



A Partnership Instrument Action
funded by the European Union

CALL FOR EXPRESSIONS OF INTEREST TO ESTABLISH EU-KOREAN CLIMATE PARTNERSHIPS FOR JOINT RESEARCH AND PILOT PROJECTS IN THE AREAS OF RENEWABLE ENERGY, ENERGY-EFFICIENT BUILDINGS AND LOW-CARBON MOBILITY IN THE REPUBLIC OF KOREA

The Call in a Nutshell

Supported Actions: European-Korean Joint Research and Pilot Projects

Thematic Priorities: Renewable Energy, Energy-Efficient Buildings, Low-Carbon Mobility

Location: Republic of Korea (Korea)

Eligible Partners: Climate Partnerships are composed at least of one European and one Korean entity from any of the following categories: government authorities at the sub-national level, NGOs and CSOs, business intermediaries, SMEs, research institutes and academia.

Application Timeline: 31 May 2020

Funding per Project: Up to EUR 20,000

About the EU-Korea Climate Action Project

The European Union (EU) and the Republic of Korea (Korea) share the goal to accelerate the transition to low-emissions, climate resilient sustainable economies and societies. Both the EU and Korea are strongly committed to implement the 2015 Paris Agreement and delivering on their respective domestic commitments under the Agreement. Ambitious climate action at all levels is needed to achieve these goals.

The EU-Korea Climate Action project is a three-year project (2018-2020) funded by the European Union through the Partnership Instrument with the objective to enhance EU-Korea joint Climate Actions and to support the transition towards a low carbon economy in Korea. The project supports the creation of Climate Partnerships between Korean and European non-state entities who are interested in implementing low carbon actions in priority areas such as renewable energy, energy efficiency in buildings, low-carbon mobility, circular economy and best low-carbon business practices. In these fields the project supports non-state actors' networking, dialogue and exchange activities and facilitates EU-Korea stakeholder cooperation in the field of climate and energy. Eligible entities include but are not limited to government authorities below the national level, NGOs and CSOs, industry, business intermediaries and businesses, academic and research institutes, and media organisations.

The project is implemented by a consortium led by ICF S.A. (Belgium) and comprising ICLEI – Local Governments for Sustainability (Germany), ECOSIAN CO. Ltd (South Korea), and GFA Consulting Group GmbH (Germany).

Background

Korea is one of the world's fastest growing economies, characterised by a very high urbanization rate with more than 80% of its population living in cities (2018). Fossil fuels account for more than 90% of its total energy consumption and the country's greenhouse gas (GHG) emissions have been rising about 2.5-fold since 1990. Korea's current share of renewable energy in electricity generation stands at less than 7%, with a target of reaching 20% by 2030.

In July 2018 the Korean government announced the objective that national GHG emissions, currently standing at about 700 Million tons of CO₂ equivalent per year, shall peak around 2020. The country targets a domestic 32.5% GHG emissions reduction by 2030 compared to a business as usual scenario and also aims at improving energy intensity. Furthermore, in its path towards a low-carbon economy, Korea is striving to address deteriorating air quality in cities and improve the security of its energy supply that largely depends on imports at present.

These plans provide a fertile ground and substantial opportunities for exchange of knowledge, experience and research partnerships as well as action-oriented policy, economic and technology cooperation between the EU and Korea in the areas of climate change mitigation and adaptation.

Objective of this Call

The specific objective of this Call for Expressions of Interest is to stimulate climate action on the ground in the form of Joint Research Projects or Pilot Projects to contribute to Korea's GHG emissions reduction and climate change adaptation efforts. The priority topics for this specific call are: 'Renewable Energy', 'Energy-Efficient Buildings' and 'Low-Carbon Mobility'.

