

»» OUR RESPONSIBILITY
SHAPING SOCIAL
CHALLENGES

Sustainability Report 2012



»» Key figures of KfW Bankengruppe

CORE GROUP FIGURES

		2009	2010	2011
Operating result after valuation	EUR in millions	1,161	2,712	2,086
Profit/loss from operating activities (result before taxes on income)		1,184	2,685	2,098
Consolidated profit		1,127	2,631	2,068
Total assets	EUR in millions	400.1	441.8	494.8
Volume of lending		383.5	426.7	436.7
Volume of business		474.8	530.6	573.6
Tier 1 capital		12.2	15.3	17.4
Tier 1 ratio	in %	9.4	12.4	15.4

EMPLOYEES¹⁾

	2009	2010	2011
	4,265	4,531	4,765

BUSINESS AREAS AND ACTIVITIES

		2009	2010	2011
KfW Mittelstandsbank	EUR in billions	23.9	28.6	22.4
Promotion of small and medium-sized enterprises (SMEs), business start-ups and other business clients in Germany				
KfW Special Programme ²⁾		7.2	6.2	0.7
KfW Privatkundenbank		16.1	20.0	16.7
Housing programmes, environmental protection and education programmes for retail clients in Germany				
KfW Kommunalbank		9.4	15.4 ³⁾	11.8
Financing programmes for the public sector (municipalities, municipal enterprises and regional promotional banks)				
Capital market-related products & securitisations		1.5	2.5 ³⁾	1.1
Loan securitisation and other capital market activities				
Export and project finance (KfW IPEX-Bank)		8.9	9.3	13.4
Tailored international export and project finance				
Promotion of developing and transition countries		4.5	5.7	5.8
KfW Entwicklungsbank		3.5	4.5	4.5
DEG		1.0	1.2	1.2
Overall commitment volume of KfW Group (consolidated) ⁴⁾		63.9	81.4	70.4

¹⁾ As defined in the German Commercial Code for annual reports

²⁾ Including cancellations and waivers totalling EUR 165 million for the KfW Special Programme in 2011

³⁾ 2010 figures adjusted to reflect product transfers: "business consultancy" now comes under KfW Mittelstandsbank (EUR 0.1 billion) while "global loans Europe" is classified under capital market-related products and securitisations (EUR 0.4 billion). The 2009 figures have not been adjusted retroactively.

⁴⁾ Adjustment for commitments made in export and project finance funded through KfW programme loans (2011: EUR 847 million; 2010: EUR 231 million). Excludes Germany's one-off contribution to the rescue package for Greece: EUR 22.3 billion in 2010

Figures may not add up to totals because of independent rounding.

EDITORIAL NOTE

This publication "Our responsibility. Shaping social challenges" constitutes the first part of KfW Bankengruppe's 2012 Sustainability Report. It sets out how we focus our financing activities on the core challenges of our time. The second part of the report (What we do. Facts & Figures 2012) contains

key figures and information about how sustainability considerations were factored into our business operations between 2009 and 2011. You can view the complete report at www.kfw.de/sustainability. You can also order a printed copy at the same address.

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»» Foreword by the Executive Board

Dear Readers

As one of the world's leading and most experienced promotional banks, KfW Bankengruppe (KfW) has worked on behalf of the German Federal Government and federal states over decades to improve economic, social and environmental conditions in Germany and around the globe. We can confidently claim that responsibility is our core business. In recent years, as part of an ongoing modernisation process, which will continue on into the future, we have refocused our business operations to concentrate even more on socially relevant developments and sustainability criteria. We take our lead from the major challenges of our time.

Those challenges inevitably include climate and environmental protection. Almost one-third of KfW Bankengruppe's total commitments of around EUR 22.8 billion targeted this area in 2011, representing a significant contribution to achieving the German Federal Government's energy turnaround and climate policy targets. We are already a world leader when it comes to promoting renewable energies. Our activities in this field illustrate the way we widely spread forward-looking projects, from Frankfurt to the whole world. In the coming years, we intend to increase our involvement in climate and environmental protection by continuing to focus a good third of new business throughout the Group on this area.

Another key priority for KfW is providing attractive financing and promotional measures to ensure the future viability of SMEs in a globalised world. We have also introduced targeted promotional activities to tackle the anticipated social and economic consequences of demographic change in Germany. For many years, one of KfW's core missions has been to use Financial Cooperation to help elevate people in emerging and developing countries out of poverty and allow them to participate in society. All of our promotional and financing activities are designed to have a sustainable impact and to encourage our customers to act responsibly.

We also have demanding in-house sustainability standards. Our sustainability guidelines provide a strategic framework for the whole Group. In 2006, KfW became a signatory to the UN's Principles for Responsible Investment (PRI) initiative. As such we consider environmental issues, corporate social responsibility and good governance when making investments. "Portfolio Institutionell" magazine awarded KfW the title of "Best responsible investor" in 2011. In May of that same year we set up a German PRI network in order to promote the concept of sustainable investment in Germany.



»» Sustainability means development that is environmentally friendly, socially responsible and economically sound. We are committed to responsible banking in order to support that goal.



Dr Ulrich Schröder
(Chief Executive Officer)



»» Germany faces major economic and social challenges as a result of demographic change. We are actively addressing these challenges through our promotional programmes, such as for age-appropriate home conversions.



Dr Axel Nawrath
(Domestic Finance & Environmental Issues)



»» By helping to protect nature and biodiversity, we are making a valuable contribution to the future of our world. All life is dependent on the preservation of the natural world, whether in developing countries or industrialised countries.



Dr Norbert Kloppenburg
(International Finance)

We are also trailblazers in in-house environmental protection. Our own buildings rank amongst the most energy efficient in the world, particularly the West Arcade building in Frankfurt, completed in 2011. Our bank has been carbon neutral for several years for overall energy use and business travel. Through a wide range of energy-saving measures and use of renewable energies, we have more than halved our offsetting requirements against 2006. In 2012, we approved group-wide guidelines for suppliers and personnel service providers to guarantee responsible procurement standards.

Going forward we will continue to strive to meet our customers' expectations and requirements. We design our products and processes around our customers, improving service quality and thus the efficiency and effectiveness of our financing instruments. Our staff are vital to our success. We want to be an attractive employer and offer good career prospects. Over one quarter of our managers are female at present: by mid-2015, women are to make up one-third of all management staff. In the interest of being "good neighbours" we support selected environmental, climate, social action, corporate social responsibility, art and cultural projects in Frankfurt, Berlin, Bonn and Cologne. From 2013, our corporate citizenship activities will fall under the auspices of a foundation, allowing us to maintain and expand our activities.

The sustainability rating agencies Sustainalytics and oekom research rank KfW as an international leader for sustainable banking and processes. We want to maintain that position. We are also very proud to have been awarded the title of "safest bank in the world" by the US Global Finance magazine for the fourth year running in 2012. We believe that acting responsibly is not a luxury but rather the foundation for continued qualitative growth.

This Sustainability Report is designed to provide transparency regarding our activities from 2009 to 2011. The first part (Our responsibility) contains an overview of our business priorities and the associated economic, environmental and social impacts. The second part (What we do) provides details about how we carry out our statutory promotional mission sustainably: our guiding principles, how we ensure that banking processes are environmentally and socially responsible, and what those principles mean in practice for in-house environmental protection, our employees and society. We also set out our achievements and our sustainability targets for the future. This report provides accountability, but is also a starting point for initiating a dialogue with our main stakeholders. We would be delighted if you were to take up that invitation.



»» Our employees are our greatest asset. We want to be a responsible employer, providing challenging work and an attractive working environment.


 Dr Günther Bräunig
 (Capital Markets, Human Resources,
 Legal Affairs)



»» Sustainability also means having an intelligent risk management policy that will guarantee the bank's capacity to act in the long term. We want our customers, business partners and employees to have confidence in us and in what we do.


 Bernd Loewen
 (Risk Management & Controlling,
 Accounting)



»» Our environmental and social responsibilities do not stop at the front door. We also look for sustainable products and services when awarding contracts.


 Dr Edeltraud Leibrock
 (Organisation, Information Technology)

»» KfW: Mission and objectives

Responsible banking

Our products and expertise are dedicated to making sustainable improvements to social, economic and environmental conditions and to developing forward-looking ideas in Germany, Europe and around the world.

The world is changing, and with it the economic and social challenges of the coming years and decades. Environmental developments such as climate change, pollution and the loss of biodiversity have a far-reaching and global impact, which will increase over time. The same is true for huge social changes such as demographic change, global poverty and globalisation. These challenges go hand in hand with profound economic and social structural developments.

Shaping change

Supporting that change responsibly, successfully and with an eye to the future is the core mission of KfW Bankengruppe (KfW). Since the bank was founded over 60 years ago, we have worked on behalf of and as a partner of the German Federal Government and federal states to achieve forward-looking domestic growth and to make lasting changes to living conditions worldwide. We always consider the long-term outlook and take global developments into account.

We are a trustworthy partner for our customers and acknowledge our responsibilities even when times are tough. In order to fulfil our mandate to the best of our ability, we adapt our prod-

ucts and solutions to macroeconomic requirements. At all times, we ensure that our products and services create long-term value and contribute to preserving resources and constantly improving quality of life. In short: our actions are sustainable.

We view sustainability as a form of economic productivity that guarantees the livelihood and quality of life for future generations and that contributes to the creation of viable economic structures. KfW is committed to the concept of sustainable development and supports the German Federal Government's sustainability strategy.

Our lending and promotional activities are therefore geared towards the key challenges of our time:

- combating climate change and protecting our natural environment,
- ensuring competitiveness in a globalised world and promoting technical progress, and
- managing demographic change.

In addition to these three megatrends, we have identified a number of autonomous challenges of fundamental importance: poverty reduction, general corporate finance (especially for small

and medium-sized enterprises) and start-up financing.

By clearly positioning itself, KfW assumes a pioneering role within the German banking industry as an agent of change and a broker for new perspectives. Our position is based on our conviction that global and long-term megatrends will decisively shape the economic and political landscape in the coming decades. Until now, developments linked to these trends have mostly been seen as a risk factor, whether in terms of rising energy and commodities prices, declining agricultural yields or pending shortages of skilled labour.

However, focusing solely on risk is too short-sighted: by its very nature all change brings potential opportunities. Through our promotional activities, we strive to generate viable and sustainable solutions to major economic and social challenges. This can best be accomplished through a responsible partnership with all our stakeholders.

Our work as a promotional bank

KfW has a special role within the German and international economy: as a promotional bank, we serve a government management function and



KfW: PROFILE

KfW Bankengruppe (KfW) is the promotional bank for the Federal Republic of Germany. The bank is owned by the German Federal Government (80%) and the federal states (20%). Together, they hold share capital totalling EUR 3.75 billion. With a balance sheet total of EUR 494.8 billion as at the end of 2011, KfW is currently the third-largest bank in Germany and the second-largest promotional bank worldwide. The bank provided EUR 70.4 billion of promotional finance in 2011, around a third of which was channelled into climate and environmental protection activities. Since its creation in 1948, KfW has issued loans totalling close to EUR 1,000 billion. Thanks to its success, KfW has become a role model and mentor for the creation of promotional banks in many other countries – most recently in Greece and the United Kingdom. Both of KfW's subsidiaries are an essential part

of the bank's operations. The legally independent KfW IPEX-Bank GmbH handles all lending provided by the promotional bank on standard commercial terms. DEG (Deutsche Investitions- und Entwicklungsgesellschaft mbH) provides finance and advisory services for private companies that invest in developing and emerging countries. KfW has strategic investments in companies including the German Energy Agency (dena) and the Berliner Energieagentur (BEA). Following privatisation, the bank also acquired the German Federal Government's stakes in Deutsche Post AG and Deutsche Telekom AG through holding arrangements. KfW has its headquarters in Frankfurt am Main. In addition to branch offices in Berlin and Bonn, there is a DEG office in Cologne, and the bank has a European Union (EU) liaison office in Brussels. KfW has representative offices in just under

70 locations in Europe, Central and South America, Africa, Asia and Oceania. KfW IPEX-Bank and DEG have their own international offices. Having a presence in key business centres and local growth markets facilitates and streamlines close cooperation with partners and project clients. KfW and its subsidiaries employed over 5,000 staff worldwide in 2011. The six members of the Executive Board, which is chaired by CEO Dr Ulrich Schröder, are responsible for managing the bank and its assets. The Executive Board is monitored by the Board of Supervisory Directors, which is chaired on an alternating basis by the German Federal Minister of Finance and the Federal Minister of Economics and Technology. The Minister of Economics and Technology also chairs the SME Advisory Council, which advises the Executive Board.

are committed to the tasks set out in the KfW Law, which was originally adopted in 1948 and has since been amended several times. In accordance with this Law we specifically promote and finance measures in the areas of SMEs, start-ups, housing, environmental protection, infrastructure, innovation, education, project and export finance, and development cooperation. However, KfW is also a bank in the more traditional sense and provides modern products according to commercial principles, albeit on a not-for-profit basis and with a statutory ban on all dividend payouts.

KfW does not hold any customer deposits and does not have any branches. We fund our promotional activities almost exclusively via the international capital

markets. We are provided with a legal guarantee by the Federal Republic of Germany and are recognised as the safest bank in the world, meaning we can obtain funding on excellent terms. This money is then passed on in the form of low-interest loans to private customers, companies, non-profit organisations and municipalities. KfW has achieved constant growth since its inception by working on this principle. We also receive federal government budget funds in order to issue promotional loans and grants linked to key economic and development policy issues.

KfW loans are issued on the basis of subsidiarity: our customers only have direct contact with their own bank, rather than with us. Their bank verifies

the application and passes it on, which means that we do not compete with commercial banks. This model does not apply to public sector borrowers and to grants given to private customers and companies.

Our business areas

KfW divides its promotional and financing activities among three business areas. The largest volume of funding goes to supporting companies, retail customers and municipalities in Germany. The bulk of these resources are channelled to SMEs in the form of standard long-term loans and programmes to increase equity capital. We provide financing for retail customers to invest in their future through home ownership and energy-efficient construction as

PROMOTIONAL PRIORITIES IN FLUX

KfW's promotional priorities are closely linked to the economic performance of the Federal Republic of Germany. Our aim has always been to maintain prosperity levels for future generations and to contribute to sustainable development.

- From 1948: Support for the reconstruction of the German economy using Marshall Plan funds and later to support the export of goods
- 1960s: Legal mandate extended to include development cooperation
- 1970s: Focus on SMEs and energy efficiency in the wake of the oil and financial crises
- 1980s: Development aid moves away from financial assistance to focus on economic cooperation

well as education. We help municipalities and social institutions to modernise buildings and infrastructure and improve energy efficiency.

The second business area is the provision of project and export finance for SMEs and large German and European companies with projects focused on infrastructure, climate and environmental protection, and supplies of raw materials. We do this via our subsidiary, KfW IPEX-Bank, which has many years of experience working with various industries and international markets.

Thirdly, KfW supports projects in developing and emerging countries that are designed to make sustainable improvements in living conditions. Particular priorities are economic growth, good governance and transparency, education, health care, reducing poverty, and climate and environmental protection. In line with our statutory mandate, we support governments and state-owned institutions through the KfW Entwicklungsbank business area. We provide financing for private companies through our subsidiary, DEG.

KfW also performs special tasks on behalf of the German Federal Government, including selling shares in privatised state-owned companies and managing outstanding receivables relating to German reunification.

Responsibility is a guiding principle

KfW has to comply with tough corporate responsibility standards. This is apt, given that as a promotional bank, we not only manage public funds but

are also actively engaged in various markets through our products and programmes. In our business transactions and day-to-day work, we are committed to our responsibility towards the environment, society and our employees.

We have clear values that shape our corporate culture: motivation, identification with the bank and its mission, trustful collaboration and mutual respect. Our code of conduct and core values are set out in our mission statement (KfW Compass). These guidelines provide a clear and binding framework of reference for all staff.

We perform our statutory duties both professionally and efficiently. Targeted financing combined with our extensive knowledge of the markets allows us to generate quantifiable economic benefits for individuals, companies and countries whilst also setting standards for all industries. For example, our energy-efficient construction and refurbishment solutions are considered a benchmark within the financial sector.

