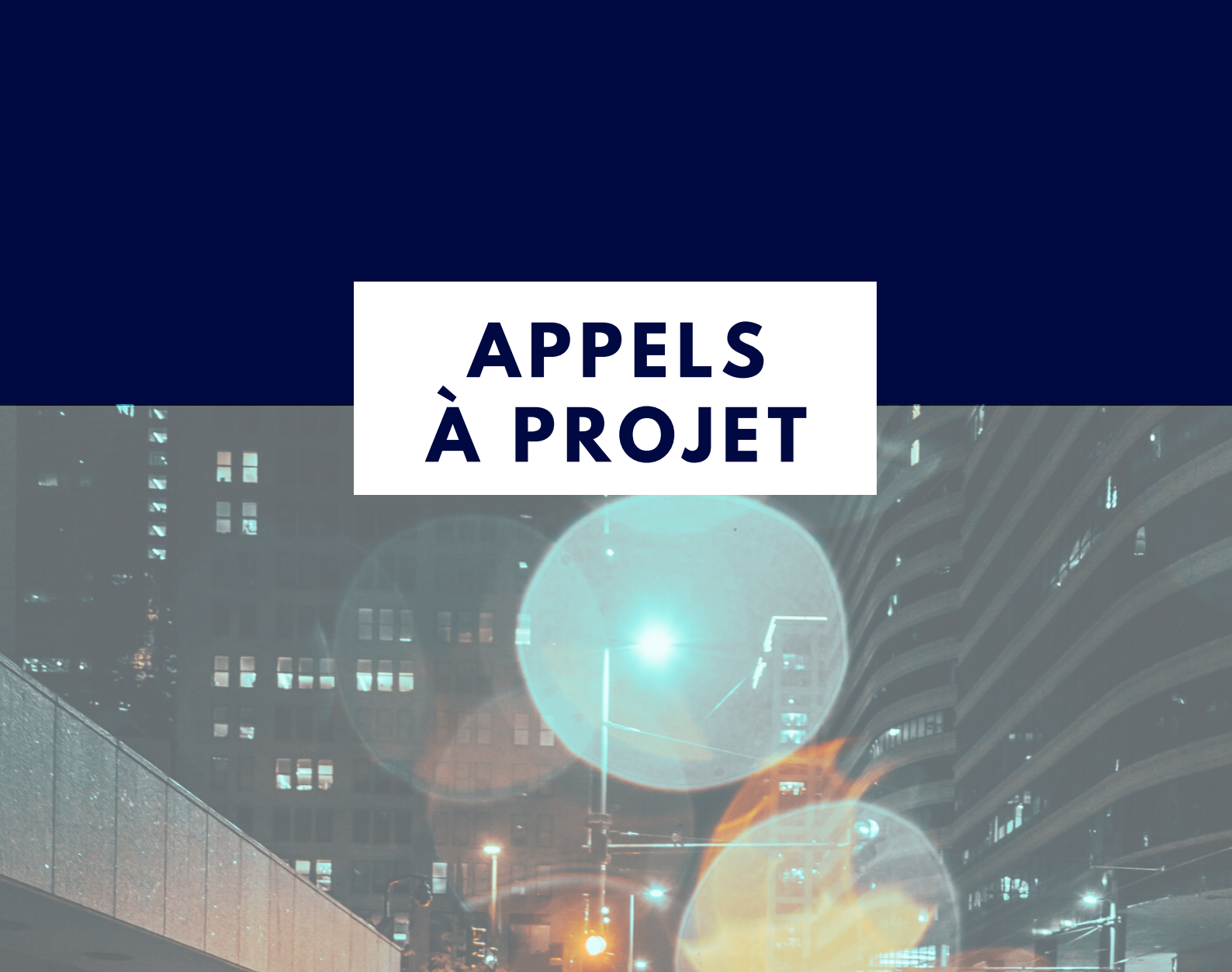




APPELS À PROJET

TECHNOLOGIES PROPRES ET BIOTECHNOLOGIE INDUSTRIELLE

MIS À JOUR LE 10 JUILLET 2020



Service des Affaires européennes et multilatérales
Recherche et innovation



HORIZON 2020

Horizon 2020 est le programme pluriannuel pour la recherche et l'innovation de l'Union européenne (UE) pour la période 2014-2020. Il dispose d'un budget de près de 80 milliards d'EUR provenant du budget de l'UE. Ce cadre stratégique commun de financement des programmes d'excellence de l'UE en matière de recherche et d'innovation vise à attirer des financements supplémentaires en provenance des secteurs privés et publics.

