Basic information

2013/0245(NLE) NLE - Non-legislative enactments	Procedure completed
Fuel Cells and Hydrogen 2 Joint Undertaking (FCH 2 Joint Undertaking) Repealing Regulation (EC) No 521/2008 2007/0211(CNS) **Subject** 3.50.01 European research area and policy 3.50.08 New technologies; biotechnology 3.60.05 Alternative and renewable energies	

Key players

European Parliament

Committee responsible	Rapporteur	Appointed
ITRE Industry, Research and Energy	PANAYOTOV Vladko Todorov (ALDE)	08/10/2013
	Shadow rapporteur BŘEZINA Jan (PPE) CORREIA DE CAMPOS António Fernando (S&D) TURMES Claude (Verts/ALE) TOŠENOVSKÝ Evžen (ECR) MATIAS Marisa (GUE/NGL)	

Committee for opinion	Rapporteur for opinion	Appointed
BUDG Budgets	The committee decided not to give an opinion.	
JURI Legal Affairs	The committee decided not to give an opinion.	

Council of the European Union

Council configuration	Meetings	Date
Competitiveness (Internal Market, Industry, Research and Space)	3258	2013-09-26
Competitiveness (Internal Market, Industry, Research and Space)	3276	2013-12-03

European Commission

Commission DG	Commissioner
Research and Innovation	GEOGHEGAN-QUINN Máire

Key events

Date	Event	Reference	Summary
10/07/2013	Legislative proposal published	COM(2013)0506	Summary
10/09/2013	Committee referral announced in Parliament		
26/09/2013	Debate in Council		
23/01/2014	Vote in committee		
06/02/2014	Committee report tabled for plenary, 1st reading/single reading	A7-0094/2014	Summary
15/04/2014	Decision by Parliament	T7-0375/2014	Summary
15/04/2014	Results of vote in Parliament		
06/05/2014	Act adopted by Council after consultation of Parliament		
06/05/2014	End of procedure in Parliament		
07/06/2014	Final act published in Official Journal		

Technical information

Procedure reference	2013/0245(NLE)
Procedure type	NLE - Non-legislative enactments
Procedure subtype	Consultation of Parliament
Amendments and repeals	Repealing Regulation (EC) No 521/2008 2007/0211(CNS)
Legal basis	Treaty on the Functioning of the European Union TFEU 187 Treaty on the Functioning of the European Union TFEU 188 -a1
Other legal basis	Rules of Procedure EP 165
Stage reached in procedure	Procedure completed
Committee dossier	ITRE/7/13344

Documentation gateway

European Parliament

Document type	Committee	Reference	Date	Summary
Committee draft report		PE522.764	14/11/2013	
Amendments tabled in committee		PE524.727	06/12/2013	
Committee report tabled for plenary, 1st reading/single reading		A7-0094/2014	06/02/2014	Summary
Text adopted by Parliament, 1st reading/single reading		T7-0375/2014	15/04/2014	Summary

European Commission

Document type	Reference	Date	Summary
Legislative proposal	COM(2013)0506	10/07/2013	Summary
Document attached to the procedure	SWD(2013)0260	10/07/2013	
Document attached to the procedure	SWD(2013)0261	10/07/2013	
Commission response to text adopted in plenary	SP(2014)471	09/07/2014	
For information	SWD(2017)0338	06/10/2017	
For information	SWD(2017)0339	06/10/2017	

National parliaments

Document type	Parliament /Chamber	Reference	Date	Summary
Contribution	IT_SENATE	COM(2013)0506	06/03/2014	

Additional information

Source	Document	Date
National parliaments	IPEX	
European Commission	EUR-Lex	

Final act

Regulation 2014/0559
OJ L 169 07.06.2014, p. 0108 Summary

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

2013/0245(NLE) - 10/07/2013 - Legislative proposal

PURPOSE: to prolong the Joint Undertaking (JU) in the field of Fuel Cells and Hydrogen (the FCH 2 JU).

PROPOSED ACT: Council Regulation.

ROLE OF THE EUROPEAN PARLIAMENT: the Council adopts the act after consulting the European Parliament but without being obliged to follow its opinion.

BACKGROUND: the framework programme for research and innovation Horizon 2020 encourages **public-private partnerships** (PPP) in research and innovation with a view to tackling the major challenges facing Europe.

This proposal provides for a prolongation of the Joint Undertaking in the field of Fuel Cells and Hydrogen launched under the Seventh Framework Programme (2007-2013). Since its establishment, **the FCH 2 JU has demonstrated the potential of hydrogen** as an energy carrier, and of fuel cells as energy converters, to offer a pathway for clean systems that reduce emissions, enhance energy security, and stimulate the economy. The interim

evaluation of the FCH JU has shown that the JU has served as a platform for creating of a solid partnership, for leveraging public and private funding and for the strong involvement of industry, in particular SMEs.