In accordance with our motto "responsible banking" we also accept responsibility for the environment and society in our own bank operations, both as an employer and a corporate citizen. The sustainability guidelines, which were revised and expanded in 2012, serve as a valuable point of reference. We ensure that our products and processes are in line with sustainability principles through a cross-departmental management structure with extensive powers (see second part on What we do).

Strategic focus

Promotion is KfW's primary aim. To achieve this aim to the best of our ability, we have an ongoing strategic focus process made up of two elements:

Firstly, concentrating our activities on the major challenges of our time. Our activities are built around the megatrends climate change, globalisation and demographic change in tandem with fundamental promotional themes which are trend-independent, such as reducing poverty, general corporate finance (emphasis on SMEs) and start-up promotion. In order to reflect the importance of climate change, we aim to invest approximately one-third of all new commitments in the climate change and environment segment.

Secondly, constantly improving the quality of promotional products. In order to achieve this, large sections of our product portfolio are subject to ongoing evaluation based on standardised quality criteria. High-quality products are systematically enhanced, while lower quality products are gradually phased out. As a responsible promotional bank that operates via intermediaries, the quality of our business is a priority.

Ensuring that our promotional mandate always reflects the requirements for sustainable development means that our task has become much more complex. The tremendous economic, environmental and social challenges are sometimes contradictory and often cannot be defined in purely domestic terms. The trusted approach used over many

1990s: The reconstruction of former East Germany becomes the biggest investment programme in Germany's history

2003: Commitment to promoting environmental protection and to the German Federal Government's sustainability strategy with its focus on generational equality, social cohesion, quality of life and global responsibility

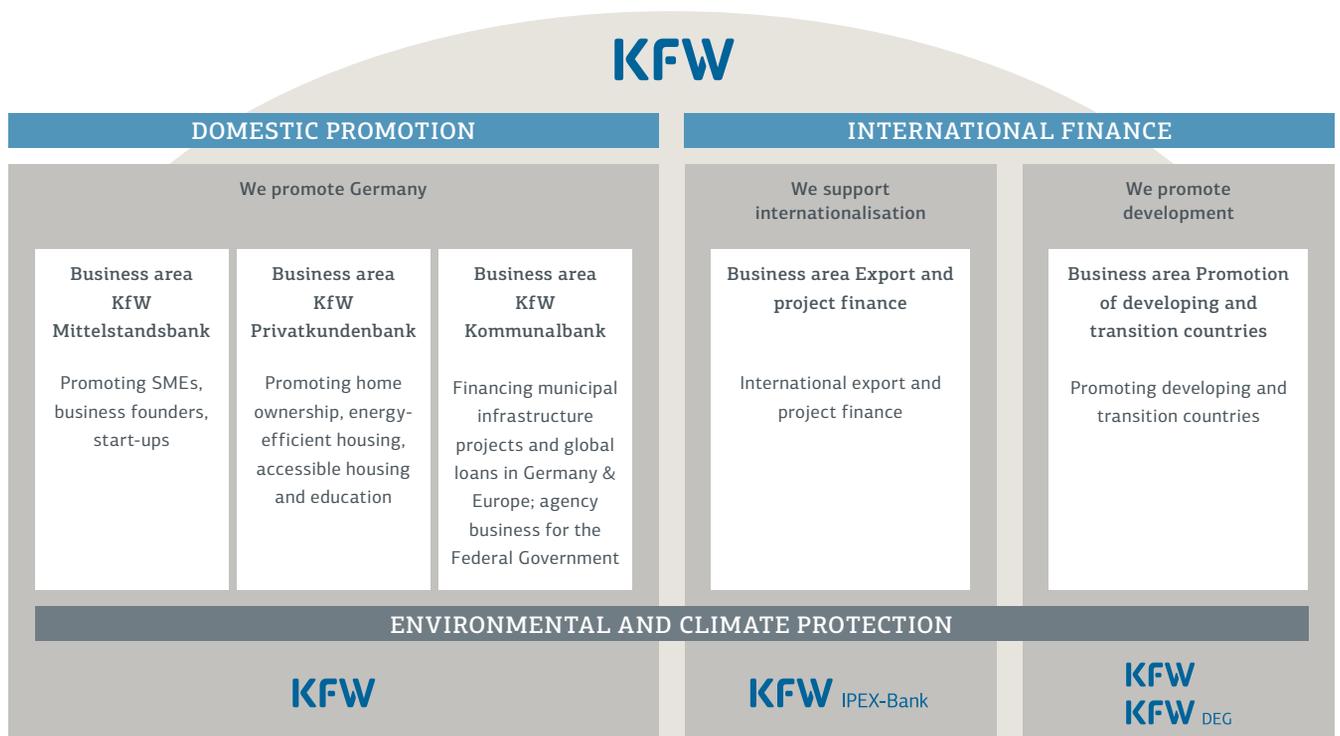
2011: German Federal Government announces the energy turnaround policy: KfW launches a range of new and revised promotional products

decades – plugging those gaps created by free market forces – does not go far enough.

A vision for promotion

For this reason, we have recently revised the principles according to which we provide promotional finance. The emphasis is now on actively managing change through forward-looking products and programmes. This will allow us to confront significant contemporary developments and to steer economic and social development. We are convinced that companies and nations can only remain competitive in

the long term if they anticipate future developments. We see innovation and individual responsibility as the drivers of effective change. Therefore, we support companies in Germany and in developing and emerging countries as they develop and manufacture new products, technologies and services in response to global challenges. Successful new climate protection and energy efficiency solutions create jobs while also allowing municipalities and retail clients to manage risk. We help developing countries to actively manage social and economic change and to take back responsibility for their own actions. ■



»» Working together to combat climate change

Tackling climate change requires a huge combined effort on the part of policymakers, industry and society. Key aims include promoting renewable energies, increasing efficiency and reducing consumption.

Wollbrandshausen (Germany), N 51° 35.213', O 10° 9.638'





Furthermore, KfW strives to preserve biological diversity and limit use of natural resources. At present, almost one in three euros of promotional funds invested by KfW Bankengruppe goes towards environmental and climate protection. The group is supporting the energy turnaround in Germany, for example by financing a biogas plant in Wollbrandshausen-Krebeck in the federal state of Lower Saxony. It promotes the use and export of environmental technologies and is helping to reduce energy consumption in public and private buildings. The bank's activities are not limited to Germany and Europe but rather also extend to emerging and developing countries. These countries have been hit particularly hard by climate change, making adaptation increasingly important, too.

»» Driving the energy turnaround

Germany is taking a pioneering role in the era of renewable energies and energy efficiency. Over the next five years, KfW will be providing over EUR 100 billion to support the energy turnaround, thereby making a key contribution towards transforming our energy supply system.

Three 180-metre-high wind turbines can be seen at great distance as they revolve above the treetops of Frickinger Wald. The sight does not bother residents of the Bavarian market town of Dürrwangen. After all, the turbines are making money for the townspeople: 118 local residents are limited partners in the wind farm, which began operations in 2012 and is expected to generate nearly 13 million kWh of clean electricity every year. Partners can expect a minimum return of 6%.

“Local participation dramatically increases acceptance of the technology,” reports Erich Wust, CEO of the company Wust – Wind & Sonne GmbH & Co. KG, which specialises in developing community wind farms. Limited partners from Dürrwangen amassed investments totalling EUR 3.5 million in just three months. Much of the groundwork had already been done in four town hall meetings and two information meetings, where the operating company and mayor joined forces to promote the project. In the end, two-thirds of the municipal council voted in favour of the scheme.

The Bavarian State Forest Enterprise provided forestry land, while KfW contributed a promotional loan of EUR 1.2 mil-

lion towards the EUR 11.7 million project. “We think that community wind farms are an excellent idea. This way, everyone can do their bit to help advance the energy turnaround,” comments Dr Peter Sickenberger, Head of Product Development in the business area KfW Mittelstandsbank.

Local participation increases acceptance of wind farms.

Dürrwangen’s local authority will not pay business tax on the wind farm for at least eight years, even though it is already generating income through cable contracts with the local grid operator. However, financial considerations were not the primary reason for setting up a community wind farm according to Dürrwangen’s mayor, Franz Winter: “We felt that we needed to do something about our energy supply.” On paper, the town of 2,600 inhabitants is now self-sufficient in terms of energy. The community wind farm generates enough electricity to meet the annual requirements of more than 5,000 three-person households.

A few years ago such a project might still have prompted smirks, but attitudes have been changing, particularly in the wake of the Fukushima disaster and the Federal Government’s decision to decommission all nuclear power plants in Germany by 2022. The energy turnaround is the umbrella term for ushering in the era of renewable energies and energy efficiency, and will be a major societal challenge for decades to come.

Renewable and efficient

Making the energy turnaround a reality will require a comprehensive transformation of the energy supply system. Firstly, this will involve boosting the proportion of electricity and heat generated from renewable energies and creating the requisite electricity distribution grids. It will also entail developing energy storage and high-performance transitional technologies such as gas-fired power stations.

In 2011, renewable energies already accounted for one-fifth of Germany’s electricity mix, making them the second-largest energy source. By 2020, the German Government aims to raise that figure to 35%. KfW is providing finance to achieve this goal and other elements of the energy turnaround: more efficient energy usage in private households,



The energy turnaround in action: in future, wind power will be an essential component of our energy supply.

municipalities and businesses (see page 16), and technological innovations focused on climate protection (see page 26). These innovations will not only benefit the environment, but will also ensure that Germany remains a technological leader while maintaining domestic employment and prosperity levels.

Moving into a new era for energy is a lengthy and complicated process. In addition to stable political conditions and acceptance among citizens, climate protection requires corporate investment. KfW anticipates that at least EUR 27 billion will need to be invested each year to implement the energy turnaround by 2020. The bank will be contributing EUR 100 billion over the next five years. The energy turnaround action plan adopted by KfW in 2011 has expanded and improved the range of programmes available for businesses, municipalities and private individuals. A variety of new financing options have also been launched.

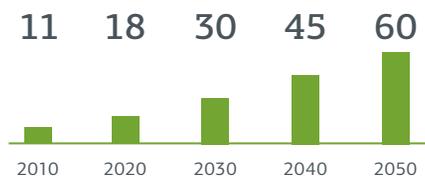
In this way, KfW is consistently building on its long-standing commitment to climate and environmental protection: in 2011, one in three euros of promotional funding had already been channelled to this area (see chart on page 18).

Energy turnaround GERMAN FEDERAL GOVERNMENT CLIMATE TARGETS

Reducing harmful greenhouse gas emissions (%)



Increasing renewable energies as a proportion of gross final energy consumption (%)



Reducing primary energy consumption by 20% by 2020 and 50% by 2050 (based on 2008 figures)

Doubling the building refurbishment rate
Increasing the building refurbishment rate from 1% to 2% per annum, with the goal of making almost all housing stock climate-neutral by 2050

Source: German Federal Government Energy Concept, 2010.

And this figure will continue to rise. The bank regularly commissions independent institutions to evaluate the impact

of key climate-related programmes (see charts on pages 14 and 19). In 2011, around 70% of new onshore wind power capacity in Germany was financed by KfW.

Strong focus on wind energy

Wind power is already the primary source of renewable energy in Germany and is playing a key role in the further expansion of renewable energies. The technology is mature and offers low electricity generation costs combined with a huge potential for growth: according to the Fraunhofer Institute for Wind Energy and Energy System Technology (IWES), approximately 8% of land in Germany is suitable for onshore wind power generation.

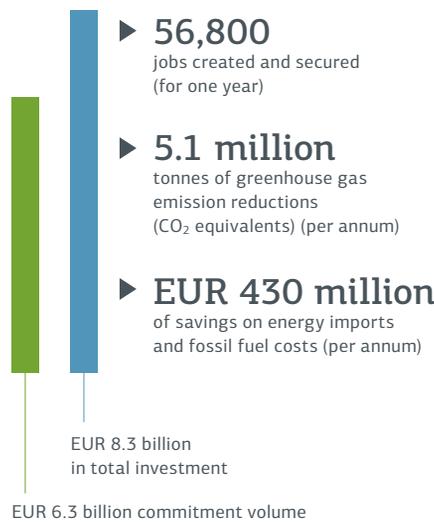
The KfW Renewable Energies – Standard programme offers low-interest loans and long-term financing for building new wind farms and modernising existing sites. By 2015, around half of older wind farms are in line to be repowered – made more efficient and quieter – according to the German Wind Power Association (Bundesverband Wind-Energie e.V.) in Berlin. In order to accelerate construction and modernisation, in early 2012 KfW increased the maximum loan for onshore wind turbines from EUR 10 million to EUR 25 million.

Boosting offshore projects

At present, there are few wind turbines off Germany's North Sea and Baltic coasts. KfW's new loan programme comprises project finance totalling EUR 5 billion and is aimed at getting the first ten large-scale offshore wind farms up and running in the next few years. This will provide a valuable boost for the relatively young offshore segment. Building wind farms at sea is technologically challenging and expensive, as it involves dealing with water depths of over 20 m, powerful currents and strong winds. In the international arena, very few banks are thus far focusing on the risk structures associated with offshore wind farms. The KfW programme has improved the financing available and will thus speed up the development of offshore energy.

The bank has already signed two financing agreements for a total of just under EUR 544 million. The Meerwind offshore wind farm off the coast of Helgoland is expected to generate electricity for around 360,000 households from 2013, while the Global Tech I wind farm located far out in the North Sea will supply approximately 445,000 homes. The Global Tech I wind farm scheme

Impact of funding 2011 KfW RENEWABLE ENERGIES PROGRAMMES¹⁾



¹⁾ In Germany, does not include KfW's Offshore Wind Energy programme and KfW IPEX-Bank project finance

Source: Centre for Solar Energy and Hydrogen Research, Baden-Württemberg, 2011.

required borrowed capital of about EUR 1 billion. "Amounts in that range require a broad range of financing in conjunction with promotional programmes," explains Christian Sobotta, an offshore expert at KfW Mittelstands-

bank. The capital was provided by a consortium of 16 banks. KfW and KfW IPEX-Bank provided a sizeable contribution amounting to EUR 330 million.

The two banks also bring valuable expertise to the project. Building on its extensive experience of dealing with large-scale programmes and promoting renewable energies, the business area KfW Mittelstandsbank is responsible for arranging the promotional programme and is the contact point for banks and investors. With its impressive track record and industry knowledge, KfW IPEX-Bank has a leading role in structuring the finance. In recent years, KfW IPEX-Bank has also taken the lead in structuring financing for five other offshore wind farms in Germany and Europe.

Developing renewables worldwide

KfW is not just involved in developing renewable energies in Germany. By its own admission, the bank, together with the World Bank, is the leading global financier in the field. In North Africa, for example, KfW is financing large-scale solar energy parks. In Uganda, an investment by KfW Entwicklungsbank and DEG helped connect the first

INTERVIEW WITH EBERHARD BRANDES (WWF GERMANY)

"PRESERVING BIODIVERSITY IS NOT A LUXURY"

Climate protection, biodiversity and development are closely related. For this reason, the business area KfW Entwicklungsbank has worked with WWF Germany for many years. In an interview, Eberhard Brandes, the Chairman of WWF Germany, spoke about common aims, achievements and challenges.

Mr Brandes, what do the WWF and KfW have in common? What strengths do both sides bring to the table?

Eberhard Brandes: Over the years, WWF has acquired deep experience in protecting biodiversity internationally, lobbying, sustainable agricultural models and creating protected areas. KfW has a long track record in defining, financing



and implementing development cooperation. The partners' specialist knowledge and vision are ideally matched. This way, we can continue to achieve our common goals, not least through

a whole host of joint projects. What is more, each partner can learn from the other's strengths, so there are mutual as well as environmental benefits.

Is effective nature conservation and climate protection dependent on the financial sector?

Brandes: The finance industry has a determining influence on both private and government investment. In the worst case scenario, improvements in nature conservation and environmental protection may be thwarted. The aim should be to ensure that all investments are environmentally and socially sound. In this regard KfW Entwicklungsbank is definitely on the right track.



