



Pioneering
climate finance
efforts

**Green Bond
market** takes
a leap towards
sustainability

**Small water
companies**
think big
in Italy



Climate change considerations are fully integrated across all EIB activities

Editorial

Climate change is arguably the greatest global challenge of our time. Climate risks are very real and undermine efforts made to improve welfare, particularly in the world's poorest regions, and to ensure steady economic growth across the globe. The far-reaching impact of climate change on development and growth is at the heart of international discussions. 2015 marks a milestone on the path towards a more sustainable economy worldwide, with the adoption of Sustainable Development Goals and a new global climate agreement within reach.

As the EU bank, the EIB has made climate action one of its top priorities and developed a leading position among international financial institutions in this area. In the past five years we have provided some EUR 90bn of finance for climate action that makes a difference. We aim to mitigate climate change and help people and countries adapt in many ways.

We are working to increase energy efficiency in buildings, supporting the installation of solar panels on rooftops and financing the largest windfarms in the world. We support smart cities and clean transport and are helping to reduce the environmental impact of businesses. We are the leading issuer of Climate Awareness Bonds and our innovative financing solutions are helping to get other investors to buy into climate action. It is in this area of mobilising finance that the EIB is best placed to make a difference.

As a long-term financier and an institution that has developed significant experience and expertise in financing climate action across Europe and globally, the EIB is uniquely positioned to provide investment for high-quality, low-carbon, resilient projects and to catalyse further finance.

The worldwide commitment to keep global warming to below 2 °C and to adapt to the impacts of climate change can only be met with targeted financial investment. As the EU bank, we have set ourselves the task of playing a leading role in enabling this investment.

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Pioneering climate finance efforts

2015 is a crucial year for climate and climate finance, an area closely related to development and in which the EIB is a key player. As one of the largest financiers of climate-related investments in the world, we have a leading role in mobilising finance and encouraging green investment. And we are determined to continue this long-term commitment.



We currently expect to provide over **EUR 50bn** in climate finance worldwide over the next three years.

Climate action is a priority for the EIB; we ensure that a quarter of our lending each year supports climate-related investments. These include solar and wind power, sustainable urban transport, research into low-carbon technologies, reforestation and flood protection.

By successfully integrating climate action across all EIB-supported projects and in our own activities, we encourage our projects to have a more positive and lasting impact in diverse sectors and countries.

To better track our own emissions and carbon emission savings, we have been meas-

uring both our own carbon footprint and that of the projects we have been supporting since 2009. Thanks to our engagement last year, approximately 3 million tonnes of CO₂ emissions were saved. That's like taking 1.5 million cars off the road.



Supporting development through global climate finance

We at the EIB understand the need to fight climate change in both developed and developing countries in order to support sustainable development around the world. Climate change is truly a global issue and as such must be tackled through mitigation and adaptation measures worldwide. That's why the EIB's approach is global.

Nevertheless, the impacts of climate change are not felt equally across the planet. Many effects are likely to be harsher for developing countries, even though they may have been mostly driven by developed countries. Warming caused by the high consumption of richer countries is having the strongest repercussions on the poorest and most vulnerable areas of the world. Here, rising sea-levels, stronger cyclones, warmer days and nights, more unpredictable rains, and more pronounced and longer-lasting heatwaves are already happening.

This means that we need to take action on increasing the finance available to support climate action and at the same time delivering on the development agenda in the years to come. The EIB stands ready to meet this challenge and we currently expect to provide over EUR 50bn in climate finance worldwide over the next three years. One example of this is our recent backing for an energy efficiency investment to reduce energy consumption and heating bills in more than 40 000 private homes in France.

Building climate resilience and financing adaptation

We proactively identify, prepare and finance projects that bring adaptation benefits to vulnerable areas, sectors or communities. Stepping up adaptation measures is absolutely crucial, in particular for the least developed countries and small island states. The EIB is rising to this challenge and has – together with the Caribbean Development Bank (CDB) – implemented a programme to provide technical assistance to reduce the negative impacts of climate change in the Caribbean. In Belize, for example, we have supported a de-

tailed analysis of climate change impacts on a vulnerable coastal highway, and we are now, together with CDB, financing the project, in which extra measures have been put in place to address the increasing climate risks.

Responding to the threats of climate change means taking proactive steps to address water security in water-scarce regions, flooding and extreme heat in cities, smart agriculture and coastal erosion.

In semi-arid and arid areas – such as the Mediterranean, southern Africa and north-eastern Brazil – human and natural systems are vulnerable to the impacts of climate change on water supply. Over the next century, these regions are likely to experience decreases in water resources, especially in areas that are already water-stressed due to droughts, population pressures and water resource extraction.

Responding to the threats of climate change also means that we have to ensure resilience wherever our operations are vulnerable to climate change. For this we have developed a Climate Risk and Vulnerability Assessment tool for our clients. This helps pinpoint the areas where a project is vulnerable to climate hazards, assess the extent of climate-related risks and identify adaptation solutions to address them. The first version of the tool was developed for our activities in the water sector and piloted for a water and wastewater investment programme in Poznan, Poland.

We need to make climate resilience everyone's responsibility: this includes proactively thinking differently about the way we finance resilience. A possible approach is to work more closely with commercial banks to look at how we can roll out climate resilience programmes for SMEs in highly climate-vulnerable countries.

