Aviva - ClimateWise response 2015/16

Introduction – background of Aviva's business

Aviva provides insurance, savings and investment products to 33 million customers across 16 countries in Europe, Asia and Canada including being the number one insurer in the United Kingdom.
We are one of four multinational composite insurance companies combining strong life insurance, general insurance and asset management businesses under one powerful brand. We are committed to serving our customers well in order to build a stronger, sustainable business, which makes a positive contribution to society, and for which our people are proud to work.

Our 29,600 people are focused on helping to free our customers from fear of uncertainty. Aviva helps people save for the future and manage the risks of everyday life; we paid out £30.7 billion in benefits and claims in 2015.

In April 2015 we acquire Friends Life. The information contained in this response will include the Friends Life part of the business from 1st January 2015.

Long term insurance and savings business from continuing operations accounted for over 61% of our total business, based on worldwide sales for the year ending December 2015. General insurance and health insurance together accounted for 39% of Group net written premiums (NWP) from continuing operations.

Aviva's asset management business, Aviva Investors, provides asset management services to both Aviva and external clients, and currently manages over £290 billion in assets.

Aviva Plc is in the top 10% of socially responsible companies globally in the Dow Jones Sustainability World Index, as well as ranked as one of the FTSE4Good top 5 companies in their index. In 2010 we became one of 50 companies to gain LEAD Global Compact status and last year we were the only insurer included in Global Compact 100 Index. We are a strong supporter of United Nations Principles of Responsible Investment from an asset management perspective and Aviva Staff Pensions Trustees signed the PRI as an asset owner in September 2013. The Asset Owners Disclosure project Climate Index in 2016 ranked Aviva as the second highest insurance company, and was ranked 58th in the Newsweek Green ranking.

Our 2015 ClimateWise response scored 79 and we were ranked as the second best responder.

> "There is no greater collective risk we face today than tackling climate change. If we do not take urgent action to limit global temperature increases to within 2°C the impacts upon the economy, society and our business will be nothing short of devastating. Aviva is determined to make its own contribution to tackling climate change. This is not at odds with business or investment. In fact, it is a business imperative."
>
> Mark Wilson, Chief Executive Officer

The revised ClimateWise Principles

(Grey coloured text indicates last years' response providing a foundation to demonstrate this year's progress)

1. Lead in risk analysis

1.1 Support and undertake research on climate change to inform our business strategies and help to protect our customers' and other stakeholders' interests. Where appropriate share this research with scientists, society, business, governments and NGOs in order to advance a common interest.

1) At the beginning of 2015 we commissioned some research from the Economist Intelligence Unit (EIU) on the Value at Risk from Climate Change to investments, pensions and long term savings. The report was launched at the end of July

   The key findings of the report were that:-

   - The value at risk to manageable assets from climate change is US$4.2trn, in present value terms
   - The tail risks are more extreme; 6°C of warming could lead to a present value loss worth US$13.8trn, using private sector discount rates
   - From the public-sector perspective, 6°C of warming represents present value losses worth US$43trn- 30% of the entire stock of the world's manageable assets
   - This is not a risk of volatility or temporary price movements but of permanent impairments and capital losses

   Since it launch in July 2015 the research has been quoted by a large number of opinion leaders, this included John Cridland Director General CBI in a speech in September 2015, the PRA's The Impact of climate change on the UK Insurance Sector Report in September 2015. (Please see our response to the EIU report in Principle 4)

   Maurice Tulloch Aviva's General Insurance CEO and Chair of ClimateWise commented in an open letter from ClimateWise members in response to the PRA Impact of climate change on the UK Insurance Sector report,
   "The PRA report highlights a number of important risks the insurance industry, its regulators and customers will need to collaborate on in order to build societal resilience to the impacts of climate change both economically and equitably.

   "Yet the greatest priority is to ensure that we minimise the future levels of climate risk we will face. This is why strong action today, to limit global warming to below 2c, is so important."

2) Building on our previous advocacy work with UNCTAD around the Sustainable Stock Exchanges work and the Corporate Sustainability Reporting Coalition (CSRC), in June 2014 Aviva Investors launched a White paper – A Roadmap for Sustainable Capital Markets which provides some recommendations on how policy makers could move capital markets onto a more sustainable basis; taking into account systemic risks such as climate change. In March 2015 we built on this at an EU Level launching the Sustainable Markets Union manifesto, in response to the European Commission's Capital Markets Union initiative. Aviva believes that the Capital Markets Union should include, from the very start, a long term, sustainable vision on investment and working practices in business to ensure that the lessons of the financial, economic and social crisis have been learnt, both in the EU and globally, so that we are better

placed to deal with other extreme financial market shocks. We also backed President Juncker's investment plan.

In March 2016, we contributed to the European Commission Consultation on Sustainable and Long-Term Investments, and the consultation on the non-binding guidelines on methodology for reporting non-financial information. These are an important step forward in scoping a fuller picture of the current state of the market, disclosure, identifying barriers to sustainable investment and providing solutions for effective change.

3) In January 2016 Aviva joined with other investors to advise that the climate change targets set in Paris 'have huge implications for UK pensioners' who have billions of pounds invested in "carbon-intensive" companies.

   Analysts say that more than three-quarters of the world's known coal, oil and gas reserves will have to stay in the ground if the planet is to have any chance of meeting the target to limit global warming to between 1.5C and 2C. Steve Waygood Aviva Investors Global Responsible Investment Office challenged customers saying, "I'd like you to ask your pension provider what their policy is in relation to climate risks."

4) In January Aviva's Maurice Tulloch also provided a foreword to the CII's Research report entitled "The last generation?: The Paris climate change conference and its implications for insurance"

5) In February, via ClimateWise we contributed to the G20 Green Finance Study Group (GFSG), which has been established this year under China's Presidency of the G20. The GFSG is co-chaired by the People's Bank of China and the Bank of England and will report to G20 Finance Ministers and Central Bank Governors.

6) Aviva is represented on the Financial Stability Board (FSB) launched a Taskforce on Climate-related Financial Disclosures (TCFD) which is anticipated to issue recommendations for corporate and financial disclosures of climate-related financial risks (defined as physical, liability and transition risks). It is anticipated that these recommendations will form the basis of a wider regime for carbon reporting for institutional investors and carbon disclosure.

7) As part of the BRE Trust's Thematic Programme on Resilience of the Built Environment, further research is now being undertaken to develop appropriate technical standards and to enable the industry to realise the business case for flood resilient repair. The aim of the research is to enable the greater uptake of flood resilient repair approaches by homeowners, assisted by appropriate standards and contractors with the skills to deliver cost-effective measures. Damien Cross, Aviva Claims Excellence leader has been involved in this research which will report in the next couple of months.

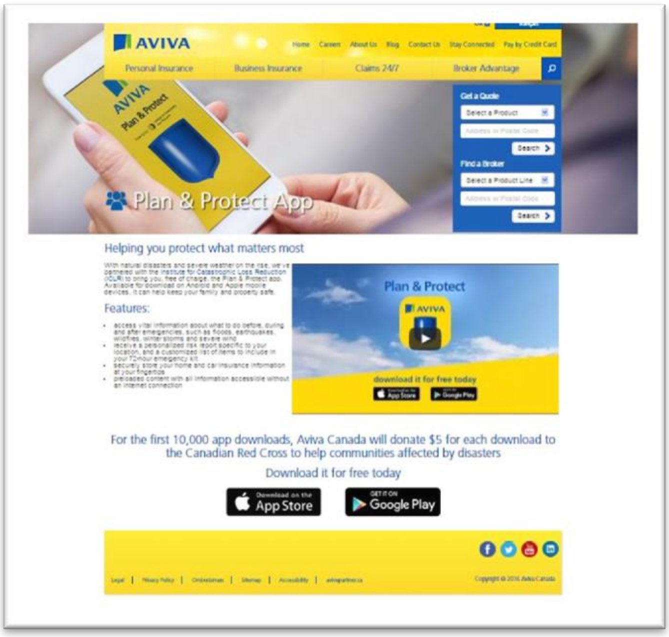
8) Aviva colleagues took part in ClimateWise's research Investing 4 Resilience workstream, the results of which will be published in the next few months. The Investing 4 Resilience Workstream is a visioning exercise to try and imagine what the insurance industry of the future could look like, one that has successfully embedded resilience across its business activities. The finding will be published in Q3 2016.

1.2 Support national and regional forecasting of future weather and catastrophe patterns affected by changes in the earth's climate.

1) Over the past several years, changing weather patterns and climatic conditions have added to the unpredictability and frequency of natural disasters in certain parts of the world and created additional uncertainty as to future trends and exposure. Extreme weather events pose a serious risk to our

business, with the potential for fluctuations in claims and challenges to risk pricing. We use catastrophe models to help inform our capital requirements. These models are generated from a number of data sources including climate models. More details of the current reserves we hold in respect of our largest exposure can be found in our Annual Report and Accounts 2015 page 246 , General Insurance Risk section.
Looking ahead we're considering action research into planting trees with the Woodland Trust in key catchment areas to reduce flood risk downstream and include national tree maps into our existing flood maps.

2) In response to increasing volatile and extreme weather, we want to help customers mitigate their potential risks from climate change. In 2015, Aviva Canada formed a partnership with the Institute for Catastrophic Loss Reduction (ICLR), a world-class centre for disaster prevention research and communication. Together we are taking a leadership role in encouraging Canadians to take steps to better protect themselves from the increasing challenges of severe weather and natural disasters.



3) Aviva submitted a written response and oral evidence to the UK Government Environmental Audit Committee into Flooding in January 2016, this included pledges to both our personal lines and commercial lines customers (see section XX for further details)

4) In 2014 Aviva Canada highlighted increasing extreme weather risks and what customers could do to safeguard their homes and possessions from water damage. According to Environment Canada, severe weather events that used to happen every 40 years can now be expected to happen every six years.
In February 2015 Aviva Canada announced that they would be first-to-market in the provision of an Overland Water Coverage Option for home insurance, to provide water damage coverage for certain categories of claims not previously covered by the industry.
While many recent flood claims were actually paid based on sewer back-up coverage provisions, true overland water coverage has never been available to consumers. With improved mapping technology and data to model the severity and frequency of flood losses, we're now able to put that coverage in place.

Aviva Canada's Overland Water endorsement is the first Canadian personal insurance product that protects homeowners from the risk of damage from river, lake and urban flooding. This endorsement was available for New Business in:-
Ontario and Alberta starting June 1, 2015

British Columbia and Saskatchewan starting August 1 in the territories starting August 15
Manitoba and Atlantic Canada starting October 1, 2015, and
Quebec started in April 5, 2016.

It was available for Renewals in Ontario and Alberta starting August 1, in BC and Saskatchewan on October 1, in the territories on October 15, and in Atlantic Canada and Manitoba starting December 1, 2015. (Please see Principle 3.2-2 for further detail)

5) In respect of our own groupwide operations, we are committing to adopt a science-based GHG emissions reduction target – we believe that our ambitious long term reduction targets of 40% to 2020, rising to 50% by 2030 are aligned to within a 2 degree C limit. Following the acquisition of Friends Life and the re-baselining of or 2010 carbon emissions data, we continue to research science-based targets for our business operations. We believe the setting of further stretching targets, having achieved a 39% reduction by the end of 2015, will be in line with science based targets. However the sector based methodology for financial services companies is still being developed.

