

**Members of Fuel Cells and Hydrogen 2 Joint Undertaking
Declare Final Additional Activities for the
Reporting Period January – December 2018**

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 aims to 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.

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

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 and by additional activities incurred by non-members.

Analysis of 2018 IKAA Final Report

Hydrogen Europe and Hydrogen Europe Research members reported their final certified investment figures for the reporting period 1 January **2018** to 31 December **2018** to the FCH 2 JU Governing Board in June **2019**.

In order to be included in this **2018** IKAA Final Report, the figures of the activities had to be part of the submitted IKAA **2018** 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 **2018** (certified activities and activities below the certification threshold):

Industry or Research / Submissions: January – December 2018		
Sector	# of members	Value of IKAA (M€)
Industry (Hydrogen Europe)	24	65
Research (Hydrogen Europe Research)	18	28
Total	42	93

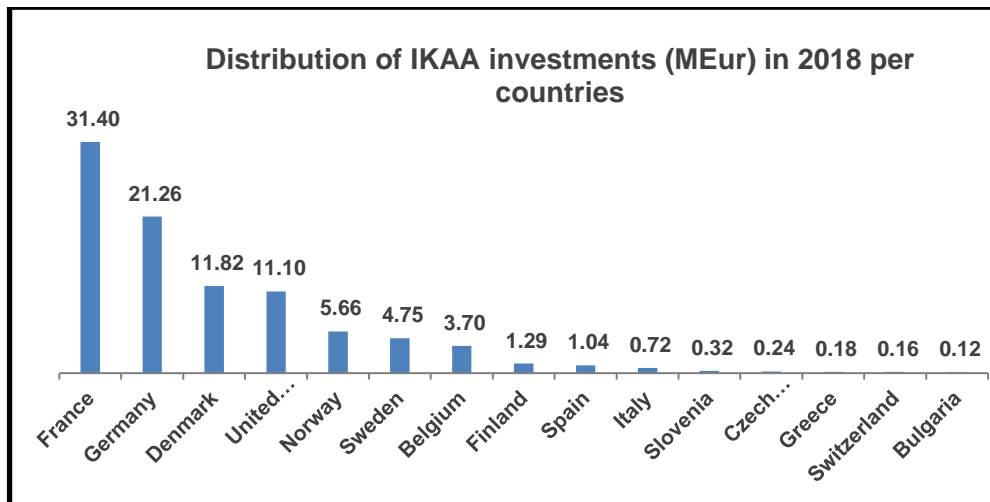
* Out of **94** M €, an amount of **3 M €** was not subject to certification since below the threshold in the IKAA Plan 2018

For the period of **January – December 2018**, **24** industry and research organizations certified the activities for a total amount of nearly **€91** million, while the residual amount of **€3** million was attributed to **18** organizations whose activities were below €325.000 threshold. 16 organizations are still in process of certification which will be reported later in 2019.

From **€ 93 million for 2018 either certified or below the threshold** (up to the date of this report), there was a **43-57%** split between research and industry submissions in terms of number of entities (corresponding to a **30-70%** split in terms of values). Clearly the sector is manifesting a visible intention to invest, develop, and commercialize innovative technologies in both sides of research and industry applications.

Geographical Distribution

There were **15** different EU Member States and Associated Countries (see graph below), with organizations from France, Germany and Denmark providing the most sizable investments. Graph shows also participations from Central and Eastern Europe as well as Southern European countries.



SME Participations of Industry Members

For Industry members, we observed a high rate of **SME participations** in 2018, **representing majority of the overall industry investments** in terms of values and **similar repartition** in terms of number of organizations (see table below).

Size of Company of Industry Members: January – December 2018		
Type	# of members	Value of IKAA (M€)
Large	14	31
SME	10	34
Total	24	65

With **10** 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** (**76** out of **118** activities in this report, **53%** 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** (**33** out of **118** activities, **46%** 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 (**9** out of **118** 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 2018				
Application	# of Activities	%	Value of IKAA (M€)	%
Hydrogen Production	47	40%	38	41%
Transportation	26	22%	36	38%
Heat and Power Equipment	29	24%	11	12%
Transport Infrastructure	7	6%	7	8%
Regulations, Standards and Education	9	8%	1	1%
Total	118	100%	93	100%

Conclusions and Next Steps

During the same certification exercise, in addition, a few members provided certificates for the period **2017** for a total of **€3** million, leading to an increase of the total IKAA amount to **€107** million for the period **2017**.

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

We would like to highlight that the final reported figures for the period 2014 – 2018 amounting to a **cumulative certified amount exceeding € 580 million** demonstrate a strong commitment of the FCH sector as a whole.

In addition, the sector is determined to continue on the same path by doing its utmost to produce strong figures for the next **2019** reporting period as per submitted plan figures of **€198,49** million.

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

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