



**Fuel Cells and Hydrogen Joint Undertaking
(FCH JU)
Annual Activity Report 2010**

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EXECUTIVE SUMMARY

The year 2010 was significant for the Fuel Cells and Hydrogen Joint Undertaking (FCH JU) for at least two reasons: Firstly, the call for proposals 2010 was the largest for the Joint Undertaking to date with an indicative budget of €89.1 million to be at least matched by industry funding. Secondly, on the administrative side, the final pieces were put in place for the autonomous execution of the activities and, accordingly, the FCH JU became an autonomous legal entity on 15 November 2010.

The principal operational objectives for the year pertained to the management of the calls for proposals 2009 and 2010. As regards the 2009 call, project selection and negotiation process was finalised and grant agreements signed for a total of €72.5 million awarded to 28 projects of a very high quality that will start in the beginning of 2011. The 2010 call for proposals was published on 18 June 2010. The deadline for submitting proposals was 13 October 2010. 71 Proposals were received by the deadline, of which 43 passed the thresholds at the evaluation stage. Indicators for both calls suggest an overall positive trend for the programme quality (see Chapter 1.3.6).

As regards support activities, the FCH JU undertook a number of communication initiatives to disseminate information on the opportunities offered by the Calls for Proposals, making the programme known to stakeholders and raising political awareness on the technology readiness and commercialisation prospects of the technologies. These included participation to various conferences, press releases and inputs to media, direct contacts with EU institutions especially around a commercialisation study produced by the industry and the organisation of the Stakeholders General Assembly.

Finally, the administrative framework of the FCH JU was completed in 2010 with the adoption of the management and internal control systems and the implementation of the accounting system that became operational on 17 November. With these developments, the FCH JU is fully equipped to run its operations as an autonomous entity.

Regarding the management and internal controls systems, concerning the general appreciation of the functioning of the internal control system in its entirety and taking into consideration the aspects indicated in Section 3 (mainly the early stages of the JU), the procedures put in place by FCH JU (1) control the main risks by providing a reasonable assurance that the key objectives are met and that the activities are carried out as intended and (2) actions are on-going to address the areas identified for improvement.

The 'Risk Management process' is part of the FCH JU's organisation. A readiness assessment exercise identifying risks and defining mitigating actions was conducted in preparation of the JU's autonomy. In addition, a more systematic risk management process integrated in the FCH JU's annual plan has been recently concluded. Two critical risks have been identified, namely: (1) the impact that the current funding rules and matching requirements have on the attractiveness of the JU's programme and (2) the problems experienced with the IT tools which could impact the operational performance of the JU. Actions have been defined and are on-going to mitigate both risks. In particular, (1) the Governing Board requested the Commission on June

2010 to initiate the process for changing the relevant articles in the Regulation in order to improve the funding levels in the coming years (Chapter 1.3.3) and (2) the recruitment of the IT assistant, a timely reporting and monitoring of IT issues, a root-cause analysis of the problems and a close follow up of Service Level Agreements, should reduce significantly the probability of similar problems reoccurring in the future (Chapter 2.1.4).

Based on the positive conclusion of the analysis of the indicators in Section 4, the existence of mitigating actions to respond to the human resources issues disclosed (*4.1.1 Building block 1*) and the assurance provided by the European Commission (hereafter "the Commission") for the period before the JU's autonomy (*4.1.2 Building block 2*), the JU's Executive Director is of the opinion that there is sufficient evidence to provide a reasonable assurance as expressed in the Declaration under Section 5.

1. POLICY ACHIEVEMENTS

The Fuel Cells and Hydrogen Joint Undertaking (FCH JU) represents a public-private research partnership at European level. Its members are the Community represented by the Commission as public representative, the 'NEW Industry Grouping' (hereafter "the IG"), representing European companies and the 'N.ERGHY Research Grouping' (hereafter "the RG"), representing European research organisations and universities.

Fuel cell and hydrogen technologies have a huge potential to contribute to a number of Europe's key policy goals, including the reduction of CO₂ emissions of the energy system and particularly transport, improving energy security and promoting innovation-driven growth and employment. In order to realise these public benefits, the FCH JU brings public and private interests together in a new, industry-led implementation structure, ensuring that the jointly defined research programme better matches industry's needs and expectations, with the objective of accelerating the commercialisation of hydrogen and fuel cell technologies. FCH JU is a Joint Technology Initiative (JTI) within the Seventh Framework Programme 2007 – 2013 (FP7) and implemented as a Joint Undertaking set up by the Council Regulation N° 521/2008 of 30 May 2008 for a period up to 31 December 2017.

FCH JU has a total financing of 947 EUR million for the whole period. The Community contributes with a maximum of 470 EUR million covering operational and running costs. The operational costs of the JU shall be covered through the financial contribution of the Community and through in-kind contributions from the industrial legal entities participating in the activities. The industry contribution shall at least match the Community's contribution (further details on the matching principle and the corresponding funding rates in Chapter 1.3.3).

The mission of the FCH JU is to support long-term and breakthrough-orientated research, research and technological development, as well as demonstration and support actions, including pre-normative research, following open and competitive calls for project proposals, independent evaluation and the conclusion of a Consortium Agreement and a Grant Agreement. In addition, the FCH JU pursues support activities such as communication and dissemination of information on the technologies and its projects.

This report describes the activities of the FCH JU and the progress achieved in 2010. Sections 1 and 2 focus on the operational aspects while Sections 3 and 4 describe the internal control system and management.

1.1 KEY OBJECTIVES 2010

The key operational objectives for the FCH JU in 2010 related to two Calls for Proposals, those of 2009 and 2010. As regards the 2009 call, the negotiation stage took pace in 2010 with the aim of concluding grant agreements for selected projects by the year end. The negotiations were closed successfully. More details on the outcome below in Chapters 1.3.1 and 1.3.4. Concerning the 2010 call, the objective was to complete the evaluation stage in 2010. The evaluation was carried out in October. Chapters 1.3.2-1.3.4 outline the process and the results in detail. As regards communication activities, the main objectives in 2010 were the efficient dissemination of information to potential participants on the opportunities offered by the Calls for Proposals, making the programme known to stakeholders and raising political awareness on the technology readiness and commercialisation prospects of the technologies. See Chapter 2.1 for details.

In addition to the operational objectives, in terms of governance and internal control systems the objective for the year was to finalise their establishment at the level required for the FCH JU to execute its functions autonomously. An assessment on the autonomy criteria was carried out in the latter half of the year and the FCH JU was granted autonomy on 15 November.

1.2 RESEARCH ACTIVITIES

The FCH JU's core function is to support long-term and breakthrough-orientated research, research and technological development, as well as demonstration and support actions, including pre-normative research, following open and competitive calls for project proposals, independent evaluation, and the conclusion of Consortium Agreements and Grant Agreements. In 2010, Grant Agreements were concluded for the Call for Proposals 2009 and the Call for Proposals 2010 was launched and the evaluation of proposals completed.

1.2.1 FCH JU Multi-Annual Implementation Plan

The research agenda outlining the research and demonstration activities to be supported by the FCH JU is set out in the Multi-Annual Implementation Plan (MAIP) of the FCH JU. The MAIP was adopted by the Governing Board on 15 May 2009.

The MAIP was foreseen to be a living document, revised and updated regularly to respond to technological and market developments when deemed appropriate by the Governing Board. Accordingly, the process for the first revision of the MAIP was initiated in November 2010 with the focus on updating programme targets and priorities to correspond to technological and market developments; development of strategy for regulations, codes and standards; and elaboration of strategy for collaboration with Member States and Regions.

The MAIP is translated into annual research priorities each year in an Annual Implementation Plan (AIP) which sets out the topics for the Call for Proposals.

1.2.2 FCH JU Scientific Priorities 2010 and 2011

The RTD Priorities and Objectives included in the 2010 Annual Implementation Plan (AIP) served as the basis for the topics included in the Call for Proposals 2010, the third for the FCH JU.

The topics in the 2010 Call cover all the five application areas defined in the AIP 2010: Transport & Refuelling Infrastructure; Hydrogen Production & Distribution; Stationary Power Generation & Combined Heat & Power (CHP); Early Markets; and Cross-Cutting Activities. See Chapter 6.1 for a complete list of topics.

As regards the process for drafting the RTD priorities for 2010 as well as the topics for the call, they were initially formulated by the Application Area Working Groups led by representatives of the member companies of the IG. They were further elaborated in consultations with the relevant services of the Commission and the RG. The RTD Priorities and call topics were subsequently put forward for consultation of the Scientific Committee and the FCH JU States Representatives Group and their comments were considered for the final draft put forward for decision of the Governing Board.

The drafting of the RTD Priorities and call topics for 2011 was initiated during the fourth quarter of 2010 by the Application Area Working Groups. In considering the topics, account is taken of the response to the 2010 call. The drafting process will be similar to that followed for the AIP 2010.

1.3 CALLS FOR PROPOSALS

During 2010 the FCH JU finalised the selection process for the Call for Proposals 2009 by signing Grant Agreements for 28 projects. In addition, a new Call for 2010 was published on 18 June 2010 and evaluation was carried out in November.

The Calls for Proposals are managed under the responsibility of the Executive Director based on the principles of excellence, transparency, fairness and impartiality, confidentiality, efficiency, speed and ethical considerations. In managing the Call process, he has been supported by the Programme Office staff.

1.3.1 Call for Proposals 2009: Selection of projects

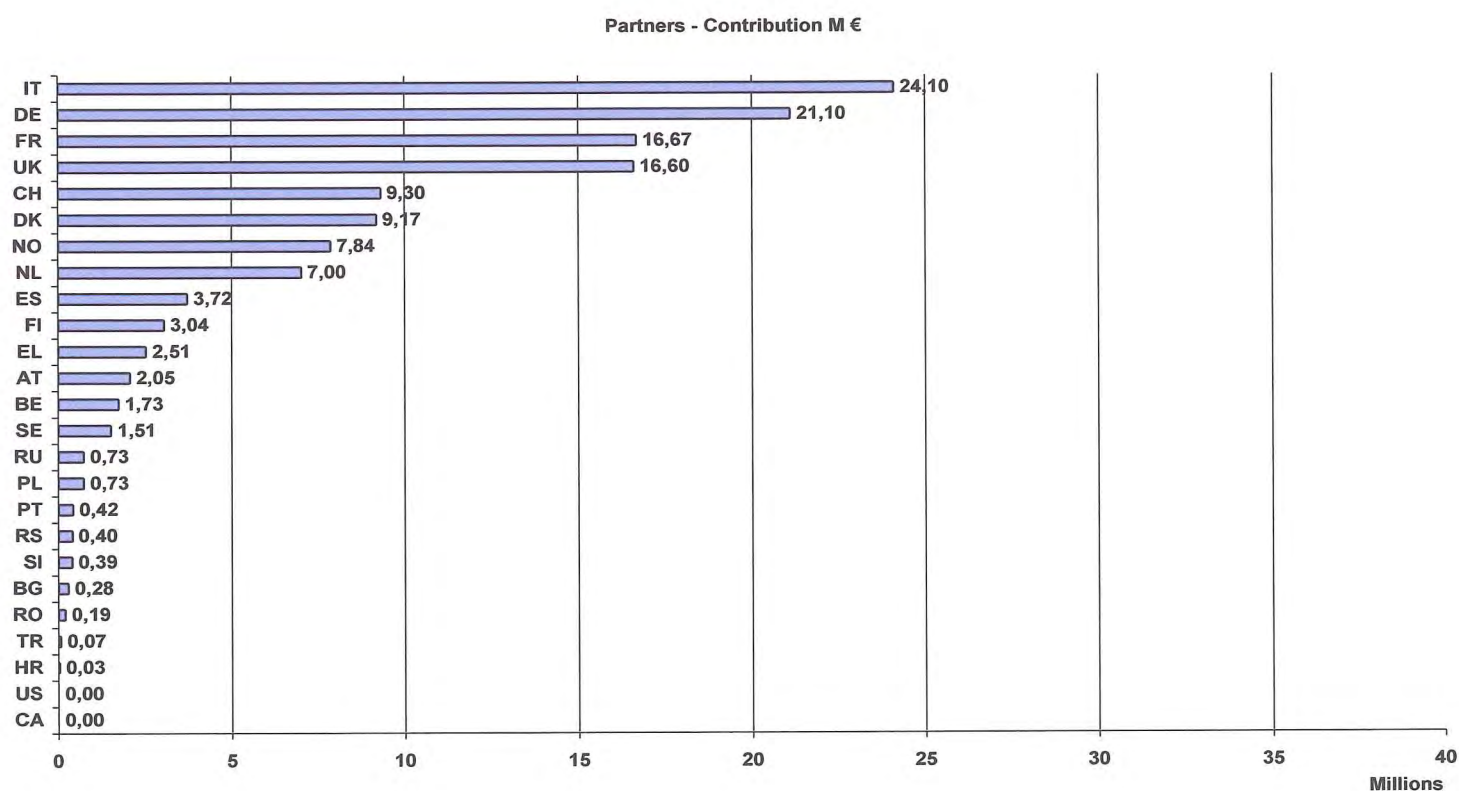
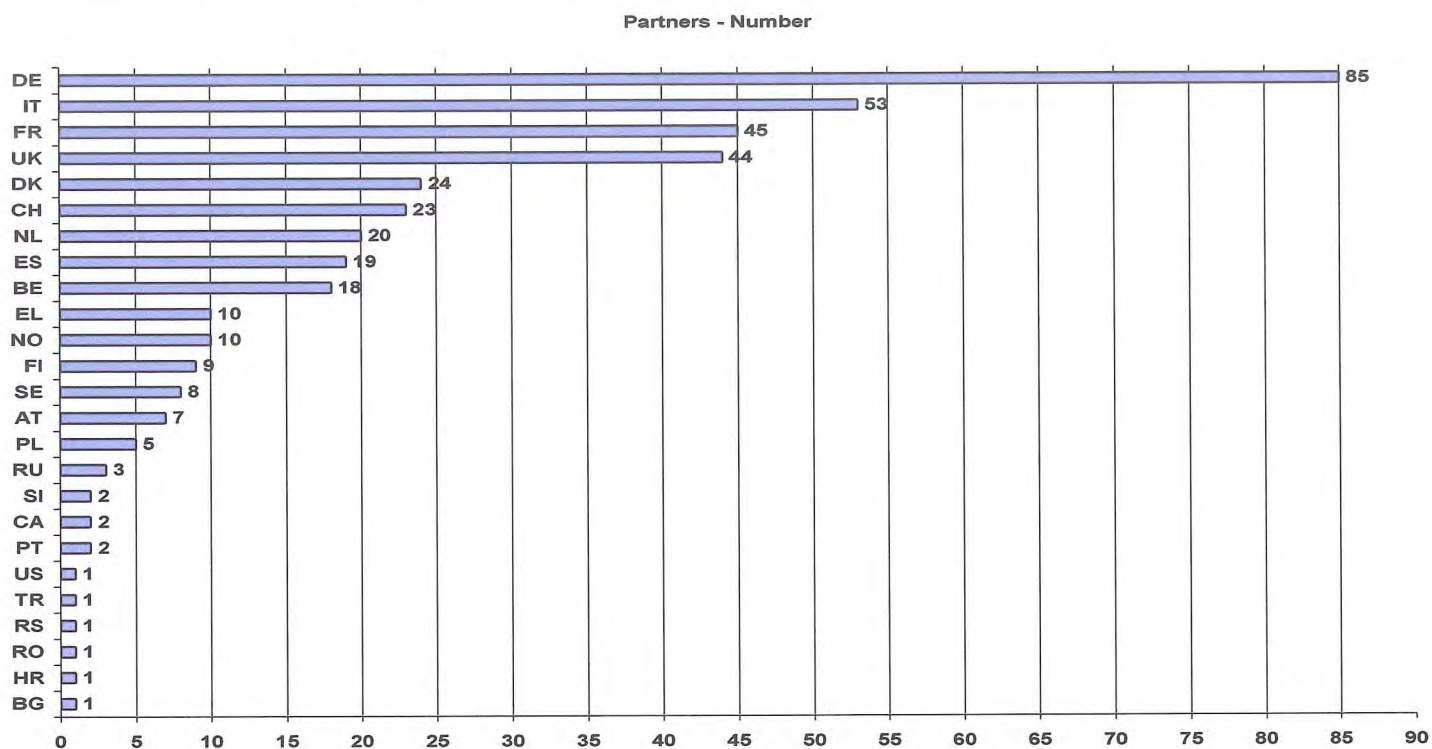
The Call for Proposals 2009 was published on 2 July 2009 with an indicative budget of €71,3 million. The submission deadline for the Call was 15 October 2009. The evaluation of submitted projects was carried out from 3-20 November 2009¹ by 31 independent experts. In addition, a Chairperson oversaw the consensus phase and one independent observer was invited to monitor that the evaluation procedure was carried out in a fair, impartial and confidential manner. The Independent Observer's Report has been presented to the FCH JU Governing Board on 29 January 2010.