6) Whilst we believe that the climate risk of an investment portfolio is a vital consideration, we are committing to undertake foot printing in line with the Montreal Pledge. This commitment was made in September 2015 and we provided our first response in November 2015 (Please see Principle 4.2 -3)

7) In respect of research that ClimateWise could undertake. We would like to see two workstreams:-

   Following the Institute and Faculty of Actuaries work on a Climate Index for the US, they published a feasibility study on producing a similarClimate Index for the UK and Europe. The research would focus on the incremental, creeping climate change risk taking into account the combination of rainfall, wind speed, temperature high & low, sea level, drought etc. using a base period of 1961-90 to develop a Climate Index and linking that to damage levels.

   The second potential workstream could focus on building a two degree stress test for 'a typical insurance company' which could then serve as a mode for the industry.

1.3 Use research and improve data quality to inform levels of pricing, capital and reserves to match changing risks.

1) We use catastrophe models to help inform our capital requirements. These models are generated from a number of data sources including climate models. More details of the current reserves we hold in respect of our largest exposure can be found in our Annual Report and Accounts 2015 page 246, General Insurance Risk section.

2) Climate Change has been flagged as an emerging risk again this year in the 2015 Annual Report and Accounts (pages 15 and 65). All emerging risks are assessed for their proximity and significance to Aviva via our embedded market and group emerging risk processes. The 'increased incidence of extreme weather events' risk has been assessed as 'less remote' therefore requiring regular analysis. Whilst it not significant over the planning horizon, emerging risks, such as climate change are assess over longer time periods to ensure all risks to both the medium and long term future of the company receive appropriate attention. An associated, but more proximate risk is political risk.

3) The PRA's report was published in September 2015. We welcomed this report at the time which said that whilst there the safety and soundness of insurance was not at current risk from climate change, there were three risks that insurers should consider - these were physical, transition, and liability risk. We have reviewed our liability risk exposure and believe that this is negligible for Aviva due to Directors & Officers Liability Insurance and Pension Trustee Liability insurance. We continue to manage the

physical risks and believe that we have more to do in respect of transition risks particularly from an investor stance.

4) Investors need a stable, long term policy environment to be able to invest in renewable energy and lower carbon infrastructures opportunities. Bringing forward deadlines and reducing support for such technologies leads to instability and may drive funding away.

5) Aviva began to cede business to Flood RE on 4th April 2016. This will be a gradual rollout to customers. Flood Re will be in place for 25 years and is designed to:
   - Enable flood cover to be affordable for those households at highest risk of flooding.
   - Increase availability and choice of insurers for customers.
   - Allow government, local authorities, insurers & communities to be better prepared for flooding.
   - Create a 'level playing field' for new entrants and existing insurers in the UK home insurance market.
   - The scheme will improve the availability and accessibility of flood insurance to 350,000 more homes across the UK.

   Where we have chosen to cede a policy to Flood Re, we will ensure our customers are provided with relevant information about the scheme. Flood Re excludes businesses, because previous evidence (including DEFRA research) showed that they were able to access affordable flood insurance. However, in light of the recent flooding, insurers need to assess if this has changed. If proven, then this issue should be reviewed by government and industry, to determine an appropriate solution for businesses.

   Domestic properties built from 2009 onwards are excluded from Flood Re as these should not have been built on flood plains etc. without adequate defences. This is in line with agreements between previous governments and the insurance industry. This remains challenging as we are aware that there have been houses built that are not protected. Aviva will continue to offer renewals to our existing customers in these properties and charge an economic premium.

   Aviva has been providing prices calculated on the basis of Flood Re since it was launched on 4th April. This means for the first time many homeowners in high risk areas are shopping around for their insurance as well as benefiting from lower excesses.

   On average, we’ve seen savings of around £500 for new customers, with one customer saving over £1,000 on their premium and with a much lower excess.

6) Canada overland water endorsement is a good example of respect of matching the premium to the risk. Due to commercial reasons further information in this area has been reported to ClimateWise on a separate confidential basis.

1.4 Evaluate the risks associated with new technologies for tackling climate change so that new insurance products can be considered in parallel with technological developments.

1) Due to the makeup of our business, particularly on the General Insurance side with a high proportion of in-market insurance provision and personal lines business, our focus is not on insurance products for new technologies such as CCS for example. In 2011, we created a new endorsement covering the provision of Environment Goods and Services.

2) The take up of such cover continues to grow, including for micro –hydro turbines and wind turbine installations – some of which have been in respect of community-based renewable energy generation.

However, we have just exited the Anaerobic Digestion (waste to energy) UK market due to thin rates and claims volatility.

Due to commercial reasons further information in this area has been reported to ClimateWise on a separate confidential basis.

3) There are 450,000 Electric (EV) and hybrid vehicles in the UK now, this includes 18,000 Nissan Leafs. With the National Grid and Electric vehicle manufacturers working on how electric vehicles can be used as batteries with wheels (i.e. the vehicles providing electricity to the grid at peak times) in their Vehicle to Grid work, we are seeking to understand the possible risks and opportunities that insurance can support with this new type of energy storage.

2. Inform public policy making

2.1 Work with policy makers nationally and internationally to help them develop and maintain an economy that is resilient to climate risk. This should include supporting the implementation of emissions reductions targets and where applicable supporting Government action that seeks to enhance the resilience and reduce the environmental impact of infrastructure and communities.

1) In September 2014 we hosted DECC's launch of the UK Government's Pathway to Paris report. Challenging policymakers to address climate change and support a lower carbon future – we signed the 2014 Global Investor Statement on Climate Change presented at the UN Climate Summit in September.

   In February 2015 we backed the UK cross party agreement on climate change to ensure consistent a policy framework on Paris regardless of the outcome of the UK general election.
   In March 2015 we backed the UNPSI United in Resilience statement from Insurers launched in Sendai.
   In June 2015 we signed the WWF/Aldersgate letter to the Prime Minister calling of approval of the 5th carbon budget and a strong deal at the UNFCCC COP in Paris in December.

   We are also supporting strong progress at COP21 at the end of this year and recently wrote to G7 Finance Ministers together with other investors supporting a long-term global emissions reduction goal. We are members of the ABI's climate change working group to provide a strong sector voice on climate risk, policy and actions that need to be taken by Government in the run up to Paris, and have been working with the FFSA to provide a consistent voice on a 'European insurer' basis.

   We continued our work around COP21 up to, at and after the Paris summit. This included signing the Friends of Fossil Fuel Subsidy Reform Communiqué.

   As a member of the European Financial Services Roundtable, we signed up to the statement on climate change.

Throughout the course of the summit senior spokespeople address various issues that climate change presented in respect of finance. We sponsored an event at the British Embassy in Paris and another one at the Workshop Forum, La Galerie des Solutions, Musée de l'Air et de l'Espace - Le Bourget on the “Sustainable Stock Exchanges Initiative: The cost of inaction - recognising the value at risk from climate change.”

Following the summit we hosted an Energy & Climate Change Intelligence Unit event, where Maurice Tulloch and Steve Waygood spoke on behalf of Aviva and Lord Deben and Lord Puttnam were also speakers.

In January 2016 the ECIU published a document titled “What does the Paris agreement mean for the UK?” Aviva Investors CEO Euan Munro provided an investors view, in which he said “COP21 was a significant step forward. We now need real action by each country to cut emissions and establish a material price for carbon. Governments must also continue to encourage companies to disclose greenhouse gas emissions and put climate change at the heart of corporate valuations.”

2) One of our calls for Paris was the elimination of fossil fuel subsidies. At the G7 discussions in May 2016 - the Finance Ministers agreed to remove all 'inefficient' fossil fuel subsidies, unfortunately the target date

for this is 2025. Whilst 'historic', experts advise that 2020 is a more appropriate date if governments were serious about their commitments to the global climate deal agreed in Paris in December. Across the G7, subsidies are already falling, assisted by falling commodity prices. A notable exception is the UK, which increased subsidies by opening up new tax breaks for North Sea oil producers. Japan has been criticised for funding new coal projects, both at home and abroad.

The OECD estimates that this type of support for fossil fuels within its member states is $160-200bn (£109-136bn) each year. But when the cost of damage from pollution and climate change is factored in, the International Monetary Fund has estimated that support increases to a staggering $5.3tn a year, or $10m per minute. This is more than the total global spend on human health.

At the same time the World Investment Forum states that The Sustainable Development Goals (SDGs) launched last year will require a step-change in the levels of both public and private investment in all countries. Sustainable development will require global investment of $5 trillion to $7 trillion per year. (i.e. similar impact of fossil fuel subsidies)

When signing the Fossil Fuel Subsidy Reform Communique last year Mark Wilson said,
"Climate change is arguably the world's most critical contemporary market failure. It has significant consequences for people, the planet and the profitability of a broad range of companies – including insurers. Fossil fuel subsidies fan the flames of this market failure. We believe the subsidies should be phased out as soon as possible. We are proud supporters of the Fossil Fuel Subsidy Reform Communiqué."
We are now investigating what we can do to further support this area and are working with the Overseas Development Institute (ODI), who has been working on the issue of fossil fuel subsidies since 2012. In turn they work in coalition with Global Subsidies Initiative (the Secretariat for Friends of Fossil Fuel Subsidy Reform Communiqué).

At the end of June they launched a G20 Statement and suggested commitment to be included in the outcome of the G20 Summit in September, although +200 civil society organisations had signed it, they had not approached the corporate or investor community. Working with them we have now signed a further statement endorsed by investors prior to the Summit. Mark Wilson is quoted in the press release.

'Making a profit is essential in business. But we will only be in business in the future if we act sustainably and create wider long term social value. That's just good business – and not acting sustainably is very bad business indeed.

'Climate change in particular represents the mother of all risks – to business and to society as a whole. And that risk is magnified by the way in which fossil fuel subsidies distort the energy market. These subsidies are simply unsustainable.

'We're calling on governments to kick away these carbon crutches, reveal the true impact to society of fossil fuels and take into account the price we will pay in the future for relying on them. Energy subsidies should instead be used to create a sustainable future through the social, environmental and economic objectives set out in the UN Sustainable Development Goals.'

3) Aviva is represented on the Financial Services Board Taskforce on Climate Disclosure by Steve Waygood. The Taskforce reports its recommendations at the end of 2016 – see Principle 1.1 -6

4) Maurice Tulloch has been appointed to the steering Group of the World Bank's Insurance Development Forum – see Principle 3.4-3

2.2 Promote and actively engage in public debate on climate change and the need for action.

1) Aviva and Aviva Investors needs a stable public policy framework on climate change so that we can assist our customers to manage climate risk, and invest for the long term in supporting a low carbon economy. The physical and economic risks of climate change will play out over a long time horizon. However, as a true composite insurer we have to understand and anticipate today what the landscape could look like for us and our customers going forward.

2) Last June Aviva, along with about 30 other insurers completed a survey on Climate Risk from the Prudential Regulatory Authority, the authority which is responsible for the safety and soundness of 1,700 financial firms. We responded on a group wide basis, as climate risk impacts different areas of our business in different ways. We followed this up by hosting the first of the PRA/ClimateWise private roundtable discussions on focused areas of climate risk for insurers and had representatives from relevant areas of the business at all three of the roundtables. We have public disclosed our PRA response and consider that other insurers should do likewise and/or that ClimateWise should prepared a report (anonymised, if necessary) to provide an overview of the sectors' preparedness. (Please see 1.2 for further detail)

3) In February 2015, Aviva representatives attended the Fédération Française des Sociétés d'Assurances COP21 working group. The FFSA had been asked by the French government to co-ordinate a response from European Insurers to the COP21 in Paris in December. Other insurance association stakeholders are now involved in this work which will continue through to the COP, and beyond. Aviva's Chairman Sir Adrian Montague spoke on a panel on 'Putting regulation to the test' at the FFSA Climate Change conference. The panel was moderated by Michael Butt, Chairman of AXIS Capital Holdings Limited, and comprised of Gabriel Bernardino (EIOPA), Felix Hufeld (BaFIN), Yoshihiro Kawai (IAIS), Denis Kessler (SCOR).

