The Fuel cells and Hydrogen
Joint Undertaking

Public Information session on 2012 call

9 February 2012

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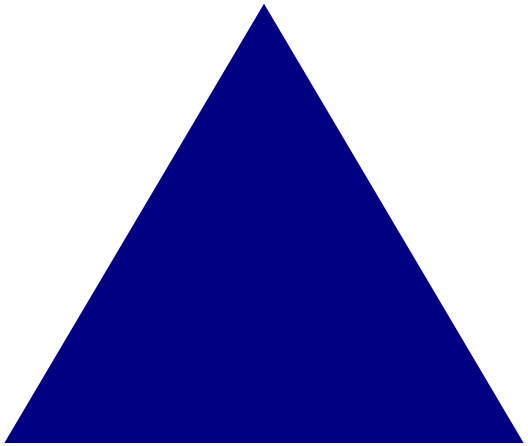
Policy Challenges

Sustainable development



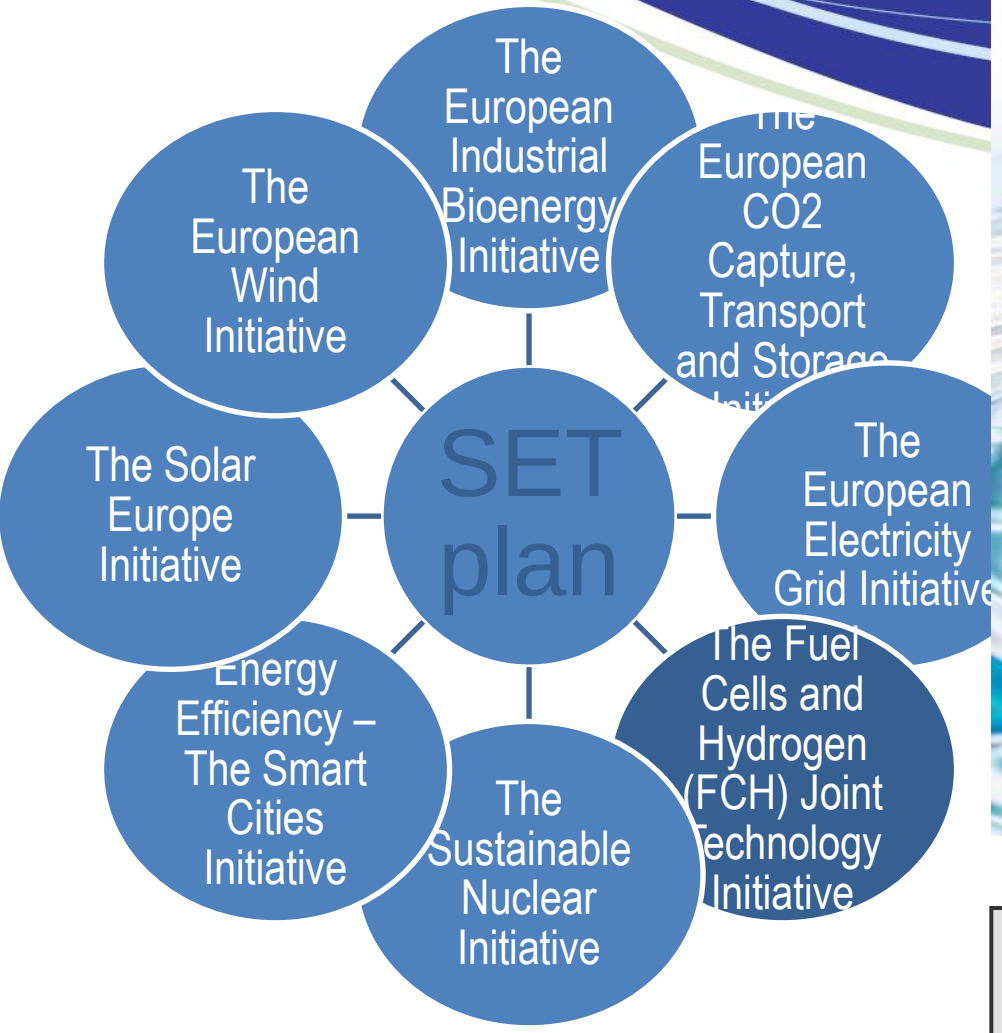
Competitiveness

Security of supply

The European Strategic Energy Technology Plan

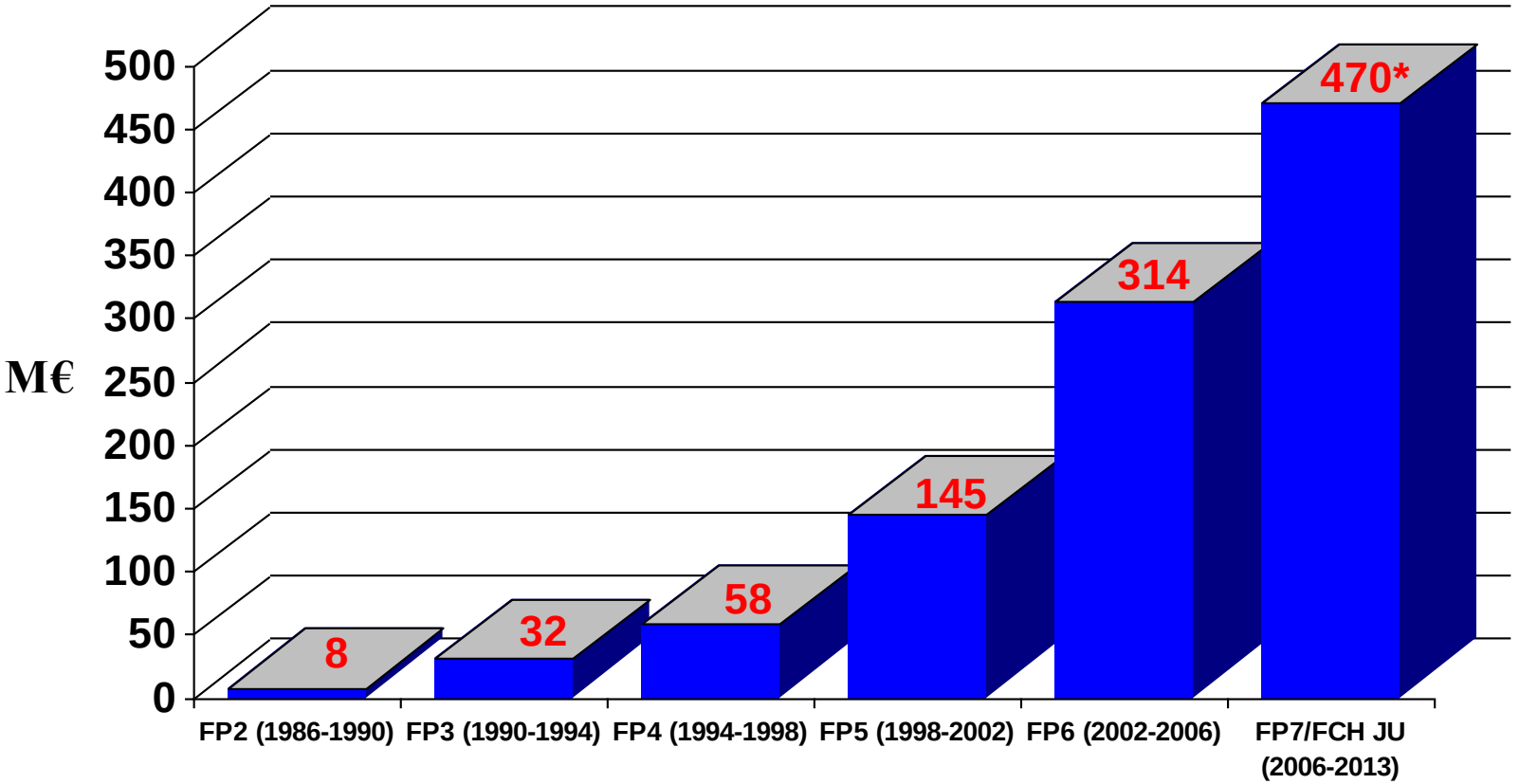
SET Plan

The FCH JU in the SET plan



Fuel cells technology is a key technology for Europe towards the 20-20-20 goal by 2020

Continuous Support for Fuel Cells and Hydrogen in the EU Framework Programmes



** 470 mill Euro to be implemented by FCH JU + about 10 mill Euro already spent from 2007 budget, before FCH JU in place*

