

Proposal Evaluation Form



EUROPEAN COMMISSION

5.1.2e

**Evaluation
Summary Report -
Coordination and
support actions**

Call:

Type of action:

Proposal number:

Proposal acronym:

Duration (months):

5.1.2e

Proposal title:

Activity:

N.	Proposer name	Country	Total Cost	%	Grant Requested	%
1	UNIVERSITEIT UTRECHT	NL		11.93%		12.02%
2	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR		9.07%		9.13%
3	European Research Institute of Catalysis A.I.S.B.L.	BE		4.85%		4.88%
4	UNIVERSITEIT GENT	BE		4.23%		4.26%
5	UNIVERSITEIT LEIDEN	NL		5.81%		5.13%
6	UNI WERSYTET WARSZAWSKI	PL		3.13%		3.15%
7	FUNDACIO PRIVADA INSTITUT CATALA D'INVESTIGACIO QUIMICA	ES		6.09%		6.13%
8	SIEMENS ENERGY GLOBAL GMBH & CO. KG	DE		3.61%		3.64%
9	DECHEMA GESELLSCHAFT FUER CHEMISCHE TECHNIK UND BIOTECHNOLOGIE E.V.	DE		1.62%		1.63%
10	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE		3.12%		3.14%
11	Carbyon B.V.	NL		1.60%		1.62%
12	TURUN YLIOPISTO	FI		2.98%		3.00%
13	USTAV FYZIKALNI CHEMIE J. HEYROVSKÉHO AV CR, v. v. i.	CZ		1.49%		1.50%
14	UPPSALA UNIVERSITET	SE		3.60%		3.63%
15	COVESTRO DEUTSCHLAND AG	DE		1.74%		1.76%
16	CO2 VALUE EUROPE AISBL	BE	5.1.2b, 5.1.2i	10.97%	5.1.2b, 5.1.2i	11.05%
17	Fundacion IMDEA Energia	ES		1.75%		1.76%
18	ALMA DIGIT SRL	IT		2.00%		2.02%
19	INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM	BE		1.86%		1.88%
20	AVANTIUM CHEMICALS BV	NL		1.49%		1.50%
21	NEXTCHEM SPA	IT		1.61%		1.63%
22	ALLIANCE EUROPEENNE DE RECHERCHE DANS LE DOMAINE DE L'ENERGIE	BE		1.67%		1.68%
23	SYNERGIES STIN EPISTIMI KAI TECHNOLOGIA-SYNEST	EL		1.74%		1.75%
24	IDIOTIKI KEFALAIOUCHIKI ETAIREIA	RO		1.75%		1.77%
25	UNIVERSITATEA DIN BUCURESTI	BE		1.74%		1.75%
26	ARCELORMITTAL BELGIUM NV	BE		0.00%		0.00%
27	TOTAL RESEARCH & TECHNOLOGY FELUY	FR		1.48%		1.49%
28	VICAT	BE		2.31%		2.33%
29	CLIMATE ACTION NETWORK EUROPE ASBL	BE		2.38%		2.39%
30	BELGISCH LABORATORIUM VAN DE ELEKTRICITEITSINDUSTRIE LABORELEC CVBA	FR		0.88%		0.88%
31	ENGIE	FR		1.52%		1.53%
	RHODIA OPERATIONS					
Total:						

Abstract:

5.1.2e overarching objective is to aggregate fragmented knowledge and develop the framework conditions to overcome scientific, technological, organizational and socioeconomic challenges to accelerate innovation and enable the transition of technologies for solar fuels and chemicals from laboratory and demonstrator level to large-scale industrial and broad societal application. Through a holistic approach, 5.1.2e will contribute to circular economy by replacing fossil-derived fuels and chemicals by renewables and carbon recycling as key element towards the EU net-zero emissions target by 2050. 5.1.2e will build upon the work of 5.1.2e a pan-European initiative on fossil-free fuels and chemicals from renewable power and solar energy, with to date over 300 supporting organisations across and beyond Europe. 5.1.2e specific outcomes during the 5.1.2e will be to: develop an inclusive pan-European innovation community and eco-system on solar fuels and chemicals with global outreach, linked to political and societal needs, gathering stakeholders from different fields, sectors and disciplines around a shared vision, and coordinating with existing initiatives to ensure complementarity; develop a roadmap and a blueprint to implement it, as main drivers to identify and tackle long-term research and innovation challenges to de-fossilize society with solar fuels and chemicals; prepare the foundations for a large-scale research and innovation initiative (LSRI), ready to be launched at the end of the 5.1.2e through an instrument to be agreed upon with the European Commission and the Member States. The LSRI will continue developing the eco-system and supporting the implementation of the roadmap, speeding up industrial and societal uptake of technologies for solar fuels and chemicals in the EU and contributing to wider, longer-term impacts, including those on "Increased autonomy in key strategic value chains for resilient industry" outlined in the 5.1.2e

5.1.2e

Evaluation Summary Report

Evaluation Result

Total score: 13.50 (Threshold: 10)

Criterion 1 - Excellence

Score: **4.50** (Threshold: 3/5.00 , Weight: -)

The following aspects will be taken into account, to the extent that the proposed work corresponds to the description in the work programme:

- Clarity and pertinence of the project's objectives.
- Quality of the proposed coordination and/or support measures including soundness of methodology.

The four pertinent objectives formulated for 5.1.2e are very clear, relevant, ambitious and verifiable. They are perfectly aligned with the scope of the call topic. All relevant aspects are covered including the generation of a diverse and inclusive innovation eco-system, the coordination of a LSRI with links to international, national and regional initiatives, the establishment of a long-term roadmap with the participation of all relevant stakeholders and the development of tools to promote communication, dissemination and education. Both indirect and direct conversion technologies are included in the scope of the proposal, which is very pertinent, although the technological structure and scientific subdivision is only briefly addressed at the present stage.

The proposed coordination activities and methodologies are sound, with a credible approach for dealing with economic aspects such as business development activities, the identification and development of public-private links and the definition of resource and funding requirements for the successful launch of LSRI. A target of 50 R&I/programs is defined, involving input and action by 600+ stakeholders, which is very ambitious. Also, important elements such as de-risking of industrial investments, sharing of results and supportive policies are considered. Building of a technology map and its implementation is well addressed.

Open Science practices will be implemented and designed to operate beyond the lifecycle of the work proposed, which is appreciated. A Data Management Plan (under the supervision of a data officer) will ensure proper management of the data and associated metadata, and should also facilitate IPR protection. An International Advisory Board is added to further improve work governance.

The proposal convincingly shows the potential to establish, mobilise and manage a wide stakeholder community in the solar fuels domain, building on the existing and successfully operating pan-European 5.1.2e initiative with 300+ supporting members. Furthermore, it is foreseen to build and strengthen links with international initiatives, in particular the International Energy Agency (IEA) and Mission Innovation (MI), which is commendable.

Criterion 2 - Impact

Score: **4.50** (Threshold: 3/5.00 , Weight: -)

The following aspects will be taken into account, to the extent that the proposed work corresponds to the description in the work programme:

- Credibility of the pathways to achieve the expected outcomes and impacts specified in the work programme, and the likely scale and significance of the contributions due to the project.
- Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities.

The potential impact of 5.1.2e is very substantial and in line with the expected outcomes for the topic. In addition, its wider, longer-term impacts on science and technology as well as economy and society are very convincingly addressed. Digitisation is well considered as a tool to open and accelerate new business opportunities for services and products via big data, high performance computing and machine learning. Furthermore, a credible and relevant list of requirements and barriers that may impact the realization of the proposal outcomes is included, and the proposed measures to deal with them are well-thought through. The scale and significance of the proposal's contribution is also cogently described. KPI's and numerical targets are used for monitoring success.

