b>53</b>	<b>2.07</b>	<b>2.07</b>	<b>100</b>	<b>68.44</b>	<b>36.96</b>	<b>54</b>

#### 4.1.5 Grant Agreements signed

Following the decision of the FCH JU Governing Board of 15 May 2009 on the list of projects to enter into negotiations with, the negotiations for the 16 proposals, as indicated in the table 18, started on 5 June 2009.

During negotiations, on 24 July 2009, the consortium for Proposal No. 245055, CTD-SOFC (Area 3: Stationary Power Generation & CHP) announced the FCH JU that is unable to take up the offer and declined the opportunity to negotiate, due to budgetary constraints, namely reduced funding limits of the direct costs to comply with the matching principle. Therefore, the first proposal in the reserve list of Area 3: Stationary Power Generation & CHP, DEMMEA, No. 245156 was offered and started negotiations on 27 July 2009.

On 30 November 2009 it was decided to stop negotiations for Project No. 245091, FRALITE, due to the coordinator's announcement of a move of their relevant research facilities outside Europe. Therefore, the second proposal on the reserve list of Area 3: Stationary Power Generation & CHP, Project No. 245339, LOLIPEM, was offered to start negotiations, which began on 2 December 2009.

A total of 16 Grant Agreements were signed for the call FCH-JU-2008-1 in December 2009. Please see table 23 below for details on the duration of negotiations for the projects for which Grant Agreements were signed.

Project acronym	Project number	Negotiations started	Signature of Grant Agreement
<b>1. Transportation &amp; Refuelling Infrastructure</b>			
H2Moves Scandinavia	245101	5/6/2009	18/12/2009
NextHyLights	245133	5/6/2009	18/12/2009
Auto-Stack	245142	5/6/2009	18/12/2009
<b>2. Hydrogen Production and Distribution</b>			
NEXPEL	245262	5/6/2009	18/12/2009
PrimoLyzer	245228	5/6/2009	18/12/2009
Hydrosol-3D	245224	5/6/2009	18/12/2009
<b>3. Stationary Power Generation and CHP</b>			
GENIUS	245128	5/6/2009	16/12/2009
ASSENT	244821	5/6/2009	16/12/2009
DEMMEA	245156	27/7/2009	18/12/2009
KEEPEMALIVE	245113	5/6/2009	16/12/2009

<b>Project acronym</b>	<b>Project number</b>	<b>Negotiations started</b>	<b>Signature of Grant Agreement</b>
LOLIPEM	245339	2/12/2009	22/12/2009
MCFC-CONTEX	245171	5/6/2009	22/12/2009
ROBANODE	245355	5/6/2009	16/12/2009
<b>4. Early Markets</b>			
IRAFC	245202	5/6/2009	18/12/2009
ISH2SUP	245294	5/6/2009	18/12/2009
<b>5. Cross-Cutting Issues</b>			
Prepar-H2	245332	5/6/2009	21/12/2009

*Table 23: Timetable of negotiations by project*



Annex 3: Table of projects for which Grant Agreements have been signed (in €)

№	GA number	Project acronym	Project title	FCH JU financial contribution	In-kind contributions from industry	Own resources other than in-kind contributions from industry	Member States contribution	Total contributions
1	245355	ROBANODE	Understanding and minimizing anode degradation in hydrogen and natural gas fuelled SOFCs	1,568,530	900,381	0	N/A	900,381
2	245156	DEMMEA	Understanding the Degradation Mechanisms of Membrane-Electrode-Assembly for High Temperature PEMFCs and Optimization of the Individual Components	1,638,986	722,042	0	N/A	722,042
3	245339	LOLIPEM	Long-life PEM-FCH & CHP systems at temperatures higher than 100°C	1,360,227	393,748	0	N/A	393,748
4	245171	MCFC-CONTEX	MCFC catalyst and stack component degradation and lifetime: Fuel Gas CONTaminant effects and EXtraction strategies	1,841,929	1,544,130	0	N/A	1,544,130
5	245128	GENIUS	GEneric diagNosis InstrUment for SOFC Systems	2,067,785	1,092,367	0	N/A	1,092,367
6	244821	ASSENT	Anode Sub-System Development & Optimisation	1,954,675	2,180,289	0	N/A	2,180,289

<b>Nº</b>	<b>GA number</b>	<b>Project acronym</b>	<b>Project title</b>	<b>FCH JU financial contribution</b>	<b>In-kind contributions from industry</b>	<b>Own resources other than in-kind contributions from industry</b>	<b>Member States contribution</b>	<b>Total contributions</b>
			for SOFC systems					
7	245113	KEEPEMALIVE	Knowledge to Enhance the Endurance of PEM fuel cells by Accelerated Lifetime Verification Experiments	1,264,582	474,095	0	N/A	474,095
8	245142	Auto-Stack	Automotive Fuel Cell Stack Cluster Initiative for Europe	1,193,016	963,627	0	N/A	963,627
9	245101	H2moves Scandinavia	H2moves.eu Scandinavia	7,756,037	11,726,508	1.622.000	N/A	13,348,508
10	245133	NextHyLights	Supporting action to prepare large-scale hydrogen vehicle demonstration in Europe	499,303	523,006	0	N/A	523,006
11	245262	NEXPEL	Next-Generation PEM Electrolyser for Sustainable Hydrogen Production	1,256,286	839,482	0	N/A	839,482
12	245224	HYDROSOL-3D	Scale Up of Thermochemical HYDROgen Production in a SOLar Monolithic Reactor: a 3rd Generation Design Study	984,427	360,761	0	N/A	360,761
13	245228	PrimoLyzer	PRessurIzed PEM electrOLYZER	1,154,023	557,771	0	N/A	557,771
14	245294	ISH2SUP	In situ H2 supply technology for micro fuel cells powering mobile electronics appliances	1,000,625	297,412	0	N/A	297,412

<b>№</b>	<b>GA number</b>	<b>Project acronym</b>	<b>Project title</b>	<b>FCH JU financial contribution</b>	<b>In-kind contributions from industry</b>	<b>Own resources other than in-kind contributions from industry</b>	<b>Member States contribution</b>	<b>Total contributions</b>
15	245202	IRAFC	Development of an Internal Reforming Alcohol High Temperature PEM Fuel Cell Stack	1,424,150	409,581	0	N/A	409,581
16	245332	Prepar-H2	Preparing socio and economic evaluations of future H2 lighthouse projects	257,075	81,913	0	N/A	81,913
<b>TOTAL</b>				<b>27,221,656</b>	<b>23,067,113</b>	<b>1,622,000</b>	<b>N/A</b>	<b>24,689,113</b>

## 4.2 Call FCH-JU-2009-1

### 4.2.1 Summary information

The Call for Proposals FCH-JU-2009-1 was published on 2 July 2009. The deadline for submissions was 15 October 2009. A total of 29 topics were called for.

Area/ Topics called	Funding Schemes	Indicative FCH JU Funding (in M€)
<b>Area SP1-JTI-FCH.1: Transportation &amp; Refuelling Infrastructure</b>		<b>26.4</b>
SP1-JTI-FCH.2009.1.1 Large-scale demonstration of road vehicles and refuelling infrastructure II	Collaborative Project	
SP1-JTI-FCH.2009.1.2 Development of electric driven turbocharger for fuel cell	Collaborative Project	
SP1-JTI-FCH.2009.1.3 Development and optimisation of PEM FC electrodes and GDLs	Collaborative Project	
SP1-JTI-FCH.2009.1.4 Cryogenic hydrogen storage	Collaborative Project	
SP1-JTI-FCH.2009.1.5 Pre-normative Research (PNR) on composite storage	Collaborative Project	
SP1-JTI-FCH.2009.1.6 Pre-normative Research (PNR) on fuel quality	Collaborative Project	
<b>Area SP1-JTI-FCH.2: Hydrogen Production &amp; Distribution</b>		<b>5.7</b>
SP1-JTI-FCH.2009.2.1 Development of fuel processing catalyst, modules & systems	Collaborative Project	
SP1-JTI-FCH.2009.2.2 Development of gas purification technologies for hydrogen production	Collaborative Project	
SP1-JTI-FCH.2009.2.3 New generation of high temperature electrolyser	Collaborative Project	
SP1-JTI-FCH.2009.2.4 Improved solid state hydrogen storage systems	Collaborative Project	
<b>Area SP1-JTI-FCH.3: Stationary Power Generation &amp; CHP</b>		<b>25.9</b>
SP1-JTI-FCH.2009.3.1 Fundamentals of fuel cell degradation for stationary power application	Collaborative Project	
SP1-JTI-FCH.2009.3.2 Materials development for cells, stacks and balance of plant (BoP)	Collaborative Project	
SP1-JTI-FCH.2009.3.3 Operation diagnostics and control for stationary applications	Collaborative Project	
SP1-JTI-FCH.2009.3.4 Component improvement for stationary power applications	Collaborative Project	
SP1-JTI-FCH.2009.3.5 Proof-of- concept fuel cell systems	Collaborative Project	

Area/ Topics called	Funding Schemes	Indicative FCH JU Funding (in M€)
SP1-JTI-FCH.2009.3.6 Validation of integrated fuel cell systems readiness	Collaborative Project	
SP1-JTI-FCH.2009.3.7 Market capacity Build and Field demonstration of stationary fuel cell systems	Collaborative Project	
SP1-JTI-FCH.2009.3.8 Application specific targets for stationary power generation and related technology benchmark	Coordination and Support Actions (Supporting Action)	
<b>Area SP1-JTI-FCH.4: Early Markets</b>		<b>10.3</b>
SP1-JTI-FCH.2009.4.1 Demonstration of fuel cell-powered materials handling vehicles and infrastructure	Collaborative Project	
SP1-JTI-FCH.2009.4.2 Portable generators, backup and UPS power systems	Collaborative Project	
SP1-JTI-FCH.2009.4.3 Demonstration of portable and micro fuel cells for various applications	Collaborative Project	
SP1-JTI-FCH.2009.4.4 Miniaturised balance of plant components	Collaborative Project	
SP1-JTI-FCH.2009.4.5 PNR & RCS on the indoor use of fuel cells	Collaborative Project	
SP1-JTI-FCH.2009.4.6 SME promotion: Early demand stimulation schemes	Coordination and Support Actions (Supporting Action)	
<b>Area SP1-JTI-FCH.5: Cross-cutting Issues</b>		<b>3.0</b>
SP1-JTI-FCH.2009.5.1 Development of educational programmes	Coordination and Support Actions (Supporting Action)	
SP1-JTI-FCH.2009.5.2 Training initiatives for regulators	Coordination and Support Actions (Supporting Action)	
SP1-JTI-FCH.2009.5.3 SME promotion: Outreach program	Coordination and Support Actions (Supporting Action)	
SP1-JTI-FCH.2009.5.4 Development of a framework for Technology Monitoring and Assessments (TMA)	Coordination and Support Actions (Supporting Action)	
SP1-JTI-FCH.2009.5.5 Development of a framework for Life Cycle Assessment (LCA)	Coordination and Support Actions (Supporting Action)	
<b>Total indicative FCH JU Funding</b>		<b>71.3</b>

Table 24: Topics addressed in the call FCH-JU-2009-1

The total indicative budget for the call of 71.3 M€ from the FCH JU is expected to be at least matched by the in-kind contributions from the industry participants in projects.

#### 4.2.2 Analysis of proposals submitted

Eligibility of proposals was verified according to the same criteria and process as in the call FCH-JU-2008-1(see section 4.1.2.).

Table 25 below illustrates the number of proposals submitted by topic and those eligible for evaluation.

Topic/Application Area	Total number of proposals submitted	Number of proposals found ineligible		Number of proposals evaluated	
			%		%
SP1-JTI-FCH.2009.1.1 Large-scale demonstration of road vehicles and refuelling infrastructure II	1	0	0	1	100
SP1-JTI-FCH.2009.1.2 Development of electric driven turbocharger for fuel cell	1	0	0	1	100
SP1-JTI-FCH.2009.1.3 Development and optimisation of PEM FC electrodes and GDLs	3	0	0	3	100
SP1-JTI-FCH.2009.1.4 Cryogenic hydrogen storage	0	0	0	0	
SP1-JTI-FCH.2009.1.5 Pre-normative Research (PNR) on composite storage	1	0	0	1	100
SP1-JTI-FCH.2009.1.6 Pre-normative Research (PNR) on fuel quality	1	0	0	1	100
<b>Transportation and Refuelling Infrastructure (Total)</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>100</b>
SP1-JTI-FCH.2009.2.1 Development of fuel processing catalyst, modules & systems	1	0	0	1	100
SP1-JTI-FCH.2009.2.2 Development of gas purification technologies for hydrogen production	1	0	0	1	100
SP1-JTI-FCH.2009.2.3 New generation of high temperature electrolyser	1	0	0	1	100

Topic/Application Area	Total number of proposals submitted	Number of proposals found ineligible		Number of proposals evaluated	
			%		%
SP1-JTI-FCH.2009.2.4 Improved solid state hydrogen storage systems	4	0	0	4	100
<b>Hydrogen Production &amp; Distribution (Total)</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>100</b>
SP1-JTI-FCH.2009.3.1 Fundamentals of fuel cell degradation for stationary power application	3	0	0	3	100
SP1-JTI-FCH.2009.3.2 Materials development for cells, stacks and balance of plant (BoP)	4	0	0	4	100
SP1-JTI-FCH.2009.3.3 Operation diagnostics and control for stationary applications	4	0	0	4	100
SP1-JTI-FCH.2009.3.4 Component improvement for stationary power applications	2	0	0	1	100
SP1-JTI-FCH.2009.3.5 Proof-of-concept fuel cell systems	7	1	14	3	86
SP1-JTI-FCH.2009.3.6 Validation of integrated fuel cell systems readiness	1	0	0	1	100
SP1-JTI-FCH.2009.3.7 Market capacity Build and Field demonstration of stationary fuel cell systems	0	0	0	0	
SP1-JTI-FCH.2009.3.8 Application specific targets for stationary power generation and related technology benchmark	1	0	0	1	100
<b>Stationary Power Generation &amp; CHP (Total)</b>	<b>21</b>	<b>1</b>	<b>5</b>	<b>20</b>	<b>95</b>
SP1-JTI-FCH.2009.4.1 Demonstration of fuel cell-powered materials handling vehicles and infrastructure	4	0	0	4	100
SP1-JTI-FCH.2009.4.2 Portable	1	0	0	1	100