PROJECT: ENERGY SELF-SUFFICIENCY USING BIOMASS

Residents in Wollbrandshausen and neighbouring Krebeck in Lower Saxony are not worried about rising energy prices. They set up a bioenergy cooperative in 2010 and now meet nearly all their electricity and heating needs and with zero emissions. The raw materials – maize, green plants and animal manure – are provided under contract by farmers in the region. The gas generated is transported via a micro-gas grid to both villages and then burned in cogeneration units. The local heating network currently provides heat for

214 households. The biogas plant also generates 1,700 kW of electricity per annum for around 4,100 homes. The electricity is fed into the regional power grid. KfW provided a EUR 4.2 million loan for the project (total project cost: EUR 4.8 million) through the Premium Renewable Energies programme. In addition to granting a long-term loan of EUR 4.2 million at favourable rates, the bank also provided a repayment bonus using funds from the Federal Ministry for the Environment,

Nature Conservation and Nuclear Safety (BMU). This bonus will reduce the total repayment by EUR 1.3 million.

When it comes to providing low-emission energy and developing rural areas, decentralised bioenergy projects are extremely important. In addition to making communities independent, the projects offer local value-creation. To date, over 100 bioenergy villages have either been completed or are being established in Germany.

privately-operated hydropower station in the Sub-Saharan region to the grid in 2012. The clean energy has boosted the electricity supply in the East African country by 50%, laying the foundation for much-needed economic growth in this developing nation.

It is also true that attaining a significant supply of electricity from renew-

able energies in emerging and developing countries will only be achieved over the long term. In view of the bank's own considerable requirements (see KfW position paper on coal-fired power plants on page 10 in the What we do part), KfW also provides limited funding for building and modernising highly efficient coal-fired power stations in these regions. Governments and energy pro-

viders in developing countries are using coal-fired power plants as a bridge technology until enough electricity can be generated from renewable sources. This way, disadvantaged social groups can also have access to power. The financing provided by KfW ensures high minimum efficiency levels and compliance with international standards regarding environmental and social impacts. ■

A joint goal of WWF and KfW is to protect tropical forests. What has been achieved so far?

Brandes: WWF has over 300 projects in nearly 90 countries focused on preserving forests. One of the greatest achievements of our partnership with KfW has been establishing extensive protected areas in the Congo Basin. Through our combined efforts, the Democratic Republic of Congo has also agreed to place 15% of the country under protection. Another success story is the cross-border Sangha Trinational conservation complex in Central Africa. We seek to work hand-in-hand with the local population to create protected areas that will directly benefit local communities. We are also working to strengthen the rights of indigenous peoples, such as the Bayaka pygmies.

What challenges still remain?

Brandes: Around the world, but particularly in tropical regions, an average of 13 million hectares of forestland are lost every year to slash-and-burn farming, creation of plantations and illegal logging. The watering down of Brazil's forestry legislation is one example of how the destruction of the rainforest is actually being encouraged.

What impact will biodiversity losses have on development and climate protection?

Brandes: Our approach extends far beyond just preserving certain species and habitats. Preserving biodiversity is not a luxury: it is essential to the survival of humankind. It is the only way that the world will be able to feed a

predicted future population of 9 billion people. Healthy ecosystems also provide important services such as storing water and providing valuable protection against erosion and flooding. A monetary value can be calculated for all of these benefits, but we are not doing that yet.

What action can we take to change the situation?

Brandes: It is vital that we do a better job of explaining interdependencies within the natural world. In the world of education, that is not happening yet, or only inadequately. We need to establish a global scheme for comprehensive biodiversity education.

»» Simple yet efficient

KfW has a variety of programmes that help homeowners, tenants, municipalities and SMEs reduce their energy consumption. Efficiency improvements tend to pay off in the medium term, but their contribution to climate protection is immediate.



Energy-efficient construction: the housing sector offers huge potential for reducing carbon dioxide emissions.

There are myriad ways of making a personal contribution to the energy turnaround: unplugging unused devices, airing out a room periodically, using energy-efficient bulbs, etc. The individual energy savings may be tiny, but energy that is not needed does not have to be generated in the first place, thereby contributing to climate protection. Experts have classified energy efficiency as a bridging technology on a path towards a fully carbon-free energy supply. According to a study by the German Corporate Initiative for Energy Efficiency (DENEFF), introducing appropriate efficiency measures in the electricity sector would save the equivalent of the annual output of ten nuclear power stations by 2020.

KfW promotes investments in energy-saving projects through a number of programmes. The housing sector plays a key role, as residential buildings alone account for approximately 40% of Germany's total energy consumption. Two-thirds of all housing was built prior to the entry into force of the first German Ordinance on Thermal Insulation in 1977 and as such are classified as "old" buildings in terms of energy use. The same classification applies to the majority of the approximately 300,000 municipal and social infrastructure buildings in Germany.

There is huge potential for improving energy efficiency in these buildings pertaining to doors and windows, heating systems and in particular exteriors. In fact, two-thirds of outer walls in older residential buildings are not insulated according to a joint study by the Institute for Housing and Environment (IWU) and Bremen Energy Institute (BEI). Proper external insulation would reduce the energy needs of many existing buildings by 20% or more.

Comprehensive modernisation efforts designed to improve energy efficiency do not just save homeowners money – they also improve living comfort. However, refurbishment is a demanding and complex undertaking for individuals. Local authority finances have been battered by the financial crisis, so authorities must depend on financial assistance if they want to improve energy efficiency.

Extremely attractive terms

The KfW energy-efficient construction and refurbishment programmes provide incentives and play a key role in implementing the German Federal Government's climate targets (see chart on page 13). The Federal Government wants to increase the refurbishment

EU 20-20-20 targets

KfW has also developed incentive schemes to promote energy efficiency and renewable energies in Europe. In Central and Eastern Europe, the bank is funding 36 such projects and programmes for partner banks. In 2012, KfW provided EUR 70 million in financing for projects including solar power systems and energy refurbishment of residential buildings in the Czech Republic, Bulgaria and Turkey. In doing so, KfW has contributed to achieving the European Commission's 20-20-20 targets which are designed to reduce greenhouse gas emissions, improve energy efficiency and increase the share of renewable energy in total energy consumption in the EU. The target for each category is a 20% reduction or increase, respectively, by 2020.

rate of older buildings in Germany from the current 1% to 2% per annum.

In 2011, KfW provided over EUR 6.6 billion in low-interest loans and investment grants for residential property owners and municipalities (see chart on page 19). As well as offering finance on extremely attractive terms, the bank was able to use just under EUR 1 billion of funds from the federal government's CO₂ building rehabilitation programme to reduce interest rates and provide grants. The funding has gone towards renovating and improv-

ing energy efficiency in around 282,000 homes in Germany. The programme funding is available to all homeowners and is provided via regular banks. Initially an expert determines whether the measure, either specific improvements or a full renovation, will bring the home up to the intended energy standard. The work must be carried out by a specialist company. KfW provides additional grants for professional construction supervision. Interested parties can find suitable experts using the bank's consultant exchange.

KfW Efficiency House label – an industry benchmark

KfW's support for the construction of energy-efficient homes is not limited to financial incentive schemes. The KfW programme information packs also emphasise the potential savings. For example, heating pumps are among the most power-hungry devices in any household but can be replaced by a more energy-efficient solution costing just a few hundred euros.

In 2009, the bank established the KfW Efficiency House label, which is a uniform standard recognised by the entire real estate industry. For example, a KfW Efficiency House 55 only uses 55% of the primary energy required for a new-build

KEY KfW ENERGY EFFICIENCY PROGRAMMES (SELECTION)

Programme	Target group:	Promotional priorities	Commitment volumen 2011 (EUR in millions)	Instruments
Energy-efficient refurbishment	Homeowners and others ("everyman principle")	Specific energy efficiency improvements (e.g. insulating external walls, replacing heating) or modernisation into a KfW Efficiency House. KfW Efficiency House Monument 115, 110, 85, 70, 55	2,897	Low-interest loan; possibility of repayment or investment bonus depending on intended Efficiency House standard
	Municipalities	see above	119	Low-interest loan
Energy-efficient construction	Homeowners and others ("everyman principle")	New-build KfW Efficiency House 70, 55, 40	3,613	Low-interest loan; possibility of repayment bonus depending on intended Efficiency House standard
Energy-efficient urban lighting	Municipalities	Replacing and upgrading urban lighting systems, also installation of new street lighting	6	Low-interest loan
SME energy efficiency advice	SMEs and self-employed professionals	Energy efficiency advice	10	Grant for advisory costs
ERP environmental and energy efficiency programmes	Commercial enterprises and self-employed professionals	Measures to improve energy efficiency (buildings, machinery, etc.)	1,894 ¹⁾	Low-interest loan
KfW environmental and energy efficiency programmes	Commercial enterprises and self-employed professionals	see above	1,314 ¹⁾	see above

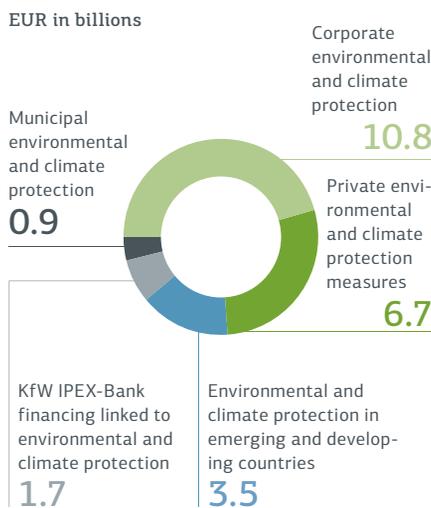
¹⁾ Includes general environmental protection measures; source: KfW.

house under the German Energy Saving Ordinance (EnEV) because it uses modern heating technology based on renewable energies and is very well insulated. In Germany, 41 % of new-build homes now meet the standards for a KfW Efficiency House. For all KfW financing, the terms improve in line with the energy standard being pursued. The construction techniques selected to achieve the effect are irrelevant: KfW has defined purely functional requirements for energy-efficient buildings, thereby encouraging construction innovations.

Eliminating renovation bottlenecks

KfW provides support for municipalities in the form of low-interest loans over terms of up to 30 years with a view to reducing energy renovation bottlenecks. According to estimates from the Bremen Energy Institute, this will require at least EUR 75 billion of investment between now and 2020. In addition to schools, kindergartens and association buildings, KfW extended its financing to include renovations of other municipal buildings in 2011. Additional cost savings can be

Commitment volume 2011 KfW CLIMATE AND ENVIRONMENTAL PROTECTION FINANCE



Total KfW Bankengruppe (consolidated) **22.8***

This figure represents around one-third of all KfW commitments.

* The difference between the total and individual items reflects adjustments for KfW IPEX-Bank financings, some of which appears under corporate commitments. Source: KfW.

made through programmes for improving energy efficiency in neighbourhoods and upgrading street lighting.

Street lamps along over half of Germany's roads still use 1970s technology. Modern lighting technology could cut national energy costs by EUR 260 million each year, according to estimates from the German Association of Towns and Municipalities (Deutsche Städte- und Gemeindebund e.V.). In any case, all lighting will have to be replaced starting 2015 when the European ban on mercury vapour lamps enters into force.

The small town of Schöppenstedt in Lower Saxony is a shining example of what can be done: using funding provided by KfW, the town has fitted around 1,000 street lights with modern LED lamps. Although the lamps are slightly more expensive, they use considerably less energy and are easier (and therefore cheaper) to maintain, plus the light quality is good. The municipal authority in Schöppenstedt calculates that the replacement lamps will halve its annual energy consumption for street lighting, saving EUR 63,000 and cutting carbon dioxide emissions by 1,200 tonnes.

Climate and economic benefits

KfW regularly commissions evaluations of the impact of its energy-efficient construction and refurbishment programmes for residential buildings and municipalities. These studies have shown that EUR 6.6 billion in funding provided in 2011 served to cut annual greenhouse gas emissions by 576,800 tonnes (see chart on page 19). This goes towards achieving the German Federal Government's climate targets: reducing carbon emissions from private households by 40% by 2020, or 2.2 million tonnes each year.

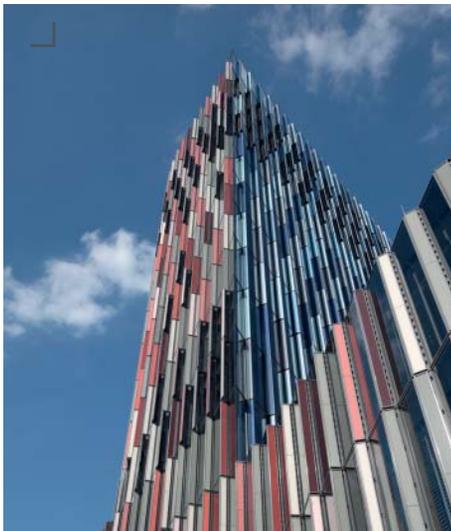
Promotional activities also have positive impacts on the economy and labour market, generating investments totalling EUR 18.6 billion in 2011. German regional SMEs in the construction and handicraft industries have primarily benefited, as measures have secured around 253,500 jobs for one year. As KfW's Chief Economist Dr Jörg Zeuner points out: "The state also benefits

Oranienburg (Germany), N 52° 45.160', O 13° 14.367'



PROJECT: FINANCING CORPORATE CLIMATE TARGETS

Property and logistics are key levers for reducing greenhouse gas emissions. The REWE Group has addressed both of these issues in its new warehouse and logistics centre in Oranienburg (Brandenburg). KfW IPEX-Bank financed the building with a total investment of EUR 60 million. The centre began operations in autumn 2011 and supplies goods to around 330 local markets. The location has led to the elimination of several million transport kilometres every year thanks to shorter routes. The building is heated solely by recycling heat from the refrigeration system. Solar panels on the roof heat the water, while modern lighting technology and effective use of natural light keep electricity consumption down. The building's primary energy needs are more than 20% lower than the statutory requirements. "Our warehouse and logistics centre is a significant factor in achieving our climate target of reducing specific greenhouse gas emissions by 30% by 2020," comments Torsten Prag, Head of Full Range Logistics, East Region, at REWE.



PROJECT: GREEN LIGHTHOUSE

The bar was set very high for the new headquarters building in Frankfurt am Main: completed in early 2010, the KfW West Arcade building uses 98 kWh of primary energy per square metre, making it one of the world's most energy-efficient office buildings. A double skin facade encircles the 56 m high building and uses the wind to create a pressure gradient (pressure ring). Movable panels regulate air flow in the pressure ring, thereby allowing natural ventilation in the offices. The facade also provides good insulation, effective protection from the sun and extensive use of natural light. Half of the building's heating is provided by exhaust heat from the data centre. The building is cooled

through pipes encased in concrete in the roof which are flushed at night with water of approximately 18°C (thermal activation). The building's ventilation system includes geothermal heat exchangers. A channel laid in the ground cools air before it enters the ventilation system in the summer and warms it in the winter, thereby saving more energy. The Chicago Council on Tall Buildings and Urban Habitat awarded the KfW West Arcade building, designed by the Berlin-based architects Sauerbruch and Hutton, the title of "Best Tall Building Worldwide 2011" in recognition of its energy efficiency, design and impact.

from higher tax and social security contributions combined with lower unemployment costs."

According to an assessment by the Jülich research centre, every euro that the German Federal Government invests in the KfW energy-efficient construction and refurbishment programmes generates four to five euros of public budget revenue. Hence the Federal Government's decision to increase programme funding by EUR 1.5 billion each year from 2012. KfW has also plugged another funding

shortfall by creating a new category for energy-efficient housing in 2012 and providing finance for energy renovations of buildings under monumental protection or particularly worthy of protection in Germany.

The bank also wants to encourage businesses and self-employed people to improve energy-efficiency. Often businesses are not aware which parts of their operations consume the most energy. Many company owners mistakenly believe that investments will only pay off in the medium term and so put off taking action. It is also worth remembering that when energy prices go up, efficient business operations can significantly enhance competitiveness.