LE SITE FUNDING & TENDER OPPORTUNITIES

Le site web *Funding & tender opportunities* [↗](#) est le point d'entrée unique pour tous les porteurs de projets et les bénéficiaires dans le cadre du programme Horizon 2020. Le portail du participant met à disposition des services et outils qui permettent notamment de rechercher des opportunités de financements, de télécharger les documents officiels, de soumettre et de gérer des projets.

CRITÈRES D'ÉLIGIBILITÉ

Le Canada est un pays tiers (non membre UE) qui peut participer en tant que partenaire international au programme-cadre Horizon 2020.

Pour y parvenir, il devra respecter les conditions suivantes :

- les consortiums doivent être composés au minimum de trois entités juridiques ;
- les entités juridiques doivent être indépendantes les unes des autres.

Les participants québécois ne peuvent bénéficier des moyens alloués par l'UE. Toutefois, les gouvernements du Québec et du Canada peuvent financer la participation québécoise.

Pour de plus amples informations sur les possibilités de financement du gouvernement du Québec, le ministère de l'Économie et de l'Innovation (MEI) a notamment mis en ligne les balises et un guide concernant le Programme de soutien aux organismes de recherche et d'innovation (PSO) [↗](#).

Du côté du gouvernement du Canada, le Fonds Nouvelles frontières en recherche (FNRF) fournit du financement aux chercheurs canadiens qui sont partenaires dans des projets retenus et financés dans le cadre d'appels à propositions admissibles du Programme Horizon 2020 [↗](#). Les appels à projets admissibles sont identifiés avec le logo suivant dans le présent document.



De plus, dans le cadre d'une entente avec le FNRF, les trois Fonds de recherche du Québec (Société et Culture, Santé, Nature et Technologies) s'engagent à appuyer la collaboration de chercheurs et chercheuses québécois qui participent à l'un des 34 appels à propositions admissibles. La contribution des FRQ est à hauteur maximale de 50 000\$ par année, par projet porté pour une chercheuse ou un chercheur principal ; à hauteur maximale de 25 000\$ par année, par projet comportant un ou des co-chercheuses ou co-chercheurs québécois [↗](#).



TYPE D'ACTION

Les projets sont catégorisés en trois types d'action :

- **Actions de recherche et d'innovation (IRA)**

Ce financement de projets de recherche s'attaque à des enjeux clairement définis, qui peuvent mener au développement de nouvelles connaissances ou d'une nouvelle technologie.

Qui? Des consortiums de partenaires issus de différents pays, milieux industriels et universitaires.

- **Actions d'innovation (IA)**

Ce financement est davantage centré sur les activités facilitant la commercialisation, par exemple : les activités de prototypage, de test, de démonstration ou de pilotage si elles visent la production de produits et services nouveaux ou améliorés.

Qui? Des consortiums de partenaires issus de différents pays, milieux industriels et universitaires.

- **Actions de coordination et de soutien (CSA)**

Ce financement couvre la coordination et la mise en réseau des projets, programmes et politiques de recherche et d'innovation. Le financement propre à la recherche et à l'innovation est traité séparément.

Qui? Des entités distinctes ou des consortiums de partenaires issus de différents pays, milieux industriels et universitaires.

REMARQUES IMPORTANTES :

Les dates butoirs des appels à projets sont mentionnées à titre indicatif. Ces dates peuvent être reportées par la Commission européenne, particulièrement dans le contexte actuel. Nous vous encourageons à vous référer à la page web de l'appel à projets pour l'information la plus à jour.

Les heures mentionnées pour les dates butoirs sont à l'heure de Bruxelles (GMT +1), soit 6 heures de différence avec le Québec (GMT -5, heure normale de l'Est).

Le site de la Commission européenne étant exclusivement rédigé en anglais, les appels à projets contenus dans ce document sont présentés dans cette langue.

