Reducing our environmental footprint

We want to lead by example and work to minimise the environmental impact of our operations. Cutting CO_2 emissions and reducing energy consumption are key targets across the Group.

As a typical knowledge company, we do not cause large environmental impacts through our own operations. Nonetheless, we firmly believe it is important for a responsible company to minimise its environmental footprint, thus leading by example.

For our core re/insurance business, climate change represents a key issue. Reflecting this, we have been focusing on reducing our own CO_2 emissions and energy consumption for many years. Our pioneering initiatives include the Greenhouse Neutral Programme and the CO_{you2} Programme. Both are now into their second cycles, running from 2013 to 2020.

Furthermore, we apply sustainability guidelines to our sourcing and construction activities. Extending our efforts beyond our company, we continue to take a leading role in the Swiss Climate Foundation.

Management system and certification

We operate an integrated global management system (GMS) at our Corporate Real Estate & Logistics division, which interlinks quality and environmental management and ensures that similar processes are seamlessly managed. Through a Group-wide systematic reporting process, we monitor our environmental performance and implement appropriate improvement measures.

Environmental objectives and targets are defined centrally at our headquarters, but responsibility for implementing improvement measures also lies with the Corporate Real Estate & Logistics departments of the respective locations.

Up until 2013, our policy was to have our largest locations certified according to the ISO 14001 environmental management standard (www.iso.org). We have since decided to move to a centralised approach and have the whole Corporate Real Estate & Logistics division certified globally according to ISO 14001. The certification process is well underway and is expected to be completed by the end of 2015. As a result, all our employees will be working at locations covered by an ISO 14001-certified environmental management system in the future.

For more information see **swissre.com/corporate_responsibility/reducing_footprint.html**

The Greenhouse Neutral Programme

Climate change has been a strategic priority for Swiss Re for more than 20 years. It is a key topic for a re/insurer, because it is likely to cause more extreme and more frequent weather events, resulting in rising damages and insurance losses. Our strategy to tackle climate change rests on four pillars, one of which is the pledge to reduce our own CO_2 emissions (see page 11).

Our Greenhouse Neutral Programme has been the principal initiative to achieve this goal. Launched in 2003, it originally combined two commitments: firstly, to reduce our CO_2 emissions by 15% per employee (full-time equivalent or FTE) within ten years and, secondly, to fully offset all the remaining emissions by purchasing high-quality emission reduction credits, thus making the company greenhouse neutral for the whole period between 2003 and 2013.

After meeting our initial reduction target well ahead of time, we gradually raised it to 45% per employee. By the end of the programme's first commitment cycle in 2013, we had achieved a total reduction in CO_2 emissions per employee of 49.3% compared to the base year 2003. (Please note that we have had to correct the previously stated figure of 56.5%, because a reporting error concerning business travel in 2013 led to a substantial underestimation of total CO_2 emissions per employee that year.)

49.3%

Total reduction in CO_2 emissions per employee between 2003 and 2013

1.2%

Total increase in CO_2 emissions per employee in 2014

CO_2 emissions per employee (full-time equivalent, FTE), Swiss Re Group

	2013	**2014**	Change in %
Power	811[1]	**871**	7.4
Heating	379	**308**	–18.7
Business travel	3 825[2]	**3 923**	2.6
Copy paper	40	**31**	–22.5
Waste	51	**51**	0
Water	11	**12**	9.1
Technical gases	28[3]	**27**	–3.6
Commuting[4]	1 500	**1 500**	0
Total	6 645	**6 723**	1.2

1 The 2013 figure for power has been restated due to an update of the emission factors used for renewable energy.
2 The 2013 figure for business travel has been corrected to account for two calculation adjustments:
a) use of updated emission factors, based on recent scientific evidence regarding the radiative forcing of CO_2 (DEFRA 2014);
b) incompletely reported business flights due to a technical issue.
3 The 2013 figure for technical gases has been restated due to a reporting error at one location.
4 At present, we do not compensate the emissions caused by our employees' commuting.

