

PLANET PROPOSITION

Sustainability Report 2014/15



In early 2013, Armstrong Fluid Technology embarked on a sustainability journey which began with the formulation of a charter titled the 'Planet Proposition'.

Armstrong's Leadership Board signed up to the charter and champions have been empowered at each of our global locations (Canada, USA, China, India, UK). The focus has been for the selected champions to communicate the aims and benefits of the 'Planet Proposition' program, and seek active involvement and commitment at all levels of the organisation.

Armstrong defines a sustainable business as an enterprise that measures its success based not only on economic gain but also on their achievements in preserving the environment and bettering humanity, particularly among our employees and the communities they call home. This approach integrates the three pillars of sustainability — the economical, environmental and social dimensions — and inspires the three key tenets of our Planet Proposition.

ARMSTRONGFLUIDTECHNOLOGY.COM



Contents

- 04 **Introduction**
About Armstrong
Sustainability in Armstrong
- 06 **Our Solutions**
Integrated Approach
Design Envelope
Off-site manufacture
- 08 **Our Environment**
Energy & water consumption
Waste & recycling
Certification
- 10 - 12 **Our Community**
Halesowen
Manchester
Bangalore
Buffalo
Toronto
Shanghai
- 14 **2015 Plans**
The journey forward
and our targets

INTRODUCTION

Armstrong Fluid Technology is a global organisation providing low and zero carbon solutions to the heating and comfort cooling sectors of the construction industry.

Since our founding in 1934 by Samuel Allan Armstrong, our company has pioneered an uncompromising range of products and solutions and has developed eight manufacturing facilities on three continents that serve customers in over 50 countries.

As a leading designer, manufacturer, installer and servicer of low carbon heating, cooling and pumping solutions, we provide a comprehensive service from innovative component HVAC products to fully packaged integrated plant rooms and energy centres. Our facilities feature advanced manufacturing processes and quality control, utilising sophisticated computer testing throughout the entire production cycle.

Thanks to Armstrong's worldwide capabilities and wealth of resources, we are able to deliver integrated energy solutions which provide return on investment, reduced capital expense and minimal energy costs for all non-domestic buildings, including schools and universities, hospitals, shopping centres, commercial and industrial properties.



Steve Cooper
Director of Sustainable Design:

The ideals of commercial success and responsible environmental stewardship are not diametrically opposed - on the contrary, they are inextricably linked. And it's upon this premise that Armstrong's Planet Proposition is born.



Sustainability in Armstrong

We are committed to making Sustainability the foundation of our business.



Our Solutions

By designing & supplying industry leading energy-efficient and eco-friendly fluid flow solutions, we help our customers reduce their energy consumption, save money and lower their carbon emissions.

At the beginning of 2013, Armstrong has embarked on a sustainability journey which started with the formulation of a charter called the Planet Proposition. The Leadership Board has signed up to this charter and Champions have been empowered at each of our sites in Canada, USA, China, India and the UK to communicate the aims and benefits of the programme and seek active involvement and commitment at all levels of the organisation.

Armstrong defines a sustainable business as an enterprise that measures its success based not only on economic gain but also on their achievements in preserving the environment and bettering humanity, particularly their employees and communities they call home. This approach integrates the three pillars of sustainability- the economical, environmental and social dimensions- and inspires the three key tenets of our Planet Proposition >

Our Environment

By applying stringent environmental standards to our operations, measuring our performance & continually raising the bar we're reducing our own consumption of valuable resources and making our plants a better and more comfortable place to work in.



Our Community

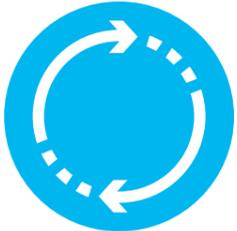
And by educating and supporting the Armstrong community (our stakeholders and neighbours) to make environmentally responsible choices at work and at home we're helping the community at large become more sustainable.



OUR SOLUTIONS

First and foremost, by delivering value to our customers, we aim to create a sustainable business which will continue to produce innovative energy saving solutions for the building services industry.

Utilising high performance equipment we ensure the system design, installation and maintenance deliver maximum efficiency to lower a building's carbon footprint and reduce first and whole life costs.