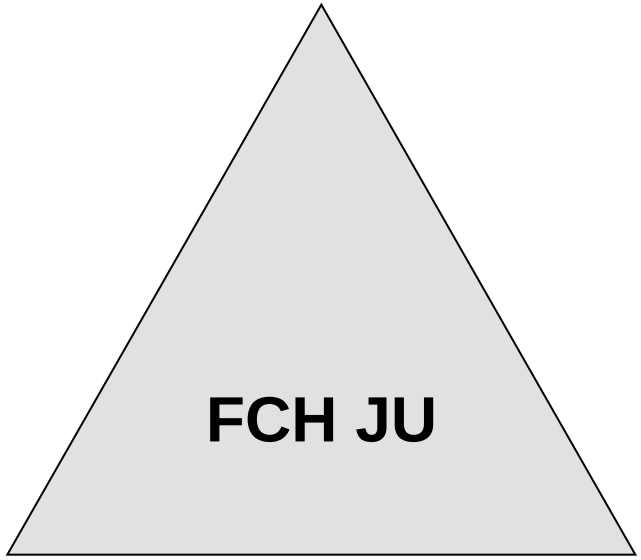
2. Fuel Cells and Hydrogen Joint Undertaking (FCH JU)

Strong Public Private Partnership

European Community
represented by the
European Commission

Industry Grouping
49+11 members

New Energy World IG
fuel cells & hydrogen for sustainability



Research Grouping
61 members

N.ERGHY

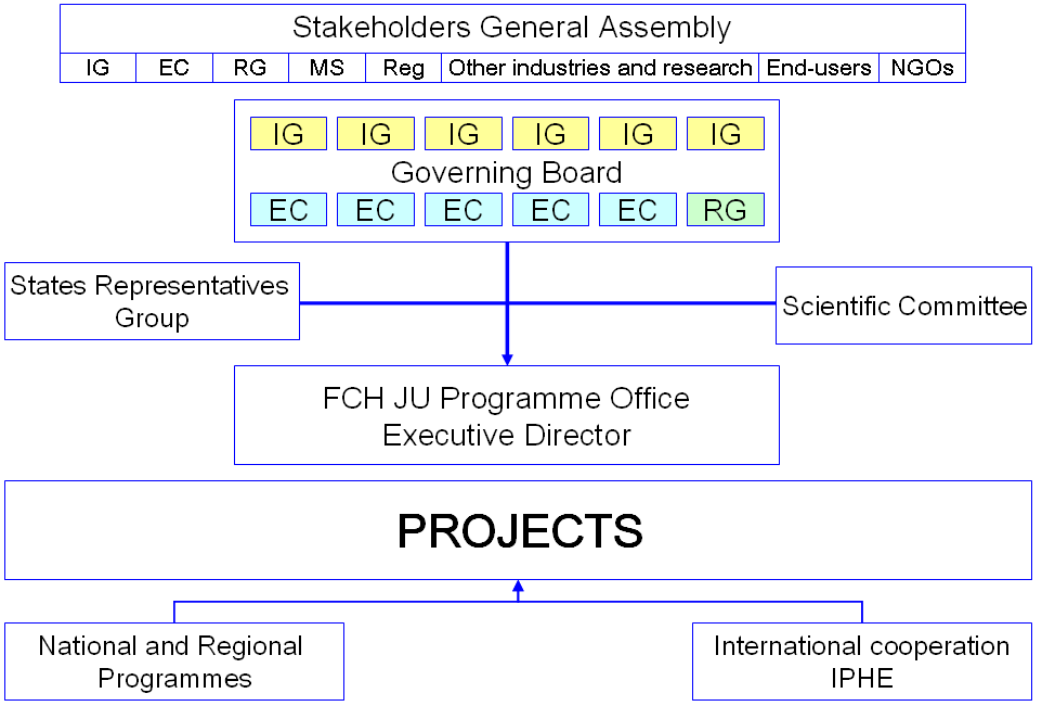
The Industry Grouping and the Research Grouping are established as non-profit organisations with open membership

Strong Public Private Partnership

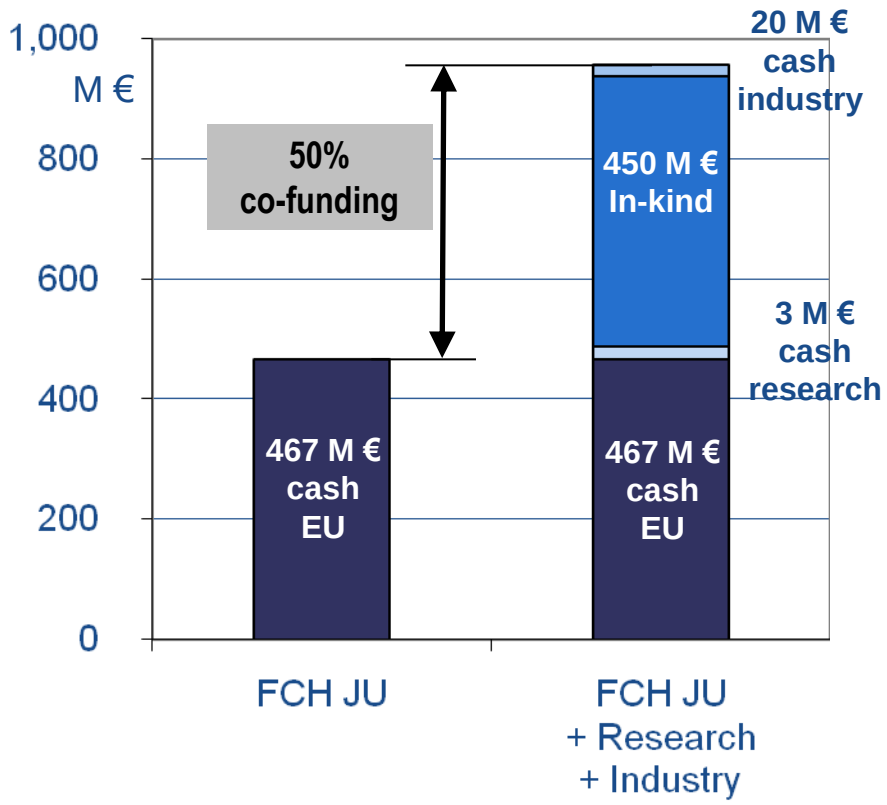
FCH JU - Objective

To accelerate the development of technology base towards commercialization from 2015 onwards

