



Horizon 2020



Lecture et décryptage

International cooperation with Japan for Research and Innovation on advanced biofuels and alternative renewable fuels

LC-SC3-RES-25-2020

**David Argenti (PCN Energie)
François-Xavier Testard-Vaillant (PCN Energie)**



Horizon 2020

Quelques rappels...

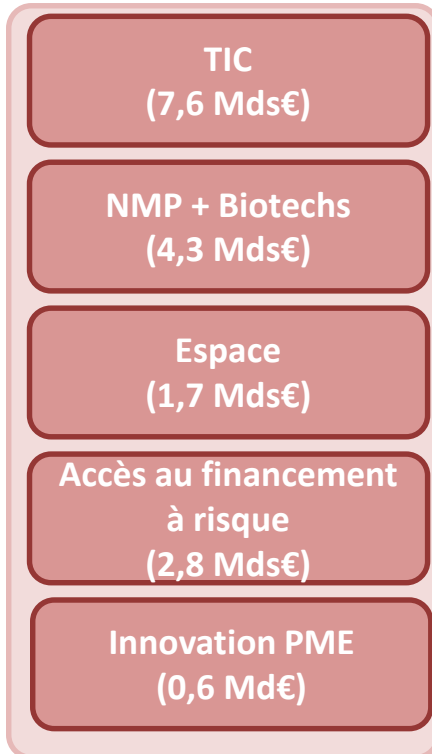
L'énergie dans Horizon 2020

Excellence scientifique



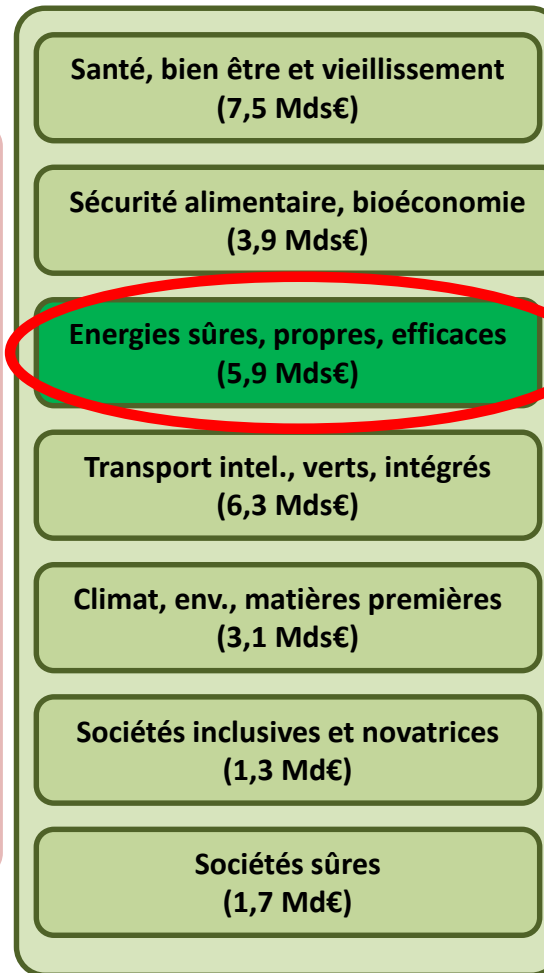
24,4 Mds€

Primauté industrielle



17 Mds€

Défis sociétaux



29,7Mds€

- ENR (PV, Wind...)
- Réseau
- Stockage
- Biocarburants
- Market-uptake

Euratom

Institut européen d'innovation et de technologie (EIT)
 Centre de recherche commun (JRC)
 Diffusion de l'excellence et élargissement / Science

Défi sociétal n°3 = Energie

	2019	2020
Energy Efficiency = EE/B4E	113 M€	86,5 M€
Renewable energy solutions = RES	216 M€	248 M€
Energy Consumer & Energy system = EC & ES	125,65M€	155 M€
Smart Cities and Communities = SCC	83 M€	75 M€
Nearly-zero CO2 emissions from fossil fuels = NZE	53 M€	29 M€
Joint actions among countries = JA	21 M€	15 M€
Cross-cutting issues	12 M€	15 M€
	623,65M€	623,5M€