Integration is the Key to our Success

Armstrong is a leading provider of low carbon heating, cooling and pumping solutions. Our fully integrated approach consists of incorporating multiple systems in order to deliver high performance equipment to our clients while reducing first and whole life costs, lowering our carbon footprint and making the most of renewable technologies.

biomass boilers and solar thermals. It isn't enough to simply choose high performing products, or to add low or zero carbon technologies to an existing system and expect to minimise energy costs. In integrating these systems we consider a wide range of factors including the different optimum temperatures, part load operation efficiencies, variable versus fixed speeds and demand based control.

Armstrong systems are not formed through a collection of products brought together. Our expertise lies in manufacturing multiple systems such as gas-fired condenser boilers, heat pumps,

Design Envelope — Intelligent Variable Speed Pumps

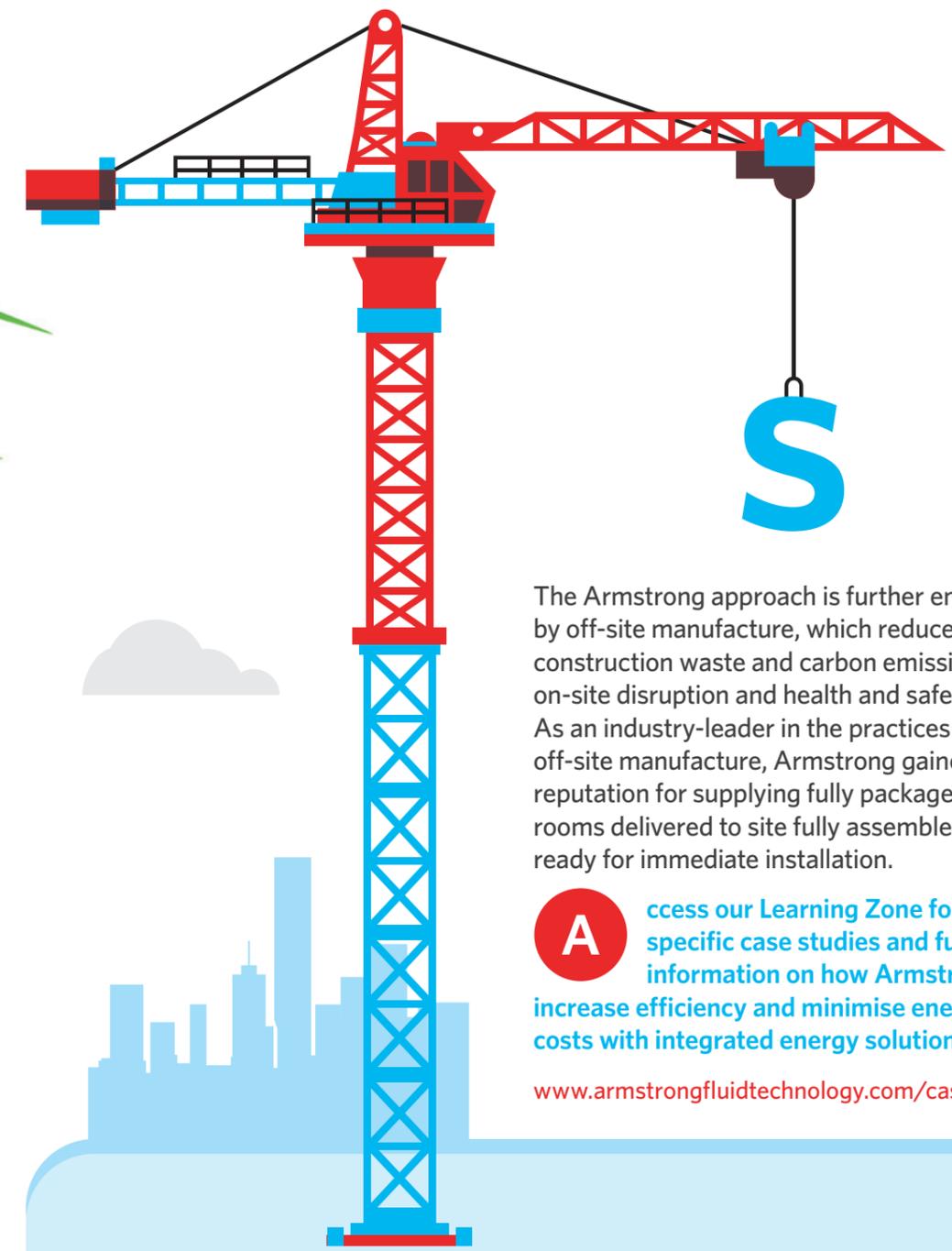
In 2009, Armstrong's Design Envelope Pumps were introduced as a complete solution for heating and cooling systems. At its core, the Armstrong Design Envelope is a new way of approaching equipment selections for HVAC systems which provides both greater efficiency and increased operational flexibility.