Topic/Application Area	Total number of proposals submitted	Number of proposals found ineligible		Number of proposals evaluated	
			%		%
generators, backup and UPS power systems					
SP1-JTI-FCH.2009.4.3 Demonstration of portable and micro fuel cells for various applications	1	0	0	1	100
SP1-JTI-FCH.2009.4.4 Miniaturised balance of plant components	0	0	0	0	
SP1-JTI-FCH.2009.4.5 PNR & RCS on the indoor use of fuel cells	1	0	0	1	100
SP1-JTI-FCH.2009.4.6 SME promotion: Early demand stimulation schemes	0	0	0	0	
<b>Early Markets (Total)</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>100</b>
SP1-JTI-FCH.2009.5.1 Development of educational programmes	2	0	0	2	100
SP1-JTI-FCH.2009.5.2 Training initiatives for regulators	2	0	0	2	100
SP1-JTI-FCH.2009.5.3 SME promotion: Outreach program	0	0	0	0	
SP1-JTI-FCH.2009.5.4 Development of a framework for Technology Monitoring and Assessments (TMA)	2	0	0	2	100
SP1-JTI-FCH.2009.5.5 Development of a framework for Life Cycle Assessment (LCA)	2	0	0	2	0
<b>Cross-cutting issues (Total)</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>100</b>
<b>TOTAL</b>	<b>50</b>	<b>1</b>	<b>2</b>	<b>49</b>	<b>98</b>

Table 25: Proposals submitted and eligible for evaluation by topic



Funding scheme	Proposals evaluated					
	Participation			SMEs		
	Total number participants	FCH JU requested contribution (in M€)	Total number of SMEs		FCH JU requested contribution (in M€)	
				%		%
Collaborative Projects	344	124.68	84	24.4%	32.09	25.7%
Support Actions	56	5.49	19	33.9%	2.10	38.3%
<b>Total</b>	<b>400</b>	<b>130.17</b>	<b>103</b>	<b>25.8%</b>	<b>34.19</b>	<b>26.3%</b>

Table 26: Total funding requested by all proposals eligible for evaluation and total funding requested by their SMEs partners

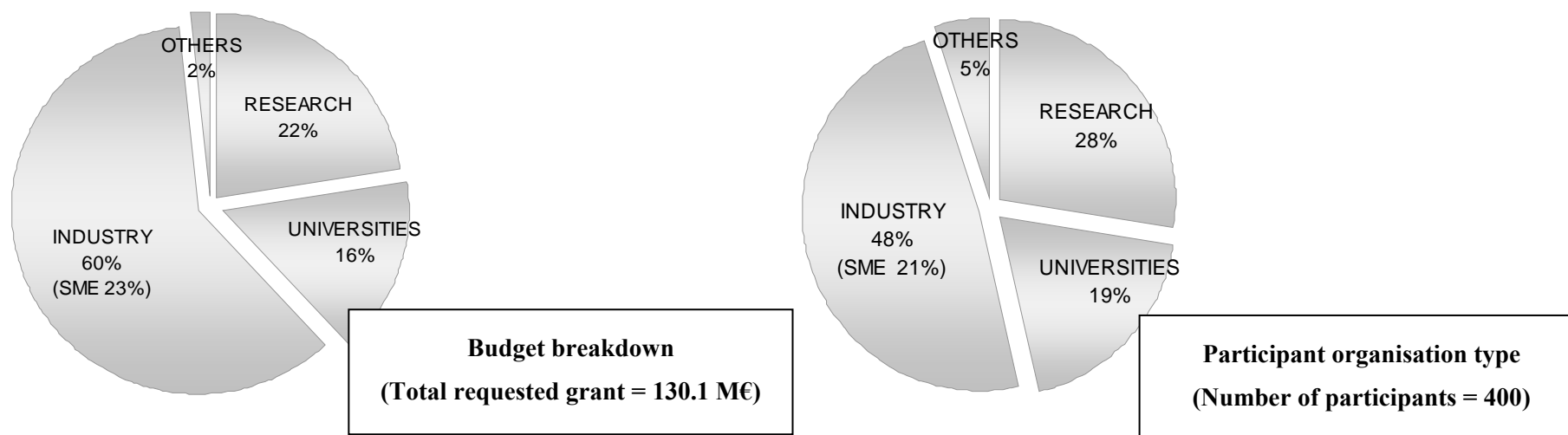


Figure 13: Breakdown of the total number of participants involved in the proposals eligible for evaluation by type of organisation

Table 27: Breakdown of the total number of participants involved in the proposals eligible for evaluation by country

Member States	Number of proposals	Requested Grant (M€)
AT	7	2.05
BE	18	1.73
BG	1	0.28
DE	85	21.1
DK	24	9.17
EL	10	2.51
ES	19	3.72
FI	10	3.18
FR	45	16.67
IT	54	24.21
NL	20	7
PL	5	0.73
PT	2	0.42
RO	1	0.19
SE	8	1.51
SI	2	0.39
UK	47	16.94
<b>Total</b>	<b>358</b>	<b>111.8</b>

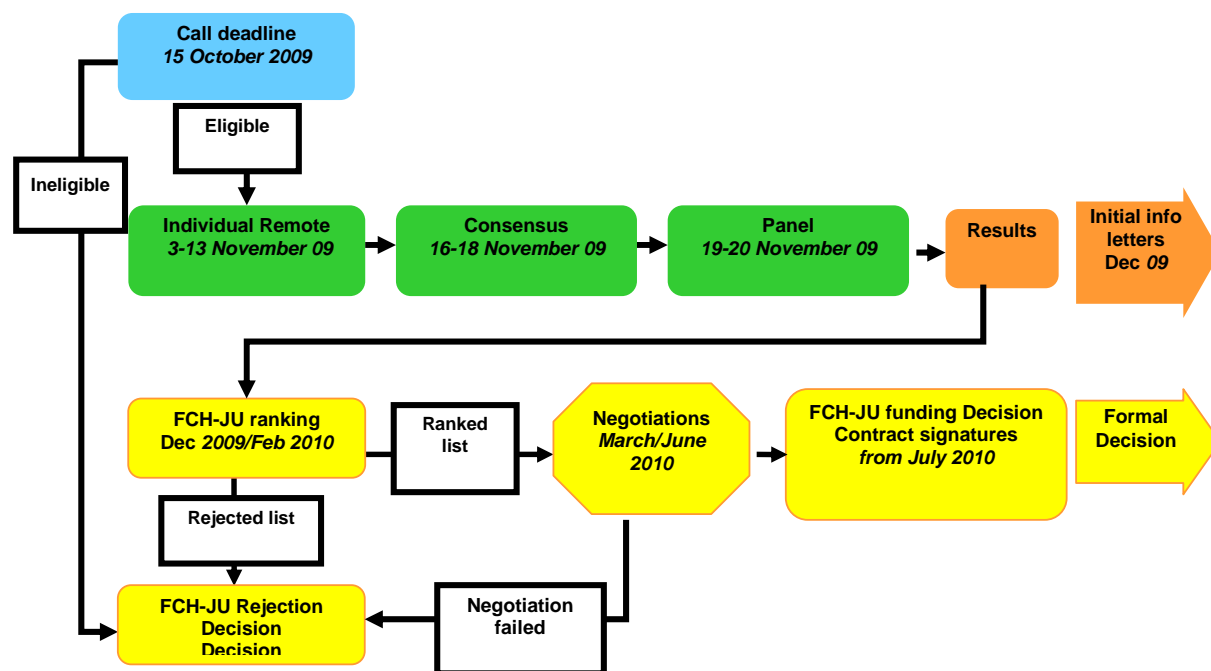
Associated Countries	Number of proposals	Requested Grant (M€)
Switzerland	23	9.3
Croatia	1	0.03
Norway	10	7.84
Serbia	1	0.4
Turkey	1	0.07
<b>Total</b>	<b>36</b>	<b>17.64</b>

Third Countries	Number of proposals	Requested Grant (M€)
Canada	2	0
Russian Fed.	3	0.73
United States	1	0
<b>Total</b>	<b>6</b>	<b>0.73</b>

#### 4.2.3 Evaluation procedure

The same evaluation process and criteria were used for this call FCH-JU-2009-1 as in the call FCH-JU-2008-1 (see section 4.1.3.). According to the Call for Proposals, submission of proposals was done in one stage, i.e., submission of complete proposals.

Figure 14: Evaluation process and timetable for the call FCH-JU-2009-1



#### 4.2.4 Evaluation results

Application areas	Proposals submitted to evaluators	Below thresholds proposals		Above thresholds proposals (proposed for funding)			Above thresholds proposals (reserve list)		
		Nb	%	Nb	%	Requested FCH JU contribution (in M€)	Nb	%	Requested FCH JU contribution (in M€)
<i>Transportation &amp; Refuelling Infrastructure</i>	7	2	28.6%	2	28.6%	29.83	3	42.9%	8.5
<i>Hydrogen Production &amp; Distribution</i>	7	5	71.4%	2	28.6%	4.75			
<i>Stationary Power Generation &amp; CHP</i>	21(*)	5	23.8%	13	61.9%	30	2	9.5%	4.86
<i>Early Markets</i>	7	3	42.9%	4	57.1%	14.27			
<i>Cross cutting Issues</i>	8	3	37.5%	5	62.5%	2.35			
<b>TOTAL</b>	<b>50</b>	<b>18</b>	<b>36.0%</b>	<b>26</b>	<b>52.0%</b>	<b>81.2</b>	<b>5</b>	<b>10.0%</b>	<b>13.36</b>

(\*) One proposal (area 3: Stationary) was declared ineligible during evaluations (none of the partners were members of any IG/RG).

*Table 28: Proposals the panel proposed for funding, passed the threshold(s), but could not be funded (reserve list) and were scored below the threshold(s)*

Funding scheme	Proposals evaluated						Proposals proposed for funding						Success rate (%)			
	Participation		SMEs				Participation		SMEs				Participation		FCH JU requested contribution	
	Total number of applicants	FCH JU requested contribution (in M€)	Total number of SMEs		FCH JU requested contribution (in M€)		Total number of applicants	FCH requested contribution (in M€)	Total number of SMEs		FCH JU requested contribution (in M€)		Total	SMEs	Total	SMEs
			Total	%	Total	%			Total	%	Total	%	%	%	%	%
Collaborative Projects	339	122.47	81	23.9%	31.81	26.0%	195	78.38	46	23.6%	21.55	27.5%	57.5%	56.8%	64.0%	67.7%
Support Actions	56	5.22	19	33.9%	2.10	40.3%	39	2.96	12	30.8%	0.77	26.1%	69.6%	63.2%	56.8%	36.7%
<b>Total</b>	<b>395</b>	<b>127.69</b>	<b>100</b>	<b>25.3%</b>	<b>33.91</b>	<b>26.6%</b>	<b>234</b>	<b>81.34</b>	<b>58</b>	<b>24.8%</b>	<b>22.32</b>	<b>27.4%</b>	<b>59.2%</b>	<b>58.0%</b>	<b>63.7%</b>	<b>65.8%</b>

Table 29: Total funding requested by all proposals on ranked list<sup>11</sup> and total funding requested by their SME partners

<sup>11</sup> A "ranked list" covers all projects that passed the threshold, (includes reserve list proposals).

Funding schemes	Public body (excl. research and education)					Research organisations					Higher or secondary education					Private for profit (excl. education)/SMEs					Others					Total		
	Proposals		Proposed for funding		Suc cess	Proposals		Proposed for funding		Suc cess	Proposals		Proposed for funding		Suc cess	Proposals		Proposed for funding		Suc cess	Proposals		Proposed for funding		Suc cess	All	Proposed for funding	Suc ces
	Nb	%	Nb	%	%	Nb	%	Nb	%	%	Nb	%	Nb	%	%	Nb	%	Nb	%	%	Nb	%	Nb	%	%			%
Collaborative Projects	7	70%	7	70%	70%	92	84%	52	81%	47%	61	84%	23	70%	32%	173	90%	108	91%	56%	6	67%	5	63%	56%	339	195	58%
Support Actions	3	30%	3	30%	30%	18	16%	12	19%	11%	12	16%	10	30%	14%	20	10%	11	9%	6%	3	33%	3	38%	33%	56	39	70%
<b>Total</b>	10	100%	10	100%	100%	110	100%	64	100%	58%	73	100%	33	100%	45%	193	100%	119	100%	62%	9	100%	8	100%	89%	395	234	59%

Table 30: Breakdown of the total number of participants involved in the proposals on ranked list<sup>12</sup> by type of organisation the FCH JU is using

<sup>12</sup> A "ranked list" covers all projects that passed the threshold, (includes reserve list proposals).

Country	Collaborative Projects			Support Actions			Total		
	Proposals (in M€)	Ranked list	%	Proposals (in M€)	Ranked list	%	Proposals (in M€)	Ranked list	%
AT	1.97	1.29	65.5	0.08	0.08	100	2.05	1.37	66.9
BE	1.67	1.40	83.6	0.06	0.06	100	1.73	1.45	84.1
BG	0.28	0.00	0				0.28	0.00	0
DE	19.06	9.17	48.1	2.04	1.18	57.6	21.10	10.34	49
DK	9.11	6.53	71.7	0.06	0.04	69.9	9.17	6.58	71.7
EL	2.47	0.07	2.7	0.04	0.04	100	2.51	0.11	4.3
ES	3.05	1.55	50.7	0.67	0.09	13.7	3.72	1.64	44
FI	2.95	2.12	71.7	0.09	0.09	100	3.04	2.21	72.5
FR	16.10	8.79	54.6	0.57	0.22	38	16.67	9.01	54
IT	23.62	18.32	77.6	0.47	0.47	100	24.10	18.80	78
NL	6.91	2.72	39.3	0.08	0.00	0	7.00	2.72	38.8
PL	0.68	0.00	0	0.05	0.05	100	0.73	0.05	6.8
PT	0.42	0.00	0				0.42	0.00	0
RO	0.19	0.00	0				0.19	0.00	0
SE	1.45	0.30	20.6	0.06	0.06	100	1.51	0.36	23.6
SI	0.39	0.20	51.1				0.39	0.20	51.1
UK	15.87	10.72	67.5	0.72	0.45	62.8	16.60	11.18	67.3
<b>Total EU Member States</b>	<b>106.21</b>	<b>63.17</b>	<b>59.5</b>	<b>5.00</b>	<b>2.84</b>	<b>56.7</b>	<b>111.21</b>	<b>66.00</b>	<b>59.3</b>
CH	8.90	8.15	91.6	0.40	0.10	24.5	9.30	8.25	88.7
HR				0.03	0.03	100	0.03	0.03	100
NO	7.78	6.74	86.6	0.06	0.00	0.0%	7.84	6.74	86
RS	0.40	0.00	0						
TR	0.07	0.07	100						
<b>Total Associa- ted Countries</b>	<b>17.14</b>	<b>14.96</b>	<b>87.3</b>	<b>0.49</b>	<b>0.13</b>	<b>26.2</b>	<b>17.63</b>	<b>15.09</b>	<b>85.6</b>
<b>Eastern Europe and Central Asia</b>									
RU	0.73	0.25	33.5				0.73	0.25	33.5

Table 31: Breakdown of FCH JU requested contribution in the proposals on ranked list<sup>13</sup> by country

<sup>13</sup> A "ranked list" covers all projects that passed the threshold, (includes reserve list proposals).