FCH JU – Governance structure



FCH JU - Operational budget

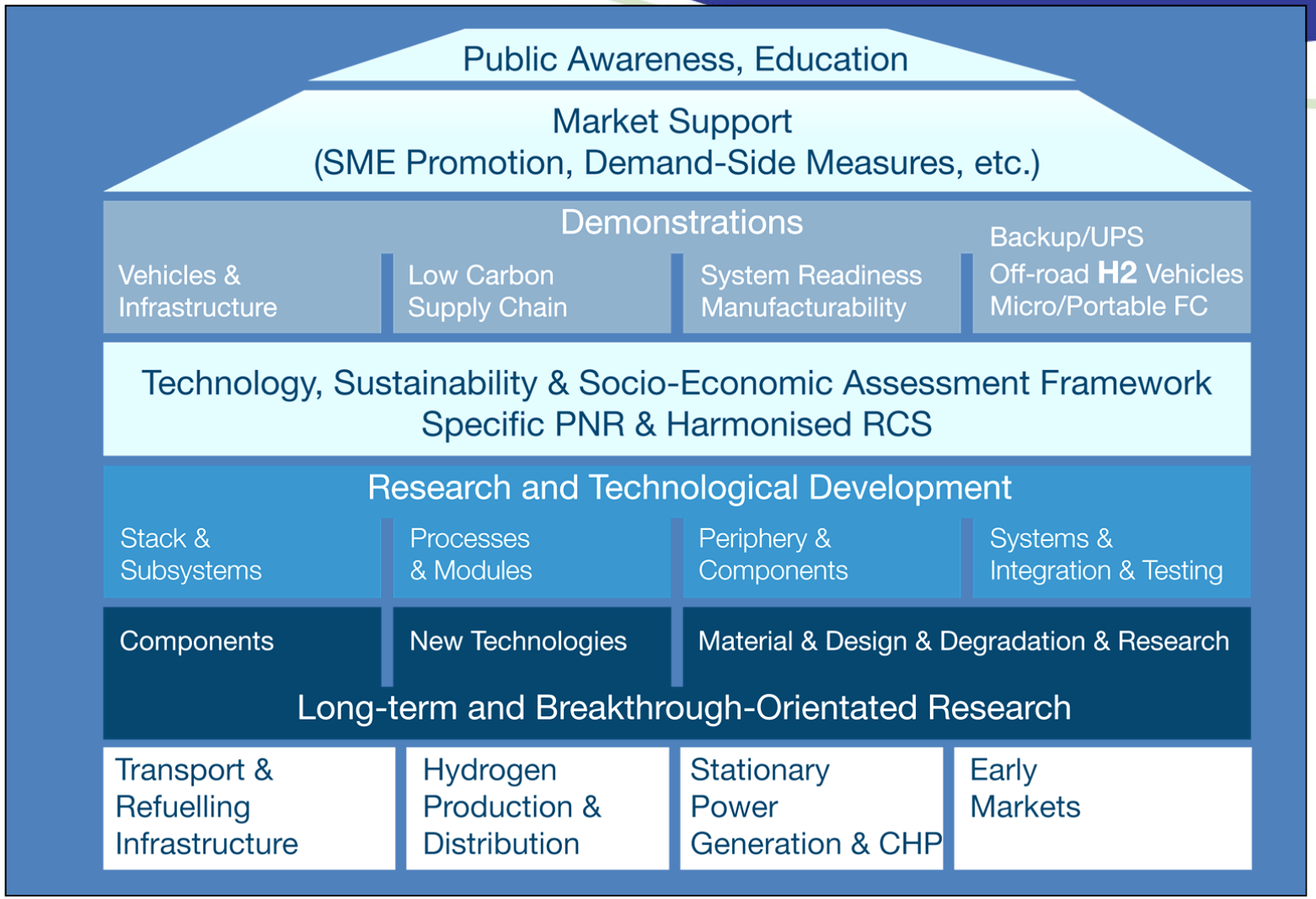


Budget : 2008 ~ 2013 : (min.) 940 M €

Operations : to launch annual, open and competitive calls for project proposals

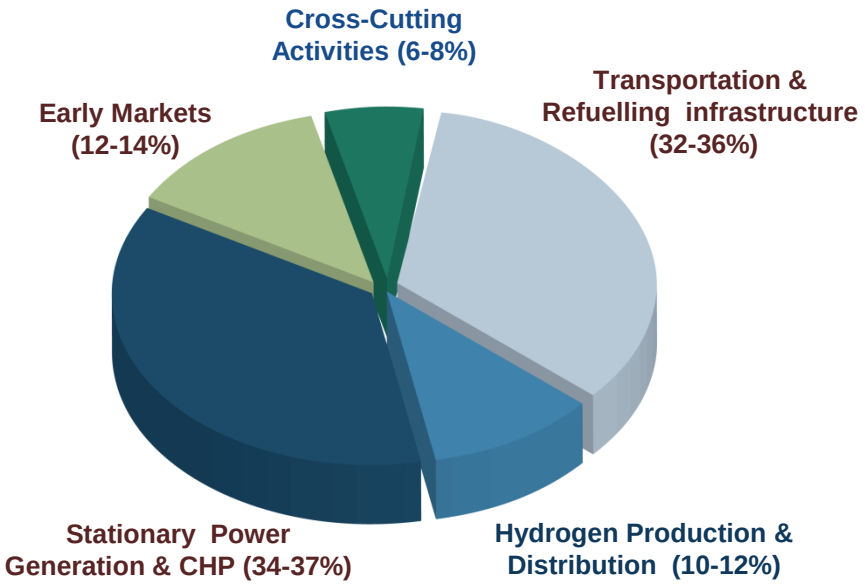
Principle : 50/50 cost-sharing between the EU and all legal entities participating in the activities