In 2013, we also launched our Sustainability Dashboard which displays the amount of energy, cost and CO2 we are saving our customers worldwide through our Design Envelope solutions.



IVS pumps reduce pumping costs through advanced integration of demand-based control with variable speed capability, consuming only the energy required, based on current system demand. As a result, clients enjoy substantial energy and cost savings and benefit from reduced carbon emissions.

Off-Site Manufacturing



The Armstrong approach is further enhanced by off-site manufacture, which reduces construction waste and carbon emissions, on-site disruption and health and safety risks. As an industry-leader in the practices of off-site manufacture, Armstrong gained a firm reputation for supplying fully packaged plant rooms delivered to site fully assembled and ready for immediate installation.

Access our Learning Zone for specific case studies and further information on how Armstrong can increase efficiency and minimise energy costs with integrated energy solutions.

www.armstrongfluidtechnology.com/casestudies

OUR ENVIRONMENT

We are committed to reducing the environmental impact of our operations. Company wide initiatives include efforts to reduce fuel use, energy consumption, water use and waste to landfill and to increase the proportion of waste that is recycled.



Energy & Water Consumption

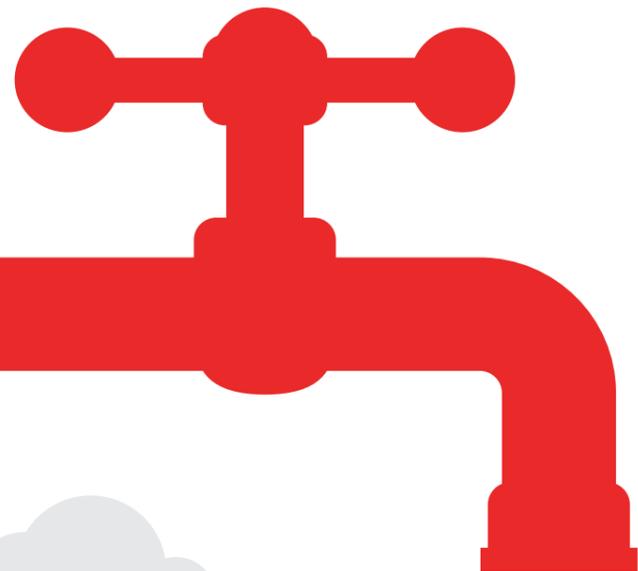
As part of our Planet Proposition, we are committed to reducing monthly electricity, gas and water consumption in our manufacturing plants around the world.

In 2013, we started using a programme of energy monitoring in all of our plants. This programme consists of data loggers on our gas, electricity and water meters feeding through our Eco-Pulse platform into a central display that shows current and historical consumption. This enabled us to trend patterns of use and to identify and fix anomalies as they occurred.

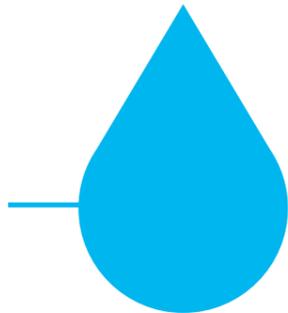
Success Story - Water consumption was reduced by 40% in 2014 at our facility in Halesowen

In 2014, we consumed 40% less water at our facility in Halesowen compared to the previous three years by recycling the water we use in the testing of the package plant rooms. After use, the water is stored in a large water tank and reused continuously.