With reference to these priority topics, this call intends to contribute to enhanced knowledge and to provide solutions in Korea for instance by:

- Raising social understanding and acceptance of renewable energy;
- Supporting the effective deployment of renewable energy and the corresponding enabling framework;
- Raising awareness about strategies to integrate renewable power into the energy supply;
- Strengthening skills and know-how in the construction industry about energy-efficient solutions;
- Improving the energy efficiency of new and old buildings;
- Reducing GHG emissions caused by buildings;
- Fostering behavioural change conducive to energy-savings in buildings;
- Raising awareness of the use of low-carbon mobility including public transport, bicycle, walking and electric vehicles fuelled by clean energy;
- Enabling better connectivity to switch between transportation modes conveniently;
- Developing infrastructure and policy tools to promote public mass transport, cycling and walking;
- Accelerating the transition to next-generation vehicles such as electric and autonomous vehicles;
- Promoting efficient use of transport and infrastructure by applying ICT.

This list is indicative and not meant to be exhaustive.

Further Information on Thematic Priorities of this Call

The thematic priorities for this call are the promotion of renewable energy and improved energy efficiency of buildings as well as low-carbon mobility in Korea. The following sections provide additional information on specific sub-sectors of relevance for each of the two priority areas.

1. Promotion of Renewable Energy in Korea

1.1. *Ensuring sustainability and security of Korea's power supply*

Korea is a highly developed and industrialised country with an elaborate power supply infrastructure and an annual electricity generation of about 12MWh/capita. Penetration of renewable energy currently stands below 7%. Consequently, Korea's electricity grid is designed to distribute electricity from stable, baseload generation facilities fuelled by fossil resources or nuclear energy. However, considering Korea's plan to achieve a 20% renewable energy share by 2030, themes such as the following could be addressed:

- Mapping out how to enhance the existing electricity transmission and distribution infrastructure capacity to cope with variable power generation from renewable sources such as wind and solar and valorise system flexibility;
- Identifying key enabling factors towards a flexible electricity system backed up by relevant market mechanisms;
- Identifying possible technical and business model for demand side management and new energy services in a view to harnessing the flexibility provided by a larger share of renewable energy (possibly, in conjunction with enhanced energy efficiency in buildings);
- Identifying key enabling factors and suggesting appropriate schemes to provide investors in renewable power generation with enhanced predictability and project viability;
- Proposing innovative power sinks as well as advanced power storage technologies.

This list of examples is provided as a reference and shall not be considered exhaustive of all possible themes accepted under this thematic priority.

1.2. *Korean social acceptance of utility scale renewable energy power generation*

In Korea, renewable energy installations, including large hydro, wind or solar power developments, are prone to encounter resistance from concerned communities and stakeholders. A lack of knowledge and trust in the technologies and their benefits are widespread in the country. New ownership structures and benefit sharing of the installed technologies could support a re-thinking in society with regard to a more decentralised renewable energy infrastructure. Achieving the government target of a 20% renewable energy share by 2030 requires a societal transition.

General acknowledgement by all stakeholders in the energy system of the important role of renewable energy in Korea's energy mix and energy security, combined with a broad and

sustained information campaign and plan is needed to convince the general public about the opportunities provided by an expansion of renewable energy power generation for the country. In this context it is important to raise awareness about the co-benefits such as improved air quality, the creation of new jobs and local income opportunities, improved energy security and lower energy imports bill.

Examples of possible activities to be supported in this area include but are not limited to:

- Knowledge and experience exchange, education programs and trainings on establishing renewable energy generation cooperatives, i.e. locally shared ownership of wind farms or PV arrays;
- Creation and operation of an EU-Korea web-based marketplace for SMEs interested in trading renewable energy technology, products and services;
- Business models and technologies for the decentralised supply of renewable energy to businesses and buildings, including the integration of energy storage systems and demand side management;
- Case studies of best practices in the field of community consultation and local cooperation on renewable energy, profit sharing, and environmental protection from renewable power projects, identifying areas of cooperation with local Korean authorities;
- Sharing experience and knowledge on the integration of renewable power into the national or local grid, identifying power sinks and electricity storage solutions;

2. Improving Energy Efficiency in Buildings in Korea

2.1 Ensuring energy efficiency of new residential, commercial and industrial buildings

Buildings are particularly relevant to reduce GHG emissions as the energy performance of a new building is 'locked-in' for several decades. Since 2001 Korea operates the 'Building Energy Efficiency Certification' system. The European experience indicates that this can be complemented by the energy efficiency rating of so-called 'passive energy-consuming products' such as windows, doors and insulation materials.