Pour des informations d'ordre général sur Horizon 2020, vous pouvez contacter Alexandra Burnet, conseillère en affaires internationales à la Direction des partenariats canadiens et internationaux en innovation au ministère de l'Économie et de l'Innovation du Québec: alexandra.burnet@economie.gouv.qc.ca ou André Patrocínio, attaché recherche et innovation à la Délégation générale du Québec à Bruxelles : andre.patrocinio@mri.gouv.qc.ca



**SOCIAL SCIENCES AND HUMANITIES
(SSH) ASPECTS OF THE CLEAN-ENERGY
TRANSITION**

Deadline: 1 September 2020
17:00:00 Brussels time

The clean-energy transition doesn't just pose technological and scientific challenges; it also requires a better understanding of cross-cutting issues related to socioeconomic, gender, sociocultural, and socio-political issues. Addressing these issues will help to devise more effective ways of involving citizens and to better understand energy-related views and attitudes, ultimately leading to greater social acceptability as well as more durable governance arrangements and socioeconomic benefits. (...)

- RIA Research and Innovation action
- Opening : already open
- Partners : 148



Fonds Nouvelles frontières en recherche
New Frontiers in Research Fund

**EUROPEAN ENERGY AND CLIMATE
MODELLING FORUM (2020-2024)**

Deadline: 1 September 2020
17:00:00 Brussels time

The European Union aims to decarbonise its economy according to policies for 2020 and 2030 and long-term visions for mid-century. The Commission has extensively used energy and climate economic models to assess the impacts of its policies and has supported the development of new knowledge in this field. As the energy transition will require radical changes in energy production, distribution and use, there is a need for a diversified set of modelling approaches to add robustness to (...)

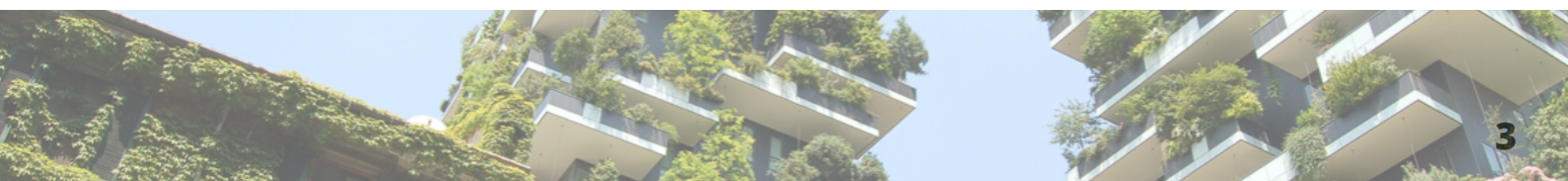
- RIA Research and Innovation action
- Opening : already open
- Partners : 48

**INDUSTRIAL (WASTE) HEAT-TO-POWER
CONVERSION**

Deadline: 1 September 2020
17:00:00 Brussels time

Better use of process excess/waste heat represents a significant source of energy savings for industries. In a context of reducing greenhouse gas emissions and introducing the concept of circular economy in heat management in view of industrial process electrification, European industries have a clear interest in finding new ways to capture the heat produced by their process and to reuse it or to produce electricity. The conversion of excess heat back to electricity would also improve energy efficiency, mitigate the increase of electricity (...)

- IA Innovation action
- Opening : already open
- Partners : 60



INTERNATIONAL COOPERATION WITH CANADA ON ADVANCED BIOFUELS AND BIOENERGY



Deadline: 1 September 2020
17:00:00 Brussels time

The optimisation of advanced biomass supply chains and overcoming specific conversion technology barriers are needed to improve the market up-take of sustainable advanced biofuels and bioenergy and accelerate their deployment for replacing the use of fossil fuels in the transport, power and heating sectors. International collaboration is mutually beneficial in strategic areas where knowledge can be exchanged and Europe can obtain leadership together with its international partners. (...)