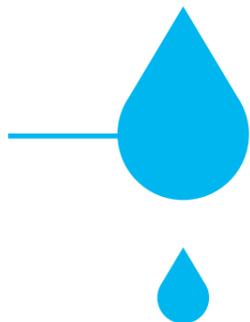
In addition, we recently installed a new system of bacterial filters in the gentlemen's toilets which prevents repeat flushing of the urinals.



Previous three years



40% Less water consumed in 2014



Waste Minimisation & Recycling

Reducing the amount of waste we produce and sending it to landfill only as a last resort is another key aspect of our Planet Proposition.

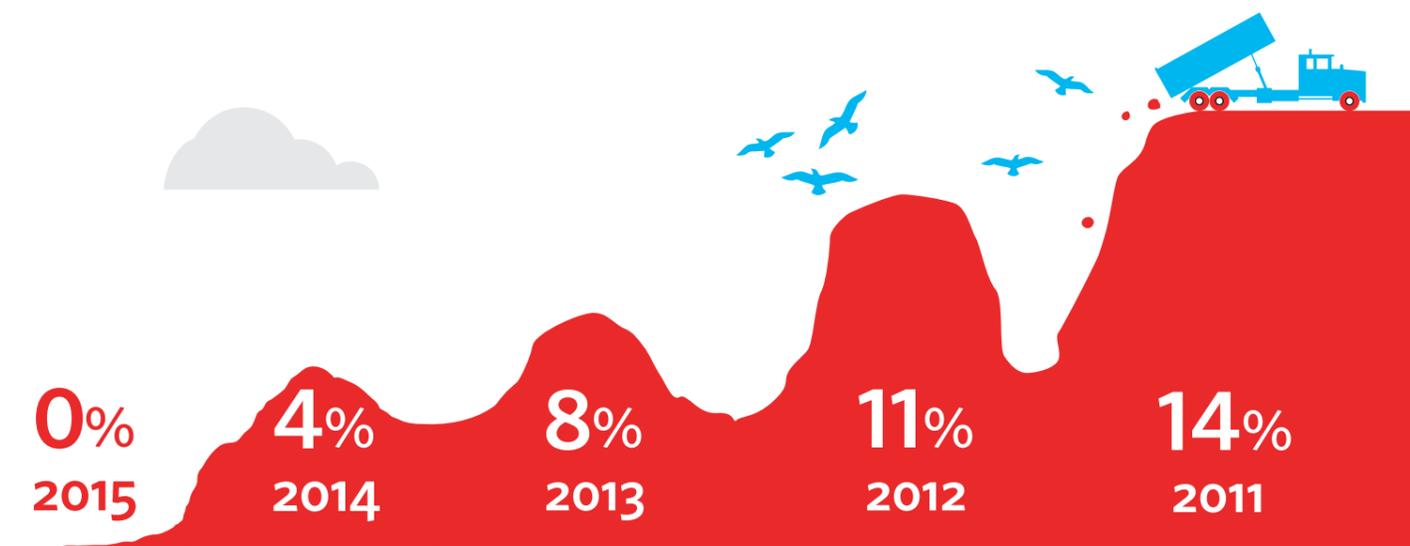
In 2013 and 2014 we have been monitoring on a monthly basis the amount of waste that was sent to landfill as well as what was recycled or used to produce energy. In order to support our target of reducing waste to landfill, the recycling facilities and waste segregation practices in our manufacturing plants and offices were closely analysed and improved.

As a result, we have significantly increased the amount of recycling in many of our facilities and achieved zero waste to landfill at our Halesowen site. In 2015, we plan to take a further step forward in this direction by making efforts to reduce the total amount of waste that we produce, including both recyclable and non-recyclable materials.

This initiative will help address the key environmental issues associated with resource and energy consumption.

ISO 14001 - Certified Production Companies

By the end of 2013, every Armstrong production facility around the world had achieved ISO14001 Environmental Management accreditation.



OUR COMMUNITY

Although reducing carbon emissions, eliminating waste, recycling and conserving water are all cornerstones of sustainability, enterprises should also treat people well, recognising the basic human dignity in everyone regardless of race, class or gender.

