



YOU & SUSTAINABILITY

Protect and prosper: Our journey is Ireland's resource advantage

RESOURCING TOGETHER

Responsibility and opportunity go hand in hand

An introduction from our CEO

Estelle Brachlianoff, Senior Executive Vice-President, UK and Ireland

“Driven by innovation and technology – and championed by our great teams of people – we have transformed our business from an energy, water and waste services provider to one that transforms used materials back into resources that enrich our lives and power our homes and industry.

It is an innovative economic model that is already delivering benefits straight to the bottom line for our customers in Ireland, as well as to employees and the communities we live in.

At the heart of this is a resources revolution, where responsibility and opportunity go hand-in-hand. Doing the right thing by people and the planet is good business – and it can be good for your business too.”



Together, we are making strong progress for our customers

John Abraham, Country Director for Ireland

“As this latest summary update shows¹, we are making strong progress on sustainability.

We continue to work closely with our customers, suppliers and local communities across Ireland to deliver environmentally sustainable solutions, manage resources efficiently and help the country transition to a low-carbon economy.

Managing resources and adopting more circular models is not only helping to protect our precious resources and the wider environment, it is also putting us in a leadership position to help our customers effectively prepare for a sustainable future.”



Our approach

Working in collaboration with partners across Ireland, we deliver value for our customers in energy, water and waste while also creating value for:



Society & People

- Over **1.5 million** people benefit from our drinking water and wastewater installations each year.
- Over **2,000** potential accidents avoided through positive staff intervention at work, home and in communities.
- Up to **€15,000** contributed annually to local community groups through our Ireland Connect Programme.

Environment

- Over **68,000** tonnes reduction in CO₂ emissions for our customers by using Combined Heat and Power (CHP) plants for the production of heat and electricity.
- Overall **74%** of all hazardous waste managed by Veolia Ireland is recovered.

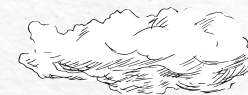
Economy

- **56%** of our revenue in Ireland is derived from the circular economy.
- **39MW** of power available to the Grid. Virtual Power Plants are generating income streams for customers from under-utilised assets.
- **€750,000** energy savings over ten years for public facilities through the 2016 'Better Energy Communities' scheme.



OUR JOURNEY WITH THE SERVICE SECTOR

We continue to help our customers in the service sector better manage their resources, reduce their environmental impacts and make significant cost savings. Whether it's avoiding landfill costs, developing water efficiency solutions or improving energy efficiency, our teams have the expertise to help businesses big and small exceed their environmental targets while continuously improving their bottom line.



Transforming campus life with long-term energy savings

We helped the **Marino Institute of Education (MIE)** form the Marino Better Energy Community and undertake a series of sustainable upgrades. The goal was to bring long-term energy savings on campus with controllable, efficient solutions.

We replaced natural gas boilers with high-efficiency alternatives and solar panels for domestic hot water, reducing gas costs by 33%. A total of 966 light fixtures were upgraded to LEDs, unlocking significant energy savings. Site-wide, real-time energy monitoring and smart controls have eliminated wasted heat and light, reducing the site's electricity costs by 24%. MIE has managed to reduce carbon emissions by 25% while optimising comfort for those on campus.

Creating a low-carbon Dublin hub

eBay asked us to improve operational efficiency and reduce costs at its Atrium building in Dublin, from where it handles European customer service. A Hubgrade Energy Management System has been installed to measure, monitor and control the efficiency of buildings in real time.

By managing the mechanical and electrical plant on site, we reduced annual electricity use by 20%, gas consumption by 35% and water use by 10%. The site was the first eBay facility globally to be certified to the ISO 50001 Energy Management Standard.

Securing a reliable energy supply

Stewarts Care, a charitable foundation that cares for people with intellectual disabilities, faced unpredictable energy and maintenance costs due to operating across more than 30 sites.

Our programme of energy upgrades at its main campus in Palmerstown, Dublin, included a 140kW Combined Heat and Power (CHP) unit, high efficiency boilers, solar hot water systems, zonal heating systems, energy-efficient lighting and occupancy sensors and cavity wall and attic insulation.

Huge carbon savings thanks to CHP

Working in partnership with **Whitfield Clinic** since 2006, we have made significant reductions to carbon emissions by initially installing a Combined Heat and Power (CHP) plant. Then, by working together, we achieved certification to ISO 50001 Energy Management Standard in 2016. Whitfield Clinic is set to annually save a further 220 tonnes of CO₂ by implementing energy upgrades completed as part of the Sustainable Energy Authority of Ireland's 'Better Energy Communities' project in 2016.