Pour mémoire : budget 2018 = 537,3M€

Les différents types d'appels à projets

Recherche & Innovation (RIA)

TRL 2 à 5

- activités visant à **établir de nouvelles connaissances**, à travers des recherches fondamentales ou appliquées
- peuvent inclure du **développement et de l'intégration de technologies**, des essais et la validation d'un prototype à petite échelle

Taux de financement 100%

Innovation (IA)

TRL 5 à 8

- activités visant directement à produire des plans, arrangements ou concepts pour un produit, procédé ou service nouveau ou amélioré : **prototypage, démonstration ou pilotes, validation du produit à grande échelle**, première commercialisation
- peuvent inclure des activités limitées de recherche et de développement

Taux de financement 70% pour le privé (100% public)

Coordination & Support (CSA)

- Activités visant à améliorer les savoir-faire ou mobilisant des budgets considérables ou facilitant la mise en œuvre des politiques de l'Union

Taux de financement 100%

Taux de financement

Taux de financement des <u>coûts directs</u> éligibles		
	Entités à but non lucratif	Entreprises
RIA	100%	100%
IA	100%	70%
CSA	100%	100%

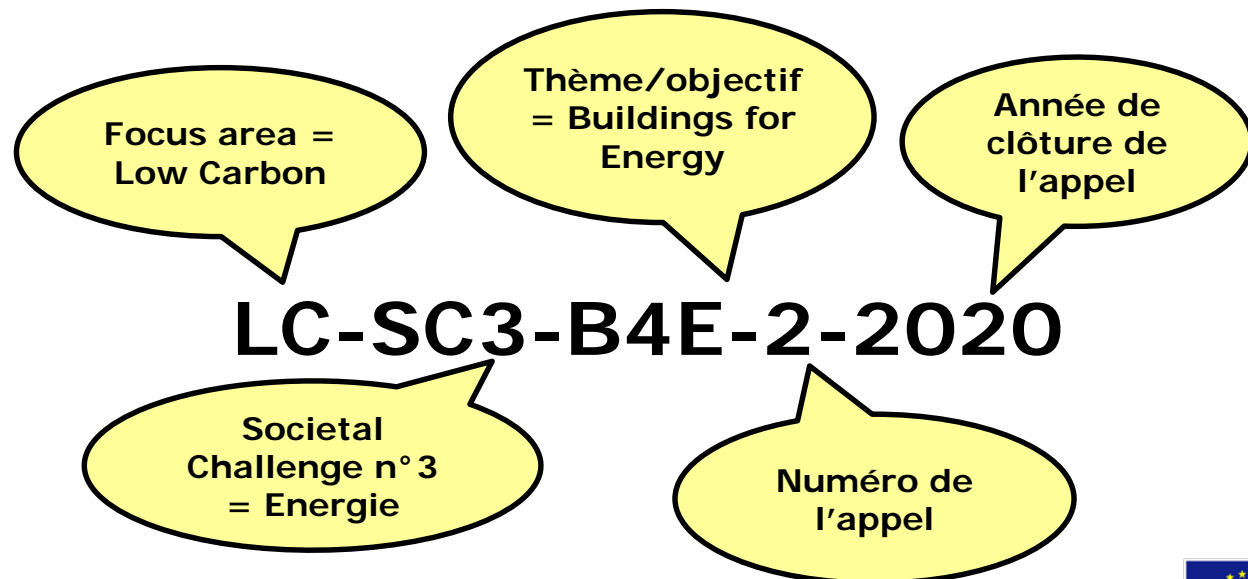


Coûts indirects: forfaitairement **25%** des coûts directs pour tous les partenaires (hors sous-traitance et contributions en nature)

Les grandes priorités pour 2020

1. Building a low-carbon, climate resilient future = **LC**
2. Digitising and transforming European industry and services = **DT**
3. Connecting economic and environmental gains – the Circular Economy = **CE**
4. Boosting the effectiveness of the Security Union = **SU**

Décodage



Lire un appel à projet

Réf. du sujet

Et réf. de l'appel

LCE-12-2017: Near-to-market solutions for the use of solar heat in industrial processes

Défi à relever

Specific Challenge: The potential for the use of solar heat for industrial purposes is still largely untapped. The challenge is to reduce the technical complexity and develop cost effective solutions.

