

World leaders talk climate in Durban

Gemasolar cutting-edge
solar station inaugurated

Supporting small-scale
renewable energy in Germany

INFO

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The EIB – The EU bank

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Editorial

At the first meeting between the EIB Board and civil society, recently held in Luxembourg, environmental NGOs stressed that the climate crisis was more important although less urgent than the financial crisis. Not only climate experts acknowledge the threat. A recent survey shows that Europeans believe that the dangers of climate change represent a more serious problem than the current financial turmoil. The Eurobarometer poll suggests that a majority of EU citizens consider global warming to be one of the world's most serious problems.

This edition of INFO shows that the EIB is continuing to put a strong emphasis on climate action and environmental sustainability. As the EU's long-term lender, the Bank's approach is by definition more long-sighted. This is ever more important as the hope of global leaders agreeing on a comprehensive climate deal this year looks unlikely to be fulfilled.

Nevertheless, the talks in the South African city of Durban present a good opportunity to redirect the world's attention from financial and debt crises to the issues of climate and development. Green growth is a goal that the EU seeks to attain both internally, under its Europe 2020 agenda, and outside the EU, as confirmed by the EIB's recently reviewed external mandate. Many examples show that investments in climate change mitigation and adaptation make good economic sense, whether they are large wind farms and solar plants, or smaller renewables projects that serve the local population, a light bulb factory that creates new jobs, or energy efficient housing that helps bring down heating costs.

Keeping its eyes firmly focused on the important long-term goals, while not losing sight of the short-term challenges, is a key feature of the EIB's approach. And not just in the area of climate action.



Many examples show that investments in climate change mitigation and adaptation make good economic sense

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World leaders talk climate

in Durban

This year's United Nations conference on climate change is bringing together global leaders in the South African city of Durban from late November onwards. As one of the largest climate action lenders, the Bank works to help limit greenhouse gas emissions, as well as to improve climate resilience in Europe and beyond.



The EIB is attending as an observer in Durban in order to present its activities and contribute to the climate finance debate. One of the major topics being discussed is the creation of a sustainable international system to finance climate action. Together with other international financing institutions (IFIs) the EIB is closely involved in the process of setting up a Green Climate Fund to finance both climate change mitigation and adaptation initiatives in developing countries in the future. While today developed countries are the main emitters of greenhouse gases, in the future most emissions will come from developing countries – especially fast-growing emerging economies. It is therefore only natural that climate action and development is also one of the key themes of the many events that the Bank is taking part in.

Climate and development in the spotlight

The effects of climate change are often most felt in developing countries, translating into floods, droughts and heat waves. These countries often face particularly difficult challenges both in addressing their existing climate risks and adapting to new ones. Climate action is a high-level objective in the EIB's operations outside the EU

Climate action accounts for around a third of the EIB's business (more than EUR 20bn in 2010) – also expected to be the case in 2011.

and the Bank has recently been equipped with an additional EUR 2bn to support the fight against climate change across all regions. This includes projects in developing countries like the Mediterranean Solar Plan, which aims to provide the Southern Mediterranean region with 20 GW of additional renewable energy capacity (particularly solar and wind) by 2020. Another major area of funding for the Bank outside the EU is water. Providing access to safe drinking water and sanitation are two axes of EIB lending. The transfer of technology and exchange of know-how is another important element of the EIB's cooperation with developing countries. To date it has already signed major framework loans to help finance key climate investments in China, India, Brazil and more recently South Africa, to name but a few.

Among the world's largest lenders for climate action

The EIB's support for renewable energies and energy efficiency has grown tremendously in the past five years. Cli-

mate action accounts for around a third of its business (more than EUR 20bn in 2010) – also expected to be the case in 2011. However, climate considerations are already being factored into all of its operations, for instance by making use of the best available technology. Moreover, over the last three years (2009-2011), the Bank has engaged in a pilot initiative to measure the carbon footprint of EIB projects. Only this year the EIB helped to launch the European Energy Efficiency Fund with an initial volume of EUR 265m, which is expected to grow to an estimated EUR 800m over the next three to five years. While helping to limit greenhouse gas emissions, the EIB also supports investments in climate research, development and innovation (RDI), such as new technologies to clean up the atmosphere from existing CO₂. The Bank and the European Commission have joined forces in the NER 300 programme to boost carbon capture and storage (CCS) technologies. Finally, to improve the climate resilience of infrastructure, the EIB has financed a series of projects in particular in the water, transport and housing sectors. ■



Latest climate achievements

in South Africa

Climate talks in Durban this year put the spotlight on renewable energy and water projects in South Africa.

The Bank supports the South Africa Renewables Initiative (SARi) developed by the South African government. This initiative is part of the national Industrial Policy Action Plan to boost the development of renewable energy to 15% of South Africa's power generation by 2020. The EIB is one of the signatories of a multilateral agreement to be launched in Durban as a clear sign of the Bank's commitment to play a key role in the future deployment of SARi in terms of advisory services and, possibly, project financing.

The Bank is also providing a EUR 50m loan to Investec Bank Limited, a leading South African investor, to support small and medium-scale investments in renewable energy and energy efficiency in the country.

These EIB climate mitigation initiatives in South Africa are accompanied by investments to strengthen certain key infrastruc-

The Umgeni, eThekweni and Mooi-Mgeni projects will help to improve the efficiency of the water supply system and strengthen network interconnections.

tures. The water system in the KwaZulu-Natal province will be improved to increase water provision to the city of Durban and the North Coast area, as well as to adjacent rural areas. A loan of EUR 35m will contribute to increasing the treatment, storage and delivery capacity of the bulk water

infrastructure of Umgeni Water, the local water authority. The project will ensure the supply of potable water to Umgeni Water's customers and increase access to previously unserved areas.