Although the FCH sector has reached an advanced stage of innovation it is still **a premature and vulnerable one**. The existence of a joint undertaking in the field of fuel cells and hydrogen is needed in order to:

- address two key challenges for the EU - to ensure the energy security of supply and to boost/maintain competitiveness;
- tackle a series of obstacles to effective research and innovation in this area; industry on its own cannot invest in view of these obstacles, and hence public support is needed;
- counteract the fragmentation of the Member States programmes and achieve the coordinated, long-term, large-scale, transnational, cross-sectoral effort required;
- help industry to set a long-term research and innovation agenda, create the necessary critical mass, leverage private investment, provide stable funding, facilitate knowledge sharing, reduce risk, lower costs and reduce time to market.

IMPACT ASSESSMENT: the proposal is accompanied by a summary of the impact assessment.

LEGAL BASIS: Articles 187 and Article 188 (first paragraph) of the Treaty on the Functioning of the European Union (TFEU).

CONTENT: the proposal seeks to create a **joint undertaking in the field of Fuel Cells and Hydrogen 2 (the FCH 2 JU) for a period running from 1 January 2014 to 31 December 2024**. The FCH 2 JU replaces and succeeds the previous FCH JU launched under the seventh framework programme.

The general objective of the proposed continuation of the Fuel Cells and Hydrogen (FCH) JU in Horizon 2020 is to contribute to implementing an optimal research and innovation programme at EU level and to develop a strong, sustainable and globally competitive fuel cells and hydrogen sector in the Union, in particular to:

- reduce the production cost of fuel cell systems to be used in transport applications, while increasing their lifetime to levels competitive with conventional technologies;
- increase the electrical efficiency and the durability of the different fuel cells used for power production, while reducing costs, to levels competitive with conventional technologies;
- increase the energy efficiency of production of hydrogen from water electrolysis while reducing capital costs, so that the combination of the hydrogen and the fuel cell system is competitive with the alternatives available in the marketplace;
- demonstrate on a large scale the feasibility of using hydrogen as a competitive energy storage medium for electricity produced from renewable energy sources.

BUDGETARY IMPLICATION: the EU budget, totalling up to **EUR 700 million at current prices** (including EFTA), will come from the ‘Secure, clean and efficient energy’ and the ‘Smart, green and integrated transport’ Horizon 2020 societal challenges budget.

The administrative costs of the FCH 2 Joint Undertaking shall not exceed EUR 40 million and shall be covered in cash, on an annual basis, divided equally between the Union and the Members other than the Union. The Union shall contribute with 50%, the Industry Grouping with 43% and the Research Grouping with 7%.

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

2013/0245(NLE) - 06/02/2014 - Committee report tabled for plenary, 1st reading/single reading

The Committee on Industry, Research and Energy adopted, in the framework of a special legislative procedure (consultation of Parliament), the report by Vladko Todorov PANAYOTOV (ADLE, BG) on the proposal for a Council regulation on the Fuel Cells and Hydrogen 2 Joint Undertaking.

The committee approved the Commission proposal subject to the following amendments:

FCH 2 Joint Undertaking: in order to take account of the duration of the Horizon 2020 Framework Programme for Research and Innovation (2014-2020), all calls for proposals **should be launched by 31 December 2020**.

Objectives: the Joint Undertaking should have the following objectives:

- contribute to the implementation of the Horizon 2020 Framework Programme, and in particular at least three of the specific objectives under part III "Societal Challenges”;
- contribute to the objectives of the Joint Technology Initiative on Fuel Cells and Hydrogen, through dissemination and capacity building across the Member States;
- increase the energy efficiency of production of hydrogen from water electrolysis and from renewable energy sources while reducing capital and operational costs.
- strengthen the connection between demonstration projects and results and translation of those research results into pilot applications and attractive market solutions;
- contribute to developing denser infrastructure and to increasing public awareness and acceptance by transferring the knowhow and expertise of the stronger performing Member States to the weaker performing Member States by way of demonstrations and pilot projects and by West–East centres,

- support development of advanced technologies for recovery of metals, critical for the development and deployment of FCH technologies from Union sources, including technological by-products and waste, and

- reduce the use of the "critical raw materials", as defined by the Commission, by identifying relevant substitutes where technically feasible and economically justifiable.