Long-term loans and advice

The KfW energy-efficiency programme offers low-interest, long-term loans to companies investing in improving energy efficiency. In early 2012, the maximum loan volume was increased to EUR 25 million. Financing can also be used to obtain advisory services prior to investment: under a joint initiative with the Federal Ministry of Economics and Technology (BMWi), the bank provides grants for independent expert energy advice. KfW will cover 80% of the costs for an on-site evaluation of the business by a certified expert and 60% of the costs associated with drawing up an action plan.

For Uwe Kempkes, a carpenter and cabinet maker based in Oberhausen, the message from the advisory service was clear:

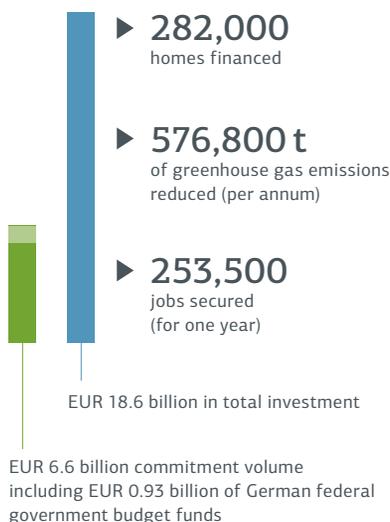
fitting a new, customised controllable extraction system in his small business would result in instant electricity savings. What is more, the purchase price would be amortised within approximately nine years – less than half of the equipment's lifetime. Uwe Kempkes made the investment with a loan from KfW.

In 2011, the bank approved approximately EUR 3 billion in promotional loans for improving energy efficiency. Advisory services have also proven very popular: between 2008 and 2011, KfW stimulated demand by providing finance for 18,000 consultations. In 2010, companies implemented two-thirds of the measures recommended by independent evaluators, or had firm plans to do so in the future. The main focal points were heating systems, ventilation, air conditioning, lighting and building insulation. Investments to the tune of EUR 670 million allowed companies to reduce annual energy costs by EUR 122 million and cut carbon emissions by 600,000 tonnes. In 2012, the Federal Ministry of Economics and Technology (BMWi) decided to renew the successful programme in cooperation with KfW under the new name: KfW SME Energy Efficiency Advice.

The effectiveness of KfW's promotional programmes in reducing energy consumption in buildings and companies in Germany has won much praise around the world. Estonia and other countries have already imitated the successful model, making energy efficiency the latest German export. ■

Impact of funding 2011

KFW ENERGY-EFFICIENT CONSTRUCTION & REFURBISHMENT PROGRAMMES



Source: KfW calculations using 2011 figures from Institute for Housing and Environment (IWU) and Bremen Energy Institute (BEI).



Valuable carbon sinks: preserving the tropical rainforest is one way of actively protecting the climate.

»» Protecting the climate and supporting adaptation

Climate change is a global phenomenon, but its impacts hit the world's poorest nations particularly hard. KfW provides support for partner countries as they seek to reduce their own greenhouse gas emissions and adapt to the consequences of global warming.

Drought, desertification, water shortages, hurricanes and flooding: climate change is already having a serious impact in many regions on Earth, affecting agriculture, infrastructure and even entire ecosystems. Developing countries have been hit hardest because of their geographical position and extreme dependence on agricultural yields. In future, sustainable development and reducing poverty will remain inseparably linked to climate and environmental protection.

The challenge is twofold: environmentally-friendly technologies are needed in order to meet growing global energy demand while also protecting the climate and allowing sustainable production. At the same time, countries with limited economic clout and weak institutions need assistance if they are to adapt to climatic changes. There is still ample untapped potential for reducing greenhouse gas emissions.

17 %
of annual greenhouse gas emissions are caused by the deforestation of tropical forests.

To address this issue, KfW provides support both for specific projects and the development of suitable national climate policies. Industrialised countries, whose wealth has been built up over decades of intensive use of fossil fuels, now need to step up to the mark and lead the way in climate protection. That will then send a clear signal to the rest of the world.

Energy is a key factor in climate protection. Germany has already set itself ambitious targets under the energy turn-

around policy (see chart on page 13). KfW is funding a large part of that turnaround, which will reduce Germany's dependence on fossil fuels, while also giving it an edge in innovative environmental and climate protection technologies.

Clean energy and greater efficiency

As one of the world's leading financiers of renewable energies, KfW also promotes their expansion in emerging and developing countries. On behalf of the German Federal Government, the business area KfW Entwicklungsbank helps partner countries to make energy generation, transmission and distribution more efficient and to reduce their own consumption, whether through insulating buildings or improving transport and industrial efficiency. KfW supports local companies via its subsidiary DEG, providing long-term finance and advice for improving operational energy-efficiency (see page 21) and investing in climate protection, such as building renewable energy power stations.

Protecting the forest to mitigate climate change

Preserving the tropical rainforests is an effective and low-cost form of climate protection. Every year, up to 17% of global greenhouse gas emissions are caused by the conversion of tropical forests to create arable and grazing land. Every tree that is left standing helps to protect the Earth's atmosphere and contributes to preserving biodiversity. The United Nation's innovative Reducing Emissions from Deforestation and Forest Degradation (REDD) programme combines forest conservation with financial incentives to reduce emissions and attributes a financial value to the carbon stored in forests. Communities and small farmers in developing countries who make their living from the forest are given financial incentives for actively protecting the forest.

KfW supports the REDD programme in countries such as Ecuador. So far, KfW has provided financing totalling EUR 10 million, mostly for the Socio Bosque programme. The programme delivers financial incentives of between USD 0.5 and USD 60 per hectare; to date over one million hectares of forest have been protected under the scheme. The bank also provides finance for other REDD projects in Latin America, South-East Asia and Africa.

Securing water resources

Helping developing and emerging countries to adapt to climate change is not tantamount to capitulating. Quite the

reverse: implementing effective protection against irreversible consequences of climate change can help alleviate existing or potential conflicts over food, land and water, thereby also benefitting industrialised countries. KfW has been supporting climate-specific investment in emerging and developing countries for many years and is now placing more emphasis on adaptation.

KfW Carbon Fund

The **KfW Carbon Fund** is a trading platform for project-specific emissions certificates as part of the flexible mechanisms defined in the Kyoto Protocol. Companies that are part of the European Emissions Trading Scheme (ETS) can use KfW procurement programmes to meet their ETS commitments in a cost-effective manner.

The bulk of adaptation measures are focused on developing public infrastructure and sustainable water supplies. Drinking and industrial water is already scarce in many regions and is set to become even more precious because of climate change. Temperature fluctuations often have a direct effect on rainfall volumes and distribution, while melting glaciers represent a long-term threat to water supplies in neighbouring regions. As sea levels rise, salt water may in turn enter the water table close to the coast. KfW works in close cooperation with partner countries and finances integrated resource management.

Examples of projects the bank has promoted include recycling purified wastewater in Jordan, the construction of additional small and medium-sized irrigation systems in Peru and Bolivia, and agricultural methods that preserve the soil and water in Niger and Burkina Faso.

DEG has developed an online tool in conjunction with WWF which is designed to raise awareness about sustainable water management in developing and emerging countries. The water risk filter tool allows companies to identify risks specific to their business, supply chain and trading partners in each water catchment area and determine which solutions are suitable. This free tool, which went live in 2012, is easy to use and has already proved very popular.

For many years, KfW has been assessing the environmental and social impact of all projects. To reflect the growing importance of climate change, KfW Entwicklungsbank introduced a systematic climate change assessment in 2011, which looks at climate protection and adaptation risks, opportunities and solutions. Suitable measures are then implemented where necessary. KfW draws on its extensive experience of development cooperation and excellent regional knowledge to implement these measures. Reliable local contacts are also a vital component in cooperation activities. ■

☐ ☐ Jakarta (Indonesia), S 6° 12.692', O 106° 50.710'



PROJECT: ENERGY EFFICIENCY – MORE THAN JUST HOT AIR

As a former waste paper collector, businessman Hadi Rahardja knows the value of resources. Located near Jakarta, his company PT Wirajaya Packindo only uses recycled paper to produce corrugated cardboard and cardboard. Thanks to a long-term loan equivalent to about EUR 9.5 million from DEG, the company is now also able to produce quality packaging for foodstuffs, medicines and electronic goods. From now on, conserving resources will be the norm at Wirajaya: a DEG energy efficiency audit revealed considerable potential savings in the production process, particularly in relation to coal-fired steam generation. The Indonesian SME invested the equivalent of an additional

EUR 2.7 million in a steam converter which generates steam using the hot exhaust gases from the gas turbine, eliminating the need for coal. In return for reducing annual carbon emissions by around 70,000 tonnes by using the new technology, the company receives emission reduction certificates worth at least EUR 200,000 a year. Wirajaya's production process is now climate-friendly, more energy-efficient and cheaper. KfW acquires the certificates through its Carbon Fund (see insert above). Mr Rahardja has already set his sights on another objective: an internationally-recognised certificate of environmental management.



Lauchhammer (Germany), N 51° 29.867', O 13° 46.382'

»» Encouraging and strengthening entrepreneurial spirit

Small and medium-sized companies are often referred to as the backbone of the German economy. Globalisation has not changed that, but it has changed the terms on which those companies have to compete.



The globally interconnected economy is characterised by intense pressure to innovate, international markets, new partnerships and competitors, and open labour markets. KfW Bankengruppe is a reliable partner for small and medium-sized enterprises facing these challenges, such as the wind energy specialist, Vestas. The bank provides finance for innovative business ideas, supports investment in modern production facilities, and finances schemes for moving into international markets. In doing so, KfW Bankengruppe is enhancing Germany's competitive edge.

»» Germany, an exporting nation

German companies generate a significant proportion of their sales in other countries. As a leading specialist financier for exports, investment and infrastructure, KfW IPEX-Bank supports companies as they go international, providing expertise and tailored financing solutions.



Global trade: German companies operate in sales markets around the world.

The Warnemünde district in the German city of Rostock is home to the future of green shipping in Germany. The Neptun Werft shipyard owned by the Meyer Neptun Group is currently completing an order for a gas-powered tanker for the Dutch shipping company Anthony Veder Group N.V. When the tanker is delivered at the end of 2012, it will operate in the Baltic, supplying liquefied natural gas (LNG) to energy-intensive industries, fuel tank installations and the Stockholm gas network.

The innovative engine design means that the 156-metre freighter is able to take on fuel directly from its cargo. The LNG tanker is a project with vision: from 2015, stricter emissions regulations will apply to routes in the Baltic and parts

of the North Sea. From that date, vessels will either have to use low-emission fuels such as gas or low-sulphur diesel, or be fitted with equipment to reduce emissions.

The Meyer Neptun Group believes that this order has “huge future potential”, according to managing director Bernard Meyer. Building the LNG tanker is currently providing around 470 jobs in the Rostock shipyard. The KfW subsidiary KfW IPEX-Bank, one of the world’s largest shipping finance providers, has come on board as a financing partner. With expert industry knowledge and a proven track record, KfW IPEX-Bank administers the shipping CIR (Commercial Interest Reference Rate) promotional programme on behalf of the Ger-

man Federal Government. Buyers who order a vessel from a German shipyard also receive an attractive fixed-rate loan. Countries such as France, Italy and Finland use similar promotional programmes to support their national shipyards in global competition. In 2011, KfW IPEX-Bank co-financed 24 vessels for export, helping to win in orders totalling EUR 2.66 billion for the German shipping industry.

Making the most of globalisation

When it comes to shipping, petrochemical plants and state-of-the-art power station technologies, KfW IPEX-Bank has been a mainstay of the German and European export industry for decades. The bank provides bespoke medium and long-term financing solutions for SMEs



PROJECT: BRINGING GERMAN SOLAR TECHNOLOGY TO ABU DHABI

Shams is Arabic for sun. Shams One is the telling name of the first solar thermal power plant of the United Arab Emirates in Abu Dhabi. The solar park will extend over 2.5 km², making it one of the largest plants of its kind in the world. At full capacity, the 768 parabolic trough collectors will be able to generate over 100 MW of electricity. The solar park uses parabolic trough technology, whereby mirrors concentrate the sun's rays in absorber tubes. The heat generated is used to produce steam, which drives a turbine generator, producing electricity.

Experts believe that solar energy use has particularly high growth potential in the region. Shams One is considered a pilot project for which financing ended in 2011. KfW IPEX-Bank took a share in Shams One as part of a consortium made up of ten local and international banks. The project is also boosting KfW's domestic export industry, since the core solar park components are made in Germany. The Nuremberg-based SME Flabeg Holding GmbH is providing the mirrors, Schott AG in Mainz is supplying the absorber tubes and the turbine comes from Augsburg-based MAN Diesel & Turbo SE.

also offer climate protection benefits. In 2009, one-third of German environmental products and services were exported. According to the most recent Federal Report on Research and Innovation, Germany has a global market share of 15% in this segment. In the coming years, the global market for renewable energies is expected to keep growing – experts predict 20% growth by 2020. German companies are set to reap the benefits, although other countries have recently been gaining ground. Experts anticipate that environmental and climate technologies will become the highest-revenue sector in Germany.

Finance for climate protection on the rise

KfW IPEX-Bank supports the whole spectrum of environmental and climate protection finance, from developing renewable energies through solar power technology (see box), to onshore and offshore wind farms, to infrastructure projects and mobility solutions such as green shipping. In 2011, new commitments for environmental and climate protection financing came to EUR 1.94 billion, EUR 784 million of which had ties to Germany. Through its activities, KfW IPEX-Bank is making German companies more competitive and playing a major role in securing Germany's future as a business location and prosperous nation. ■

and large companies. In order for the export industry to tap into its full potential, companies need more than just open markets, explains Harald D. Zenke, Speaker of the Management Board of KfW IPEX-Bank GmbH: "We offer suitable finance solutions which combine our experience of structured finance, in-depth knowledge of the industry and excellent regional contacts in markets for German products."

One of the main challenges is providing tailored financing with a focus on economic sustainability and durability. Another is how to help German businesses to tap into the opportunities offered by globalisation. KfW IPEX-Bank essentially provides finance for buyers of German goods, primarily in fast-growing emerging countries and difficult markets.

Foreign trade is a key driver of growth and employment within Germany, currently accounting for almost half of all economic output and one in four jobs. German businesses have recovered well from the temporary plunge in exports prompted by the global financial and economic crisis, hitting a record high by exporting over EUR 1 trillion worth of goods in 2011.

High-quality products are in demand

Europe has traditionally been the main market for German goods, with over 70% of all export goods and services going to European countries (see table). Cars and accessories made in Germany are particularly popular beyond country borders, accounting for more than one-sixth of all revenues earned by German businesses abroad. Other top exports include machinery, chemical products, and data processing, electronic and optical equipment.

In target markets, the mostly high-quality export goods tend to be used for modernisation and to generate prosperity. German energy-efficient and environmentally-friendly technologies

SALES MARKETS FOR GERMAN GOODS AND SERVICES

	Exports 2011 ¹⁾ EUR in billions	Percentage of German exports	Change against 2010
Europe	751.5	70.9%	+11.3%
EU	627.2	59.2%	+9.9%
Africa	20.6	1.9%	+3.1%
America	110.4	10.4%	+11.0%
Asia	167.5	15.8%	+13.0%
China	64.8	6.1%	+20.4%
Australia/Oceania	9.4	0.9%	+5.0%
Total	1,060.0	100%	+11.4%

¹⁾ Provisional figures; source: German Federal Statistics Office, 2012.

»» Staying innovative

Small and medium-sized enterprises are crucial to Germany's future success, but they struggle to obtain financing for new products and ideas. KfW has plugged the gap via promotional programmes for business innovations.

Better electricity savings. That, in a nutshell, is what Thomas Goette's company does. More specifically: "GreenPocket offers energy suppliers innovative software solutions for smart metering and smart homes – solutions that domestic and business customers can use to improve energy efficiency in the long term." The Cologne-based start-up company moved into this high-growth market in autumn 2009.

Smart meters are electronic meters with communications interfaces. They are a key component for developing intelligent, manageable supply networks (smart grids). As renewable energies are coming to the fore, smart meters can be used to help balance the fluctuating supply of electricity from wind and solar power with fluctuating demand. Smart meters manage different grid situations by using load balancing techniques. The digital meters make it easier for energy suppliers to take readings and calculate energy figures, but also give an overview of usage patterns, which can then be reflected in variable tariffs. EU member states are required to ensure that around 80% of electricity customers have smart meters fitted by 2020, which will allow consumers to manage their own energy usage. Pilot projects have been in place for several years in Germany.