By thinking systemically at all levels about adaptation and resilience, we continue to pioneer climate finance efforts globally. These are exciting times for us. ■



We need to make **climate resilience** everyone's responsibility



Water security: a key action area

Increasing and competing demands for water arise from a growing and urbanising world population that needs food and energy security. But for these people there is either too little or too much water, it is too polluted or the supply is too unreliable – all within a changing climate. To better understand the impact of water-related risks on economic growth, the Bank recently organised a global water security event involving representatives of international organisations, NGOs, water service providers, water-dependent corporates and business organisations. There was a broad consensus that water security is vital in the context of climate change, resulting in a call to mobilise additional finance for water security to promote economic growth and resilient communities.

As the world's largest lender to the water sector to date, the Bank can rise to the challenge again. Looking ahead, the EIB intends to consolidate its leading role in supporting water security worldwide. This means not only investing in resilient municipal water services and helping countries to adapt their water management strategies, but also working with partners outside the water sector to identify and finance “water stewardship” measures, such as water efficiency and recycling. Innovation in water-thirsty sectors, such as the energy sector, would help to ease the pressure on scarce resources, reducing the need to invest in additional resource development.



Leading on sustainable development by promoting best practice in impact assessment

This year the EIB won a prestigious Impact Assessment Award for its best practice in promoting sustainable development globally.

The principles of equitable and sustainable development are central to the EIB's mandate and underpin the Bank's activities across all sectors.

The EIB strives for positive development outcomes by carrying out an integrated assessment of the biophysical and socio-economic impacts of the operations it finances. At the same time the Bank ensures that those operations are not only in line with EU environmental and social principles, but also that the Bank's comprehensive Environmental and Social Standards are applied. In this way, the potential negative impacts and risks of projects are not only avoided, minimised and/or mitigated, but also the highest standards and forward-looking solutions are consistently applied.

Through its concrete commitment to environmental and social sustainability, the EIB makes a distinct difference to the operations it finances.

Best Impact Assessment Award

Earlier this year, we received the Best Impact Assessment Award from the International Association for Impact Assessment (IAIA). The award recognises our substantial contribution to the field of impact assessment on a global scale. Bringing together governments, industry and practitioners, the IAIA is considered to be the leading global network on best practice in the use of impact assessment.

The EIB strives to be more transparent and accountable with regard to its decision-

Impact assessment in the digital era

The EIB received the award at the IAIA's annual conference in Florence, which explored the challenges and benefits of digital technologies in impact assessment.

This was for us an opportunity to show how new technologies have helped the Bank in its recent impact assessment work. In 2008, the EIB started working with the European Space Agency to test the use of satellite technology. Since then, the EIB has made good use of the earth observation techniques, for instance with the monitoring of forest plantations in Uganda and of compensation measures in motorway projects in Greece.

Another good example of the use of new technologies in social and environmental impact assessment is the Quito Metro project in Ecuador. The project promoter engaged directly with stakeholders through social media during the environmental impact assessment process. The whole consultation process was performed using a web-based virtual consultation during the design phase and this will continue during the construction phase.



making process and seeks positive development outcomes in the operations it finances. This is why we publish environmental information, such as the non-technical summary of the environmental impact assessment and/or the summary

of our own environmental and social due diligence on the projects we appraise, well ahead of their approval. A registry on our website makes available environmental and social documents relating to the projects we finance. ■



In brief

Sustainable Forestry Deal of the Year for EIB-backed climate fund

Althelia Climate Fund, in which the EIB is a cornerstone investor, won the Sustainable Forestry Deal of the Year award in recognition of its innovative approach to conserving threatened landscapes in some of the most biologically diverse areas in the world, such as the National Reserve of Tambopata and the National Park Bahuaja-Sonene in Madre de Dios, Peru. The EIB contributed up to EUR 25m to Althelia. This is a good example of EIB support for projects that also have a positive social impact. Applying good environmental and social standards remains central to the Bank's work in all areas.



EIB wins awards for its Green Bond issuance

At its annual Bonds Dinner in May, Global Capital presented its 2015 Bond Awards to the most impressive teams and individuals from the borrowing and investment banking sides of the market. Two awards were given to the EIB: "Overall Most Impressive SRI or Green Bond Issuer" and "Overall Most Impressive Green Bond Funding Official". This recognition adds to other Global Capital awards received in the international capital markets. The awards in the Green Bonds area highlight the EIB's long-standing leadership in the Green Bond market.



Towards an EIB Climate Strategy

The first-ever EIB Climate Strategy, a forward-looking document ensuring that the EIB makes an ambitious contribution to tackling climate change, will be presented at the Paris Conference in December. A public consultation on the Bank's approach to supporting climate action was open to all interested stakeholders, offering the opportunity to discuss directly with EIB staff the key issues at stake. The public consultation, which closed officially on 16 March, is part of a review of the Bank's approach to supporting climate action, which is aimed at formulating strategic orientations and priorities for the future. The Bank will integrate the views of external stakeholders into its future Climate Strategy.

