

General Information	
Preliminary title of the European Partnerships	EIT InnoEnergy
Short description of the partnership	It aims at accompanying energy transition and decarbonization of the European economy by fostering the generation of talents, supporting emergence and deployment of innovative solutions, accelerating innovative companies developing low carbon solutions.
Services directly involved	DG EAC, European Institute of Innovation and Technology (EIT)
Context and problem definition	<p>Delivering sustainable energy is critical in tackling climate change, security of supply and for the competitiveness of the European energy sector. European Union has been a global leader of this energy transition, which remains for the EU a key to building its global comparative advantage.</p> <p>As reminded in the HEU Partial General Approach and its Cluster 5, to meet the objectives of the Paris Agreement the EU will need to transition to climate neutral, resource-efficient and resilient economies and societies. This will entail on profound changes in technology, processes, products and services, to the ways in which businesses and consumers behave.</p> <p>The “Clean Planet For All” Communication adopted in November 2018 describes also the pathways for the transition to a net-zero greenhouse gas economy. It stresses that energy has a central role “as it is today responsible for more than 75% of the EU's greenhouse gas emissions”.</p> <p>To move towards net-zero greenhouse gas emissions, the EU has to rely on secure and sustainable energy supply underpinned by a market-based and pan-European approach. The future energy system will integrate electricity, gas, heating/cooling and mobility systems and markets, with smart networks placing citizens at the centre. The communication adds that “the transition also requires further scaling-up of technological innovations in energy, buildings, transport, industry and agriculture sectors”</p> <p>The added value of InnoEnergy is in fostering innovation in low carbon energy, targeting market opportunities for these innovations, putting the consumers/citizens at the centre of the energy “New Deal”.</p>
Objectives and expected impacts	<p>Since 2010, EIT InnoEnergy has been focusing its activities on:</p> <ul style="list-style-type: none"> - Education: training over 1000 students, a new generation of ‘game changers’ that will be able to embrace the energy transition, by 1) being part of companies in the energy sector 2) creating their own companies in the energy sector 3) joining one of the 215 start-ups that InnoEnergy is supporting. - Innovation projects: thanks to the support (financial & business services) provided to innovators by InnoEnergy, 125 innovative low carbon products are now on the market - Support to start-ups: InnoEnergy has now in its portfolio 215 start-ups dedicated to energy transition, proposing radical innovations and creating jobs and growth in the EU. <p>In addition to these activities, EIT InnoEnergy has provided contributions to major European Initiatives, including:</p> <ul style="list-style-type: none"> - The European Battery Alliance, where InnoEnergy has created an ecosystem gathering industry, R&I stakeholders, investors etc. in order to help the European Union catching up in this strategic field of batteries and contribute to the competitiveness of the European value chain. Through the ETIP “Batteries”, InnoEnergy notably aims at connecting the R&I priorities with the industrial ecosystem; - The acceleration of the clean energy innovation: in close relation with the European Commission, EIT InnoEnergy has contributed to identify the main obstacles to the deployment of low carbon innovations in Europe. Pragmatically, EIT InnoEnergy participates in a pilot action with DG RTD in view of accelerating the “lab-to-market” process;

	<ul style="list-style-type: none"> - Mission Innovation, by bringing European innovators in the various events organized, and contributing to the brainstorming on the way to increase substantially innovation and financial efforts for the rapid expansion of cleantech. <p>For the 2021-2027 period, the objectives are:</p> <ul style="list-style-type: none"> - To keep on supporting the innovators in the low carbon sector, a domain where developing a solution takes more time than in other sectors (deep tech = prototype, demonstration, deployment), presents often a high risk profile and make it difficult to attract investors (capital intensive). The role of InnoEnergy is therefore of paramount importance to keep on de-risking investments in these solutions and bring them onto the markets; - To maintain a strong emphasis on educating and training students and workers, as the energy transition is also a revolution for the energy sector stakeholders, that have to change their mindset and the one of their workforce. For this, the role of InnoEnergy in terms of education and training is