Research for the future: innovative technologies guarantee future economic performance.

The GreenPocket product development team clearly wanted to create a user-friendly solution. In-house designers have produced high-quality graphics for the easy-to-use application. "Software should be simple and straightforward," according to CEO Thomas Goette. Customers can analyse their usage data via an online portal or various electronic devices. GreenPocket believes there is a lot of potential for growth within the commercial market. Subsidiaries, housing associations and local authorities could use the software to compare electricity usage in different properties, suggests Goette, "which will allow them to monitor their energy management."

Global competition on the rise

This kind of innovation is a key growth driver, particularly in highly developed economies with limited natural resources like Germany. In order to survive in the long term, an economy has to keep on putting out new or better products and services and improving production and process engineering through process innovation. This, in turn, boosts productivity.

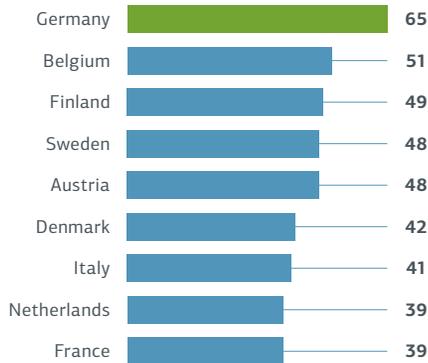
Germany has one of the most effective innovation systems in the world. National spending on research and development (R&D) has risen consis-

tently over the last few years. R&D currently accounts for 2.82% of GDP, which is well above the average for members of the Organisation for Economic Cooperation and Development (OECD). Nevertheless, Germany has been losing ground in recent years: it is now ranked ninth in the OECD innovation scoreboard (based on R&D expenditure as a percentage of GDP). In the early 1980s, Germany was a world leader, together with the USA and Japan, but has since been overtaken by countries such as Finland, South Korea, Sweden and Denmark. China has been working hard to catch up in recent years.

Germany is still performing well in the high-tech industries. The OECD scoreboard revealed that Germany's mechanical engineering, chemical and automotive sectors are incredibly strong.

Research & development INNOVATION RATES IN EUROPE

Share of companies with product or process innovations 2006-2008 (%)



Source: Rammer & Pesau, Innovationsverhalten der Unternehmen in Deutschland 2008, Studien zum deutschen Innovationssystem (Innovative behaviour in German companies in 2008: Studies on the German innovation system), 2011.

However, rather worryingly, very few cutting-edge IT and messaging technologies are being developed in Germany, yet they are the technologies of the future. In view of growing competition in the world markets and the challenges posed by climate change, dwindling resources and demographic change, Germany needs an innovation boost.

A strong research base

Companies are an effective component of Germany's innovation system. Corporate R&D accounts for over two-thirds of all domestic R&D investment. Germany has the highest innovation rate in Europe (see chart) – the innovation rate is the proportion of companies within the national economy that have launched new products or processes. Companies with fewer than 500 employees account for roughly one quarter of all innovation expenditure, as demonstrated by the important role SMEs play within the German innovation system, but also as technology manufacturers, suppliers and exporters.

Young, innovative companies are often the first to pick up on new technological knowledge generated outside their own sector, which they use to develop marketable products. This is a crucial factor in the commercialisation of radical technological advances. Established innovators tend to operate in sectors and technologies where manufacturing expertise and a robust customer base are important. Innovations from these companies tend to cater to niche markets and specific customer requirements. Innovations from established SMEs contribute to the diversity and competitiveness of the German economy.

However, the number of SMEs producing innovations has declined since the mid-1990s. According to a recent survey based on the representative KfW SME Panel, these companies are also increasingly focusing on the processing segment, which requires extensive R&D activity. The shift involves potential structural risks: if growing numbers of companies and sectors move away from development, valuable expertise will be lost, and with it Germany's technological advantage. SMEs' innovative capacity will be seriously diminished, which in turn will affect the labour market.

A recent KfW study revealed that SMEs in innovative segments have above-average staff growth. Innovation creates employment but also preserves existing jobs, even in the current climate of downsizing.

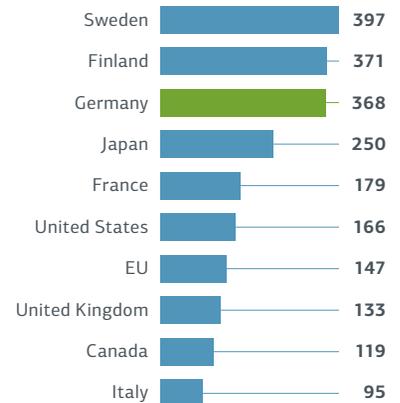
Financing is a valuable means of improving innovative capacity in SMEs. An analysis performed by the KfW SME Panel in 2009 showed that 71% of SME development activities are funded from equity, compared to just 48% of investments. This heavy reliance on own funds means that companies have to adjust their innovation activities to reflect the current economic climate and may not be able to even contemplate long-term development plans.

Difficulties obtaining finance

Innovative companies in Germany struggle to attract external capital. Despite the protracted sovereign debt and euro crisis, the financial environment for German businesses has improved overall in the last year and is fairly stable. This was confirmed by a KfW survey of companies conducted in the first quar-

Research & development INTERNATIONAL PATENTS BY COUNTRY

Inventions registered with the European Patent Office or the World Intellectual Property Organisation (WIPO) in 2009 (per million inhabitants)



Source: German 2012 Federal Report on Research and Innovation.

ter of 2012 in conjunction with leading industry associations. However, over half of innovative young companies complained that problems obtaining external finance were hampering their capacity to innovate. Thomas Goette from GreenPocket confirms that: "The

smart energy market is complex and not very well known, so we had to work hard to convince investors.”

In contrast to the United States, the venture capital market in Germany is small. Technology start-ups struggle to access such funds as it is, but there is next to nothing available for innovative SMEs. Banks tend to be wary of the risks and avoid lending. SMEs with no in-house R&D use bank loans to fund 22% of innovation projects, while the level of borrowing drops to just 6% in research-intensive companies (see chart). One of the tasks of promotional banks is to ensure that this does not restrict innovative capacity.

KfW has an important role to play

It ended up being KfW that agreed an initial financing round for GreenPocket in summer 2010. The promotional bank provided the start-up with EUR 1 million on the same terms as a private investor through the ERP Start Fund. Through this programme, KfW can lend innova-



Tapping into future growth markets: Thomas Goette develops software for digital electricity meters.

tive start-ups and young technology companies up to EUR 5 million, usually in several financing rounds. The only proviso is that the lead investor must be a private lender. In February 2012, KfW invested a further EUR 500,000 in GreenPocket in a second round of financing.

KfW also provides support for business innovations through the ERP Innovation Programme, which offers long-term financing packages at low interest rates

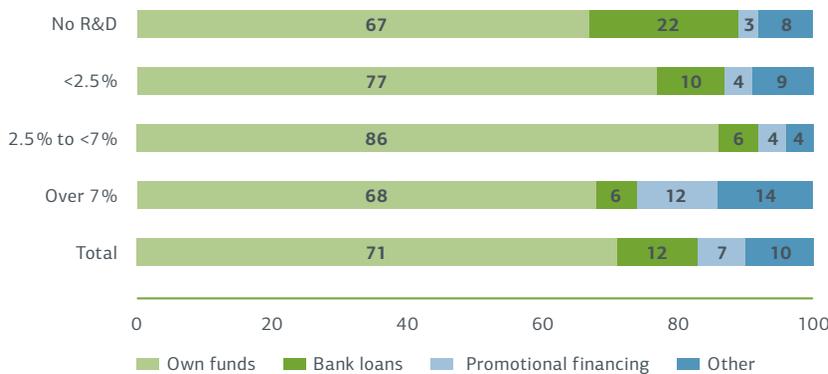
for established companies which have been active for at least two years. This comprises a tranche of debt capital, for which a company’s regular bank bears the risk, and unsecured subordinated capital at KfW’s full risk up to a total of EUR 5 million per project. If the project is linked to the energy turnaround targets, the bank can provide up to EUR 25 million per project. Companies can use the money to cover all close-to-market research and development costs for new products, procedures and services, be they for advisory services, IT, staff, patents or testing. For innovations that are ready to be released, the KfW ERP Innovation Programme can also provide support for the market launch.

GreenPocket plans to apply for an additional round of financing at some point in order to boost its growth. The company is already working with four of the top 10 European energy providers and is developing a comprehensive smart home application in conjunction with a leading global energy provider. CEO Thomas Goette is confident that: “Global demand for our products is on the rise. In ten years’ time, all modern homes will be smart homes.” ■

Access to capital

SOURCES OF FUNDING FOR GERMAN SMEs

Capital utilisation in terms of in-house R&D spending (Share of innovative expenditure, in %)



Source: KfW SME Panel 2009.



A popular technology: emerging and developing countries are also choosing German wind power.

»» New markets for SMEs

In the search for new sales markets, German companies are increasingly venturing into high-growth emerging and developing countries. DEG supports them in the form of long-term financing and in-depth knowledge of local conditions.

International expansion tends to be a gradual process: companies start out with a few orders, then set up a sales office, perhaps then invest in a local company or set up their own production site. Many companies have gone down this route in the era of globalisation. Most hope to find new outlets for their products and services.

The fact is that it is much easier to adapt production, services and customer service to the local market via a presence on the ground. An analysis performed by KfW found that lower staffing costs are increasingly rarely seen as a determining factor when companies consider moving abroad.

International expansion tends to be a gradual process.

In the past, German businesses invested primarily in neighbouring European industrialised countries and in the United States. In recent years, the emphasis has increasingly shifted to Eastern European countries and emerging markets, particularly Asia and Latin America. These economies soon bounced back after the global financial crisis and offer good growth prospects. Infrastructure and the rule of law, both

essential in any location, have in part improved significantly in many countries throughout these regions. In 2011, emerging and developing countries attracted half of all direct corporate investment worldwide (see chart on page 31). In the mid-1990s, that figure was only just over one-third.

There is huge potential for German companies to tap into developing countries. Some markets are massive, as is demand for certain goods and services. Regional infrastructures are being developed, opening up the prospect of sizeable orders. Many places already have a well-educated workforce, another key factor for German companies looking to establish local offices.

Understanding local risks

Yet there are still risks associated with investing in emerging and developing countries. In order to assess these risks, companies need to carry out an in-depth examination of the legal, economic and political framework in the country during the planning phase. Familiarity with the local culture in the target market and local contacts are vital. As with all foreign investment, anyone who wishes to succeed needs to be in it for the long haul and have adequate staffing and financial resources.

SMEs are often put off moving into emerging and developing countries because of a lack of information about local conditions and financing options.

By working with a knowledgeable partner, businesses can accurately assess potential risks, share financial risk and avoid wrong decisions.

For the past 50 years, DEG has been supporting German and foreign companies interested in investing in emerging and developing countries with financing for projects, but also with planning and implementation advice. DEG primarily provides finance for SMEs, which still often have limited access to long-term financing. In 2011 alone, DEG provided assistance to over 100 German SMEs, many of them from manufacturing, which invested in countries such as China, El Salvador and Uruguay.

The KfW subsidiary DEG provides them with venture capital from its own funds in the form of equity investments and mezzanine financing. It also grants loans and guarantees at market-based rates. The only provisos are that the project must make good business sense, be environmentally and socially responsible and have a positive long-term impact on national development. DEG uses federal funds to assist companies with preparatory measures, such as by contributing to the cost of a feasibility study or a pilot plant.

In 2011,
DEG helped over
100 German
SMEs to go
international.

□ □ Saigon (Vietnam), N 10° 44.814', O 106° 40.577'



PROJECT: SUSTAINABLE LEATHER-MAKING

Saving resources, cutting costs, ensuring competitive advantages: TanTec's decision to open a production facility in Saigon in 2009 is paying off in more ways than one. Saigon TanTec manufactures top-quality leather for the footwear and automotive industries. Traditionally, tanning is resource-intensive and pollutes the water considerably. In response, large sports shoe manufacturers are increasingly demanding sustainably produced leather.

The new production facility has cut energy usage per square metre of leather by one-third. The company has reduced the volume of waste water discharged into the public sewerage system by 40% by creating a wetland (biological purification) and by optimising processing. Recycling has eliminated 12% of chemical waste. All of this was made possible by the introduction of an integrated energy and environmental management system in combination with innovative compressor, pump and re-tanning technologies. Hot water is heated by solar power, the pumps operate on wind power and waste water is processed by a purpose-built wetland.

DEG provided a long-term loan for the new production facility in Vietnam plus support for the integrated energy and environmental management system with funds from accompanying measures. In 2010, TanTec was the winner of the German Energy Agency's Energy Efficiency Award. TanTec's CEO, Thomas Schneider, has joined forces with other producers in an industry-wide initiative to make all leather production more sustainable. A bevy of brand-name companies and suppliers have already joined the Leather Working Group, which has defined binding rules for energy-efficient and environmentally friendly production. Compliance is recognised under the "LITELeather" label developed by TanTec, which is encouraging the spread of innovative technologies.

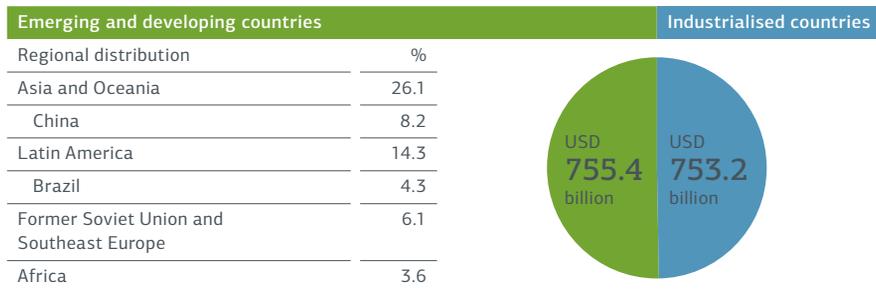
Wind farms in Latin America

In 2011, DEG provided two loans with equity features for a total of EUR 6 million to the German SoWiTec Group for developing nine wind farms in Argentina, Brazil, Chile, Mexico, Peru and Uruguay. The company has over 100 employees and has been developing wind power projects since the mid-1990s. The company currently operates over 100 turbines in around 30 wind farms in Germany. SoWiTec is one of the leading independent international development teams in the core Latin American markets. The new facilities financed by DEG not only guarantee the local population a clean energy supply, but also ensure the transfer of technology and expertise.

The funding provided by DEG to date has triggered a considerable volume of additional corporate and lender investments. An in-house evaluation revealed that new financing commitments of EUR 1.2 billion in 2011 triggered an investment volume of over EUR 6.8 billion in total (see chart). Around 63% of promoted projects contributed directly to achieving at least one of

DIRECT CROSS-BORDER INVESTMENTS

Company investment in industrialised, emerging and developing countries in 2011¹⁾



Emerging and developing countries
Industrialised countries

USD 1,508.6 billion

of direct investment in 2011

¹⁾ Estimated figures; source: United Nations Conference on Trade and Development (UNCTAD), 2012.

the UN Millennium Development Goals (see box on page 45). Many of the companies receiving financing are also very aware of their social responsibilities (corporate social responsibility): they pay above-average wages, make social

security contributions on behalf of their employees and set up medical centres.

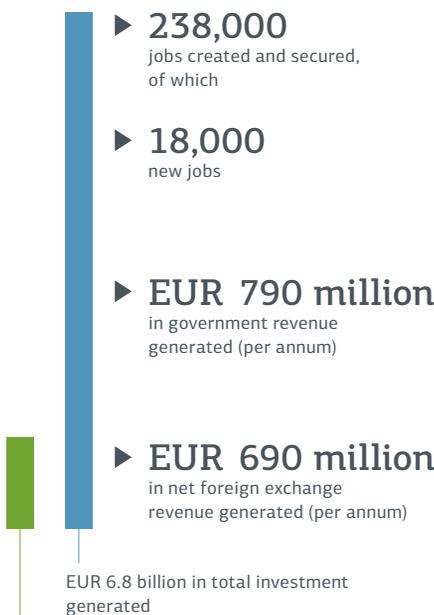
Facilitating access to venture capital

DEG offers SMEs in emerging and developing countries access to highly-sought-after venture capital. At present, there is very little access to equity investments and mezzanine financing. DEG provides financing for companies, both directly and through financial intermediaries. In the 2011 financial year, DEG provided just under EUR 510 million in venture capital. This included around 30 equity investments to allow companies to build and operate wind farms, hydropower plants, etc.