Together we...

Achieved overall cost savings of **29%**

Together we...

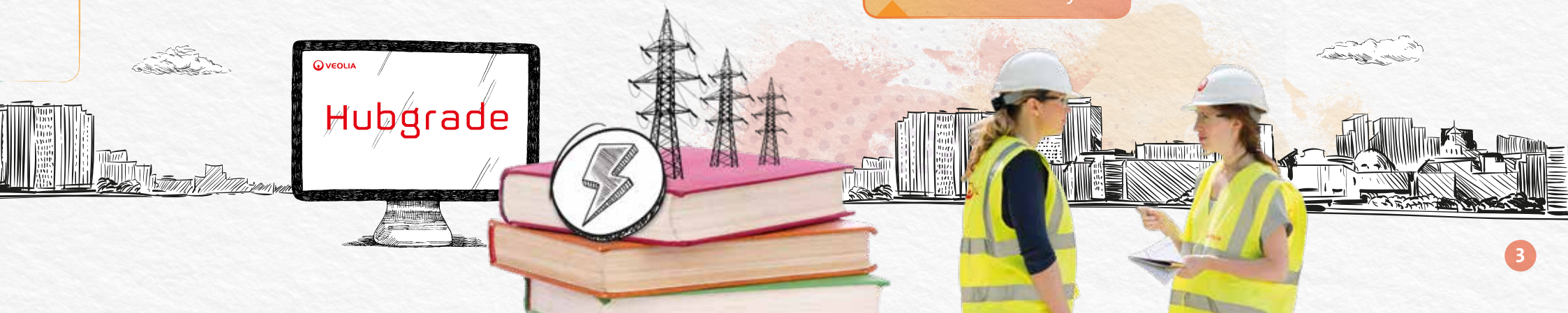
Achieved annual savings of **€61,500**

Together we...

Reduced on-site energy costs by **37%**, saving **€1 million** over five years

Together we...

Save **220 tonnes** of CO₂ a year



OUR JOURNEY WITH INDUSTRIAL CUSTOMERS

For the industrial sector, the challenge of ensuring a steady and reliable supply of energy, water and resources continues. Making resources go further, generating power on-site, reusing and recycling water and continuously improving efficiency are key to reducing risks and costs across Ireland's industrial sector.

Our customers extract savings by reusing resources from complex waste streams. And by guaranteeing 100% traceability of by-products through safe treatment, recovery and recycling, there is a range of cost, supply and environmental benefits.



Maximising the value of complex waste streams

Hovione wanted to divert more waste from landfill to increase recycling, maximise local treatment and reduce waste disposal costs. The chemical company produces complex waste streams including bulk solvents and laboratory chemicals.

Veolia used separate solvent tanks to avoid cross-contamination, recovering the best value solvents for use in thinners or a Secondary Liquid Fuel. Analysing bulk tank waste on site means treatment, disposal or recovery can be planned to minimise waste costs. Contaminated metals are now processed and recovered locally, and non-hazardous waste like paper and plastic is sorted on site.

Environmental compliance and big savings for dairy

Tipperary Co-operative asked us to improve the energy performance at its dairy manufacturing plant to save energy, reduce operating costs, improve production and comply with environmental legislation.

The starting point for the Co-op was to install more efficient boilers and a control system to operate and monitor utilities, steam, refrigeration and compressed air. An Energy Performance Monitoring and Metering System continues to optimise performance to create significant energy savings. Not only did the Co-op achieve environmental compliance and reduce CO₂ emissions, it was also able to reduce costs in what is a very competitive market.

Together we...

- Recovered or recycled **84%** of hazardous waste
- Recovered **85%** of non-hazardous solid waste

Together we...

- Significantly lowered energy bills
- Reduced CO₂ emissions by **8,200 tonnes** a year



OUR JOURNEY WITH THE WATER SECTOR

From climate change and water scarcity to stricter regulation and the introduction of circular economy models, the water industry faces unprecedented changes over the next few years. As one of the most energy-intensive industries using energy for pumping and water and wastewater treatment, there is huge potential to optimise efficiency, drive down costs and reduce the environmental impact of the sector.

By designing, building and managing water and wastewater services and infrastructure, we continue to help our customers reduce their carbon footprint and find cost and resource efficiencies.



New plant leads the field

We entered into a Design-Build-Operate contract for the large **Srowland Water Treatment Plant** in Athy, Co. Kildare. This plant was an integral part of the Greater Dublin Water Supply Strategy, which provides a robust and flexible solution for high quality potable water demand across six local authorities.

We designed and built the state-of-the-art plant with a 25% smaller construction footprint than conventional plants and we now operate the plant on behalf of Irish Water.