FCH JU Multi-Annual Implementation Plan 2008 - 2013

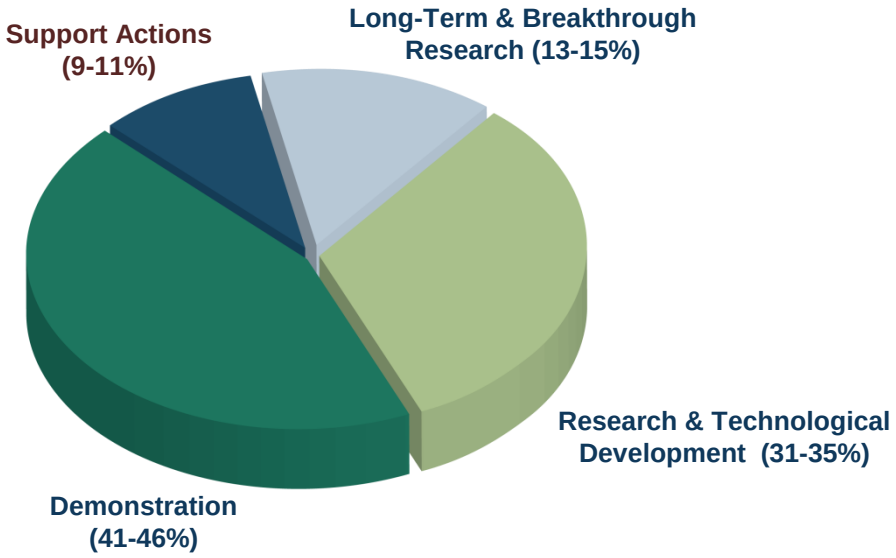


FCH JU Budget Breakdown 2008-2013

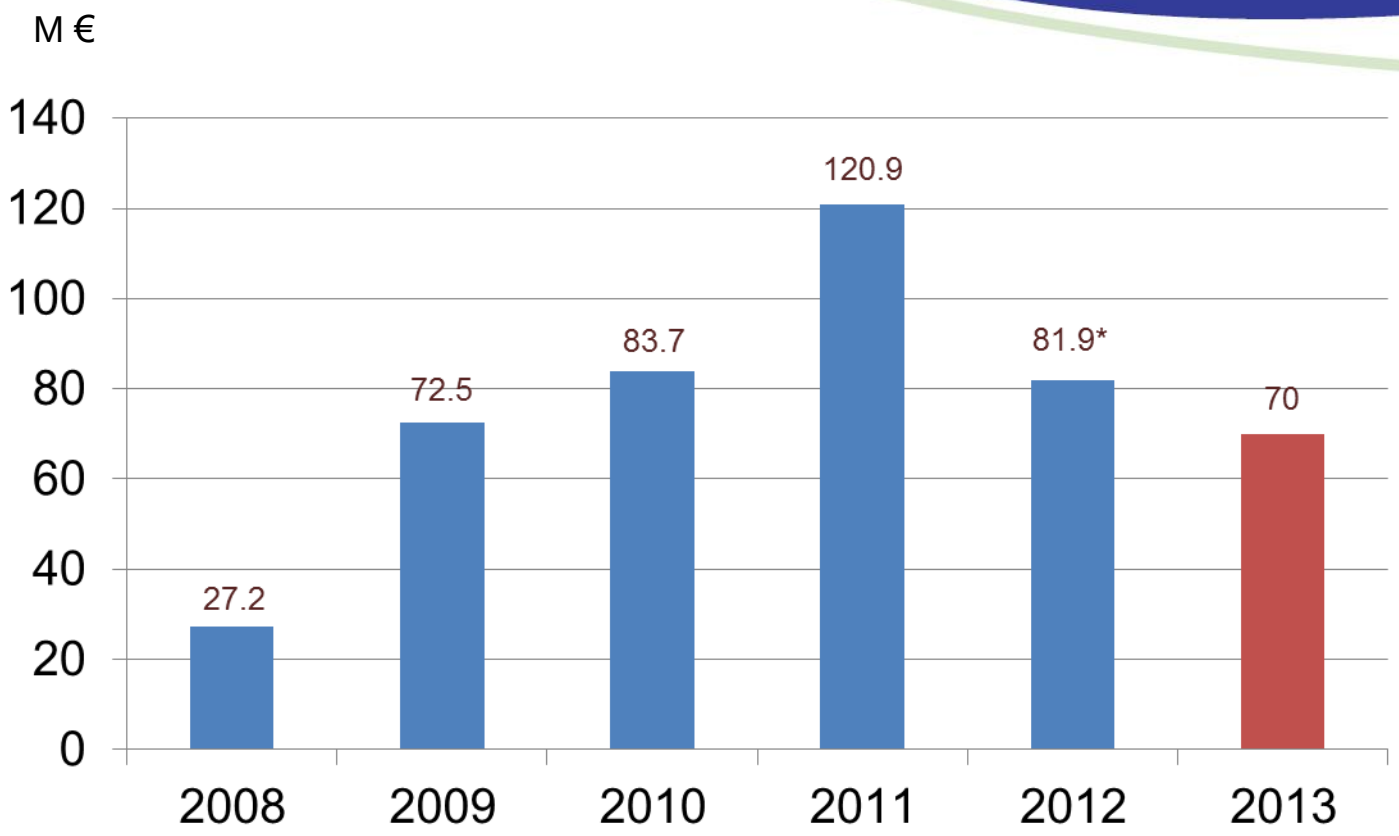
By Application Area

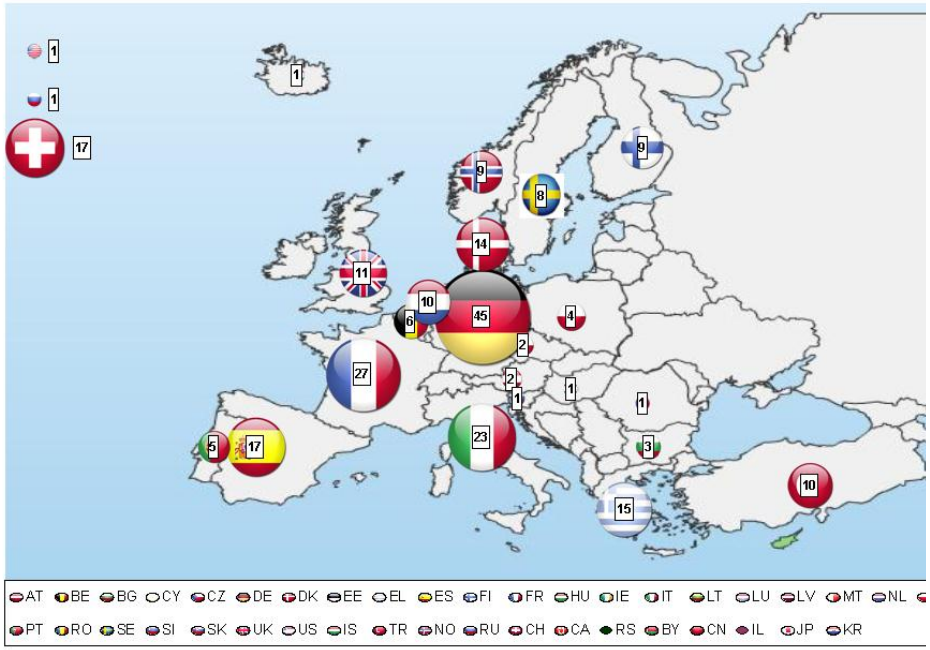


By Activity Type

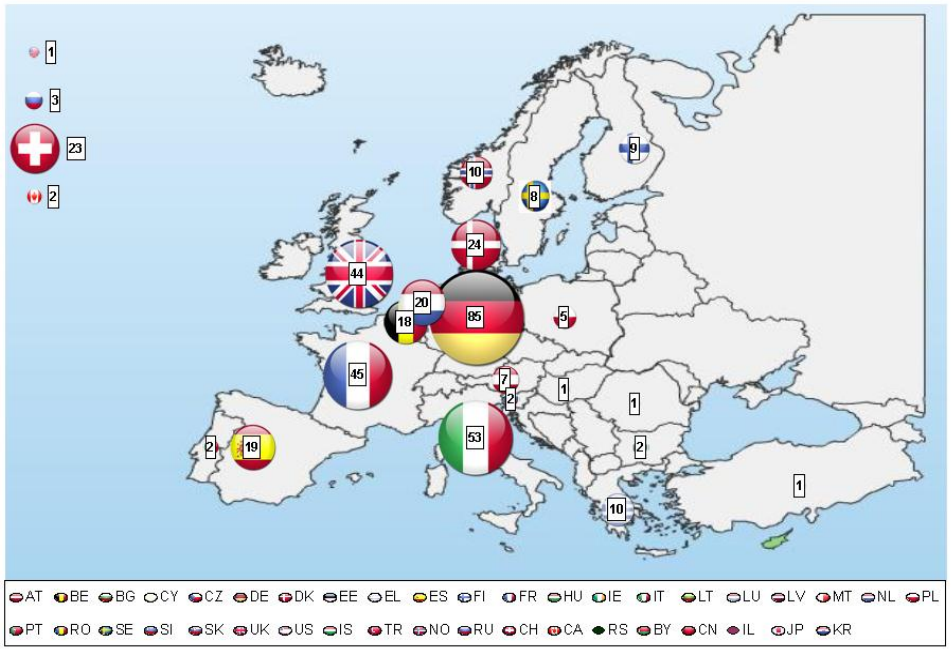


FCH JU - Operational budget 2008 – 2013



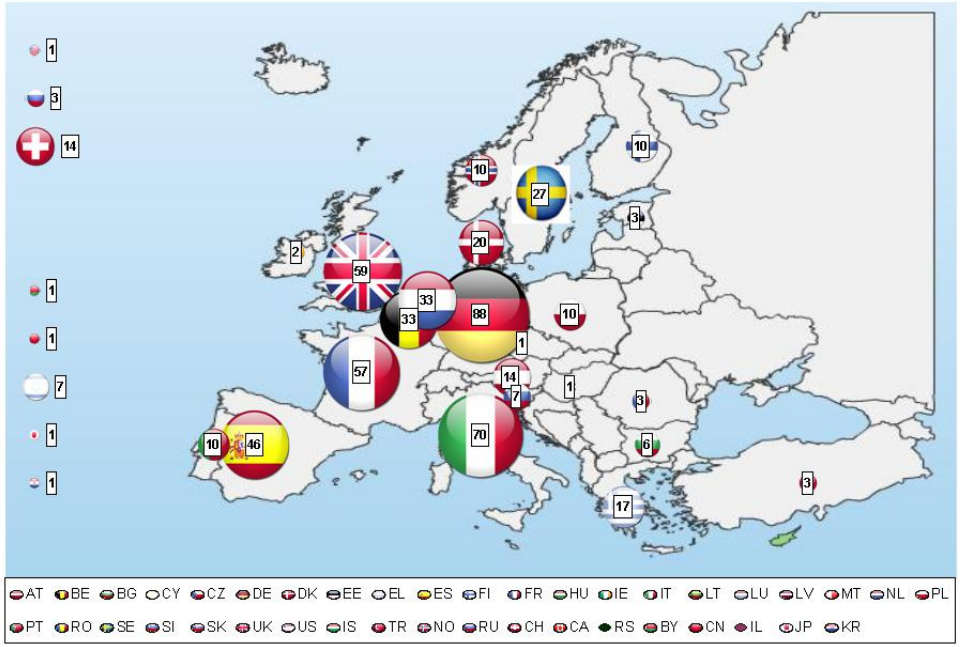


2008



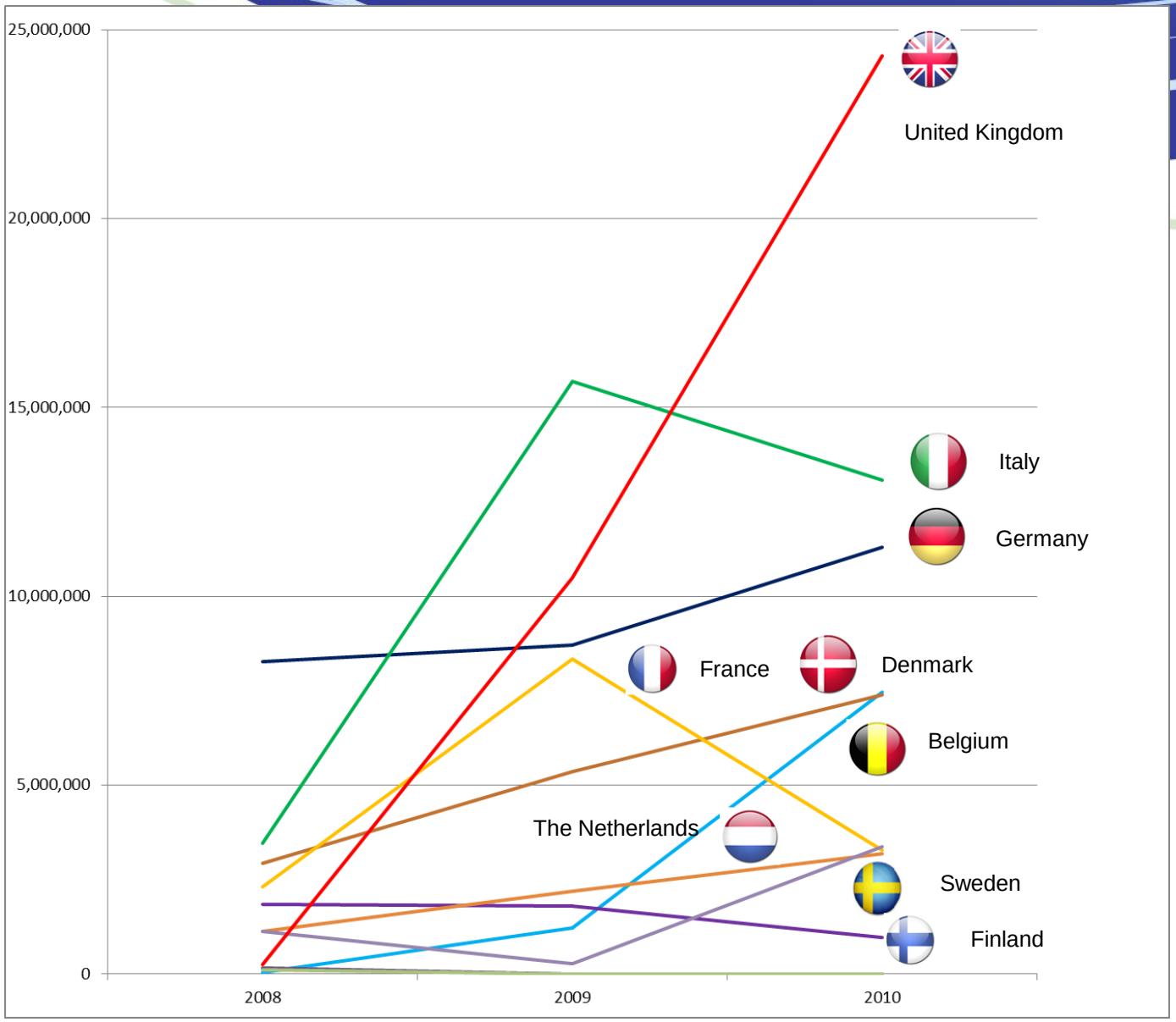
2009

Participants in calls for proposals

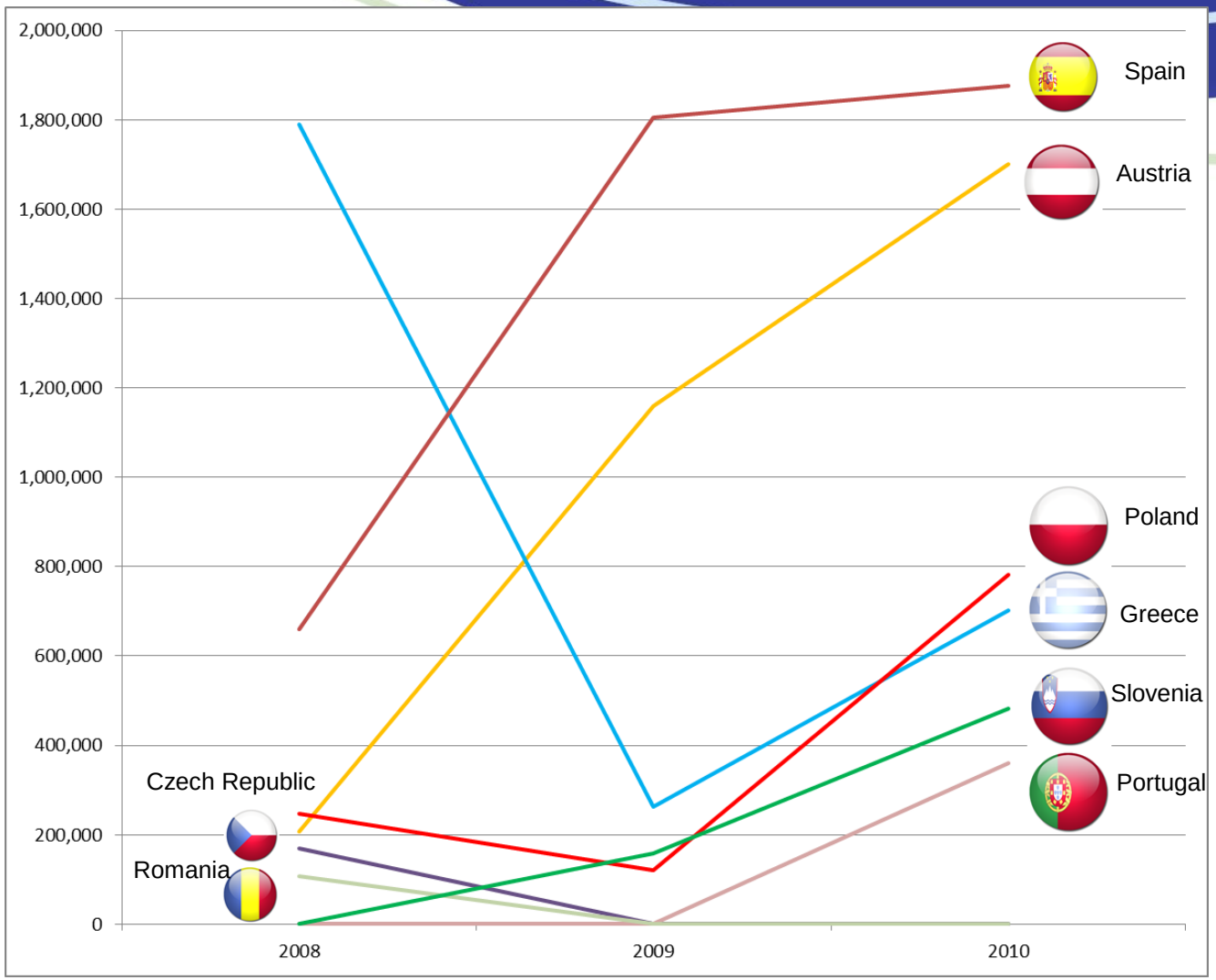


2010