Out of 50 proposals submitted, 1 was deemed ineligible as none of the partners were members of the IG or the RG. Of the rest, 31 proposals passed the thresholds at the evaluation stage.

Graphs 1.3.1(a)-(c) below provide statistics on the call participation and the evaluation process. Please see Chapter 1.3.6 below for the operational indicators regarding the call.

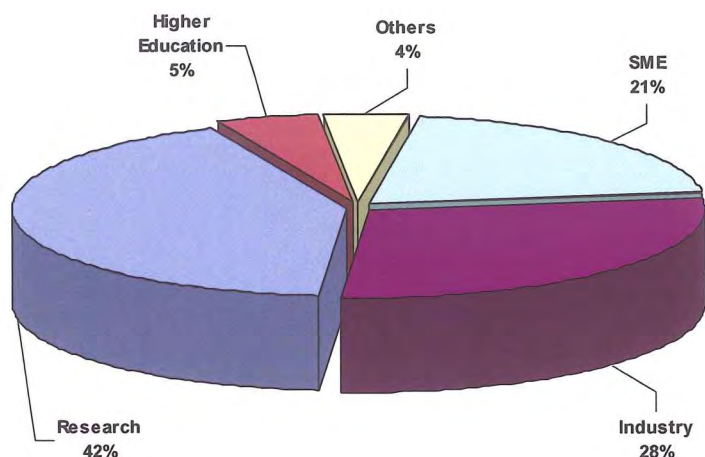
¹ The individual (remote) evaluation took place from 3-13 November. The Consensus Meetings were held from 16-18 November 2009, the panel meeting was held on 19-20 November 2009.

**Graph 1.3.1(a): Call for Proposals 2009:
Participation in project proposals by country²**

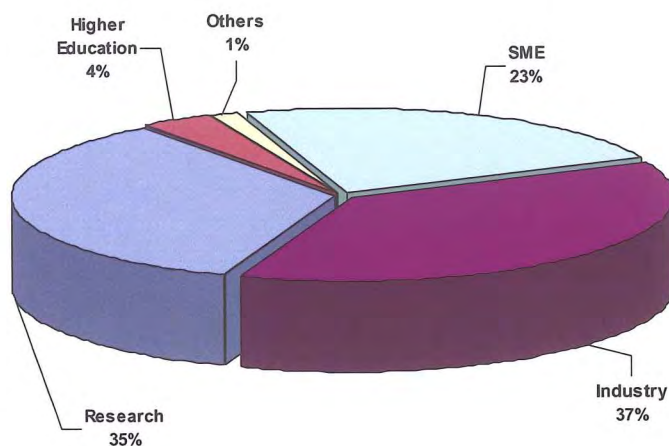


² Includes all project proposals submitted by the deadline before evaluations.

**Graph 1.3.1(b): Call for Proposals 2009:
Participation in project proposals by participant type³**

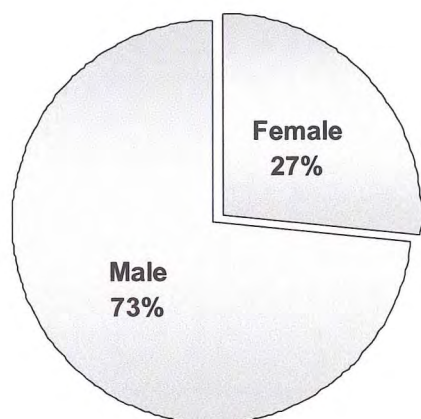


**A) By project participant number
(Total participants: 395)**

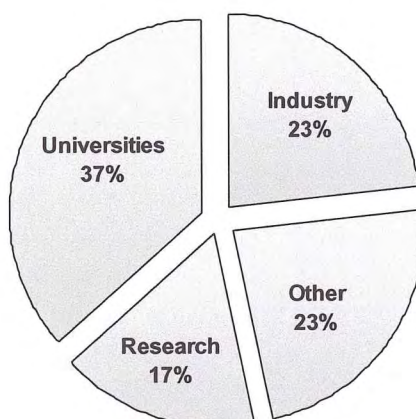


**B) By requested contribution breakdown
(Total funding requested: €129.6M)**

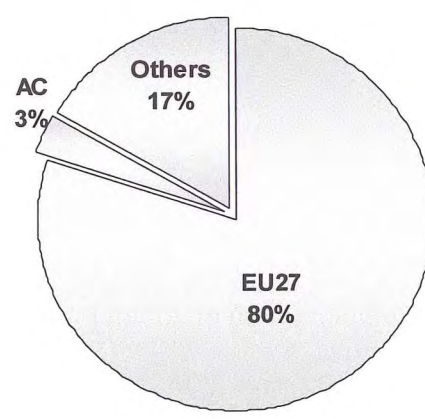
**Graph 1.3.1(c): Call for Proposals 2009:
Evaluators**



A) By gender



B) By organisation



C) By nationality

³ Includes all project proposals submitted by the deadline before evaluations.

1.3.2 The Call for Proposals 2009: Grant Agreements

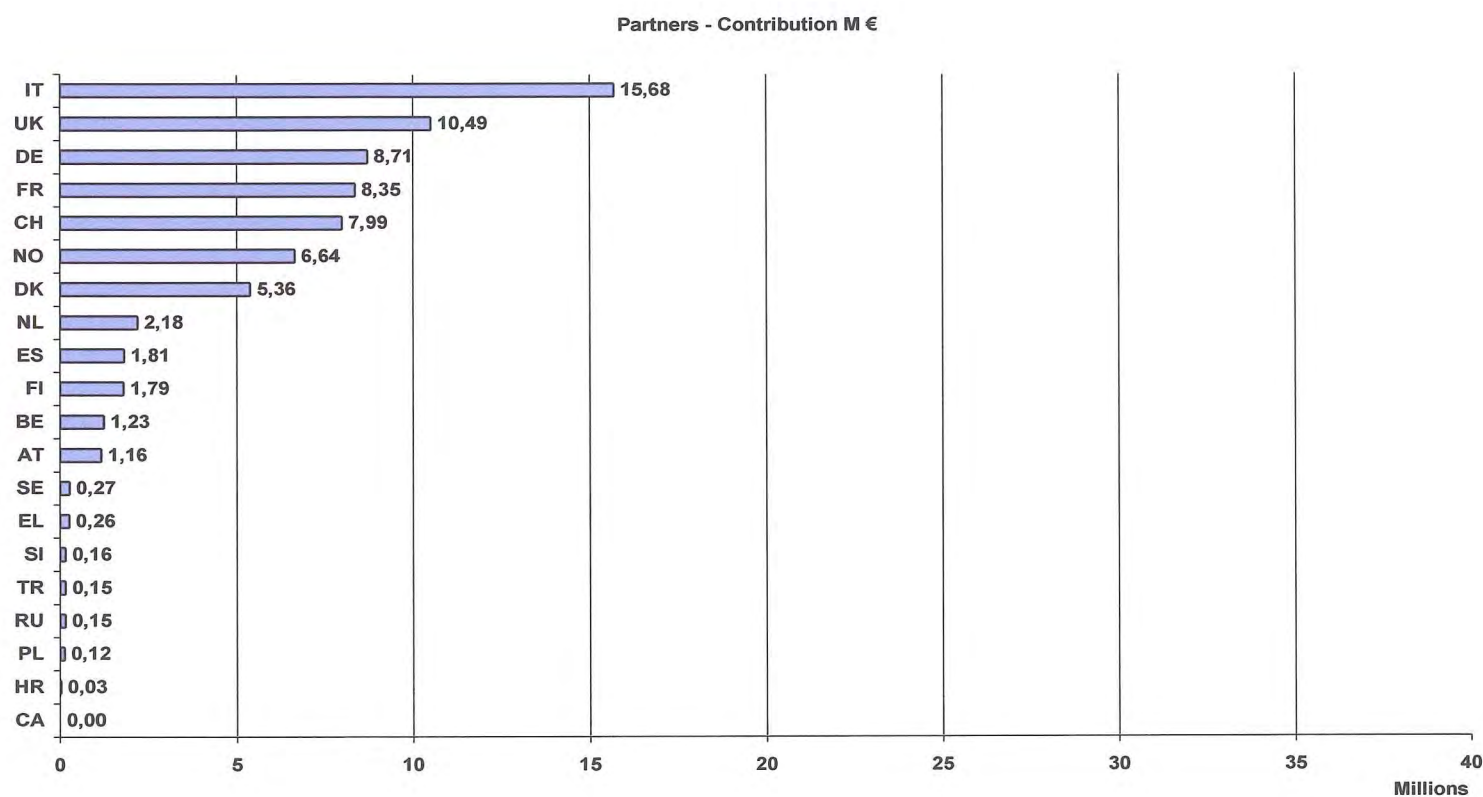
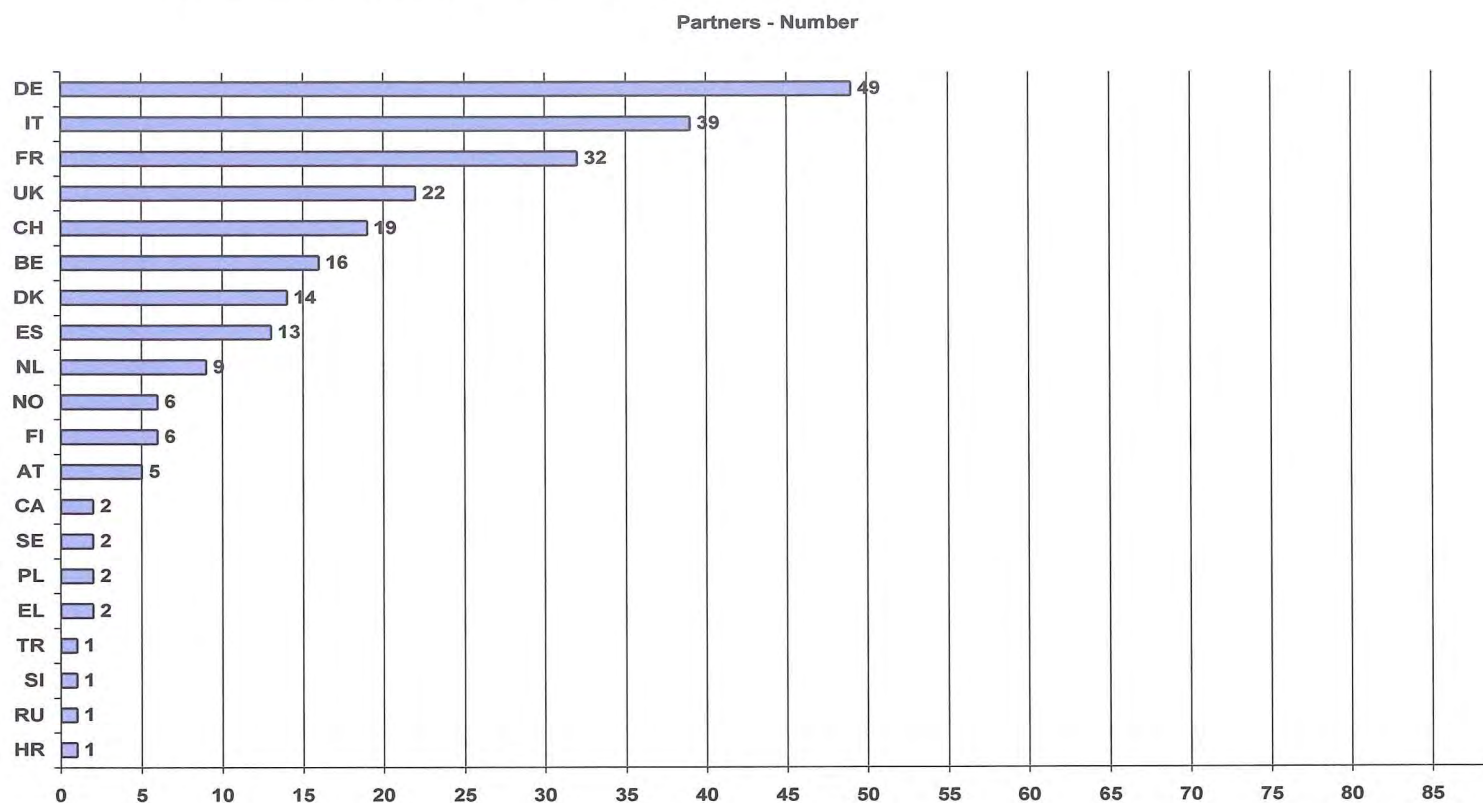
In the light of the available budget, the Governing Board approved on 16 April 2010 a list of 26 proposals with additional 4 on the reserve list, ranked in priority order according to the evaluation results, to start negotiations to conclude Grant Agreements with them.

The negotiations started on 19 April and were concluded during December 2010 with the approval of the Governing Board for funding of the 28 projects proposed following evaluations. Grant agreements were concluded with all these projects by the end of 2010. First payments were also made to all project consortia with the exception of one⁴ before the year end.

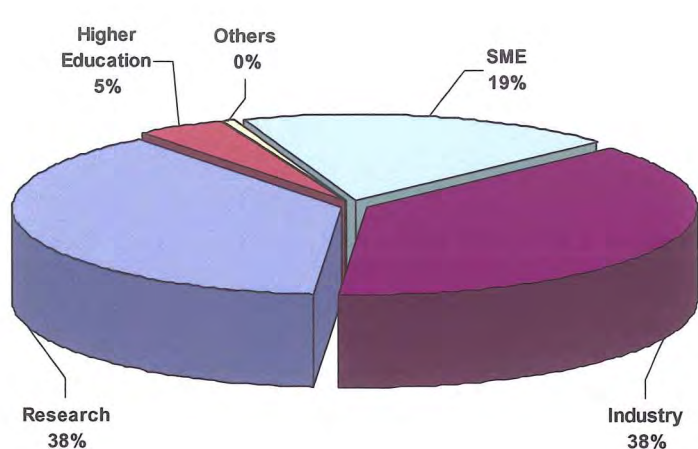
Graphs 1.3.2(a)-(c) below provide statistics on the distribution of funding by country and participant type, as well as by application area, as per the Grant Agreements concluded. Please see Chapter 1.3.6 below for the operational indicators regarding the call.

⁴ At the request of the project coordinator for accounting reasons and the late start date of the project the payment was delayed to January 2011.

