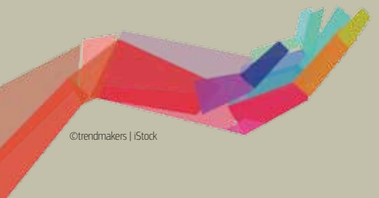
EU-supported projects

REACT - Renewable Energy and Adapting to Climate Technologies Window in Africa

The REACT programme is part of the Africa Enterprise Challenge Fund which aims to stimulate private sector investment in low-cost clean energy and climate adaptation technologies, such as solar power, biogas, irrigation and water efficiency measures. REACT provides risk capital to businesses with potentially transformative solutions. Around 300,000 rural households and small scale farmers and 40,000 small and medium enterprises (SMEs) should benefit from innovations brought about by this fund, which is supported by the UK and Sweden.

aecfafrica.org/windows/react-window



©trendmakers | iStock

Vocational Training Centre for Renewable Energies and Industrial Maintenance in Cape Verde

The Training Centre, supported by Luxembourg, aims to strengthen human resources through education, training and increased access to jobs. This capacity building action supports Cape Verde's national target to generate 50% of electricity from renewables by 2020.

lux-development.lu/en/activities/project/CVE/071

The GreenEvo Programme

The GreenEvo Programme is managed by the government of Poland and helps establish private-public partnerships between Polish suppliers of environmental technologies and their partners in developing countries. Around 60 SMEs work with partner countries to implement projects, create jobs and enhance local infrastructure.

greenevo.gov.pl

The Kenya Climate Innovation Centre

In Kenya, the recently established Kenya Climate Innovation Centre is promoting home-grown green technologies throughout the East African region. The Centre offers support to climate-focused technology ventures in order to boost agricultural productivity and agro-processing. The governments of the UK and Denmark are partners in this World Bank initiative.

kenyacic.org

For more examples of EU-supported projects:

ec.europa.eu/clima/publications/docs/funding_developing_countries_2014_en.pdf

Technology transfer and the international climate negotiations

The ongoing international negotiations for a new global climate agreement involving all countries, which is due to be concluded in Paris in 2015, acknowledges the crucial role technologies have to play in mitigation and adaptation efforts in developing countries.

Article 4.5 of the United Nations Framework Convention on Climate Change (UNFCCC) requires developed countries to "take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to environmentally sound technologies and know-how to other Parties, particularly developing country parties to enable them to implement the provisions of the Convention."

At the UN climate conference in Cancún in 2010, Parties to the UNFCCC agreed to implement a Technology Mechanism to facilitate enhanced action on technology development and transfer.

The Technology Mechanism is made up of two components: a Technical Executive Committee, comprising 20 elected experts; and a Climate Technology Centre and Network (CTCN) which helps developing countries access information on mitigation and adaptation technologies. Requests for support have ranged from renewable energy policies and biodiversity monitoring to saving mangrove forests for coastal protection.

The European Union and its Member States are major supporters of the CTCN.

Useful resources:

European Commission Climate Action website:
ec.europa.eu/clima
European Commission Low-Carbon Technologies webpage:
ec.europa.eu/clima/policies/lowcarbon/index_en.htm
Climate Technology Centre and Network website:
unep.org/climatechange/ctcn/
UNFCCC Technology Transfer Information website:
unfccc.int/ttclear/pages/home.html

facebook.com/EUClimateAction
twitter.com/EUClimateAction

European Commission

Climate Technology Transfer

© Abbie Trayler-Smith/Panos

- The development and deployment of new technologies has an essential role to play in meeting EU and global climate change objectives, as well as contributing to new jobs and sustainable economic growth.
- In line with the scientific evidence, the EU is committed to cutting its emissions by 80-95% below 1990 levels by 2050. This will require a process of "decarbonising" the economy. Innovative technologies will be crucial to achieving this. The EU is already a leading player in the area of low-carbon technologies to tackle climate change.
- While emissions are falling in Europe, they are rising in the rest of the world. By 2020, nearly two-thirds of the world's emissions are expected to come from developing and emerging economies.
- Inventing new technologies and providing developing countries with greater access to existing technologies is essential to support action to reduce greenhouse gas emissions and adapt to the adverse effects of climate change.
- The EU is already contributing significantly to the transfer of technology to developing countries by financing climate action and development projects with a technology dimension, as well as through research collaboration. Greater involvement from other stakeholders is also needed to limit the growth of emissions.
- The UN has established a global network for climate technology support. The Climate Technology Centre and Network aims to help developing countries access climate-related technologies and will be crucial in linking private interests and technological capabilities in successful technology transfer projects.

Climate Action

Climate technologies – part of the solution

In order to prevent the most severe impacts of global warming, the international community has agreed to keep the average global temperature rise to below 2°C compared to pre-industrial levels.

To stay within this ceiling, the scientific evidence shows that the world must stop the growth in global greenhouse gas emissions by 2020 at the latest, reduce them by at least half of 1990 levels by the middle of this century and continue cutting them thereafter.

In line with this, the EU is committed to cutting its emissions by 80-95% below 1990 levels by 2050. This will require the development and deployment of innovative low-carbon technologies on a massive scale.