Underlying environmental data, Swiss Re Group

		2013	**2014**	Change in %
Power	kWh/FTE	4 575	**4 435**	–3.1
Heating	kWh/FTE	1 940	**1 584**	–18.4
Energy intensity	kWh/FTE	6 515	**6 019**	–7.6
Business travel	km/FTE	13 862[1]	**13 931**	0.5
Copy paper	kg/FTE	34	**26**	–23.5
Recycling paper	%	70	**70**	0
FSC label	%	96	**94**	–2.1
Waste	kg/FTE	182	**192**	5.5
Water	m^3/FTE	16	**17**	6.3

1 The 2013 figure for business travel has been restated due to incompletely reported flights.

For more information see **swissre.com/corporate_responsibility/greenhouse_neutral.html**

Goals and scope of the programme's second phase
Seamlessly continuing from the Greenhouse Neutral Programme's first ten years, we launched a second commitment phase running from 2013 until 2020. However, we should bear in mind that, after halving our CO_2 emissions per employee in the previous ten years, the potential for further reductions is now much smaller. Our new target is to keep our CO_2 emissions per employee stable at the level of 2013; we consider this to be an ambitious goal in view of our expansive business strategy, especially in high growth markets.

At the same time, we decided to extend the scope of our emissions accounting and reporting. In the programme's first phase, we reported our Scope 1 and Scope 2 emissions (heating and power consumption) as well as a major source of Scope 3 emissions (business travel). In the programme's second phase our reporting also covers the following activities along our supply chain (Scope 3): employee commuting, copy paper use, waste generation, water use and technical gases.

Our commitment to offset the CO_2 emissions we cannot avoid now includes paper, waste, water and technical gases, in addition to power, heating and business travel.

Goals of the Greenhouse Neutral Programme – Phase 2:
- Maintain emissions reductions we achieved over the last ten years regarding power consumption, heating and business travel;
- Reduce energy intensity (power consumption and heating) by 2% per year (kWh/FTE);
- Fully offset the remaining emissions from the three former and four new sources.

In 2014, our total CO_2 emissions per employee increased by 1.2%, mainly driven by a rise in business travel. Although we managed to achieve a further reduction in internal energy consumption (power and heating), this was not enough to outweigh the additional emissions caused by business travel.

Using renewable power
Purchasing power from renewable rather than conventional sources has been a key measure of our Greenhouse Neutral Programme. After starting to use renewable power at four European locations in 2005, we set ourselves the goal of using 100% renewable power at all locations where it is available in reliable and trustworthy quality by the end of 2013. Based on our quality assessments of available energy sources, we believe we reached this goal and used 100% renewable power at 25 locations in Asia, Europe, North America and Oceania at the end of 2013.

In making these quality assessments and selecting suitable sources, we have relied on a "minimum standard" that clearly states how we define renewable power and what requirements it needs to meet. At our Zurich headquarters, for example, we only buy "naturemade star" electricity (www.naturemade.ch), which meets high ecological quality standards in its production, beyond those required by environmental legislation. In Munich, we purchase our electricity from NaturEnergie (www.naturenergie.de), one of Germany's premier suppliers of renewable energy.

The RE100 initiative
In many countries where we want to grow our business, there is a lack of renewable energy supplies in reliable quality. Currently, around 10% of the power we use globally still comes from non-renewable sources. This is a key reason why we have helped to establish the Climate Group's RE100 initiative as a founding member.

Officially launched at the sixth Climate Week NYC (www.climateweeknyc.org) in September 2014, RE100 aims to unite 100 of the world's largest companies in a shared commitment to use 100% renewable power by 2020. The group approaches policy makers and regulators at national and sub-national level to make renewable energy more available, focusing on countries such as China, India, Brazil and South Africa over the next three years.

theRE100.org

Reducing energy consumption
In parallel with our switch to using renewable power, we have made continuous efforts to lower the actual amount of energy consumed per employee, ie to reduce our energy intensity. For this, we also established a Group-wide goal: Measured in kWh per employee (FTE), we committed to reducing energy intensity by 20% compared with 2003 levels. Through many small measures to improve energy efficiency and by concentrating back-office tasks in fewer and more energy-efficient buildings, we met and clearly exceeded this goal. At the end of 2013, energy intensity across the Group was 46.5% lower than in 2003.

For the second phase of our Greenhouse Neutral Programme (base year 2013) we committed ourselves to reducing energy intensity by 2% per year. In 2014, we exceeded this goal and reduced our energy intensity by 7.6%. The main reason for this was an 18.4% decrease in energy used for heating. While the unusually warm winter in Switzerland and our expansion into warmer regions with less demand for heating contributed to this achievement, we also continued to decommission existing office buildings and move into new ones equipped with more efficient heating systems, eg heat pumps.

