

Members of Fuel Cells and Hydrogen 2 Joint Undertaking Declare Final Additional Activities for the Second Reporting Period January – December 2017

Introduction

Within the European innovation framework Horizon 2020, the Fuel Cells and Hydrogen 2 Joint Undertaking (FCH 2 JU) is the second generation of the European public-private partnership comprising the Industry Grouping (Hydrogen Europe), the Research Grouping (Hydrogen Europe Research) and the European Union represented by the European Commission. The partnership will mobilize up to €1.33 billion over the period 2014-2024 to bring to market a portfolio of Fuel Cells and Hydrogen solutions in the fields of energy and transport.

In line with the FCH 2 JU Regulation¹ laying down the foundation for the partnership, all FCH 2 JU beneficiaries need to report additional R&D and deployment investments (“In-Kind Additional Activities” or “IKAA”) made outside the FCH 2 JU in order to demonstrate the leverage effect of the programme and the growth of the sector.

The Additional Activities (IKAA) are defined as actions in Europe contributing to the FCH 2 JU's objectives but undertaken outside its work plan by Hydrogen Europe and Hydrogen Europe Research members. The latter and their affiliate entities are required to jointly deliver IKAA of at least **€285** million across the life span of the FCH 2 JU of 2014-2024.

The underlying purpose of the IKAA exercise is hence to demonstrate private investments in the sector and ensure a balanced contribution made by the private and public entities in the context of the partnership.

The IKAA will be complemented by In-Kind Contributions through participation in Projects (IKOP) as part of the calls for proposals issued by the FCH 2 JU.

Analysis of 2017 IKAA Final Report

Hydrogen Europe and Hydrogen Europe Research members reported their final certified investment figures for the reporting period 1 January **2017** to 31 December **2017** to the FCH 2 JU Governing Board in June **2018**.

In order to be included in this **2017** IKAA Final Report, the figures of the activities had to be part of the submitted IKAA **2017** Plan and certified by an external auditor (or an independent public officer in case of research organizations) in line with established terms of reference or be exempted from the certification. Members whose cumulated contributions during that period were below the threshold of €325.000 (mostly SMEs and small research organizations) were therefore encouraged to report while the obligation to certify was waived for them.

A table below presents overall final IKAA for all additional activities in **2017** (certified activities and activities below the certification threshold):

Industry or Research / Submissions: January –December 2017		
Sector	# of members	Value of IKAA (M€)
Industry (Hydrogen Europe)	29	77,90
Research (Hydrogen Europe Research)	21	29,56
Total	50	107,20*

* Out of **107,20** M €, an amount of **3.10 M €** was not subject to certification since below the threshold

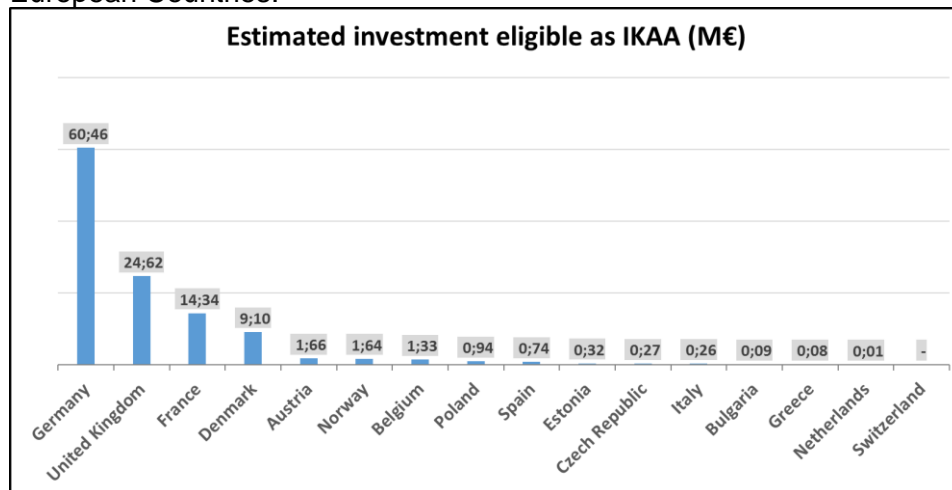
¹ Council Regulation (EU) No 559/2014 of 6 May 2014 establishing the Fuel Cells and Hydrogen 2 Joint Undertaking