This investment complements a recent EUR 50m loan to finance the upgrading and expansion of the water infrastructure programme for the eThekweni municipality in Durban. It also accompanies a EUR 80m loan for the construction of a dam in the Mooi River and of a conveyance system to the Mgeni water supply system, which will provide an additional 60 Mm³ per year to meet the water needs of 5.5 million people in the region by 2025. The Umgeni, eThekweni and Mooi-Mgeni projects will help to improve the efficiency of the water supply system and strengthen network interconnections. They are good examples of public interest infrastructure projects financed by the Bank in support of the Millennium Development Goals. ■

In brief

NER300 sales poised to start



The first carbon permits under the NER300 initiative are expected to be sold before the end of the year after the European Commission announced it would deliver the allowances to the EIB by the end of November. Revenue generated from the sale of allowances will be used to fund demonstration carbon capture and storage (CCS) and innovative renewable energy projects. The first decisions on which projects are to receive funding are due to be taken by the European Commission in the second half of 2012 on the basis of recommendations from the EIB.

The EIB will release monthly updates on progress in the sale of allowances at: www.eib.org/ner300.

Public-private partnerships for energy efficiency and the environment

Partnerships between the public and private sectors continue to gain importance in the EU and beyond. The European PPP Expertise Centre (EPEC) recently took a closer look at the role PPPs can play in energy efficiency and environmental infrastructure projects. Participants from the private and public sectors, and representatives of EPEC, the Commission, the EIB and the European Economic and Social Committee discussed the latest initiatives and shared their views on current trends. Created in 2008, EPEC is a joint initiative of the EIB, the Commission and EU Member and Candidate Countries, with members from 30 countries and regions.



Barroso unveils Connecting Europe Facility and project bond pilot

In October, European Commission President José Manuel Barroso unveiled the EUR 50bn Connecting Europe Facility for improving Europe's transport, energy and digital networks between 2014-2020. On this occasion, he also announced that the Europe 2020 Project Bond Initiative would from 2014 "be embedded in the Connecting Europe Facility, for which significant budget resources will be available". President Barroso proposed to start testing project bonds in a pilot phase. Up to EUR 230m from the EU budget will be used to mobilise private investment for a number of projects.



"This is the result of excellent cooperation with the European Investment Bank," he said.

The Commission said the pilot phase, to be managed by the EIB in 2012-2013, should focus on projects in one or more of the three targeted sectors of transport, energy and broadband. The Europe 2020 Project Bond Initiative is designed to revive project bond markets and help the promoters of individual infrastructure projects attract private sector financing from long-term investors, such as insurance companies and pension funds.

Banking in the Mediterranean

The additional pressures on socio-economic development stemming from the Arab Spring are forcing the financial sector across the region to rise to new and increased challenges. A study and a roundtable held by the EIB's Economics Department attempt to explain those challenges and how the banking sector can best respond to them. The roundtable brought together EIB staff, Vice-President Philippe de Fontaine Vive, responsible for the region, and experts and market makers, including representatives from Audi Bank in Lebanon, Groupement Professionnel des Banques du Maroc, Bank of Tunisia and Bank of Alexandria, Egypt.

Increased access to finance remains a top policy priority across the region, where, even though banking sectors are well-capitalised and reasonably profitable, financial intermediation is weak, with a significant share of deposits channelled to fund government debt. The Bank is the leading public financial institution in the region, supplying more than half of Europe's financial contribution to sustainable projects. As part of the EU response to the Arab Spring, it has committed to increasing its financing operations in Tunisia, Egypt, Morocco and Jordan.

Productivity and superfast internet

are key to long-term growth
in Europe



"The world's leaders are concerned with the short-term issue of resolving the immediate debt crisis," EIB President Philippe Maystadt said when opening the 2011 EIB Conference on Economics and Finance in Luxembourg. "However, there is a clear link between debt and growth".

High growth prospects can make some of the highest debt burdens sustainable but growth in Europe is lagging and an increase in productivity is necessary in order to render growth prospects credible to financial markets. "Long-term growth and productivity are at the heart of the EIB's mandate," Mr Maystadt added, underlining that the Bank's investments increasingly target projects in the areas of human capital and research and development. Over the last

ten years, the EIB has lent EUR 103bn to knowledge economy projects – EUR 17bn in 2010 alone.

The participants in the conference, close to 100 academics and representatives of public institutions, governments and industries, agreed that innovation and international production sharing are among the key drivers of productivity growth. Aggregate productivity depends not just on the actions of the firms themselves, but

"The long-term problems have become more acute today with less room for manoeuvre than before."

very much also on the economy's ability to allocate resources efficiently between firms. As Gianmarco Ottaviano of Bocconi University pointed out: "It is better for policy to focus on more efficient resource allocation than on internationalisation alone."



The current market turmoil should not make policymakers lose track. "One has to save the banking system, one has to save the euro, yet the long-term problems have not gone away. If anything they have become more acute today with less room for manoeuvre than before" said André Sapir of Bruegel. "What Europe needs now are productivity-enhancing structural reforms to break the vicious circle of budget consolidation slowing down growth and weak growth raising government debt", Sapir explained.

More competition in markets for goods and services would foster productivity growth. Giuseppe Nicoletti of the OECD stressed the need to tear down anti-competitive regulations, especially those impeding market entry by new firms and especially for services that are used as inputs by many other sectors of the economy, such as energy, transport, trade and business services.

Creating the necessary framework conditions is therefore crucial and the e-economy has put renewed pressure on policy-makers to liberalise labour and product markets so as to facilitate organisational innovation. The conference emphasised the complementary roles of economic dynamism and IT investment in boosting productivity. The new Member States of the European Union have seen a strong growth performance, especially in manufacturing, since joining the EU. Outside the EU, the US enjoyed strong productivity growth thanks to efficient resource reallocation as many new firms entered, highly productive firms grew and less productive firms shrank and exited the market.

However, as John Haltiwanger from the University of Maryland pointed out, the dynamism of US firms has been declining for a number of years and has been hard-hit by the economic and financial crisis.