46.5%

Reduction in energy intensity per employee between 2003 and 2013

7.6%

Reduction in energy intensity per employee in 2014

Minimising business travel
Because of the substantial cuts we have achieved in CO_2 emissions from power consumption and heating since 2003, business travel today constitutes Swiss Re's largest emissions source by far. While business travel is ultimately driven by client needs and is thus difficult to influence, we have taken several measures to curb unnecessary business trips. Travel budgets are continuously monitored and travel data are collected centrally.

We have also built up a dense network of video conferencing equipment across the Group. Recently, we have partly replaced these facilities with state-of-the-art telepresence technology, which creates a real-time, life-size virtual meeting experience in specially designed rooms. By the end of 2014, we had 80 video conferencing rooms and 64 telepresence facilities worldwide.

Despite these measures, the amount of kilometres travelled per employee and the associated emissions have been rising in recent years. The general recovery in the business environment after the financial crisis and the realignment of our corporate structure by creating a holding company with three distinct Business Units have been important factors; recently, however, the increase in business travel has been strongly driven by our ongoing expansion in high growth markets.

Our recent financial results show that our new Group structure and our strategic focus on high growth markets have benefited our clients and shareholders. In essence, we thus face a dilemma between two objectives: necessary adaptation to create economic value in a changing world, and reducing environmental impacts.

We remain committed to curbing unnecessary business travel and in 2014 introduced an innovative mechanism that creates an incentive to minimise air travel, which accounts for the bulk of business travel (see box to the right).

Internal carbon levy on air travel
Offsetting those CO_2 emissions we cannot avoid has been a key element of our Greenhouse Neutral Programme. In the past, all the costs of purchasing the necessary Voluntary Emissions Reductions have been borne centrally by Group Finance. In 2014, we introduced an internal carbon levy on air travel, which works according to the "polluter pays" principle.

As a result, our offsetting costs are now allocated to the Group's Global Functions in proportion to their respective share of air travel. This internal price on carbon heightens awareness of travel costs among our managers and employees and creates a further incentive to reduce air travel, in addition to flight costs.

Paper, water and waste
As explained above, we expanded the scope of our emissions accounting in 2014 to include copy paper, water consumption and waste disposal, and have committed ourselves to offsetting the emissions from these additional three sources until 2020.

The overview of all our emissions sources (see table on page 45) shows that paper, water and waste are of much less relevance in our business than other environmental impacts. Furthermore, water use and waste generation are difficult to influence at locations where we rent office space. Having said this, in the office buildings we own ourselves we require appliances to meet high standards of water efficiency.

Paper use, on the other hand, is much more responsive to managerial action. Although we have not set any quantitative targets, we have taken a number of measures to reduce the average amount of paper used by our employees in recent years. These include our Group Document Induction Process, which offers a coordinated scanning service wherever it is requested, and encouraging our employees to use double-sided printing by setting it as the default option on our computers. As a result, we managed to reduce our paper use by more than 60% per employee between 2003 and 2013.

In 2014, we achieved another substantial decrease in paper use per employee, mainly through the My Productivity Initiative: Using a gamification approach, we encouraged our employees to compete as teams against each other to see who could achieve the biggest cut in paper consumption. As a result, the total amount of printouts in the Group fell by 27%, leading to a decrease in paper consumption of 22.5% and cost savings of approximately USD 350 000.

We also have guidelines in place to ensure that we use copy paper of a high ecological quality. Through our Group Sourcing Policy and our "minimum standard for copy paper", we set clear environmental requirements for the type of paper we purchase (see page 50). In 2014, the share of recycled paper remained stable at 70%, while that of FSC-labelled paper fell slightly, from 96% to 94%.

Water consumption and waste generation increased somewhat in 2014, after a fall in the previous year. It needs to be stressed, though, that data quality is moderate at best for both, so we do not consider the rise to be significant.

Offsetting our remaining CO_2 emissions

The second commitment of our Greenhouse Neutral Programme is to compensate all CO_2 emissions that remain after our reduction efforts. For the first phase of the Greenhouse Neutral Programme between 2003 and 2013, we bought and retired high-quality Voluntary Emissions Reductions (VERs) for a total of 553 000 tonnes of CO_{2e}.