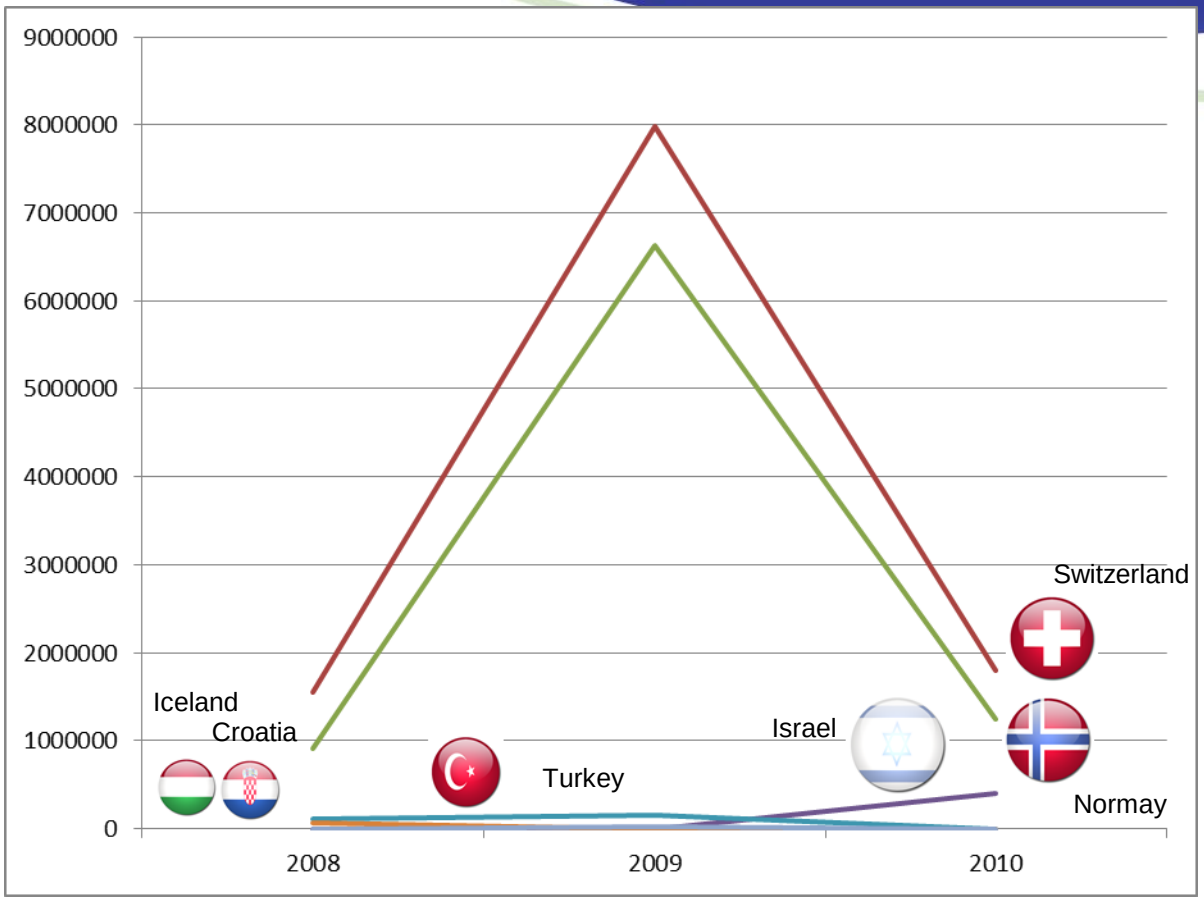
Trend of FCH JU contribution per country (1)



Trend of FCH JU contribution per country (2)



Trend of FCH JU contribution per associated country



2- The Annual Implementation Plan 2012 (topics opened)

Transportation and refuelling infrastructure

Indicative funding: 26 M€

Demonstration
Focus on large-scale demonstration of FCEVs including the build-up of the necessary refuelling infrastructure.

Reduce GHG emissions in the aircraft sector - FC APUs can play an important role.