"Healthy market economies constantly reinvent themselves as businesses adjust to changing economic conditions," he explained. "Part of this reinvention involves new firms exploring new products and unprecedented opportunities for doing business, for example over the internet. Financing start-ups and high-growth businesses is essential to fostering innovation, job growth and productivity," he added.

For Erik Brynjolfsson of the Massachusetts Institute of Technology digitisation has changed the innovative process. Digital companies like Google or Amazon are revolutionising the innovation process itself, through their superior access to information on customer behaviour and through their ability to share information globally and to scale up new activities immediately and at low cost. "ICT can act as a catalyst and increase the rate of productivity growth," he said.



André Sapir, Giuseppe Nicoletti, John Haltiwanger

"ICT can act as a catalyst and increase the rate of productivity growth,"

The internet revolution is far from complete and new innovation to stimulate growth will depend heavily on connection speed. The internet has contributed some 20% to GDP growth in the advanced economies in the past five years, boosting R&D and innovation, explained Jussi Hätönen, an EIB economist. EIB research presented at the conference suggests the switch to next-generation superfast networks could require some EUR 200bn of dedicated infrastructure investment.

The European Commission recently published an ambitious EUR 50bn plan for developing superfast broadband in Europe, acknowledging the need for high level public sector financial support.

"Policymakers will need to embrace the idea that high productivity growth is only possible in economies (...) where resources are shifted from stagnant to more dynamic firms," EIB Vice-President Plutarchos Sakellaris said. "Close cooperation with leading economists helps to encourage strategic reflection of long-term priorities and guide overall sector support by the EIB," he concluded.

A compilation of the conference proceedings will be published as Volume 16 of the EIB Papers. ■



Philippe Maystadt, Plutarchos Sakellaris



Debora Revoltella



Erik Brynjolfsson

EIB Board values dialogue with civil society

“Constructive criticism is essential,” underlined Philippe de Fontaine-Vive, EIB Vice-President in charge of dialogue with NGOs at the opening of the EIB’s first Board seminar with civil society. The EIB already has regular exchanges with civil society organisations, but this was the first time that they had met with its Board members.



Piotr Trzaskowski, CEE Bankwatch



The Board decides on the financing of projects and on the Bank’s lending priorities and policies. The meeting was largely welcomed by the participants from civil society as well as the EIB staff and Board members. “The EIB cannot do everything but it should do everything in its power,” an NGO representative underscored.

A key role to play in climate action

As the world’s largest climate lender, the Bank plays an important role in supporting investments that contribute to fighting climate change. NGO representatives welcomed the EIB’s efforts in the area of renewables, but questioned its support

for fossil fuels, as well as the automotive sector. The Bank was also urged to step up its lending for energy efficiency and to take a more proactive approach. The EIB should become “the learning hub on how to fund innovative projects” and be a “guiding institution” in the area of climate and energy, they said. It should help politicians to choose objectives and projects more in line with the global decarbonisation goal.

Civil society organisations recognised that the Bank has to face trade-offs caused by competing EU priorities. They stressed that the climate crisis is more important although less urgent than the financial crisis and called for a 2050 perspective to be included in the EIB’s energy policy.



“The EIB cannot do everything but it should do everything in its power”

Mark Johnston, WWF

How do you see the EIB’s role in financing climate action projects?

If the climate threat is a systemic one, then the climate response has to be too. We all need to join the dots, the Bank included. Every European institution has to play its part and help the other institutions go further. Often financial companies will take a longer-term view than politicians. The EIB is the biggest public bank in the world. It’s essential to put in place comprehensive frameworks that enable capital to be employed in the best way.

What are your impressions of the event?

It’s been a good debate. There can never be too much dialogue in Europe. Europe was created to solve problems together; that is the only way forward.



The Board meeting with civil society was the first of its kind



Juanita During, Water Aid Nigeria

Improved lending for SMEs

Because lending for SMEs is intermediated through banks, the discussion centred on how to make sure the money reaches the right beneficiaries faster. The EIB is seeking to accelerate disbursement and improve its reporting. Civil society members brought up ideas for improving the Bank's effectiveness through technical assistance, dedicated loans and more creative products like micro-insurance, risk capital or mezzanine funding.

NGOs underscored the need to strike a balance between confidentiality and transparency. They acknowledged the role of financial intermediaries, but asked the Bank to be more selective and work more with public intermediaries and urged caution with regard to intermediaries located in countries considered to be tax havens.

local people's needs and life improvement. Less emphasis should be given to European economic interests.

NGOs made clear that upholding high standards and thorough implementation is crucial, in order to make sure projects contribute to sustainable development and do not end up harming the local population. The Bank is currently reviewing its environmental and social assessment and monitoring processes in order to improve its reporting and make it less reliant on project sponsors' evaluations, thus also responding to some civil society criticisms. The EIB announced its commitment to follow up on concerns over a project in Uganda – the New Forests Company pro-

"People should be at the heart of each operation"

Putting people first

"People should be at the heart of each operation" – this was the strong message that emerged from the discussion on the EIB's support for projects that contribute to development. Though the EIB is not a development bank, its operations do have a development impact. Civil society members stressed that the Bank's approach should be tailored to specific local contexts, with an appropriate balance between public and private sector lending, and focus on

ject, where people have been displaced. "If the allegations are true, this is not acceptable," EIB President Philippe Maystadt said, adding that the EIB would conduct its own investigation. Philippe Maystadt also praised the constructive exchanges of this "first" and said that such seminars should be organised on a regular basis as the Board was looking forward to a continued dialogue. ■

Kate Geary, Oxfam

How do you see the role of the EIB in supporting projects that contribute to development?

I think there is a very important role that the EIB could play in supporting development if it focused its attention on those areas that aren't yet being reached by commercial banks. And focused in particular on poverty alleviation, the impacts on people and not relying solely on the impact on economic growth. All of that has to be informed by the most rigorous environmental and social standards. There should be a careful assessment of communities affected by loans, so that nobody ends up worse off as a result of the EIB's investment, as seen in the NFC case in Uganda.