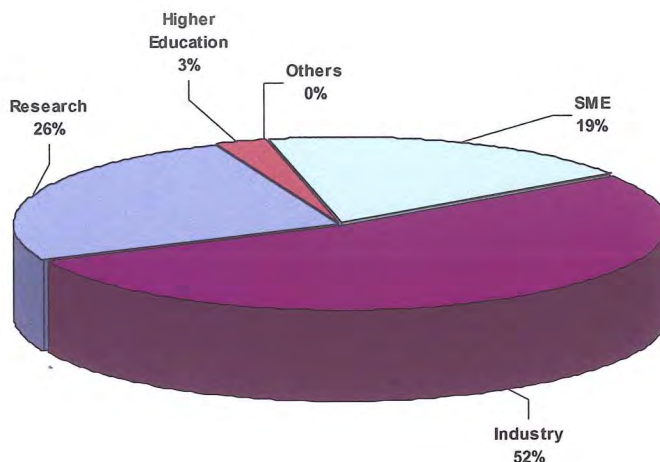
**Graph 1.3.2(a): Call for Proposals 2009:
Projects granted funding by country**



**Graph 1.3.2(b): Call for Proposals 2009:
Projects granted funding by participant type**

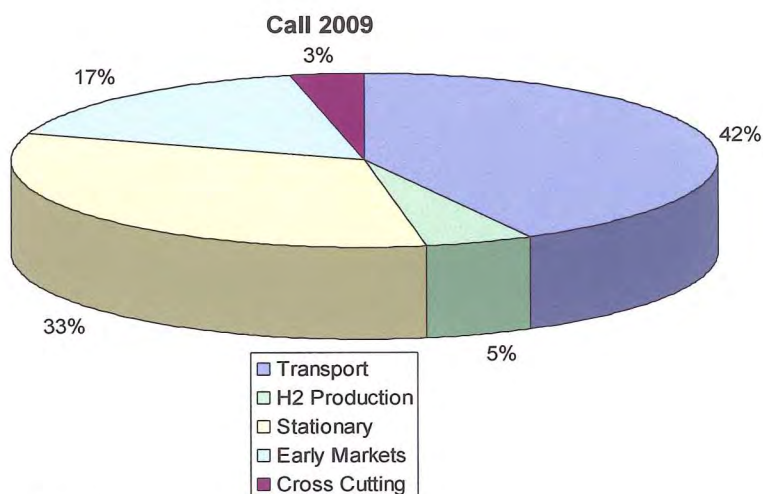


**A) By project participant number
(Total participants: 242)**



**B) By requested contribution breakdown
(Total funding requested: €72.5M)**

**Graph 1.3.2 (c): Call for Proposals 2009:
Funding distribution by Application Area**



Total funding granted: €72.5 million

1.3.3 Funding rates

The current formulation of the statutory provisions on the requirement for the industry to match the European Commission's financial contribution to projects has been identified as presenting the main risk factor related to the Calls for Proposals.

The matching obligation and the funding rates are determined among others by Articles 2.2, 12.3 and 15.3 of the Statutes⁵, which stipulate that

Article 2
Members

2. *The Industry Grouping shall:*

-[...]

- ensure that industry's contribution to the achievement of the RTD activities funded by the FCH Joint Undertaking at least matches the Community contribution,

Article 12
Sources of financing

3. *The operational costs of the FCH Joint Undertaking shall be covered through the financial contribution of the Community, and through in-kind contributions from the legal entities participating in the activities. The industry contribution shall at least match the Community's contribution. Other contributions to co-funding of activities will be considered as receipts in accordance with the Rules of Participation of the Seventh Framework Programme.*

Article 15
Funding of Activities

3. *The upper funding limits of the Community financial contribution in projects shall be aligned to comply with those laid down by the Rules for Participation of the Seventh Framework Programme. In case lower levels of funding will be necessary to comply with the matching principles referred to in Article 12(3), the decreases shall be fair and balanced proportionally with the above mentioned upper funding limits of the Rules of Participation of the Seventh Framework Programme for all categories of participants in each individual project.*

A large number of participants in the projects are research centres and other non-industry participants whose contribution to projects is currently not considered in the matching requirement. Therefore, the industry contribution alone has shown not to be sufficient to fulfil the matching requirement while maintaining funding rates that are in line with the nominal rates, set at a level corresponding to the funding rates in the Seventh Framework Programme.

In practice, it has been necessary to reduce the nominal funding rates after the submissions of project proposals and evaluation in order to meet the matching requirement. For instance, in the 2009 Call for Proposals, funding rates had to be reduced by the factor of ~0.67 producing rates of approximately 33% for industrial participants and 50% for other participants, as opposed to initial nominal rates of 50% and 75%, respectively. The current legal basis has thus proven to lead to reductions as well as unpredictability in funding rates for all types of project participants, risking deterring participation.

To improve this situation, the Governing Board requested the Commission on 15 June 2010 to initiate the process for changing the relevant articles in the Regulation in order to improve the funding levels in the coming years.

⁵ Statutes annexed to the Council Regulation (EC) No 521/2008 of 30 May 2008 setting up the Fuel Cells and Hydrogen Joint Undertaking; O.J. L 153, 12.6.2008, p.1

1.3.4 The Call for Proposals 2010: Background

The Call for Proposals 2010 was published on 18 June 2010 and the deadline for submissions was 13 October 2010. The Call comprised 25 Topics based on the 2010 RTD Priorities and covering all five application areas described in the AIP 2010. The estimated FCH JU financial contribution to the Call is € 89.1 million. Please see Table 1.3.4 below for a complete list of topics and the planned budget distribution.

Table 1.3.4: Topics called for in the 2010 Call for Proposals and the corresponding indicative FCH JU funding

No.	Topic	Scope	Indicative FCH JU Funding ⁶ Million €
Transportation & Refuelling Infrastructure			31.6
1	Large-scale demonstration of road vehicles and refuelling infrastructure III	Demonstration of second generation fuel cell hybrid buses for public transportation, passenger cars and appropriate refuelling infrastructure with improved durability, robustness, reliability and efficiency. The aim is to provide extended operating experience, and prove technological readiness. Demonstration trials are supported by activities on public awareness, on technological and environmental assessment, on safety and certification requirements.	
2	Next generation European MEAs for transportation applications	Development of catalysts for PEM fuel cells- to further reduce the use of platinum in membrane electrode assemblies (MEAs), increase catalyst performance and electro-chemical stability; development of novel materials for gas diffusion layers (GDLs). Testing of the MEAs. The overall aim is to produce MEAs with significant specific cost reduction (i.e. cost/power).	
3	Investigation of degradation phenomena	Research and development on critical stack and system operating parameters and conditions. The aim is to establish a solid methodology and develop tools for safe life-time assessments and help improve system and vehicle operating strategies.	
4	Bipolar Plates	Research and development of cost effective bipolar plate manufacturing technologies including corrosion resistant coatings for stainless steel, demonstration of processability of steel/coating combination in complex configurations, as well as adequate stacking capabilities and long-term stability under fuel cell conditions (anode and cathode side conditions).	
5	Auxiliary Power Units for Transportation Applications	Research, development and proof-of-concept demonstration of APU systems for on-board power generation. The project should demonstrate feasibility of using logistic fuels, demonstrate fuel processing technology for logistic fuels and define requirements for fully integrated systems in the specific application.	

⁶ The funding includes the FCH JU's own budget only. The amount corresponding to European Free Trade Area (EFTA) contributions (2.3 M€) may be used to reinforce the different sub-budgets.

No.	Topic	Scope	Indicative FCH JU Funding ⁶ Million €
Hydrogen Production & Distribution			11.0
6	Efficient alkaline electrolyzers	Development activities on low cost, low temperature, high efficiency electrolyzers based on alkaline technology, including prototyping and testing; demonstration of the application and production readiness.	
7	Development of fuel processing catalyst, modules and systems	Development of reforming technologies for hydrogen production based on conventional and alternative fuels (such as bio-fuels, methanol and ethanol); focus is on materials and processes for chemical conversion and desulphurisation. The objective is to further develop refuelling technologies for the introduction of hydrogen-fuelled vehicles in the market.	
8	Development of gas purification technologies	Development of gas purification technologies and quality monitoring for hydrogen production processes based on conventional and alternative fuels, such as bio-fuels. Scope of work is on optimisation of materials, including membranes and sorbents, and processes for pressure swing adsorption (PSA) and temperature swing adsorption (TSA). The objective is to further develop refuelling technologies for the introduction of hydrogen-fuelled vehicles in the market.	
9	Low temperature H ₂ production processes	Development of efficient chemical or biological systems converting renewable energy sources (solar energy and biomass) into hydrogen (via chemical energy for water splitting and anaerobic fermentation). Efficient, easy to handle chemical or biological systems shall be developed and the low temperature hydrogen production shall be demonstrated in small scale reactors.	
10	Preparation of demonstration of efficient large-scale hydrogen liquefaction	Development of a process for hydrogen liquefaction with significantly reduced energy consumption and a commercial design for a large-scale liquefaction plant as preparation for future implementation.	
11	Feasibility of >400bar CGH2 distribution	Assessment of the benefits of higher truck delivery pressure for distribution and retail as well as preparing the case for permitting higher hydrogen truck delivery pressure, including a report on safety aspects, and recommendations on maximum pressure and change in legislation.	
Stationary Power Generation & CHP			33.0
12	Materials development for cells, stacks and balance of plant (BoP)	Development of materials to improve performance of single cells stacks and BoP components, in terms of longer lifetime and lower degradation as well as improved mechanical, thermal and electro-chemical stability. Investigation on material production techniques needs to be considered as well. Open to all fuel cell technologies.	
13	Next generation cell and stack designs	Long-term and break-through oriented research on novel architectures for cell and stack design to provide step change improvements over existing technology in terms of performance, endurance, robustness and cost for relevant applications. Efficiency, cost, reliability (and power density) are main drivers. The call is open to all solutions or operating ranges, geometries or materials. The project proposals should lead to a proof of concept.	

No.	Topic	Scope	Indicative FCH JU Funding ⁶ Million €
14	Component improvement for stationary power applications	Development activities to improve a) The performance of individual components of fuel cell systems (e.g. fuel cell units, reformer, heat exchangers, fuel management and power electronics); b) The understanding and optimization of interaction between BoP components and mature stacks. The objective is to meet relevant performance targets, including durability and cost. Open to all fuel cell technologies.	
15	Proof-of-concept and validation of integrated fuel cell systems	This topic will support the development, construction and validation of fully integrated proof of concept fuel cell systems for any stationary application. These integrated systems must be proven to be technologically and economically viable, prior to any large scale demonstration. Proof of concept systems will be constructed that show interaction with other devices as required for the target application, including fuel supplies utilising any necessary processing technology, if necessary. For fully integrated systems manufacturing routes need to be also identified to establish a sustainable approach towards commercialisation.	
16	Field demonstration of stationary fuel cell systems	Demonstration of FC-based integrated generator systems in real application environment which includes interfaces with the infrastructure for power, heat, CCS, renewable sources and fuel/oxidant processing as necessary.	
17	Pre-normative research on power grid integration and management of fuel cells for residential CHP, commercial and industrial applications	Pre-normative research on power grid integration and management of fuel cells for residential CHP, commercial and industrial applications. Based on a thorough review of previous RCS activities, the projects shall produce proposals and recommendations on background procedures and methodologies for RCS as well as for further development of RCS. Dissemination to research and industry shall be included.	
Early Markets			11.5
18	Demonstration of fuel cell-powered materials handling vehicles including infrastructure II	Demonstration of early market solutions for fuel cell powered industrial and specialty vehicles, in particular material handling vehicles (Fork lift trucks, stackers, moving cranes, etc.).	
19	Demonstration of industrial application readiness of fuel cell generators for power supply to off-grid stations, including the hydrogen supply solution	Demonstration of fuel cell and hydrogen systems for stand alone off-grid stations including hydrogen supply solution. Minimum 20 sites.	
20	Fuel supply concepts for portable and micro fuel cells	Research and development in the field of hydrogen supply concepts for micro fuel cells and portable applications of up to 5 kW. A fully integrated system demonstrating the proof-of-concept including logistic distribution aspects is required.	
21	Components with advanced durability for Direct Methanol Fuel Cells	Research and development to develop improved components demonstrating superior durability vis-à-vis state-of-the-art while at the same time lowering the cost/kW for Direct Methanol Fuel Cells.	

No.	Topic	Scope	Indicative FCH JU Funding ⁶ Million €
22	Research and development on new portable and micro Fuel Cell solutions	Research and development to develop novel portable and micro Fuel Cell Solutions (low and high temperature) targeted to meet specific application requirements.	
23	Pre-normative research on the indoor use of hydrogen and fuel cells	Development of the scientific base for defining and justifying cost effective safety strategies specific to the use of hydrogen and fuel cells indoors or in confined spaces, with power ratings between 200W and 50kW.	
Cross-cutting Issues			2.0
24	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.	
25	Study of advanced hydrogen economy financing options	Development of financing models for reusable or recyclable components of hydrogen and fuel cell technologies.	
Total indicative FCH JU Funding⁷			89.1

1.3.5 Call for Proposals 2010: Evaluation

Evaluation of the Call for Proposals 2010 was carried out by 32 independent experts in November 2010⁸ and a chair person. In addition, two independent observers monitored that the evaluation procedure was carried out in a fair, impartial and confidential manner.

71 proposals were submitted by the deadline of which 2 were deemed ineligible⁹. Of the 69 eligible proposals, 43 passed the evaluation thresholds. The list of projects to be entered into negotiations with is foreseen to be prepared in the first quarter of 2011 in accordance with the evaluation results and within budgetary constraints. It is scheduled to be put forward for approval of the Governing Board in the first quarter of 2011 after which contract negotiations will be initiated.