4) Aviva was one of the original member companies of the CBI's Energy & Climate Change Board which was set up in 2007 to work with the government, providing a business view to areas of essential policy framework. Our new Group Chairman – Sir Adrian Montague now (June 2015) represents Aviva on this board, bringing with him his vast experience of the issues being discussed – both an energy and low carbon investment standpoint. In January 2016 the CBI sent an open letter to the Dept of Energy and Climate Change Secretary of State on the UK Government's approach to climate change on a domestic level, calling for clear leadership and a stable energy policy. Aviva's Chairman signed the letter on behalf of Aviva plc.

5) In January 2016 as part of Aviva's submission to the Environmental Audit Committee Inquiry into Flood we provided perspective on the recent floods in respect of the 2015/16 UK floods including:

Our actions:

- Our claims people were on the ground in Cumbria on the day of the floods ready to assist our household and business customers as soon as the water receded. We worked with and supported the rescue centres to get to our customers even if we could not get to them in their homes. So in Cumbria, one month into the restoration process …98% homes stripped out; drying underway in 92% and drying process completed in 18% already. This meant Aviva started the reinstatement work due to our swift initial actions as drying can take in excess of four weeks.

- For the first time Aviva used drones in York, Carlisle and Kendal. This was to initially identify customers who have not yet claimed so we can proactively contact our customers. Also to assess the damage and work in unison with our claims assessors on the ground to manage resources.

Aviva supports the Government making grants available for resilient and resistant repairs for both households and businesses. We are working with our customers and the local authorities to ensure the grants are used to best effect as we already carry out similar cost neutral repairs. It is important that the grant process is as simple as possible to ensure good take up of the Government schemes.

Aviva believes that grants should be available to all high risk properties, not just those who have suffered from flooding, so that preventative action can be taken before the next event.

Aviva is also working with Business Emergency Recovery Group (BERG is part of the Princes Trust) to help businesses get back on their feet and trading as quickly as possible.

Insurance against flooding is paramount but we should not underestimate the impact on people's health of flooding, as well as the loss of irreplaceable personal possessions.

We also made pledges to household and business customers that had been flooded.
For household customers:

- Aviva will always renew on a flood claim that has been repaired by us.
- From the 4 April 2016, Flood Re will provide access to affordable flood insurance. We expect most customers affected by flooding to benefit from this through the availability of reduced premiums within the insurance market. So high risk flood customers will be able to shop around for the first time in many years for their household insurance.

For business customers:

- Aviva will continue to renew our existing small business customers.
- Ensure that our small business customers do not receive excessive increases to their current premium.
- For customers with excesses above £350, we will not increase the flood excess at the first renewal following a claim.
- Renewals for larger businesses will be assessed on an individual basis. Through our Risk Consultant teams we will also provide greater awareness on flood resilience, tangible flood risk management & flood prevention solutions.

In June 2016, Iain Hamilton Aviva UK GI 's Head of Pricing and Underwriting appeared before the UK Parliament's Environment, Food and Rural Affairs Select Committee – the only insurer to be asked to do so. Here is his blog about the flood issues he was discussing with them.

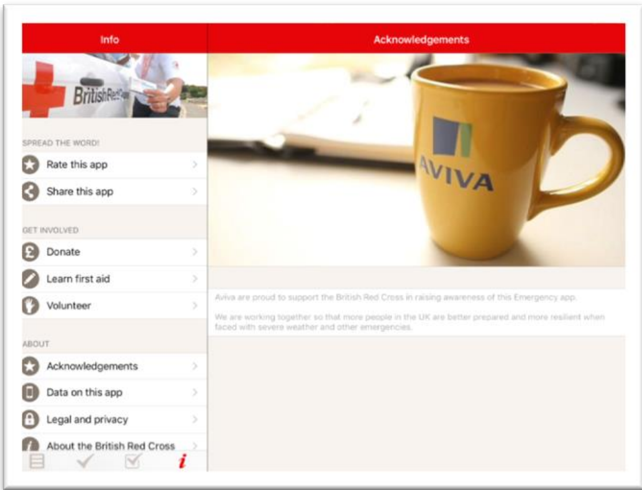
6) In June 2016 Maz Moini VP Commercial Lines and Reinsurance - Aviva Canada highlighted the fact that 43% of Canadians still don't know if their home coverage includes overland flooding.

3. Support climate awareness amongst our customers

3.1 Inform our customers of climate risk and provide support and tools so that they can assess their own levels of risk.

1) Further to our work on flood prevention immediately prior to the 2013/14 winter floods (reported last year) we continued to work with customers who had been flooded. We made customers aware of the £5,000 government grant in respect of flood resilient measures that could be installed; the take up of the grant was varied greatly depending on the Local Authority application process. The Government reported that this total grants allocated was £11.5 million to 2,300 buildings.

We still have colleagues working with our customers in Somerset following the floods, no longer dealing with the immediate loss, but the long terms effects of flooding on the community. We are working with Bristol University to understand more fully the wider implications to our customers that such a loss causes, and how the way in which those claims are handled can influence the longer term impacts of a flood event on our customers. After the 2007 summer floods, mental health symptoms such as anxiety and distress we two to five times higher among those who had been affected by flood water in the home, something that the Lancet report highlights as an issue and that we intend to do further work on going forward. Building on this work we have linked our experts in our Healthcare business and the British Red Cross, and in August we're beginning some psychosocial support training for frontline employees in dealing with flood claims.



2) In 2016 we launched our three year partnership with the British Red Cross to help communities around the world prepare for and respond to disasters and extreme weather events. The partnership aims to support communities vulnerable to natural disasters and help them be better informed and prepared for crises.

In addition, as a member of the Red Cross's Disaster Relief Alliance, Aviva aims to share its expertise in risk management to support the Red Cross in its work to minimise the damage done by disasters.

"Aviva and the Red Cross are both committed to helping people prepare for and cope with emergencies," said Kirsty Cooper, general counsel and company secretary for Aviva Group, in a statement. "Together, we will help communities become more resilient, safer and stronger in times of uncertainty and crisis." One of the first activities was to sponsor their Emergency Response app which provides severe weather warning flood warnings at a local level. A large number of customers downloaded the app and used it in the flooded areas of Cumbria and Yorkshire.

3) During the UK flood event Aviva provided vital information via the local press to ensure our customers were aware of what they could do and how we could help.

- In 2015/16 Aviva UK dealt with just over 2,000 property flood claims
- Flooding is consistently the highest single claim cost followed by major fire claims

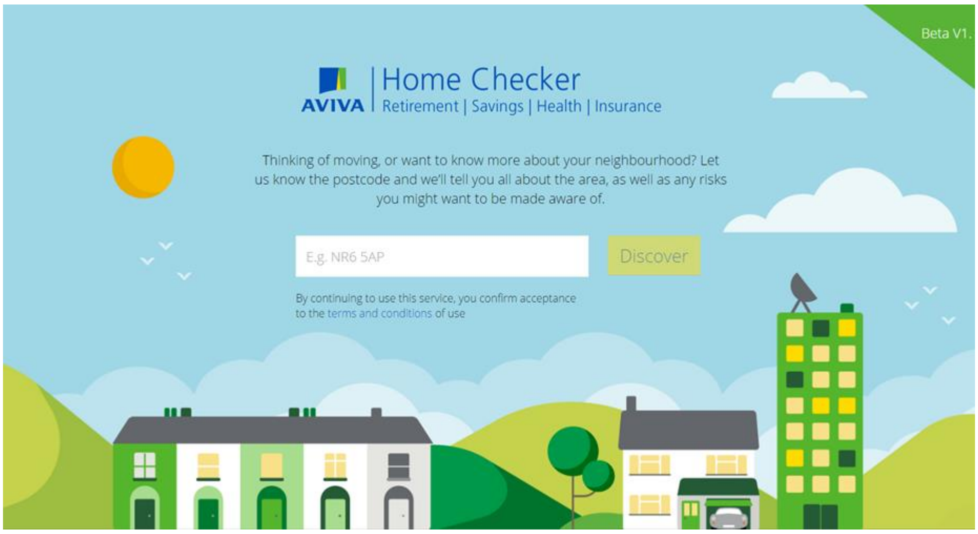
4) Together we are taking a leadership role in encouraging Canadians to take steps to better protect themselves from the increasing

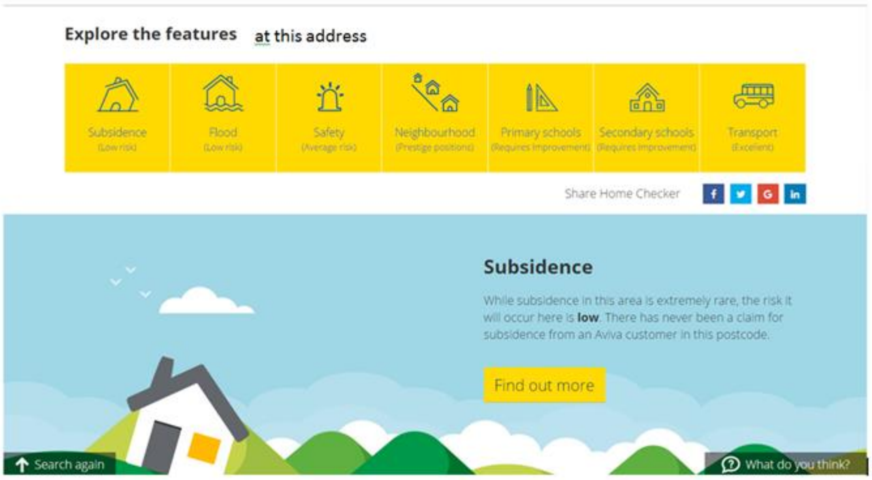
In Canada, beyond financial support, our employees and broker partners are being trained to be ready to respond in times of disaster through our partnership with the Canadian Red Cross' Ready When the Time Comes programme. Aviva Canada has become the first insurance company to join as National Corporate

Partner of the Canadian Red Cross committing over $500,000 to the partnership over the next three years.

Ready When the Time Comes recruits and trains corporate employees as disaster volunteers to provide assistance following natural disasters. Not only does this programme provide the Red Cross with much needed volunteer capacity during large-scale disasters, it also allows organizations like Aviva Canada to build stronger relationships, leadership, and motivation among their own teams.

5) In May 2016 Aviva UK launched a new [Home Checker app]() to the public for people who are thinking of moving, or want to know more about a new neighbourhood. Using the postcode the app will provide information about the area, as well as any risks which someone would might want to be made aware of. These include details on flood and subsidence.





3.2 Encourage our customers to adapt to climate change and reduce their greenhouse gas emissions through insurance products and services.

1) In Aviva Canada, further to the endorsements that we made available to household customers in respect of coverage for domestic Solar PV and wind through our Green Home Power – discounted coverage for customers who choose solar panels and wind turbines to generate electricity. Two years ago we

launched a new policy endorsement available to all household insurance which, on reinstatement upgrades the damaged items from new for old to the most energy efficient through Green Assure – customers can do their part for the environment by replacing damaged items with eco-friendly replacements (for example, bamboo/cork flooring and energy star appliances), replacing a broken double-glazed window with a tripled-glazed argon-gas filled unit, improving insulation and therefore reducing future household emissions.