What did you think of the event?

I think it's extremely welcome for the Bank to hold this kind of seminar, inviting so many members of civil society. It's fantastic to have this openness and the quality of the discussion has been great. It would have been really nice to have more named EIB people there.

The EIB's financing for climate change mitigation and adaptation is **one of the largest** among international financial institutions

In 2010, climate action accounted for **29% of total lending**

The EIB has financed more than **143 climate action projects**, with a total of **EUR 20.5bn** in 2010 alone

EIB climate action in numbers

EIB climate action in numbers

EIB climate action in numbers

Total absolute emissions from EIB projects are estimated at **16 million tonnes of CO₂** per year, roughly equivalent to those of Luxembourg.

Total relative emissions, i.e. emissions savings, are estimated at **4 million tonnes of CO₂** per year .*



*Investment loans signed in 2010



The EIB supported
**18 solar energy
projects** amounting
to **EUR 1.5bn ***



Support for **environmen-
tally-friendly tech-
nologies** and related R&D
amounted to **EUR 10.5bn**



The EIB helped to finance
27 wind farms
(both on- and off-shore) with
some EUR 5.3bn, bringing
new installed capacity of around
5.5 gigawatt (GW)



The EIB lent some
EUR 18.5bn for sustainable
transport, thus helping to reduce
greenhouse gas emissions

A pioneering project

first commercial offshore wind park in Germany

Thomas Augat, Head of Controlling and Finance at EnBW Erneuerbare Energien GmbH (EnBW), spoke to EIB INFO at the EIB Wind Energy Forum in Hamburg about Baltic 1 – the first commercial offshore wind park in Germany, which is now fully operational.

What's special about this project?

EnBW Baltic 1 is a special wind park because the conditions at the site, though comparable with those internationally, are moderate compared with German North Sea projects. Although Baltic 1 is around 16 km from the coast and the water is about 18 m deep, the project is a pioneering one – the first commercial offshore wind park in Germany, which is now fully operational.

What were the challenges?

There were many challenges. To name but two: we had to coordinate many different types of work, all carried out and delivered by different suppliers. For instance, the project involved 380 orders and it is estimated that the contracts ran to over 50 000 pages.

Connecting to the grid is another challenge for the whole industry...

The industry is by and large still young and everyone – including the grid operators – is learning, from project to project. With Baltic 1 too, connecting to the grid was a challenge, even though the coast is only a relatively short distance away. The transmission system operator 50Hertz was very much involved. In the end we completed our project virtually on schedule, though there was a delay of around nine months in connecting to the grid.

How did the cooperation with the EIB go?

The EIB was involved in the Baltic 1 project at an early stage, initially in the form of a corporate loan to our parent company EnBW AG. Then, when 19 public utilities

became involved in Baltic 1, we converted the financing into a project financing operation. This was also supported by the EIB, which moved it forward with us. The provision by the EIB of a large part of the financing was a key factor in helping us to quickly find commercial banks to support the project.

Wind projects are long-term, technically demanding investments. Is the EIB therefore particularly suitable as a financing partner?

Financing is a major constraint in the development of offshore wind power and therefore for attaining renewable energy targets in Germany and Europe. The current volatile financial market situation highlights the contribution of the EIB, as an experienced, reliable and stable financing partner for offshore projects. The EIB thus



Thomas Augat,
Head of Controlling
and Finance at EnBW
Erneuerbare Energien
GmbH (EnBW)

Germany too. We are therefore helping to make it possible to increase investor confidence in offshore wind power.

Is EnBW planning more offshore wind parks? What lessons have been learned?

Baltic 1 was for us the first of a total of four offshore wind parks to be rolled out over the next few years. Over the coming year we will be starting work on Baltic 2 – another wind park in the Baltic Sea but on a much bigger scale: 288 MW instead of 48 MW. We are also in the middle of the procurement process for our first wind park in the North Sea (Hohe See).

Apart from the many valuable lessons we have learned in terms of engineering, project management and preparing contracts, I think we have discovered two main things: as with any major project, difficulties and delays in project implementation are virtually inevitable; and then there are the challenges posed by wind and weather that are peculiar to the offshore environment. It is therefore important to make provision for suitable “buffers” at the project planning stage and ensure that there is a high degree of operational flexibility during the construction phase. Another key to the success of a project is to build up one’s own team, in which engineers, lawyers, businessmen and operational staff work hand in hand from the beginning. ■

has an important role to play in meeting the development objectives with offshore wind power.

Baltic 1 supports the European climate and energy objectives and also the ambitious move towards alternative energy recently decided on in Germany.

Does Baltic 1 also have a signalling effect for the offshore sector?

I am convinced of this. Without offshore wind power it will be very difficult to attain the European and German targets for developing clean energy. Baltic 1 has shown that an offshore wind park can be built and operated in a cost-effective manner in

Baltic 1– banking on offshore wind power

Baltic 1 is a medium-sized offshore wind farm located in the German waters of the Baltic Sea, which was inaugurated by Chancellor Angela Merkel in May. With its 21 wind turbines located some 16 km from the mainland, it has a total capacity of nearly 50 MW. The wind farm will have a net annual output of around 185 GWh, feeding into the public grid.

Germany aims to increase the share of electricity generated from renewable sources to at least 30% by 2020. To achieve this goal, it is banking heavily on the growth of offshore wind power.

The EIB supported Baltic 1 with a EUR 80m loan. The Bank plays a major and growing role in providing finance to the renewable energy sector – more than a third of its energy lending is for renewables. EIB funding for wind energy (both onshore and offshore) since 2005 amounts to some EUR 6.8bn.



Cutting-edge solar power plant

inaugurated in Spain



Gemasolar, the first power plant that generates solar energy 24 hours a day without interruption, was inaugurated in October by the King of Spain. Its innovative technology and commercial focus represent a breakthrough in the solar industry.