Halesowen

Old Park School is an all aged special school that provides an education for pupils with learning difficulties.

During 2013 and 2014, Armstrong Halesowen has raised £4,200 by organising a number of fundraising events such as football matches, cake sales, golf competitions and raffles. This amount was used to purchase a tree and rainbow sensory board which helps children find their way around the school corridors. This extremely rewarding experience not only engaged our employees with the cause, but also provided a great source of interaction and entertainment.



Armstrong Halesowen presents a £4,200 cheque to Old Park School for the acquisition of a rainbow tactile mural.

Thus, Armstrong aims to create a working environment that values, inspires and empowers our staff. Also, we understand that environmentally responsible behaviour is a key aspect of meeting sustainability goals so we are committed to promote sustainability both internally and externally to all our shareholders, customers, employees, suppliers and community.



Health and Wellbeing - In 2014, we launched the Employee Wellbeing Programme at our site in Birmingham. The format of this programme consists of organising four events every year on various health and wellbeing themes.

Our first event was the 'Eating for Energy' workshop where we invited a nutritionist to talk about food choices and their impact on energy levels throughout the day. The following events consisted of DIY on-site health checks, flu vaccinations as well as training on stretching and strengthening exercises for both manual workers and computer users.

Manchester

Poster Competition for local schools - In 2013, we organised an Eco-Superhero Poster Competition for local schools which invited children to create a poster showing their imaginary superhero who saves the planet by saving energy.



2013 Competition winners



Gail Force
Created by Winner,
Lexi Kilick.

Children were thus encouraged to think about energy conservation and sustainability. Each participating school received a free weather monitor and the six finalists were invited to an awards ceremony in London where the winner was announced.

Given the success of the event, this year we decided to organise a similar competition with the theme 'How the world will look like in 2050'. We received an impressive number of entries from various schools in the Manchester and Birmingham area.

The finalists were invited to the 'The Crystal' Museum in London where they also had the chance to visit the 'Sustainable Cities of the Future' exhibition.



Connell Sixth Form College Student Placement Programme with Armstrong Fluid Technology 2014.

In 2014, we have offered two placement schemes to a group of students from Connell Sixth Form College in order to help support their career development. Aiman Farooq and Abdulhadi Ben Al-fakih have taken part in an 8-month research project with Armstrong on the topic of Sustainability within the Business Context, reviewing options and making recommendations for the installation of renewable technologies and sustainable practices.

At the end of their project, Aiman and Abdul presented their findings to the Planet Proposition team in Manchester.

Similarly, Anfel Mokrani has completed a marketing placement with us, working on a variation of tasks including social media, event coordination, website work etc. She is now working in the finance department completing an additional placement that will help her with her university applications as this is what she plans to study.

OUR COMMUNITY

Bangalore

Foundry Green Belt - Our team at the Foundry in Bangalore have been working on developing a green belt around the factory, clearing the area and planting new trees.



Green Badges for Sustainable Transport.

Armstrong employees in India are eligible to wear green sustainability badges when they walk or cycle as well as when they use public transport or car sharing to travel to work.

Supporting school children in our community - Our team at the Foundry have also offered their support to a public school in the nearby community.

The school was provided with a water purifier and an overhead storage tank that would provide drinking water as well as washing facilities. Children were also offered shoes and sandals as well as books and other stationery materials.



Buffalo

Wellness Programme - Armstrong Buffalo has been organising monthly wellness events for employees including walks, rock climbing, kayaking, bowling, health seminars and much more.

These events are organised by a Wellness Committee which is formed by employees from different areas of the company.

The purpose of the wellness program is to promote health and wellbeing and to encourage employees to take responsibility for their health. It also provides stress relief and improved relationships among workers.

Community Outreach Programme

Armstrong Buffalo donated a diesel engine to Niagara Career and Technical Education Centre.

Assisting students' learning on the Mechanics Programme.



Toronto

Green Day Event - Our sustainability team in Toronto recently organised a Green Day Event which consisted of 32 Armstrong volunteers working in teams to clean up the entire area around the property which resulted in up to 183 pounds of waste being collected.