Scope: Proposals shall demonstrate less complex and cost effective technical solutions which significantly increase the share of solar heat in industrial processes and which can be easily integrated into existing industrial plants.

TRL 7 shall be achieved at the end of project activities (please see part G of the General Annexes).

Opening the project's test sites, pilot and demonstration facilities, or research infrastructures for practice oriented education, training or knowledge exchange is encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 5 to 8 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts

Expected Impact: The action will result in solutions which demonstrate that solar heat can be a reliable energy source for industrial processes, therefore bringing significant prospects for the market uptake of this renewable energy source and for the decarbonisation of industrial processes.

Type of Action: Innovation action

Indication des TRLs

Périmètre

Indication du montant de subvention disponible par projet

Impact attendu

Type of action = Schémas de financement

+ informations sur le budget disponible
+ la date limite pour soumettre une proposition

Évaluation

- La Commission fournit aux évaluateurs **son interprétation** de l'appel considéré.
- **Aucune discussion**/négociation avec les évaluateur et/ou la Commission n'est possible. Le dossier n'est pas modifiable après le dépôt final.
- L'évaluateur évalue le dossier sur la base de ce qu'il contient **et rien de plus**.
- La Commission attend de l'évaluateur qu'il passe **3/4 heures** à lire le dossier **et** à écrire son rapport.



Horizon 2020



International cooperation with Japan for Research and Innovation on advanced biofuels and alternative renewable fuels

[LC-SC3-RES-25-2020](#)

Lecture et décryptage

Archéologie

- [LCE-08-2016-2017 - Development of next generation biofuel technologies](#)
- [Support to Advanced Biofuel Innovation in the Horizon 2020 Work Programme “Secure Clean and Efficient Energy”](#) (Thomas SCHLEKER – DG Recherche)

Quelques projets précurseurs

[COMSYN](#) aims at developing a new BTL production concept that will reduce biofuel production cost up to 35 % compared to alternative routes. This means < 0,80 €/l production cost for diesel.

[Heat-To-Fuel](#) will deliver the next generation of biofuel production technologies towards the de-carbonisation of the transportation sector. Heat-to-fuel will achieve competitive prices for biofuel technologies (<1€/l) while delivering higher fuel qualities and significantly reduced life-cycle GHG reductions.

[BioMates](#) aspires to contribute to the drastic increase of non-food/feed biomass utilisation for the production of greener transportation fuels via an effective and sustainable new production pathway.

[4REFINERY](#) will develop and demonstrate up to pilot, routes to the production of next generation biofuels from more efficient primary liquefaction processes integrated with upgraded downstream (hydro)refining processes, to achieve overall increased carbon yields of >45%.

[HyFlexFuel](#) aims at advancing the technical maturity of the hydrothermal liquefaction technology to provide truly sustainable fuels that are compatible with existing infrastructure (drop-in capable) and that can be produced at competitive costs.

Supporting public authorities in driving the energy transition

Oct 27, 2017

International cooperation with Japan for Research and Innovation on advanced biofuels and alternative renewable fuels

ID: LC-SC3-RES-25-2020

Focus area: Building a low-carbon, climate resilient future (LC)

Type of action:

RIA Research and Innovation action

Deadline Model : single-stage

Opening: 05 May 2020

Deadline: 01 September 2020 17:00:00 Brussels time

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-sc3-res-25-2020>



Challenge

- **Disruptive** conversion technologies are needed for **replacing completely** the use of fossil fuels in the **transport and heating** sectors with advanced **biofuels** and **alternative renewable fuels**. International collaboration is **mutually beneficial** in strategic areas where knowledge can be exchanged and Europe can obtain leadership together with its international partners.