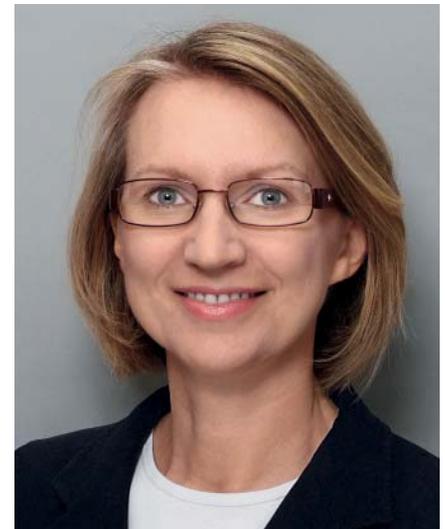
DEG always takes minority equity stakes, explains Bruno Wenn, Speaker of the Management Board at DEG: "We want the entrepreneur to retain control and make their company a long-term success within the national economy." As a shareholder, DEG consciously accepts risks, and also provides advice and support to the company. ■

Impact of funding 2011

DEVELOPMENT IMPACT OF DEG FINANCE



Expected impact in 2011; source: DEG.



STATEMENT

PROF DR MONIKA SCHNITZER A HOLISTIC APPROACH IS NEEDED

Globalisation is particularly challenging for small and medium-sized enterprises (SMEs). Suppliers to multinational groups are under mounting pressure to follow their clients abroad. Many German SMEs have the potential to go international, but to date only 11 % are involved in cross-border trade, while less than 5 % have a subsidiary outside Germany. Legal and administrative barriers can often make the process very complicated. Unlike larger companies, SMEs often lack the staffing and financial resources needed for foreign investment. To make it easier for SMEs to expand abroad, in 2008 the European Commission put forward a proposal for a European private company (EPC), but as yet there has been no definitive agreement on the structure.

Other obstacles include a lack of international experience within company management and limited financing options. Consequently, a holistic approach is needed, one that combines financing and comprehensive advice on the benefits and potential pitfalls associated with going international. SMEs have very different expectations as to what moving abroad will entail, and very different internationalisation strategies. As a result, all financing and advice must be tailored to individual requirements. Experience has shown that promoting foreign business can also boost a company's competitive edge at home – for example through cooperation with subsidiaries of German SMEs.

Professor Dr Monika Schnitzer is the Chair of the seminar for Comparative Economics at Ludwig Maximilian University (LMU) in Munich.

»» Tackling demographic change

Population change presents a multitude of challenges. While many developing countries are having to provide basic care for growing numbers of people, populations in industrialised countries are ageing.



This phenomenon is the result of low birth rates and rising life expectancy. Germany will have to go to great lengths to address these developments in the coming decades: maintaining the excellent existing social security system whilst adapting infrastructure to reflect the needs of an ageing population. Essentially this will entail preserving current levels of prosperity with ever fewer, but highly qualified workers. KfW Bankengruppe provides education finance to prepare young people for future professional challenges, thereby ensuring that Germany's economic strength will remain robust. The bank also provides support for age-appropriate home modernisation measures.

Bonn (Germany), N 50° 44.246', O 7° 5.893'



»» Education – a competitive factor

In coming years, a dwindling active population will have to meet the rise in demand for qualified workers in Germany. This will mean increasing the number of university graduates. KfW helps students by providing finance to cover living costs.

In 2060, over 65 million people will be living in Germany. One in three will be retired and one in seven aged over 80. Only half of the population will be of working age. Current projections by the German Federal Statistical Office indi-

cate that Germany is on the brink of far-reaching demographic change.

Many industrialised countries are faced with shrinking and ageing populations. The phenomenon is already relatively

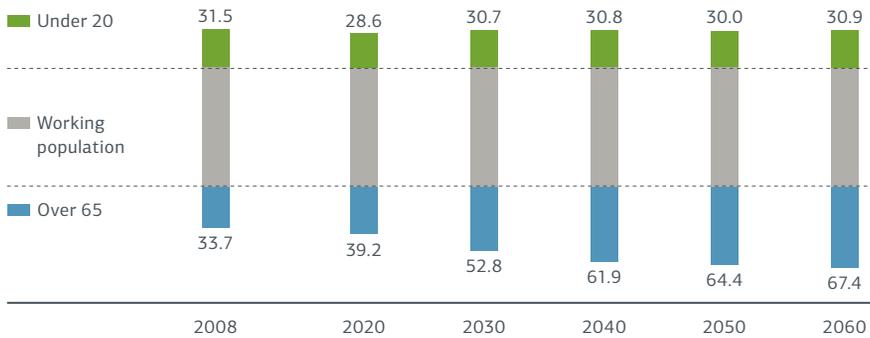
advanced in Germany. Population figures have been declining since 2003 due to falling birth rates. At 1.36 children per woman, the national birth rate is among the lowest in all OECD (Organisation for Economic Cooperation and



Tapping into potential: education experts are calling for Germany to increase graduate numbers.

AGE DISTRIBUTION IN GERMANY

For every 100 German citizens of working age (20-65)



Estimates from the 12th coordinated population projections for 2020+. Variant: lower threshold for median population; source: German Federal Statistical Office, 2009.

Development) countries – the OECD average is 1.74. At the same time, life expectancy has been rising for years: Germany currently has the oldest population in Europe, with one pensioner for every three persons of working age (OECD average: 4.2). From 2020 on, the baby boomers will be retiring and the ratio will deteriorate still further (see chart).

Maintaining prosperity in the future, too

The trend will have serious economic and social repercussions. The ratio of working population to total population is a key factor in national economic performance. A high ratio means fewer old and young people to be supported by society, which in turn means that production will exceed demand, thereby encouraging investment and capital growth.

Current levels of prosperity and the excellent social security system in Germany will have to be maintained by ever fewer and older workers, giving rise to profound socio-economic challenges in the coming decades. Those challenges can be met by increasing worker productivity.

Consequently, it is vital to make the most of all workers' potential and to equip them to meet the demands of the future. As a country with limited

natural resources, Germany is already a knowledge-based society dominated by sophisticated services. Many low-

29 %

of the German population has a degree.

skill jobs will disappear in the next few decades, while highly-skilled jobs will proliferate. By 2020 at the latest, we can expect to see bottlenecks within the labour market (see chart on page 36).

Increasing the number of graduates is therefore an important political objective. For individuals, already today a degree is the best way of ensuring a decent income and the most reliable way of avoiding unemployment. Investing in further education is also a winning long-term strategy for national governments: highly-skilled and well-paid workers mean higher tax revenue and lower transfer payments. For society as a whole, higher education levels improve health and well-being but also enhance cultural and political involvement.

Increasing graduate numbers

The number of undergraduates in Germany has rocketed in recent years. In 2011, the percentage of first-year undergraduates reached an all-time high of 55%. The increase was driven by two exceptional factors: the abolition of military service and a double cohort of school-leavers. International education experts are still critical of Germany's results. Compared with other OECD countries, undergraduate numbers are still low. In Finland, Norway and other countries at the top of the league, over 70% of each cohort begin a degree course.

The only way to increase the number of degree-holders in a country is to have a broad base of undergraduates. A high completion rate is another factor. In Germany, around three-quarters of undergraduates successfully complete their degree. Graduates currently make up 29% of the population, which is well below the OECD average (39%). The German Science Council recommends a graduation rate of 35% in order to guard against the impending shortage of skilled workers.

Unequal educational opportunities

Access is also more limited than in any other industrialised nation: in Germany, it is the parents' education level that determines whether their children will go to university. Teenagers who have at least one parent with a degree are far more likely to go to university than other pupils with comparable grades. The decision is often linked to greater financial flexibility: when questioned, school-leavers who have decided not to go to university say that their primary motivation is earning money as soon as possible, with financial issues coming in second. This trend is even more pronounced among teenagers with non-academic parents. The authors of the most recent report on the national and federal state education systems concluded that Germany needs reliable terms for student loans.

A survey conducted by the German Student Services found that, on average, students need EUR 812 per month to cover living costs. Most students obtain

KfW Student Loan

Aim:	increasing the number of undergraduates and graduates
Target group:	full-time undergraduates on their first degree course
Loan:	EUR 100-650 per month in variable instalments, irrespective of parents' income and assets
Loan term:	up to 14 semesters
Applications:	can be made via banks, savings banks, student unions and other KfW sales partners; approval within three weeks, no security required
Repayment:	full repayment after a grace period of up to 23 months, flexible instalment rates, repayment over up to 25 years

Conclusion: student loans provide security

When KfW set up its student loan scheme in 2006, the aim was to improve access to further education and boost undergraduate numbers. In autumn 2010, the bank joined forces with experts from the German Institute for International Educational Research (DIPF) to conduct an online survey of just under 4,000 student loan recipients to assess whether the target had been achieved. The principal findings were:

46% of those surveyed came from a middle or lower socio-economic background, compared with 41% of all students. So we have more than succeeded in reaching our target audience.

86% admitted that they would not have been able to go to university without a KfW Student Loan; this figure was even higher among students from middle and low socio-economic backgrounds. The scheme has therefore increased undergraduate numbers.

57% of borrowers receive a living allowance from their parents. This figure is much lower than the average for students in Germany (87%). This proves that the KfW Student Loan is filling a financing gap.

91% of respondents were happy with the terms of the KfW Student Loan; 30% even said they were very happy.

Source: German Institute for International Education Research (DIPF), 2011.

that from a blend of BAföG aid (government student loans), grants, money from parents and side jobs. However, the introduction of strict rules for bachelors and masters degrees has made it much harder for students to fit in side jobs, which prompted a sudden fall in completion rates. BAföG funding is income-dependent, which puts students from middle-income households in a difficult situation: their parents' earnings exceed the threshold for a full grant, but are not enough to cover the cost of a degree.

KfW: improving student finances

KfW addressed the lack of financing in 2006, when it began to provide KfW Student Loans. Students can now borrow up to EUR 650 per month, irrespective of their parents' financial situation, with no red tape and at affordable rates. Our product can be combined with other support measures, such as BAföG aid or grants; monthly payments can be adjusted to reflect each student's current academic and personal requirements. Students tend to draw between EUR 400 and EUR 500

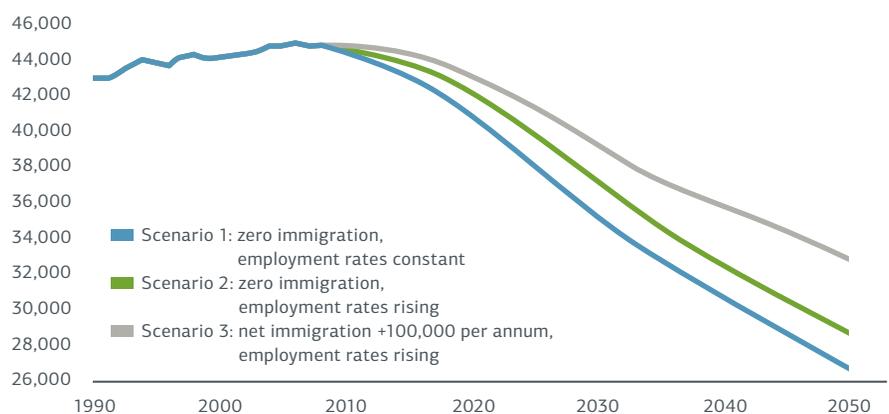
a month. Graduates can begin making repayments up to 23 months after the last disbursement, and repayments can be tailored to suit their individual financial circumstances.

KfW has already issued over 100,000 student loans, including more than 22,000 in 2011. This makes us the clear market leader in the relatively young educational lending segment in Germany. In total, government providers, student services, banks, savings banks and education funds issued just under 47,000 student loans in 2011. In contrast to products from commercial banks, students do not have to provide any security for a KfW Student Loan – this feature is particularly attractive to students from middle and lower income backgrounds. The KfW Student Loan has encouraged many to go to university over the past few years, according to an external evaluation conducted in 2010 (see box).

Our product should prompt education experts to give Germany a better report card in the near future. ■

Population trends

WORKING POPULATION IN GERMANY



In 1,000s; scenarios including positive and zero net immigration and different labour market participation rates (particularly for women); source: German Institute for Employment Research (IAB), 2011.

»» Accessible homes

Germany's population is ageing. In the coming years, there will be huge demand for accessible flats and houses. KfW is trying to kick-start the process of modernisation by financing renovations designed to improve comfort levels for all residents, irrespective of age.



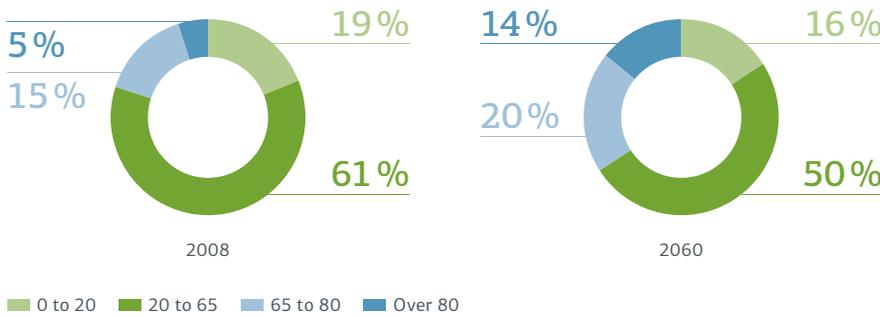
Renovating in good time: demand for accessible homes is high in Germany, and is still growing.

As individuals grow older, they begin to perceive their own home as a series of obstacles. Usually this is a gradual process, but that perception can also change dramatically after an accident. Small sills at the front door or French

windows become trip hazards, while stairs become an insuperable obstacle. Mobility scooter and wheelchair users often struggle with narrow doors in older houses and getting in and out of the shower.

Over the next 20 years, the German Federal Statistical Office predicts that the number of over-65s in Germany will increase by around 270,000 each year. It is estimated that senior citizens will make up one third of the total popula-

AGE DISTRIBUTION IN GERMANY



Estimates from the 12th coordinated population projections for 2020+. Variant: lower threshold for median population; source: German Federal Statistical Office, 2009.



Improving accessibility: building renovations can allow elderly and disabled citizens to live independently.

tion in 2060 and one in seven people will be over 80 (see chart). This will have far-reaching consequences for long-term care insurance schemes and social budgets. It also constitutes a major challenge in terms of housing and housing policy.

Most people would like to retain their independence and stay in familiar surroundings as they grow older, according to a study carried out by the Kuratorium Deutsche Altershilfe (KDA – German old age care think tank) for the Federal Ministry of Transport, Building and

Urban Affairs. The study revealed that 93% of all senior citizens in Germany, including two thirds of over-90s, currently live in normal homes and flats. Home life must therefore be quite difficult for many of these individuals. Just 5% of the 11 million homes occupied by senior citizens are classified as accessible.

Accessibility can improve indoor comfort

An accessible home is a home that has been adapted to the needs of older generations. There is a German DIN stan-

dard for accessible new-build homes which covers outdoor spaces, access, doors, windows and living areas. The standard is not compulsory for existing housing stock. According to forecasts by the KDA think tank, approximately 2.5 million flats will need to be adapted to provide accessible homes for all less-mobile senior citizens by 2020, at a cost of approximately EUR 40 billion. The investments will not only improve quality of life: in the long term there will also be financial benefits for society as a whole. One million accessible homes would save long-term care insurance schemes and social budgets EUR 15-20 billion each year, according to calculations by construction and housing industry associations.