- RIA Research and Innovation action
- Opening : already open
- Partners : 69



Fonds Nouvelles frontières en recherche
New Frontiers in Research Fund

POSITIVE ENERGY DISTRICTS AND NEIGHBOURHOODS FOR URBAN ENERGY TRANSITIONS



Deadline: 1 September 2020
17:00:00 Brussels time

The ambition of the SET-Plan Action 3.2 is the planning, deployment and operation of 100 Positive Energy Districts/Neighbourhoods (PED/PEN) in Europe by 2025. This requires integrated and holistic sustainable system approaches including technological, social, urban planning, economic, financial and legal/regulatory perspectives. Tackling such challenges, calls for integrated and innovative solutions to spur the implementation (...)

- ERA-NET-Cofund ERA-NET Cofund
- Opening : already open
- Partners : 70

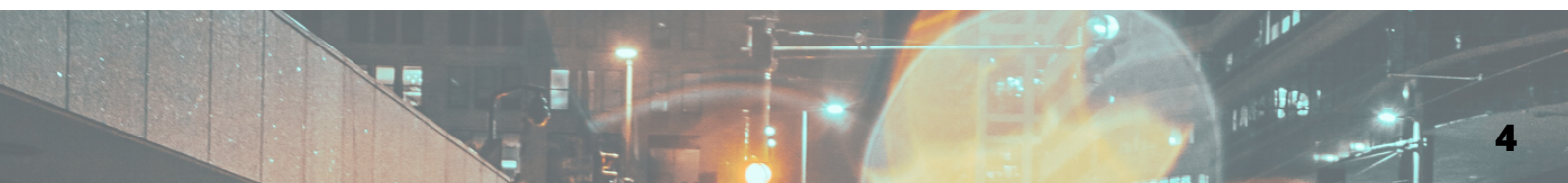
PRODUCE FOOD INGREDIENTS WITH HIGH NUTRITIONAL VALUE FROM AQUATIC SOURCES



Deadline: 3 September 2020
17:00:00 Brussels time

Among the UN Sustainable Development Goals, 'feeding the planet' features prominently. The growing world population will need additional sources of protein and ingredients with high nutritional value that do not deplete finite natural resources. The food industry can make a substantial contribution by increasing its resource efficiency. However, there will also be a need to tap new sources of protein. (...)

- BBI-IA-FLAG Bio-based Industries Innovation action - Flagship
- Opening : already open
- Partners : 29



UPSCALE THE PRODUCTION OF BIO-BASED PLATFORM MOLECULES FOR LARGER MARKET APPLICATIONS



Deadline: 3 September 2020
17:00:00 Brussels time

The sustainable production of bio-based platform molecules with a broad range of potential applications could increase the competitiveness of bio-based materials and products compared with their fossil-based counterparts. (...)

- BBI-IA-DEMO Bio-based Industries Innovation action - Demonstration
- Opening : already open
- Partners : 22

USE ENABLING TECHNOLOGIES TO IMPROVE FEEDSTOCK AVAILABILITY AND SUSTAINABILITY FOR THE BIO-BASED INDUSTRY



Deadline: 3 September 2020
17:00:00 Brussels time

Bio-based operations often deal with variable or even unpredictable conditions (e.g. weather, geographical differences, pathogens) affecting the overall resource efficiency of the targeted value chains. Proper planning of bio-based operations must take into account multiple inputs on soil conditions, biodiversity, logistics, resources management, etc. (...)

- BBI-RIA Bio-based Industries Research and Innovation action
- Opening : already open
- Partners : 28

DEVELOP INTEGRAL FRACTIONATION OF LIGNOCELLULOSE TO PRODUCE COMPONENTS FOR HIGH-VALUE APPLICATIONS



Deadline: 3 September 2020
17:00:00 Brussels time

Lignin and hemicellulose are mostly treated as low-quality, low-value side streams of lignocellulose fractionation. However, both lignin and hemicellulose are some of the most abundant raw materials – and a potential feedstock – for the bio-based industry. They could play a crucial role in promoting the regional supply and refinement of sustainable biomass feedstock for both existing and new value chains. Several high-value and moderate-value applications of lignin and hemicellulose have already been demonstrated. And both lignin and hemicellulose are potentially already available in large quantities from existing operations. (...)

- BBI-RIA Bio-based Industries Research and Innovation action
- Opening : already open
- Partners : 23



DEVELOP BIO-BASED SOLUTIONS TO RECYCLE COMPOSITES

Deadline: 3 September 2020
17:00:00 Brussels time

The full recyclability of composites through the effective separation and recovery of their components is still an issue. This is mainly due to the adhesives used to bind the different layers and materials together. The fossil-based bonding components that are currently used cannot easily be separated from the other components, nor can they be recycled together with the matrix material. (...)