2 600

More than 2 600 mirrors spread across 185 hectares concentrate the sun's rays on to a giant receiver

Seville, in the Spanish region of Andalusia, is home to Gemasolar, the first commercial solar power plant in the world that can generate electricity even without sunshine. This is due to the use of molten salt, rather than oil, as a transfer fluid. More than 2 600 mirrors spread across 185 hectares concentrate the sun's rays on to a giant receiver at the centre of the plant to heat up the liquid salt. The temperature, over 500 degrees Celsius is much higher than plants with parabolic trough technology. In turn, these higher temperatures generate hotter, pressurised steam to drive the turbines with greater efficiency. The salt storage capacity allows the plant to supply energy to the grid for up to 15 hours when there is no sunshine, for instance at night and during cloudy periods.

With a capacity of 19.9 MW, Gemasolar can supply electricity to some 27 500 house-

holds in the South of Spain. Its annual production is the equivalent of the energy generated in a conventional thermal plant burning 89 000 tonnes of lignite or the converted energy of 217 000 oil barrels. The plant is therefore expected to save more than 30 000 tonnes of CO₂ emissions per year.

A flagship for innovative solar power

"We want to become a global company that develops the use of concentrated solar power as a sustainable source of energy and therefore contribute to the protection of the environment for future generations," says Enrique Sendagorta, President of Torresol Energy, a joint venture between the Spanish engineering group SENER and Masdar, the government of Abu Dhabi's renewable energies devel-

opment company. Gemasolar was formally inaugurated by Abu Dhabi's Crown Prince Sheikh Mohammed bin Zayed al Nahyan and King Juan Carlos of Spain.

Gemasolar is the flagship project of Torresol Energy. It recently won the US CSP Today 2011 award for 'Commercialised Technology Innovation of the Year', as well as the Ruban d'Honneur title in the prestigious European Business Awards.

This state-of-the-art project is leading the way in new solar thermal electricity generation technology. The EIB has provided financial support with a EUR 80m loan. Gemasolar is one of a series of seven concentrated solar power (CSP) and 19 photovoltaic (PV) power plants financed by the Bank since 2006 with a total of EUR 2.6bn. Developing innovative clean and climate-resilient technologies is a key priority in the Bank's lending for climate action. ■

EIB comes to the aid of Castilla La Mancha's forests

Six years ago a major fire destroyed a large part of El Rodenal forest in Castilla La Mancha, Spain. Today, the area is being rehabilitated thanks to an EIB loan to support forest fire prevention and fighting activities.



Nearly half of Castilla La Mancha is covered by forests totalling over 3.5 million hectares but making the region prone to forest fires – up to 700 outbreaks each year. Memories of the 2005 fires, which partly destroyed El Rodenal forest in Guadalajara province, are still vivid. The EUR 100m EIB loan to Gestión Ambiental de Castilla La Mancha SA (GEACAM) is supporting the authorities' rehabilitation plan. Over 5 000 hectares of forest are being replanted, roads are being improved, and phytosanitary treatment is being applied to new trees to reduce the risks of disease and fire. In addition, 1 140 hectares of land are being planted with oak trees, which are considered particularly valuable in conservation terms.

A multifaceted fire prevention programme

Though it is well served by emergency fire-fighting capacity, Castilla La Mancha required new approaches to improve prevention activities such as mechanical and manual clearance, manual pruning, restricted burning, controlled grazing and the use of herbicides.

The EIB loan is helping to put a number of these fire prevention measures in place: fire breaks are being developed to prevent fire spread, targeted and managed fires are being implemented to reduce the risk of uncontrolled outbreaks, and flammable forest residues have been manually removed in areas where access for large machinery is difficult.

GEACAM's four-year programme is expanding the preventive work of forest fire-fighting brigades such as clearing the undergrowth during the winter as well as over the summer, when fire-fighting activities reach their peak. It also includes new equipment and materials such as fire engines, protective gear for fire-fighters, communications equipment and investments in helicopter bases.

Public education and job creation

Public education is an essential component of reducing fire risk. Eight new centres are being created to raise public awareness about forests in general and the value of the region's park areas in particular. Each centre has a permanent exhibition, temporary exhibition space, audiovisual facilities and an area for a library and services. To date, four are already up and running, attracting scheduled tours

5 000 hectares


Over 5 000 hectares of forest are being replanted, roads are being improved, and phytosanitary treatment is being applied to new trees to reduce the risks of disease and fire.

by schools and many tourists during the weekends.

Over the course of its implementation, the programme will generate nearly 2 000 full-time jobs. In the longer term, it will secure existing employment, currently around 3 000 full-time jobs. Moreover, once the new fire-fighting facilities become operational, they will operate all year round instead of the current ten months a year, representing a shift towards more highly-skilled, secure jobs.■



Nearly half of Castilla La Mancha is covered by forests totalling over 3.5 million hectares



Supporting small-scale renewable energy in Germany

Renewable energy projects are often small in size and face particular funding challenges. Through intermediated loans with local partner Deutsche Kreditbank (DKB), the EIB is helping SMEs to make a difference to the local energy mix.

Loans provided by the EIB through partner banks, such as DKB, help to improve access to finance for smaller projects. Typically, EIB financing covers up to 50% of investment costs. However, it can be combined with financing from other promotional banks, such as KfW in Germany. Intermediaries that the EIB works with are usually asked to onlend to SMEs the funds that it provides at favourable rates, adding an equivalent amount from their own funds.

Keeping a town warm with woodchips

In Hennigsdorf, a town north of Berlin in the Brandenburg region, an EIB-supported EUR 8.3m loan has helped to build a combined heat and power plant, entirely powered by woodchips.

“One of the big advantages is that we can flexibly adapt production to the heat requirements of Hennigsdorf,” says Gerd Bartsch of Ruppin Consult, which has advised on the setting-up and management of the Hennigsdorf plant.