In 2014, we calculated our CO_2 emissions according to our new, extended setup for the first time (see table on page 45). To offset these emissions, we bought and retired VERs for 69 800 tonnes of CO_{2e}. This amount includes an additional voluntary commitment to offset the CO_2 emissions caused by events held at our Centre for Global Dialogue in Rüschlikon near Zurich.

We are keen to ensure that the VERs we buy are of a high environmental standard. Therefore, we have developed a set of criteria to select projects that generate certificates. In particular, we give priority to those which create strong social side-effects and benefit the poorest regions.

External verification of our CO_2 reporting

From the very start of our Greenhouse Neutral Programme in 2003, we have disclosed our CO_2 emissions, their principal sources and relative performance over time. Both for the programme's first phase and its current second phase, we have calculated our emissions based on the guidelines of the Greenhouse Gas Protocol, the most widely-used emissions accounting standard (www.ghgprotocol.org).

Before our emission figures are published, PricewaterhouseCoopers checks them to verify our calculations. Their complete assurance report, which covers this and the four other main chapters, is included on pages 70–71.

Clean cooking stoves and water filters for Kenya

One of the principal CO_2 offsetting projects we supported in 2014 is based in Kenya. Despite being East Africa's biggest and most advanced economy, Kenya is still a poor country in wide areas: It is estimated that half the population lives in absolute poverty. Two of the biggest challenges involve the burning of wood and biomass, and the lack of access to clean drinking water. By funding improved cooking stoves and chlorine dispensers, the project addresses both these challenges.

Firewood and biomass fuels put immense pressure on natural resources in Kenya (and East African countries in general). In the last 15 years alone, the region has lost over 10% of its forest cover. The project funds high-quality and efficient cooking stoves that can cut demand for firewood by 50%. These stoves are offered to poor families at reduced prices. Not only does this slow down deforestation, it also improves indoor air quality and means women and children need to spend far less time collecting wood. By the end of 2014, more than 128 000 stoves were distributed.

In rural Kenya, over 65% of all people lack access to clean drinking water, which exposes them to diarrhoea, cholera and other water-borne diseases. To improve water treatment, chlorine dispensers are being installed at communal water points such as springs and boreholes. This further reduces the demand for firewood, because families no longer have to sterilise water by boiling it. By the end of 2014, more than 80 000 chlorine dispensers were distributed.

In total, the lower rates of deforestation achieved by the project's two measures prevent around 20 000 tonnes of CO_2 from being released into the atmosphere per year. The revenues generated by these emissions reductions have made it possible to secure investment for subsidising the manufacture and sale of the stoves and chlorine dispensers.

Group sourcing policy and minimum standards

As a re/insurance company, Swiss Re does not have an extensive supply chain. Our core business does not require us to buy intermediate inputs like a manufacturing company. However, to run our operations, we need a range of goods and services.

When procuring these goods and services, we apply general and individual criteria. In line with our overarching Group Sourcing Policy, we select suppliers that offer the best value for money, meet high quality standards and adhere to the UN Global Compact. As a signatory to the Compact, we are committed to honouring all its ten principles; amongst other things, these prohibit any sort of discrimination or the use of child or forced labour, and require that the freedom of association and the right to collective bargaining be upheld.

We consider environmental criteria relating to materials and ingredients, production methods, recycling and waste. For some sourcing categories, we have developed "minimum standards" that further specify our requirements: besides power (see page 46) and paper (see page 48), these cover office supplies, cleaning services and agents, furniture and building materials. Each standard lists objectives, ecological aspects, ecological minimum standards, exceptions, controlling and labels.

When selecting new suppliers, we examine whether they comply with these requirements as part of the overall evaluation process. We take a fresh look at existing strategic suppliers in our periodical contract reviews, and we visit individual suppliers to inspect them onsite. Internally, we hold regular awareness trainings with all our sourcing staff.

In 2014, we screened our critical, important and material (CIM) suppliers using a risk-based approach: It included country and industry specific sustainability criteria established through our Sustainability Risk Framework (see pages 22–26) as well as specific country risk ratings (see page 33). The assessment did not reveal any significant sustainability or reputational risks among our CIM suppliers.