- BBI-RIA Bio-based Industries Research and Innovation action
- Opening : already open
- Partners : 32

EXTRACT BIOACTIVE COMPOUNDS FROM NEW, UNDER-EXPLOITED AND/OR RECALCITRANT RESIDUAL BIO-BASED STREAMS FOR HIGH-VALUE APPLICATIONS

Deadline: 3 September 2020
17:00:00 Brussels time

There is a strong continuing interest in obtaining high-value, sustainable, bio-based ingredients from new and alternative sources. These sources include under-exploited, 'recalcitrant' (i.e. requiring innovative processes/technologies to handle) side streams containing bioactive compounds with high market potential. (...)

- BBI-RIA Bio-based Industries Research and Innovation action
- Opening : already open
- Partners : 48

DEMONSTRATE SUPERIOR BIO-BASED PACKAGING SOLUTIONS WITH MINIMAL ENVIRONMENTAL DAMAGE

Deadline: 3 September 2020
17:00:00 Brussels time

Packaging is key to sustaining the quality and durability of consumer and industrial products through their lifespan. Today, most packaging materials are fossil-based and may cause environmental problems at the end of their life cycle if not properly managed. For example, oxo-plastics (also called oxo-degradable plastics) are used in agricultural films, rubbish bags, carrier bags, food packaging and landfill covers. However, they break down into very small particles, potentially contributing to environmental (soil, marine, air) contamination by microplastics. And not all biodegradable packaging materials disintegrate quickly enough to avoid becoming marine litter or contaminating the soil. (...)

- BBI-IA-DEMO Bio-based Industries Innovation action - Demonstration
- Opening : already open
- Partners : 35



IMPROVE THE SUSTAINABILITY OF COATINGS



Deadline: 3 September 2020
17:00:00 Brussels time

Coatings are widely used in many applications, such as in glass, concrete, metal and furniture. Depending on the specific performance required by the intended applications, coatings must serve different purposes. These purposes include preventing reflectivity, self-cleaning, protection, waterproofing, fire resistance, anti-corrosion, insulation and anti-fouling. (...)

- BBI-CSA Bio-based Industries Coordination and Support action
- Opening : already open
- Partners : 30

PROVIDE INSIGHT ON EMERGING TECHNOLOGIES FOR BIO-BASED VALUE CHAINS



Deadline: 3 September 2020
17:00:00 Brussels time

Not all actors in the bio-based sector may be aware of or familiar with the existing and emerging technologies that could be used in bio-based value chains. Moreover, technologies are continuously evolving, and new technologies emerge so frequently that industry can hardly keep up. Without a clear overview of relevant technologies for specific applications, selecting the right one(s) for a particular value chain becomes difficult. (...)

- BBI-CSA Bio-based Industries Coordination and Support action
- Opening : already open
- Partners : 26

CREATE AND INTERLINK BIO-BASED EDUCATION CENTRES TO MEET INDUSTRY'S NEEDS OF SKILLS AND COMPETENCES

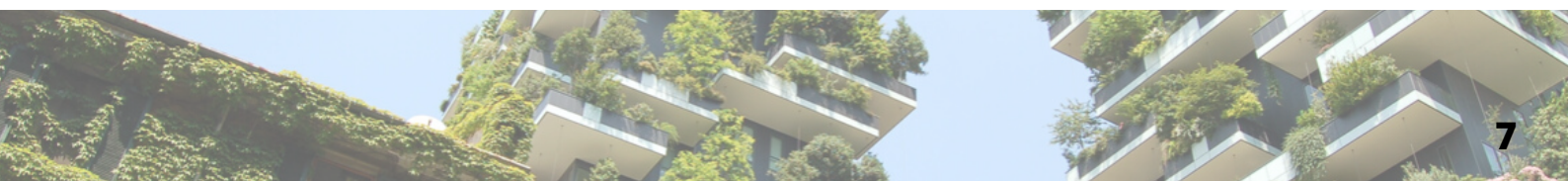


Deadline: 3 September 2020
17:00:00 Brussels time

Due to its cross-sectoral nature and (relative) novelty, the bio-based industry requires a set of skills and competencies that are not available in some regions, but that are available – and taught – in certain academic and vocational schools.