An old clothing collection was organised for employees, which were then donated to a clothing recycling drive to raise awareness on the benefits of recycling.



Good Causes: The Heart & Stroke Foundation Big Bike Ride

Our team in Toronto participated in a charity Big Bike Ride and managed to raise over \$3000 for the foundation. This amount was matched by Armstrong to provide over 6,000\$ CAD to a worthy charity. Pedaling together was also very fun and engaging for the participants.

Summer BBQ Events for employees

Four of these BBQs are being organised every year in May, June, July and August. They are usually held on a Friday during the second or third week of the month. Each BBQ is sponsored by a different department who gets involved in preparing the lunch and organizing after lunch activities such as frisbee golf, egg race with mascots distracting the participants, football goalie challenge, water balloon toss, etc.



Shanghai

Wellness Event - Shanghai International Marathon Match

A team of Armstrong volunteers have completed the 42 km race.

Tree Planting Day - Trees with the Armstrong logo were planted in the Shanghai Feng Xian District.

'Children and Family' Energy Saving Competition

Children of all Armstrong employees were invited to participate in a poster and essay competition on energy saving.



2015 PLANS

The progress of our objectives for 2014 in each region was assessed against an A3 plan, which included our key achievements to date, the key resources needed and our key objectives for the year. The cumulative progress of these objectives was logged on a monthly basis and any necessary actions were implemented and recorded.

In 2015, we have decided to maintain the same reporting system, but we have adapted the structure of the plan in order to incorporate the Four Disciplines of Execution (4DX) Principle.

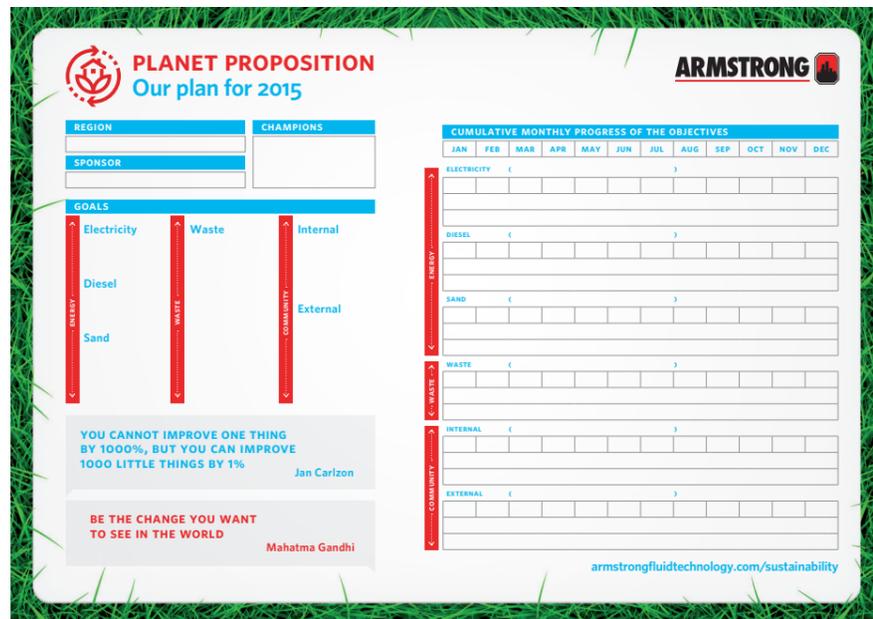
This approach has been adopted not only in the context of our sustainability agenda, but also as a key tool in the implementation of our wider business goals for 2015.

DISCIPLINE 01
Focus on the Wildly Important Goals (WIGs)

DISCIPLINE 02
Act on the lead measures

DISCIPLINE 03
Keep a compelling scorecard

DISCIPLINE 04
Create a cadence of accountability



Thus, energy and water consumption as well as waste disposal are monitored monthly and adjusted for the completed cost of production in all of our regions.

This provides us with a specific measure which reflects our progress and allows for meaningful comparisons to be made (the lag measure).