We researched the potential take-up of this endorsement prior to launch, and take up of this endorsement has continued to remain steady. Due to the commercial reasons this information has been reported to ClimateWise on a separate basis.

We also continue to provide Hybrid/ electric car discounted insurance cover to provide customers with get a discount for saving fuel and contributing to a greener planet.

2) Aviva Canada's Overland Water endorsement is the first Canadian personal insurance product that protects homeowners from the risk of damage from river, lake and urban flooding. This endorsement was available for New Business in ON and AB starting June 1,2015; in BC and SA starting August 1; in the territories starting August 15; in Manitoba and Atlantic Canada starting October 1,2015; and in Quebec starting April 5, 2016. It was available for Renewals in ON and AB starting August 1, in BC and SA on October 1, in the territories on October 15, and in Atlantic Canada and Manitoba starting December 1, 2015.

3) Aviva UK managed 2,000 claims alone as a result of Desmond and Eva. But we've also got a responsibility to protect homes and businesses from floods in the future. Aviva has long-campaigned for better flood defence funding, but defences alone is not going to protect all properties, not least because changes in weather patterns means more flooding in previously unaffected areas is likely. We continue encouraging our customers to have resilient and flood-resistant repairs which help minimise damage and allow them to be back in their properties sooner.

For instance, one of our customers found themselves flooded out in December last year. But because their home had been fitted with resilient measures, this helped them to be back in their home by February 2016, just two months after the flood. Aviva has carried out cost neutral resilient repairs for many years – but take-up by customers remains low.

3.3 Seek to increase the proportion of non-life claims that are settled in a sustainable manner.

1) Building on the work we have done in previous year on repair over replace in respect of our motor accident repairs, we have continued to work on the challenge of making our claims processes more sustainable. Last year we turned our attention to household claims on innovations that improve customer satisfaction, manage cost and reduce environmental impacts of the processes employed. We have worked closely with our suppliers, including training in our call centres so that we can ask the most appropriate questions of our customers when they notify us of a new claim. Giving one example: in our carpet restoration process, the level of successful cleaning of carpets increased from 10% to 76%. We are seeking further ways to measure the reduced carbon impact, and improve on the number of overall claims settled in a more sustainable manner.
Building on the more sustainable claims process that was in last year's response, we are now working with the Carbon Trust to measure the carbon reduction of the 'average' water, fire and carpet claim

being dealt with through the new process, and comparing these to the examples that were created as a result of the ClimateWise Sustainable claims workstream from the other year.

- We deal with an average of 22,000 water-related claims per year i.e. escape of water/ burst pipes/ flood perils at an approximate cost of £95 million
- We have a much smaller number of fire claims per year – 1,500 at an approximate cost of £33 million per year.

We have now rolled out our new more sustainable claims management process so that all property claims are dealt with in a more sustainable way, with no change of policy wording or new policy. We are able to do this by working with our three main claims damage management suppliers – Belfor, Revival and Disaster Care Platinum on a collaborative basis. We will communicating the results of this work later this year, but we believe that further improvements can be made to the benefit of our customers, further improving our satisfaction results, whilst reducing the environmental impact. (See also 5.1 & 3.2)

In April 2016 The Carbon Trust completed their research into the carbon reductions made in respect of systems thinking creating more sustainable claims processes. The Carbon Trust carried our a piece of research into the way our category 3 water claims and carpet claims are now dealt with following a systems thinking approach.

The research indicates that we have saved 7,200 tonnes CO2e by changing how we process escape of water claims – a 43% reduction in carbon emissions per claim, and an estimated 400 tonnes CO2e by changing how we process carpet claims – a 35% reduction in carbon emissions per claim. In total, this is equivalent to 9% of Aviva's direct annual emissions (84,000 tonnes CO2e). Whilst restricted by data availability, we believe that the figures given are on the conservative side. Going forward we are working on the provision of more comprehensive data, and a further improvement in sustainable claims processes.

3.4 Through our products and services assist markets with low insurance penetration to understand and respond to climate change.

1) The majority of Aviva General Insurance business is in Canada and Northern Europe; as such we do not have the opportunity of providing micro-insurance products in developing countries from a GI cover. Aviva's presence in the markets with overall low insurance penetration is in respect of Life business lines. For example in India we provide affordable life insurance products to rural communities covering more than 3 million lives. (Please see the background of Aviva's business at the beginning of this response). However, as per 1.2 we are providing greater access to insurance covers that were previously not available, from private insurers. As the overland water protection was only launched in May 2015, and is being rolled out across the Canadian provinces this year it is too early to provide details of take up by our C. ½ million eligible customers.
In November 2014 our Chief Marketing Officer was seconded to work on the education/communication element of the Sustainable Development Goals being launched in September 2015. We will also see how our other areas of our business align to the SDGs, and again seek ways to measure our contribution to meeting these 2030 goals.

   Aviva's CEO, Mark Wilson addressed the UN General Assembly Plenary session calling for a number of actions including a UN Resolution on Sustainable Finance and Insurance. We continue to drive forward the calls made then and seeking agreement of such a resolution by September 2017. For the launch of the SDGs we also mapped the materiality of the 17 SDG goals and their sub-targets to Aviva's business.

2) In May 2015 the G7 Finance group committed to increasing access to insurance to as many as 400 million more people to access insurance cover against weather and climate risks by 2020. We continue to meet with DECC and DfID to discuss what role Aviva can play in achieving this target.

3) Maurice Tulloch has also agreed to join the Insurance Development Forum (IDF). This is a new external organisation whose overall objective is to extend the use of insurance-related facilities to protect developing countries against natural and man made disasters.

In 2015 global catastrophe losses totalled $92 billion, of which only $37 billion were insured; this leaves a staggering $55 billion of uninsured losses which is commonly referred to as the protection gap. By driving change externally we can make a huge difference to the communities in which our customers and we all live.

The IDF, backed by the United Nations and the World Bank, aims to bridge this protection gap by coordinating efforts between the insurance industry, governments and development agencies. The initial focus of the group will be on the understanding of risk, regulation, risk sharing/transfer and resilience.

Maurice joins a long list of insurance executives in this group including; Bank of England governor Mark Carney, Lloyd's of London chief executive Inga Beale, Munich Re chairman Nikolaus von Bomhard and incoming Swiss Re chief Christian Mumenthaler. Axa's Denis Duverne and SCOR's Denis Kessler are also in the group, as are the chief executives of brokers Willis Towers Watson and Aon.

"Give the increasing exposure and risk of natural catastrophes, insurance cannot simply rely on a strategy of assessing and re-pricing risks. Taking this approach may ultimately lead to uninsurable markets, segments and lines of business and at worst lead to a undermining of our own industry's relevance and future.

We need to become more systemic in our thinking around climate risk and the challenges it presents. This means leveraging all of our resources in response and creating the types of partnerships that can lead to a meaningful and sustainable response to climate change. The IDF is a vehicle that supports this vision and I am delighted to be a member of the inaugural Steering Group"

Maurice Tulloch – Global Chairman GI.

The working groups for the IDF will cover:-

- Resilience Modelling and Mapping
- Reshaping Development and Mitigating Risk
- Risk Sharing and Transfer: Tech Advisory Facilities on Financial Protection
- Risk Sharing and Transfer: Microinsurance (including inclusive and impact insurance)
- Insurance Regulation and Resilience Policies
- Insurance and Resilient Investments (including Infrastructure)
- Insurance and the Humanitarian System
- Indicators and Development Metrics for Resilience and Insurance

4) As part of our British Red Cross partnership we are developing a climate resilience project in one of the developing countries in which we operate. We will be able to report on progress in next year's response.

5) We continue to investigate how our support of carbon finance projects aligned to the various goals. Going forward we will seek ways of further measuring that impact, beyond a 'lives improved' figure with others such as ClimateCare and the Gold Standard.

4. Incorporate climate change into our investment strategies

4.1 *Evaluate the implications of climate change for investment performance and shareholder value.*

1) As a major asset manager, Aviva Investors sees both the risks and the opportunities that issues such as climate change present to our clients. This is why environmental, social and governance (ESG) considerations form an integral part of both our investment and research processes across all asset classes and all regions.

   This approach enables us to offer better quality, more risk-aware investment propositions for our clients. For us, it's about aligning our organisation and investment philosophy for the long term.
   We believe our industry has a fiduciary duty to do what we can to protect and enhance the value of client assets. This includes putting pressure on policymakers to address the key sustainability challenges within our capital markets and the broader economy.

   Aviva Investors is a long term, active investor. We aim to invest in a responsible and sustainable way, encouraging transparency, more sustainable business practices and good governance in the companies we invest in. This benefits our customers, by identifying and reducing environmental, social and governance (ESG) risks in our holdings, and in many cases benefits society and the broader economy by promoting more sustainable companies. The most up to date position can be viewed in Aviva Investors 2015 Review. We have a bespoke ESG integration approach (policy and process) and aim to have at least one nominated Responsible Investment Officer (RIO) for the relevant asset class or region. Our RIO network currently comprises over 30 fund managers, analysts and support functions with specified responsibility to work with our Global Responsible Investment (GRI) team of seven dedicated governance and responsible investment specialists, who seek to embed ESG data and analysis fully into each desk's investment process. Their activity includes working with the GRI team on the most appropriate use of ESG data and the development of integration tools.

   In February 2015, The Board Governance Committee approved a 5-year Low Carbon Investment Strategy which was launched on 24th July. This strategy builds on work which already in train around increasing investment in low carbon infrastructure, engagement with policymakers, engagement with companies consistent with a low carbon future, further integrating climate change issues in our investment decision making, and if/when engagement with a limited number of highly carbon intensive fossil fuel companies using divestment as an option on a balanced and proportionate basis. Again, the most up to date position can be viewed in Aviva Investors 2015 Review – page 21

   This strategy goes hand in hand with our continuing research we commissioned from the Economist Intelligence Unit on the Value at Risk from Climate Change to investments, pensions and long term savings.

2) The French Energy Transition for Green Growth Law (or Energy Transition Law) was adopted in August 2015 and came into force on 1st January 2016. Article 173 of the Energy Transition Law strengthened mandatory carbon disclosure requirements for listed companies and introduced carbon reporting for institutional investors. Aviva France will be subject to the additional reporting requirements under Article 173 and the first report, covering the period from 1 January 2016 to 31 December 2016, must be published no later than 30 June 2017.

4.2 Incorporate the material outcomes of climate risk evaluations into investment decision making

1) At Aviva Investors, we believe that fiduciary duty requires that when we are made aware of an issue we must act and in a manner that is in the best interests of our clients.

Our ESG heat map is our key integration tool. It includes a range of material ESG data and analysis, including our governance analysis, which is based on our historic voting record for the individual stocks in which we invest. This is available to all investment teams through the financial data provider Bloomberg. The ESG heat map is supplemented by additional fund manager and analyst briefings, provided before company meetings, votes or investment decisions. These briefings draw on our heat map and more detailed independent ESG data and research. This includes ISS-Ethix, MSCI and Vigeo Eiris.

We use this research, the expertise of the team, bespoke research commissioned from brokers and research organisations, and additional information from less conventional sources such as NGOs and civil society to build up a rich picture of how the ESG issues impact the businesses and other asset classes in which we invest. ESG features in our cross-asset class quarterly House View, which represents the collective thinking of all teams across the investment floor. Themes this year included:

- The rising tide of cybercrime
- Weakening voting rights in Europe
- Aggressive accounting practices in Asia on the rise
- El Niño – macroeconomic impacts
- COP21 – Global support for carbon pricing

" ESG issues are frequently overlooked by the market until it's too late. We focus on building risk-informed portfolios and consider ESG issues to be a valuable part of this process." Ian Pizer, Head of Investment Strategy

Clearly, climate change is one such issue. Failing to acknowledge, address and mitigate the significant economic risks raised by climate change means a failure to meet our fiduciary duty. As such, investment managers should be required to act in order to mitigate the consequences of climate change. Our strategic response to climate change highlights our commitments.