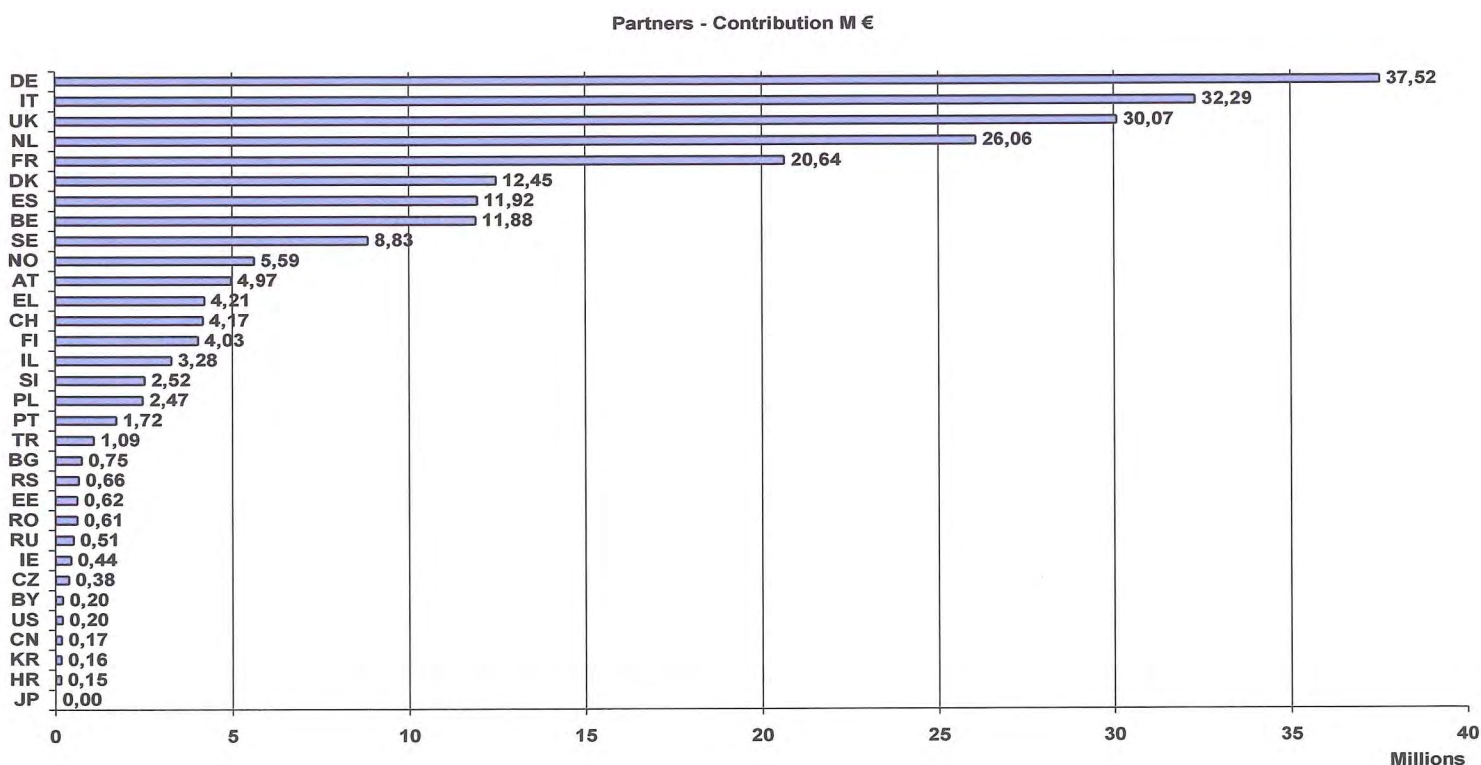
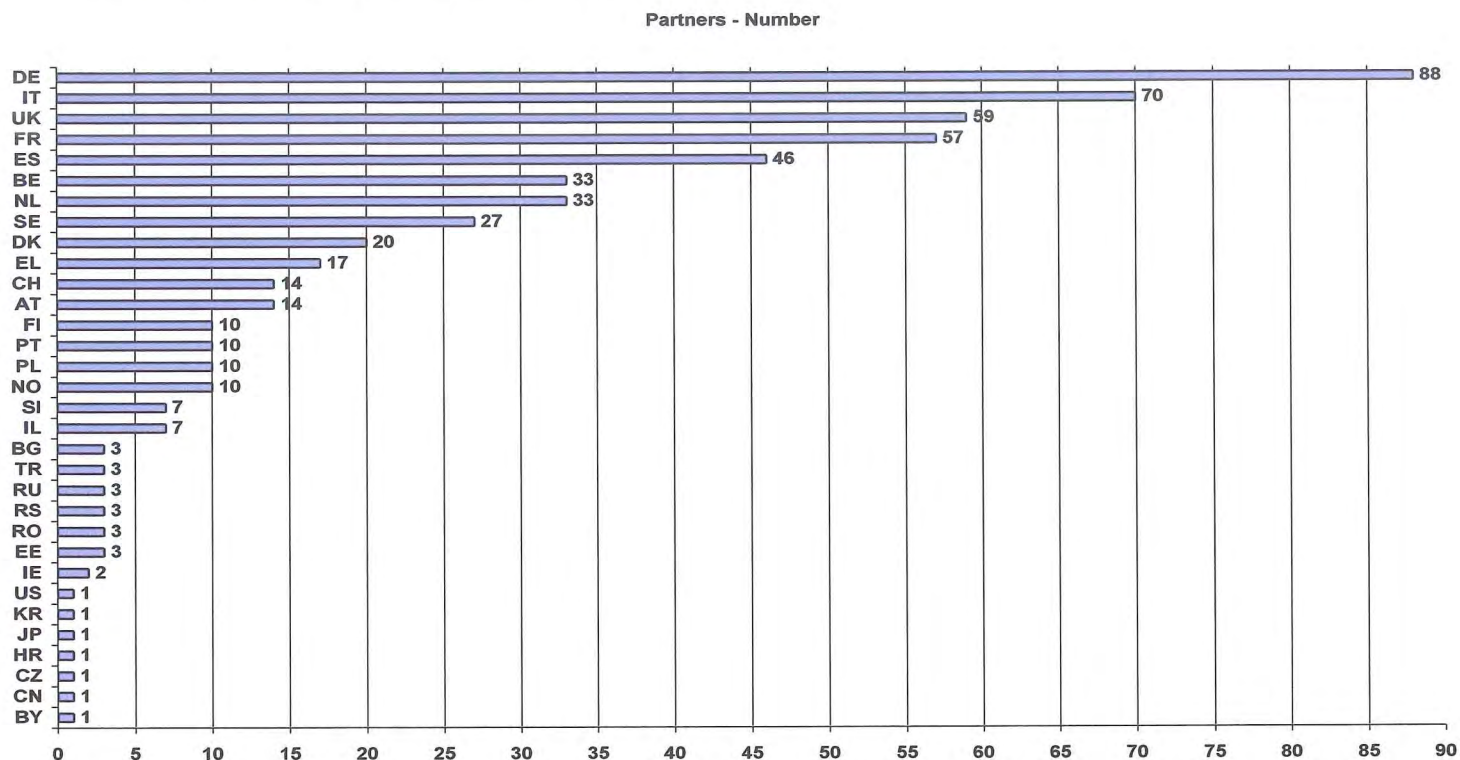
Graphs 1.3.5(a)-(c) below provide statistics on the call participation and the evaluation process. Please see Chapter 1.3.6 below for the operational indicators regarding the call.

⁷ The amount corresponding to EFTA contributions (2.3 M€) may be used to reinforce the different sub-budgets.

⁸ Remote evaluations 1-13 November; Consensus and panel meetings 15-19 November 2010.

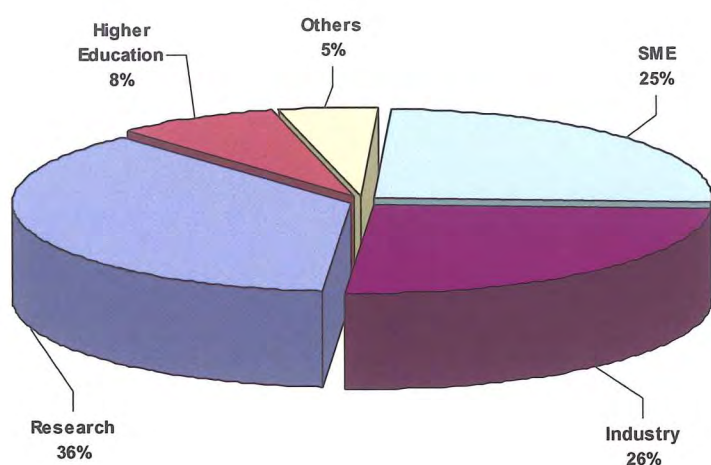
⁹ One proposal was excluded on the grounds of not fulfilling the condition of having at least one organisation in the consortium that is a member of the NEW Industry Grouping or N.ERGHY Research Grouping; another was out of the scope of the topic.

**Graph 1.3.5(a): Call for Proposals 2010:
Participation in project proposals by country¹⁰**

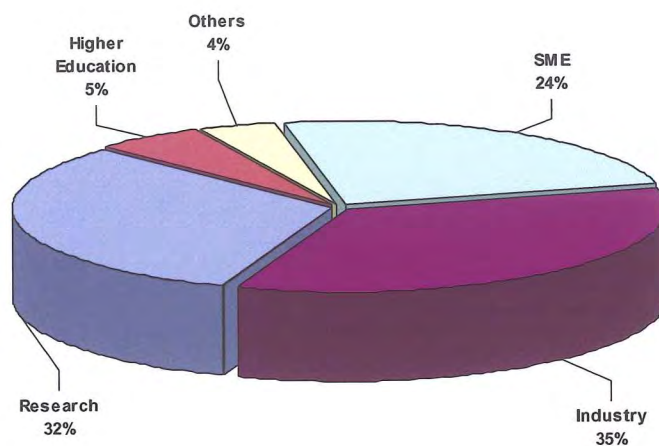


¹⁰ Includes all project proposals submitted by the deadline before evaluations.

**Graph 1.3.5(b): Call for Proposals 2010:
Participation in project proposals by participant type¹¹**

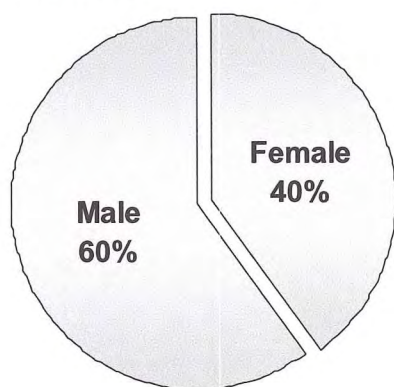


**A) By project participant number
(Total participants: 559)**

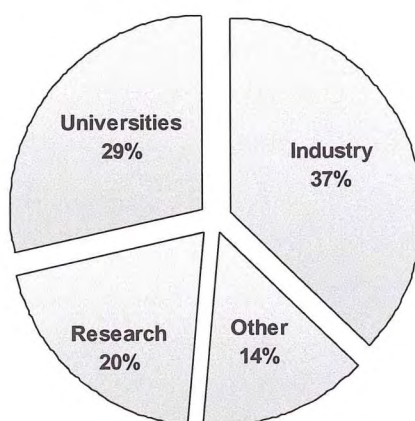


**B) By budget breakdown
(Total requested grant: €230.6M)**

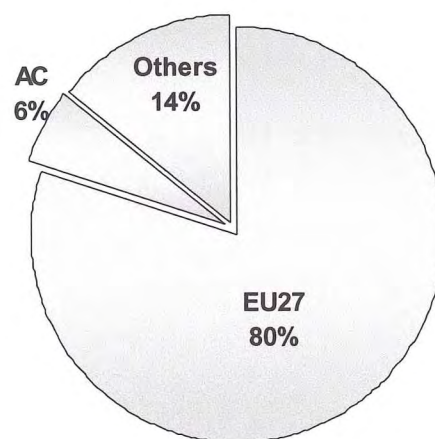
**Graph 1.3.5(c): Call for Proposals 2010:
Evaluators**



A) By gender



B) By organisation



C) By nationality

¹¹ Includes all project proposals submitted by the deadline before evaluations.

1.3.6 Operational indicators

The operational indicators for the follow-up of the programme performance are defined in the Annual Implementation Plan 2010. The latest results as of 15 February 2011 have been indicated in table 1.3.6 below. Please refer to the footnotes of the table for details of each indicator.

Table 1.3.6 Operational indicators in 2010

Fuel Cells and Hydrogen Joint Undertaking – RTD activities				
SPECIFIC OBJECTIVES		Result indicators		
		Indicator	Target	Latest known results
1	To address technological and non-technological barriers to commercialisation of FCH technologies as defined in the MAIP	Coverage of topics called for	100% by 2013	92% ¹²
		Percentage of proposals which successfully address the criteria of scientific and/or technological excellence ¹³	70% by 2013	61% ¹⁴
		Percentage of projects which have fully achieved their objectives and technical goals and have even exceeded expectations	60% ¹⁵ by 2013	Data not yet available ¹⁶
2	To promote the use and dissemination of research results with a view specifically to commercialising FCH technologies	Percentage of proposals which successfully addressed the criterion of dissemination and use of project results ¹⁷	70% by 2013	61% ¹⁸
		Percentage of projects showing evidence that they will produce significant scientific, technical, commercial, social or environmental impacts	60% ¹⁹ by 2013	Data not yet available
		Percentage of industrial participation in the projects of which SMEs	50% of industrial participation by 2013	71% ²⁰
			15% of SMEs participation by 2013 ²¹	19% ²²
		Percentage of projects which generate one or more patent applications	30% by 2013	Data not yet available
		Percentage of projects with publications in peer reviewed journals	55% by 2013	Data not yet available

¹² Based on the evaluation results of the Call for Proposals 2010.

¹³ Based on the Consensus report for research projects established by the evaluators to rank the proposals. The scoring used for this indicator is good to excellent

¹⁴ Based on the evaluation results of the Call for Proposals 2010.

¹⁵ On finished projects (not all projects will be finished by 2013).

¹⁶ No FCH JU projects have been finished at the date of this Annual Activity Report.

¹⁷ Based on the Consensus report for research projects established by the evaluators to rank the proposals. The scoring used for this indicator is good to excellent

¹⁸ Based on the evaluation results of the Call for Proposals 2010.

¹⁹ On finished projects (not all projects will be finished by 2013).

²⁰ Based on the funding granted under the 2009 Call for Proposals, including SMEs.

²¹ Based on funding granted to SMEs in projects

²² Based on the projects funded under the 2009 Call for Proposals.

1.4 COOPERATION

1.4.1 International cooperation

Cooperation was continued during 2010 with key partner countries, particularly the US but also Japan. In addition, links were established with Korea, identified as a key partner in fuel cell activities. The FCH JU's approach is to develop cooperation at practical level in through projects and information exchange while policy cooperation with international partners remains the EC's prerogative.

As regards the US Department of Energy (DoE), FCH JU participated in the DoE's Annual Merit Review and DoE was in turn represented at the FCH JU's Stakeholders General Assembly and in conjunction bilateral cooperation meetings were held. Work programmes were shared in order to identify areas of interest for project level cooperation, and for a number of project topics in the Calls for Proposals 2009 and 2010, the consortia are instructed to coordinate their work with the corresponding activities funded by the DoE. Three American experts proposed by the DoE participated in the evaluation of projects for the Call for Proposals 2009 and two for the Call 2010.

Japan's Ministry for Economy, Trade and Industry was also represented in the Stakeholders General Assembly 2010. A counter visit of the FCH JU is planned for 2011. In addition, meetings were organised for information exchange with a delegation from Japan's Fukuoka Prefecture and with the Japan Automobile Research Institute.

Links with the Republic of Korea were established through the participation of a representative from the Ministry of Knowledge Economy at the Stakeholders General Assembly 2010.

In addition to cooperation with the relevant government programmes, connections were forged with companies in the US, Japan and Korea through their participation in the Stakeholders General Assembly as well as industry-led commercialisation plans.

1.4.2 Member States

Exchange of information with the Member States and countries associated to the 7th Framework Programme was maintained in 2010 through the FCH JU States' Representatives Group. The Group held two meetings, in February and in September. Importantly, the representatives were consulted on the Annual Implementation Plan 2010. Other key issues on the agenda for discussion in 2010 included the modification of the FCH JU Regulation, commercialisation plans being produced together with the industry and the Stakeholders General Assembly. HyRaMP was also represented in the meetings to provide information on regional developments.

In addition to the formal cooperation through the States Representatives Group, two information sessions on the programme developments and particularly the calls for proposals were organised with the National Contact Points for Energy in the 7th Framework Programme (on 7 July 2010 and 17 November 2010). The Executive Director also appeared before the Energy Programme Committee for the Seventh Framework Programme on 21 January 2011.

1.4.3 Regions

Cooperation with European regions was pursued at several levels. A number of joint actions were carried out with the HyRaMP organisation, bringing together regions interested in investing in fuel cell and hydrogen technologies, as the interlocutor. HyRaMP coordinated a consultation of the regions' priorities to be considered in the drafting of the Annual Implementation Plans 2010 and 2011. FCH JU representatives participated in meetings of the Governing Board of HyRaMP to give an update on and discuss the FCH JU programme and modalities of cooperation. FCH JU was also represented in two workshops organised by HyRaMP during the year.

A communication taskforce was established between the members of the FCH JU and HyRaMP in order to align activities in this area and better benefit from synergies between the activities of the different parties.

At project level, a number of regions have shown interest to contribute considerable additional funding in the FCH JU activities, particularly in the large-scale bus demonstrations.

1.4.4 Joint Research Centre

The Joint Research Centre (JRC) of the European Commission continued to support FCH JU activities in 2010 under the Framework Agreement concluded between the two entities in 2009.