Sustainable construction and Swiss Re Next

Swiss Re has around 70 offices in more than 30 countries. For new building or renovation work, we apply a number of principles. One of them is sustainability, which translates into criteria such as stringent construction standards, high-quality fittings and finishes, a comfortable ambient climate, environmentally sound, durable materials, low energy consumption and

The groundwork is being laid for Swiss Re Next, our new headquarter building that will set a leading example of sustainable construction. The "strut platform" shown in the picture was erected to support and preserve the existing excavation enclosure made of of 60 cm thick reinforced concrete. Originally constructed in the 1960s for the previous *Neubau* building, it is still in superb condition today.

Swiss Re Next online
Extensive background information on the Swiss Re Next project and its progress is available on a special website at next.swissre.com.

low maintenance and running costs. Constructing or renovating an office building in line with such sustainability criteria is the most effective way to minimise its environmental footprint.

For construction projects in Switzerland, the applicable criteria are defined in detail in the Energy Mission Statement of Swiss Re, Zurich: They stipulate that new buildings need to conform to the MINERGIE® standard (www.minergie.ch), a Swiss quality label specifying high levels of energy efficiency and superior user comfort. When we renovate old buildings, this standard is to be applied if feasible from an architectural, technical and financial perspective. Our pension fund in Switzerland applies the same criteria for all its direct investments into real estate projects.

In practice, we usually go beyond these requirements and use further standards such as MINERGIE-ECO® – which also includes health criteria and demands on building materials – and, more recently, MINERGIE-P-ECO®, which specifies the characteristics of a "passive house" that consumes even less energy than a MINERGIE®-certified building.

Swiss Re Next
Under the title of Swiss Re Next, we are currently constructing a replacement building for the *Neubau* ("new building") at the Group's Zurich headquarters. From the start, sustainability was defined as one of the key features of the project: Our goal is to be awarded the MINERGIE-P-ECO® certificate as well as the highest certification level of the US LEED system – LEED Platinum. We recently received the preliminary MINERGIE®-P-ECO certificate and successfully passed the LEED design review.

Swiss Re Next is not a greenfield project: It is being constructed in the same place where the previous *Neubau* stood, on an urban site surrounded by roads as well as office and residential buildings. This is challenging at the best of times, but things are complicated further by the fact that the site is located on artificial land created in the 19th century when the quayside areas of lower Lake Zurich were developed. The bedrock only begins some 30 metres below the ground. Thus, when the original *Neubau* building was erected in the 1960s, the engineers had to construct a special excavation enclosure, consisting of a 60 cm thick trench wall made from reinforced concrete: It has the shape of a giant sump and extends 25 metres into the construction ground.

This trench wall is still in superb condition today. Therefore, the most desirable and sustainable solution was to keep it and reuse it as the excavation enclosure for Swiss Re Next. As long as the previous building was in place, the trench wall was supported by the basement floors against the horizontal forces of earth and water pressure outside. But as the building was gradually demolished down to the basement floors, a different support structure was required for the wall. For this purpose, a "strut platform" consisting of 988 tonnes of steel was constructed and pre-stressed by hydraulic pressure.

The presence of this strut platform has made it possible to demolish all the basement floors, right down to the old floor slab. It will be dismantled when the ceiling above the second basement floor is completed.

The CO_{you2} Programme

Reducing our own CO_2 emissions is one of four pillars of our climate change strategy (see page 11). In 2007, we launched the CO_{you2} Programme because we wanted to make our commitment more tangible for our employees and help them to become more aware of climate change. The programme offers subsidies for a range of investments through which our employees can reduce their own carbon footprints. To our knowledge, it was the first global corporate initiative of its kind when we launched it.

The investment options eligible for subsidies are clearly specified in the programme. Some of them are supported at all our locations, while others vary to account for regional differences in climate, living conditions etc. Our subsidies cover 50% of the investment amount up to a locally determined maximum allowance. The programme is open to all regular employees who have successfully completed their probation period and have been with Swiss Re for a minimum period of time (currently three months).

In the first seven years of its existence, the programme was a resounding success: In total, we granted more than 9 000 subsidies. In view of this, we decided to start a new seven-year cycle, running from 2014 until 2020, for which all our regular employees have a new subsidy allowance. In 2014, we granted a total of 2 268 subsidies.