#### 4.2.5 *Grant Agreements signed*

Grant Agreements for the call FCH-JU-2009-1 were foreseen to be signed in the last semester of 2010.

### 5. **PROGRESS ACHIEVED BY THE ARTEMIS JU**

Growing out of the ARTEMIS European Technology Platform (ETP), the ARTEMIS Joint Undertaking (hereinafter referred to as "ARTEMIS JU") was established in 2008 and aims to tackle the research and structural challenges in embedded systems faced by the industrial sector. The objective is to define and implement a Research Agenda for Embedded Computing Systems. ARTEMIS JU aims to help European industry consolidate and reinforce its world leadership in embedded computing technologies. The economic impact in terms of jobs and growth is expected to exceed 100 billion € over ten years. The European Union recognises the strategic importance of Embedded Computing Systems and launched the ARTEMIS Joint Technology Initiative.

The ARTEMIS JTI was implemented as a Joint Undertaking which is a public-private partnership between:

- The European Commission;
- Participating Member and Associated States, by now 22 countries;
- ARTEMISIA, a non-profit industrial association of R&D actors in the field of ARTEMIS.

The ARTEMIS JU shall manage and co-ordinate research activities through open Calls for Proposals through a 10-year, 2.5 billion € research programme on Embedded Computing Systems. The programme is open to organisations in the EU Member States and Associated Countries. Selected projects shall be co-financed by the Joint Undertaking and the Member States that have joined ARTEMIS. The ARTEMIS JU will implement significant parts of the ARTEMIS–ETP Strategic Research Agenda co-funded by industry, research organisations, Member States and the Commission's own ICT programme.

The ARTEMIS JU has managed one Call for Proposals in 2009.

#### 5.1 **Call ARTEMIS-2008-1**

##### 5.1.1 *Grant Agreements signed*

The annex III for ARTEMIS in the 2009 Commission Staff Working Document accompanying the 2009 Annual report on RTD activities<sup>14</sup> reporting on the progress made in 2008 did not include the list of projects for which Grant Agreements were signed for the 2008 call. The list of the 12 Grant Agreements which have been signed following this call is now available in the following annex:

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<sup>14</sup> SEC(2009)1380.



*Annex 4: Table of projects for which Grant Agreements have been signed (in €)*

<b>№</b>	<b>Project acronym</b>	<b>Project title</b>	<b>Total project costs</b>	<b>Total national funding</b>	<b>ARTEMIS JU funding</b>	<b>Signature date</b>
100008	CAMMI	Cognitive Adaptive Man-Machine Interface	7,315,506.00	1,982,381.34	1,221,689.50	12/11/2009
100016	CESAR	Cost-Efficient Methods and Processes for Safety Relevant Embedded Systems	58,534,998.22	18,541,742.87	9,775,344.70	03/07/2009
100039	CHARTER	Critical and High Assurance Requirements Transformed through Engineering Rigour	5,238,037.00	1,670,457.00	874,744.00	18/06/2009
100022	CHESS	Composition with Guarantees - for High-integrity Embedded SW Components Assembly	11,919,387.44	4,090,685.62	1,990,537.70	26/10/2009
100012	eDIANA	Embedded Systems for Energy Efficient Buildings	17,330,469.00	4,606,088.86	2,894,188.33	25/11/2009
100036	EMMON	EMbedded MONitoring	2,576,278.00	1,175,303.50	428,067.42	23/12/2009
100026	iLAND	mIddLewAre for deterministic dynamically reconfigurable NetworkeD embedded systems	3,913,003.18	1,547,632.79	653,471.53	23/10/2009
100021	INDEXYS	INDustrial EXploitation of the genesYS cross-domain architecture	7,344,281.00	2,720,012.76	1,226,494.94	18/06/2009
100029	SCALOPES	Common Embedded Security InfRAstructure SCAlable LOW Power Embedded platformS	36,059,013.19	10,751,328.08	6,021,855.20	29/05/2009
100032	SMART	Secure, Mobile visual sensor networks ArchiTecture	4,457,865.00	1,925,613.00	744,464.00	9/12/2009
100017	SOFIA	Smart Objects For Intelligent Applications	36,540,109.00	8,916,381.00	6,102,198.20	23/06/2009
100035	SYSMODEL	System Level Modeling Environment for SMEs	5,362,900.00	2,392,600.00	895,200.00	29/04/2009

## 5.2 Call ARTEMIS-2009-1

### 5.2.1 Summary information

The results arising from projects following the 2009 call were expected to demonstrate their contribution to the ARTEMIS-JU high-level objectives set out below. ARTEMIS has an overarching objective to close the design productivity gap between potential and capability, as a necessary pre-requisite to advancing Europe's competitive position on the world market:

- Reduce the cost of the system design from 2005 levels by 15% by 2013;
- Achieve 15% reduction in development cycles – especially in sectors requiring qualification or certification – by 2013;
- Manage a complexity increase of 25% with 10% effort reduction by 2013;
- Reduce the effort and time required for re-validation and recertification after change by 15% by 2013;
- Achieve cross-sectoral reusability of Embedded Systems devices developed using the ARTEMIS JU results.

The ARTEMIS JTI on Embedded Computing Systems should address the design, development and deployment of ubiquitous, interoperable and cost-effective, powerful, safe and secure electronics and software systems. It should deliver on 3 industrial priorities:

- Reference designs and architectures;
- Seamless connectivity and middleware;
- Design methods and tools.

In addition to the industrial priorities ARTEMIS JU proposals should address one of the 8 specific ARTEMIS Sub-Programme (ASP) priorities for 2009, which are:

- ASP1. Methods and processes for safety-relevant embedded systems;
- ASP2. Person-centric health management;
- ASP3. Smart environments and scalable digital services;
- ASP4. Efficient manufacturing and logistics;
- ASP5. Computing environments for embedded systems;
- ASP6. Security, privacy and dependability in Embedded Systems for applications, networks and services;
- ASP7. Embedded technology for sustainable urban life;
- ASP8. Human-centric design of embedded systems.

**Publication Date:** 5 March 2009

**OJ Reference:** OJ C52 of 5 March 2009

**Closure dates:**

Deadline for submission of Project Outlines: 15 April 2009

Deadline for submission of Full Project Proposals: 3 September 2009

**Indicative Budgets:**

ARTEMIS Joint Undertaking: 37,086,500 €

ARTEMIS Member States: 67,430,000 €

ARTEMIS Member States (in M€)			
Austria	4	Hungary	1.98
Belgium	2.5	Ireland	1
Cyprus	0.35	Italy	10
Czech Republic	3	Latvia	0.5
Germany	8	Netherlands	5
Denmark	1.5	Norway	1.5
Estonia	0.3	Portugal	0.8
Spain	6	Romania	0
Finland	6	Sweden	3
France	4.5	Slovenia	1.5
Greece	2	United Kingdom	4

Table 32: Funding per Member State

### 5.2.2 Analysis of proposals submitted

The call 2009 was the first to operate in a two-phase mode. A Project Outline phase yielded 56 proposals (2 were ineligible) which were reviewed and feedback given to the proposers (the Project Outline phase is non-gating, but mandatory). For the Full Project Proposal phase, 44 proposals were received on 3 September 2009 and evaluations completed on 2 October 2009.

#### Analysis of proposals from the PO phase

The total requested costs for the 54 proposals were 585 M€. The total requested national funding amounted to 221 M€ and the total requested JU funding was 105 M€. The total requested funding by SME partners was 72 M€ (22%). The total number of participants was 820. The data for proposals eligible for evaluation of the PO phase are detailed here:

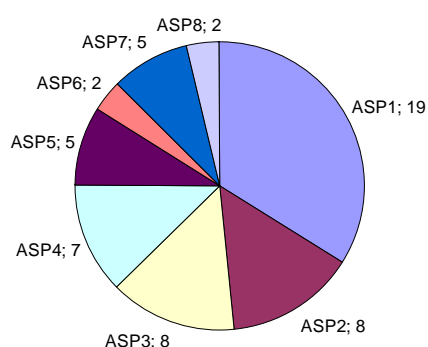


Figure 15: Number of proposals

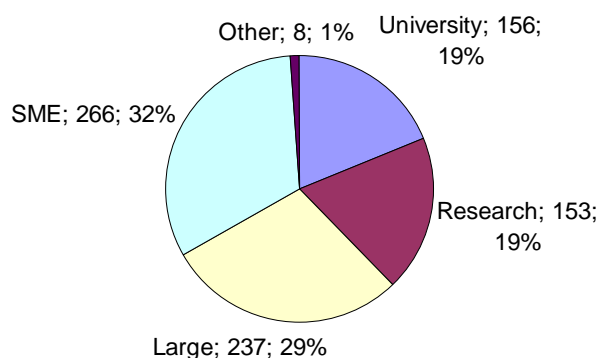


Figure 16: Total number of participations

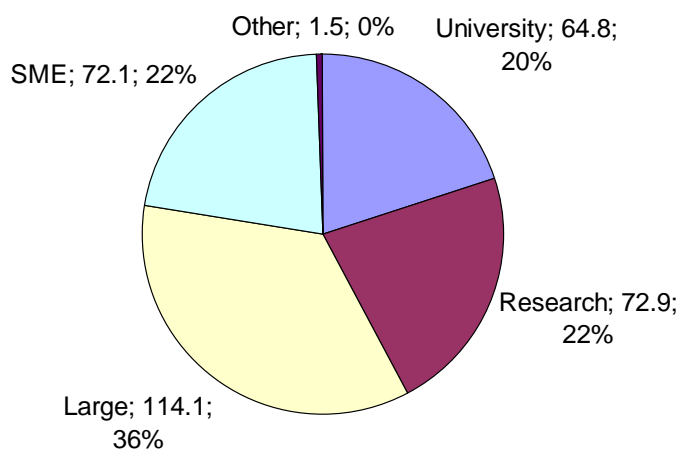


Figure 17: Total requested funding

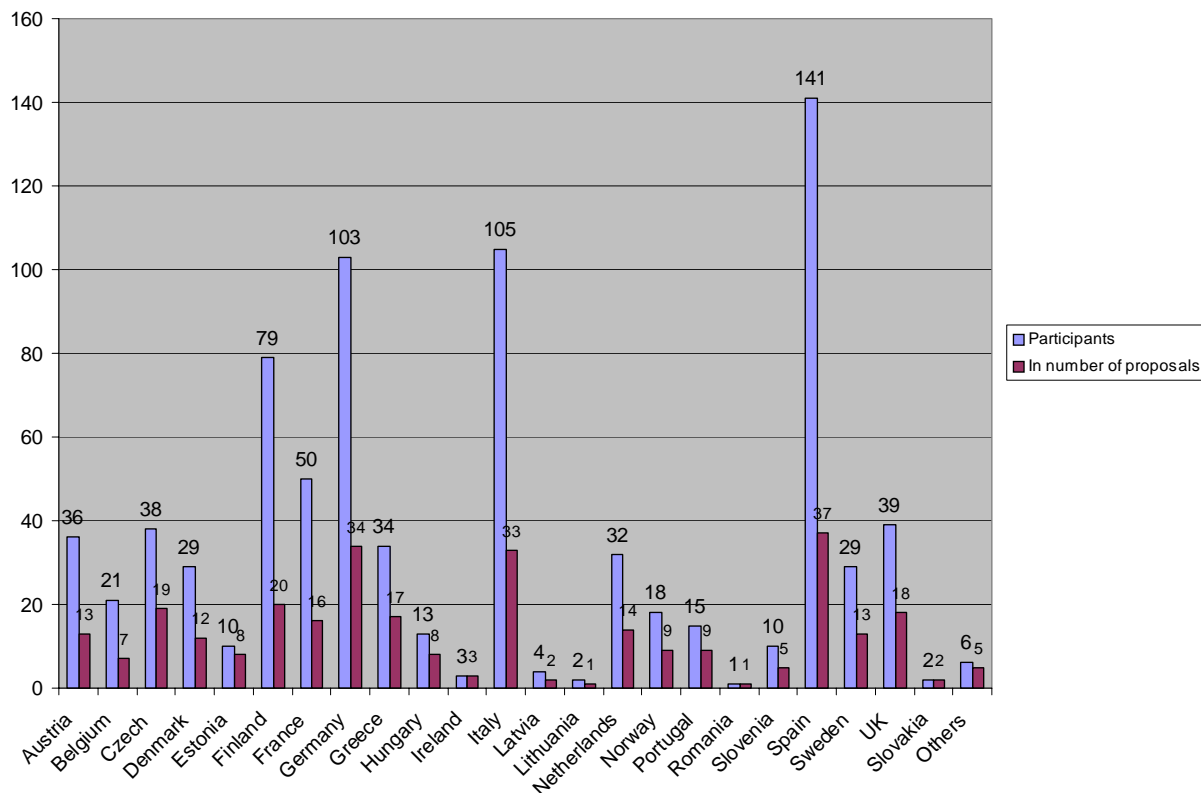


Figure 18: Number of participants and proposals per country

### Analysis of proposals from the FPP phase

The total requested costs for the 44 proposals were 574 M€. The total requested national funding was 212 M€ and the total requested JU funding amounted to 102 M€. The total requested funding by SME partners was 60 M€ (19 %). The total number of participants was 834.