At programme level, the JRC provided the FCH JU inputs and technical data to the strategic planning (Annual Implementation Plan 2010). The JRC also participated in the planning of international cooperation strategy and meetings with international partners in Brussels. Finally, it provided a link between the FCH JU and other activities within the SET Plan, to bring the FCH JU programme under the policy umbrella tools such as SETIS and in contact with other relevant European Industrial Initiatives. The cooperation in the latter area especially will be continued in 2011.

At project level, JRC is a consortium partner in 11 projects granted funding in the FCH JU Call for Proposals 2009. It also maintains and updates databases and associated tools for public access to EC-funded and JTI-funded R&D on HFC: NESSHY-DB and HIAD.

The JRC also provided policy support to the European Commission in the field of FCH technologies, notably technical inputs to relevant legislation (type approval Regulation for H2 powered vehicles) and standardisation, support in international cooperation activities (IPHE, IEA) as well as executing activities particularly in pre-normative research and training initiatives.

In 2010 the JRC and FCH JU have started to align their activities by a joint work plan, focused towards measuring, technology mapping and strategic advice.

2. SUPPORT ACTIVITIES

Support activities described in this Section fall into two categories. Firstly, the administrative and back office activities are briefly described. The second part outlines communication activities undertaken in 2010.

2.1 ADMINISTRATIVE FUNCTIONS

Administrative and back-office functions in 2010 focused essentially on completing the framework for the autonomy of the FCH JU. They included finalising the legal and financial framework necessary for the autonomous functioning of the FCH JU, recruitment of staff, and procurement of office space, IT infrastructure and the necessary services.

2.1.1. Legal and financial framework

In 2010, the key achievement with regards to the legal and financial framework of the FCH JU was the reaching of autonomous status as a legal entity on 15 November 2010. See Chapter 3.3 below.

The remaining measures required for the completion of the autonomy criteria included notably the completion of the internal control system (see Section 3).

2.1.2. Personnel

All 18 Temporary Agent (TA) positions foreseen in the Staff Policy Plan were published already in the course of 2009. Due to the process of the selection and appointment procedures 2 TA's took up duty in 2009 (i.e. the Legal and Contractual Manager and the General Administration and HR Assistant) and 13 TA's took up duty in 2010 (i.e. the Executive Director, the Internal Audit Manager, the 2 Financial Assistants, the 4 Project Managers, the Accountant, the 2 secretaries of whom 1 resigned from her duties as of 01 November 2010, the personal assistant to the Executive Director, the Communication and Policy Officer).

Contracts were offered to successful candidates for occupying following positions:

Head of Programme Unit (taking up duty on 16 January 2011)

Head of Finance and Administration (taking up duty on 01 March 2011)

IT Assistant (taking up duty on 01 January 2011)

Stakeholders Relationships Manager (taking up duty on 16 January 2011)

Selection procedures still ongoing:

CA FG IV Project Manager

Secretary (to replace the secretary who left the service on 1 November 2010)

HR and GA Assistant (to replace the HR and GA assistant who left the service on 31 January 2011)

Financial Assistant (to replace the Financial Assistant who left the service on 15 January 2011)

Project Manager (AD 8) (in order to establish a reserve list)

The Programme Office is foreseen to be fully staffed in the first quarter of 2011.

2.1.3 Offices

The seat of the FCH JU is located in Brussels, Belgium. As a temporary solution the FCH JU has been, during 2010, renting office space in the Covent Garden building of the European Commission.

In 2010, a public procurement procedure (so-called 'Kallas procedure') has been undertaken, together with the other four established Joint Undertakings, to lease offices for the period 2011 – 2017. The procedure was completed in Q4 2010 and the Programme Office moved to the selected location at address in the second week of January 2011.

2.1.4. IT Infrastructure

The configuration of the IT-assisted accounting system, Accrual Based Accounting System (ABAC), was completed in 2010. As part of the autonomy process this system went online on 17 November 2010. No new IT hardware was procured in 2010.

A number of problems were experienced with the IT tools in 2010 and January-February 2011 which could impact the operational performance of the JU. These included notably delays in the configuration of project management tools for the FCH JU's specificities; some interruptions in e-mail services related to the move to the new premises in January; slow response time of the sTESTA line providing the access to ABAC and the FP7 applications, where a wrong configuration of one network access point was solved, and debit of the actual new line is under discussion.

The stabilisation of the IT tool configuration and servers now that the autonomy is reached and the move to permanent premises has been finished; the recruitment of a full time IT assistant; timely reporting and monitoring of IT issues; a root-cause analysis of the problems; and a close follow up of Service Level Agreements should reduce significantly the probability of similar problems reoccurring in the future.

2.2 COMMUNICATION ACTIVITIES

The focus of the 2010 communication activities was on the RTD activities of the FCH JU and opportunities offered by the Calls for Proposals, the progress of the FCH JU establishment and the prospects of the FCH technologies, backed by a major comparative study by a number of FCH JU industry partners on the technical, economic and environmental performance of different power train technologies for vehicles.

In line with the Governing Board's indications, market procedures were launched for developing a new website and visual identity for the FCH JU and are scheduled to be finalised in Q1 2011.

The Stakeholders General Assembly 2010, organised in Brussels on 9-10 November, was the most important communication event for the FCH JU in 2010.

Numerous presentations on the FCH JU have been held throughout Europe and around the world during 2010. Please see the details below. Inputs to various media have been provided upon request.

2.2.1 Website and visual image

The FCH JU launched two competitive market procedures in 2010, one for developing a new website and another for designing a harmonised visual identity for the FCH JU.

As regards the website, the new site, to be fully managed by FCH JU and hosted outside the Commission server, is scheduled to be launched in the first quarter of 2011. The site will in the first place serve the core activities of the FCH JU, namely informing about project funding and about ongoing research, development and demonstration projects, as well as a platform for exchange of information between members. It will have more interactive functionalities for the core public, i.e. members and potential project participants. In addition, its scope will be expanded to inform the wider public about fuel cell and hydrogen technologies.

As regards the visual identity, the process is scheduled to be finalised in the first quarter of 2011. The visual identity will include the elaboration of a graphical chart to be applied to various communication products (presentations, leaflets, fact-sheets, etc.) in order to create a clear branding for FCH JU.

2.2.2 Events and conferences

Stakeholders General Assembly

The Stakeholders General Assembly²³ is an external advisory body to the FCH JU. It is to be organised annually, as a meeting open to all public and private stakeholders. The objective is to inform stakeholders about the FCH JU activities and invite them to provide comments.

The Stakeholders General Assembly 2010 was held at the Management Center Europe in Brussels on 9-10 November. The first day of the event focused on commercialisation of FCH technologies, both in Europe and globally, particularly in the transport sector. The programme on the second day focused on presenting the FCH JU's on-going projects, members' activities, reporting on operational and administrative developments of the programme and gathering input for the revision of the Multi-Annual Implementation Plan of the FCH JU.

The SGA had 444 registered participants. The majority of the participants represented industry, followed by the research community, Member States and Regions. The programme featured 70 speakers from Europe, Japan, Korea and the US representing businesses, research organisations, governmental and other public bodies and NGOs.

An exhibition featuring 15 presenters from the industry and the research community was organised in conjunction with the event. A poster exhibition of the FCH JU projects was also included.

The event also featured a "Drive 'n Ride" exhibition with 6 hydrogen fuel cell vehicles that were used to transport selected guests during the event and were available for test drive for the SGA participants as well as other key stakeholders and decision-makers upon invitation.

Finally, a stakeholders' dinner for 120 invitees hosted by Herbert Reul, MEP, was organised on the evening of the first Assembly day at the European Parliament with Mr Kit Malthouse (Deputy Mayor of London) as guest-speaker.

Other events

Two info days were organised by the FCH JU to publicise the call for proposals 2010 to potential participants and other stakeholders:

- FCH JU Brokerage Event Call 2010, 17 May, Essen, Germany (during WHEC 2010)
- Info day in conjunction with the European Commission's 'energy' theme, 8 July 2010, Brussels

In addition, FCH JU staff participated in 27 external events and conferences in 2010 in 7 different Member States and 1 Associated Country, as well as 2 non-European countries to present the programme.

²³ Article 10 of the FCH JU Statutes

2.2.3 Press

The FCH JU released three press releases in the course of the year 2010:

- *Fuel Cells and Hydrogen public-private partnership will devote this year EUR 180 million to research and demonstration activities in the field*, 14 July 2010
- *FCH JU welcomes a fact-based analysis on a portfolio of power-trains for Europe*, 15 November 2010
- *FCH JU gets autonomy and becomes a real public-private partnership*, 15 November 2010

Numerous inputs were also provided to journalists upon request and a total of 20 journalists were also invited to participate to the Stakeholders General Assembly and the associated "drive 'n ride" event.

3. MANAGEMENT AND INTERNAL CONTROL SYSTEMS

This section of the AAR provides the reader with the overall picture of the implementation of sound management (not only financial) in FCH JU. It provides key information on the nature and characteristics of the JU's organisation to understand the context in which the JU operates (Chapter 3.1), its governance structure and accountability chain (Chapter 3.2), the autonomy process (Chapter 3.3) as well as the functioning of the JU's internal control system (Chapter 3.4).

3.1 NATURE AND CHARACTERISTICS OF THE FCH JU

As further detailed in Section 1, FCH JU is a **public-private** research partnership with three members (i.e. the European Commission, the 'NEW Industry Grouping' and the 'N.ERGHY Research Grouping').

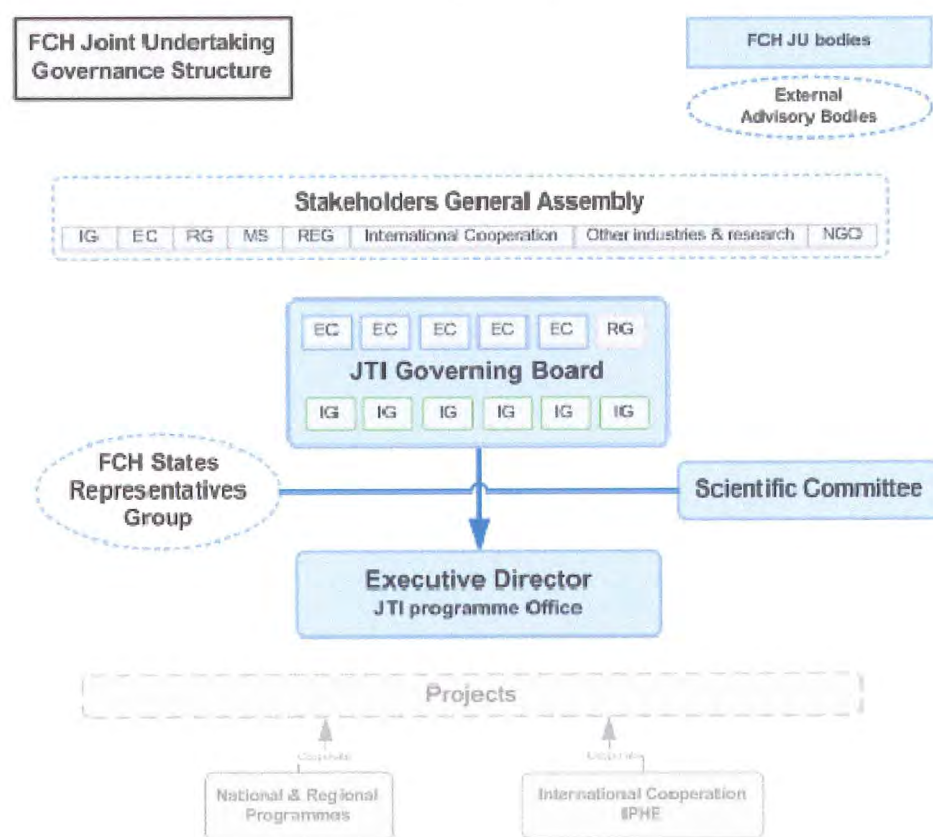
FCH JU was set up in 2008 for a period up to 31 December 2017 and its total **financing** is 947 EUR million for the whole period, consisting of contributions of all the members. The operational costs, which represent more than 90% of the total budget, shall be covered in roughly equal parts through the financial contribution of the Community and through in-kind contributions from the industrial legal entities participating in the activities. The industry contribution shall at least match the Community's contribution.

FCH JU as a legal entity is responsible for the correct implementation of its budget. FCH JU provide funds through **grants** to beneficiaries eligible to receive funds in order to support research activities selected following open and competitive calls for proposals. The general and specific legal, technical and financial terms for the grant procedures are stipulated in Grant Agreements signed with beneficiaries.

3.2 FCH JU GOVERNANCE STRUCTURE

The governance structure of FCH JU is composed of two executive bodies (i.e. the Governing Board and the Executive Director assisted by the staff in the Programme Office) and three advisory bodies (i.e. the Scientific Committee, the FCH States Representatives Group and the Stakeholders' General Assembly). It provides a solid accountability chain and can be represented as shown in Graph 3.2 below.

Graph 3.2: FCH JU Governance Structure



3.2.1 Executive bodies

Governing Board

The Governing Board is the main decision-making body of the FCH JU. All three members of the FCH JU are represented on the Governing Board: the Industry Grouping has six seats, the Commission has five seats and the Research Grouping has one seat. The Governing Board has the overall responsibility for the operations of the Joint Undertaking including the implementation of activities, the approval of the annual implementation plan, budget and annual accounts and the approval of the list of selected project proposals.

The Board meets at least twice a year. Additional meetings may be organised at the request of one of the Members, or at the request of the Executive Director. Decisions of the Board may also be taken by written procedure on a proposal from the Chair.

Executive Director and Programme Office

The Executive Director is the legal representative of the FCH JU and is supported by the staff of the Programme Office. He is the chief executive responsible for the day-to-day management of the FCH JU, in accordance with the decisions of the Governing Board. The Executive Director as Authorising Officer is responsible for the proper management of the JU's budget and has to report and give assurance on the use of the budget in accordance with sound financial management principles (Section 5).

The Programme Office, under the responsibility of the Executive Director, is in charge of the daily management of the Joint Undertaking and execute all responsibilities of the FCH JU including, among other tasks, the launching of the calls for proposals, the evaluation and selection of projects; the monitoring and update the Multi-Annual and Annual Implementation Plans, the coordination with other relevant programmes at national and regional levels and communication and other support activities.

3.2.2 Advisory bodies

Scientific Committee

The Scientific Committee has nine members, appointed by the Governing Board on the basis of their scientific competencies and expertise to give their science-based recommendations on the priorities and the progress of the FCH JU. The members reflect a balanced representation of world class expertise from academia, industry and regulatory bodies and from different fields of expertise within fuel cell and hydrogen technologies.

The Scientific Committee's first priority is to advise on the R&D agenda set out in the Multi-Annual and Annual Implementation Plans of the FCH JU.

FCH States Representatives Group

The FCH States Representatives Group (SRG) consists of one representative of each Member State and of each country associated with the 7th Framework programme. The Chairperson of the FCH SRG attends the meetings of the Governing Board as an observer.

The SRG, which meets at least twice a year, has an advisory role to the JU and shall act as an interface between the JU and the relevant stakeholders within their respective countries. Its most important tasks comprise providing opinions on programme progress in the FCH JU, monitoring compliance and respect of targets and coordination with national programmes to avoid overlapping.

Stakeholders' General Assembly

The Stakeholders' General Assembly (SGA) has an advisory role to the FCH JU. It is open to all public and private stakeholders, international interest groups from Member States and Associated countries, as well as from third countries.

At the General Assembly, which is convened once a year, stakeholders are informed of the activities of the FCH JU and invited to provide comments. The Stakeholders' General Assembly is an important communication channel to ensure transparency and openness of the FCH JU's activities with its stakeholders.