The pathways to achieve the anticipated outcomes and impacts are fully credible. However, detailed strategies to sustain the eco-system, initiate and monitor the LRSI's and RIA programs beyond the lifetime of the 5.1.2e are not sufficiently developed.

The key target groups for the innovation eco-system have been identified and include policy and decision makers at different levels, i.e. financial players and investors, as well as societal stakeholders such as consumer organisations, environmental organisations and trade unions. An appealing analysis of target audiences is worked out, including a description of the type of audience, the type of knowledge to be transferred, attitude, barriers, motivators and messages. However, potential end-users from transport sectors (e.g. aviation, automotive or maritime) are insufficiently considered in the proposal.

The measures to maximise the impact of the proposal's outcomes and impacts include a credible preliminary plan for communication, dissemination and exploitation. This initial plan will be further developed in the course of the 5.1.2e. An inclusive plan for education activities is also provided.

Criterion 3 - Quality and efficiency of the implementation

Score: **4.50** (Threshold: 3/5.00 , Weight: -)

The following aspects will be taken into account, to the extent that the proposed work corresponds to the description in the work programme:

- Quality and effectiveness of the work plan, assessment of risks, and appropriateness of the effort assigned to work packages, and the resources overall.
- Capacity and role of each participant, and extent to which the consortium as a whole brings together the necessary expertise.

The work plan is professionally prepared, efficient, coherent and balanced with respect to timing, distribution of person/months, as well as the assignment of milestones and deliverables.

The allocation of resources is appropriate for the planned activities. Management structures and procedures, including data management, are sound. A quality risk analysis is provided, with efficient and realistic risk-mitigation measures. Furthermore, an International Advisory Board, with high-level experts, some of which have already agreed to participate, will be set up to provide input and advice on the proposal's strategy.

The critical mass of 5.1.2e is already substantial at the start of the 5.1.2e as a result of the participation of consortium partners who are already involved in 5.1.2e an initiative stemming from Horizon 2020. The composition of the proposed consortium is diverse, inclusive and balanced with respect to the number of academic, industrial and societal partners. It involves leading research institutions, industrial companies, as well as subject matter non-profit organisations.

The capacity and the role of/for each participant is relevant and the consortium as a whole brings together the necessary skills, capabilities and expertise to successfully accomplish the program and deliver the requested impact during the lifespan of the 5.1.2e and beyond. However, the geographic distribution of the members is rather shifted to the western part of Europe and does not ensure a sufficiently good coverage of EU Member States. It is not clear how those other countries (e.g. Eastern Europe countries) will be reached and included.

Scope of the application

Status: **Yes**

Comments (in case the proposal is out of scope)

Not provided

Exceptional funding

A third country participant/international organisation not listed in [the General Annex to the Main Work Programme](#) may exceptionally receive funding if their participation is essential for carrying out the project (for instance due to outstanding expertise, access to unique know-how, access to research infrastructure, access to particular geographical environments, possibility to involve key partners in emerging markets, access to data, etc.). (For more information, see the [HE programme guide](#))

Please list the concerned applicants and requested grant amount and explain the reasons why.

Based on the information provided, the following participants should receive exceptional funding:

Not provided

Based on the information provided, the following participants should NOT receive exceptional funding:

Not provided

Use of human embryonic stem cells (hESC)

Status: **No**

If YES, please state whether the use of hESC is, or is not, in your opinion, necessary to achieve the scientific objectives of the proposal and the reasons why. Alternatively, please state if it cannot be assessed whether the use of hESC is necessary or not, because of a lack of information.

Not provided

Use of human embryos

Status: **No**

If YES, please explain how the human embryos will be used in the project.

Not provided

Activities excluded from funding

Status: **No**

If YES, please explain.

Not provided

Do no significant harm principle

Status: **Yes**

If Partially/No/Cannot be assessed please explain

Not provided

Exclusive focus on civil applications

Status: **Yes**

If NO, please explain.

Not provided

Artificial Intelligence

Status: **No**

If YES, the technical robustness of the proposed system must be evaluated under the appropriate criterion.

Overall comments



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