Modernisation is most urgently needed in older homes and flats. Roughly half of all senior citizens currently live in their own homes. A KfW survey found that most property owners are very aware of impending age-related accessibility issues. As yet, however, adapting homes to the needs of senior citizens is not a real priority in Germany. This may be linked to the cost of the refurbishments required. However, often homeowners, residential housing companies, architects and builders are not aware of the resulting practical benefits and financing options available.

KfW incentive programme

In early 2010, the Federal Ministry of Transport, Building and Urban Affairs began setting up pilot projects in 14 cities and regions with a view to expanding advisory services, cross-linking them and making them more sophisticated. Take-up of the KfW age-appropriate conversion programme was a key factor in defining implementation measures, opportunities and also problems. The pilot projects will be scientifically evaluated and the results will be published at the end of 2012. The findings will be used to develop further initiatives to promote age-appropriate homes.

KfW has provided a valuable boost: our age-appropriate conversion programme enables homeowners, housing associations and residential property compa-

nies to afford modifications. Between 2009 and 2011, KfW used government funds to finance the modernisation of 82,348 homes, granting investments totalling nearly EUR 1.4 billion. Most of the renovation projects were undertaken by private households (see chart). Viewed as a proportion of all housing in Germany, housing associations and companies have made particularly heavy use of the promotion.

EUR 1.4 billion
of investment in
accessible housing through
KfW to date.

Accessible construction will affect future competitiveness. At Raphaelis GmbH it is already part of the business model. In autumn 2011, the Leipzig-based care provider opened an assisted living facility in a refurbished listed Art Nouveau building in Rötha, Saxony. All 15 flats can be accessed by lift and are age-appropriate, with remote door-opening, fully-accessible rooms, wide doors and adjustable washbasins. KfW helped to finance the reconstruction project: it cost just under EUR 1 million to convert the long-vacant building, EUR 560,000 of which came from a low-interest loan. All the flats were occupied soon after completion.

Simplified eligibility criteria

In recognition of the social significance of the issue, KfW launched its age-appropriate conversion programme with its own funds in 2012. The eligibility criteria have been simplified. Property owners can now borrow up to EUR 50,000 per living unit at a low interest rate for the purpose of renovating the property to make it age-appropriate, including the associated planning and consultancy activities. It does not

matter whether the owner lives in the property or plans to rent it out. Equally irrelevant are the applicant's age and mobility. In this way, KfW is offering an incentive to encourage the timely modernisation of residential properties in Germany. Applicants can opt to improve energy efficiency at the same time, in which case they will also be eligible for additional promotional funds.

New quality standard

KfW has also introduced a new quality standard to encourage age-appropriate housing. As of April 2012, fully-accessible property renovations can qualify for the KfW age-appropriate flat or house standard. The scheme is similar to the reputable "KfW Efficiency House" labels, and requires in-depth consultation and certification by an expert. The demanding quality label is designed to guarantee a comfortable living environment for tenants. The scheme will benefit seniors, reduced-mobility citizens and families alike. ■

KfW's Accessible City promotional programme

Demographic change will generate a great deal of work for Germany cities and municipalities in coming years. Public spaces as a whole will need to be adapted to reflect the needs of an ageing population.

In September 2012, KfW launched its new **Accessible City promotional programme**.

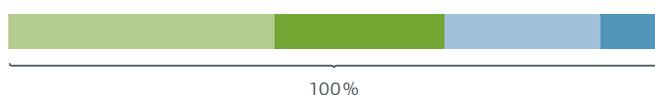
Municipalities, municipal enterprises and social organisations can apply for very low-interest loans to improve accessibility in public spaces, public transport, sports facilities, and municipal and social infrastructure buildings. The financing also covers the cost of ancillary work, consultancy and planning. Investments in the following areas are eligible for financing:

- Public buildings
Lifts, ramps, accessible parking, automatic doors, more room to manoeuvre in offices and restrooms, non-slip flooring, visible and tactile signposting
 - Transport
Accessible underground and suburban train stations, underpasses and overpasses
 - Public spaces
Low kerbs, signposting and signals for the blind and visually impaired people.
- A range of technical criteria ensure the overall quality of the projects funded.

TAKE-UP OF THE KfW AGE-APPROPRIATE CONVERSION PROGRAMME

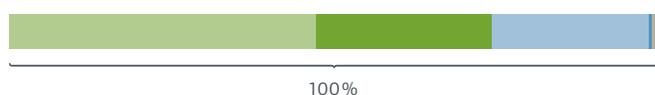
Promotional measures April 2009 to December 2011

Promotional funds: EUR 869 million	Breakdown
■ Accessibility schemes	41 %
■ Improvements in flats	26 %
■ Bathrooms	24 %
■ Other	9 %



100%

Homes refurbished: 82,348	Breakdown
■ Private homes	47 %
■ Housing companies	27 %
■ Housing cooperatives	24 %
■ Municipalities	0.6 %
■ Churches & charities	1 %



100%

Any differences in the totals are due to rounding. Source: KfW.

THE GROWTH TRILEMMA

Three challenges: growing populations, energy consumption and climate change. Is there no solution? This was the question addressed by Dr Reiner Klingholz, Managing Director of the Berlin Institute for Population and Development, and Professor Klaus Töpfer, Executive Director of the Institute of Advanced Studies on Sustainability (IASS), in a study published in early 2012 entitled *The Growth Trilemma*. The publication was supported by KfW. In June 2012, Dr Karl Ludwig Brockmann, Group Officer for Environment and Sustainability at KfW, met Dr Reiner Klingholz to discuss the key findings.

Dr Klingholz, what are the consequences of population growth?

Dr Reiner Klingholz: There is no doubt that the associated increase in demand is bringing up sustainability issues. Climate change is the main threat: all economic output generates more greenhouse gases – enough to destabilise the climate in the medium term. Climate change is having massive global repercussions. But it is the poorest nations that have been the worst affected, despite having done very little to cause the change and having limited resources for dealing with it.

Dr Karl Ludwig Brockmann: Nevertheless, we should not forget that investing in education and health care is more of a priority for developing countries than climate protection. The country benefits directly and in full from every dollar spent, whereas the advantages of climate protection measures are effectively shared with the whole world.

Dr Klingholz: The question is really whether it is feasible to invest in education and health care at the same time. That would increase productivity whilst also allowing nations to develop their own energy system by learning

from industrialised countries' mistakes. This puts us face to face with three challenges we have called the growth trilemma. More people, more industry, more greenhouse gases. In order to achieve economic growth, poorer countries need a minimum of 4,000 kWh per capita per day.

How can this energy supply be made climate-friendly?

Dr Brockmann: I think that good and strategic governance is essential in the long term. The energy turnaround in Germany is a textbook example but is very ambitious, even for a wealthy nation. That said, it must succeed in order to function as a role model for other countries. The spread of low-carbon technologies is bringing down energy costs for both companies and the economy. At present, many national budgets – not just in developing countries – are under pressure because oil, gas or coal are being imported at relatively high prices, and there may also be additional subsidies for domestic sales. Renewable energies and increased energy efficiency on the demand side could reduce energy dependency, which would permit more investment in education and health.

Dr Klingholz: That will then curb population growth. Investing in secondary education for women is one of the most effective forms of family planning. Education provides women with access to a whole new range of opportunities, which in turn means that they have fewer children, and later in life. This chain of cause and effect is the same around the world and has a demographic benefit, in that more of the population is of working age. In terms of national development, it is a good starting point for boosting the economy in tandem with job creation. The Asian tiger countries have done just that, with great success.

Dr Brockmann: The first step still has to be guaranteeing primary education. The United Nations has predicted that the population in southern Africa will double by 2050, for example, which represents an incredible challenge.

Dr Klingholz: We should not be put off by the scale of the task. Countries like Bangladesh, Sri Lanka and South Korea started out from a worse position than African countries are in today. The keys are visionary government and an effective campaign to reduce child mortality.



Sustainability experts: Dr Reiner Klingholz (left) and Dr Karl Ludwig Brockmann discuss the consequences of growth.



The fact that HIV infection rates are now on the decline in Africa proves that long-term health care projects work.

What can be done to guarantee sustainable basic social care for people in poor countries?

Dr Klingholz: Traditional health care structures in these countries are collapsing for a number of reasons, so setting up state-run contribution-based schemes for old age care is vital. The starting point is rather good, in that relatively few seniors require care at the moment. China and some Latin American countries are in the process of creating systems like this, but many poorer ones are not.

Dr Brockmann: Once again, it comes down to good governance in countries that need to create or maintain social security systems. As a bank, one way that we could respond to increased demand for social security systems, at least in part, is to promote micro-insurance and demand-driven health care finance programmes that also support independent family planning.

What are the social challenges for industrialised nations?

Dr Brockmann: In Germany, we have been discussing the consequences of a shrinking and ageing population for some time now. Again we need to identify structural responses to manage this

change. For example, KfW offers promotional programmes for age-appropriate housing renovations.

Dr Klingholz: As a rich nation with a well-established social security system, we can afford to do that. Yet many emerging and developing countries run the risk of growing old before they become rich. So Germany needs to take on a pioneering role in the field of development cooperation. Poorer nations need loans to facilitate development. KfW wants to steer that development by providing capital, just as investing in energy efficiency can generate climate benefits. This long-term approach to investment is often neglected.

Dr Brockmann: KfW Entwicklungsbank provides finance on behalf of the German Federal Government for two purposes: reducing poverty as well as supporting environmental, climate and nature protection. A balanced strategy is essential: one that respects the internationally recognised right for development and promotes sustainable development, for example by providing finance and assistance for the energy turnaround with a view to its model character.

Do you think we are on the right track to resolve the growth trilemma?

Dr Klingholz: By the end of the 21st century, global population growth should come to a halt. In 300 years, the world's population may have halved. The average age will then be higher, with a more settled, better educated population that is therefore able to cope with the changes we have caused on the planet. That is all well and good. The critical question is how we can best survive those 300 years, because we have not yet resolved the growth trilemma. At present we are set on the worst possible course when it comes to climate change.

Dr Brockmann: Of course developing and transition countries can benefit to a certain extent and also directly from investments in health care, education and demographic change. But I am confident that the anticipated oil and gas price hikes will trigger structural change around the world, including changes to national energy systems, which will in turn stimulate the race for technological leadership. KfW and GIZ provide support for developing and emerging countries through the German Climate Technology Initiative (DKTI), which encourages the development and expansion of suitable technologies.

The interview was conducted by Sabine Braun, Managing Director of akzente GmbH.

»» Promoting development, facilitating engagement

Around 1.4 billion people are currently living in poverty around the world. These people have minimal incomes, limited chances in life and fewer opportunities to engage in social and political life.





Assiut (Egypt), N 27° 10.699', O 31° 11.156'

Eradicating poverty is therefore the primary aim of international cooperation with developing and emerging countries. There is a wide range of levers in order to achieve this, which operate at many different levels. Social infrastructure is an essential factor in eliminating poverty. Establishing and developing public health care and education is one of the priorities driving the financial cooperation provided by KfW Bankengruppe on behalf of the German Federal Government. Setting up a new school in the Nile Delta region in Egypt is just one of the many examples of where this funding goes.

»» Promoting family planning and improving social security systems

Establishing social security systems and effective family planning is an essential tool in making lasting improvements to living conditions for the populations of developing and emerging countries. KfW is committed to doing just that on behalf of the German Federal Government.

At the United Nations (UN) Millennium Summit held in New York in 2000, the international community committed itself to an ambitious target: halving extreme poverty and hunger around the world by 2015 compared to 1990 levels. The international community also agreed to measure improvements

in health care, education and gender equality in emerging and developing countries against specific standards.

The target improvements are defined in the UN Millennium Development Goals (see box on page 45). Representatives from the UN, the World Bank, the OECD

and several non-governmental organisations (NGOs) together defined these common goals based on the Millennium Declaration made at the UN summit in 2000.

The Millennium Development Goals provide a framework for all international



Important development goal: effective health care for mothers and children around the world.

BUSINESS MODEL: SOCIAL WELFARE

Social entrepreneurs have a head for business and work for the greater good: they are driven to find solutions to social problems through innovative business models and methods. The Aavishkaar II investment fund provides support for social entrepreneurs in India.

The fund has a target volume of EUR 88 million to provide equity for around 25 young social entrepreneurs. Their companies purify well water contaminated with bacteria, run micro-clinics and develop a variety of innovative products and services designed to improve basic care, predominantly in rural areas with inadequate services. The business area KfW Entwicklungsbank contributed EUR 5 million in equity to the fund on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) in 2011, plus a further EUR 5 million of Federal Government funds via a fiduciary holding.

KfW also provides support for social entrepreneurs in Germany in conjunction with the Federal Ministry of Family Affairs, Senior Citizens, Women and Youth (BMFSFJ). A programme launched in January 2012 has made up to EUR 200,000 available for growing social enterprises.

The only requirement is that there be at least one other partner investor. The programme is designed for proven business models that will be self-sustaining in the medium to long term in the fields of education, family, environment, integration and eradicating poverty. Through the programme, KfW is also developing the access to finance for social enterprises, thereby plugging a significant gap in the market.

venture capital and loans at market rates together with a full range of advisory services.

Population growth trends have a direct influence on development in the partner countries of the German Federal Government – and therefore on international development cooperation in general. In the 1950s, the world's population was just 3 billion, but according to UN estimates that figure will rise to over 10 billion by 2100 (see chart on page 47).

These figures are based on the assumption that average birth rates will continue to fall. Many countries in Sub-Saharan Africa and Asia are faced with

EUR **4.5** billion
in financial cooperation
granted by KfW in 2011.

the daunting task of providing food, water, education and health care services for growing populations. KfW is therefore focusing its activities on education (see page 48) and health care, with a particular emphasis on reproductive health and social security systems.

Focus on reproductive health

Sexual and reproductive health encompasses the right to a satisfying and healthy sex life and freedom to decide how many children they wish to have. The term also includes all women's right to a safe pregnancy and birth. Sexual and reproductive health provides scope for professional fulfilment and the prospect of a higher income.

It requires providing sex education and an appropriate range of contraception and health care services. As a leading global donor in this area, KfW supports partner countries as they define, finance and implement measures and develop the necessary infrastructure.

development cooperation, and as such are applied by the German Federal Government. KfW provides support for the implementation and financing of corresponding projects. Since the 1960s, the business area KfW Entwicklungsbank has been providing financial cooperation on behalf of the Federal Ministry for Economic Cooperation and Development. With a total financing volume in excess of EUR 4.5 billion in 2011, financial cooperation is one of the main instruments used for Germany's bilateral cooperation activities. The federal budget is no longer the only source of funding: KfW raises almost two-thirds of the funds on the capital market.

Driving reform

Financial cooperation seeks to make lasting improvements to living conditions for people in emerging and developing countries and to protect the climate. The business area KfW Entwicklungsbank has a long track record in supporting partner countries as they invest in economic and social infrastructure, financial systems and environmental protection. In this way, KfW is promoting key drivers of political and sectoral reform, but also supporting technical, financial and institutional innovation.

The business area KfW Entwicklungsbank manages around 2,000 development projects in over 100 countries, ranging from waste management to

UN Millennium Development Goals for 2015

- 1 Eradicate extreme poverty and hunger
- 2 Achieve universal primary education
- 3 Promote gender equality and empower women
- 4 Reduce child mortality
- 5 Improve maternal health
- 6 Combat HIV/AIDS, malaria and other diseases
- 7 Ensure environmental sustainability
- 8 Develop a global partnership for development

Source: Federal Ministry for Economic Cooperation and Development.

water supply. In addition to providing grants and low-interest loans, KfW uses innovative instruments such as foundations and promotional finance for social enterprises (see boxes on pages 45 and 46). The bank works together with other countries and international organisations. In order to encourage partner countries to be more proactive and accountable, local institutions are always responsible for implementing specific projects. The primary goal is to achieve sustainable impacts.

Through its subsidiary DEG, KfW also supports business ideas and investments that are designed to contribute to sustainable development in emerging and developing countries. DEG provides

The average birth rate per woman in developing countries has fallen from six in 1960 to three. However, at a rate of 4.8, the figure is still very high in least developed countries and does not bode well for development. With the exception of the oil states, historically no country with a high birth rate has grown and prospered economically.