The plant has the capacity to treat 40 million litres of water a day from the River Barrow, removing any impurities using our patented Actiflo® system. The facility can supply 38.4 million litres of treated water per day and leads the industry in environmental efficiency.

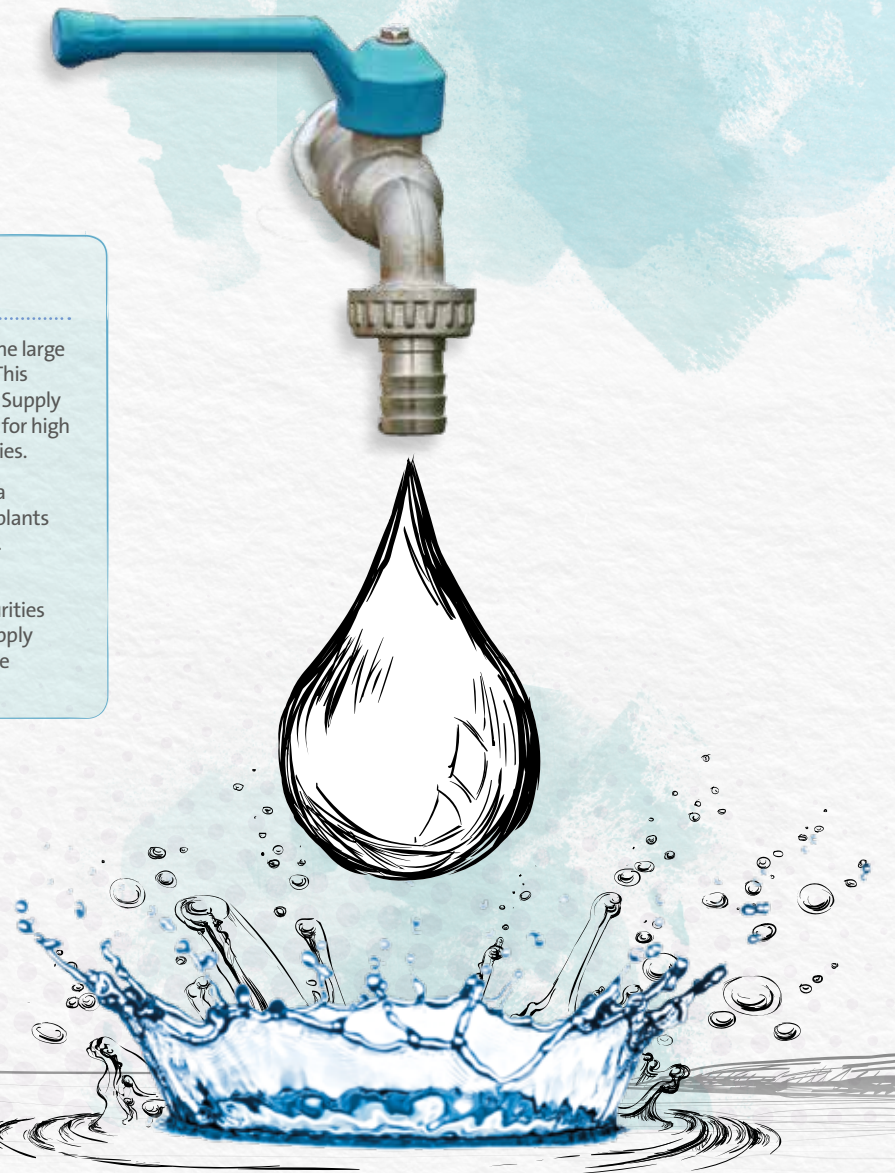
Together we...

Achieved best-in-class water losses of below **4%**

Technology works a treat

Due to increased production at pharmaceutical manufacturer **Baxter Healthcare** in Castlebar, we were commissioned to upgrade the industrial effluent pre-treatment facility at the Castlebar municipal wastewater treatment plant, which we operate on behalf of Mayo County Council. This included expanding the contact stabilisation technology used to treat industrial discharge.