International cooperation with Japan for Research and Innovation on advanced biofuels and alternative renewable fuels



Scope

Proposals will aim at international cooperation with Japan (JST) involving Japanese organisations **in the consortia** for the development of disruptive **catalytic technologies**, by developing novel catalysts and linked **lab-scale components/systems** with significantly improved performance for conversion efficiency and specific marginal **cost reduction** for obtaining **low-cost** bioenergy carriers, non-food/feed based advanced biofuels and alternative renewable fuels (excluding hydrogen) and **maximizing GHG abatement**.

Proposals are expected to **bring technologies to TRL 3** ie **experimental proof of concept**.

International cooperation with Japan for Research and Innovation on advanced biofuels and alternative renewable fuels



Expected Impact

It is expected that the **exchange of knowledge** through the targeted research activities with Japan will progress the technology state-of-the-art and in addition it will strengthen the European and Japanese technology base.

At the same time, it is expected that the development of renewable fuels that **outperform the best fossil fuel alternatives** is accelerated.

Quelques recommandations

Répondre à un appel à projets

Comprendre l'appel à projets

1. Lire en détail l'appel à projets et les éléments de son contexte (Programme de travail).
2. Assister à la journée d'information organisée par la Commission (*Infoday*) (souvent disponible sous forme vidéo après la présentation).

Rédiger un excellent dossier

- Rédiger un papier de cadrage permet de constituer un noyau de consortium (*lean and mean*) ou de rejoindre un consortium en cours de formation (cf. planches suivantes) ;
- Si l'on coordonne, étoffer le consortium avec parcimonie ;
- Mettre en place un retro-planning réaliste ;
- Deux semaines avant le dépôt, faire relire sur le fond (par un « expert » non impliqué dans le projet) et sur la forme (si possible par un anglophone natif) ;
- Télécharger le dossier en l'état la veille de la date limite et le jour même à midi.

Trouver/compléter un consortium (1)

- Consulter le site **Webgate.ec.europa.eu** pour voir quelles ont été les propositions gagnantes en réponse à des appels voisins de celui auquel je souhaite postuler :
<https://webgate.ec.europa.eu/dashboard/sense/app/93297a69-09fd-4ef5-889f-b83c4e21d33e> (*H2020 projects*) ;
- puis aller sur le site Cordis pour les détails sur le consortium

Trouver/compléter un consortium (2)



Funding & tender opportunities
Single Electronic Data Interchange Area (SEDIA)

SEARCH FUNDING & TENDERS | HOW TO PARTICIPATE | PROJECTS & RESULTS | WORK AS AN EXPERT | SUPPORT

Oct 27, 2017

The role of consumers in changing the market through informed decision and collective actions

ID: LC-SC3-EC-1-2018-2019-2020

Focus area: Building a low-carbon, climate resilient future (LC)

Type of action:

- CSA Coordination and support action Deadline Model : single-stage Opening: **12 March 2019**
- CSA Coordination and support action Deadline Model : single-stage Opening: **25 January 2018**

Horizon 2020

Work programme: Secure, clean and efficient energy

Go to top

Partner Search

83 Organisations are looking for collaborating partners for this topic

View / Edit

LEARs, Account Administrators or self-registrants can publish partner requests for open and forthcoming topics after logging into this Portal.

Ex : LC-SC3-EC-1-2018-2019-2020
<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-sc3-ec-1-2018-2019-2020>

Trouver/compléter un consortium (3)



HOME ABOUT GET NEWSLETTER INTRANET

C-ENERGY 2020

Connecting Energy National Contact Points in a pro-active network under Societal Challenge 3 'Secure, clean and efficient energy' in Horizon 2020

Find your NCP EU funding **Partner Search** EU networks News & EU Policy Calendar Media

The banner features a central image of a globe with a satellite, sunflowers, and a city skyline. Below the banner is a yellow navigation bar with seven circular icons: a magnifying glass, a Euro symbol, a group of people (circled in red), a share icon, a globe, a calendar, and a play button.

C-Energy 2020 Project

H2020 Energy

Open Call News Policy

<http://c-energy2020.eu/>

Trouver/compléter un consortium (4)



RECHERCHER... 