For the period of January – December **2017**, a total of 53 research and industry organizations reported their investments for a cumulative total amount of **€107,20** million. **25** out of **53** organizations certified the activities for a total amount of **€104,10** million, while the residual amount of **€3,10** million was attributed to **24** organizations who reported activities below €325.000 threshold. 4 organizations above the threshold did not certify their activities.

With a **42-58%** split between research and industry submissions in terms of number of entities (corresponding to a **28-72%** split in terms of values), the sector is manifesting a clear intention to invest, develop, and commercialize innovative technologies, both on the side of industry and research.

Geographical Distribution

The submissions came from **16** different EU Member States and Associated Countries (see graph below), with organizations from Germany, France and United Kingdom providing the most sizable investments but also showing participation from Central and Eastern European States as well as Southern European Countries.



SME Participations

For Industry members, we observed a high rate of SME participations in 2017, representing **45%** of the overall Industry IKAA values and **equal repartition** in terms of number of organizations (see table below).

Size of Company of Industry Members: January –December 2017		
Type	# of members	Value of IKAA (M€)
Large	14	42,93
SME	15	34,97
Total	29	77,9

With **15** contributing SMEs of which some are start-ups the IKAA final report shows that the FCH 2 JU is clearly spurring innovation, economic growth and job creation in the European Union.

Application Areas

The activities undertaken under the **Energy Pillar** (**113** out of **170** reported activities, **66%** of reported amounts) comprised of:

- heat and power equipment(distributed power generation Fuel Cell applications, self-sufficient household systems, back-up systems, manufacturing facilities);
- hydrogen production and storage ((large scale green hydrogen production via electrolysis, hydrogen purification, power-to-hydrogen and storage of renewables).

The activities within the **Transport Pillar** (**46** out of **170** reported activities, **27%** of reported amounts) included:

- transportation (FC cars, FC buses, FC range extenders, material handling vehicles, Auxiliary Power Units for aviation and trucks);
- transport infrastructure (hydrogen refuelling infrastructure, including on-site green H2 production).

Finally, a number of activities (**11** out of **170** reported activities) dealt with regulations, standards and codes, education, as well as transitions solutions (energy storage roadmaps, including dissemination activities and awareness, commercialisation strategies, patents), as indicated in the table below.

Energy /Transport Distribution: January – December 2017				
Application	# of Activities	%	Value of IKAA (M€)	%
Transportation	33	19%	27,05	23%
Heat and Power equipment	57	34%	27,69	24%
Hydrogen Production	56	33%	42,71	37%
Transport Infrastructure	13	8%	10,87	9%
Regulations, Standards and Education	10	6%	3,15	3%
Transition Solutions	1	1%	4,68	4%
Total	170	100%	116,15	100%

Conclusions and Next Steps

During the same certification exercise, in addition, a few members provided certificates for the period **2016** for a total of **€24,30** million, leading to an increase of the total IKAA amount to **€215,9** million for the period **2016** (**€191,6**million reported in the prior year).

We would like to highlight that the final reported figures for the first **three** reporting periods amounting to a **cumulative reported amount of €486,31 million** demonstrate a strong commitment of the FCH sector as a whole.

Indeed, the FCH 2 JU Regulation sets a minimum IKAA amount of **€285** million for the period from 2014 to 2024. Thus, for its **previous** reporting

period 2014-2015, 2016, **2017** the FCH sector has actually exceeded the set minimum certified amount till 2024 by **70%**.

In addition, the sector is determined to continue on the same path by doing its utmost to produce strong figures for the next **2018** reporting period as per submitted plan figures of **€250,16** million.

For any questions regarding IKAA do not hesitate to contact both FCH 2 JU Members using details below:

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