crucial; - To dedicate special attention to what we call the “societal appropriation”. This is the methodology that makes possible to include the citizens in the energy transition, that is not a constraint, but an opportunity. InnoEnergy has designed special tools and campaigns to make that happen, that will be deployed in the coming months and years; - To keep on supporting major European initiatives in the field of energy or related topics. InnoEnergy intends to pursue its work in the frame of the European Battery Alliance, where time is of essence, as most of the strategic investments – in cell manufacturing, recycling etc. – have to take place in the next 2-3 years. InnoEnergy wishes also to replicate what has been done in other areas (e.g. Clean air) backing the ambitions described by the European Council in March 2019 regarding the re-industrialization of Europe on strategic value chains. <p>For 2021 – 2027 the main targets InnoEnergy partnership has defined for itself are:</p> <ul style="list-style-type: none"> • 336Mt CO₂ saved • 9.627M€ savings in energy costs • 469TWh generated from clean energy sources • Enable 3.5 M people with access to energy in developing countries • 62,000 Direct and indirect jobs created • 3.760M€ of sales generated by supported assets; • 2.520M€ of external funds raised by supported companies
<p>Necessity test: rationale for a European Partnership</p>	<p>A partnership approach is more effective in achieving the objectives because:</p> <ul style="list-style-type: none"> - The magnitude and systemic nature of the problem addressed requires knowledge and resources sharing, and long-term, concerted actions (based on a joint strategy and shared vision) from a broad range of stakeholders: academia, industry, SMEs, regulators, investors, utilities etc. - It ensures the achievement of critical mass to ensure the scale and scope required and, at the same time, thus overcoming the sector fragmentation through coordination, structuration and prioritisation. - Ensure a systemic (not fragmented) approach to innovation, addressing all sector segments in a coordinated manner, accelerating deployment and increasing the impact - It relies on a stable governance ensuring the long-term commitment of all stakeholders involved. - It creates the conditions to incentivise the commitment of innovation actors for a long time, in order to ensure the continuation of the activities once the EU financial support is phased-out.

	<ul style="list-style-type: none"> - combine, in an integrated way, the education and training activities, the support to innovation and business creation, the strengthening of innovation ecosystems, with the less administrative efforts, to tackle a global challenge. - Establish synergies and complementarities with other EU initiatives, in order to make the critical mass of efforts more consistent.
Relevant for the following parts of Horizon Europe	<p>Pillar II 'Global Challenges and European Industrial Competitiveness'</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cluster Health <input type="checkbox"/> Cluster Culture, creativity and inclusive society <input type="checkbox"/> Cluster Civil Security for Society <input type="checkbox"/> Cluster Digital, Industry and Space <input checked="" type="checkbox"/> Cluster Climate, Energy and Mobility <input type="checkbox"/> Cluster Food, Bioeconomy Natural Resources, Agriculture and Environment <input type="checkbox"/> Cross-cluster <input checked="" type="checkbox"/> Pillar III 'Innovative Europe'
Currently identified links with other partnership candidates / Union programmes	<p>Examples of collaboration opportunities with other EU initiatives:</p> <ul style="list-style-type: none"> - Carbon Neutral and Circular Industry Partnership, Clean Hydrogen Partnership, Built environment and construction partnership, Clean Energy Transition Partnership, Battery Partnership. - European Battery Alliance: For the launch of this activity, the European Commission has been supported by EIT InnoEnergy, that helped in 1) organising a European ecosystem gathering the main European stakeholders in the field of batteries, 2) incubating European projects in the field of batteries, 3) creating a forum for discussion between the European Batteries ecosystem and the potential investors. - ETIP Batteries: InnoEnergy leads the platform, together with EERA and EASE. - Enhanced EIC pilot: InnoEnergy will provide support to deliver business acceleration services to EIC beneficiaries. - Pilot action with DG RTD, in order to accelerate the “lab-to-market” in the energy sector. - Cooperation with the future ETS Innovation Fund, to share expertise on supporting demonstration projects, and to feed the pipe of the future instrument. - Cooperation with the regional managing authorities of ESIF, to share our experience in terms of assessment and to collaborate on the identification of the most promising innovation cases.
