

EDUCATION/ INNOVATION TO MANAGE SCARE RESOURCES

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Concerned SDG(s): 3, 6, 9, 11, 12, 13,14,17

Company name: Anglian Water

Industry: Utilities

CHALLENGE

The Sustainable Development Goals (SDGs), adopted by the United Nations General Assembly for the period 2015–2030, as a follow-up to the Millennium Development Goals (MDGs) for the period 2000–2015, include explicit targets regarding the improvement of water quality worldwide and the increase in water-use efficiency and reduction in water scarcity. Goal 6 is fully devoted to water. The first two targets of SDG 6 are a sequel to the targets on improving drinking water and sanitation conditions that were already part of the MDGs. New in SDG 6 is the inclusion of additional targets on improving water quality, reducing water pollution, increasing water-use efficiency, better water management, protecting ecosystems, strengthening international cooperation, and involving local communities. Also new is that the SDGs explicitly refer to all countries in the world, while the MDGs were focused on developing countries. For water this is important, because consumers and producers in industrialized countries significantly contribute to water pollution and water overexploitation as well. For instance, three quarters of the UK's total water footprint (a multi-dimensional indicator, measuring both water consumption (the consumptive WF) and water pollution (the degradative WF), lies outside the UK, and half of its total blue water footprint is situated in places outside the country where water consumption levels exceed sustainable levels. This exemplifies the international dimension of the water challenge.

Further, England is set to experience water shortages within 25 years, warned the chief executive of the Environment Agency. The country is facing the “jaws of death”, Sir James Bevan said, to the point where water demand from the country's rising population surpasses the falling supply resulting from climate change. However, this could be avoided with ambitious action to cut people's water use by a third and reduce leakage from water company pipes by 50%, he says, along with the provision of big new reservoirs, more desalination plants and transfers of water across the country. “We need water wastage to be as socially unacceptable as blowing smoke in the face of a baby or throwing your plastic bags into the sea,” he states.

Water encapsulates the challenges and opportunities of our time. It is the key to a thriving economy and a flourishing environment. By raising awareness of water's importance, by changing how we think about and use it, Anglian Water wants to lead the way towards a sustainable future. Anglian Water is the largest water and wastewater company in England and Wales by geographic area. They employ 5,000 people and supply water and water recycling services to more than six million customers in the east of England and Hartlepool.

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CHALLENGE



The 'Love Every Drop' strategy adopted by Anglian Water captures the company's commitment to sustainability and raises awareness about how essential water is to life, to people and the environment, and to a growing economy. Based around 12 goals, which include no pollution, leading and championing the effective management of the impact of growth and climate change and 70% reduction in capital (embodied) carbon by 2030, the company has won several awards for its sustainability strategy including Business in the Community's Responsible Business of the Year 2017, Queen's Award for Enterprise: Sustainability Development 2015 and Utility of the Year Award 2018.

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PRACTICE



Working in partnership with others - set up by Anglian Water in 2014, Water Resources East (WRE) aims to bring together water utilities, energy, retail, environmental groups, land management, agriculture, local and national government, community groups and domestic consumers – to name a few. The partners collaborate to address the region’s challenges, building on its unique opportunities for sustainable growth and pioneering a new approach to managing water resources.



WRE considers the views and actions of all water users and those who are, or would be, affected by changes in water resources management. All users influence how water resources are managed. Rather than seeing it as a hierarchy where water needs are ranked, it is a circular system where the actions of one water user will eventually impact on others and the environment. WRE puts this thinking at the forefront of all planning and management of the region’s water future.



They are now ready to move from planning and research to practical application – making these changes happen on the ground. Anglian Water also play a key role in the National Innovation Leadership Group, chaired by Defra. This group has developed a strategy to align UK research and innovation programmes with national priorities like energy, climate change and wealth creation.



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PRACTICE

Raising consumer awareness and changing attitudes - To best engage consumers and take them with us on the journey, Anglian Water began with research into their attitudes to water. This informed the memorable Love Every Drop campaign and brand, which they brought to life with a strong narrative and a vibrant visual storytelling style that combined typographic, illustrative and photographic elements. This vivid and engaging approach has shaped everything from the campaign's stakeholder manifesto to consumer-facing materials like domestic bills, advertising and vehicle livery. They engage with customers, communities, councils and businesses in a variety of ways, with targeted campaigns and ongoing education work, disseminating information through voluntary organisations.

For example, blocked pipes are a major cause of sewer flooding. These blockages are often caused by a combination of fats, oils and grease (FOG) and items like wipes and sanitary products, which are wrongly poured down sinks or flushed down toilets. 'Keep It Clear' is their pioneering programme that aims to change the way people dispose of FOG and unflushable items.

Monitoring Progress - Anglian Water agreed 10 outcomes to deliver for customers and the environment. To measure our progress over 2015 to 2020 towards achieving our outcomes, they agreed a set of targets with the Customer Engagement Forum and Ofwat (Office of WATER Services), the body responsible for economic regulation of the privatised water and sewerage industry in England and Wales. To achieve these 10 outcomes, Anglian Water have set 12 ambitious business goals which include: zero accidents, incidents, waste and pollution; 100% customer satisfaction and making a positive contribution to the communities they serve; champion the effective management of the impact of growth and climate change; and deliver a 70% reduction in capital (embodied) carbon by 2030.

Developing Technology - Their award winning in-house display unit, designed in collaboration with Green Energy Options, allows customers to see exactly how much water they're using and to set a 'water budget'. They have also developed and patented a new way to condition sewage sludge prior to treatment called HpH (Heating, Pasteurisation, Hydrolysis).

This process also generates 5% more methane gas, which they convert into electricity. This innovation has saved Anglian Water around £3 million in capital expenditure and the increases in gas production will lead to a further operational cost benefit of more than £400,000 a year. Further, their BeachAware system uses state of the art technology and data handling systems to allow them to provide beach owners, the Environment Agency and others with near real-time information on water quality in coastal waters.

Resources Required

They are industry-leading on leakage and are investing £124M between 2015 and 2020, and have a 300-strong team focused purely on leakage.

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BENEFITS



Although the population they serve has grown by 20% in the last 20 years, Anglian Water still provide the same amount of water today as they did in 1990, by minimizing leaks and encouraging more waterwise customer. Their application on a range of campaigns has already benefited the security of the region's water supply with a 20% reduction in water leakage, and an enormous water saving of more than 60 megalitres every day.

According to their 2018 Annual Report, Anglian Water have cut leakage by a third and their leakage is half the national average by water lost per kilometre of pipe, They have also cut their carbon emissions with capital carbon down 57% on 2010 levels, and operational carbon down by 19.6 per cent on 2014/15 levels.

Other benefits include:

- By the end of 2014, their Keep it Clear campaign had reduced blockages in targeted hotspots by 49%.
- They generate their own power. In 2013-14, they generated 64GWh of renewable energy.