Research and Development
Fuel cell systems still need further research and development on competitive and reliable components.

- Compressed onboard storage
- Peripheral components
- New catalyst structures and concepts
- New stacks

PNR: Measuring quantity of delivered H2 to FCEVs

Transportation and refuelling infrastructure

1.1	**Large-scale demonstration of road vehicles and refuelling infrastructure V**	• Minimum of 5 buses and/or minimum of 10 passenger cars per site • Station hydrogen production efficiency target 50 – 70% • Potential to reduce cost of the vehicle by 25% for the next generation. • Minimum operation: 12 months or 10,000 hrs
1.2	**Next Generation European Automotive Stack**	• Development of automotive PEM stack • Demonstration of durability of at least 2,000 hrs; degradation to prove durability target of 5,000 hrs • Several technical targets given: power rating 95kW, max T of 95C, average cell voltage under specified conditions,etc…
1.3	**Compressed hydrogen onboard storage**	• Options: Type III or IV tanks • Development/optimisation of fibre to improve load sharing between fibres • System approach needed, including pressure regulators, valves, sealing, sensors, etc…
1.4	**Periphery – FC-System Components**	Advanced research and development for next generation balance of plant components for PEM fuel cells in transportation applications. • air compressors, anode recirculation modules, air humidifiers, air processing units • improve lifetime and reliability, reduction of cost

Transportation and refuelling infrastructure

1.5	**New catalyst structure and concepts for automotive PEMFCs**	• Catalysts and electrode layers to reduce loading; Pt loading < 0.1g/kW • Robust and corrosion resistant catalyst supports, preferably for high T • Lifetime >5,000 hrs dynamic operation
1.6	**Fuel cell systems for airborne application**	The overall objective is to design, develop and flight test an aircraft related fuel cell system against flight / application specific requirements (TRL 6) • Auxiliary subsystems optimization, covering air supply, water management, thermal and power management • Evaluate current safety, codes and standards • Demonstrator in the power range of 20-100kW, providing proof of concept for the application.
1.7	**Measurement of the quantity of hydrogen delivered to a vehicle**	• Development and testing of measurement system of the quantity transferred having a level of accuracy acceptable by weights and measure authorities. • The work could either focus on improvement of existing technologies and/or on the development of new concepts • The scope includes obtaining acceptance by regulatory bodies

Hydrogen production and distribution

Indicative funding: 8.75 M€

Basic and applied R&D in innovative hydrogen production and supply chains From renewable energy sources and improved solid state and underground storage.

Demonstration of production facilities, based on electricity or biogas as primary energy source, which should provide an effective coupling to the hydrogen delivery infrastructure.

Hydrogen production and distribution

2.1	**Demonstration of MW capacity hydrogen production and storage for balancing the grid and supply to vehicle refuelling applications**	• Definition of a standard optimised hydrogen production and storage system as a function of grid balancing constraints and local hydrogen fuel needs • Installation and operation of a standalone forecourt size electrolyser (100 - 500 kg/day) with a hydrogen storage system • Study of regulatory aspects
2.2	**Demonstration of hydrogen production from biogas for supply to a vehicle refuelling applications**	Show provision of hydrogen to transport applications from biogas as economically viable solution for reducing green house gas emissions of transport . • Installation and continuous operation of a standalone forecourt size hydrogen production unit from biogas (100 - 500 kg/day), associated to a hydrogen storage system • Study of relevant regulatory aspects • Evaluation of costs, efficiency, and availability based on actual operation.
2.3	**Biomass reforming**	Scope of work comprises research and technological development activities on materials, catalysts and processes for chemical conversion • Conception of low cost and energy efficient systems to produce hydrogen from biogas • Economic assessment of performance • Design and build a reactor for the continuous production of hydrogen at a pre-commercial scale (50-250 kg/day) • Feasibility assessment of the process

Hydrogen production and distribution

2.4	**New generation of high temperature electrolyser**	• Development of cells and stacks designed for high-temperature (700-1000 ºC), high current density (>1 Acm-2) • Manufacture of dedicated HTE cells and stacks for use in large systems for the conversion of electricity from renewable sources • Demonstration of a HTE system of kW size under realistic conditions
2.5	**Thermo-electrical-chemical processes with solar heat sources**	• Materials and key components for efficient thermo-electrical-chemical water splitting cycles • Modelling and simulation of plant and key components • Field tests of prototype plant • Benchmark against other high T production means
2.6	**Pre-normative research on gaseous hydrogen transfer**	• Identify, define and evaluate approaches for trans-filling procedures • Evaluate influence of tank construction • Recommendations for implementation in international standards

Stationary power generation and CHP

Indicative funding: 27 M€

Basic research activities

- Improved stack and cell designs; study of degradation mechanisms

Applied research activities

- developing components and sub-systems

Demonstration activities

- proof-of concept
- technology validation
- market capacity build up

Field demonstration activities are split into small (residential and commercial) and large (distributed generation or other industrial or commercial) applications scale**.**

Targets for stationary applications and CHP

Application	Technology[1]	Efficiency[2] 2015	Lifetime/ Durability 2015	Cost[3] 2015
Small Scale - Domestic 1 - 5 kWe	All technologies	35% to 45% (elec) 75% to 85% total		
Small Scale - Commercial 5 - 50kW	SOFC system	55%+ (elec) 85%+ (total)		4000 €/kW
	PEMFC system	35% to 45% (elec) 80% to 90% total		4000 €/kW
Mid Scale - Commercial < 300kW	SOFC system	55%+ (elec) (b) 85%+ (total)		4000 €/kW (d)
	PEMFC system	35% to 45% (elec) (b) 80% to 90% total		4000 €/kW (d)
Large Commercial/ Industrial Scale - >300kW to < 5MW	MCFC system	47% (elec) (b)	30,000 hrs.	4000 €/kW (d)
	PEMFC system	55% (elec) (b)	20,000 hrs.	3000 €/kW (d)
	AFC system	58% (elec) (a)	16,000 hrs.	850 €/kW (c)
	SOFC system	55% (elec) (b)	20,000 hrs.	<4000 €/kW (d)

Stationary power generation and CHP

3.1	**Cell & stack degradation mechanisms and methods to achieve cost reduction and lifetime enhancements**	• Adjusted materials, manufacturing processes and/or operational/design strategies • Robustness to cycling and transient operating conditions • Longer service interval and lower total cost of ownership resulting from less frequent replacement of stack, filters or contaminant traps **Max of 3M EUR for a maximum of 2 projects**
3.2	**Improved cell and stack design and manufacturability for application specific requirements**	Outcome will include a minimum of three of the following items: • Simplified design and manufacturing methods of cells, stacks, or stack modules • Adaptation of cell and/or stack designs to larger scale applications and system designs • Cell and stack design improvements • Improvement and validation of existing manufacturing methods to increase manufacturing yield and reduce product variation and manufacturing cost • Improved manufacturing methods supporting product robustness and cost reduction and eliminating failure modes in existing manufacturing processes **Max of 6M EUR for a maximum of 2 projects**
3.3	**Robust, reliable and cost effective diagnostic and control systems design for stationary power and CHP fuel cell systems**	Outcome will include most of the following items: • Development of advanced methods of diagnosing/predicting deviations in state-of-health • Development of advanced diagnostics methods • Development of system and BoP related sophisticated diagnostics methods; • Development of adaptive control algorithms • Control, monitoring and diagnostics oriented models for fuel cell CHP systems. • Implementation of developed methods in a real/simulated **Max 2 projects**

Stationary power generation and CHP

3.4	**Component and sub-system cost and reliability improvement for critical path items in stationary power and CHP fuel cell systems**	• Development activities to improve the performance of individual components of fuel cell systems (e.g. fuel cell units, reformer, heat exchangers, fuel management and power electronics); • Testing and validation, novel designs, manufacturing processes and QC may be included • Open to all fuel cell technologies. **Max 3 projects**
3.5	**System level proof of concept for stationary power and CHP fuel cell systems at a representative scale**	• Development of PoC prototype systems • Integration and testing of PoC prototype systems • Assessment of the fuel cell system's ability to successfully compete with existing technologies operating in the target application(s)/market(s) • Novel system architectures, including new fuel processing and storage materials and processes • The PoC system will be required to comply with all relevant CE regulations and international fuel cell system standards **Max 3 projects**
3.6	**Validation of integrated fuel cell system for stationary power and CHP fuel cell systems**	Focus on: • Meeting the relevant application needs in representative environments • Whole system validation, including build, supply chain, costs and end-of-life considerations • Establishment of quality-control procedures and • Integration into an anticipated real world environment • Consideration of maintenance and repair issues **Max 3 projects**