- Investing in low carbon infrastructure – Aviva Investors has renewable infrastructure investments totalling approximately £400 million.
  We announced further plans on this in July committing to target a £500 million annual investment in low-carbon infrastructure for the next five years; alongside financial returns on our investment we have set 'carbon returns' of associated 100,000 tonnes of CO_2 annually.

- Continuing to challenging policymakers to address climate change and support a lower carbon future – climate change is a market failure and requires government action to correct. For as long as there is money to be made by extracting oil, gas and coal, companies involved in those activities will continue to do so - despite the long term consequences for the environment, society, and the economy. We therefore focus resources on government engagement.

- Engaging with companies to drive business strategies consistent with a lower carbon future – we are founding signatories of CDP and active members of the Institutional Investors Group on Climate Change. While engagement on business strategy is often complex and lengthy, we are confident we are making modest progress with a number of companies. We consider it our responsibility to act as engaged stewards of the companies in which we invest. In particular we are engaging with carbon intensive companies. One commitment from our new strategic response is to divest where necessary – we will divest highly carbon-intensive fossil fuel companies where we consider they are not making sufficient progress towards the engagement goals set. This decision will not be taken lightly and only where we believe that divestment is a balanced and proportionate response. We view divestment as a failure of the engagement process.

- Harnessing our existing ESG integration strategy to further integrate climate change into our investment thinking – we integrate a range of environmental, social and governance issues into our investment analysis and decision making. This includes consideration of carbon risk factors. We also commission research to better understand the risks of climate change.

- Offering choice – our investment platforms both adviser and direct to customer offers a range of funds c.3000 containing different assets including those underweighted in fossil fuels

- Our environmental, social and governance voting and engagement work has continued and strengthen over the year. We publish our voting effectiveness on an annual basis, but also on an individual company voting results three months after the each AGM.

  Again, the most up to date position can be viewed in Aviva Investors 2015 Review – page 21. We will provide a summary position one year on from the launch of the strategy and then include it in our fuller reporting cycle.

We have a long track record of successfully engaging across a range of sectors and on a number of different issues over two decades. In line with the UK Stewardship Code, we are strong supporters of engagement and are mindful of our role as active and responsible stewards of the companies in which we invest. In 2015, we voted on 1,075 shareholder resolutions. We supported a significant number of these (61 per cent in total) resolutions because they provided compelling reasons on proposals seeking to improve company ESG practices. For example, they included requests for companies to report on how they are reducing their greenhouse gas emissions, their human rights policy and related risk assessment, and appointment of an independent chairman.

2) We incorporate all the research and climate risk evaluation into investment decision making. One funding tool which we continue to be involved in developing is environmental bonds. The development of green bonds as a legitimate funding tool to attract significant mainstream investment in climate change initiatives is extremely welcome. Green bonds typically focus on financing low-carbon energy generation, energy efficiency in buildings, industry and transport as well as broader environmental investments, such as forestry or water and waste, which incorporate an element of climate adaptation. The market has grown rapidly in recent years and this trend is likely to continue for a number of years.

   Aviva Investors is playing an active role in developing the green bond market by investing in themes such as those described above across a range of our funds. Indeed, where the bond's characteristics are comparable and we are presented with a choice, we will generally opt for the green bond. Increased standardisation is critical to the growth of this asset class.

We are working with issuers and policy makers to ensure the momentum behind green bonds continues apace and issues such as standardisation are addressed.

From the perspective of a mainstream fund manager it is important to recognise the important role that green bond standardisation could play, particularly with 64% of our asset base being fixed income. For the sake of the green bond market, the move towards green bond standards is very clearly a positive step.

3) In September 2015, Aviva Investors signed the Montreal Pledge which seeks to measure the carbon footprint of investment funds. In November 2015 we had reported that we had measured the carbon footprint of four funds.

4) In August 2015 Aviva Investors flagged concerns over the Carmichael coalmine in Queensland Australia, which we said could become a "stranded asset" and was "the antithesis of what was needed" ahead of key UN climate talks in Paris in December. We "sought assurances" from Standard Chartered, the UK bank which subsequently withdrew from its advisory role to Adani over the project.

5) In May Aviva investors along with other investors declared support for climate change resolution at ExxonMobil's AGM. We actively supported the shareholder special resolutions on 'Strategic Resilience for 2035 and Beyond', which were proposed at the BP and Shell, and later Statoil, AGMs. We attended both the BP and Shell AGMs in support of the resolution and to question the Board. We have co-filed similar 'Strategic Resilience' resolutions for the 2016 AGMs of Anglo American, Glencore and Rio Tinto.

6) Aviva Investors currently manages global real estate assets in excess of £29 billion and already has extensive holdings in Europe as well as a growing presence in North America and the Asia-Pacific region. We are members of several sustainable real estates management groups in the UK. Last year we put two of our property fund through GRESB - the global real estate sustainability benchmarking process. The 2015 Global Real Estate Sustainability Benchmark (GRESB) assessed the sustainability credentials of over 700 property companies and direct equity funds, representing 61,000 assets and USD 2.3 trillion in value. Of the 17 funds Aviva Investors submitted, 10 were awarded the coveted 'Green Star' and were in the top half or better of their respective peer groups. In 2016 we are submitting 15 funds to the benchmarking process.

4.3 Communicate our investment beliefs and strategy on climate change to clients and beneficiaries

We believe that clients and beneficiaries should understand how companies shape our world and the fact that they themselves can be shaped by clients.

1) We responded to 8 customer campaigns with letters going to the CEO over the last year. The focus was mainly in respect of investment considerations of climate change and low carbon investment, living wage, corporate lobbying and executive remuneration. In all we have received over 292 emails through the campaigns, and an additional amount of interest in our Investor Centre. We have had a number of very complimentary responses to the information provided.

Customer campaigns	no. of emails
Low carbon economy	35
Engagement on renewable electricity	45
Living wage	61
Good Money week	16

Funding Corporate Lobbying	28
Exec remuneration	93
Fossil free pensions	14
Total	292

One of our customers wrote to us concerned about climate change and wanting to find out more about what Aviva's strategy is. One of his questions included questions on our alignment with the ClimateWise Principles – "As founder members of ClimateWise, Aviva are signed up to the principle 'Incorporate climate change into our investment strategies'. Within this how are you achieving the following?
(i) Communicate our investment beliefs and strategy on climate change to our customers and shareholders.
(ii) Encourage improvements in the energy-efficiency and climate resilience of our investment property portfolio."

2) In 2015 we added an ethical investment filter to the investment platform, so that customers can better choose what activities their investments support.
http://www.fundslibrary.co.uk/FundsLibrary.BrandedTools/AvivaConsumer
The definition of 'ethical' including a focus on low carbon as renewable energy generation in the ethical filter comes from the Funds' Investment Policy which is contained in the fund documents such as the Key Investor Information Document (KIID) which is available when customers invest into a fund – this is available on the platform to read/download.

   There are £8.2bn assets on the advised platform. Currently, there is £203m invested in a choice of 141 'ethical/SRI funds'

3) Last year we updated our Fund Governance document to include more detail as to how we govern adding new funds – At Aviva we believe that taking environmental, social and governance considerations into account can help us make better investment decisions. This is why Aviva explicitly takes responsible investment approaches into account when adding funds.

4) We send out an annual retail statement each January, this year the focus was on climate change. This document went to 110,000 Life customers.

Climate Change

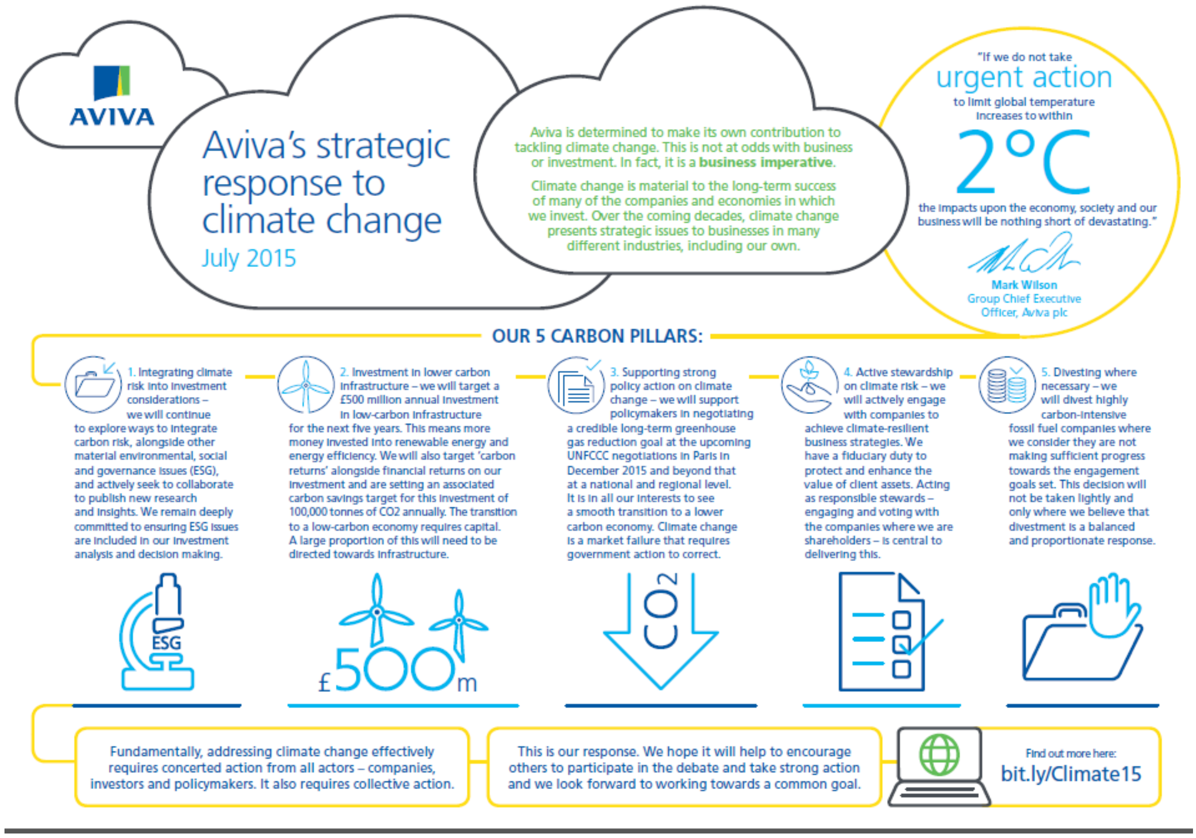
How will your savings weather?

The physical effects of climate change have the potential to significantly impact the value of all investments, across all geographies. While the companies in which we invest can be directly damaged by floods, droughts, severe storms or disrupted supply chains, as investors we can also be harmed indirectly, through weaker growth and lower dividends from the companies directly affected.

We identified five key areas where we will focus our attention:

5) Biannually, we send 30,000 investment brokers/intermediaries a survey – Aviva's Advisor Barometer to seek their view as to the most important aspects of our products for our end customers. Working with ShareAction members we are now including four questions around climate risk and impacts and the interest in the topic from customers.

6) In January 2016, our Life Iain Mclay, Senior Counsell - Retirement wrote an article in Pension World Magazine try to address the question of "Ethical investments for platforms and pension schemes – is this an idea whose time has finally arrived?"