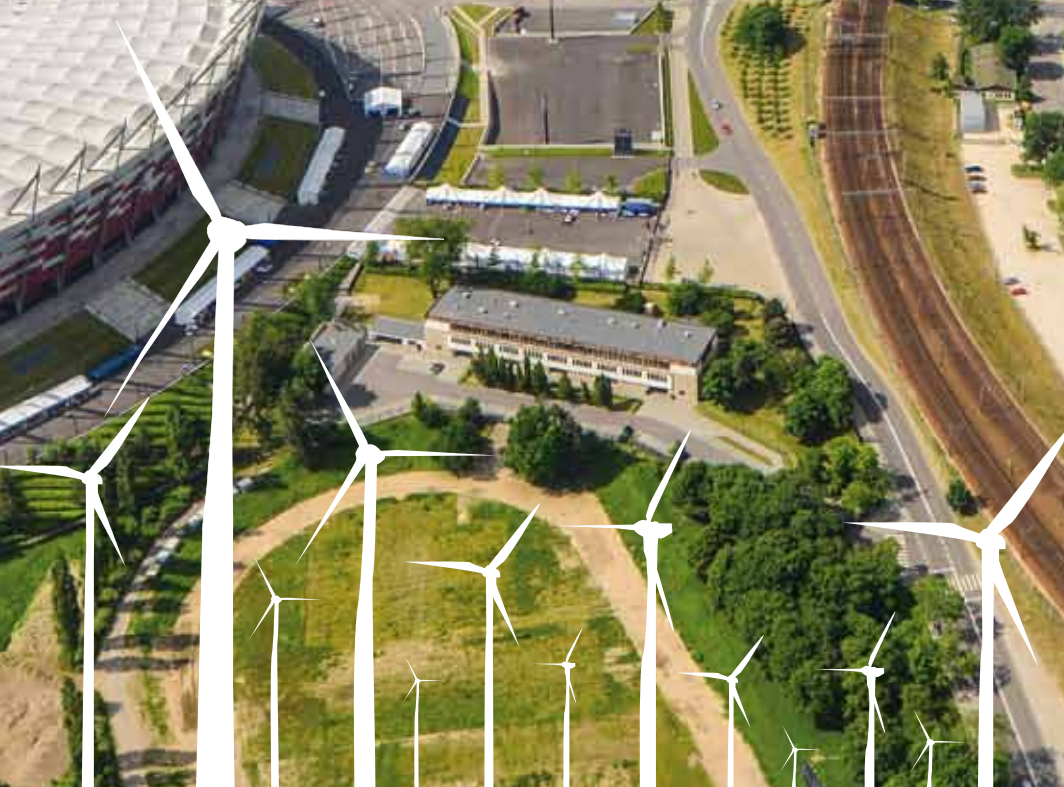


Climate highlights

Thermal rehabilitation of over **26 000** apartments funded in the EU

Since 2007 our Climate Awareness Bonds (CABs) have raised the equivalent of EUR 9.5bn in ten currencies. CABs totalling a record **EUR 4.3bn** were issued in 2014

73 new trains funded for the City of São Paulo and its regional rail network





More than
2 600 MW of
electricity generating
capacity from
renewable sources
funded in the EU

EUR 770m
invested in 25 climate-related
infrastructure funds, including
renewable energy, energy
efficiency, forestry, land
decontamination and
biodiversity

Two credit lines in Turkey and Moldova are
helping **5 000** agricultural SMEs deal with
climate change impacts and improve water
and resource efficiency



Small water companies think big in Italy

By investing EUR 145.8m in Viveracqua Hydrobond, the EIB is supporting a pioneering EUR 300m programme backing eight small and medium-sized water utilities in the Italian region of Veneto. Alberto Nobili, Head of International Structured Finance, Finint, and Fabio Trolese, President of the Viveracqua Consortium, spoke to EIB INFO about this innovative climate finance product.



Interview

Fabio Trolese,
President of the
Viveracqua Consortium



Interview

Alberto Nobili, Head of
International Structured
Finance, Finint

Innovation has historically been at the heart of the greatest business and financial successes, and creative solutions are now helping to tackle the climate challenge. This story shows how small and medium-sized Italian water utilities are using innovative ways of working together to achieve greater benefits for the environment and local communities. By financing nearly half of the project, the EIB is helping small Italian utilities grow, thereby securing and creating new jobs.

Teaming up to succeed

“We needed to find alternative sources of financing other than bank lending which, since the financial crisis, has been held back by capital constraints. The eight small water utilities which needed financing presented themselves as a group to build a stronger case – this was key for our success”, says Alberto Nobili, who conceived, structured and arranged the operation at Finint.

The small water utilities had teamed up to create the Viveracqua Consortium. This turned out to be crucial when approaching the EIB. Individually they would not have been able to access the Bank’s financing.

A great programme only works if it’s managed effectively and given the tools to succeed: the eight Italian small water utilities issued minibonds, which were subscribed by a Special Purpose Vehicle created ad hoc. This was called Viveracqua Hydrobond and served as collateral for an asset-backed securitisation. Viveracqua

Hydrobond fully subscribed EUR 150m of minibonds issued by the eight companies, to provide the water utilities with long-term funding to develop infrastructure.

This innovative transaction takes advantage of new opportunities opened up by recent changes to the Italian securitisation law and also to the unlisted midcap financing rules. Removing the main legal and tax obstacles, the former permitted a greater range of assets to back bonds, while the latter allowed smaller entities to issue minibonds within the same regime as corporate transactions listed on the stock exchange. The changes also allowed insurers and pension funds to invest in such securities.

Pioneering water solutions

Viveracqua Hydrobond is not only the first securitisation of minibonds, but also the first systemic operation among integrated water system companies in Europe.