Particularly in Africa, it is still very hard to obtain modern contraception. Demand is high, because unwanted pregnancies are dangerous: if a termination is not performed properly, the woman's health can be put at risk, but there are also risks associated with teenage pregnancies and successive pregnancies. Sexually-transmitted diseases are another potential hazard, first and foremost HIV/AIDS.

Promoting a change in behaviour

Alongside traditional programme-based financing, KfW also promotes innovative approaches. One such approach is being used in Niger, which is one of the world's poorest countries but also has one of the fastest-growing populations. Acting on behalf of the Federal Ministry for Economic Cooperation and Development, KfW started supporting the creation of a social marketing agency in 2003. The Nigerien Social Marketing Association (Animas-Sutura) is working to raise public awareness about fam-



Social marketing: A series of radio shows provides information about contraception for women and young people in Niger.

ily planning and HIV/AIDS prevention using commercial marketing methods. The association uses the foula – a traditional hat and highly effective sun screen – as an inoffensive and memorable symbol for condoms, which also provide protection. Television adverts and the radio series “Foula’s adventures” present informative short stories on various themes and are specifically aimed at women and young people. These measures are supplemented by round table discussions with political decision-makers and traditional community and religious leaders. An extensive distribution network ensures that

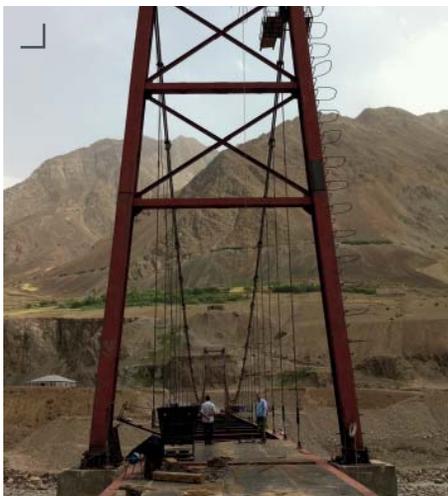
condoms are available at pharmacies, greengrocers’ shops, hairdressing salons and street vendors.

The campaign is proving very successful. Women in Niger are now able to discuss family planning, early marriage and education for girls in public and to demonstrate the correct use of condoms in their village communities. This would have been unthinkable just a few years ago. For the Nigerien Government, the UN Population Fund (UNFPA) and the World Bank, Animas-Sutura has become a leading partner in the field of family planning and preventing HIV/AIDS. The organisation has recently added the contraceptive pill and water purification tablets to its product range, strengthening its position still further.

Safe motherhood voucher

Acting on behalf the Federal Ministry for Economic Cooperation and Development, KfW supports a demand-driven voucher system in Kenya designed to improve health care services linked to pregnancy and childbirth. In 2010, roughly 287,000 women around the world died because of complications during childbirth, 99% of them in developing countries. Improving maternal health is therefore one of the Millennium Development Goals. In Kenya and much of Africa, many poor women give birth in their own homes.

Vanj (Tajikistan), N 38° 22.384', O 71° 27.317'

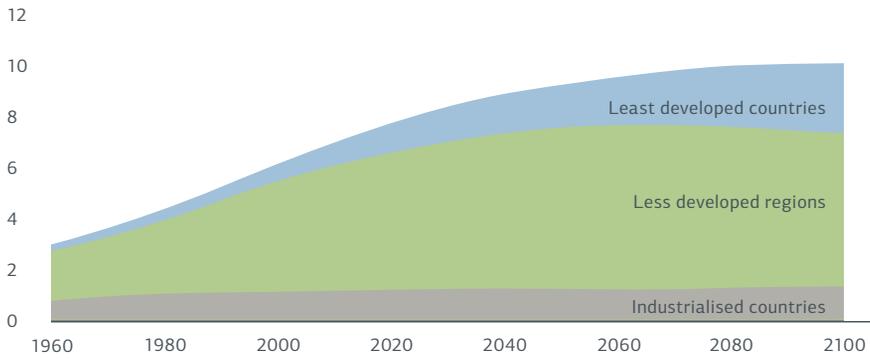


PROJECT: FOUNDATION FOR GREATER STABILITY

It is not easy to conduct trade in the impenetrable mountain regions between Afghanistan, Pakistan and Tajikistan. By building bridges, roads, markets and health stations, KfW Entwicklungsbank is improving cross-border infrastructure in the remote border regions. To this end, KfW set up a foundation in 2011 in conjunction with the German Foreign Office with total capital of EUR 1.5 million and a project budget of EUR 15.3 million. The foundation is currently jointly financed by Germany and Luxembourg. Other international donors are expected to follow suit.

The foundation is the successor to the successful PATRIP (Pakistan, Afghanistan, Tajikistan Regional Integration Programme). In conjunction with the international Aga Khan development network, KfW has set up five major and over 400 smaller projects in the region since 2010. Experience has shown that working with well-educated staff from local NGOs and the local population creates a strong sense of autonomy.

WORLD POPULATION GROWTH



Inhabitants (billions), median variant; source: UN World Population Prospects, 2010.

Development, KfW joined forces with the World Bank and three other donors to provide pool financing for the introduction of a statutory national contributions-based health insurance scheme in Kyrgyzstan.

As a representative of the Federal Ministry for Economic Cooperation and Development, KfW is the largest investor in the world's first micro-insurance fund. Founded in 2010, the LeapFrog fund aims to invest over USD 130 million by 2019 in creating and expanding micro-insurance companies. The goal in the coming years for these companies is to insure around 25 million individuals in Africa and Asia against basic risks such as sickness, crop failure and the death of the main breadwinner.

A development partner

KfW also finances social security system expansion through its subsidiary, DEG. In Mexico, DEG granted Grupo Maxasem a long-term loan to the tune of EUR 15 million, allowing the insurance company to extend its product range of health insurance for low earn-

A hospital delivery costs around EUR 250, which is equivalent to the average annual income in Kenya. The KfW-subsidised vouchers cost EUR 2 and entitle pregnant mothers to deliver their child in an accredited health station. A family planning voucher costs just EUR 1 and entitles women to appropriate long-term contraception.

emerging and developing countries, if the breadwinner falls ill, the whole family is likely to find itself in dire straits, with no source of income and treatment costs that have to be paid in addition. Migration and the breakdown of family structures mean that people can no longer rely on the safety net traditionally provided by relatives and the local village community. Because of high

20%

of the world's population has insurance against basic risks such as sickness.



Demand is huge: since 2006, over 100,000 children were born under the Kenyan voucher scheme. For the first time, the vouchers have given poor women the option of delivering their baby in a quality-controlled facility. The scheme allows accredited public and private health care centres to channel income according to needs, such as expanding infrastructure or adding new staff.

Developing social security systems

Social security systems are a key element in protecting populations against sickness and other basic risks. In many

levels of poverty, low contribution levels and predominantly informal employment structures, less than 20% of the world's population is covered against basic risks, such as through health or pension insurance. Also, state-operated and private social security systems are often inadequate and do not provide the minimum services for social security defined by the International Labour Organisation (ILO).

Usually several donors are required in order to create and expand social security systems. On behalf of the Federal Ministry for Economic Cooperation and

ers. DEG has an equity investment in African Reinsurance. The insurance sector in Africa is not very developed, meaning that primary insurers have limited assets and are therefore unable to cover higher risks. African Reinsurance plugs the gap by underwriting risk in return for a premium. This is helping to develop the sector and expand the range of accident and life insurance services available. DEG is supporting this scheme both in its capacity as a shareholder and as an experienced development partner. ■

»» Education for all

Education is a key driver of development: it provides a guaranteed way out of poverty, is essential for economic growth, and improves health and family planning. KfW's activities in emerging and developing countries are helping to achieve international education targets.

When Danica May Camacho was born on 31 October 2011, congratulations flooded in to her parents. Alongside throngs of friends and relatives, the couple in the Philippines were visited by UN representatives. Danica was one of several babies to be symbolically recognised as the world's seven billionth person. The gift provided by the UN representatives was also symbolic: a scholarship that will allow Danica to go to university later in life.

Education has always served as a development driver, both for individuals and for national economic, social and political structures. In the light of dramatic world population growth (see chart on page 47) and the challenges that brings, education is more important than ever.

For people in developing countries, a good education is the best way of improving their own quality of life. As well as opening up the prospect of employment and an independent income, education tends to be associated with better nutrition and personal health, offering protection against infectious diseases such as HIV/AIDS. It is also an effective form of contraception: the higher the number of women who have completed secondary school in a country, the lower the national birth

rate. That means healthier mothers and newborns, and more empowerment for women in society as a whole. Better-educated women are more inclined to fight to ensure that their children obtain adequate schooling.

800 million
people are unable to
read or write.

Highly-educated workers improve national productivity levels and potential for innovation but also have a direct impact on national economic growth. In political terms, better educated citizens tend to be more aware of their personal rights and take an active role in political processes, which is a vital factor in developing and consolidating democratic structures. Improving education levels in emerging and developing countries is also an effective tool for mitigating the effects of climate change (see interview on page 40).

Consequently, the top UN Millennium Development Goal – halving poverty by 2015 (see box on page 45) – is immedi-

ately followed by efforts to guarantee universal primary education. The international community defined other educational goals, such as improving literacy rates and the quality of education, in the Education for All action framework agreed at the World Education Forum in Dakar in 2000 (see box on page 49).

Initial success, ambitious targets

In its 2011 Global Monitoring Report – Education for All, UNESCO announced significant progress: the number of children with no access to education has fallen by around 30 million worldwide. Differences between girls and boys have been reduced and growing numbers of children in developing countries are able to access secondary school education.

However, the report does warn that further concerted action is still needed: just under 800 million people – or nearly 17% of the world's population – are still unable to read or write, and nearly two thirds of them are women. Around the world, there are still 70 million girls and boys who do not attend school on a regular basis, if at all. That may be because their parents are unable to afford the cost of school books and uniforms, or because the children have to contribute to the household income or look after



An effective investment: education benefits the individual and the economy as a whole.

younger siblings. The latter is particularly common among girls in poor and rural households.

KfW Entwicklungsbank is working to achieve the Education for All targets on behalf of the Federal Ministry for Economic Cooperation and Development. In 2011, KfW Entwicklungsbank provided EUR 1 billion in the form of grants, low-interest credit, loans and equity investments to finance advisory services and investments. The bank gives particular priority to giving disadvantaged groups access to primary and secondary education and investing in quality education.

Developing higher education

Support for secondary education is gradually becoming more of a priority. Many children in emerging and developing countries have now successfully completed primary school and are crowding on to secondary school or occupational training. The proportion of those attending university in these countries is only a fraction of the figure for industrialised countries. However, less affluent countries also need highly-skilled workers to form a responsible elite and contribute to social, economic and environmental progress in their country.

Global education goals for 2015

At the World Education Forum in Dakar in 2000, the international community committed itself to the following targets under the Education for All action framework:

- 1 Expanding and improving early childhood care and education, especially for disadvantaged children
- 2 Access to free and compulsory primary education of good quality for all children, particularly girls, children in difficult circumstances and from ethnic minorities
- 3 Meeting the learning needs of young people and adults through access to basic qualification programmes
- 4 Improving adult literacy by 50%, particularly among women
- 5 Gender equality at all education levels
- 6 Improving the quality of education

Source: UNESCO, 2000.

As a result, the proportion of occupational training, lifelong learning and university projects in KfW's portfolio is growing. The bank is currently focusing on developing demand-driven education financing, drawing on our domestic experience. With products including student loans, scholarships, education vouchers and transfer payments to poor population groups, KfW has something to offer schoolchildren, apprentices and students in emerging and developing countries.

Female teachers for northern Afghanistan

The success of any educational measure is largely dependent on the qualifications held by teachers. The teacher training colleges (TTC) in northern Afghanistan financed by KfW are designed to improve teaching quality. The Federal Ministry for Economic Cooperation and Development has commissioned the bank to provide EUR 15 million over several years to finance the construction of 5 training colleges and 17 reference schools for teaching practice. By 2013, around 9,000 teachers a year will receive initial and further training from German education experts. There is an urgent need for teachers because the number of children attending school in Afghanistan has almost trebled since 2002.

The practice-based training offered by TTCs is particularly targeted at women from rural regions. If they can be persuaded to train as teachers, not only will the women's own position in society be improved, but their presence will also make it easier for girls in Afghanistan to attend school – something that was essentially prohibited under the Taliban. The student teachers are given accommodation in halls of residence to elimi-

nate long and dangerous journeys. Kindergarten facilities are also provided so that mothers can also take up the offer of basic and advanced training.

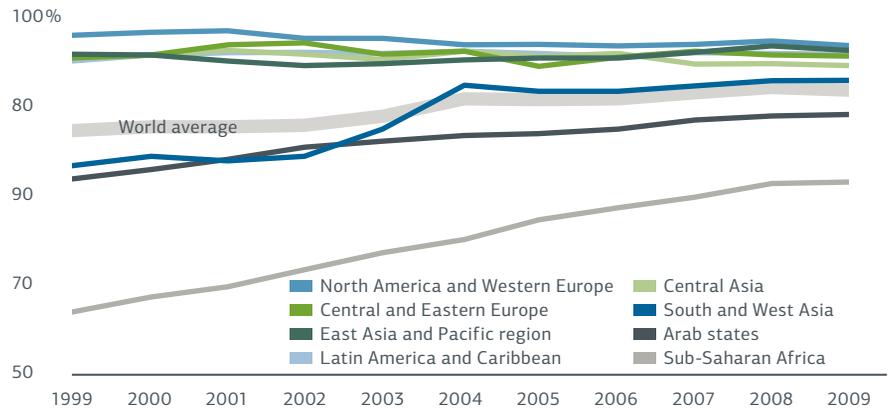
Tackling structural reform

Once governments in emerging and developing countries have recognised the value of education in terms of national development, they often begin by gradually reforming the whole sector. This is an ambitious undertaking and requires concerted action by government, civil society, the private sector and international donors.

KfW assists the Federal Government's partner countries as they define multi-annual education programmes and then provides financing. Through programmes undertaken in conjunction with national and international partners, KfW helps to improve education, be that through increasing access to schools for all, supporting a country's public finances, improving the quality of education, decentralising education administration, or modernising the education system. The bank currently has sector-wide programmes in Mozambique, Malawi and Yemen.

Many developing and emerging countries still have a long way to go before they achieve a good and effective public education system. In order to make up the shortfalls in specific areas, German development cooperation activities have

Access to education SCHOOL ENROLMENT RATES WORLDWIDE



Source: UNESCO Institute for Statistics database, 2011.

focused over recent years on working with industry and non-governmental educational institutions on the ground.

Cooperation with private agencies

KfW's subsidiary, DEG, is responsible for activities in this field. The new education portfolio includes an important project to expand university education in Brazil. Brazil is a rapidly-growing emerging country where only one in nine adults currently holds a degree – the OECD average is 30%. The high fees mean that it is predominantly children from wealthy families who attend state-owned universities. Yet a broad base of highly-skilled workers is essential for national economic growth and to

ensure that as many citizens as possible benefit from improved prosperity.

DEG is therefore providing support for the Brazilian education company Anhanguera Educacional Participacoes S.A. (AEDU) in tandem with two other development finance institutions. The largest national tertiary education provider operates private universities in more than 50 small and medium-sized towns in south-east Brazil and also offers distance-learning degree courses. The course programmes are designed for young students and working people with low to medium incomes. AEDU has around 220,000 students each year. The education provider keeps operating costs – and therefore fees – down by using standardised curricula and centralised administrative structures.

Having obtained financing in excess of EUR 73 million – including EUR 15 million in the form of a quasi-equity loan from DEG – AEDU will be setting up more sites in Brazil over the coming years. The company also intends to expand its range of courses and bring other universities on board. The project will move Brazil one step closer to offering high-quality education for all. ■



Improving access to university: the Brazilian AEDU offers affordable courses.

»» Imprint

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Note:

The KfW Sustainability Report 2012 is made up of two parts: "Our responsibility. Shaping social challenges" and "What we do. Facts and figures 2012". It has been audited by PricewaterhouseCoopers AG. The auditor's report can be found on pages 38 and 39 of the "What we do" part of the report.

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