Part of the process of closing the skills gap is increased cooperation between industry and the academic world. In some countries and regions, there is already interaction between the bio-based industry, academia and government. This cooperation occurs in training or innovation centres that mostly focus on joint projects or initiatives. (...)

- BBI-CSA Bio-based Industries Coordination and Support action
- Opening : already open
- Partners : 30



**EXPAND CIRCULAR ECONOMY TO
INCLUDE THE UNDEREXPLOITED
CIRCULAR BIOECONOMY**

Deadline: 3 September 2020
17:00:00 Brussels time

The circular economy aims to maintain the value of products, materials and resources for as long as possible by returning them into the product cycle at the end of their use, while minimising the generation of waste. The bioeconomy covers all sectors and systems that rely on biological resources (animals, plants, microorganisms and derived biomass, including organic waste), their functions and principles. (...)

- BBI-CSA Bio-based Industries Coordination and Support action
- Opening : already open
- Partners : 34

**NEXT-GENERATION OF ENERGY
PERFORMANCE ASSESSMENT AND
CERTIFICATION**

Deadline: 10 September 2020
17:00:00 Brussels time

Under the Energy Performance of Buildings Directive[1], all EU countries have established independent energy performance certification systems supported by independent mechanisms of control and verification. However, current practices and tools of energy performance assessment and certification applied across Europe face a number of challenges. (...)

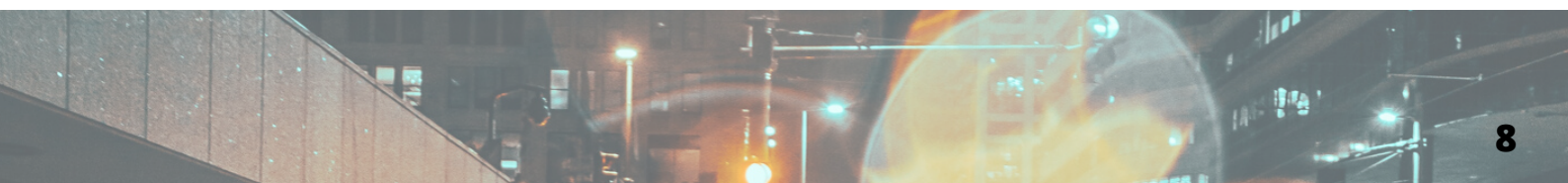
- CSA Coordination and support action
- Opening : already open
- Partners : 57

**MITIGATING HOUSEHOLD ENERGY
POVERTY**

Deadline: 10 September 2020
17:00:00 Brussels time

European households continue to spend an increasing share of income on energy, leading to higher rates of energy poverty and negatively affecting living conditions and health. Recent estimates suggest that more than 50 million Europeans are affected by energy poverty. Although roots of this phenomenon lie mainly in low incomes and poor thermal efficiency of buildings, energy efficiency measures at the household level and increased use of renewable energy are key tools in addressing energy poverty and can bring energy savings, leading to lower fuel costs and improved living conditions. The issue is in part exacerbated by a lack of sufficient knowledge on how to identify energy poor households. (...)

- CSA Coordination and support action
- Opening : already open
- Partners : 164



SUPPORTING PUBLIC AUTHORITIES IN DRIVING THE ENERGY TRANSITION



Deadline: 10 September 2020
17:00:00 Brussels time

The delivery of the Energy Union targets requires the full engagement of the public sector at all governance levels.

Local and regional public authorities have a crucial role in setting ambitious energy efficiency strategies, for instance in the framework of the Covenant of Mayors for Climate & Energy and Smart Cities & Communities or the Clean Energy for EU islands initiative. The political commitment at local level should be enhanced and the focus should turn to implementation and effective monitoring of concrete energy efficiency solutions and actions, which can contribute to modernise and decarbonise the European economy. Synergies should be sought, whenever possible, with local and regional air quality plans and air pollution control programmes to reduce costs since these plans rely to a large extent on similar measures and actions. (...)

- CSA Coordination and support action
- Opening : already open
- Partners : 88