Buying the majority of bonds – EUR 145.8m out of the total EUR 150m transaction, with the remainder taken up by pension funds and Italian regional banks – the EIB is proud to have played a key role in mobilising private finance.

“The EIB’s expertise was essential to advancing this ambitious project. The EIB not only understood well the complex dynamics behind this operation, but even went beyond them to accommodate our needs when shaping the terms of the contract”,



says Fabio Trolese, President of the Viveracqua Consortium.

Now the question is whether this model can be replicated in other regions and sectors. This innovative technique could unlock an alternative channel of funding for SMEs.

“Technically it is possible, but it cannot be replicated without a strong common way of thinking and know-how. Sharing the same objectives was one of the challenges, but also our strength”, as Alberto Nobili points out.

Less risk for greater impact

“Viveracqua Hydrobond is credit enhanced through two loss-absorbing mechanisms for a total of EUR 30m or 20% of the deal size. Veneto Sviluppo, the financing arm of the Veneto region which co-arranged the minibond issues with Finint, provided a EUR 6m cash reserve as a first loss piece, while the utilities put in a EUR 24m second loss piece from the proceeds of the minibonds. These first and second loss pieces overcollateralise the structure, covering

for any potential losses”, explains Alberto Nobili.

Thanks to this credit enhanced portfolio, the small water utilities were able to access the EIB’s long-term debt financing and pass the full financial advantage directly on to the consumers.

The works started last year and are well on track: in 2014 EUR 80m of investment was already channelled into projects delivering the first concrete results.

Once completed in 2018, the EUR 300m investment programme is set to bring multiple benefits for a greener and more sustainable Veneto region. The 728 integrated water system projects (mainly waterworks

and sewerage facilities) will improve services for the 2 million inhabitants of the Veneto region. The Viveracqua Hydrobond is also a development and growth opportunity for the region, with 300 new jobs being created to the benefit of the local community.

The EIB is proud to have contributed to launching this innovative climate finance product and is also confident that it will catalyse further interest among investors. As Fabio Trolese says: “The EIB led by example, giving a much needed boost of confidence for water investment in Italy. Thanks to the EIB’s involvement, this operation has been visible to other investors who may show their interest in the operation, now and in the future”. ■

Viveracqua Hydrobond is expected to deliver:

560 km
of waterworks
and sewerage facilities,
2 benefiting
million residents

300
new jobs 





Green Bond market takes a leap towards sustainability

Only a few years ago the Green Bond market was uncharted territory. Today it is a high-growth segment that has seen rapid development. Keeping up with the growing interest of socially responsible investors, we have helped develop the governance framework and reporting practices to enhance the public accountability of environmental finance.



Parties to the UN climate talks agree that mobilising private capital is crucial to address the climate challenge. Green Bonds have a role to play in this and the EIB, together with other multilateral development banks, is already committed to contributing to the sustainable development of this market.

Fostering climate-friendly investment

The EIB is strongly engaged in climate finance, targeting both climate mitigation to reduce greenhouse gas emissions and adaptation to climate change impacts. We were the pioneer of the Green Bond segment in 2007 and remain the largest issuer to date. The market for Green Bonds has developed rapidly over the past few years, with USD 37bn issued in 2014.

“Our Climate Awareness Bonds offer investors the opportunity to participate in socially responsible behaviour,” EIB President Werner Hoyer commented on the recent developments, adding that “we are determined to maintain our developmental role

and to spur further sustainable growth of this unique capital market segment.”

As the Green Bond market grows and becomes more standardised, the EIB has been playing an active role in the development of the Green Bond Principles – voluntary standards for issuers of Green Bonds, designed to help build the transparency and credibility of the market. The Green Bond Principles improve the transparency and accountability of Green Bonds and the use of their proceeds. A higher degree of transparency raises market confidence, stimulating further investment. This creates a virtuous circle, bringing momentum to climate action.

What makes Green Bonds green?

What do residential buildings in Romania, a solar complex in Morocco, an offshore wind farm grid link in the UK and research into more efficient renewable energy applications in Spain have in common? They have all received allocations from Climate Awareness Bonds, EIB Green Bonds.

At the most basic level Green Bonds raise funds that are earmarked for projects with a positive environmental impact. The definition of the project eligibility criteria is the responsibility of each individual issuer, and a trustworthy framework is required to secure ex post accountability on allocations. Investors have called for relevant, reliable and comparable information. A precondition for this is transparency and harmonisation.

Green Bond Principles provide a set of voluntary standards for the issuers of green bonds, designed to help build the transparency and credibility of the market. They help preserve the integrity of the market and encourage issuers’ transparency and accountability vis-à-vis external stakeholders, which are crucial in the absence of widely accepted definitions as to what is green or well established research guiding investors on what is green across the spectrum of investment alternatives. In order to offer a relevant and straightforward metric for measuring impact, the EIB has been among the pioneers of reporting figures for greenhouse gas savings. ■



Projects which received allocations from CABs in 2014 include:

The thermal rehabilitation of some



1 000 residential buildings in the city of Bucharest.

The Tafila wind farm, which is set to account for

10% of Jordan's renewable energy target by 2020.



A robust framework that builds trust

The Green Bond Principles have four components:

- 1 Use of proceeds
- 2 Process for project evaluation and selection
- 3 Management of proceeds
- 4 Reporting



Common platform for reporting on projects' environmental impact

In addition to its involvement with the Green Bond Principles, the EIB has worked together with the AfDB, IBRD and IFC on a harmonised framework for impact reporting in the Green Bond context.