Amongst the largest Swiss Re locations, uptakes per employee were highest in Slovakia, Germany and Switzerland. Our office in Slovakia has witnessed particularly strong growth recently and many new employees made use of the opportunity to claim subsidies in 2014. In Europe, in general, mobility is a popular category, with bicycles the most common type of subsidy.

China is another location that has seen strong growth and, consequently, a high rate of subsidies. Energy efficient home appliances were particularly popular there, as elsewhere in Asia.

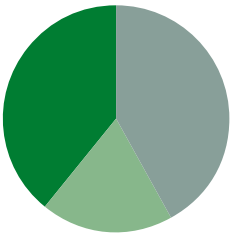
In the US there was a spike in subsidies for home energy audits and installations of windows and doors following the cold spell between December 2013 and April 2014. Home appliances and more expensive home infrastructure subsidies were both popular subsidy categories across the Americas region.

2 268

CO_{you2} subsidies granted to our employees in 2014

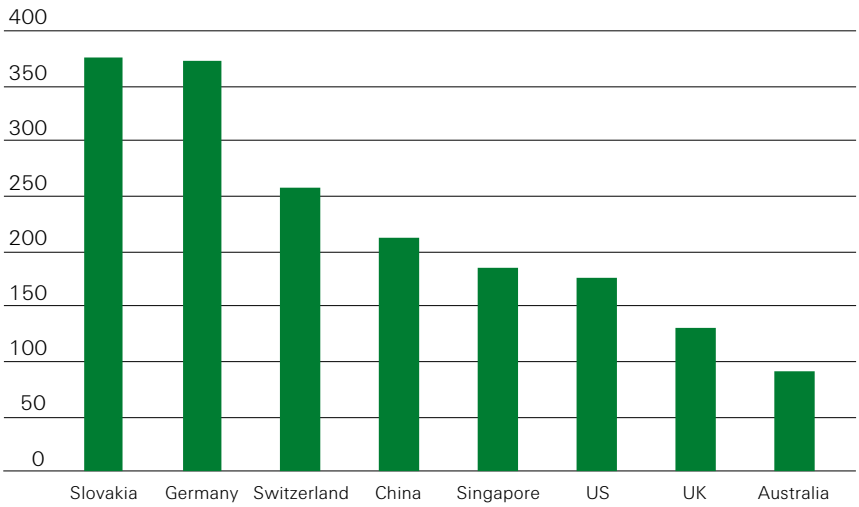
For more information see **swissre.com/corporate_responsibility/coyou2_programme.html**

CO_{you2} payouts in 2014, by category



- 42% Home appliances
- 19% Home infrastructure
- 39% Mobility

Number of CO_{you2} payouts in 2014, per 1000 employees



Partner initiative: The Swiss Climate Foundation

In 2008, we set up the Swiss Climate Foundation with a number of partner companies. It was a response to the introduction of the Swiss CO_2 law, which provides the basis for the CO_2 levy on heating fuels in Switzerland. This levy is not a proper tax but an environmental market mechanism: It imposes a charge on the use of heating fuels and then reimburses the money thus raised – to private companies proportionate to their total salary expenses. For financial service providers, who use relatively small amounts of heating fuel but employ large workforces, this means they receive a total "net reimbursement".

The purpose of the Swiss Climate Foundation is to collect these funds and to use them to support various climate-friendly projects undertaken by small and medium-sized companies (SMEs) in Switzerland. In 2012, the Foundation broadened its scope and started to collaborate with the LIFE Climate Foundation Liechtenstein, generating more partner companies and enabling SMEs in Liechtenstein to benefit from the funds, too. By the end of 2014, 26 renowned financial service providers from Switzerland and Liechtenstein were partner companies of the Swiss Climate Foundation.

Since becoming operational in 2009, the Swiss Climate Foundation has supported more than 900 SMEs in Switzerland and Liechtenstein with CHF 12 million in total. In 2014, 470 SMEs were supported with a total of CHF 2 million. These projects are expected to help avoid about 65 000 tonnes of CO_2 emissions over the next ten years.

In addition to paying our net levy reimbursement, Swiss Re has been sponsoring the Foundation's managing director position since it was established in 2008.

For more information see
swiss-climate-foundation.ch