Actions intended to help reducing building related GHG emissions in new buildings may include but are not limited to:

- Developing zero-carbon house standards and manuals that could support the introduction of this concept in South Korea;
- Developing training schemes for architects, engineers, construction workers and the commissioning authorities on the energy-saving installation of passive energy-consuming components and devices;
- Piloting technological upgrades such as passive-house technology and promoting behavioural change in support of zero-carbon housing;
- Documenting options for expanding district heating systems and heat-pump technology, in particular integrating ICT-technology and smart home concepts as part of demand side management, smart metering and new energy services (e.g. aggregators);

2.2 Improving the energy performance of the existing building stock

Enhancing the energy performance of existing buildings involves improved window insulation systems, insulation of exterior walls and roofs, better controlled and energy-efficient ventilation, air-conditioning and heating (HVAC) systems as well as the installation of (smart) control systems. Additionally, the energy performance of buildings can be greatly improved by integrating renewable energy generation via solar photovoltaic or solar thermal panels and using renewable energy, electricity or biomass.

Examples of actions on energy-efficient buildings in the existing housing stock may include but are not limited to:

- Organizing public awareness campaigns on measures to improve energy efficiency in the existing housing stock;
- Developing cooperation models on energy retrofitting of existing residential or commercial buildings;
- Joint benchmark studies on specific building characteristics and related energy optimisation options in EU and Korea;
- Workshops on specific energy efficiency technologies for buildings and the economics behind these;
- Building a compensation mechanism for energy saving using an inter-city block chain approach;

3. Promotion of Low-Carbon Mobility in Korea

Transport is responsible for about 14% of GHG emissions in Korea. Various approaches can be taken to reduce carbon emissions, ranging from using low-carbon energy sources to employing energy-efficient vehicles. Green and smart vehicles linked with intelligent ITC can ensure smooth-running and efficient transport systems. Alternative modes such as walking, cycling, public transport and shared mobility can contribute to promote a more sustainable and environmental-friendly lifestyle.

Examples of actions to improve low-carbon and sustainable mobility may include but are not limited to:

- Organizing public awareness campaign and training programs to raise awareness of the use of low-carbon mobility including public transport, bicycle, walking and electric vehicles fuelled by clean energy;
- Developing cooperation models to share policies and technologies to promote low-carbon transport in urban areas;
- Providing systematic solutions to enable better connectivity to switch between transportation modes conveniently;
- Conducting a joint research about innovative infrastructure for public mass transport, cycling and walking;
- Technical workshops on next-generation vehicles such as electric and autonomous vehicles;
- Case studies on Intelligent Traffic System and Smart Traffic Management solutions;

Eligible Activities under this Call

In the scope of this call, the EU-Korea Climate Action project welcomes Expressions of Interest for two kinds of projects: Joint Research Projects and Pilot Projects. The EU-Korea Climate Action project is expecting to provide seed funding in the preparation phase of these projects. The proposed collaboration, particularly in the case of Pilot Projects, is expected to lead to long-term and in-depth cooperation between Climate Partners. In this context capacity building actions, for example in the form of study visits to Korea or EU, can be part of the proposed activities.

1. Joint Research Projects

In a Joint Research Project, Climate Partners research and document an issue of mutual interest, supporting the low-carbon energy transition Korea endeavours in alignment with the thematic priorities of this Call. This can also include small, self-contained research for publication with a view to facilitate changes to the regulatory, technical, business or social/behavioural environment in the areas of renewable energy promotion, energy-efficiency in buildings or low-carbon mobility in the Republic of Korea.