3.3 FCH JU'S AUTONOMY

In accordance with article 16 of the Council Regulation N° 521/2008 setting up FCH JU, the Commission was responsible for the establishment and initial operation of the FCH JU until the Joint Undertaking had the operational capacity to implement its own budget (i.e. FCH JU autonomy).

For that purpose, until such time as the Executive Director took up his duties, the Commission assigned a task force composed of 3 Commission's staff including one staff fulfilling the functions of interim Executive Director until 31 August 2010. The permanent Executive Director, Mr Bert De Colvenaer, was appointed by the Governing Board on 15 June 2010 and took up duty on 1 September 2010.

The FCH JU is **autonomous since 15 November 2010**. To achieve this, the following steps were carried out: (1) the Commission established the 'autonomy criteria' to determine whether the JU was ready to operate autonomously; (2) the Executive Director carried out a readiness assessment against the referred autonomy criteria and submitted a report to the Commission on 11 October 2010 demonstrating that the JU had the capacity to implement its own budget and be fully operational as from 15 November 2010 and (3) the Commission confirmed in its letter of 8 November 2010 the operational capacity of the FCH JU for the autonomous operation of the JU as from 15 November 2010.

This AAR reports and provides assurance on the activities of the JU related to the entire year 2010. However, whereas the Commission was the Authorising Officer of the JU for the period before autonomy (i.e. from 1 January 2010 until 14 November 2010), the JU's Executive Director is the Authorising Officer since the autonomy date (i.e. from 15 November 2010 until 31 December 2010). Therefore, the reporting on the part of the year before autonomy takes into consideration the assurance provided by the Commission for that period (see Chapter 4.1.2 for further details).

3.4 THE FUNCTIONING OF THE ENTIRE INTERNAL CONTROL SYSTEM

The foundation of the FCH JU's Internal Control Framework is provided by a set of 16 **Internal Control Standards (ICS)** which were adopted by the Governing Board on 15 June 2010. The Standards are inspired by the internationally recognised COSO framework²⁴ and are structured around six areas, namely: 1. Mission and Values, 2. Human Resources, 3. Planning and Risk Management Processes, 4. Operations and Control Activities, 5. Information and Financial Reporting, and 6. Evaluation and Audit.

To permit progressive implementation and allow measurement of the maturity of the JU's internal control systems, each standard is complemented by a list of '**Requirements**' defining the minimum features and specific practical actions (FCH JU Internal Control Standards in Annex 5).

FCH JU has established an **Action Plan** for the progressive implementation of the standards. This Action Plan describes the requirements for each standard, the status of their implementation, the action owner within the JU and the related outstanding actions and timeliness. A brief summary of the standards not fully implemented yet and their outstanding actions is as follows:

- *ICS 2 - Ethical and organisational values.* FCH JU applies the Commission guidelines in this field but awareness on ethical aspects amongst JU staff will be raised (Q1 2011).
- *ICS 3 – Staff allocation and flexibility.* Approval of JU's recruitment policy, templates and guidelines (Q1 2011).
- *ICS 4 – Staff evaluation and development.* Yearly interviews with all staff to define objectives (on-going), annual staff appraisal (for year 2011) and approval of JU's training policy (Q1 2011).
- *ICS 5 – Objectives and performance indicators.* Better link between objectives, activities, allocated resources and identified risks and more robust key performance indicators (in preparation of the 2011 Annual Implementation Plan – on going). Establishment of a Bi-annual management report, including reporting on the functioning of the Internal Control system and 'statement of assurance' (after recruitment of the Heads of Finance and Programme. First Bi-annual report planned for 30 June 2011).
- *ICS 7 – Operational Structure.* Governance of the IT (internal and external) structure to enable the efficient and secure functioning of the IT services to be established (Q1 2011 and regular monitoring).
- *ICS 8 – Processes and procedures.* Main FCH JU processes and procedures are documented but still a few procedures need to be further formalised and those already documented will be continuously improved, when necessary.
- *ICS 9 – Management supervision.* The implementing modalities of the supervision system (key actors and methodology) will be established after recruitment of the Heads of Units.
- *ICS 10 – Business Continuity.* A 'Business Continuity Plan' with (1) recovery arrangements in cases of major disruptions and (2) a 'Handover procedure' to ensure continuity of the service when an employee leaves the JU, will be established (Q1 2011).
- *ICS 11 – Document Management.* A temporary electronic registration system and a structured archiving system are in place. However, the appropriateness of procuring a stable IT system for document management will be further analysed (Q2 2011).

²⁴ <http://www.coso.org/>

- *ICS 12 – Information and Communication.* An 'External Communication Strategy' will be established for adoption by the JU's Governing Board (Q1 2011). An internal procedure for reporting on internal control weaknesses will be defined (Q1 2011).
- *ICS 15 – Assessment of Internal Control System.* The methodology for the annual assessment of the Internal Control system (e.g. staff surveys, management reviews...) will be defined (after recruitment of the Heads of Units).
- *ICS 16 – Internal Audit Capability-IAC.* The roles and responsibilities of the FCH JU's IAC and the Commission's Internal Audit Service (IAS) have been recently clarified and decided by the Governing Board. On that basis, the IAC Audit Charter (Q1 2011) will be established and a coordinated Risk-based work plan (Q2 2011) will be jointly developed by the JU's IAC and the IAS.

FCH JU is autonomous only since 15 November 2010 and consequently the JU is still fine tuning its Internal Control System. The organisational and governance structure have been established but the two Heads of Units had not taken up duties by end of 2010²⁵. This explains some of the pending actions, mainly those where their active involvement is of key importance. Whereas full implementation of the 16 Internal Control Standards has not been achieved yet, the necessary actions for the adequate running of FCH JU activities are in place. In particular, the following actions deserve mentioning:

- '*Financial circuits*' ensuring segregation of duties between initiation and verification of transactions have been established. A procedure for the management of exceptions/deviations from established procedures is also in place as part of the financial circuits.
- '*Checklists*' have been developed which help JU staff to ensure the checking of key elements before the transaction is authorised.
- A '*Manual of procedures*' has been established which gather all rules, procedures and templates to be used by the JU staff for the implementation of the JU's activities.
- A '*Calendar of FCH JU operational and horizontal activities*' has been established. This calendar is intended to be a key tool for JU's management as it lists the main JU activities along the calendar year together with the main internal (i.e. JU staff) and external (Governing Board, Advisory bodies, other stakeholders...) actors involved in each activity and any legal requirement or deadline to be respected.

In conclusion, concerning the **general appreciation of the functioning of the internal control system** in its entirety and taking into consideration the aspects indicated above (mainly the early stages of the JU), the procedures put in place by FCH JU (1) control the main risks by providing a reasonable assurance that the key objectives are met and that the activities are carried out as intended and (2) actions are on-going to address the identified areas for improvement.

4. BUILDING BLOCKS TOWARDS THE DECLARATION OF ASSURANCE

This section of the AAR describes the elements underpinning the Executive Director's declaration of assurance. It includes a presentation and assessment of the 'building blocks'

²⁵ Head of Programme Unit (taking up duty on 16 January 2011) and Head of Finance and Administration (taking up duty on 01 March 2011)

supporting the reasonable assurance (Chapter 4.1) and an overall conclusion of the impact on the declaration (Chapter 4.2).

4.1 BUILDING BLOCKS TOWARDS REASONABLE ASSURANCE

Reasonable assurance is the personal judgement of the JU's Executive Director -as Authorising Officer of the JU at the date of signature of this Annual Activity Report- based on all information at his disposal. This information can be structured around two main pillars or 'building blocks', namely: (1) the assessment by the JU's management and (2) the assurance received from the Commission as authorising officer for the period before the JU's autonomy.

4.1.1 Building block 1: Assessment by JU's management

This building block describes the main elements underpinning the JU's control strategy and provides evidence, through indicators, of its solidness.

The JU's control strategy covers all activities of the JU. However, Grant management being the core business of the JU the Grant management and representing more than 90% of its Budget, this chapter focuses on such process. As indicated in Chapter 3.1, FCH JU provides funds through grants to beneficiaries following open and competitive calls for proposals. FCH JU projects are implemented through Grant agreements signed with beneficiaries and co-financed by the JU. After signature of the Grant Agreement, pre-financing payment is made to make funds available and allow the starting of the project. During project implementation, grants are paid on the basis of the beneficiary's declaration of eligible costs (i.e. cost claims).

Since the setting up of FCH JU, three **Calls** have been launched (i.e. Calls 2008, 2009 and 2010). The key dates for each call are the following.

Table 4.1.1(a): FCH JU Calls – Key dates

	Call 2008	Call 2009	Call 2010
Publication	October 2008	July 2009	June 2010
Signature of Grant Agreements	December 2009	October-December 2010	Not yet. Negotiations on-going.
Payment of Pre-financings	December 2009, except 27.220 € in January 2010	December 2010, except 519.508 € in Q1 2011 at the request of the beneficiary.	Not yet. Negotiations on-going.
Payments of experts	Q1-2 2009 (app.)	Q2 2010 (app.)	Q1 2011 (app.)
Cost claims received	First Cost Claims are expected by March 2011, approx.	No cost claims are expected before May 2011	Not yet. Negotiations on-going.

Therefore, the following main conclusions can be extracted from the table above with an impact on the 2010 Annual Activity report:

- So far, only pre-financings have been paid. The financial year 2010 refer to all the pre-financings of Call 2009 (except 519.508 €, paid in 2011 at the request of the beneficiary) plus a very small proportion of Call 2008 (27.220 €)
- The first cost claims are expected to arrive starting in March 2011, approximately.

The main elements of **FCH JU control strategy** are a combination of ex-ante and ex-post controls. The table below clarifies the main features of these controls:

Table 4.1.1 (b): 'Ex-ante' vs. 'Ex-post' controls

	'Ex-ante' Controls	'Ex-post' Controls
When?	<u>Before</u> the transaction is authorised	<u>After</u> the transaction is authorised
Frequency?	Obligatory on <u>all</u> transactions	Made on a <u>sample</u> basis
How?	Mainly <u>desk review</u> of supporting documents (e.g. beneficiaries' proposals and reports) but might also take place 'on-the-spot' at the beneficiary's premises, if deemed necessary and cost-effective.	Mainly <u>On-the-spot</u> checks at the beneficiary's premises.
Impact?	Errors detected should be corrected <u>before</u> the transaction is approved	Errors detected (e.g. ineligible expenditure) should be corrected through <u>recovery orders</u> or offsetting with future payments.
Assurance?	<u>Primary</u> means of ensuring sound financial management and legality and regularity of transactions but <u>less 'evidence'</u> (in particular for the eligibility of costs) as normally based on desk review.	<u>Secondary</u> means of ensuring sound financial management and legality and regularity of transactions but <u>more robust</u> as normally carried out 'on-the-spot'.

Concerning the **project lifecycle**, the JU's control strategy is divided into four distinct stages. Control objectives, key controls, main outputs and indicators have been defined for each stage as indicated in the table below. For more detailed information on the controls applied in each stage, reference is made to Annex 4.

Table 4.1.1(c): Stages in the Project Lifecycle: Objectives; Controls; Outputs & Indicators

	Stage 1 Evaluation	Stage 2 Negotiation & Selection	Stage 3 Project & Contract management	Stage 4 Ex-post controls: audits & recoveries
Objectives	Select projects to be financed according to their research credentials to ensure the achievement of the JU's operational objectives.	For each proposal: Clarify objectives and work to be carried out. Substantiate costs and determine its duration and JU's contribution.	Translation of each of the selected proposals into a legally binding instrument and making of pre-financing. Verification of (1) interim and final beneficiaries' payment requests and (2) achievement of key milestones.	Contribute to ensure the legality and regularity of the payments. Provide an indication of the effectiveness of previous ex-ante controls.
Controls	• Screening of submitted proposals for eligibility. • Choice of independent (i.e. no conflict of interest) expert evaluators. • Evaluation by a minimum of three independent experts. • Panel review for consistency, quality control and ranking of proposals.	• Use of 'Evaluation Summary Report' as starting point for the negotiation. • Requests for Budget clarifications, if deemed necessary. • Legal status verifications • Financial viability checks • Adoption of safeguarding measures (e.g. guarantees) • When deemed necessary, 'on the spot' control visits	<u>Contracting and pre-financing payment:</u> • JU Financial circuits in place ensuring all operational and financial aspects are checked by two independent members of JU staff before (i.e. <i>ex-ante</i>) authorisation. <u>Interim and final payments:</u> • Analysis of beneficiaries' technical and financial reports (intermediate and final) • Audit certificates by certifying auditor²⁶ on the beneficiaries' financial statements (i.e. cost claims)²⁷ and on the methodology used for the calculation of costs²⁸. • Mid term reviews by external experts, when applicable in the Grant Agreement. • When deemed necessary, 'on the spot' control visits. • JU Financial circuits in place as for 'contracting and pre-financing payment' above.	Financial (representative and risk-based) and Technical audits after (i.e. <i>ex-post</i>) JU's authorisation of interim or final payments and up to 5 years after the end of the project ²⁹ .

²⁶ Independent from the beneficiary and qualified to carry out statutory audits.

²⁷ Mandatory if above thresholds (Model Grant Agreement, article II.4.4)

²⁸ Optional (Model Grant Agreement, articles II.4.4 and II.14.1)

²⁹ Model Grant Agreement, articles II.22 and II.23

	Stage 1 Evaluation	Stage 2 Negotiation & Selection	Stage 3 Project & Contract management	Stage 4 Ex-post controls: audits & recoveries
Outputs	• Evaluation Summary Report (ESR) for each proposal • Ranking list of proposals • Initial Information letter to applicants	• Final list of selected proposals	Financial transactions: • Budgetary and Legal Commitment. • Pre-financing, interim and final payments	Financial transaction: • Recovery order (e.g. in case of ineligible expenditure identified after ex-post audits)
Indicator	• Redress procedure: Number of applicants' complaints / Total proposals	• Financial impact of the negotiation process: Difference between the total value of the JU contribution 'requested' in project proposals, (1); 'recommended' in the negotiation mandates (2) and 'agreed' in the signed grant agreements.(3)	• Percentage of the number of payments made on time	• Representative error rate (i.e. cumulative level of error in percentage detected by representative ex-post audits) • Residual error rate (i.e. error rate left in the population after the correction of (1) all detected errors and (2) extrapolation of systematic errors on the non-audited amounts of audited beneficiaries). • Audit coverage: Plan vs. actual volume of audits completed

The **indicators** defined above aim at providing an indication of the robustness of each stage and as such provide assurance on the sound financial management and the legality and regularity of the financial transactions (i.e. commitments and payments). An analysis of each indicator is the following:

Stage 1: Evaluation

A 'redress procedure' gives applicants the possibility to file a complaint in case they think that there were shortcomings in the handling of their proposal during the evaluation. A redress committee, working independently from the evaluation, analyses eligible complaints and, where suitable may recommend the re-evaluation of the proposal. The final decision on follow-up actions is taken by the Executive Director.

The indicator on 'redress procedure' shown in the table below provides an indication of the quality of the evaluation process which is a key element in the grant warding process.

Table 4.1.1(d): Redress procedure

	Call 2008	Call 2009	Call 2010
Number of proposals	32	50	71
Number of complaints received	0	4	6
% of complaints	0%	8%	8%
Number of complaint cases which led to a re-evaluation	0	0	0
% of complaints which led to a re-evaluation	0 %	0 %	0%

The inexistence of complaints for the Call 2008 and the low number of complaints in the Call 2009 of which none led to a re-evaluation, (1) is an indication of the robustness of the evaluation and grant award process and (2) provides assurance on the legality and regularity of the commitments (i.e. signed Grant Agreements) in stage 3 below.