Accueil > Horizon 2020 > Défis sociétaux > Energie

> Recherche avancée multicritères

AGENDA

09 JUIN

Rencontre lauréats-candidats FET Proactive

 PARIS

15 JUIN

Journée nationale d'information "Les PME dans Horizon 2020"

 PARIS

Recherches de partenaires et offres de compétences en énergie

ENERGIE



Le P.C.N. énergie propose la consultation des recherches de partenaires et des offres de compétences pour les prochains appels du défi 3, grâce à sa collaboration avec ses homologues européens.

<http://www.horizon2020.gouv.fr/cid77777/recherches-partenaires-offres-competences-energie.html>

Pour vous aider : les Points de contact nationaux (PCN)




<http://www.horizon2020.gouv.fr/ci/d74103/le-reseau-des-pcn.html>

Pour nous contacter :
pcn-energie@recherche.gouv.fr

Le réseau des Points de Contact Nationaux

LES POINTS DE CONTACT NATIONAUX



Les Points de Contact Nationaux (P.C.N.) d'Horizon 2020 sont chargés de diffuser l'information et de sensibiliser la communauté de la recherche et de l'innovation aux programmes européens.

AGENDA

14 MARS
Journée d'information ERC
PARIS

18 MARS
Événement national d'information sur les appels "infrastructures critiques" dans Horizon 2020
PARIS

[Tous les événements](#)

APPELS EN COURS

- > Liste des appels ouverts
- > Programmes de travail 2018-2020

ANTICIPER LES PROCHAINS APPELS

- > Le dispositif national

STATISTIQUES

- > Données d'Horizon 2020
- > La participation des acteurs français dans Horizon 2020

Un réseau de Points de Contact Nationaux (PCN) est établi dans tous les pays bénéficiaires d'Horizon 2020, à la demande de la Commission européenne.



En vue de soutenir les porteurs de projets d'Horizon 2020, établis en France, le Ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation (MESRI) déploie, pilote et anime un nouveau réseau de Points de Contact Nationaux chargé de porter le programme d'action du MESRI en faveur de l'amélioration de la participation française au programme européen.