The EIB was the first to apply this harmonised framework to its reporting practices, providing a complete list of 2014 project allocations, as well as the expected environmental impacts, including the estimated carbon footprint. Carbon footprinting of projects is mainstreamed into the Bank's operations and captures two measures: estimated emissions from a typical year of the project's operations (absolute emissions) and estimated emission changes resulting from the project (relative emissions).

The momentum achieved in the Green Bond market brings to light a series of technical issues that have now become of interest to a wider, capital markets audience. This should help push forward the discussions on reporting, as well as the underlying assessment of projects' environmental impacts.

The Ouarzazate solar complex in Morocco, with the potential capacity

to **power a city of**

250 000 inhabitants.



Acciona's research into more efficient renewable energy applications that will help develop **climate-friendly technologies in Spain.**

A **100km** high-voltage transmission connection between the Lincs offshore wind farm and the UK national grid.



First EIB-backed smart cities projects take shape in Belgium

Last June, Belfius Bank and the EIB launched a EUR 400m joint financing programme to implement sustainable projects in line with a “Smart Cities” approach – a European first. Nine months later the progress is tangible: the first loans, totalling EUR 35m for eight projects in Belgium, have just been approved.

A smart city is a place where the traditional networks, services and infrastructure are made more efficient by using digital and other innovative technologies for the benefit of the people. This concept also includes better resource utilisation and lower emissions: smarter urban transport networks, upgraded water supply and waste disposal facilities, and more efficient ways of lighting, heating buildings and regenerating urban districts.

In this spirit, the “Smart Cities & Sustainable Development” programme developed by the EIB and Belfius Bank aims to assist and provide financial support for towns and cities – including the smallest ones – for their sustainable mobility, urban development and energy efficiency projects. Belgian local authorities have been the first in Europe, starting in June 2014, to benefit from preferential rate loans for implementing their “Smart Cities” projects.

Redeveloping a brownfield site in Wetteren

To the east of Ghent, located either side of the river Scheldt, the Flemish municipality of Wetteren, with a population of 25 000, will soon benefit from the redevelopment of a site in the heart of the city that was formerly contaminated with asbestos. The idea is to redevelop the city centre into a car-free area, with a new town hall more responsive to local needs, new residential and commercial buildings, a huge underground car park and a bridge connecting

the two sides of the river, which will only be accessible on foot or by bicycle and will be used daily by more than 1 000 school children.

A “Near-Zero Energy Building” (NZEB) for sheltered accommodation in Schelle

Located in the southwest of Antwerp, the Schelle municipality is also among the lucky few to benefit from the programme for its NZEB building for sheltered accommodation. Schelle, with its 8 200 inhabitants, immediately applied for the programme, as its administrators are particularly concerned about energy savings as well as inclusive growth. The new build-

ing, consisting of 36 flats equipped to normal standards, will replace the 22 existing individual sheltered houses that were built in the late sixties/early seventies. Their energy consumption had become so high that the cost of renovation and the attainable energy level would have been much greater than building a brand new NZEB building from scratch. The construction should result in excellent U-values for the insulation of roofs, walls, windows and floors. The building will also play a social role in the urban and local context as it will be available for a variety of activities, such as talks and lectures. ■

25 000

residents in Wetteren will benefit from a car-free city centre



8 200

residents in Schelle will benefit from energy savings





Turning waste into valuable resources for the residents of Sofia

Bulgaria is progressively bringing its waste management system up to best practice standards. By providing technical assistance and a EUR 33m loan, the EIB has helped the capital city of Sofia to successfully turn waste into a resource.



Prior to 2010, the city of Sofia was landfilling and storing all of its solid waste. This resulted in the waste of valuable resources, causing nuisances to local residents. Thanks to an EIB loan, a series of municipal waste treatment facilities are now able to process approximately 500 000 tonnes of municipal waste per year.

Today about 60% of Sofia's waste is composted, recycled or energetically recovered. By diverting biodegradable materials away from landfills, these facilities help to limit greenhouse gas emissions. In addition, the waste management system re-injects valuable materials back into the economy. 150 new jobs are expected to be created for engineers, biologists and energy specialists as well as finance and logistics experts.

"The EIB played an important role in the modernisation of Sofia's waste treatment infrastructure not only through its financial support but also with the extensive technical advice it provided. The Sofia municipality is very grateful for the EIB's involvement and hopes to continue this collaboration

for future projects in the sector", explains Maria Boyadjiiska, Deputy Mayor of Sofia.

From waste to compost material and energy

A composting plant, in operation since March 2014, has the capacity to treat about 20 000 tonnes per year of biodegradable waste from parks and gardens. This waste is turned into good quality compost which is sold to farmers and residents. Up to 10 kg of compost is also given for free to residents of Sofia for their gardens, a measure that was met with enthusiasm.

When the facility reaches its maximum capacity, it will be producing 13 000 tonnes of compost and 30 tonnes of ammonium sulfate, a commonly used soil fertilizer.

An anaerobic digestion plant operating since January 2014 processes some 24 000 tonnes of separately collected food and kitchen waste. This waste is turned into energy used for own consumption and sold to the grid. At maximum capacity, the plant will produce over 855 KW/h of electricity.