5. Reduce the environmental impact of our business

5.1 Engage with our supply chain to work collaboratively to improve the sustainability of their products and services.

1) Building on our procurement work detailed in our previous years' submissions. This year we are a pathfinder company for the Carbon Trust's new Supply Chain Standard – this considers the quality of our supply chain-related processes from a carbon emissions perspective as well as seeking to baseline and reduces our supply chain emissions. This work is ongoing but we estimate that our current emissions baseline of our supply chain area is approximately 780,000 tCO_2e. In September 2015 we became the first insurer to achieve the Carbon Trust Supply Chain Standard, in recognition of work to measure, manage and reduce carbon emissions outside own direct operational control. We are now working to attain the second level of the accreditation.

2) Building on the research done in the ClimateWise Sustainable claims workstream, we have taken the new supply chain processes that we mentioned in last year's response, working with the Carbon Trust and our Claims restoration suppliers we have sought to measure the carbon reduction of the 'average' water and carpet claim compared to the examples that were created as a result of the workstream. The Carbon Trust's report found we have made a 43% reduction in carbon emissions per claim by changing how we process escape of water claims, and a 35% reduction in carbon emissions per claim by changing

how we process carpet claims. The improvements note only benefits the environment, but also has increased customer satisfaction and helped to contain cost.

5.2 Measure and seek to reduce the environmental impact of the internal operations and physical assets under our control.

1) We disclose the key environmental impacts of our business operations in detail through our new ESG data sheet.

   Our progress against our Environmental KPIs can be seen on the KPI table in our Annual Report & Accounts (page 312-313)

   From a 2010 baseline, we set ourselves an ambitious target to cut CO2e emissions by 20% by 2020, with a minimum 5% reduction each year. In 2014, we exceeded that target, achieving a 32% reduction well ahead of plan (ARA page 53).

   In 2015, with the purchase of Friends Life we restated our 2010 baseline to include the expanded operations and set a carbon reduction target of 40% in 2020 and 50% to 2030. By the end of 2015 our long term carbon reduction figure stood at 39%.

   So we are now just awaiting confirmation of an operational long term carbon reduction target aligned with the science-based targets using the 2 degree threshold (which helps companies determine how much they must cut emissions to prevent the worst impacts of climate change).

2) With renewable energy generation and energy efficient technologies reducing in price, trials proving the savings and therefore the ROI that such initiatives represent becoming clearer, over the past year we have undertaken a series of new projects to reduce our energy consumption and begin generating our own on-site renewable electricity supply. Attached is an extract from our 2016 CDP response which details the projects/initiatives we have and are undertaking to further reduce of CO2e emissions.

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Low carbon energy installation	solar panel installation - Norwich	92	Scope 2 (market-based)	Voluntary	36000	205000	4-10 years	21-30 years	Generation began in December 2015. Generation capacity 183.7 kWp. The three solar arrays will generate 445,520 kWh annually.
Low carbon energy installation	solar panel installation - Perth	52	Scope 2 (market-based)	Voluntary	21000	140000	4-10 years	21-30 years	Generation began in December 2015. Generation capacity 114.4kWp.The three solar arrays will generate 445,520 kWh annually.
Low carbon energy installation	solar panel installation - Bristol	115	Scope 2 (location-based)	Voluntary	48500	272000	4-10 years	21-30 years	Generation began in February 2016. Generation capacity 243.7 kWp. The three solar arrays will generate 445,520 kWh annually.
Energy efficiency: Building services	Dublin LED project		Scope 2 (location-based)	Voluntary	98647		1-3 years	6-10 years	Savings in electricity consumption for eoy 2015 compared to 2014. kWh reduction 633,428.
Behavioral change	Installation of energy information dashboards - Dublin	86	Scope 1 Scope 2 (market-based) Scope 3	Voluntary	16000	5000	<1 year	Ongoing	http://www.utilidex.com/portfolio_page/aviva-employees-compete-to-save-energy-with-utilidexs-intuitive-technology/. saving of 10-15% achieved.
Behavioral change	Installation of energy information dashboards - Wellington Row, York	60	Scope 1 Scope 2 (market-based) Scope 3		13000	3000	<1 year	Ongoing	
Low carbon energy installation	Installation of LED lighting - York		Scope 2 (location-based) Scope 3				1-3 years	6-10 years	
Low carbon energy installation	Installation of LED lighting - Perth	303	Scope 2 (location-based) Scope 3	Voluntary	78000	151000	1-3 years	6-10 years	
Behavioral change	Installation of energy information dashboard - Perth	140		Voluntary	34000	5000	<1 year	Ongoing	
Low carbon energy installation	Installation of LED lighting - Sheffield		Scope 1 Scope 2 (market-based) Scope 3	Voluntary			1-3 years	6-10 years	
Low carbon energy installation	Installation of LED lighting - St Helens - London		Scope 2 (location-based)	Voluntary			1-3 years	6-10 years	
Low carbon energy installation	Installation of LED lighting - Bristol		Scope 2 (location-based)	Voluntary			1-3 years	6-10 years	
Behavioral change	Installation of energy information dashboard - Bristol	140	Scope 1 Scope 2 (market-based) Scope 3	Voluntary	3400	5000	<1 year	Ongoing	
Behavioral change	installation of energy information dashboard - Norwich		Scope 1 Scope 2 (market-based) Scope 3	Voluntary	3400	5000	<1 year	Ongoing	
Low carbon energy installation	Installation of LED lighting - Norwich		Scope 2 (location-based)	Voluntary			1-3 years	6-10 years	

3) With the installation of solar panels on three of our locations in the UK, this is the first year we have started to generate renewable electricity in the UK

4) Furthermore, we have once again this year completed the Asset Owners Disclosure project (AODP) Global Climate 500 survey, which focuses on climate risk management. We were ranked 22nd overall and second highest ranking insurance company by AODP. We were also ranked 58th in the NewsWeek Green Rankings. ShareAction ranked us at the highest performing auto enrolment pension provider in their recent report.

5) We have a three year contract in place in respect of purchasing carbon credits from renewable energy and energy efficiency community projects to account for our unavoidable carbon emissions. We have done some further work with ClimateCare to better understand the value of the community impact of the projects that we purchase carbon credits from. This year we have purchase another 80,000 credits from projects providing energy efficient cookstoves, low carbon irrigation, safe water, biogass, and wind energy.

5.3 Disclose our direct emissions of greenhouse gases using a globally recognised standard.

1) We publish annual Group performance data forCO2e emissions, waste and water consumption. Our carbon footprint boundaries identify the scope of the data we monitor and the emissions we offset. Our total operational carbon emissions for 2015 were 88,698 tCO2e.

Aviva plc – Global greenhouse gas emissions data			
Tonnes CO2e	2015*	2014	2013
Scope 1	19,112	20,031	21,787
Scope 2	49,595	46,231	56,842
Scope 3	19,991	17,662	26,688
Absolute CO2e footprint**	88,698	83,924	105,317
CO2e tonnes per employee	2.2	2.4	2.8
CO2e tonnes per GWP	4.05	3.87	4.78
Carbon offsetting ***	-88,698	-83,924	-115,889
Total net emissions	0	0	-10,572

Scope 1 – operational emissions from owned sources e.g. gas, vehicle fleet as part of product/service.
Scope 2 – operational emission from non-owned sources e.g. electricity.
Scope 3 – business activity emissions from non-owned sources – e.g. business travel, waste, water
*This includes Friends Life operations for the whole of 2015
**Limited assurance provided by PricewaterhouseCoopers LLP.
*** Carbon offsetting through the acquisition and surrender of emissions units on the voluntary market.

We report on all of the Greenhouse Gas (GHG) emission sources on a carbon dioxide emissions equivalents (CO2e) required under the Companies Act 2006 (Strategic Report and Directors' Reports) 2013 Regulations, which are material to our business operations. We report our emissions using the operational control approach as defined by our organisational boundary. We do not have responsibility for any emission sources that are not included in our business operations or included in our carbon footing boundaries. Our reporting follows the GHG Protocol Corporate Accounting and Reporting Standard, and emission factors from UK Government's GHG Conversion Factors for Company Reporting 2015. We use the Department for Environment, Food and Rural Affairs (Defra) latest factors that are annually revised for our emissions factors: http://www.ukconversionfactorscarbonsmart.co.uk/

We have used the two most appropriate intensity measures to our business CO2e per employee and CO2e per £ million GWP which are expressed in the table above. Aviva also reports on a number of our Scope 3 emissions which go beyond the requirements of the 2013 Regulations.

From a 2010 baseline we reset set ourselves an ambitious target to cut CO2e emissions by 40% by 2020 and 50% by 2030, with a minimum 5% reduction each year in 2015. We have achieved a 39% reduction well ahead of plan. This year we are looking at committing to Science-based targets going forward. Again we have had our data verified by Third Party Assurance providers.

2) Last September, through RE100 we committed to purchase 100% of our electricity worldwide from renewable sources by 2025. We purchased 62% (2014: 56%) of our electricity from renewable sources round the world. However, the UK Government conversion factors require that the CO2e element of UK renewable electricity should be reported as grid average. For our unavoidable remaining carbon

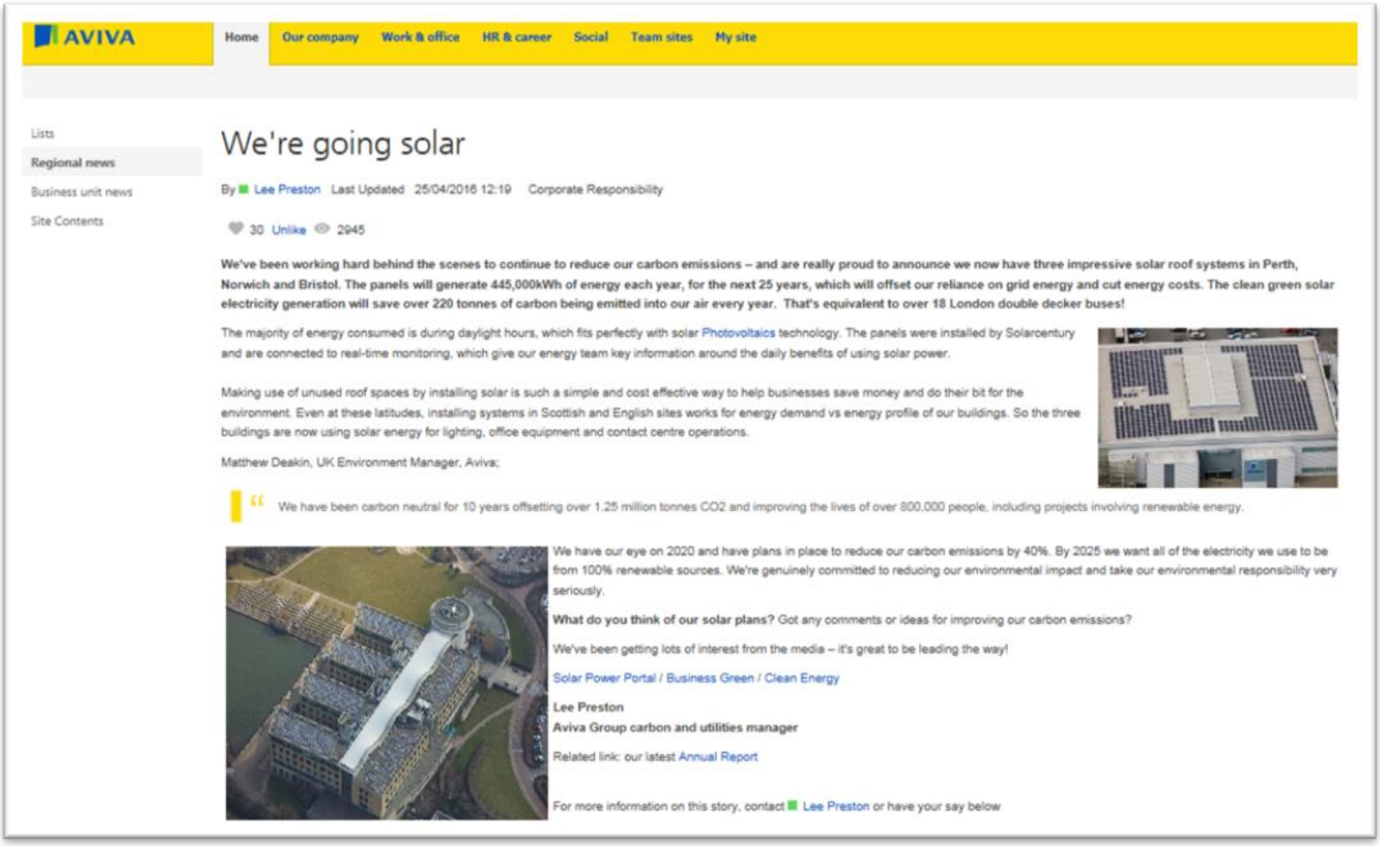
emissions we offset these to the value of 100% through the acquisition and surrender of emission units on the voluntary carbon market (VERs).