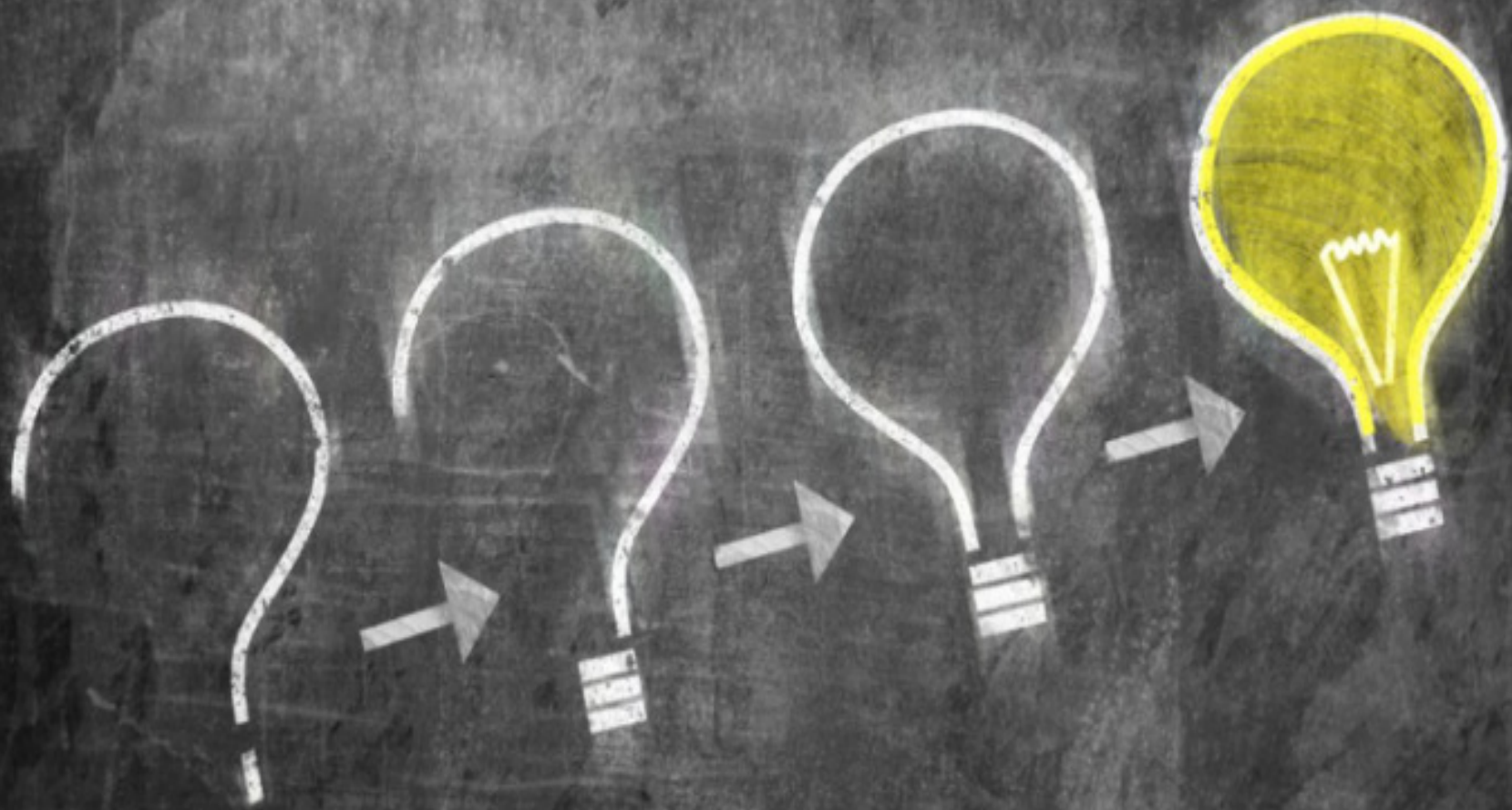
Les missions de ces PCN :

1. Informer, sensibiliser les équipes sur les opportunités de financement de projet d'Horizon 2020 ;
2. Aider, conseiller et former aux modalités de fonctionnement du programme ;
3. Signaler l'existence et orienter vers d'autres sources de financement (européens et nationaux) susceptibles de mieux répondre à leurs besoins et vers les services supports de ces financements.

Les PCN français sont des **consortia d'acteurs** chargés d'apporter une réponse auprès des porteurs de projets pour chacune de ces missions.

Connaitre votre interlocuteur, **PCN d'Horizon 2020**

PCN	Coordinateur	Etablissement	Consortium	Téléphone	Mét.
Coordination nationale	 Elia BOUQUET	MESRI Ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation	Voir les membres	33 1 55 55 82 51	 Contact
		MESRI Ministère de			



Annexe 1

International cooperation with Japan for Research and Innovation on advanced biofuels and alternative renewable fuels

Specific Challenge:

Disruptive conversion technologies are needed for replacing completely the use of fossil fuels in the transport and heating sectors with advanced biofuels and alternative renewable fuels. International collaboration is mutually beneficial in strategic areas where knowledge can be exchanged and Europe can obtain leadership together with its international partners.

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), actions will contribute to the Mission Innovation Challenge 4[1].

Scope:

Proposals will aim at international cooperation with Japan[2] involving Japanese organisations in the consortia for the development of disruptive catalytic technologies, by developing novel catalysts and linked lab-scale components/systems with significantly improved performance for conversion efficiency and specific marginal cost reduction for obtaining low-cost bioenergy carriers, non-food/feed based advanced biofuels and alternative renewable fuels (excluding hydrogen) and maximizing GHG abatement.

Proposals are expected to bring technologies to TRL 3 (please see part G of the General Annexes).

The Commission considers that proposals requesting a contribution from the EU of between EUR 2 to 5 million would allow this challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

International cooperation with Japan for Research and Innovation on advanced biofuels and alternative renewable fuels

Expected Impact:

It is expected that the exchange of knowledge through the targeted research activities with Japan will progress the technology state-of-the-art and in addition it will strengthen the European and Japanese technology base. At the same time, it is expected that the development of renewable fuels that outperform the best fossil fuel alternatives is accelerated.