As the world population grows, so does the pressure on the earth's limited resources such as food, water and energy. The UN estimates that the world will need at least 50% more food, 45% more energy and 30% more water by 2030 alone. Further development of new technologies and greater access to existing technologies by developing countries will be essential to ensure sustainable development.

Low-carbon technologies, for example renewable energy solutions or energy efficient systems such as LED street lighting, can reduce greenhouse gas emissions. Technological innovation can also increase our resilience to the adverse effects of climate change, for example technologies that promote efficient water use or improved drainage.

Climate technologies are also a key driver for sustainable growth. Insulating homes, for example, reduces emissions and energy costs. Investments in climate technologies also create local employment and reduce dependency on energy imports.

Taking action to prevent global warming is both feasible and affordable. The longer we wait, the more costly and technologically challenging it will be. Innovation offers a win-win outcome that helps both developed and developing countries reduce the cost of tackling climate change while also stimulating opportunities for sustainable development.

Low-carbon technologies in developing countries

Europe is a leading player in the area of low-carbon technologies and is maintaining its position with a range of policy initiatives. The EU is already on track to exceed its 2020 target of a 20% cut in emissions and aims to reduce domestic greenhouse gas emissions by 40% below the 1990 level by 2030.

However, while emissions are falling in Europe, it is predicted that by 2020, nearly two-thirds of the world's emissions will come from developing countries. It is therefore vital that climate technologies are accessible in all parts of the world in order to keep the average global temperature rise to below 2°C compared to pre-industrial levels – the threshold beyond which we risk dangerous and irreversible climate change.

But accessible knowledge and technologies are not enough; the right set of specific local conditions needs to be in place to attract project developers and investors. This so-called 'enabling environment' involves a set of interrelated conditions - legal, organisational, fiscal, informational, political, and cultural. Key elements include the reduction of risks related to the project investment and its operation and to the policies in place. A skilled workforce is also crucial to maintain know-how in the community.

The transfer of technologies to developing countries offers great business opportunities for the private sector, which has the potential to leverage much higher investments than can be obtained through the public sector. Private sector involvement is also a key driver of technological innovation. In the EU, more than two-thirds of spending on innovation comes from the private sector and the vast majority of technologies are owned and operated by private actors.

> *"Technology transfer is a broad set of processes covering the flows of know-how, experience and equipment for mitigating and adapting to climate change amongst different stakeholders such as governments, private sector entities, financial institutions, non-governmental organizations (NGOs), and research/education institutions."*
>
> *Intergovernmental Panel on Climate Change (IPCC)*

EU support for technology transfer

The EU supports the development and deployment of technologies in developing countries through substantial investments in innovation. It also supports the transfer of climate technologies to developing countries, although such cooperation also requires governments, private sector entities, financial institutions, NGOs, and research and education institutions in developing countries to play their part. This includes support to increase administrative capacities and explore opportunities for public-private partnerships. It also helps harness finance to leverage private funding for infrastructure projects.

The EU also supports new forms of partnerships and multi-stakeholder alliances between national or local authorities, enterprises and NGOs for skills development and the provision of basic services. These partnerships facilitate access to sustainable and affordable energy, water and agriculture. They develop synergies between public and private interests in technology transfer, and engage stakeholders in the development and diffusion of technology, particularly to and between developing countries.

Capacity building and innovation are important and the EU works closely with governments in developing countries to help them develop and implement policies in support of private sector involvement. The aim is to reinforce administrative capacities and support the development of legal and regulatory frameworks and guidelines for public-private partnerships.

Financing Technology Transfer

Horizon 2020 is the largest EU programme to support research and innovation within the EU, with a considerable share for developing countries. Almost €80 billion is available between 2014 and 2020, under three different programmes: excellent science, industrial leadership, and tackling societal challenges, including climate change. Most Horizon 2020 projects foster cooperation between different countries, often in the form of public-private partnerships which aim to leverage public and private investments to develop new technologies, products and services.

Seven large public-private partnerships were launched in 2014 under Horizon 2020 focusing on technologies like fuel cells and hydrogen, air traffic management and rail transport. The EU contribution of €7.3 billion will unlock an estimated €12.2 billion investment from the private sector and the EU Member States. Supporting international research and innovation is important as it not only leads to new discoveries, but also helps bring great ideas from the lab to the market. Horizon 2020 is accessible to researchers and entrepreneurs in developing countries.

Leveraging private investment in climate technologies through public funding is also the objective of other EU instruments, such as the Global Energy Efficiency and Renewable Energy Fund (**GEEREF**). GEEREF invests in private equity funds, which in turn invest in private sector projects, thereby further enhancing the leveraging effect of its investments. It is estimated that with €200 million, up to €9.5 billion could be mobilised.

For the period 2014 to 2020, at least 20% of the EU budget will be used to support climate action and the transition to a low-carbon and climate-resilient world. In total, the EU will provide €14 billion of public climate finance to partners outside the EU over this period. This is all grant funding. Some €2 billion of these climate grants will be blended with other sources from development banks and international financial institutions with the aim of achieving a high leveraging effect on total private investment.