Stationary power generation and CHP

3.7	**Field demonstration of large scale stationary power and CHP fuel cell systems**	• One or more identical systems, >100kW, availability >95%, 15,000 hrs • Must address how this system will tackle potential reliability issues (redundancy in design, installation of multiple units etc.) • Develop the potential for European businesses to realize supply chain opportunities • Demonstrate integration into power, and where appropriate heat, and/or RES and/or smart grids • Gain operating experience and identify improvement areas for future projects • Estimate the full life cycle costs and revise periodically this estimate • Show a strong commitment towards the running of the system by the operator after the end of the support phase. Note that stack changes can be sponsored as part of the project. **Max 2 projects for a maximum of 12M EUR**
3.8	**Field demonstration of small scale stationary power and CHP fuel cell systems**	•Install complete integrated systems (electrical power <100kW) in +25 identical units in the range 1-10 kWe, at least 3 identical units for units > 10 kWe •Demonstrate integration into existing power, heat and smart grid infrastructures •Show CHP with efficiency >85% **Max 2 projects for a maximum of 12M EUR**

Early markets

Indicative funding: 10.25 M€

Demonstration

- Deployment of material handling
- Portable generators, BUP or/and UPS products
- Portable FCs for various applications

Research and Development

- 1-10kW fuel cell systems, portable systems and Balance of Plant for early market
- applications
- Fuel supply for micro FC systems

Early markets

4.1	**Demonstration of fuel cell-powered material handling vehicles including infrastructure**	• Demonstration shall comprise at least 200 or more fuel cell MHE vehicles at one or across several end-users sites and applications • Demonstration should include supporting hydrogen supply infrastructure • Clear TCO evaluations for each application • Environmental sustainability: assessment by means of LCA
4.2	**Demonstration of application readiness of Back-Up Power and Uninterruptible Power Systems**	• Demonstration up to 10 systems in the 1-3 kW range, 50 in the 6-10 kW range or 3 systems in the 11-50 kW range • Technical requirements that the proposed systems should include: o Reliability >95% o Response time of less than 5 ms o Projected lifetimes of 3 to 5+ years o Target system cost: 3,500 €/kW (fuel cell system alone) o Projected number of start-stop cycles 2,000 • Demonstrate a viable hydrogen supply solution for this application
4.3	**Research and development on new supply concepts for micro fuel cell systems**	• Development of new fuelling systems that meet application targets and the integration of the new fuel supply concept in a complete fuel cell system • Development of test procedures, including accelerated testing, and characterization protocols based on application specifications • Integration of a demonstrator of the fuel supply system with a fuel cell **Max 1 project for a maximum of 0.7M EUR**

Early markets

4.4	**Demonstration of portable fuel cell systems for various applications**	Applications with electrical power output should be between 5 W and 500 W_e • Proof of concept stacks, key components, fuel supply and complete systems meeting application specifications • Demonstrate electrical efficiencies of 30%+ (based on a logistic fuel input) • Implementation in high volume/low power unit applications such as portable, educational and/or electronic devices • 1,000 h lifetime including 100 start-stop cycles and specific size and weight of less than 35 kg/kW and 50 l/kW (fuel amount excluded) • System validation and demonstrating cost prediction for mass production of less than 5,000 €/kW • A modular fuel cell technology capable of adaptation to other markets
4.5	**Research and development of 1-10kW fuel cell systems and hydrogen supply for early market applications**	Applications: stationary distributed power or forklifts • Optimization of Balance of Plant components • Optimal power management • New innovative supply concepts • Using renewable feedstock The following main elements should jointly be addressed within the same project: • Hydrogen supply including either distribution or onsite-production concepts • Fuel cell systems, balance of plant components and hybridisation / power management

Cross-cutting issues

Indicative funding: 5.5 M€

Focus is on safety issues across all topics:

- Sensors (in cooperation with US)
- CFD modelling for safety analysis
- Safety training
- PNR on safety of pressure vessels
- Overall assessment of safety issues

Cross-cutting issues

5.1	**Hydrogen safety sensors**	• Assessment of (i) the SOA of hydrogen sensor technologies, (ii) recommendations for their effective deployment (including placement) for near-term applications and (iii) issues facing their cost-effective manufacture and barriers to commercialisation • Implications and recommendations for sensor requirements (including placement) in RCS • R&D and testing and validation in laboratory and field conditions as needed A compendium of existing applications and feedback on 'real-life' sensor performance, experiences and best practices • **Eligible only if coordinated with a US proposal submitted in parallel to the US DoE.**
5.2	**Computational Fluid Dynamics (CFD) model evaluation protocol for safety analysis of hydrogen and fuel cell technologies**	Modelling of: • Source term and mixing of hydrogen with air in release • Ignition • Hydrogen fires • Hydrogen deflagrations (explosions) • Hydrogen detonations (explosions) • Deflagrations to detonations transition DDT (explosions)
5.3	**First responder educational and practical hydrogen safety training**	Provide educational and practical hydrogen safety training to fire services and site operators, who must know how to handle potential incidents. • Develop and disseminate first-responder hydrogen safety educational materials in Europe • Build and disseminate hydrogen safety response approach based on feedback and responders' best practices • Develop and disseminate first-responder intervention guide

Cross-cutting issues

5.4	**Pre-normative research on fire safety of pressure vessels in composite materials**	• Development of an understanding of the evolution of the composite material when exposed to fire conditions • Development of a model for predicting the loss of strength of the composite pressure vessel due to fire conditions and for identifying the conditions that need to be achieved to avoid burst. • Validation of this model by an experimental programme
5.5	**Assessment of safety issues related to fuel cells and hydrogen applications**	• For each application, systematic mapping of the safety issues, explanation and assessment of how they are addressed, covering all the areas listed above • Compilation of best practice, assimilating lessons already learned from past and on going technology deployments • Evaluation of the preparedness in the various application areas for commercial deployment with regards to addressing safety issues and concerns Identification of areas on which further efforts should be focused and recommendations for addressing these

Proposals 2012- from submission to selection

PART I- FCH JU RULES for PARTICIPATION

PART II- PREPARATION, SUBMISSION and EVALUATION of PROPOSALS

PART III- CLOSING RECOMMENDATIONS

FCH JU RULES for PARTICIPATION

Definitions

Who can participate

Funding limits, Eligible costs

DEFINITIONS

according to the model FCH JU Grant Agreement

- **Public body means any legal entity established as such by national law, and international organisations**
- **Research organisation means a legal entity established as a non-profit organisation which carries out research or technological development as one of its main objectives**
- **Industry – for the purpose of the FCH JU Grant agreement - means a legal entity pursuing an economic activity with a profit objective, or an affiliated entity to such a legal entity**
- **Higher and secondary education establishments - term used by Financial Regulation / Implementing Rules and includes universities, schools for applied sciences and similar**
- **SMEs mean micro, small and medium-sized enterprises within the meaning of Commission Recommendation 2003/361/EC in the version of 6 May 2003 (*)**

(*) enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million

WHO CAN PARTICIPATE
in FCH JU PROJECTS ?

- **Participation in projects shall be open to legal entities and international organisations once the minimum conditions have been satisfied**

- **The minimum conditions to be fulfilled for Collaborative Projects funded by the FCH JU shall be the following:**
  - **At least 3 legal entities must participate, each of which must be established in a Member State or an Associated Country, and no two of which are established in the same Member State or an Associated Country**
  - **All 3 legal entities must be independent of each other as defined in Article 6 of the Rules for Participation of the Seventh Framework Programme [1]**
  - **At least 1 legal entity must be a member of the Industry Grouping (IG) or the Research Grouping (RG)**

- **The minimum condition for service and supply contracts, Support Actions, studies and training activities funded by the FCH JU shall be the participation of one legal entity**

[1] Regulation (EC) No 1906/2006 of the European Parliament and of the Council of 18 December 2006 laying down the rules for the participation of undertakings, research centres and universities in actions under the Seventh Framework Programme and for the dissemination of research results (2007-2013)

GENERAL PRINCIPLES

Implementation and Grant Agreement

Principles of co-financing and no profit

Forms of grants (FCH JU / EU Financial contribution):

- **Reimbursement (in whole or in part) of eligible costs is the preferred method**

- **A grant will be awarded by means of a Grant Agreement between the FCH JU and the project participants**

- **The project activities shall be financed through a financial contribution from the FCH JU and through in-kind contributions from the legal entities participating in the activities**

- **The contribution from the participating legal entities shall at least match the financial contribution of the EU *(*)*, i.e. the financial (cash) contribution coming from the FCH JU**

(*) Council Regulation of 14 November 2011 amending founding regulation of the FCH JU

ELIGIBLE COSTS

- **actual**
- **incurred during the duration of project**
- **in accordance with the usual accounting principles of beneficiary**
- **recorded in the accounts of beneficiary**
- **used for the sole purpose of achieving the objectives of the project**

Non-eligible: *identifiable indirect taxes including VAT, duties, interest owed, provisions for future losses or charges, exchange losses, costs declared, incurred or reimbursed in another EU project etc*

DIRECT/INDIRECT COSTS

Eligible costs shall be composed of

Direct costs = attributable directly to the action

Indirect costs = not attributable directly to the action, but which have been incurred in direct relationship with the direct costs *('overheads')*

The reimbursement of participants' costs shall be based on their eligible direct and indirect costs

UPPER FUNDING LIMITS

Reimbursement of direct costs: according to the type of organisation and/or activity

Type of organisation	*Type of Activity*		
	RTD	*Demonstration*	*Other*[1]
Industry (other than SME)	*CP: max. 50%*	*CP: max. 50%*	*CP: max. 100%* *CSA: max. 100%*
SME	*CP: max. 75%*	*CP: max. 50%*	*CP: max. 100%* *CSA: max. 100%*
Non-profit public-bodies, universities & higher education establishments, non-profit Research organisations	*CP: max. 75%*	*CP: max. 50%*	*CP: max. 100%* *CSA: max. 100%*

Funding schemes: *CP: Collaborative project*
CSA: Coordination and Support Action

[1] *"Other" activities refer to management activities, training, coordination, networking and dissemination (including publications).*
Please note that scientific coordination is not considered to be a management activity.