A second life for recyclable materials

In order to collect recyclable materials, a separate waste collection scheme was implemented in two districts, Kupel and Kremikovtsi. Thanks to a well prepared awareness campaign, the residents played their part in sorting their waste. In 2014, some 64 tonnes of paper and cardboard, 73 tonnes of plastic and metals and 82 tonnes of glass were recovered. The city plans to extend this separate waste collection scheme to other districts.

In addition, by the end of 2015, a Mechanical Biological Treatment (MBT) plant, currently under construction, will process mixed waste which it will separate into several outputs: compost, recyclable materials and alternative fuel. The MBT plant will be one of the largest in Europe with a capacity to treat 410 000 tonnes of waste per year. 40 000 tonnes of recyclable materials will be collected and reintroduced into the general economy. ■

Bringing together public and private investors

Typical barriers such as high risk perception, lack of upfront capital and high transaction costs keep away private sector investments, especially in emerging economies. The EIB Group is amongst the first to catalyse private capital from investors for the benefit of clean energy projects in developing countries.

P rivate investors are often hard-pressed to find bankable projects in which to participate. Raising equity in addition to the amount project sponsors themselves bring to the project can be very difficult, particularly in developing countries and even more so in the renewable energy and energy efficiency sectors. Here private sector investors lack not only sufficient long-term market visibility, but also the necessary market knowledge to invest in the short-to-medium term. Country risk factors are typically greater and the financial case for climate friendly investments is often perceived as too high risk.

Advised by the EIB Group, the Global Energy Efficiency and Renewable Energy Fund (GEEREF) is an innovative fund-of-funds catalysing private sector capital for renewable energy and energy efficiency projects in developing countries. GEEREF anchors private equity funds, which in turn invest in private sector projects, thereby further enhancing the multiplier effect of its investments. Basically, the funds in which GEEREF invests provide capital and raise debt for the underlying projects, creating a multiplier effect for GEEREF investors of over 50. This means that for every euro invested by GEEREF in a fund, over 50 euros are invested in debt and equity in final projects on the ground.

Launched in 2008 with funding totalling EUR 112m from the European Union, Germany and Norway, GEEREF welcomed its first private sector commitments in 2014.

The key to GEEREF's fundraising success

Often a fund's past performance can be a good incentive to attract private investors. GEEREF's portfolio built up since 2009, coupled with the EIB's track record in clean energy projects in developing countries, was crucial to instilling the confidence needed to get private investors on board.

However, this was not an easy endeavour. Investors had to become convinced that GEEREF could provide them with a diversified exposure to a new sector (equity for renewable energy in emerging markets) which, despite strong economics, lacks a track record. To solve this problem, GEEREF built on the willingness of public investors to innovate with the use of ODA (Official Development Assistance) to catalyse private capital.

The public investors agreed to provide private investors with a preferred return which also acts as a sort of first-loss. By doing this, they provided a solid cushion to private investors. This means that private shareholders in GEEREF have priority on reflows and benefit from a preferred distribution right. The preferred return is structured in several steps whereby private investors get their invested capital back plus an initial preferential reflow; further reflows go to public investors until they have got their invested capital back; subsequently the private sector receives a further increase of their preferred return and, finally, the remainder is split amongst

investors (private and public) pro rata to their share. Thanks to this new structure, the risks for private investors were minimised. This was strategic to start cracking the nut of privately funded renewable energy and energy efficiency projects in developing countries.





The largest contributions from private investors came from pension funds, family offices and high net worth individuals. On 29 May 2015 GEEREF's fundraising campaign successfully closed with over EUR 110m from 19 private investors from around the world. Coupled with the initial funding of EUR 112m, the fundraising has brought the fund size to EUR 222m, thereby leveraging the initial public sector contributions.

A catalyst for positive impact

Via its funds from both public and private investors, GEEREF has invested in 39 projects so far, all in the commissioned or construction phase.

The great success of GEEREF is clearly not only linked to its robust financial returns. GEEREF is proud to bring equal benefits that adhere to a triple bottom line: "People, Planet, Profit". Private investors happily committed to GEEREF because it mobilis-

es funding for projects that have a positive impact on communities and the environment.

For example, GEEREF committed EUR 10m to the Evolution One fund, which has invested in and provided risk capital for the Kouga Wind Farm in the Eastern Cape of South Africa, approximately 80 km west of Port Elizabeth. This will not only contribute to greater energy security and to South Africa's climate and renewable energy targets, but also alleviate poverty by creating new jobs. 219 people, predominantly from the local community, were employed during the 26-month construction phase. 30 employees have had a permanent job since the wind farm became operational in March 2015.

GEEREF has also recently invested in a new private equity fund in Georgia, bringing to nine the total number of funds in its portfolio. Caucasus Clean Energy Fund I will make equity investments in small and medium-sized hydropower plants, help-

ing to unlock Georgia's tremendous hydropower potential.

The strong pipeline of GEEREF foresees further investments in funds in Asia, amongst which one in Nepal and one to cover the wider South-East Asia region. A number of African funds (including the successor of Evolution One in South Africa) and in Latin America are also in the pipeline.