Kraftwerks- und Projektentwicklungsgesellschaft (KPG) Hennigsdorf mbH received a loan to set up the heat and power plant, which was channelled through Deutsche Kreditbank (DKB). Providing intermediated loans is one way for the EIB to promote renewable energy projects.

“Getting the loan from DKB was the most important precondition for building the plant. In 2008 we could feel the effects of the economic crisis and obtaining finance for a project of this size was not easy,” Bartsch adds.

KPG Hennigsdorf will secure a long-term heat supply using renewable primary products at predictable prices for the town and its 26 000 inhabitants.

A special technology makes it possible not just to create heat, but also to transform heat into electricity, which will be fed into the local power grids.

“The bulk of woodchips comes from regional suppliers within 150 kilometres of Hennigsdorf in the Brandenburg and Mecklenburg-Western Pomerania areas, which are rich in woodland”, explains Bartsch. “We mainly use by-products from timber harvesting in the local woods or wood from landscape conservation. As transportation costs for wood are relatively high, being able to use local suppliers makes economic as well as environmental sense” he concludes.

20 megawatts

"Since 2009, our company has helped to create more than 20 megawatts of photovoltaic capacity ... as a small start-up company, we are rather proud of this result".



The new heat and power plant will allow the town of Hennigsdorf to save some 31 800 tonnes of CO₂ each year by avoiding the use of conventional fossil fuels and increasing energy efficiency.



Powered by the sun

sol fortis is a small company in Breesen in the north east of Germany. Specialised in the planning, installation and management of photovoltaic systems, it caters for a range of solar energy projects in the region.

"Since 2009, our company has helped to create more than 20 megawatts of photovoltaic capacity. That is not a lot compared to national production levels but as a small start-up company, we are rather proud of this result," explains Carlos Mayer, managing director of sol fortis. "There are six or seven of us in the company altogether, but we work a lot with other companies specialised in the installation of photovoltaic systems, which helps to create and secure employment in the industry."

A EUR 2.5m loan channelled through and topped-up by Deutsche Kreditbank helped sol fortis install a new photovoltaic complex in Königsbrück. "Of course the long maturity and attractive interest rates have made this loan particularly interesting for us," Mayer explains. "It gives us the flexibility and breathing space we need to do our business".

Located just outside Dresden on a former Soviet military base surrounded by woods, the new photovoltaic complex started operations in mid-2010. "Königsbrück now has a total capacity of almost 3 megawatts per year, enough to provide around 620 households in the region with electricity. In addition we are helping to save nearly

1 950 tonnes of CO₂ each year, which is our contribution to fighting climate change," Mayer adds.

Steady winds ensure the energy flow

WindStrom, a small wind energy company situated between Hannover and Braunschweig in the North of Germany, is thinking big. "Since 1992, when we started to operate, we have already helped to build some 295 wind farms generating around 500 MW," says Steffen Warneboldt one of the executive directors of the WindStrom group.

Over the years, WindStrom has become highly specialised in its field. The company employs around 50 people and offers everything from planning and installation to the running and renovation of wind farms in Germany, but also across Europe. "Our expanding business in the EU forces us to be more open. We are optimistic about the future and have even hired new people recently," adds Warneboldt.

A EUR 6.4m loan from DKB has helped to finance a wind farm in Schwarme, located near the Hanseatic city of Bremen. Five turbines, each with a 2 MW capacity feed some 25 000 000 kWh of power yearly into the public grid, the equivalent of the annual energy needs of around 7 000 households. The steady wind flow provides good conditions for the wind farm. Previously used for agriculture, the area continues to be farmed.

"In Schwarme, like for all other wind projects, we seek to be close to the local community and try to find solutions that gain acceptance. At an early stage we involved people and gave them an opportunity to ask questions. Addressing concerns voiced, we consciously kept the number of turbines low to ensure acceptance," Warneboldt further elaborates.

The Bank has been successfully working with DKB for more than 10 years, providing a total of over EUR 1bn for individual projects. ■

Bringing wind to wheels in Ireland



As part of a larger investment programme to help upgrade the Irish electricity network, the EIB is supporting the roll-out of electric vehicle charging points across the country.

The Irish government has decided that, by 2020, every tenth car on Irish roads will be fully powered by electricity, and that 10% of all road transport energy will be renewable. In order to deliver on this ambitious goal, the Irish energy network is being changed upstream by increasing electricity generation from renewable sources and downstream by new uses of electricity, such as recharging electric vehicles. Wind farms already provide over 1 400 MW – one of the highest levels of wind energy penetration in Europe – to the country's main electricity utility, ESB. Around 240 MW of wind farm capacity has received EIB funding, with more expected in the coming years. The connection of more than an additional 5 000 MW is needed for Ireland to deliver on its climate change targets.

Connecting wind to wheel

"Ireland has one of the most modern networks in the world today", says Jerry O'Sullivan, Managing Director of ESB Net-

works. "Now we are taking the next step in developing it further in a sustainable, smart, economical and efficient manner to facilitate the integration of renewables and participation of customers required to deliver the targets of 40% renewables by 2020".

Wind energy is mainly generated in the less populated western part of the country. In order to bring it to the more densely populated east of Ireland, ESB is investing in a major upgrade of its network. Supported by a EUR 235m loan from the EIB, the programme will enable increased use of wind power, network renewal and enhancement, and smart metering, as well as providing charging stations for electric vehicles.

As part of the network investments, more than EUR 20m will be invested in the roll-out of electric vehicle charging points across Ireland in 2011 and 2012. Providing the necessary infrastructure is key to bringing electric cars to market and making their use more attractive for consumers. Some 3 500 charging points will be distributed across the country, including publicly available charging points, domestic chargers and fast chargers on all major inter-urban routes every 60 km.