INDIRECT COSTS

Principles and flat rates are set out in the Annual Implementation Plan

The reimbursement of indirect costs for every beneficiary will be:

- Either a maximum of 20% of the direct eligible costs,
- Or a flat rate of 20% of the direct eligible costs,

excluding its direct eligible costs for subcontracting and the costs of resources made available by third parties which are not used on the premises of the beneficiaries.

First option is mandatory for industry, except for those whose accounting system does not allow to distinguishing direct from indirect costs. Under this option, beneficiaries shall declare their actual indirect costs under eligible costs.

CSA funding scheme: reimbursement limit of 7% of direct costs

PREPARATION,
SUBMISSION and
EVALUATION of PROPOSALS

THREE “BIBLES”

ANNUAL IMPLEMENTATION PLAN 2012

GUIDE FOR APPLICANTS *(version 2 – May 2009)*

Electronic Proposal Submission System (EPSS) - USERS GUIDE

+ excel tool for budget checking

ANNUAL IMPLEMENTATION PLAN 2012

Includes the Call Fiche for the 2012 Call

Identifies the topics specific for the Call

Specifies Funding Scheme for each Topic

Provides Eligibility criteria as well as Evaluation Criteria

Indicates detailed evaluation procedure & timetable

GUIDE FOR APPLICANTS

version 2 – May 2009

Includes description of Funding Schemes:

Collaborative projects (CP) = objective driven research projects aiming at developing new knowledge, new technology and/or products

- may include scientific coordination, demonstration activities or sharing of common resources for research in order to improve European competitiveness or to address major societal needs

- the size, scope and internal organisation of collaborative projects should be compatible with overall objective and manageability of the whole endeavor and can vary from topic to topic

- expected to last typically two to five years (specified by each topic)

Support actions (CSA – supporting type) = contributions to the Annual Implementation Plan and preparation of future EU policies, OR stimulate, encourage and facilitate the participation of SMEs, civil society, small research teams and newly developed or remote research centres in the activities of the fuel cells and hydrogen areas, OR setting up of research-intensive clusters across the EU regions.

- normally focus on one specific activity and often one specific event

- the size, scope and internal organisation of support actions can vary from topic to topic

- expected to have a shorter duration from some months to two - four years (specified by each topic)

States how to submit proposal incl. instructions for Parts A & B

(template & page limits)

PARTS of PROPOSAL

PART A: Administrative (legal & financial) information about the proposal and the participants (On-line web forms)

PART B: Scientific & Technical content of proposal

Template or list of headings – provided as WORD/RTF file

To be uploaded into the EPSS

In PDF and within size limit of 10Mbytes

To be only submitted electronically by the coordinator using the EPSS

ELECTRONIC PROPOSAL SUBMISSION SYSTEM-*EPSS*

Electronic submission of proposals in EPSS ⇒ Participant Portal (call page)

➔ Fill in Part A proposal details using on-line web form

➔ Upload PDF of Part B proposal description

➔ Remember to Save and Submit regularly

➔ Latest Submission overwrites previous one

➔ **Don’t wait until last minute!**

BEFORE SUBMITTING YOUR PROPOSAL

Check List

☑ Does your planned work address the topic(s) open in the call?

☑ Is your proposal eligible?

☑ Is your proposal complete?

☑ Are you applying for the right funding scheme?

☑ Does your proposal follow the required structure?

☑ Do you have the agreement of all the members of the consortium to submit it on their behalf?

ELIGIBILITY CRITERIA

Minimum conditions that a proposal must fulfil to be retained for evaluation:

- Submission of proposal before the deadline
- Minimum number of eligible, independent participants (incl. membership of IG/RG)
- Completeness of proposal (parts A & B)
- Scope (including relevance to the topic addressed)

EVALUATION

Peer-review carried out by independent experts selected by the FCH JU (Commission database + suggested names by the Advisory Groups, including IG/RG secretariats)

Experts selection is based on high level expertise and appropriate competences. Furthermore, academic/industrial balance, as well as geography, gender, «rotation» balances

Experts sign confidentiality and no-conflict of interest declarations

Following the FCH JU "Rules for submission of proposals, and the related evaluation, selection and award procedures"

EVALUATION CRITERIA

Criteria adapted to each funding scheme

- indicated in the Annual Implementation Plan 2012

Divided into three main criteria:

S&T Quality (including relevance to the topic of the call)

Concept, objective/state of the art, work-plan/methodology

Implementation (operational/financial capacity of participants)

Individual participants and consortium as a whole (management structure, complementarity/balance of partners)

Allocation of resources (appropriateness, justification of budget, staff)

Impact

Contribution to expected impacts listed in work programme (at European level)

Plans for dissemination/exploitation (appropriateness of measures, including IPR)

NEXT STEPS
After evaluation

Results of evaluation are communicated to the coordinator in the initial information letter which includes the Evaluation Summary Report (ESR)

FCH JU informs relevant advisory bodies: States Representative Group (SRG) and Scientific Committee (SC)

FCH JU draws up final list of proposals for possible funding (respecting funding availability, including matching principle)

→ Governing Board decision

Opening negotiation letters are sent

CLOSING RECOMMENDATIONS

Do's and Don'ts

(best practise from the previous calls)

- **What exactly is the novelty of the proposal?**

Do: Include a clear State of the Art, SoA (not only EU, but international) which illustrates this novelty

Do: Provide details of any "preliminary" activities already performed by some members of the consortium to show that they don't start from 'scratch' and that the risk is limited

- **What are you planning to do and how?**

Do: Critically review the number of deliverables (too many OR too few are bad indicators)

Do: Provide clear milestones which allow to evaluate the progress of the project (including Go/NoGo decision points)

Do: Structure the Work Plan in a clear and consistent way showing the relationship among the different Work Packages (WP) and/or tasks

Do: Try to have a balanced (sectorial and geographical) and complementary consortium; avoid adding "cosmetic" partners

Don't: mix deliverables and milestones

Don't: Avoid using sub-contractors and third parties - a strong consortium should be able to perform the major tasks with their own resources

The proposal should provide clear and short answers to these questions

- **How is your budget/resources planned over the activities and duration of the project ?**

  Do: explain as clear as possible the allocated resources (e.g. man-months) per partner and activities - avoid to over-estimate the effort needed

  Do: try to declare as accurately as possible the estimated costs, especially for indirect costs (use the correct method of declaration of indirect costs)

  Don't: include partners with 0 total costs - the requested funds could be zero, but the total should be definitely higher, reflecting their contribution to the project

- **What can be expected as a result of the project?**

  Do: Describe precisely the main outcome of the project - avoid using too many ambiguous terms (e.g. illustrate, evaluate, assess, recommend, etc)

- **What would be the impact on energy technology?**

  Do: Describe the potential impact of the "project outcome" not of the "technology" being addressed

  Do: Provide "quantitative" estimates of critical parameters (e.g. performance, size, weight, cost, etc) which allow to compare the resulting outcome with the SoA

CLOSING RECOMMENDATIONS

Choose your partners carefully to cover the needed expertise

Check your proposal against the check list provided in the Guide for Applicants

Do not wait until the last moment to submit the proposal

Read the reference documents before preparing the proposal

Reference documents

- Annual Implementation Plan 2012 (including call fiche)
- Guide for Applicants
- FCH JU Rules for submission, evaluation and award procedures (updated version)
- FCH JU model Grant Agreement (e.g. Annex II – general conditions)

Find a document :
http://www.fch-ju.eu/content/how-participate-fch-ju-projects

Do not hesitate to ask for help or further information at:
fch-projects@fch.europa.eu