The data for proposals eligible for evaluation of the FPP phase are detailed here:

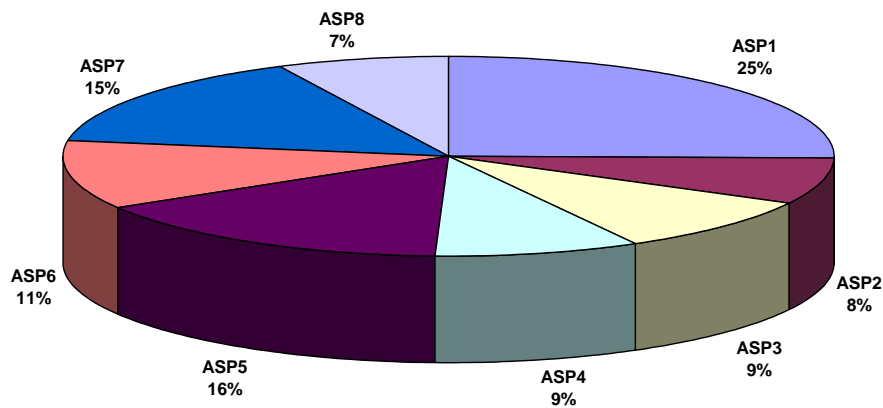


Figure 19: Distribution per ASP, all FPPs

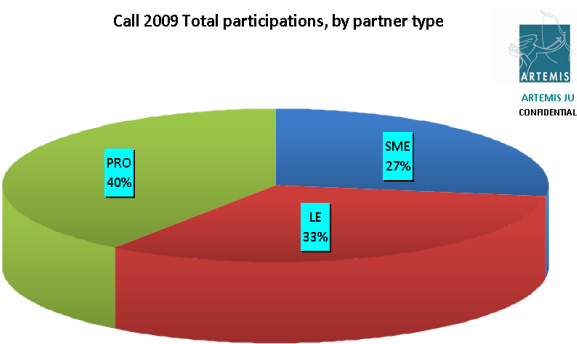


Figure 20: Participants by type

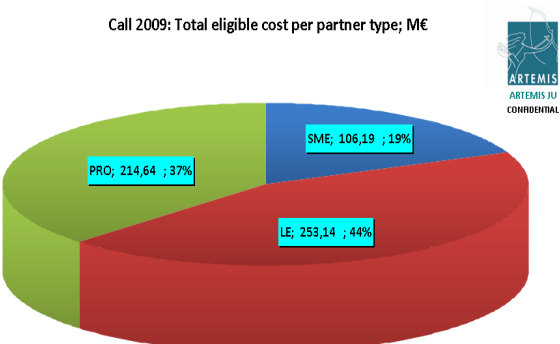


Figure 21: Total eligible costs per partner type

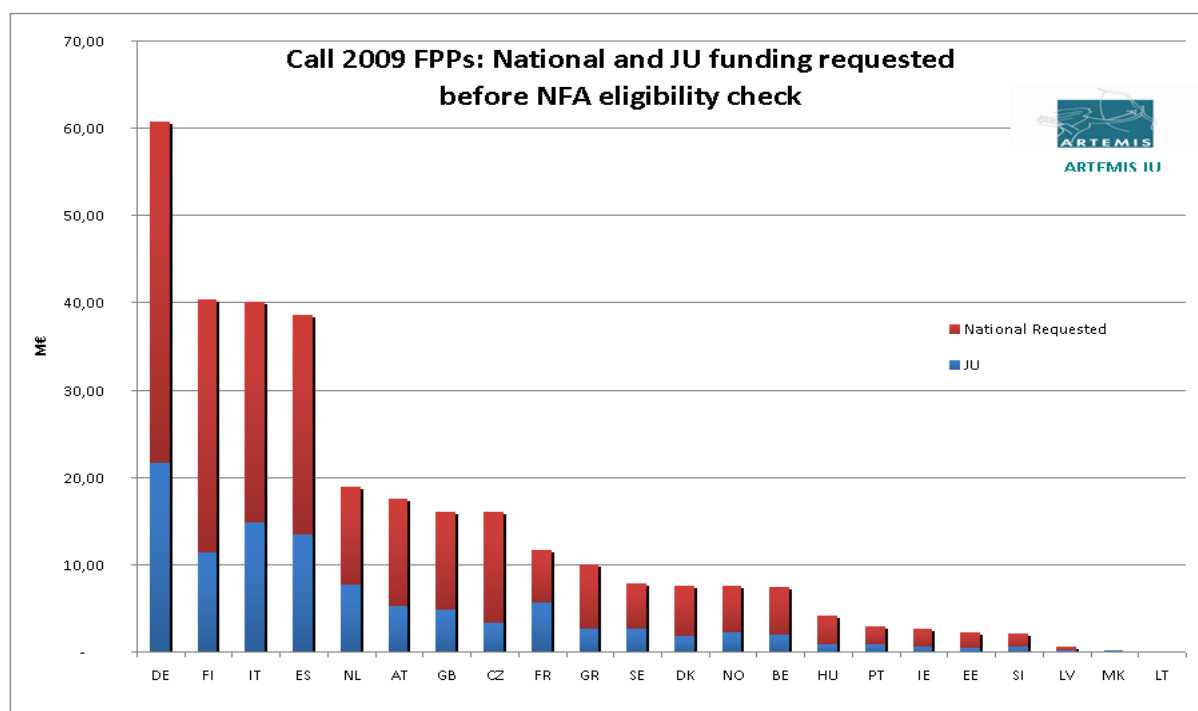


Figure 22: Requested national and ARTEMIS JU funding

### 5.2.3 Evaluation procedure

The Call 2009 was the first to operate in a two-phase mode. For both Project Outline and Full Project Proposal phases the proposals were submitted electronically to the ARTEMIS JU via the ARTEMIS Proposal Submission system. The system allowed the participants to provide the administrative data of all participants and upload the proposal as a PDF file. After the deadline all the data from the system was transmitted to the Commission proposal evaluation system RIVET.

**Project Outline phase:** 56 proposals for research projects were submitted in response to the PO phase of this call, of which 54 satisfied the eligibility criteria. Feedback was provided to proposers on 19 May regarding assessment criteria specified in the call, plus information provided by national authorities on fulfilment of eligibility criteria for national funding. The submission of an eligible PO was mandatory for the submission of the subsequent full proposal.

**Full Project Proposal phase:** 44 proposals were submitted in this phase, all of which satisfied the eligibility criteria for Full Project Proposals. The evaluation was conducted according to the rules described in the document ARTEMIS PAB-4/08: "ARTEMIS Joint Undertaking selection and evaluation procedures related to Calls for Proposals". Each proposal was initially evaluated remotely by four individual experts. This was followed by a panel meeting of external experts under the chairmanship of both the Interim Executive Director and the appointed Executive Director. The panel produced the final evaluation result for each proposal after an in-depth discussion on the basis of the 4 individual reports from the experts. Proposers were informed of the evaluation results on 20 October 2008. At this stage, 24 proposals were evaluated above threshold (40 points minimum on a maximum of 60) and 20 were evaluated below this selection threshold of 40 points.

The 5 evaluation criteria are:

- (1) Relevance and contributions to the objectives of the call;
- (2) R&D innovation and technical excellence;
- (3) S&T approach and work plan;
- (4) Market innovation and market impact;
- (5) Quality of consortium and management.

Remote evaluation was done by in total 65 experts. Synthesis was done by one rapporteur per project. Consolidation and calibration of evaluation scores were performed by 23 experts, meeting in Brussels from 28 September to 2 October 2009. Consolidation of the Evaluation Summary Reports (ESRs) was achieved through three sub-panels, chaired by one EC person plus one ARTEMIS JU person. Calibration of final scores in the ESRs was done in the final panel discussion chaired by the Executive Director, assisted by the Interim Executive Director.

#### *5.2.4 Evaluation results*

Out of the 44 proposals received 24 proposals were evaluated above threshold. Out of the 24 13 projects were retained for negotiation, 6 projects on a reserve list, 5 projects not feasible financially though above the minimum score threshold. 20 projects were rejected, as they were below the selection threshold. Just prior to the Public Authorities Board and Governing Board meeting of 28 January 2010, a total of 13 projects had successfully completed the negotiation phase.

Overall, the Public Authorities Board allocated 101.9 M€ of public funds from the ARTEMIS Member States and the EC to 13 projects with a total cost of 207.7 M€. The 34.7 M€ of Union funding resulted in a leverage effect of 6 to 1. National budgets published in the call, subsequently increased by some countries to permit strategically important projects to be funded, were allocated at 93.7% overall and the Union budget at 91.4%.

The selected proposals covered the priority objectives of the call (safety-relevant embedded systems for transportation and automation, smart environments and digital services and embedded computing platforms) in a very satisfactory manner. The areas of health, manufacturing and security were less well covered. About 10.5 M€ of funding concerned projects related to safety critical systems (typically for transport applications), 15 million to industrial efficiency (manufacturing and logistics), 3 million on smart environments and digital services, and 38 million were earmarked for computing architectures projects. An additional 13.5 million will be spent on work targeting energy reduction in urban areas and 7 million on human-centric design. One project on "Health", with 5.8M€ funding, and one on secure digital services at 8.9 M€ funding completed the line-up.

In terms of project size, 8 of the selected proposals could be classified as "large" (eligible costs >15 M€), representing 79% of the total eligible costs for this call. There were 2 "medium" projects (between 10 M€ and 15 M€) representing 12% of costs, and 3 "small" initiatives at 9% of total eligible costs. This demonstrated that both the R&D community of proposers and the evaluation and selection process were starting to favour projects that convincingly demonstrate a high level of impact.

The following table lists the results of the successfully negotiated projects, with their total eligible cost, national funding and ARTEMIS JU Funding. As information, the distribution of funding per participant type and the corresponding average funding rates are also given.

Project	Total eligible costs (in €)	ARTEMIS JU funding (in €)	National funding (in €)
ACROSS	16,066,012.26	2,683,024.05	4,965,155.81
ASAM	5,829,365.00	973,503.59	1,786,001.40
CHIRON	18,064,346.00	3,016,745.78	6,205,747.27
eSONIA	12,084,895.75	2,018,177.59	4,801,982.88
iFEST	15,794,707.00	2,637,716.07	5,158,992.92
ME3GAS	15,732,529.20	2,627,332.38	2,717,219.47
POLLUX	33,245,302.00	5,551,965.43	10,255,145.98
pSHIELD	5,392,809.07	900,599.11	1,522,774.16
R3-COP	18,319,660.00	3,059,384.58	6,737,692.86
RECOMP	25,772,220.00	4,303,960.74	9,339,154.66
SIMPLE	7,433,467.00	1,241,388.00	2,798,967.00
SMARCOS	13,461,741.00	2,248,110.75	4,420,052.11
SMECY	20,537,505.00	3,429,763.34	6,513,371.00
<b>TOTAL</b>	<b>207,734,559.28</b>	<b>34,691,671.40</b>	<b>67,222,257.52</b>

Table 33: Total eligible costs, ARTEMIS JU- and national funding per project

	LE	SME	PRO	Total
<b>Total eligible costs</b>	114,475,343.73	31,474,150.55	61,785,065.00	207,734,559.28
<b>ARTEMIS JU contribution</b>	19,117,383.58	5,256,182.86	10,318,104.96	34,691,671.40
<b>National funding</b>	26,758,077.38	11,346,614.52	29,117,565.62	67,222,257.52
<b>Total funding</b>	45,875,460.96	16,602,797.38	39,435,670.58	101,913,928.92
<b>Total eligible costs</b>	55.1%	15.2%	29.7%	(pct of total)
<b>National funding</b>	39.8%	16.9%	43.3%	(pct of total)
<b>National funding rate</b>	23.4%	36.1%	47.1%	32.4%
<b>Total funding rate</b>	40.1%	52.8%	63.8%	49.1%

\* LE: Large Enterprise. SME: Small-Medium Enterprise. PRO: Public Research Organisation. ARTEMIS JU contribution fixed at 16.7% of eligible costs.

Table 34: Funding breakdown per partner type, in €



In terms of the number of total participants, the projects selected for funding comprised a total of 295 participations, of which 124 were large enterprises, 63 were SMEs and 108 – public research organisations (universities and institutes). The following graph shows their relative distribution:

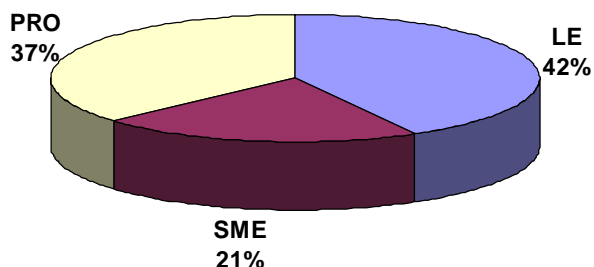


Figure 23: Distribution of participants involved in the proposals proposed for funding by type of organisation

The following chart shows the breakdown by participant type in each country:

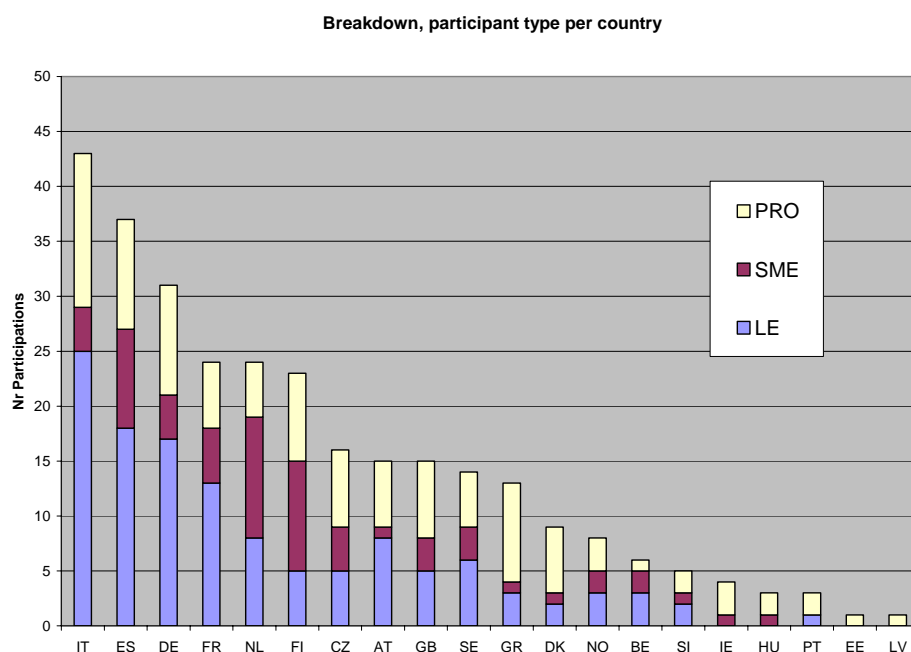


Figure 24: Participants type per country

In terms of the number of countries involved in each project, the following table shows the count of partners' country in each project:

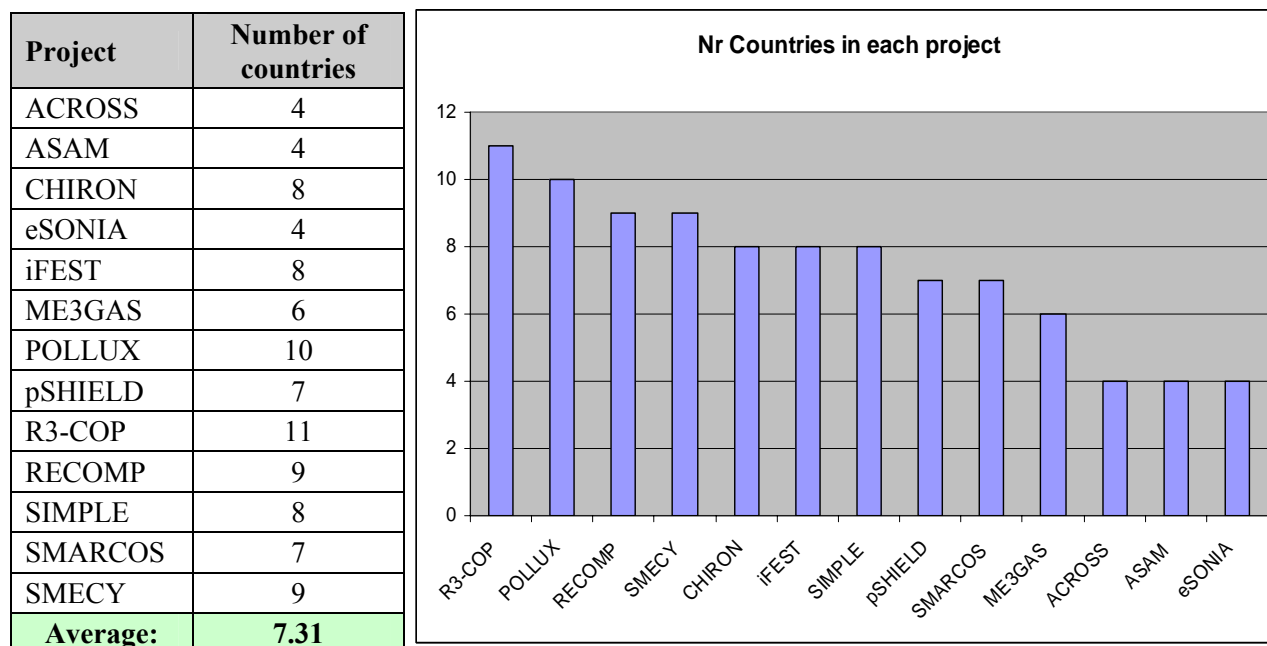


Table 35: Number of countries per project

From this it is clear that the ARTEMIS programme has attracted not only larger initiatives, but has also lead to a higher degree of internationalisation of the projects, calling on expertise from a broader base of European participants. No project has the strict minimum of 3 participating countries, and the average of 7.3 countries per project is significantly higher than has been historically the case.

#### 5.2.5 Grant Agreements signed

The consortia were invited to negotiations for establishing a Grant Agreement on 9 November 9 2009. 13 projects were negotiated, of which 2 kicked off on 1 January, 1 – on 1 February, 4 started in March, 4 – in April 2010, and the remaining 2 – in the course of 2010. There were therefore about 5 months between the call deadline and the possible start of the projects. This was an excellent result, comparing favourably to any R&D programme worldwide.

Nonetheless, delays have been experienced in the establishment of National Grant Agreements which consequently delayed the setting up of the ARTEMIS JU GAs, some of which have been due to restructuring within certain participants (an aftermath of the recent economic downturn). The delay to sign the JU-Grant Agreement was very short once the certificate of signature of a National Grant Agreement has been received.

*Annex 5: Table of projects for which Grant Agreements have been signed (in €)*

<b>Nº</b>	<b>GA number</b>	<b>Project acronym</b>	<b>Project title</b>	<b>Total project costs</b>	<b>Total national funding</b>	<b>ARTEMIS JU funding</b>	<b>Signature date (expected)</b>
1	100208	ACROSS	ARTEMIS CROSS-Domain Architecture	16,066,012.26	4,965,155.81	2,683,024.05	<b>Q3 2010</b>
2	100265	ASAM	Automatic Architecture Synthesis and Application Mapping	5,829,365.00	1,786,001.40	973,503.59	<b>Q3 2010</b>
3	100228	CHIRON	Cyclic and person-centric Health management: Integrated appRoach for hOme, mobile and clinical eNvironments	18,064,346.00	6,205,747.27	3,016,745.78	<b>Q4 2010</b>
4	100223	eSONIA	Embedded Service Oriented Monitoring, Diagnostics and Control	12,084,895.75	4,801,982.88	2,018,177.59	<b>Q3 2010</b>
5	100203	iFEST	industrial Framework for Embedded Systems Tools	15,794,707.00	5,158,992.92	2,637,716.07	<b>Q3 2010</b>
6	100266	ME3GAS	Smart Gas Meters & Middleware for Energy Efficient Embedded Services	15,732,529.20	2,717,219.47	2,627,332.38	<b>Q4 2010</b>
7	100205	POLLUX	Process Oriented Electrical Control Units for Electrical Vehicles Developed on a Multi-system Real-time Embedded Platform	33,245,302.00	10,255,145.98	5,551,965.43	<b>Q4 2010</b>
8	100204	pSHIELD	pilot embedded Systems arcHitecturE for multi-Layer Dependable solutions	5,392,809.07	1,522,774.16	900,599.11	<b>Q4 2010</b>
9	100233	R3-COP	Robust and Safe Reasoning Robotic Co-operative Systems	18,319,660.00	6,737,692.86	3,059,384.58	<b>Q3 2010</b>
10	100202	RECOMP	Reduced Certification Costs for Trusted Multi-core Platforms	25,772,220.00	9,339,154.66	4,303,960.74	<b>Q3 2010</b>

<b>Nº</b>	<b>GA number</b>	<b>Project acronym</b>	<b>Project title</b>	<b>Total project costs</b>	<b>Total national funding</b>	<b>ARTEMIS JU funding</b>	<b>Signature date (expected)</b>
11	100261	SIMPLE	Self-organizing Intelligent Middleware Platform for manufacturing and Logistics Enterprises	7,433,467.00	2,798,967.00	1,241,388.00	<b>Q3 2010</b>
12	100249	SMARCOS	SMART COMPOSITE HUMAN-COMPUTER INTERFACES	13,461,741.00	4,420,052.11	2,248,110.75	<b>Q3 2010</b>
13	100230	SMECY	Smart Multicore Embedded Systems: A holistic approach for the integration of multicore SoC and Embedded software	20,537,505.00	6,513,371.00	3,429,763.34	<b>Q3 2010</b>

## **6. PROGRESS ACHIEVED BY THE ENIAC JU**

Growing out of the ENIAC European Technology Platform (ETP), the ENIAC Joint Undertaking (hereinafter referred to as "ENIAC JU") was established in 2008 and aims to tackle the research and innovation in nanoelectronic technologies and smart components and their integration in smart systems faced by the industrial sector. The objective is to define and implement a Research Agenda for nanoelectronics-based systems. ENIAC JU aims to help European industry consolidate and reinforce its world leadership nanoelectronics technologies and systems. The European Union recognises the strategic importance of nanoelectronics-based systems and launched the ENIAC Joint Technology Initiative, declared nanoelectronics a key enabling technology with systemic character and included nanoelectronics in the Key Enabling Technologies Communication.

The ENIAC JTI is implemented as a Joint Undertaking which is a public-private partnership between:

- The European Commission;
- Participating Member and Associated States, by now 21 countries;
- The Association for European Nanoelectronics Activities (AENEAS) – a non-profit industrial association of R&D actors in the field of semiconductors.

The ENIAC JU shall manage and co-ordinate research activities through open Calls for Proposals through a 10-year, € 2.5 billion research programme on nanoelectronics-based systems. The programme is open to organisations in the EU Member States and Associated Countries. Selected projects will be co-financed by the Joint Undertaking and the Member States that have joined ENIAC. The ENIAC JU will implement significant parts of the ENIAC-ETP Strategic Research Agenda co-funded by industry, research organisations, Member States and the Commission's own ICT programme.

The ENIAC JU has managed one Call for Proposals in 2009.

### **6.1 Call ENIAC-2008-1**

#### *6.1.1. Grant Agreements signed*

The annex II for ENIAC in the 2009 Commission Staff Working Document accompanying the 2009 Annual report on RTD activities<sup>15</sup> reporting on the progress made in 2008 did not include the list of projects for which Grant Agreements were signed in the 2008 call. The list of the 7 Grant Agreements which have been signed following this call is now available in the following annex:

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<sup>15</sup> SEC(2009)1380

Annex 6: Table of projects for which Grant Agreements have been signed in 2008

Nº	Project acronym	Project title	Application area	Specific domain	Number of partners	Numbers of states	Costs (in M€)	ENIAC JU funding (in M€)	National funding (in M€)	Date of signature
1	E3Car	Nanoelectronics for an energy efficient electrical car	Automotive	Electric car	33	11	44,153	7,373	14,077	20 Oct 2009
2	SE2A	Nanoelectronics for safe, fuel efficient and environment friendly automotive solutions	Automotive	Car safety & efficiency	21	7	21,656	3,617	7,338	7 Oct 2009
3	SmartPM	Smart power management in home and health	Energy	Power management	18	9	19,827	3,311	6,951	30 Nov 2009
4	MODERN	Modelling and design of reliable, process variation-aware nanoelectronic devices, circuits and systems	Design	Reliability	28	10	27,363	4,247	7,870	7 Dec 2009
5	IMPROVE	Implementing manufacturing science solutions to increase equipment productivity and fab performance	Manufacturing	Productivity	34	6	37,613	6,010	12,150	29 May 2009
6	LENS	Lithography process for beyond 32nm manufacturing	Manufacturing	Lithography	12	5	30,562	5,104	6,495	26 Nov 2009
7	JEMSiP_3D	Joint equipment & materials for system-in-package and 3D integration	Manufacturing	Heterogeneity	20	6	25,625	4,279	6,757	14 Dec 2009
8	NEPTUNE	Micro and nanotechnologies based on wide band gap materials for future transmitting receiving and sensing systems	Manufacturing	Heterogeneity	10	6	Cancelled			
<b>Total</b>					<b>176</b>		<b>206,799</b>	<b>33,941</b>	<b>61,638</b>	

## **6.2 Call ENIAC-2009-1**

### *6.2.1 Summary information*

The results arising from projects following the 2009 call have been expected to demonstrate their contribution to the ENIAC-JU high-level objectives.

In the statutes of the ENIAC JU, the Multi-Annual Strategic Plan (MASP) defines the strategy. The AENEAS association is chartered by the Industry & Research Committee to draft this MASP and adapt the plan as it evolves over time as a function of research priorities and stakeholder commitments. The selection of topics within the MASP is primarily along the axis of long-term societal needs and lead markets. The six societal segments identified in 2009 are: 1) Health & Wellness, 2) Transport & Mobility, 3) Security & Safety, 4) Energy & Environment, 5) Communication, and 6) e-Society (replacing Infotainment from 2008), leading to segmentation in six application-specific Sub-Programmes in the MASP (respectively SP1 to SP6). Many of the challenges listed in the ENIAC's Strategic Research Agenda (SRA) technology domains can be mapped on the applications in these lead markets, notably topics from "More Moore", "More than Moore", and Heterogeneous Integration.

It should be recognised that commonalities continue to exist in many basic technologies underlying the various application-specific Sub-Programmes. Also the priorities within these technologies can be the same, the difference being the timing or the level of maturity needed. However, in the technology domains Design Methods and Tools, and Equipment and Materials, cross-domain and cross-application aspects are dominant. Challenges in these domains can be better handled as generic enablers, serving all ENIAC societal needs and lead markets. Therefore, the application-specific Sub-Programmes SP1 to SP6 in the MASP to cover the Research Agenda are complemented with two Sub-Programmes SP7 and SP8 that are technology-specific, bringing the total to eight.

The mixture of technology- and application-driven Sub-Programmes guiding the 2009 call is covered in Figure 25, seeking maximum synergy between the various application Sub-Programmes while at the same time recognising their individual socio-economic value and their capability to drive wider technological progress.

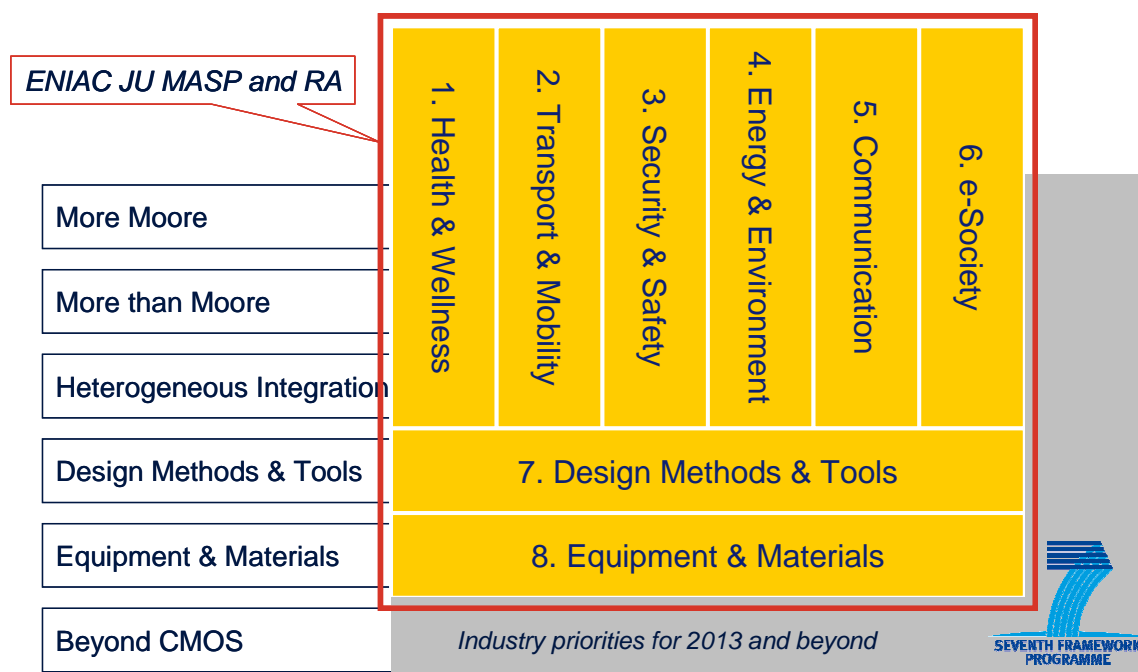


Figure 25: Mapping the ENIAC JU Research Agenda on the SRA technology domains

All Sub-Programmes are open in the 2009 call. However, among the application Sub-Programmes, a specific approach was followed with respect to the topics already covered in 2008 and those opened for the first time in 2009. Guiding principles in the Sub-Programme focusing were:

- To identify topics of sufficiently wide interest to justify large-scale cooperative research projects, finalised to enable clearly identified applications, following the basic rationale for the JTI, which is to support projects for which “the scope of a RTD objective and the scale of the resources involved justify setting up long-term public-private partnerships”<sup>16</sup>. In 2009, this applies to SP1, SP5 and SP6;
- To work on complementary, focused activities in relation to the topics covered by the large projects launched in 2008. This is done in SP2 and SP4;
- To address again the full scope of SP3 given the lack of positive results in this field in 2008.