By conducting research activities such as literature research, analysis of existing data series and structured interviews, partners involved in a Joint Research Project are for instance expected to:

- Deliver studies on actual public awareness on climate change and how to raise it;
- Review climate-related policies and/or technologies to assess their effectiveness to contribute to Korea's energy transition;
- Present feasibility studies about low-carbon products, technologies and services in the Korean market;

The above examples are provided as a non-exhaustive reference. Results of research projects to which the project's funding has contributed will need to be documented in a final report which will be published on the EU-Korea Climate Action website¹. Additionally, Climate Partners may present research findings during events organised or supported by the EU-Korea Climate Action project.

2. Pilot Projects

A pilot project may deliver an activity plan or roadmap for joint actions contributing to Korea's low-carbon energy transition and climate objectives. Pilot projects should test the feasibility and usefulness of the proposed activities and joint actions. They should try out different approaches, develop strategies, identify good practices and provide guidance for the benefit of future full-scale projects. Applications under the broader category of Pilot Projects shall describe the project concept and explain how the pilot phase will further develop into innovative yet realistic, replicable and scalable approaches, methodologies or solutions that address the thematic priorities of this call.

¹ www.climateaction-korea.eu

Examples of proposed pilot projects may include but are not limited to:

- Developing strategies and/or approaches to enhance energy efficiency in buildings on larger scales;
- Developing approaches and outlining required regulatory changes to establish energy communities/cooperatives in Korea;
- Developing approaches and outlining required regulatory changes to install solar panels on multi-apartment buildings in Korea;
- Developing approaches and outlining required regulatory changes to new energy services such as aggregators or energy services companies;
- Developing action plans to enable better access to climate finance, including Horizon 2020 applications or bankable investments;
- Showcasing new climate-friendly, energy saving and/or renewable energy utilising production processes, including the promotion of new technologies;
- Developing action-oriented concepts to instigate behavioural change towards a low-emission lifestyle.

The results of the project to which project funding has contributed will need to be documented in a final report which will be published on the EU-Korea Climate Action website.

Please note:

- The duration of financial support to an activity shall not exceed six months from the contract date. However, the continuation of an action beyond this initial funding period is expected.
- Actions must generally take place in the Republic of Korea with the exception of capacity-building activities such as study tours to European Member States.

Eligible Partners

- Expressions of Interest shall be submitted by Climate Partnerships comprising a minimum of two partners, one based in an EU Member State and one in Korea. Climate Partners should be jointly involved in the design and implementation of the activities. Their commitment to work together should be documented in a Memorandum of Understanding or Partnership Agreement for which an example template is attached in Annex B.
- Entities eligible for the support include government authorities at the sub-national level, NGOs and CSOs, business intermediaries (e.g. chambers of commerce, industry associations), small and medium sized enterprises (SMEs²), research institutes and academia.

² 'The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.' Extract of Article 2 of the annex to Recommendation 2003/361/EC

Eligible Costs

Submitted Expressions of Interest shall include a budget for direct costs related to the implementation of proposed activities that will serve as a cost estimate and an overall ceiling for eligible costs. The cost template is provided in Annex C of this guidance document.

- Costs are only eligible if incurred within six months after the contract signature.
- The support through the EU-Korea Climate Action project cannot exceed 80% of the actual documented direct costs. Indirect cost as well as contributions in kind will not be considered. It is therefore in the applicants' interest to provide a realistic and cost-effective budget.
- Applicants' financial contributions can be replaced by other donors' contributions at any time.
- Any financial support requested under this Call for Expressions of Interest must not exceed the maximum amount per project of EUR 20,000 and can be composed of the following indicative contributions per project:
 - up to five return flights EU-Korea/Korea-EU supported with up to EUR 1,000/flight;
 - up to five person-stays in EU or Korea supported with up to EUR 1,000 /person-stay abroad;
 - translation costs up to EUR 5,000;
 - visibility actions/cost for print material, small workshops, flyers etc. up to EUR 5,000.
- The difference between the total cost of the action and the amount requested from the contracting authority must be financed from sources other than the general budget of the EU or the European Development Fund.

Technical Support

In addition to financial assistance, the EU-Korea Climate Action project offers limited technical support during the proposal and implementation stage. Such technical consulting support includes services such as:

- Advice on the project approach and how this can be improved;
- Project financing options and opportunities;
- Identification of additional stakeholders in Europe and Korea.