5.4 Engage our employees on our commitment to address climate change, helping them to play their role in meeting this commitment in the workplace and encouraging them to make climate-informed choices outside work.

1) We have focused further on engaging our employees in terms of communicating the issue, the risk and how Aviva is seeking to help address climate change. We had two big opportunities to engage employees on both the macro economics of climate risk – with a number of employees attending the launch of our Strategic Response to Climate Change, and also for Paris when we hosted the Energy & Climate Intelligence Unit post Paris event.

2) Our most effect communications channel in respect of employees is Aviva World, our intranet. For Paris we wrote a number of internal blogs which were then also put out publicly on our .com pages.

http://www.aviva.com/media/blog-the-aviva-blog/726/100-million/
http://www.aviva.com/media/blog-the-aviva-blog/730/fighting-climate-change-paris/
http://www.aviva.com/media/blog-the-aviva-blog/728/conclusion-getting-close/
http://www.aviva.com/media/blog-the-aviva-blog/729/its-definitely-hotting-up-in-the-right-way/
http://www.aviva.com/media/blog-the-aviva-blog/727/23-years-climate-summits-was-one-different/


AVIVA
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Lists
Regional news
Business unit news
Site Contents

We're going solar

By Lee Preston Last Updated 25/04/2016 12:19 Corporate Responsibility

30 Unlike 2945

We've been working hard behind the scenes to continue to reduce our carbon emissions – and are really proud to announce we now have three impressive solar roof systems in Perth, Norwich and Bristol. The panels will generate 445,000kWh of energy each year, for the next 25 years, which will offset our reliance on grid energy and cut energy costs. The clean green solar electricity generation will save over 220 tonnes of carbon being emitted into our air every year. That's equivalent to over 18 London double decker buses!

The majority of energy consumed is during daylight hours, which fits perfectly with solar Photovoltaics technology. The panels were installed by Solarcentury and are connected to real-time monitoring, which give our energy team key information around the daily benefits of using solar power.

Making use of unused roof spaces by installing solar is such a simple and cost effective way to help businesses save money and do their bit for the environment. Even at these latitudes, installing systems in Scottish and English sites works for energy demand vs energy profile of our buildings. So the three buildings are now using solar energy for lighting, office equipment and contact centre operations.

Matthew Deakin, UK Environment Manager, Aviva:

> “ We have been carbon neutral for 10 years offsetting over 1.25 million tonnes CO2 and improving the lives of over 800,000 people, including projects involving renewable energy.

We have our eye on 2020 and have plans in place to reduce our carbon emissions by 40%. By 2025 we want all of the electricity we use to be from 100% renewable sources. We're genuinely committed to reducing our environmental impact and take our environmental responsibility very seriously.

What do you think of our solar plans? Got any comments or ideas for improving our carbon emissions?

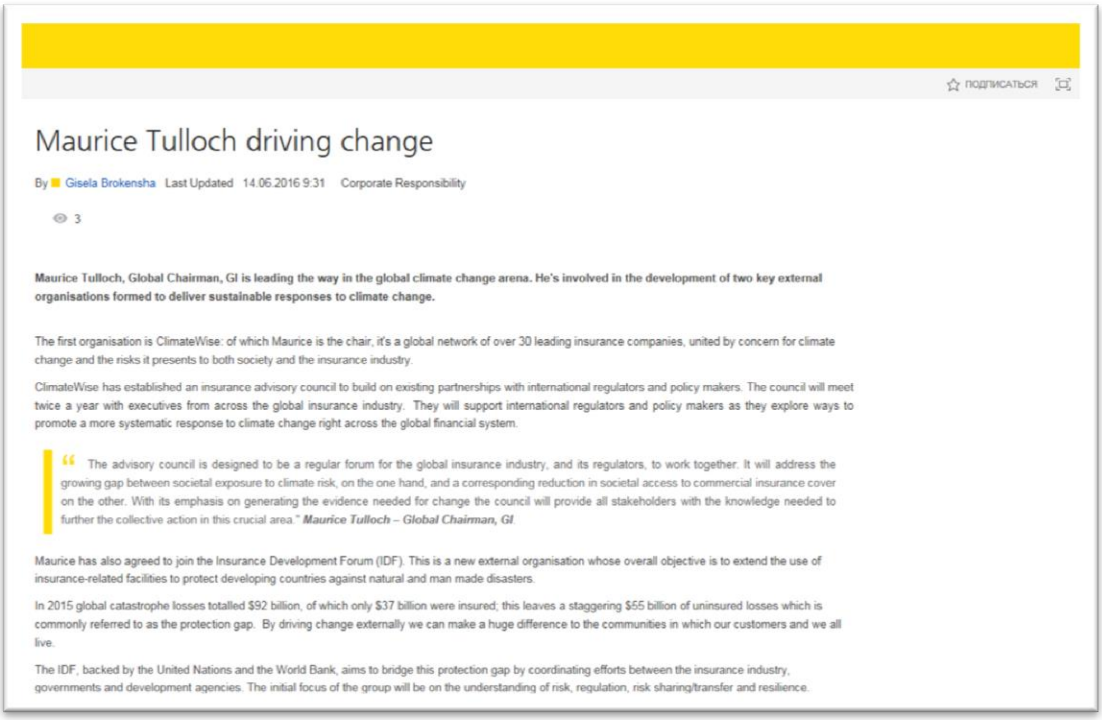
We've been getting lots of interest from the media – it's great to be leading the way!

Solar Power Portal / Business Green / Clean Energy

Lee Preston
Aviva Group carbon and utilities manager

Related link: our latest Annual Report

For more information on this story, contact Lee Preston or have your say below



ПОДПИСАТЬСЯ

Maurice Tulloch driving change

By Gisela Brokensha Last Updated 14.06.2016 9:31 Corporate Responsibility

3

Maurice Tulloch, Global Chairman, GI is leading the way in the global climate change arena. He's involved in the development of two key external organisations formed to deliver sustainable responses to climate change.

The first organisation is ClimateWise: of which Maurice is the chair, it's a global network of over 30 leading insurance companies, united by concern for climate change and the risks it presents to both society and the insurance industry.

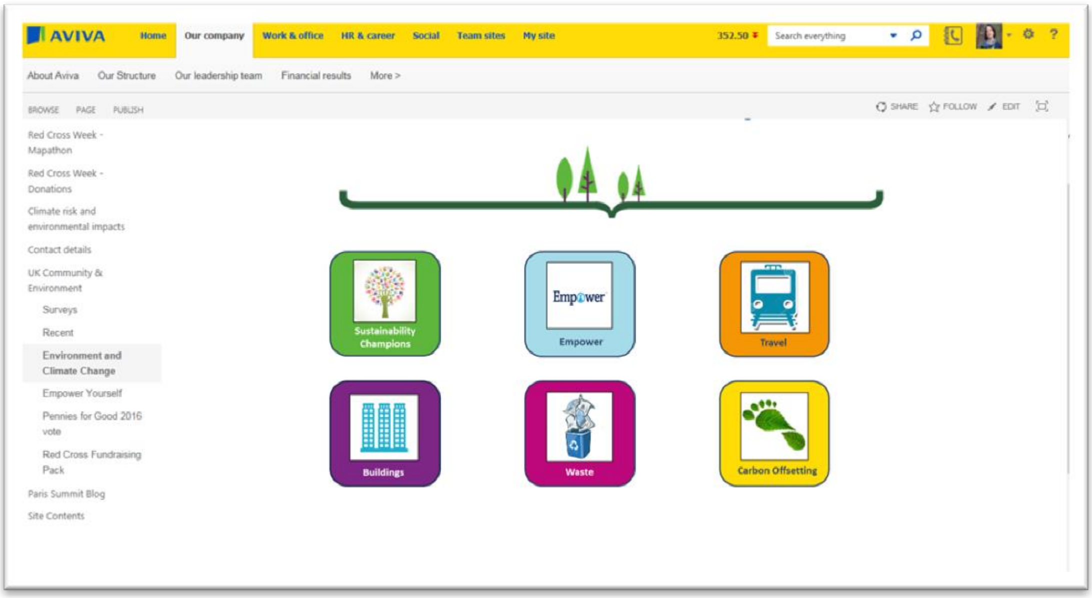
ClimateWise has established an insurance advisory council to build on existing partnerships with international regulators and policy makers. The council will meet twice a year with executives from across the global insurance industry. They will support international regulators and policy makers as they explore ways to promote a more systematic response to climate change right across the global financial system.

> "The advisory council is designed to be a regular forum for the global insurance industry, and its regulators, to work together. It will address the growing gap between societal exposure to climate risk, on the one hand, and a corresponding reduction in societal access to commercial insurance cover on the other. With its emphasis on generating the evidence needed for change the council will provide all stakeholders with the knowledge needed to further the collective action in this crucial area." ***Maurice Tulloch – Global Chairman, GI***

Maurice has also agreed to join the Insurance Development Forum (IDF). This is a new external organisation whose overall objective is to extend the use of insurance-related facilities to protect developing countries against natural and man made disasters.

In 2015 global catastrophe losses totalled $92 billion, of which only $37 billion were insured; this leaves a staggering $55 billion of uninsured losses which is commonly referred to as the protection gap. By driving change externally we can make a huge difference to the communities in which our customers and we all live.

The IDF, backed by the United Nations and the World Bank, aims to bridge this protection gap by coordinating efforts between the insurance industry, governments and development agencies. The initial focus of the group will be on the understanding of risk, regulation, risk sharing/transfer and resilience.



3) Such communications are adapted from English speaking countries to be picked up in markets throughout the group. Our intranet AvivaWorld is accessible to all employees on a worldwide basis.


Aviva Asia Pacific news
Aviva Europe news
Aviva Group news
Aviva Group Centre news
Aviva Investors news
Aviva North America news
Aviva UK GI news
Aviva UK Life news
Noticias de España
Imágenes

5 de junio, Día Mundial del Medio Ambiente

Jezabel Maroto Barrera

Última actualización: 09/06/2015 10:31

CSR

Hoy 5 de junio, con motivo de la **celebración del Día Mundial del Medio Ambiente**, queremos recordarte todo lo que puedes hacer en la oficina para protegerlo:

Recicla

Recicla papel: recuerda reciclar el papel en el contendor azul, nunca lo tires al contenedor negro. Estarás protegiendo el medio ambiente así como la información sensible de la Compañía, ya que todo el contenido del contendor de papel se destruye.