Stage 2: Negotiation and selection

The negotiation is the main process to ensure the efficient use of the JU's budget as it discards work which is not essential for the achievement of the scientific objectives of the project and ensures that the budgeted costs are commensurate with the planned work.

The financial impact of the negotiation process, as shown in the indicator below, is defined as the reduction (expressed as a percentage) in JU contribution to the grant agreements, as a result of the negotiation process.

Table 4.1.1(e): Financial impact of the negotiation process (in thousands EUR)

	Call 2008	Call 2009	Call 2010
Number of grant agreements	16	28	Negotiation on-going
JU contribution 'requested' in project proposals (1)	36.046	85.643	
JU contribution 'recommended' in Negotiation mandates (2)	29.076	75.202	
JU contribution 'agreed' in the signed grant agreements (3)	27.222	72.527	
Reduction in percentage from contribution 'requested' (1) – (3)	24%	15%	
Reduction in percentage from contribution 'recommended' (2) – (3)	6%	4%	

The total value of the JU contribution 'requested' in the project proposals (1), is reviewed by the JU due to several factors (e.g. comments on budget proposals by independent experts, budget clarification process, total JU budget available and matching requirements). This reviewed value is the value of the JU contribution 'recommended' in the 'Negotiation mandates' (2) and represents the starting point of the negotiation process. As a result of the negotiation process, the value is/might be further reviewed. This third value represents the value of the JU contribution 'agreed' in the signed grant agreements (3).

The average reduction resulting from negotiations for calls 2008 and 2009 was 24% and 15%, respectively when considering the initial contribution requested in project proposals as starting point, and 6% and 4% for 2008 and 2009 calls, respectively if the starting point is the value as

per the negotiation mandate. Whereas the average reduction (1) - (3) is mainly the result of budget available and matching requirements, the reduction (2) - (3) is mainly due to changes during negotiations to comply with experts recommendations made during the evaluation stage.

Stage 3: Project and contract management

The project and contract management stage starts with the signature of the grant agreement and ends with the final payment to the beneficiary.

As shown in table 4.1.1(a) above no cost claims have been received yet from beneficiaries. Therefore, the financial transactions involved are the contract signature (commitment) and the payments of either pre-financings or other expenditure linked with the project lifecycle (payment of experts).

The main legality and regularity indicator for the commitment is the percentage of complaints as indicated in stage 1 above. Concerning payments, an important indicator is the 'time to pay', which is define as the percentage of payments made within the binding deadlines as shown in the table below.

Table 4.1.1(f): Percentage of the number of payments made on time

	Call 2008	Call 2009	Call 2010
Grants: payment of pre-financings	100%	100%	Negotiation ongoing
Payments of experts	71%	34%	53%

The data shows that 100% of grant payments, which represent more than 90% of the total value of JU's payments, were done on time. This provides a good indication of both sound financial management and legality and regularity of the payments made.

Payments to experts related to the Call 2010 have suffered some delays (53% on time). The delay was the result of the particular transitory situation of the FCH JU that will have been remedied in future. In particular, (1) a shortage of staff, (2) the cumbersome payment circuits including the fine tuning of the collaboration with the Commission services responsible for the validation of calculations and (3) the fact that the ABAC system needed final adjustments to the JU's specificities during the processing of payments, resulted in payment delays.

Stage 4: Ex-post controls: audits and recoveries

The ex-post controls are the fourth and last stage. These include both ex-post audits as well as the recovery of any amount paid in excess (e.g. in case of ineligible expenditure detected as a result of ex-post audits)

In order to provide a robust and solid basis of assurance, the JU has designed as a key element of ex-post controls, an Ex-post audit strategy. The JU's strategy is harmonised with the Commission's strategy as requested by the General Financing Agreement signed between the Commission and the JU. As the first cost claims are expected only in 2011, the JU has not implemented yet the referred strategy. Ex-post audits are expected to be launched in the second half of 2011 when a sizable number of cost claims have been received so as to allow for a cost-efficient audit mission.

Once the strategy is implemented the (representative and residual) error rate as well as the audit coverage will be calculated in order to provide an additional basis of assurance for the legality and regularity of the payments made based on the eligible costs declared by the beneficiaries in their cost claims.

Other issues identified by Management

This chapter reports on **human resources issues** identified by the JU's management which may have an impact on the assurance if mitigating actions are not properly defined.

- (1) The FCH JU has a lean structure which, for cost-efficiency reasons, does not allow for a back up in all positions. This could lead to problems in cases of unforeseen absences mainly in those positions where the replacement requires a certain level of expertise (e.g. accountant).
- (2) Two persons decided to leave the JU in early 2011 what might have an impact on the efficient execution of JU activities as from 2011.
- (3) As indicated in Chapter 2.1.2 above, the Heads of Units had not taken up duties by the end of 2010 which delayed the implementation of some actions where their active involvement is considered of key importance.

To reduce those risks to an acceptable level, FCH JU has implemented the following **mitigating actions**.

- (1) In the absence of the accountant and based on a risk-analysis the Executive Director will appoint on a temporary basis a back-up for this function and a systematic ex-post verification of the transactions concerned will be carried out by the Accountant. To facilitate the work of the back-up person, he/she will be previously trained on accounting aspects (including IT) and the main accountant's tasks will be documented.
- (2) Vacancy notices to fulfil the functions related to the people leaving the JU were immediately published and the recruitment procedure is currently on-going. As a general mitigating action, vacancy notices of other key posts have been published to establish reserve lists and allow a quicker recruitment in case of additional unforeseen rotation. This allows for a refill of position within a delay of approximately 2 months.
- (3) The recruitment for both Heads of Units is finalised and both are taking up duties in Q1 2011.

4.1.2 Building block 2: Commission's assurance before FCH JU's autonomy

As explained in Chapter 3.2, the Commission was responsible for the establishment and initial operation of the FCH JU until its autonomy and therefore was the Authorising Officer for that period.

In this sense, the Commission confirmed in a declaration dated 12 January 2011 and covering the period from 1 January to 14 November 2010 (see **Annex 6**) that: (a) the control procedures put in place in the Commission gave the necessary guarantees concerning the legality and regularity of the underlying transactions, (b) taking into consideration that the autonomy of the JU could not be granted before 15 November 2010, the resources assigned to the FCH JU activities were used for their intended purpose and in accordance with the principles of sound financial management, and (c) he was not aware of anything not reported which could harm the interests of the Joint Undertaking.

4.2 OVERALL CONCLUSION

It is important to note that only material weaknesses/risks lead to a reservation to the assurance in Section 5. The concept of '**materiality**' provides the Executive Director with a basis for assessing the importance of the weaknesses/risks identified. Deciding whether something is material involves making a judgement in both qualitative and quantitative terms. See details on the 'Materiality criteria' in Annex 3.

Based on the positive conclusion of the analysis of the indicators above, the existence of mitigating actions to respond to the human resources issues disclosed (*4.1.1 Building block 1*) and the assurance provided by the Commission for the period before the JU's autonomy (*4.1.2 Building block 2*), the JU's Executive Director is of the opinion that there is sufficient evidence to provide a **reasonable assurance** as expressed in the Declaration under Section 5.

5. DECLARATION OF ASSURANCE

I, the undersigned, Mr Bert De Colvenaer, Executive Director of FCH JU in my capacity as authorising officer:

Declare that the information contained in this report gives a true and fair view³⁰.

State that I have reasonable assurance that,

- a) the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, taking into consideration that the Joint undertaking could not work autonomously until 15 November 2010 and*
- b) the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.*

This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the analysis of the main indicators underpinning the functioning of the JU's internal control system, the existence of adequate actions to mitigate the risks identified and the assurance provided by the Commission for the period before the autonomy of the Joint Undertaking.

Confirm that I am not aware of anything not reported here which could harm the interests of the Joint Undertaking.

Brussels, 15 February 2011



Bert De Colvenaer
Executive Director

³⁰ True and fair in this context means a reliable, complete and correct view on the state of affairs in the JU.

ANNEX 1: HUMAN AND FINANCIAL RESOURCES

Category and grade	Establishment plan 2010		Posts filled in by external publication in 2010		Departures 2010		Posts actually filled on 31 December 2010	
	perm	temp	perm	temp	perm	temp	perm	temp
AD 16								
AD 15								
AD 14		1		1				1
AD 13								
AD 12								
AD 11		3		1				1
AD 10								
AD 9		3		1				1
AD 8		4		4				4
AD 7				1				1
AD 6								
AD 5								
Total AD		11		8				8
AST 11								
AST 10								
AST 9								
AST 8		4		1				1
AST 7				3				3
AST 6								
AST 5								
AST 4		1						
AST 3		2		2		1		1
AST 2								
AST 1								
Total AST		7		1		1		5
Total		18		6		1		13

Staff financed under administrative expenditure:

Number of Contractual Agents							
	Posts actually filled on 31 Dec 2009	Envisaged 2010	Posts actually filled on 31 Dec 2010	Envisaged 2011	Envisaged 2012	Envisaged 2013	Envisaged 2014
GF IV	0	2	0	1	1	1	1
GF III	0	1	0	1	1	1	1
GF II	0	0	0	0	0	0	0
GF I	0	0	0	0	0	0	0
TOTAL	0	3	0	2	2	2	2

Number of Seconded National Experts						
Posts actually filled on 31 Dec 2009	Envisaged 2010	Posts actually filled on 31 Dec 2010	Envisaged 2011	Envisaged 2012	Envisaged 2013	Envisaged 2014
0	0	0	0	0	0	0

ANNEX 2: FINANCIAL INFORMATION

Introduction

FCH JU's budget was managed by DG RTD from 1 January 2010 to 14 November 2010. FCH JU became autonomous on 15 November 2010. As the European Commission will prepare its own report regarding its management of the FCH JU budget lines, this annex covers the period 15 November 2010 until 31 December 2010.

Budget

The budget of the FCH JU is divided in three titles.

Title I covers staff expenditure such as salaries, training and costs associated to recruitment procedures and staff wellbeing.

Title II covers the costs associated to the functioning of FCH JU such as infrastructure, equipment and its needs.

Title III covers the FCH JU operational activities.

Revenue

The residual budget of FCH JU on 15 November 2010 foresaw revenue adding up to a total of EUR 45,276,973.19.

Item	Heading	Budget	Comment
2001	European Commission subsidy for operational expenditure	43,215,716.00	Including EFTA contribution
2002	European Commission subsidy for administrative expenditure	1,833,663.19	Including EFTA contribution
2003	Industry Grouping contribution for administrative expenditure	195,081.00	
2004	Research Grouping contribution for administrative expenditure	32,513.00	
2006	JTI revenues	p.m.	
Total		45,276,973.19	

Expenditure

2010-C1

Title	Commitment Appropriations	Commitments	Execution rate	Payment Appropriations	Payments	Execution rate
1. Staff	1,067,027.80	204,249.76	19.14%	1,067,027.80	145,455.56	13.63%
2. Infrastructure	994,229.39	900,858.15	90.61%	994,229.39	153,060.03	15.39%
3. Operations	94,248,686.00	94,248,686.00	100.00%	43,215,716.00	39,894,106.60	92.31%
Total	96,309,943.19	95,353,793.91	99.01%	45,276,973.19	40,192,622.19	88.77%

The low execution rate on Staff appropriations is mainly linked to the delays in recruitment.

The low execution rate on Infrastructure payment appropriations is mainly linked to the late autonomy of FCH JU. Infrastructure commitments and order forms could be prepared and placed; delivery and payment will however only take place in 2011.

The pre-financing payments for the grant agreements based on Call 2009 were carried out in 2010. Only one payment was made in 2011 at the request of the coordinator of the project and was also carried out on time.

2010-C8

On the date of the financial transfer the FCH JU has also taken over all pending contracts/payments from the European Commission.

Title	Appropriations	Commitments	Execution rate	Payment Appropriations	Payments	Execution rate
1. Staff	0.00	0.00	0.00%	0.00	0.00	0.00%
2. Infrastructure	170,634.35	34,227.65	20.06%	170,634.35	34,227.65	20.06%
3. Operations	82,893,024.00	82,893,024.00	100.00%	0.00	0.00	0.00%
Total	83,063,658.35	82,927,251.65	99.84%	170,634.35	34,227.65	20.06%

ANNEX 3: MATERIALITY CRITERIA

The '**materiality**' concept provides the Executive Director with a basis for assessing the importance of the weaknesses/risks identified and thus whether those weaknesses should be subject to a formal reservation to his declaration.

When deciding whether something is material **qualitative and quantitative** terms have been considered:

In **qualitative** terms, when assessing the significance of any weakness, the following factors have been taken into account:

- the nature and scope of the weakness;
- the duration of the weakness;
- the existence of compensatory measures (mitigating controls which reduce the impact of the weakness) and
- the existence of effective corrective actions to correct the weaknesses (action plans and financial corrections) which have had a measurable impact.

In **quantitative** terms, in order to make a judgement on the significance of a weakness, the potential financial impact ("monetary value of the identified problem"/"amount considered erroneous"/"the amount considered at risk") has been quantified in monetary terms.

ANNEX 4: FCH JU INTERNAL CONTROL STRATEGY

The table below provides a narrative description of the key controls in each stage of the project lifecycle, including two horizontal processes, namely: Planning & Programming and Communication & Information.

As FCH JU has not received yet cost claims, the controls indicated below under 'Interim and final payments' (stage 3) and 'ex-post controls' (stage 4) are not implemented yet.

<u>Horizontal process:</u> Planning & Programming	The Council regulation 521/2008 setting up FCH JU is the primary element from which the objectives of the JU derive for the preparation of the Multi-Annual (MAIP) and annual (AIP) implementation planning. The AIP is developed on the basis of an internal dialogue in order to ensure it is understood and owned and after having taken into consideration stakeholders' feedback to ensure alignment with their priorities.
<u>Project Lifecycle Stage 1 - Evaluation</u>	Proposals are evaluated and selected according to their research credentials (i.e. best value for public money). Key controls include the screening of submitted proposals for eligibility; the choice of independent expert evaluators, the evaluation by a minimum of three experts; and a panel review for quality control and ranking of proposals.
<u>Project Lifecycle Stage 2 – Negotiation & selection</u>	Based on the ranking list, the JU establishes the final list of proposals and proceeds to negotiate the grant agreements with the successful applicants. The purpose of the negotiation is to clarify and adapt the work to be carried out and the operational objectives of the project, substantiate its costs and determine its duration and the maximum contribution from the FCH budget which is of key importance for the JU in order to respect the 'matching principle'³¹. The JU seeks to implement the advice of the independent expert evaluators. This negotiation generates significant efficiencies in the use of JU funds by discarding work which is not essential for the achievement of the scientific objectives of the project and ensuring that the budgeted costs are commensurate to the work to be carried out. Negotiation results are put forward to the Governing Board which approves the final list of selected proposals. This phase includes legal and financial verifications (the legal status of the beneficiary, its possible inclusion in the Early Warning System (EWS)³², its financial viability and its capacity to co-fund the project) as well as safeguarding measures (e.g. bank guarantees, reduced level of pre-financing and shorter reporting periods).

³¹ Council Regulation 521/2008, FCH Statutes, article 12(3): "The operational costs of the FCH JU shall be covered through the financial contribution of the Community and through in-kind contributions from the legal entities participating in the activities. The industry contribution shall at least match the Community's contribution. Other contributions to co-funding activities will be considered as receipts in accordance with the Rules of Participation of the Seventh framework Programme"

³² So far, access to the EWS by FCH is limited to some EWS levels.