Application Procedure

- Expressions of Interest shall be submitted in English by completing a proposal in line with:
 - a. the Expression of Interest Instructions (Annex A);
 - b. the Budget Template (Annex C);
 - c. the Template for a Memorandum of Understanding between Climate Partners (Annex B) (alternatively an existing Memorandum of Understanding or Partnership Declaration can be submitted).
- Accurately completed applications shall be submitted by email to:
ClimatePartnership@climateaction-korea.eu

- Lead partners must verify that their submitted Expression of Interest is complete by filling in the checklist provided in the Proposal Instructions. Incomplete proposals will not be considered for support.
- Expressions of Interest can be submitted until 31 May 2020.
- Climate Partnerships cannot submit more than one Expression of Interest. However, an individual Climate Partner may engage in more than one Climate Partnership.

Evaluation & Selection Process

The quality and eligibility of submitted Expressions of Interest will be assessed by the EU - Korea Climate Action project team with the support of external experts where required. All proposals will be evaluated based on the following criteria and steps:

- *Administrative and eligibility checks:* The team will evaluate if the proposal provides all the information requested in the Proposal Instructions. If any of the required information is missing or found to be incorrect, the proposal will not be retained for further evaluation.
- *Relevance and design:* Proposals that pass the initial checks will be evaluated according to the relevance and design of their proposed Climate Action based on a score of up to 50 points according to the evaluation grid below. Only proposals with an evaluation score of at least 40 will be considered for project support.
- The lead partner of Climate Partnerships will be informed in writing of the contracting authority's decision concerning their submitted Expression of Interest and, if not supported, the reasons for the decision.
- Following the decision to award support to a proposed Climate Action, the lead partner will be contracted through a simple Letter of Engagement. The contracting authority will be ICF S.A., Belgium, in its capacity as the Lead partner of the EU-Korea Climate Action project.

Indicative timetable

1. Timeframe for proposal submission	Until 31 May 2020
2. Notification to lead partner about administrative and thematic evaluation and awarding of support	4 weeks after proposal submission
3. Contract signature	2 weeks after notification of support

List of Annexes

Annex A: Proposal Instructions

Annex B: Template for Memorandum of Understanding between Climate Partners

Annex C: Budget Template

For further information concerning this call please write to:

ClimatePartnership@climateaction-korea.eu

Evaluation grid:

Each subheading will be given a score between 1 and 5, as follows:

1 = very poor; 2 = poor; 3 = adequate; 4 = good; 5 = very good.

Scores*

1. Relevance of the action		Sub-score: 20
1.1 How well aligned is the proposed action to the objectives and priorities of this Call for Expressions of Interest and to the specific themes/sectors/areas mentioned in the guidelines?	5	
1.2 How relevant is the proposed action to enhanced EU-Korea cooperation in the area of low-carbon development? Does the proposed action aim at creating any synergy with other international initiatives on these topics? If yes, which initiatives?	5	
1.3 How clearly defined and relevant to this call's objectives are the stakeholders involved? Both the climate partners submitting the proposal and the stakeholders targeted by the action shall be considered.	5	
1.4 Does the proposed action include innovative elements with respect to partner and stakeholder collaboration, new ideas and best practices for project implementation and value creation?	5	
2. Design of the action		Sub-score: 30
2.1 How coherent is the overall design of the proposed action? Does the proposal clearly indicate all outputs and deliverables to be produced by the action?	5x2*	
2.2 Does the proposed project's design reflect an analysis of the current state of low-carbon energy transition in Korea and the tasks involved in advancing this energy transition? Are climate partners' and relevant stakeholders' stated capacities and capabilities commensurate with these tasks?	5	
2.3 Is the proposed Climate Action realistic with regard to the expected outputs/deliverables and the indicated time frame?	5x2*	
2.4 Does the action integrate cross-cutting elements such as environmental issues (e.g. air quality), promotion of gender equality and equal opportunities?	5	
TOTAL SCORE		50

*Note: These scores are multiplied by 2 because of their importance.