Leading the charge

Increased use of electric vehicles can help to reduce fuel consumption as well as cutting greenhouse gas emissions, but is also a natural fit for Ireland's energy mix. The electricity generated by wind power plants during off-peak hours can be used to recharge electric vehicles. About 80% of charging operations are expected to be carried out at home during the night. As most Irish own their home it is easier to install the equipment needed to charge cars efficiently and more cheaply overnight at home. Moreover, the fact that it is an island with short distances between urban centres and a mild climate particularly suited to battery performance make Ireland an ideal location for the successful adoption of electric cars. ■

3 500

Some 3 500 charging points will be distributed across the country, including publicly available charging points, and domestic and fast chargers.



Bucharest: upgrading buildings for energy efficient housing

Urban areas have enormous potential for energy efficiency savings. In Bucharest many people live in residential blocks. Upgrading their housing facilities is helping to save heating costs and increase the quality of living.



Romania's capital is home to the country's political, economic and commercial life. The majority of Bucharest's roughly 2 million inhabitants live in apartment buildings. Most were built between 1950 and 1990 and have not been renovated since. Refurbishing these buildings is part of a national energy efficiency action plan designed to reap energy savings and modernise housing across the country.

The potential savings are enormous, amounting to around 50% of energy consumption for heating. Bucharest alone has some 700 000 apartments, the vast majority of which require thermal rehabilitation.

"Residential buildings account for more than a third of total energy consumption in Romania. This renovation programme is helping us to bring down energy bills by 50%; this is a huge gain waiting to be made," says Andrei Chiliman, Mayor of Bucharest Sector 1, a city district that has received EIB funding.

Significant efficiency gains

The EIB is supporting the thermal rehabilitation of some 638 multi-storey residential buildings, comprising around 43 000 apartments, with loans to the authorities of two city districts totalling some EUR 195m. The investments cover thermal rehabilitation, including thermal insulation of the walls, windows, roofs and cellars of residential buildings. This not only helps to drive down energy bills, but also significantly reduces atmospheric pollution.

"Residential buildings account for more than a third of total energy consumption in Romania. This renovation programme is helping us to bring down energy bills by 50%

"The total energy saved will amount to about 350 GWh a year once the programme is fully implemented. This will help Romania reduce its greenhouse gas emissions and increase the quality of life of Bucharest's citizens," says Matthias Kollatz-Ahnen, EIB Vice-President responsible for lending operations in the country.

Better quality housing

"Most residents of Bucharest own their apartment. Without the national programme, few of them would be able or willing to afford the renovation works. Thanks to the EIB support, we can achieve more efficiency gains faster," the Mayor underlines.

The cost of refurbishing an apartment is roughly EUR 6 000 to 8 000. With average annual net income at around EUR 4 400, few residents would be able to afford the works. Given the substantial gains in energy savings and living conditions, the national programme foresees cost sharing

between the residents and the national and municipal authorities. In practice, due to the unavailability of funds at national level, the cost of refurbishment is mainly borne by the local authorities.

The project will also improve the quality of life of Bucharest's residents as it will enhance the buildings' image and increase the value of the country's housing stock.

Increasing energy efficiency is the most cost-effective way of reducing emissions and energy demand. The EIB supports projects in this area as part of its lending for climate action. In 2010 alone, the EIB signed loans totalling EUR 2.3bn in support of energy efficiency projects. ■



Innovative flood protection in Venice



Venice's cultural heritage has been under threat from "acqua alta" for more than 1 000 years. An ambitious flood prevention project is set to turn the tide on the city's water protection.

Over the last century, the land on which Venice stands has subsided, while the sea level has risen, turning its biggest charm, the unique canals that attract millions of tourists, into a threat. Acqua alta, as the flood tides are known as, endangers the heritage and beauty of the medieval city up to sixty times a year. Its buildings are ever more frequently inundated by water pushing in from the Adriatic coast.

MOSE to the rescue

The MOSE project (Modulo Sperimentale Elettromeccanico), a multi-billion programme, is designed to put in place innovative anti-flood barriers that will keep severe water levels at bay. Mobile flood gates are being constructed at the three inlets located at Lido, Malamocco and Chioggia, which connect the open sea to the Venice Lagoon.

"We are more than satisfied with the Mose programme, a project that is also very much appreciated by our engineers," said EIB Vice-President Dario Scannapieco, who is responsible for operations in Italy.

The 78 steel gates, each twenty metres wide, will remain on the seabed until

needed. When a tide above 1.10 metre is forecast, compressed air will be pumped into the gates to evacuate the water and make the gates rise up and create a continuous barrier in about a half hour. Emerging about five metres above the surface, they will form a defence against high tides by dividing the lagoon from the sea.

This complex system of breakwaters and mobile barriers is designed to protect the city from extreme floods, high tides, sea storms and other long-term effects of climate change such as a rise in the sea level, whilst minimising any detrimental effects that such works may have on the lagoon's eco-system. The mobile gates will close on average three to five times a year, increasing as sea levels are expected to rise in the future.



This complex system of breakwaters and mobile barriers is designed to protect the city from extreme floods, high tides, sea storms and other long-term effects of climate change

A system of advanced engineering

"The EUR 1.5bn EIB financing, decided in 2009, is the largest loan for a single project from our Bank ever approved. With the first EUR 480m tranche signed this year, the Bank confirmed its commitment," Mr Scannapieco says. The EIB is working closely with both the Italian government and the Consorzio Venezia Nuova, the special purpose vehicle charged with implementing the project, which is part of the general plan to safeguard Venice and the lagoon initiated by the Infrastructure Ministry in 1987.

The project has created some controversy, not least due to its large scale and high construction cost estimated at nearly five billion euros. Currently, 65% of the project – to be delivered in 2014 – has been completed. ■

Small and medium-sized companies go green in the Netherlands

Since 2009, the European Investment Bank and ING Bank in the Netherlands have provided EUR 500m in attractive funding for small and medium-sized enterprises. Two examples highlight the benefits.