This focused selection is large enough to allow a number of good proposals and also to allow all Sub-Programmes to be addressed within the call of 2009. It is expected that future calls will cover only a limited number of Sub-Programmes, but their selection will depend on the yearly evaluation of research priorities.

To summarise, the priorities for the 2009 ENIAC Annual Work Programme as identified by the Industry and Research Committee and adopted by the Public Authorities Board of the ENIAC JU on the basis of the guidance provided by the current MASP and field interviews within representatives of the AENEAS members and other stakeholders in the Nano-

<sup>16</sup> DECISION 1982/2006/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013)



electronics R&D ecosystem, covers 4 fully-fledged application-oriented Sub-Programmes, 2 limited application Sub-Programmes and the 2 technology-driven Sub-Programmes.

**Publication Date:**

**19 March 2009**

**OJ Reference:**

**OJ C64 of 19 March 2009**

**Closure dates:**

Deadline for submission of Project Outlines:

**6 May 2009**

Deadline for submission of Full Project Proposals:

**3 September 2009**

**Indicative Budgets:**

ENIAC Joint Undertaking:

**37,053,500 €**

ENIAC Member States:

**67,370,000 €**

<b>ENIAC Member States (in M€)</b>			
Austria	4	Italy	12
Belgium	2.5	Netherlands	7
Czech Republic	1.5	Norway	1.5
Estonia	0.3	Poland	1
France	7	Portugal	0.5
Germany	21	Slovak Republic	0.5
Greece	1.5	Spain	2.25
Hungary	1.32	Sweden	1
Ireland	1	United Kingdom	1.5

*Table 36: Funding per Member State*

### *6.2.2 Analysis of proposals submitted*

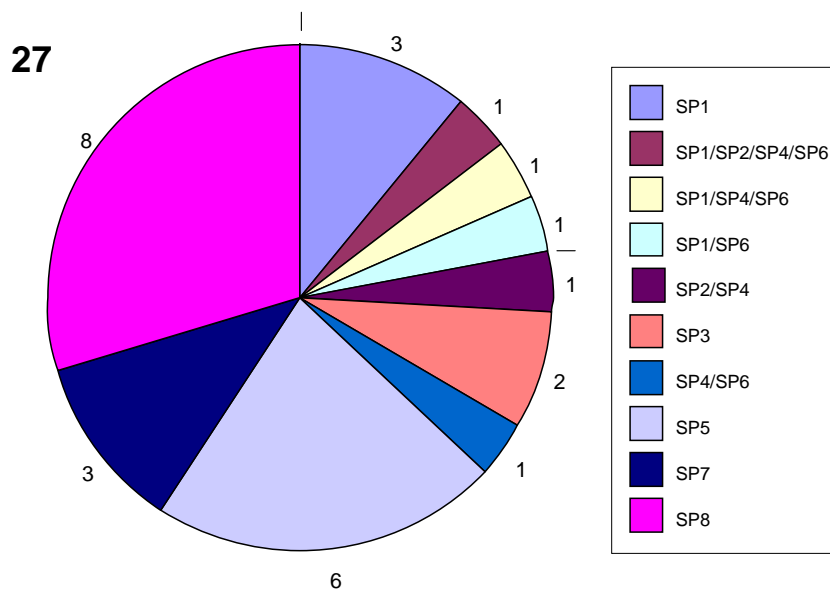
Call 2009 was the first to operate in a two-phase mode. A Project Outline (PO) phase yielded 27 proposals (none were ineligible) which were reviewed and feedback given to the proposers (the Project Outline phase is non-gating, but mandatory). For the Full Project Proposal phase, 21 proposals were received on 3 September 2009 and evaluations completed on 30 September 2009.

### **Analysis of proposals from the PO phase**

The total requested costs for the 27 proposals were 766.6 M€. The total requested for national funding amounted to 243.75 M€ and the total requested ENIAC JU funding was 128.3 M€. The total number of SME partners was 152 or 27% with a total number of participants of 574.

The data for proposals eligible for evaluation of the Project Outline phase are detailed here:

## Coverage by PO

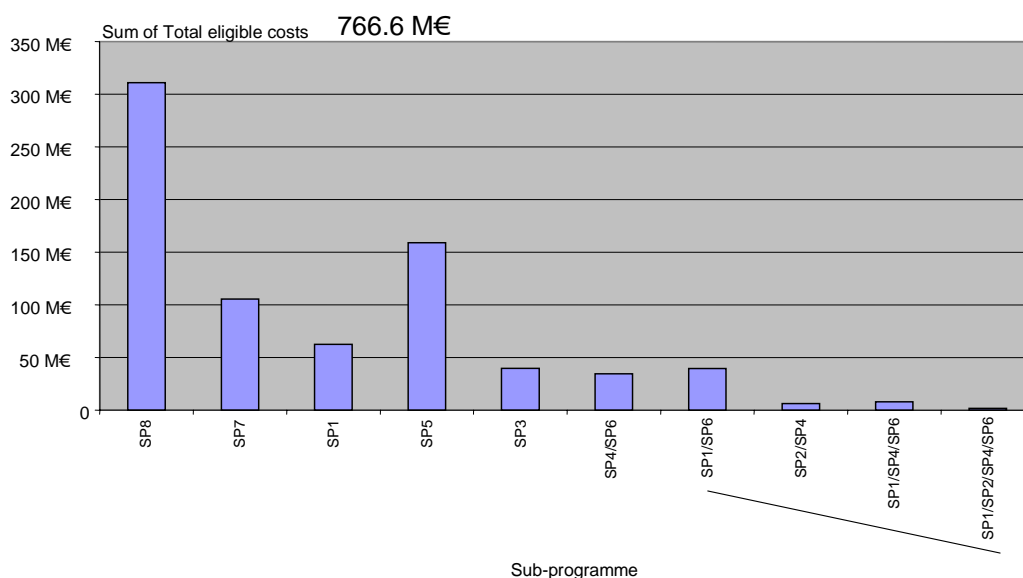


PAB 290509

ENIAC JOINT UNDERTAKING - 6

Figure 26: Number of proposals per Sub-Programme

## Overview of costs



PAB 290509

ENIAC JOINT UNDERTAKING - 16

Figure 27: Total costs per Sub-Programme

## Participants by SP

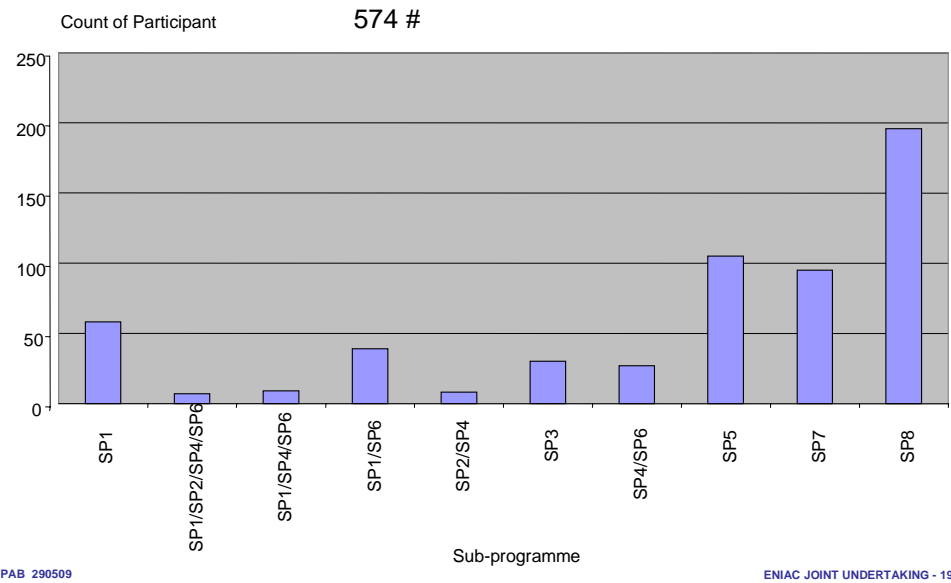


Figure 28: Number of participants per Sub-Programme

## Participants by nationality

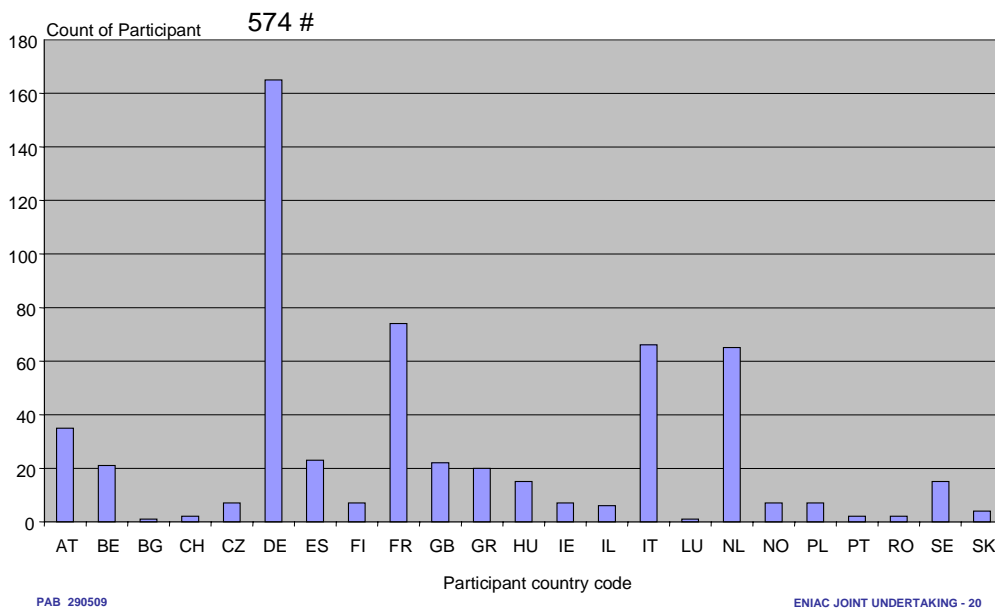
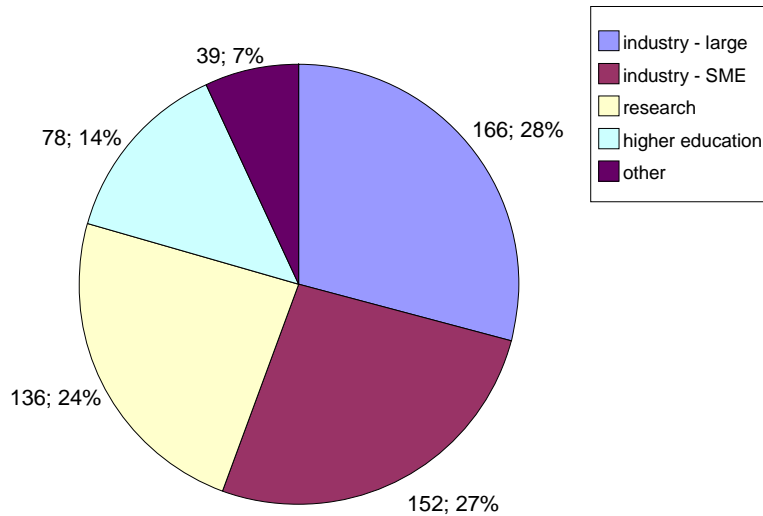


Figure 29: Number of participants per Member State

## Participants by type

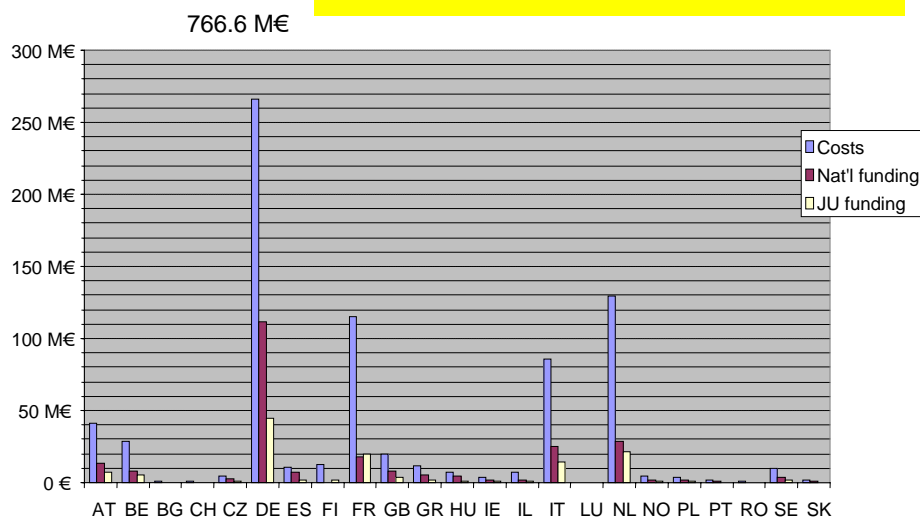


PAB 290509

ENIAC JOINT UNDERTAKING - 22

Figure 30: Number of participants by type

## National distribution



PAB 290509

ENIAC JOINT UNDERTAKING - 17

Figure 31: National distribution

### Analysis of proposals from the FPP phase

The total requested costs for the 21 proposals eligible for evaluation in the second stage were 558.1 M€. The total requested national funding amounted to 163.1 M€ and the total requested ENIAC JU funding was 93 M€. The total requested funding by SME partners was 48.9 M€

(19 %). The total number of participants was 451. The data for proposals eligible for evaluation of the FPP phase are detailed here:

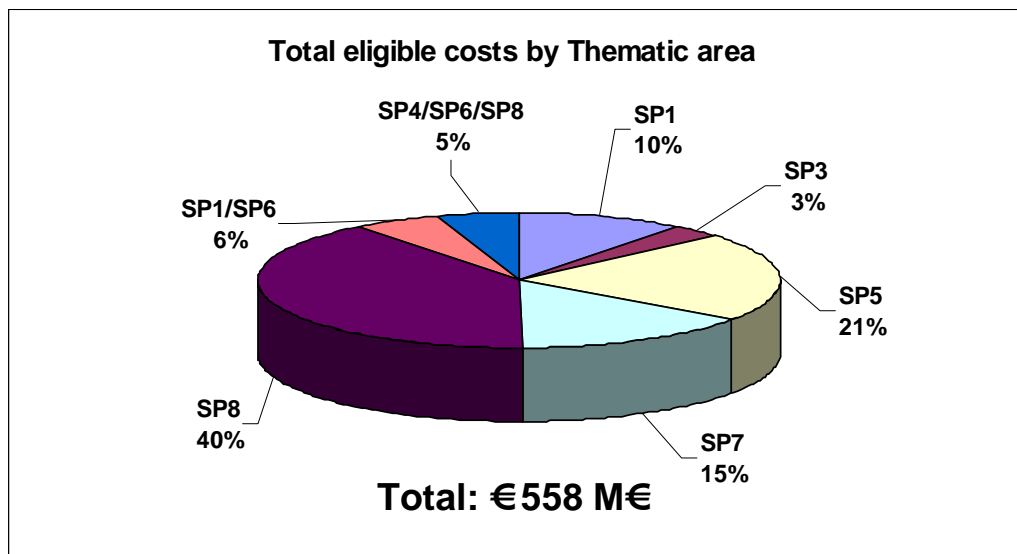


Figure 32: Total costs by thematic area

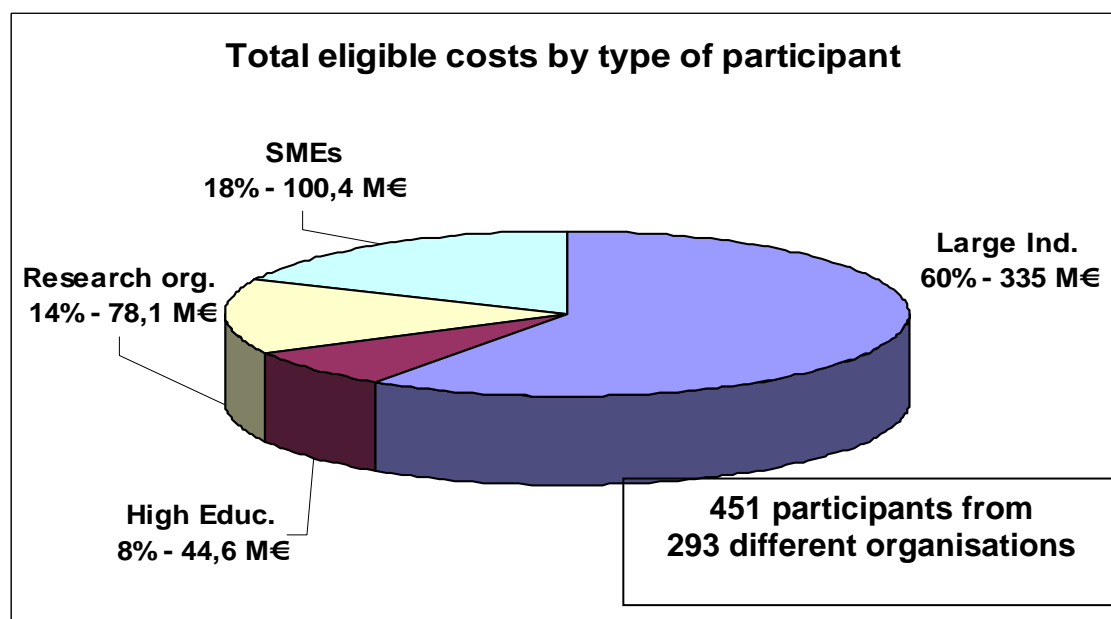


Figure 33: Total costs by type of participant

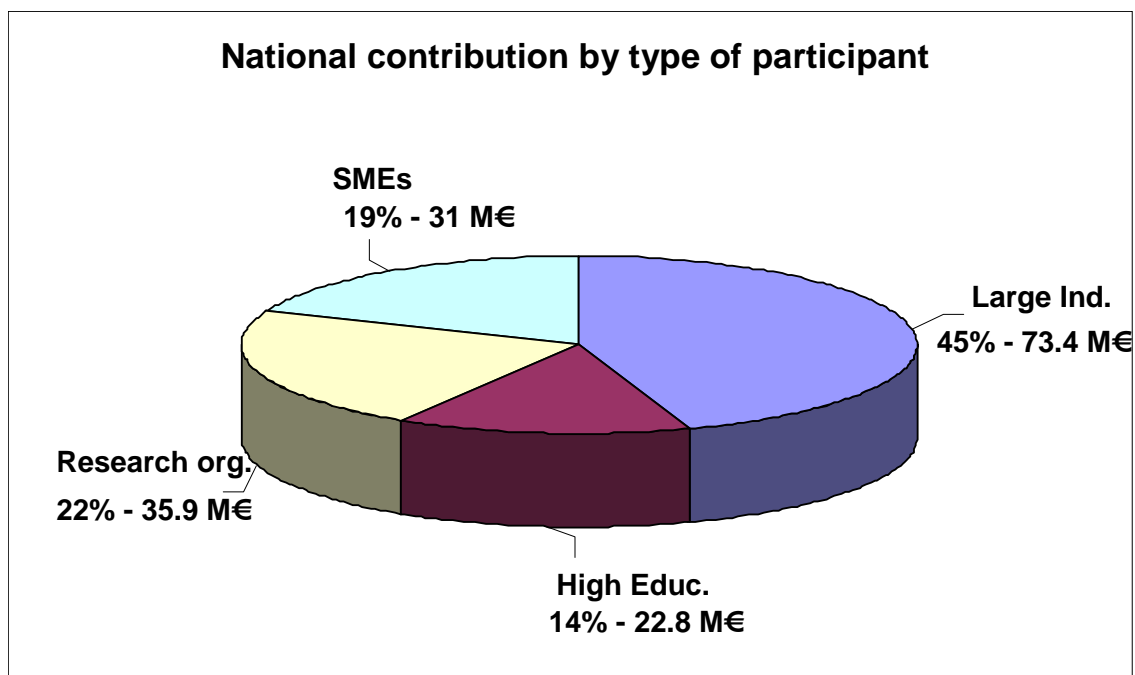


Figure 34: Distribution of costs

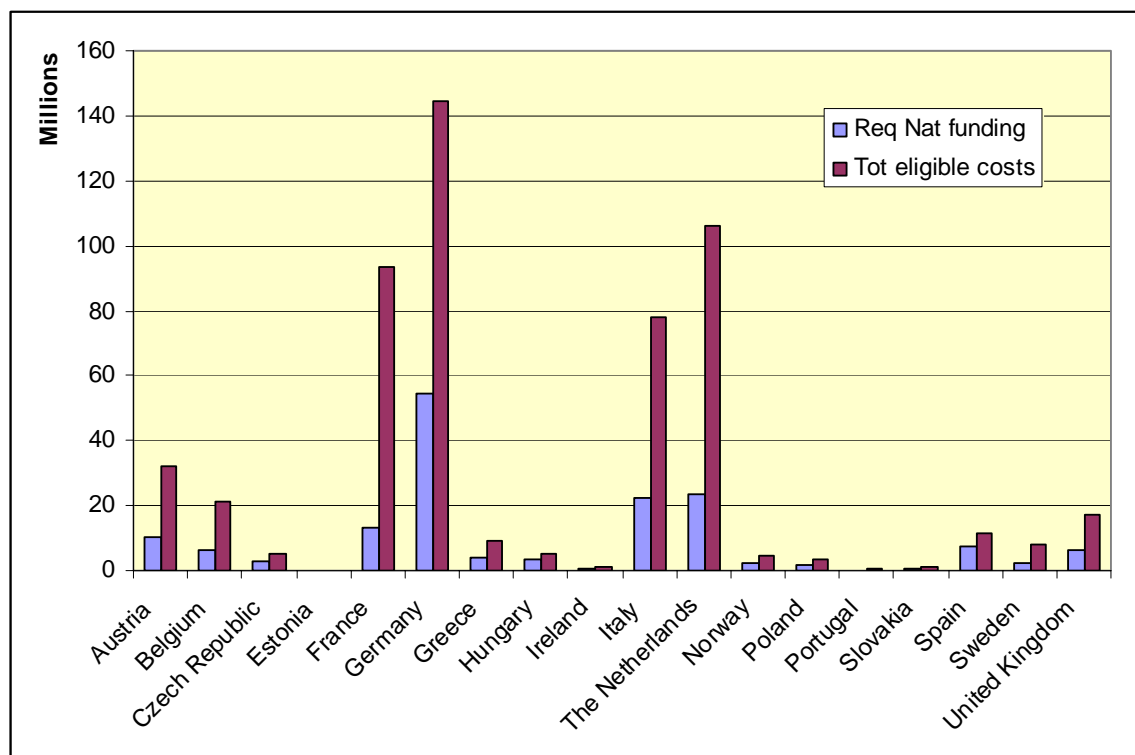


Figure 35: Requested national funding per ENIAC Member State

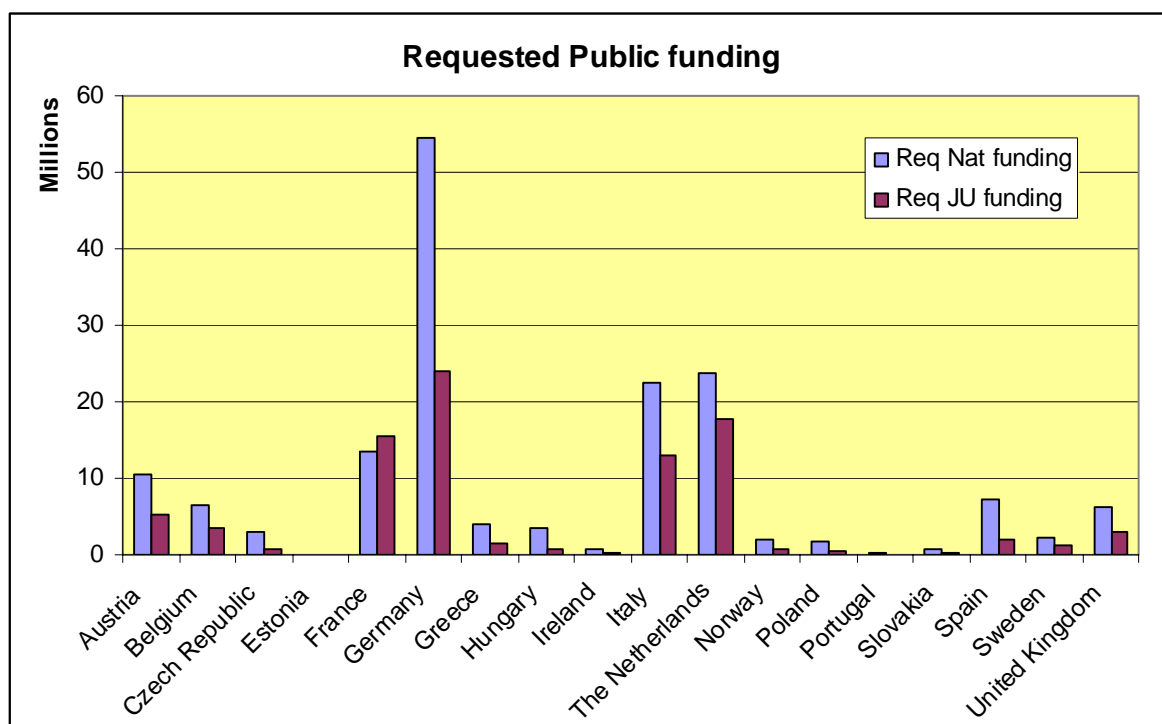


Figure 36: Requested public funding

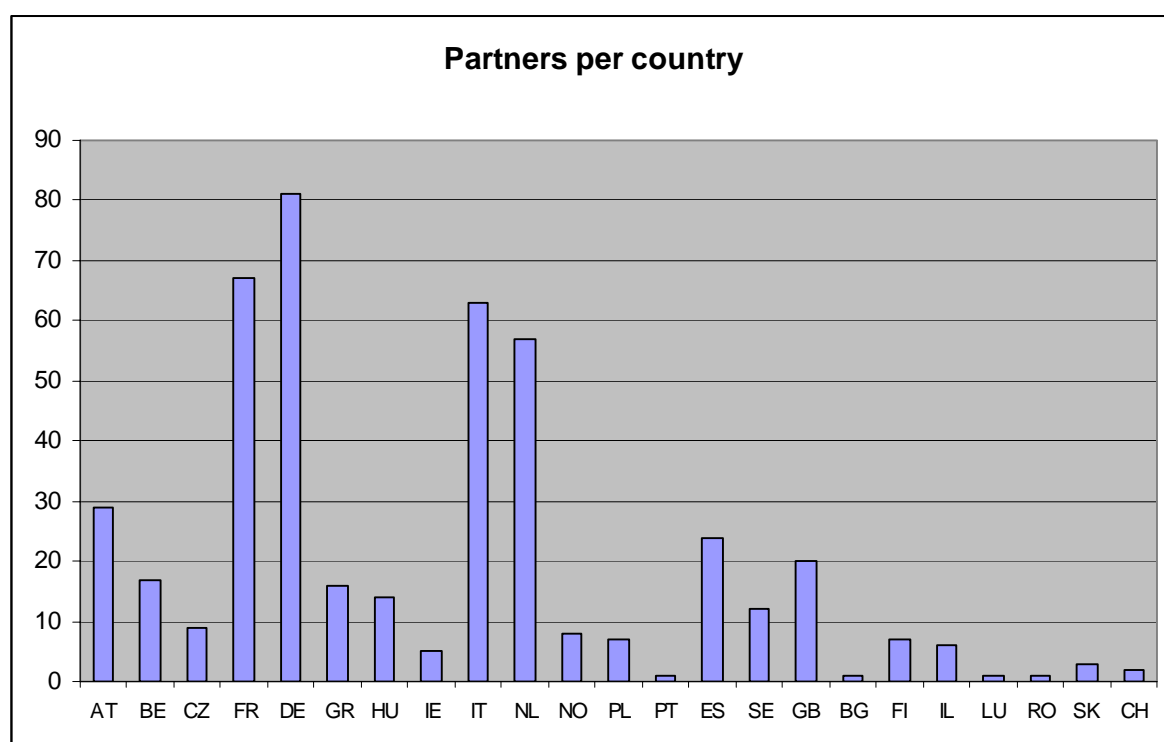


Figure 37: Partners per country

### 6.2.3 Evaluation procedure

The call 2009 was the first to operate in a two-phase mode. For both Project Outline and Full Project Proposal phases the proposals were submitted electronically to the ENIAC JU via the

ENIAC Proposal Submission system. The system allowed the participants to provide the administrative data of all participants and upload the proposal as a PDF file. After the deadline all the data from the system was transmitted to the Commission proposal evaluation system RIVET.