In addition, each region is free to adopt its own actions that would help achieve this common target. In the case of energy consumption for example, this could be installing energy efficient lighting, organising switch off campaigns, etc. According to the 4DX principle, these are referred to as lead measures.

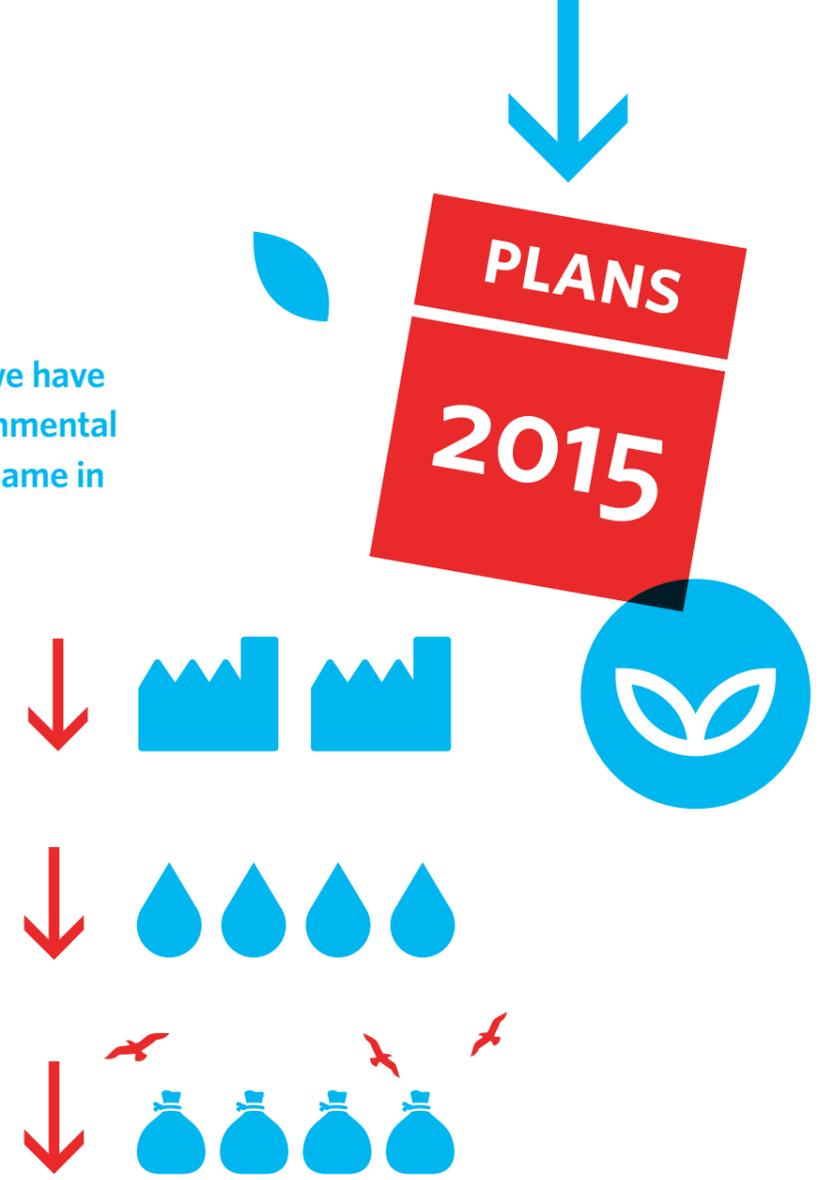
Reference: The 4 Disciplines of Execution: Achieving Your Wildly Important Goals by Chris McChesney, Sean Covey, and Jim Huling, 2012, FranklinCovey Co.

Following the 4DX principle, we have adopted several global environmental WIGs for 2015 which are the same in all our regions:

10%
reduction in energy consumption

10%
reduction in water consumption

10%
reduction in the total amount of waste produced



In addition to these environmental targets, Armstrong has also adopted two main social objectives for 2015:

Improving the health and wellbeing of our internal community of employees

Engaging with our local external communities in all regions

Similar to last year, each region is planning to organise wellbeing, charity and community engagement events which would help to further enhance the wellbeing of our employees as well as to strengthen our links with the local community.





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