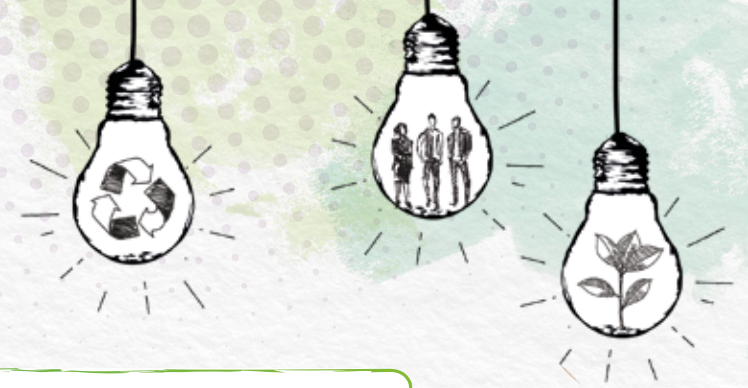
The fully automated facility was brought online in April 2014 in advance of the overall project requirements and to date has exceeded clients' expectations in terms of quality and quantity of treated influent. The project was completed on time and within budget and provides capacity for high strength discharges while maintaining production output at the manufacturer's facility.



Together we...

Increased the plant's capacity by **150%**

CREATING LASTING VALUE FOR PEOPLE, SOCIETY AND THE ENVIRONMENT



Society and people

We build strong communities

During the last round of our community sponsorship programme called Connect, the grant committee split €5,000 between three projects: Aoibhneas Women and Children's Refuge in Dublin is using the money to create a fun and safe outdoor space for mothers and children to interact and play; Waterford Marine Search and Rescue in Waterford City has been able to provide ten new lifejackets and a rescue boat GPS system; and Templeport Development Association Co. in Cavan has bought new equipment to allow the group to run beekeeping courses.

Going beyond the call of duty

Throughout the year, the 250 staff at eBay in Ireland vote for the onsite team that has gone above and beyond the call of duty in their day-to-day work. The votes were counted at the end of 2016 and our facilities team came out on top because of their dedication and customer focus – something that is clearly appreciated by those they work with every day at eBay.

Preparing young people for work

We have supported the Skills at Work programme at Plunkett's College, Dublin for the past two years. Designed by Business in the Community (BITC), the programme raises awareness among second-level students about the world of work and how to prepare for the recruitment process. At a time when many young people are at risk of

dropping out of education, this programme has benefited more than 30 students so far, with 26 Veolia colleagues taking part.

"The practice interview for a job in Veolia was a great experience considering that it was new to some of us. It was good to go through it first-hand before the real thing happens."

Participating student

Stepping up to support charity

A team from Limerick's Clareville Water Treatment Plant got DIY-ready and helped paint the St Vincent De Paul headquarters in the city. The charity helps to fight poverty in the area and relies solely on public donations. After getting in touch with us through our partnership with BITC, the Clareville team came ready with their paintbrushes. One room the team painted is being used as a GP surgery once a week, where people can see a doctor for free.



Awarded the Business Working Responsibly Mark certification for responsible and sustainable business practices by Business in the Community (BITC) Ireland.

An approach underpinned by innovation

Our unique Innovation Den helps to develop solutions to resource challenges that touch us all. One project was given the green light through our Innovation Den in 2016, which encourages staff to be enterprising and innovative.





ENVIRONMENTAL IMPACT

Our customers are cutting the amount of energy, water and waste they use through our circular economy approach. Our recent and notable achievements in developing solutions that are helping them to reduce their environmental footprint include:

- **41%** of hazardous waste at our Cork treatment facility was recycled as a substitute fuel in 2016, saving more than **3,000 tonnes** of CO₂ emissions.
- Almost **3,000 tonnes** of calcium carbonate sludge is generated as a by-product of water softening at the Athy Water Treatment Plant. Rather than being wasted, it is delivered to local farmers throughout the year for use as a soil conditioner.
- Around **1,500 tonnes** of water treatment sludge from Clareville is being recycled and used for composting.

ACHIEVING A CARBON POSITIVE BUSINESS

	2015 carbon emissions (tonnes of CO ₂ equivalent)	2016 carbon emissions (tonnes of CO ₂ equivalent)
Direct	277,771	243,446
Indirect	14,438	15,173
Avoided	2,040	1,762
CPR (carbon performance ratio = avoided emissions divided by direct + indirect emissions)	0.70	0.68



IN CONCLUSION: OUR JOURNEY IS YOUR RESOURCE ADVANTAGE

We are a leading resource management provider with a comprehensive range of energy, water and waste services that are designed to help our customers build the circular economy and preserve natural materials. This is something we like to call resourcing the world.

We work in collaboration with our customers to develop innovative solutions that increase efficiencies and save on costs. Customers also reduce carbon impact by preventing pollution, preserving scarce resources and raising environmental standards.

As we continue to prove in Ireland and elsewhere, doing the right thing by people and the planet comes with big economic benefits.

With effective solutions already available, it is time to act now to create a more secure and circular future for our businesses so we survive and thrive together in the 21st century.

Do you have a challenge that could benefit from resource efficiency and circular thinking? Please get in touch at:

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