The targets are ambitious: to create 1 gigawatt of clean energy capacity in recipient countries, provide sustainable energy services to 3 million people and save up to 2 million tonnes of carbon dioxide emissions. GEEREF stands ready to meet these challenges. ■



Expected results:

1 gigawatt of clean energy capacity



2 million tonnes of CO₂ emissions saved



3 million people benefiting from sustainable energy



Bristol, leading the way for sustainable and resilient cities

Bristol is at the forefront of a global movement of cities that are reinventing what it means to be sustainable and resilient in the age of climate change. We are proud to have supported the city's ambitious energy programme.

Located in South West England, Bristol was recently awarded the title of European Green Capital 2015. The award recognises the city's many initiatives over the years to protect the environment and improve people's quality of life.

Bristol, European Green Capital 2015

Bristol's title of Green Capital is well deserved. It is the UK's greenest city. Almost a fifth of Bristol's residents walk to work. The number of cyclists has doubled in recent years. Carbon emissions have consistently declined in Bristol since 2005, despite a growing economy.

George Ferguson, the Mayor of Bristol, explains how the city achieved these impressive results: "Bristol has in reality been working towards the title of European Green Capital for generations. Our success is rooted in 40 years of pioneering work in sustainability. Much of this has been at grassroots level, demonstrating real change and community spirit in areas such as energy, waste, food and transport. We have over the last few years grown a Green Capital Partnership of 750 organisations, large and small."

Nevertheless, the city does not plan to rest on its laurels and has committed a budget of EUR 500m for transport improvements by 2015 and up to EUR 300m for energy efficiency and renewable energy. As a signatory to the Covenant of Mayors in 2009, the city has set ambitious targets to reduce energy use by 30% and CO₂ emissions by





40% by 2020 and 80% by 2050 (from 2005 baseline).

Indeed, cities can play a major role in mitigating the effects of climate change as they account for about 80% of energy consumption and CO₂ emissions in the EU. ELENA, the European Local Energy Assistance facility, aims to unleash this potential to save energy and reduce CO₂ emissions.

The European Local Energy Assistance facility and its support to Bristol

The ELENA facility is a joint initiative of the EIB and the European Commission. It helps local and regional authorities prepare energy efficiency and renewable energy projects and increase their chances of attract-

ing financing. Since its inception in 2009, ELENA has supported 36 projects in 14 different EU countries with total grant contribution of some EUR 65m. ELENA expects to leverage investments of up to EUR 3.5bn.

"Bristol is fast becoming the UK's most energy efficient major city and this is in no small part thanks to the support of the European Investment Bank under ELENA to develop a series of strategic and sustainable local energy initiatives to improve life in Bristol. This includes setting up our new wholly owned ethically driven energy company, Bristol Energy" says Mr Ferguson.

In 2012, the city of Bristol received a EUR 2.6m grant from ELENA in support of a EUR 161m sustainable energy investment. This includes improving the energy efficiency of residential and public buildings, installing photovoltaic panels on public and private rooftops and renovating district heating systems.

Bristol is helping to engender best practice. Cities from around the world learn from each other, creating a positive movement towards resilient and people-oriented cities. ■

BRISTOL
2015 EUROPEAN
GREEN CAPITAL

George Ferguson,
Mayor of Bristol,
and Mareike
Schmidt, ELENA
Programme
Manager, with the
ELENA team





Cleaning up the past, **building the future**

Brownfields and Ginkgo are two private equity funds specialising in the redevelopment of former industrial sites in urban areas. Supported by the EIB with a view to attracting private and institutional investors, they help projects to get off the ground, particularly in France and Belgium.

100 000 m²
of new residential and commercial
property



More than
5 000
new jobs



It is estimated that there are 3.5 million contaminated industrial sites in the European Union, 500 000 of which require remediation measures. Due to its industrial past, France alone has inherited some 250 000 of these sites, including at least 15 000 to 20 000 ha of degraded urban areas that can be redeveloped. Belgium has not been spared ei-





ther, with around 20 000 sites that need regenerating. Regardless of whether they are the sites of former industrial complexes, medium-sized plants, filling stations or any other activity resulting in ground contamination, their redevelopment presents obvious benefits.

The decontamination and conversion of these sites into residential and/or commercial areas contributes to reducing public health and environmental risks while providing new prospects for urban planning.

A market with huge potential

Owing to the technical complexity, environmental legislation and operational costs involved in cleaning up underground pollution and removing asbestos from industrial sites, local authorities are obliged to seek the services of specialists and funding from private investors.



In the US, the concept of private equity funds combining technical and financial expertise is already well established. The Cherokee Fund, for example, which has been in existence for more than 20 years, has already regenerated around 500 sites and now manages USD 2bn. In continental Europe, however, the redevelopment of brownfield sites via private investors still remains at a low level, with site owners, planners and property developers preferring to operate on a case-by-case basis. There are admittedly some examples in the United Kingdom, such as London's Olympic stadium, but the commercial and urban potential offered by this opportunity for intermediation between owners/public and private industrialists and planners/promoters is still far from being realised.

The Brownfields Fund

Brownfields specialises in cleaning up and redeveloping brownfield sites according to an innovative model. This fund purchases polluted former industrial sites, then finances and carries out all demolition, asbestos removal and clean-up works before redeveloping the sites for new uses.

The fund was launched on the heavily polluted site of the Villeneuve-la-Garenne mail depot. In less than 18 months, the company removed asbestos from the existing buildings and demolished them, cleaned up the site, built roads to be returned to the municipality and constructed a 23 000 m² industrial building to house a mail depot for the "La Poste" group in the Hauts-de-Seine department. The site now provides employment for nearly 600 workers.