Does the proposed partnership build on currently active ones?	<p>EIT InnoEnergy is the continuation of the EIT-KIC partnership of the same name currently implemented through the EIT. It was established in 2010, for a maximum duration of 15 years, following a call for proposal in 2009.</p>
Expected type and composition of partners	<ul style="list-style-type: none"> - EIT InnoEnergy already manages a formal partnership of more than 430 partners across its six regional European Co-location Centres: Benelux, Iberia, France, Scandinavia, Central Europe and Germany. - Main industrial partners include equipment manufacturers, as well as Transmission and Distribution operators like: ABB, Acciona, Alstom, Iberdrola, Schneider Electric, EDF, ENGIE etc. - Main academic/research partners are: CEA, Ciemat, Eindhoven University of Technology, KU Leuven, TNO, Paris Tech, KTH, Chalmers University of Technology. - The co-location centres bring together, at a local or regional level, the education, research and industry partners of the KIC, thereby allowing a face-

	<p>to-face contact, geographical proximity and practical integration of the knowledge triangle.</p> <ul style="list-style-type: none"> - Under Horizon Europe, the ambition is to strengthen the principles of openness and transparency, in particular as regards the selection of new partners and the procedure for the preparation of the Business Plans. - Behavioural change is crucial for the energy sector and citizens, as end users need to be involved at all stages. EIT InnoEnergy promotes a consumer centred approach in many innovation projects. It also promotes direct citizen involvement in its education dimension, through MOOCs and awareness raising activities.
Contributions and commitments expected from partners	In addition to the EIT grant, the KIC budget includes: in-kind contributions from the partners; revenues from various sources, e.g. membership fees, ROI from shares in companies, business support services, fees from EIT labelled education programs etc.
Currently envisaged implementation mode(s).	<input type="checkbox"/> Co-programmed European Partnership <input type="checkbox"/> Co-funded European Partnership <input type="checkbox"/> Institutionalised European Partnership <ul style="list-style-type: none"> <input type="checkbox"/> Article 185 <input type="checkbox"/> Article 187 <input checked="" type="checkbox"/> EIT-KIC
Justification of the implementation mode	<p>As explained above, the KIC concept makes the difference thanks to:</p> <ul style="list-style-type: none"> - the “Knowledge triangle”: there is no partnership with an equivalent concept to bring together education, R&I and industry, to generate innovation. This is also a very agile partnership that facilitate the attraction of the private sector (very low administrative burden, rapid time-to-grant) - The wide topical scope: no other partnership embraces such a wide topical scope. At InnoEnergy, we can support innovations on all the major thematic fields: smart cities, smart buildings, energy efficiency, renewables, energy storage, CCS and CCU, chemical fuels ... With no constraints but just the ambition to foster innovation in these fields; - Proximity to the innovators: by experience, InnoEnergy knows that supporting innovators means being close to them (and often welcoming for instance early stage start-ups in their co-location centres). The decentralised approach, with the co-locations centres and the hubs in most of the European Member States, is a unique added-value. - The “investor profile”: At InnoEnergy, because of the “financial sustainability” requirement, we are not providing grants, we are investing in the innovations we support, that’s make us even closer to our innovators and link us to their success (their success is our success). There is no equivalent to this kind of approach today among the European instruments available. And if we wish to encourage market uptake in that sector, having an investor profile is a “must have”.
Proposed starting year	The partnership was established in 2010. It is proposed to continue funding this KIC in the course of Horizon Europe.