One of these clients is Achou Zhang, a young entrepreneur, who used her EUR 1.8m loan to invest in the first eco-designed hotel in The Hague, the Court Garden. This 70-room hotel is completely insulated, uses green energy and serves its customers an organic breakfast. Energy savings amount to a stunning EUR 18 000 a year, earning the recently opened hotel an official green certificate from the Ministry of Environment and an A+ energy label. Access to EIB funding saves Ms Zhang EUR 10 000 in interest payments per year, an amount that makes a big difference when running a start-up hotel, she emphasises.

From eco-hotels to green transport

Oostenrijk Group (SLS Travel Solutions), a transport and travel company located near Amsterdam, is hardly a start-up. The family-owned company was established in

1922 and is now managed by fourth generation Rogier Staal. It employs 100 staff, operates 70 buses and has a EUR 20m annual turnover. However, the EUR 4m loan that Oostenrijk Group obtained is also used for green investment. Following an international tendering procedure the EIB funds will go towards purchasing 50 energy efficient Daimler Benz buses and operating them over a five-year period. Energy

"We are making a contribution to sustainable growth", says Mr Staal, "and saving costs".



savings will add up to EUR 100 000. "We are making a contribution to sustainable growth", says Mr Staal, "and saving costs", he adds with a smile.

Positive entrepreneurial thinking in difficult economic times

Ruud van Dusschoten, Executive Director of Business Banking at ING, is glad to see positive entrepreneurial thinking in difficult economic times. Small and medium-sized enterprises are the backbone and engine of the economy. But as for any bank, the challenge for ING is to pick good entrepreneurs with promising investment plans. As for the EIB, it needs partners like ING to support small and medium-sized enterprises in the Netherlands, elsewhere in the European Union, and also beyond. ■



Court garden transport facilities

Smart bulbs brighten the local economic outlook in Lesotho

As energy becomes an increasingly scarce and precious resource, energy-efficient light bulbs in Lesotho are helping to promote the smart use of energy and make a difference for the local community.

"Almost 10% of our 500 staff are people with disabilities. We are giving opportunities to physically challenged people to build a career and a future for themselves".



The EU has decided to gradually switch from incandescent light bulbs and other energy-inefficient lighting to more energy-efficient lighting in order to help achieve its climate goals. But for countries in Southern Africa, it is necessity that prescribes a better use of resources. Just like its neighbouring countries, Lesotho – a small, landlocked country – suffers from frequent electricity shortages.

"This part of the world is battling with an energy crisis. Light bulbs are a means of saving a lot of energy," explains Nitin Agrawal, General Manager of the Philips light bulb plant in Lesotho. With the help of a USD 5m EIB loan, the Dutch giant has set up a manufacturing plant to produce energy-saving compact fluorescent lamps for the regional market. With a population of nearly 2 million people, Lesotho is an open economy with close economic ties to South Africa and an entry point to neighbouring countries. The Philips Maseru Lighting plant is helping to diversify

the economy away from the shaky textile industry and acts as an important engine of job creation.

Saving energy – creating jobs

"We have been fully functional since 2010 and currently employ more than 500 local people," Agrawal says. In Lesotho, where 40% of the population lives below the poverty line, this has a considerable impact on the livelihoods of households. "People really want to work with Philips, not just because it's a multinational company, but also because of the jobs and working environment it provides. We also see a lot of development happening around the company, people are building their own houses and small businesses are springing up around the factory," he adds.

"Almost 10% of our staff are people with disabilities. In our recruitment we just look at the personality, if the person is able to do the job. This way we are giving oppor-

tunities to physically challenged people to build a career and a future for themselves," Agrawal points out.

An on-site health clinic provides for the company's employees' health needs free of charge. An EIB interest rate subsidy supports social improvements for the workers and their families, such as the health clinic, as well as a scholarship programme to pay for the secondary schooling of the children, starting next year.

The light bulbs produced in Maseru save approximately 80% in energy compared to incandescent lamps, translating into savings of 34 kg of CO₂ per year per lamp. A recycling plan is currently being drawn up to ensure the adequate disposal of hazardous waste from the plant and the used lamps. ■

Banking in the Mediterranean

The Arab Spring represents an opportunity for democratic and economic change in the region, but also creates important challenges for the future. A study by the EIB's Economics Department attempts to explain those challenges and how the banking sector can best respond to them. It takes a closer look at the basic economic and social indicators across the nine Mediterranean partner countries and the role that the financial sector can play in promoting inclusive growth through job creation, domestic resource mobilisation and financial stability. Increased access to finance remains a top policy priority across the region.



People @ EIB



Nicholas Jennett

Nicholas Jennett has been appointed head of the New Products and Special Transactions Department within the Directorate for Lending Operations in the EU and Candidate Countries. Previously he was head of the European PPP Expertise Centre (EPEC) in the same directorate.



Stuart Rowlands

Stuart Rowlands has been appointed head of the Financial Risk Department within the Risk Management Directorate. Prior to this he headed the Corporate, Public and Infrastructure Division in the same directorate.



Simon Barnes

Simon Barnes has been appointed head of the Operations Support Department within the Directorate for Lending Operations in the EU and Candidate Countries. Before this, he was Chief Operational Coordinator in the same department.

Publications

- Banking in the Mediterranean: Challenges and Opportunities
- Shaping sustainable cities (brochure)
- Supporting electromobility in Europe (factsheet)
- Support for SMEs in developing countries (Dalberg report)
- What is the EIB? (flyer)



Details at www.eib.org/publications

Agenda

- **28/11-09/12/2011**
United Nations Climate Change Conference, Durban, South Africa
- **05/12/2011**
Roundtable with civil society organisations on results measurement, Brussels, Belgium
- **5-6/12/2011**
Innovation Convention, Brussels, Belgium
- **15-16/12/2011 - 09/12/2011**
European Development Days, Warsaw, Poland
- **07/12/2011**
Western Balkans Investment Framework (WBIF) Steering Committee meeting, EIB headquarters, Luxembourg

Details at www.eib.org/events



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