Scope of activities: Members inserted a new article to clarify the scope of activities of the Joint Undertaking, in particular with respect to the relevant **Technology Readiness Levels** covered by its research programme. The Rules on Participation also call for a greater consideration of the Technology Readiness Levels concept in relation to funding levels, which is taken up in this article with a view to the funding rates used in indirect actions.

Financial contribution: the maximum Union contribution, including contributions from countries of the European Free Trade Association (EFTA), to the FCH 2 Joint Undertaking to cover administrative costs and operational costs should be **EUR 665 million** (rather than EUR 700 million in the Commission proposal). The contribution should be paid from the appropriations in the general budget of the Union allocated to the Horizon 2020 Framework Programme and in particular from appropriations allocated to the specific objectives "Secure, Clean and Efficient Energy" and "Smart, green and integrated transport".

A**dditional activities carried out by private members**: while the additional activities to be carried out by private members are a welcome addition to the leverage effect of the JTI, they should not be subject to auditing. Additional activities should be planned and carried-out accordingly, determined clearly as in-kind contributions, and reported on annually.

Evaluation: by 30 June 2017 the Commission shall organise an independent interim evaluation of the Joint Undertaking. The results of the independent interim evaluation should be taken into account in the interim evaluation of Horizon 2020.

In order to respond to unforeseen situations or to new developments and needs the Commission may, following the interim evaluation of Horizon 2020 review the budget of the Joint Undertaking within the annual budgetary procedure.

Rules for participation and dissemination: work plans may provide for justified additional conditions according to specific policy requirements or to the nature and objective of the action, inter alia, that coordinators shall be constituent entities of a Member of the FCH 2 Joint Undertaking other than the Union. This should under no condition and throughout the programme raise undue conditions or restrain that willing entities can become a constituent entity of a Member. The principles of openness and transparency shall apply throughout the duration of the FCH 2 Joint Undertaking.

In accordance with the principles of transparency and non-discrimination, calls for proposals organised by the FCH 2 Joint Undertaking shall be published **on the web-based Horizon 2020 Participant Portal.**

Duty to divulge information: the report contains a new provision stating that Members of the staff of the Joint Undertaking, the Executive Director, and members of the Governing Board shall, without delay, report such fraud as might have come to their knowledge in the performance of their duties or office in OLAF provided that this disclosure does not render them liable to prosecution.

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

2013/0245(NLE) - 15/04/2014 - Text adopted by Parliament, 1st reading/single reading

The European Parliament adopted by 588 votes to 26, with 62 abstentions, a legislative resolution on the proposal for a Council regulation on the Fuel Cells and Hydrogen 2 Joint Undertaking.

Parliament approved the Commission proposal subject to the following amendments:

Joint Undertaking: for the implementation of the Joint Technology Initiative on Fuel Cells and Hydrogen, the FCH 2 Joint Undertaking should be established until **31 December 2024**. In order to take into account the duration of the Horizon 2020 Framework Programme, calls for proposals under FCH 2 Joint Undertaking should be launched at the latest by **31 December 2020**. In duly justified cases calls for proposals may be launched until 31 December 2021.

It should, in particular:

- **increase the energy efficiency of production of hydrogen mainly from water electrolysis** and renewable sources while reducing operating and capital costs, so that the combined system of the hydrogen production and the conversion using the fuel cell system is competitive with the alternatives available in the marketplace;
- **reduce the use of the EU defined 'Critical raw materials'**, for instance via low or platinum free resources and through recycling or reducing or avoiding the use of rare earth elements.

The Fuel Cells and Hydrogen 2 Joint Undertaking should take into account the **OECD definitions regarding Technological Readiness Level (TRL)** in the classification of technological research, product development and demonstration activities

The Joint Undertaking should seek to develop close interactions with the European Structural and Investment Funds (ESIF).

Financial contribution: the maximum Union contribution, including EFTA appropriations, to the FCH 2 Joint Undertaking to cover administrative costs and operational costs should be **EUR 665 million**.

The Members of the FCH 2 Joint Undertaking other than the Union shall make or arrange for their constituent entities or their affiliated entities to make a total contribution of at least **EUR 380 million**. In-kind contributions should make up at least EUR 285 million of that amount.

Openness and transparency: in order to facilitate participation, the calls for proposals launched by the Joint Undertaking should also be published on the **single portal for participants** as well as through other Horizon 2020 electronic means of dissemination managed by the Commission.

Participation: any eligible institution may become a participant or a coordinator in selected projects. According to specific policy requirements or to the nature and objective of the action set out in the work plan, it can be required that the participants are constituent entities of a Member other than the Union.