**Project Outline phase:** 27 proposals for research projects were submitted in response to the PO phase of this call, of which all satisfied the eligibility criteria. Feedback was provided to proposers during May regarding assessment criteria specified in the call, plus information provided by national authorities on fulfilment of eligibility criteria for national funding. The submission of an eligible Project Outline was mandatory for the submission of the subsequent full proposal.

**Full Project Proposal phase:** 21 FPPs were submitted in this phase, all of which satisfied the eligibility criteria for Full Project Proposals. The evaluation was conducted according to the rules described in document ENIAC PAB-4/08: "*ENIAC Joint Undertaking selection and evaluation procedures related to Calls for Proposals*". Each proposal was initially evaluated by four individual experts. This was followed by a panel meeting of external experts under the chairmanship of the Interim Executive Director. The panel produced the final evaluation result for each proposal after an in-depth discussion on the basis of the 4 individual reports from the experts. Proposers were informed of the evaluation results during October 2009. At this stage, 19 proposals were evaluated above threshold (40 points minimum on a maximum of 60) and 2 were evaluated below this selection threshold of 40 points or the threshold of the individual criteria.

The 5 evaluation criteria are:

- (1) Relevance and contributions to the objectives of the call;
- (2) R&D innovation and technical excellence;
- (3) S&T approach and work plan;
- (4) Market innovation and market impact;
- (5) Quality of consortium and management.

Remote evaluation was done by in total 20 experts. Synthesis was done by one rapporteur per project. Consolidation and calibration of evaluation scores were performed by 20 experts, meeting in Brussels from 28 September to 30 September 2009. Calibration of final scores in ESRs was done in the final panel discussion chaired by the Interim Executive Director with the involvement of the Executive Director.

#### 6.2.4 Evaluation results

Out of the 21 proposals received 19 proposals were evaluated above threshold. Out of those 19, 11 projects were retained for negotiation, no projects were placed on a reserve list, 8 projects were not feasible financially though above the minimum score threshold. 2 projects were rejected as they were below the selection threshold. All 11 projects have successfully completed the negotiation phase. The success rate was 52.4%.

Overall, the Public Authorities Board allocated 102.4 M€ of public funds from the ENIAC Member States and the EC to the 11 proposals proposed for funding with a total cost of 244.1 M€. The 40.6 M€ of Union funding resulted in a leverage effect of 6 to 1. National budgets



published in the call subsequently increased by some countries to permit strategically important projects to be funded, were allocated at 94.7% overall. The Union indicative budget foreseen when publishing the call was increased by 9%, following an increase of some Member States and to permit some important activities to be funded.

The selected proposals covered the priority objectives of the call in a very satisfactory manner. The area of Health and Wellness was covered by 2 projects (37 M€ cost) dealing with diagnostics and imaging. Security have been covered by 1 proposal dealing with secure memories and applications-related technologies (16.6 M€). A project on solid state lighting (27 M€) covered the Sub-Programme on Energy, while 2 proposals on mm-wave and RF applications covered the Sub-Programme on Communication (52 M€). Several projects partially addressed e-Society topics, but one has explicitly addressed ambient-assisted living (27.3 M€). Four projects addressed the horizontal Sub-Programmes Design Methods and Tools and Equipment, Materials and Manufacturing: models, methods and tools for energy aware design (13 M€), large area silicon carbide and GaN substrates for power device applications (16 M€), 450 mm manufacturing (18 M€) and multi-chip System-in-a-Package integration (36 M€). The Sub-Programme on Mobility was not covered by funded projects out of this call, but 2 large projects were launched in the previous call in this field. All projects launched in this call have been complementary to projects launched in the first call.

The following table lists the results of the successfully negotiated projects, with their total eligible costs, national funding and ENIAC JU funding. As information, the distribution of funding per participant type and the corresponding average funding rates are also given.

<b>Project</b>	<b>Total eligible costs</b>	<b>ENIAC JU funding</b>	<b>National funding*</b>
CSSL	27,092,149	4,524,389	7,480,261
MERCURE	3,297,691	550,714	938,766
CSI	14,773,010	2,467,093	4,330,294
ESiP	36,085,278	6,026,241	9,768,768
EEMI 450	18,361,170	3,066,315	4,861,757
MAS	28,970,122	4,838,010	9,783,911
CAJAL4EU	22,272,620	3,592,349	7,606,398
MIRANDELA	50,400,246	8,416,841	6,951,276
SMART	14,304,499	2,388,851	3,791,716
END	15,476,068	2,584,503	3,910,186
LAST POWER	13,114,285	2,190,086	2,378,436
<b>TOTAL</b>	<b>244,147,138</b>	<b>40,645,393</b>	<b>61,801,770</b>

\* National funding may slightly change pending on the establishment of Grant Agreements.

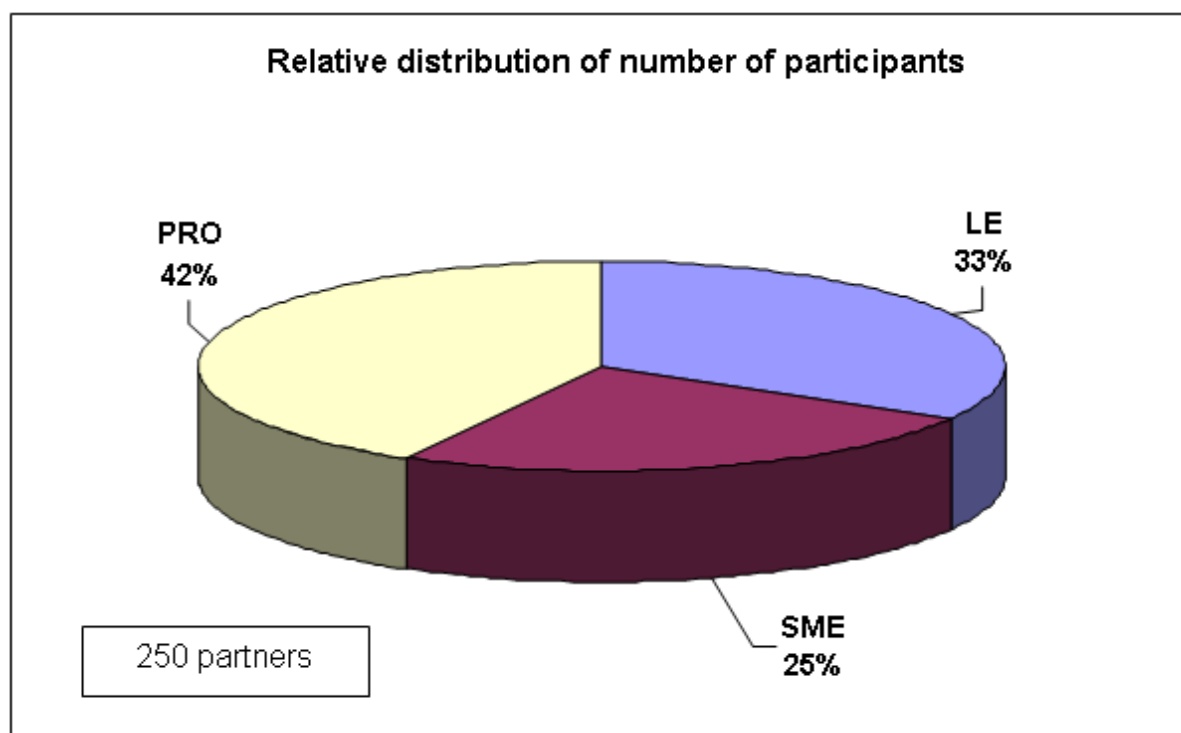
*Table 37: Total eligible costs, ENIAC JU- and national funding per project (in €)*

	LE	SME	PRO	Total
<b>Total eligible costs</b>	143,180,770	35,317,864	65,648,504	<b>244,147,138</b>
<b>ENIAC JU contribution</b>	23,911,189	5,770,904	10,963,300	<b>40,645,393</b>
<b>National funding</b>	27,657,219	8,465,450	25,679,101	<b>61,801,770</b>
<b>Total funding</b>	51,568,407	14,236,354	36,642,401	<b>102,447,163</b>
<b>Total eligible costs</b>	58.6%	14.5%	26.9%	<b>(pct of total)</b>
<b>National funding</b>	44.7%	13.7%	41.6%	<b>(pct of total)</b>
<b>National funding rate</b>	19.3%	24.0%	39.1%	<b>25.3%</b>
<b>Total funding rate</b>	36.0%	40.3%	55.8%	<b>41.0%</b>

\* LE: Large Enterprise. SME: Small-Medium Enterprise. PRO: Public Research Organisation. ENIAC JU contribution fixed at 16.7% of eligible costs.

*Table 38: Funding breakdown per partner type (in €)*

In terms of number of total participants, the projects selected for funding comprised a total of 250 participations, of which 83 were large enterprises, 62 were SMEs and 105 were public research organisations (universities and institutes). The following graph shows their relative distribution:



*Figure 38: Relative distribution of participants by type*

The following chart shows the breakdown by participant type in each country:

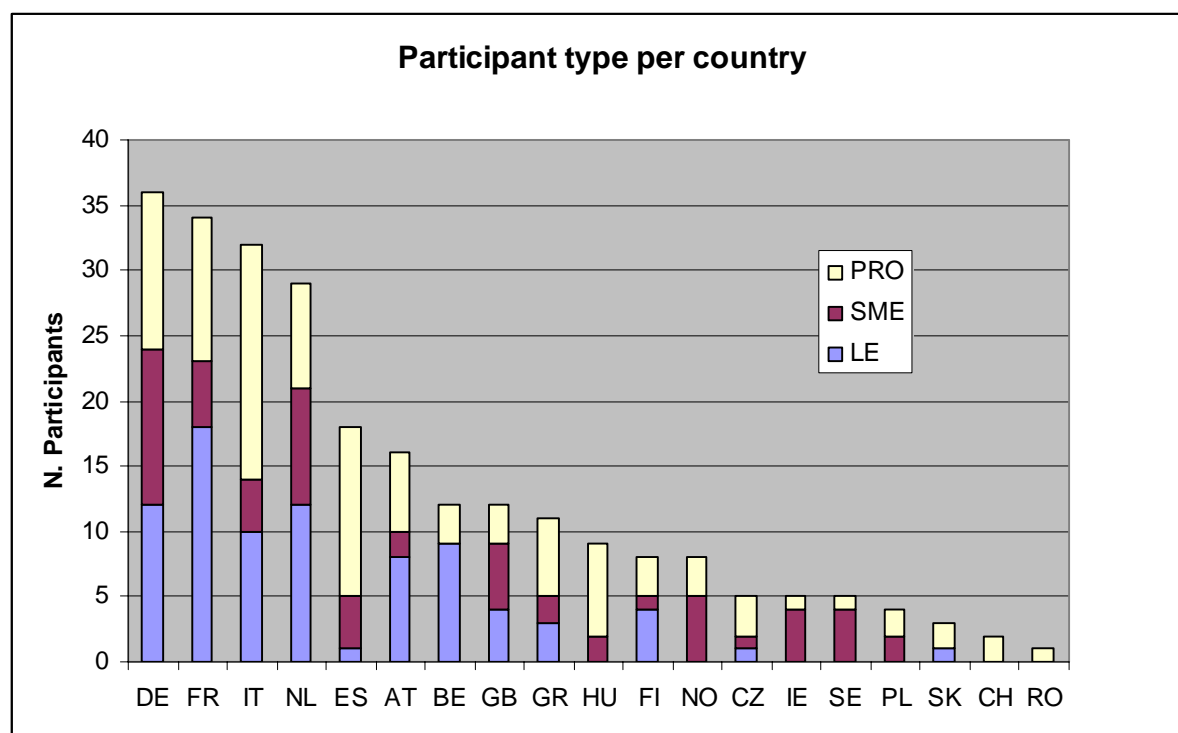


Figure 39: Participant types per country

From the total eligible costs of the different projects – most were 15 M€ or more, it is clear that the ENIAC programme has attracted larger initiatives, much larger than the traditional nanoelectronics projects in the 7<sup>th</sup> Framework Programme, calling on expertise from a broader base of European participants. The larger industrial participation makes this type of projects distinct from the traditional FP7 projects, while the broader European participation makes these projects different from the traditional Eureka projects.

#### 6.2.5 Grant Agreements signed

All 11 consortia were invited to negotiations for establishing a Grant Agreement on 9 November 2009. One project was kicked off on 1 January, one – on 1 February, 3 projects started in March, 3 – in April 2010 and 3 – in May 2010. There were therefore about 5 months between the call deadline and the possible start of projects. This was an excellent result, comparing favourably to any R&D programme worldwide.

Nonetheless, delays have been experienced in the establishment of National Grant Agreements which consequently delayed the setting-up of the ENIAC JU Grant Agreements, some of which have been due to restructuring within certain participants (an aftermath of the recent economic downturn). The delay to sign the ENIAC JU Grant Agreements was very short once the certificate of signature of a National Grant Agreement has been received. Consortia experienced also difficulties in coming to a Project Consortium Agreement. Although this was a legal requirement it appeared to be very difficult to finalise this in less than one year.

*Annex 7: Table of projects for which Grant Agreements were expected to be signed*

<b>Nº</b>	<b>Project acronym</b>	<b>Project title</b>	<b>Total project costs (in €)</b>	<b>Total national funding (in €)</b>	<b>ENIAC JU funding (in €)</b>	<b>Signature date (expected)</b>
1	CSSL	Solid State Lighting	27,092,149	7,480,261	4,524,389	<b>August 2010</b>
2	MERCURE	Wide band gap materials for transmitting and receiving systems	3,297,691	938,766	550,714	<b>August 2010</b>
3	CSI	Central nervous imaging	14,773,010	4,330,294	2,467,093	<b>October 2010</b>
4	ESiP	Multi-chip system-in-a-package integration	36,085,278	9,768,768	6,026,241	<b>August 2010</b>
5	EEMI 450	450 mm equipment and materials	18,361,170	4,861,757	3,066,315	<b>August 2010</b>
6	MAS	Nanoelectronics for mobile AAL-systems	28,970,122	9,783,911	4,838,010	<b>August 2010</b>
7	CAJAL4 EU	Chip architectures for EU diagnostics	22,272,620	7,606,398	3,592,349	<b>August 2010</b>
8	MIRANDELA	Mm-wave and RF integration for wireless communications	50,400,246	6,951,276	8,416,841	<b>August 2010</b>
9	SMART	Secure memories and related applications	14,304,499	3,791,716	2,388,851	<b>September 2010</b>
10	END	Models, solutions, methods and tools for energy aware design	15,476,068	3,910,186	2,584,503	<b>October 2010</b>
11	LAST POWER	Large area SiC and GaN for power devices	13,114,285	2,378,436	2,190,086	<b>October 2010</b>