<u>Project Lifecycle</u> Stage 3 – Project & contract management	<u>Contracting and pre-financing</u> After final approval of proposals for funding, the grant agreements are prepared for signature based on a model. Before the commitment is authorised and the pre-financing is paid, financial circuits are in place ensuring that all relevant operational and financial aspects are verified by at least two independent members of staff. <u>Interim and final payments</u> For beneficiaries' payment requests (i.e. cost claims), the JU relies on two main sources: (1) Beneficiaries' technical and financial progress reports (intermediate and final). (2) Audit certificates by certifying auditor who must be independent from the beneficiary and qualified to carry out statutory audits of accounting documents. In particular: a. <i>'Certificates on the beneficiaries' financial statements'</i> issued by independent, professional auditors on the compliance with the contractual and regulatory requirements and on the accuracy of the cost statements submitted in order to detect and correct errors before the payments are made. b. <i>'Certificate on the methodology'</i>: the beneficiary may submit a 'Certificate on the methodology' for the calculation of costs which it uses to prepare its claims with regard to both personnel and indirect costs. The approval of interim and final payments to beneficiaries is subject to the ex-ante financial circuit indicated above. Indeed, before a payment is authorised, all relevant operational and financial aspects are verified by at least two independent members of staff. Project managers verify that the work carried out by the beneficiary is in all respects in compliance with the grant agreement by evaluating the project reports and deliverables. To do so, they may seek the advice of independent experts. Financial assistants carry out accounting and arithmetical checks to ensure financial statements and audit certificates have been submitted in accordance with the provisions of the grant agreement. The authorising officer ascertains that these checks on the supporting documents have been done and validates the expenditure. When deemed necessary, ex-ante 'on the spot' control visits and/or ex-ante 'in depth' desk checks may be carried out during project implementation. They include the verification of individual cost items against other sources of information (reconciliations, authorisation) based on third-party invoices or payslips provided by the beneficiary. Basic deficiencies in beneficiaries' understanding of the contract provisions can be detected and improved this way, with a resulting corrective effect on future claims.
<u>Project Lifecycle</u> Stage 4 – Ex-post controls: audits and recoveries	Ex-post audits are one of the main elements for the provision of assurance because many errors can only be detected by ex-post audits 'on the spot'. This control is intended to (1) contribute to ensure the legality and regularity of the financial transactions; and (2) to provide an indication of the

	effectiveness of ex-ante controls. The JU has developed an ex-post audit strategy which is harmonised with the Commission's strategy as requested by the General Financing Agreement signed between the Commission and the JU. Audit results will be implemented by the Executive Director as authorising officer by issuing recovery orders or deducing amounts wrongly paid from future payments to the same beneficiary.
<u>Horizontal</u> <u>process:</u> Communication & Information	Adequate communication and information channels with beneficiaries and auditors provide preventive and directive measures to improve the quality of beneficiaries' financial management and of their data. This ensures that both beneficiaries and the certifying auditors fully understand the contract requirements and provisions, in order to reduce the number of errors and omissions in the cost claims submitted. In this respect, FCH JU has developed some guidance notes which are available in 'Cordis' and the FCH JU webpage. The JU will continue developing guidance in line with the needs of the project cycle and will liaise with the units responsible for ex-post audits in the Commission in order to spread their best practices across JU's beneficiaries and auditors and ensure a common understanding of similar critical issues and harmonised methodology.

ANNEX 5: FCH JU INTERNAL CONTROL STANDARDS

MISSION AND VALUES

ICS 1: Mission

The FCH JU's 'raison d'être' is clearly defined in up-to-date and concise mission statements developed from the perspective of its customers.

Requirements

- The JU have up-to-date mission statements which are linked across all hierarchical levels.
- These mission statements have been explained to staff and are readily accessible.

ICS 2: Ethical and Organisational values

Management and staff are aware of and share appropriate ethical and organisational values and uphold these through their own behaviour and decision-making.

Requirements

- The JU has procedures in place to ensure that all staff is aware of relevant ethical and organisational values, in particular ethical conduct, avoidance of conflicts of interest, fraud prevention and reporting of irregularities.

HUMAN RESOURCES

ICS 3: Staff allocation and flexibility

The allocation and recruitment of staff is based on the FCH-JU's objectives and priorities. Flexibility is promoted to strike the right balance between ownership and continuity.

Requirements

- Whenever necessary - at least once a year - management aligns the organisational structures and staff allocations with priorities and workload.
- Staff job descriptions are consistent with relevant mission statements
- According to its scope and size, the JU has a policy to promote flexibility in order to ensure that the right person is in the right job at the right time and, where feasible, can provide multilevel support.
- Necessary support is defined and delivered to new staff to facilitate their integration in the team;

ICS 4: Staff Evaluation and Development

Staff performance is evaluated against individual annual objectives, which fit with the FCH-JU's overall objectives. Adequate measures are taken to develop the skills necessary to achieve the objectives.

Requirements

- In the context of the evaluation process, discussions are held individually with all staff to establish their annual objectives, which fit with the JU's objectives.
- Staff performance is evaluated according to standards set by the JU.
- Appropriate measures to develop the necessary skills (e.g. training, coaching...) are defined and management ensure their implementation.

PLANNING AND RISK MANAGEMENT PROCESSES

ICS 5: Objectives and Performance Indicators

The FCH-JU's objectives are clearly defined and updated when necessary. These are formulated in a way that makes it possible to monitor their achievement. Key performance indicators are established to help management evaluate and report on progress made in relation to their objectives.

Requirements

- The JU's Annual Implementation Plan (AIP) is developed in accordance with applicable guidance and on the basis of (1) an internal dialogue in order to ensure it is understood and owned and (2) stakeholders' feedback to ensure alignment with their priorities.
- The AIP clearly sets out how the planned activities will contribute to the achievement of objectives set, taking into account the allocated resources and the risk identified.
- To the extent possible, the AIP objectives are established in line with the SMART criteria, i.e. they are Specific, Measurable or verifiable, discussed and Accepted, realistic and Timed.
- Whenever necessary, the objectives are updated to take account of significant changes in activities and priorities.
- Where appropriate, the JU establishes road-maps of ongoing multi-annual activities (i.e. MAIP), setting out critical milestones for the actions that need to be taken before the budget appropriations can be implemented for the whole period of the activity.
- In the AIP, there is at least one performance indicator per objective to monitor and report on achievements. To the extent possible, the performance indicators are established according to the RACER criteria, i.e. they are Relevant, discussed and Accepted, Credible, Easy and Robust.
- Measures are defined to alert management when indicators show that the achievement of the objectives is at risk.

ICS 6: Risk Management Process

A risk management process that is in line with applicable provisions and guidelines is integrated into the Annual Implementation Plan (AIP).

Requirements

- A risk management exercise (i.e. risk identification, risk assessment and action plan) at JU level is conducted at least once a year as part of the AIP process and whenever management considers it necessary (typically in the event of major modifications to the JU's activities occurring during the year). Risk management is performed in line with applicable provisions and guidelines.
- Risks considered "critical" from an overall JU perspective are indicated in the JU's Annual Implementation Plan and followed-up in the Annual Activity Report.

OPERATIONS AND CONTROL ACTIVITIES

ICS 7: Operational Structure

The FCH-JU's operational structure supports effective decision-making by suitable delegation of powers. Risks associated with the FCH-JU's sensitive functions are managed through mitigating controls. Adequate IT governance structures are in place.

Requirements

- Delegation of authority is clearly defined, assigned and communicated in writing, conforms to legislative requirements and is appropriate to the importance of decisions to be taken and risks involved.
- All delegated and sub-delegated authorising officers have received and acknowledged the Charters and specific delegation instruments.
- As regards financial transactions, delegation of powers (including both "passed for payment" and "certified correct") is defined, assigned and communicated in writing.
- The JU's sensitive functions are identified and relevant mitigating controls are established e.g. robust Financial Circuits, management of exceptions, use of independent experts when necessary and other control procedures (ref. ICS 8).
- Governance of the IT structure is established to enable the efficient and secure functioning of the IT services.

ICS 8: Processes and Procedures

The FCH-JU's processes and procedures used for the implementation and control of its activities are effective and efficient, adequately documented and compliant with applicable provisions. They include arrangements to ensure segregation of duties and to track and give prior approval to control overrides or deviations from policies and procedures.

Requirements

- The JU's main operational and financial processes and procedures and IT systems are adequately documented.
- The JU's processes and procedures ensure appropriate segregation of duties (including for non-financial activities).
- The JU's processes and procedures comply with applicable provisions, in particular the Financial Rules (e.g. ex-ante and ex-post verifications).
- A method is in place to ensure that all instances of overriding of controls or deviations from established processes and procedures are documented in exception reports, justified, duly approved before action is taken and logged centrally in the JU.

ICS 9: Management supervision:

Management supervision is performed to ensure that the implementation of activities is running efficiently and effectively while complying with applicable provisions.

Requirements

- Management supervises the activities they are responsible for and keep track of main issues identified. Management supervision covers both legality and regularity aspects and operational performance (i.e. achievement of AIP objectives).
- The supervision of activities involving potentially critical risks is adequately documented³³.
- Management monitors the implementation of accepted audit recommendations and related action plans.
- At least annually in the Annual Activity Report (AAR) as stipulated in Article 6 of the JU's Statutes and Article 10 of the General Financing agreement , and at any time deemed appropriate, the Executive Director informs the Governing Board of any potentially significant issues related to internal control, audit and OLAF investigations as well as material budgetary and financial issues which might have an impact on the sound management of appropriations or which could hamper the attainment of the objectives set.

³³ Depending on the nature of the work performed, the documentation of supervision can, for example, be constituted of minutes of meetings, notes explaining key decisions, signature of authorising officer in IT systems, or documents explaining the scope, methods, results and conclusions of the supervisory activities

ICS 10: Business Continuity:

Adequate measures are in place to ensure continuity of service in case of "business-as-usual" interruption. Business Continuity Plans (BCP) are in place to ensure that the FCH JU is able to continue operating to the extent possible whatever the nature of a major disruption.

Requirements

- Adequate measures - including handover files and deputising arrangements for relevant operational activities and financial transactions - are in place to ensure the continuity of all service during "business-as-usual" interruptions (such as sick leave, staff mobility, migration to new IT systems, incidents, etc.).
- Business Continuity Plans cover the crisis response and recovery arrangements with respect to major disruptions (such as pandemic diseases, terrorist attacks, natural disasters, etc.). They identify the functions, services and infrastructure which need to be restored within certain time-limits and the resources necessary for this purpose (key staff, buildings, IT, documents and other).

ICS 11: Document Management:

Appropriate processes and procedures are in place to ensure that the FCH JU's document management is secure, efficient (in particular as regards retrieving appropriate information) and complies with applicable legislation.

Requirements

- Document management systems comply with relevant security measures, provisions on document management and rules on protection of personal data.
- A document management system is established for registration, filing, classification and archiving of documents.

INFORMATION AND FINANCIAL REPORTING**ICS 12: Information and Communication:**

Internal communication enables management and staff to fulfil their responsibilities effectively and efficiently, including in the domain of internal control. The FCH JU has an external communication strategy to ensure that its external communication is effective, coherent and in line with the JU's key political messages. IT systems used and/or managed by the JU (where the JU is the system owner) are adequately protected against threats to their confidentiality and integrity.

Requirements

- Internal and external communications comply with relevant copyright provisions.
- Appropriate Internal Communication is in place to ensure that management and staff are appropriately informed of decisions, projects or initiatives that concern their work assignments and environment.
- All personnel are encouraged to communicate potential internal control weaknesses, if judged significant or systemic, to the appropriate management level.
- A documented general strategy for external communication, including clearly defined target audiences, messages and action plans is in place. The communication strategy is devised from the beginning of policy formulation and is discussed with the relevant stakeholders.

- The IT systems support adequate data management, including database administration and data quality assurance. Data management systems and related procedures comply with relevant Information Systems Policy, compulsory security measures and rules on protection of personal data.

ICS 13: Accounting and Financial Reporting:

Adequate procedures and controls are in place to ensure that accounting data and related information used for preparing the organisation's annual accounts and financial reports are accurate, complete and timely.

Requirements

- The Authorising Officer (i.e. Executive Director) has responsibility for ensuring the reliability and completeness of the accounting information under his/her control necessary to the Accounting Officer for the production of accounts which give a true image of the JU' assets and of budgetary implementation.
- The JU's accounting procedures and controls are adequately documented.
- Financial and management information produced by the FCH JU, including financial information provided in the Annual Activity Report, is in conformity with applicable accounting rules and instructions.

EVALUATION AND AUDIT

ICS 14: Evaluation of activities:

Evaluations of expenditure programmes, and other non-spending activities are performed to assess the results, impacts and needs that these activities aim to achieve and satisfy.

Requirements

- N/A: The evaluation of the Programme is up to the Commission.

ICS 15: Assessment of Internal Control Systems:

Management assess the effectiveness of the FCH JU's key internal control systems, including the processes carried out with external assistance and/or outsourced, at least once a year.

Requirements

- Management assess the effectiveness of the FCH JU's key internal control systems, including the processes carried out with external assistance and/or outsourced at least annually. Such self-assessments can, for example, be based on staff surveys or interviews combined with management reviews of supervisory reports, results of evaluation and ex-ante/ex-post verifications, audit recommendations and other sources that provide relevant information about the JU's internal control effectiveness.
- On an annual basis – as part of the Annual Activity Report – the Internal Control Coordinator signs a statement, to the best of his/her knowledge, on the accuracy and exhaustiveness of the information on management and internal control systems provided in the Annual Activity Report.

ICS 16: Internal Audit Capability:

The FCH JU has an Internal Audit Capability (IAC), which provides independent, objective assurance and consulting services designed to add value and improve the operations of the JU.

Requirements

- The role and responsibilities of the FCH JU's Internal Audit Capability (IAC) are formally defined in an audit charter.
- The annual audit work plan is risk-based; and is approved by the Executive Director and the Governing Board.
- The Executive Director ensures that the IAC is independent of the activities they audit.
- The Executive Director ensures that the IAC has sufficient and adequate resources to perform the audit work plan.

ANNEX 6: DECLARATION OF ASSURANCE BEFORE AUTONOMY
(given by the European Commission for the period 1 January 2010 – 14 November 2010)



EUROPEAN COMMISSION
RESEARCH DIRECTORATE-GENERAL

Directorate K - Energy
The Director

Ref. Ares(2011)33392 - 12/01/2011

Brussels, 12. 01. 2011
ARES (2011) 25989

DECLARATION FOR THE ATTENTION OF MR. DE COLVENAER
EXECUTIVE DIRECTOR OF FUEL CELLS AND HYDROGEN JOINT UNDERTAKING

Subject: FCH JU Annual Activity Report 2010

According to the article 16 of the Council Regulation¹ setting up the Fuel Cells and Hydrogen Joint Undertaking, the Commission was responsible for the establishment and initial operation of the FCH Joint Undertaking until the Joint Undertaking had the operational capacity to implement its own budget.

For the period from 1st January to 14th November 2010, I, the undersigned Raffaele Liberali, Director of Directorate for Energy, DG Research, in my capacity of Authorising Officer by Sub-delegation of the Commission for the Fuel Cells and Hydrogen Joint Undertaking, confirm that:

- a) The control procedures put in place in the Commission give the necessary guarantees concerning the legality and regularity of the underlying transactions. This reasonable assurance is based on my own judgement and on the information at my disposal, such as the Interim Executive Director's report (from 1st January to 31st August 2010), and the readiness assessment issued by you. Furthermore, transactions after 1st September were carried out following your duly signed approval and request;
- b) Taking into consideration that the Autonomy of the FCH JU could not be granted before 15th November 2010, the resources assigned to the FCH JU activities have been used for their intended purposes and in accordance with the principles of sound financial management;
- c) I am not aware of anything not reported here which could harm the interests of the Joint Undertaking.


Raffaele LIBERALI 12/01/11

¹ (EC) No 521/2008 of 30 May 2008