Discharge: in view of the specific nature and the current status of the Joint Undertakings, and in order to ensure continuity with the 7th Framework Programme, the Joint Undertakings should continue to be subject to a separate discharge.

Simplification: for the purpose of simplification, administrative burdens should be reduced for all parties. Double audits and disproportionate documentation and reporting should be avoided.

Evaluation: **by 30 June 2017**, the Commission should carry out, with the assistance of independent experts, an interim evaluation of the FCH 2 Joint Undertaking, and send a report to the European Parliament and to the Council by 31 December 2017. The results of the interim evaluation of the Joint Undertaking shall be taken into account in the interim evaluation of Horizon 2020.

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

2013/0245(NLE) - 06/05/2014 - Final act

PURPOSE: to prolong the Fuel Cells and Hydrogen Joint Undertaking (Fuel Cells and Hydrogen 2 JU) in order to strengthen industrial research and innovation across the Union.

NON-LEGISLATIVE ACT: Council Regulation (EU) n° 559/2014 establishing the Fuel Cells and Hydrogen 2 Joint Undertaking.

CONTENT: the Framework Programme for Research and Innovation, Horizon 2020, supports public-private partnerships in research and innovation in order that the Union might tackle certain key challenges.

In order to increase activities in relation to hydrogen production, storage and distribution, this Regulation aims to establish **a new Joint Undertaking** (JU) for the implementation of the Joint Technology Initiative on Fuel Cells and Hydrogen (FCH 2), for a period up to **31 December 2024**.

FCH 2 JU replaces the previous FCH JU, set up under the Seventh Framework Programme.

It is a body entrusted with the **implementation of a public-private partnership.** Its seat will be located in Brussels, Belgium.

The Members of the FCH 2 Joint Undertaking shall be the Union and upon acceptance of the Statutes: the *New Energy World Industry Grouping AISBL* and the *New European Research Grouping on Fuel Cells and Hydrogen* AISBL, two non profit organisations established under Belgian Law.

In order to take into account the duration of Horizon 2020, calls for proposals under the Joint Undertaking must be launched **at the latest by 31 December 2020** (in duly justified cases, by 31 December 2021). Calls for proposals will be published on the **single portal for participants** as well as through other Horizon 2020 electronic means of dissemination managed by the Commission.

The rules for **participation and dissemination** of the Horizon 2020 programme will apply to the JU.

Objectives of the JU: the Fuel Cells and Hydrogen Joint Undertaking was set up for the period up to 31 December 2017. The FCH 2 Joint Undertaking should provide continued support to the Fuel Cells and Hydrogen research programme by **implementing the remaining actions.**

The JU will **contribute to the implementation of Horizon 2020** and in particular the Secure, Clean and Efficient Energy Challenge and the Smart, Green and Integrated Transport Challenge and aim to:

- €€€€€€€ reduce the **production cost** of fuel cell systems to be used in transport applications, while increasing their lifetime to levels which can compete with conventional technologies;
- €€€€€€€ increase the **electrical efficiency and the durability** of the different fuel cells used for power production to levels which can compete with conventional technologies, while reducing costs;
- €€€€€€€ increase the **energy efficiency of production of hydrogen** mainly from water electrolysis and renewable sources while reducing operating and capital costs;
- €€€€€€€ demonstrate on a large scale the **feasibility** of using hydrogen to support integration of renewable energy sources into the energy systems;
- €€€€€€€ reduce the use of the EU defined '**Critical raw materials'**, for instance through low-platinum or platinum-free resources and through recycling or reducing or avoiding the use of rare earth elements.

Funding: the Union financial contribution to the JU shall come from Horizon 2020 and amount up to **EUR 665 million**. The members of the FCH 2 Joint Undertaking other than the Union shall make a total contribution of at least **EUR 380 million** of which in kind contributions will be at least EUR 285 million.

The Commission **may terminate**, proportionally reduce or suspend the Union's financial contribution to the JU or trigger the winding-up procedure if members other than the Union, including their constituent entities and affiliated entities, do not provide contributions.

The Regulation contains provisions that aim to ensure the **protection of the financial interests of the Members.**

The **discharge** for the implementation of the budget of the JU shall be given by the European Parliament, upon recommendation of the Council in accordance with the procedure provided for in the financial rules of the FCH 2 JU.

Evaluation: by 30 June 2017 the Commission shall carry out, with the assistance of independent experts, an interim evaluation of the JU. It shall send that report to the European Parliament and to the Council by 31 December 2017. The results of the interim evaluation shall be taken into account in the interim evaluation of Horizon 2020.

FCH 2 JU's mandate will end on 31 December 2024 and the JU will be wound up.

ENTRY INTO FORCE: 27.06.2014.