Brownfields has initiated, remediated and implemented more than 20 small and medium-sized operations, leveraging investments of up to EUR 100m. This has resulted in the provision of 100 000 m² of residential and commercial property in several French conurbations (Paris Region, Lyon, Marseille, Evreux and Montpellier).

Since 2013, thanks to EIB support, Brownfields has raised EUR 120m from private institutional investors through a private equity fund. The new fund is dedicated to larger projects that could mobilise up to

EUR 250m of new investments in France and Belgium.

Ginkgo Fund

Since 2010, Brownfields has no longer been the sole player in this promising market. Ginkgo, a fund backed by the EIB, Caisse des Dépôts and Compagnie Benjamin de Rothschild and supported by around ten other private and public institutional investors, has a budget of EUR 81m.

Ginkgo specialises in medium-scale and, above all, large-scale projects. It acquires only a few sites from industrial enterprises, relying instead on contributions from property investors seeking significant rental and/or commercial property development schemes in the Paris and Lyon regions and in Belgian conurbations with a high population density.

One year ahead of its investment schedule, Ginkgo has largely committed all the funds at its disposal. Under seven projects, it has secured building rights for almost 230 000 m² in the heart of major cities in France and Belgium, with over 3 000 housing units under construction, 5 000 jobs created by the projects undertaken and 100% self-supporting projects, i.e. not involving any kind of subsidy or financing from public funds. The flagship project, which received the support of the City of Lyon, is the former site of the manufacturer of household appliances Fagor-Brandt, where up to EUR 17m was able to be committed. Demolition and remediation work has started on this brownfield site and on two other sites in Belgium that are expected to receive planning permission in the near future. Their strategic urban positions and support from Ginkgo through renowned property developers should facilitate the sale of these sites once they have been decontaminated. ■

South Africa inaugurates its first concentrated solar power plant

South Africa saw the inauguration of its first concentrated solar plant in the small town of Pofadder in the Northern Cape Province. Backed by a EUR 210m EIB loan, the 100 MW plant will light up 80 000 households, whilst reducing South Africa's carbon emissions by 300 000 tonnes every year.

**80 000**

households connected to electricity

**300 000**tonnes of CO₂ emissions saved per year**1 000**

new jobs



plant will ease pressure on the utility and light up 80 000 households, with the additional benefit of reducing South Africa's carbon emissions by 300 000 tonnes a year. Through this EUR 558m project, the developer – Abengoa – has assisted in transferring European technology into Africa and created close to 1 000 jobs during the construction phase of the plant alone.

Given the overwhelmingly deprived setting in which Pofadder is situated, its founders scarcely imagined it one day drawing global attention. Yet, on Monday 2 March, South Africa's Minister of Economic Development, Mr Ebrahim Patel, as well as representatives from the Ka-Xu Solar One project, inaugurated South Africa's first concentrated solar power plant in this sparsely populated town.

With 360 000 parabolic trough mirrors and 2.5 hours storage capacity, this plant is the largest in the Southern hemisphere. And it could not have come at a better moment as South Africa's power utility Eskom is currently struggling to cope with increasing demand. Moreover, Eskom's predominantly coal-fired fleet of power stations is facing a significant maintenance backlog, thus exposing the country to long periods of power cuts. The new solar power

The renewable energy projects in the Province have left an indelible mark on the social structures of the once sleepy towns of the Northern Cape. A number of hospitals and schools are rising up from the ground in Upington and Pofadder and a new university has been established in the town of Kimberley. Development finance will remain a key ingredient in the country's agenda for the transformation of the energy sector, helping to diversify the energy mix away from coal-fired stations. ■



New Tbilisi office

A new EIB office in Tbilisi, Georgia, opened in April 2015. This will help to enhance EIB support for the public and private sectors and strengthen relations with promoters and partner banks in the Caucasus region.

Publications

- Sustainability Report 2014
- Finance for climate action brochure
- Innovative climate finance products brochure
- SME Report 2014

More @ www.eib.org/publications



Agenda

- **21-27/09/2015**
Climate Week, New York
- **30/09-02/10/2015**
UrbanTec Brasil 2015 – Smart Solutions for Better Cities, Rio de Janeiro
- **30/11-11/12/2015**
UN Climate Change Conference (COP 21), Paris

More @ www.eib.org/events

People @ EIB



Volkmar Bruhn-Leon

has been appointed Director of the Transaction Management Department



Sandrine Croset

has been appointed Head of the Counterparty Management Department



Werner Schmidt

has been appointed Head of the Environmental & Regional Development Department



Klaus Trömel

has been appointed Secretary General



Marjut Santoni

has been appointed Deputy Secretary General



Jean-Christophe Laloux

has been appointed Director General and Head of Operations



Luca Lazzaroli

has been appointed Director General and Deputy Head of Operations



Carlos Guille

has been appointed Director General of the Transaction Management & Restructuring Directorate



Romualdo Massa-Bernucci

has been appointed Deputy Director General of Operations



Tilman Seibert

has been appointed Deputy Director General of Operations



Nicholas Barclay

has been appointed Director of the Information Management and Procurement Department



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Please consult the Bank's website for the updated list of existing offices and their contact details.

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Making a difference



3 million tonnes of CO₂ emissions were saved thanks to our financing in 2014. That's like taking **1.5 million cars off the road.**