Cross-cutting Priorities:

- International cooperation
- Clean Energy

[1]<http://mission-innovation.net/our-work/innovation-challenges/sustainable-biofuels-challenge/>

[2][The Japan Science and Technology Agency](#) (JST) is the expected funding Japanese authority

Annexe 2

H2020 Key Performance Indicators (KPI)

	#	Key performance indicator ²	Definition of the indicator	Type of data required	Baseline at the start of Horizon 2020 (latest available) ³	Target at the end of Horizon 2020
SOCIETAL CHALLENGES	14	Societal Challenges – Publications in peer-reviewed high impact journals in the area of the different Societal Challenges	The percentage of publications published in the top 10% impact ranked journals by subject category	Publications from relevant funded projects (DOI: Digital Object Identifiers); Journal impact benchmark (ranking) data to be collected by commercially available bibliometric databases	[<u>new approach</u> under Horizon 2020]	[<u>On average, 20 publications per €10 million funding (for all societal challenges)</u>]
	15	Societal Challenges – Patent applications and patents awarded in the area of the different Societal Challenges	Number of patent applications by theme; Number of awarded patents by theme	Patent application number	[<u>new approach</u> under Horizon 2020]	On average, 2 per €10 million funding (2014 - 2020)
	16	Societal Challenges – Number of prototypes and testing activities	Number of prototypes, testing (feasibility/ demo) activities, clinical trials	Reports on prototypes, and testing activities, clinical trials	[<u>new approach</u> under Horizon 2020]	[<u>To be developed on the basis of first Horizon 2020 results</u>]
SOCIETAL CHALLENGES	17	Societal Challenges – Number of joint public-private publications	Number and percentage of joint public-private publications out of all relevant publications	Properly flagged publications data (DOI) from relevant funded projects	[<u>new approach</u> under Horizon 2020]	[<u>To be developed on the basis of first Horizon 2020 results</u>]
	18*	New products, processes, and methods launched into the market	Number of projects with new innovative products, processes and methods	Project count and drop down list allowing to choose the type processes, products and methods	[new approach under Horizon 2020]	[To be developed on the basis of first Horizon 2020 results]
	19*	Percentage of the overall Energy challenge funds allocated to the following research activities: renewable energy, end user energy-efficiency, smart grids and energy storage activities	Percentage of the overall Energy challenge funds allocated to the following research activities: renewable energy, end user energy-efficiency, smart grids and energy storage activities	Financial data related to the funds allocated to the mentioned activities under Societal Challenge “Secure, clean and efficiency energy”	[new approach under Horizon 2020]	85%

RIA Award criteria



Award criteria RIA and IA grants		
Excellence	Impact	Implementation
<p>Clarity and pertinence of the objectives</p> <p>Soundness of the concept, and credibility of the proposed methodology</p>	<p>The extent to which the outputs of the project would contribute to each of the expected impacts mentioned in the work programme under the relevant topic</p>	<p>Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables</p> <p>Appropriateness of the management structures and procedures, including risk and innovation management</p> <p>Complementarity of the participants and extent to which the consortium as a whole brings together the necessary expertise</p> <p>Appropriateness of the allocation of tasks, ensuring that all participants have a valid role and adequate resources in the project to fulfil that role</p>
<p>Extent that proposed work is beyond the state of the art, and demonstrates innovation potential (e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models)</p> <p>Appropriate consideration of interdisciplinary approaches and, where relevant, use of stakeholder knowledge</p>	<p>Any substantial impacts not mentioned in the work programme, that would enhance innovation capacity, create new market opportunities, strengthen competitiveness and growth of companies, address issues related to climate change or the environment, or bring other important benefits to society</p> <p>Quality of the proposed measures to:</p> <ul style="list-style-type: none"> • Exploit and disseminate the project results (including management of IPR), and to manage research data where relevant • Communicate the project activities to different target audiences 	