Recicla plástico: recuerda que el plástico es uno de los materiales **más nocivos para el medio ambiente**, por eso es tan importante reciclarlo bien. Deposita en el contenedor amarillo solo los envases de plástico, las latas y los tetra bricks. NO van en el contenedor amarillo los vasos de café de cartón plastificado, ni el papel de cocina ni las servilletas.

Recicla tapones: además de estar reciclando plástico, estarás colaborando con la iniciativa 'tapones solidarios para Vega', la hija de una amiga de nuestra compañera Elsa Guillén, quien compartió con todos esta historia y con la que no dudamos en colaborar a través de la recogida de tapones solidarios.

Ahorra papel

Recuerda que, siempre que puedas, es mejor no imprimir. Si tienes que hacerlo, minimiza el impacto **imprimiendo varias páginas en una hoja y siempre por las dos caras.** Además recuerda no imprimir la primera y la última página de la plantilla de presentación de Power Point de Aviva si vas a utilizarla para uso interno.

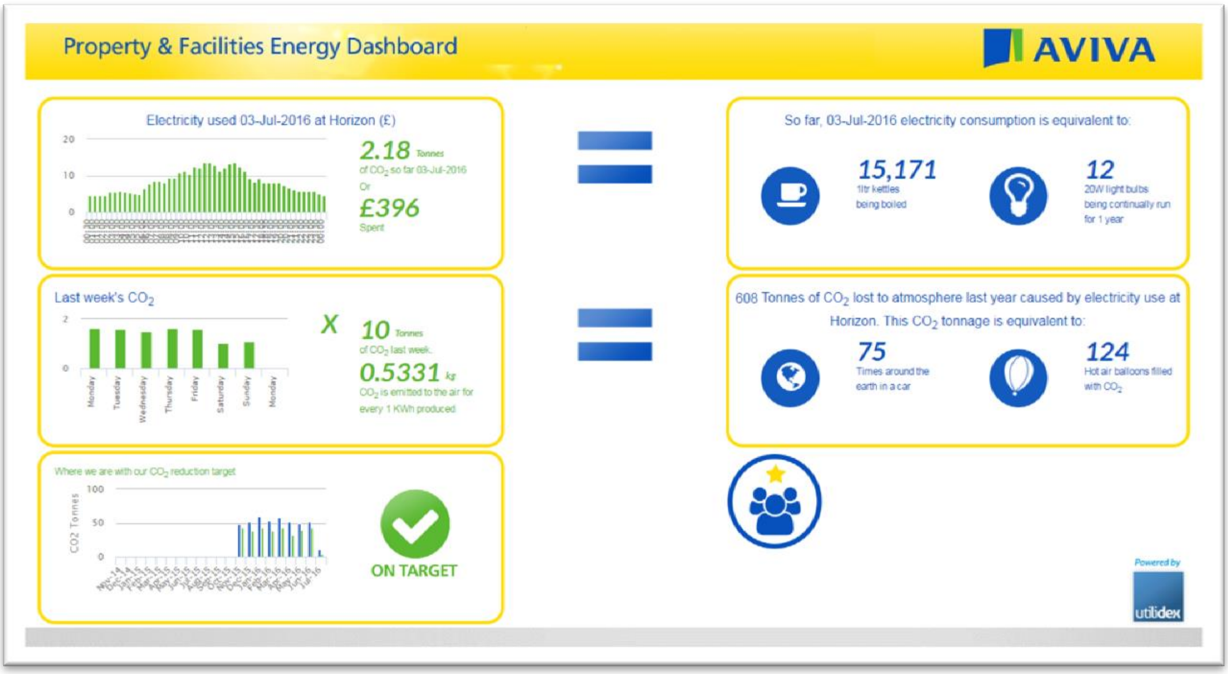
Ahora energía

Recuerda apagar tu ordenador y la pantalla al final de cada jornada. Un ordenador encendido, aunque no se esté utilizado, consume casi tanta energía como si estuviera siendo utilizado. No solo estarás protegiendo el medio ambiente al apagarlo, sino que también estarás evitando posibles problemas de seguridad y cortocircuitos.

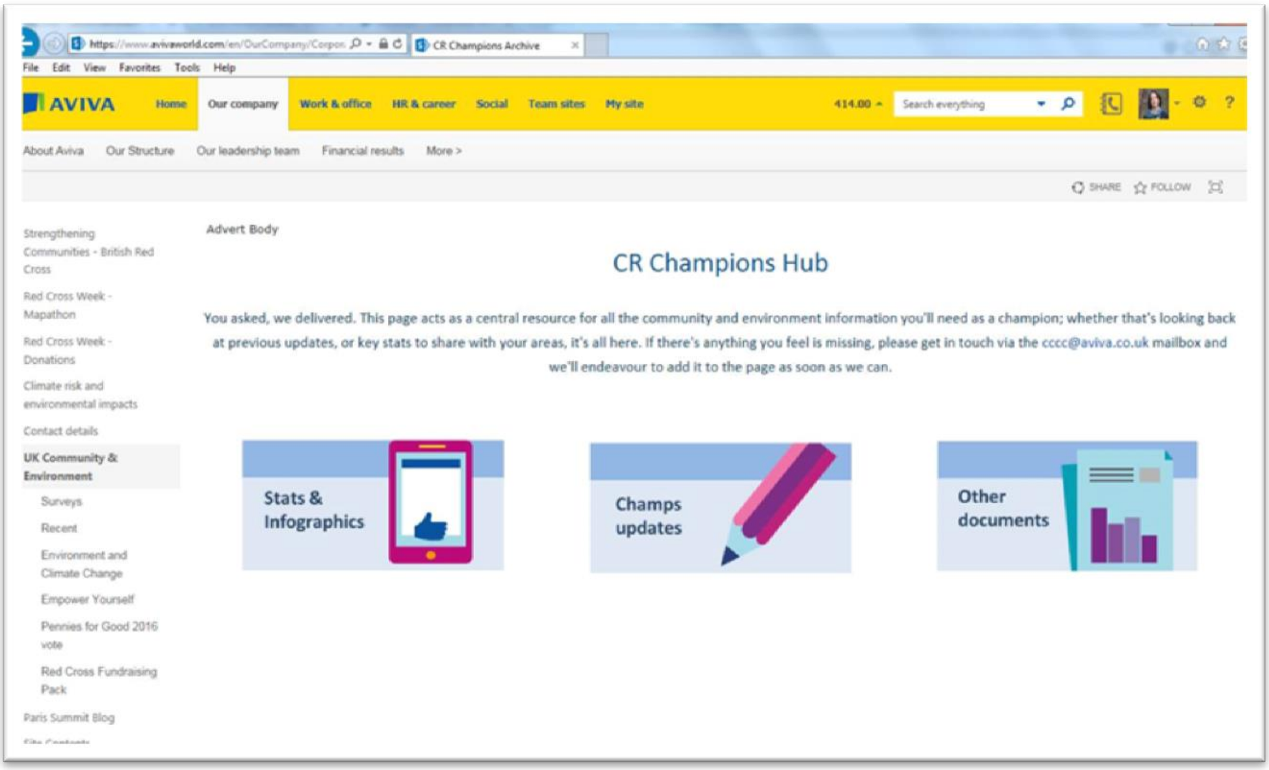
Apaga la luz siempre que no las estés utilizando, por ejemplo al dejar las salas de reuniones o al salir de la oficina si ya no queda nadie más.

Ahorra agua

4) Employees in our largest locations can now access energy dashboard for their location to see how we are doing on saving energy and carbon. This example is from one of our Norwich offices.



We also have 150 CR/Environmental champions in place across the UK locations that help disseminate information on what Aviva is doing or calling for on a group wide basis, as well as being a local contact for questions and local challenges. We ran two Champions' workshops this year to build knowledge and understanding amongst colleagues. The role is voluntary, but is formal in terms of having a role profile and included in the performance process.



6. Report and be accountable

6.1 Ensure that the organisation is working to incorporate the Principles into business strategy and planning by encouraging the inclusion of the social and economic impacts of climate risk as part of the Board agenda.

Overall responsibility for Aviva's corporate responsibility lies with Aviva's Group Chief Executive and the Aviva plc board. The Governance Committee's (page 95) key responsibilities are to:

- take a leadership role in shaping the corporate governance principles, culture and ethical values of the Group in line with the Group's strategic priorities
- oversee the brand and reputation of the Group
- ensure that reputational risk is consistent with the risk appetite approved by the Board and the creation of long term shareholder value
- oversee the Group's conduct with customers, including the regulatory requirements relating to treating customers fairly and offering of products and services that are fit for purpose and meet customer needs
- oversee the Group's conduct in relation to its corporate and societal obligations, including setting the guidance, direction and policies for the Group's customer and corporate responsibility (CR) agenda and related activities and advising the Board and management on these matters

CR accounted for 11% of the committee's time (5%:2014).

With climate change being highlighted again this year as an emerging risk in the 2015 Annual Report & Accounts, the Board Risk Committee will review, manage and monitor the risk as it may impact our ability to write profitable new business over the longer term. All emerging risks are assessed for their proximity and significance to Aviva via our embedded market and group emerging risks processes. The "Increased incidence of extreme weather events" risk has been assessed as 'less remote' therefore requiring regular analysis and its potential impact is considered significant at an Aviva level, though not over the current planning horizon. Emerging risks are assessed over longer time periods than the current business plan to ensure all risks to both the medium and long term future of the company receive appropriate attention.

Aviva continues to incorporate the ClimateWise Principles into business strategy and planning. Maurice Tulloch – Chairman of GI continues to be the Chair of ClimateWise. ClimateWise has established an insurance advisory council to build on existing partnerships with international regulators and policy makers. The council will meet twice a year with executives from across the global insurance industry. They will support international regulators and policy makers as they explore ways to promote a more systematic response to climate change right across the global financial system.

"The advisory council is designed to be a regular forum for the global insurance industry, and its regulators, to work together. It will address the growing gap between societal exposure to climate risk, on the one hand, and a corresponding reduction in societal access to commercial insurance cover on the other. With its emphasis on generating the evidence needed for change the council will provide all stakeholders with the knowledge needed to further the collective action in this crucial area."

Maurice Tulloch – Global Chairman, GI.

The French Energy Transition for Green Growth Law (or Energy Transition Law) was adopted in August 2015 and came into force on 1st January 2016. Article 173 of the Energy Transition Law strengthened mandatory carbon disclosure requirements for listed companies and introduced carbon reporting for institutional investors. Aviva France will be subject to the additional reporting requirements under Article 173 and the first report, covering the period from 1 January 2016 to 31 December 2016, must be published no later than 30 June 2017.

6.2 Publish a statement as part of our annual reporting detailing the actions that have been taken on these principles.

This document constitutes Aviva's 2015 response to the ClimateWise Principles and is the basis of our actions taken in continuing to address the issue of climate risk/climate change. We have not excluded ourselves form responding to any of the sub-principles.

Similar information is available in Aviva's Annual Report & Accounts, our summary Corporate Responsibility Report ESG Data sheet, as well as information on the Responsible & Sustainable Business section of our website.

However this report provides the level of detail which cannot realistically be included in other public reports that seek to cover a wider scope of information. This response is publicly available on our website with our previous year's responses.