

2016

sustainability report

recycling and recovery UK



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foreword

It is a great pleasure to introduce this sustainability report, covering another eventful year for SUEZ recycling and recovery UK.

The SUEZ group is preparing for the 'resource revolution' needed in a world of depleting resources, climate change and rising population.

We play our part by extracting maximum value from our clients' waste resources. In 2016, SUEZ recycling and recovery UK not only handled more waste than ever before (10.4 million tonnes), we also set new records by recycling and recovering over 80% of this (8.5 million tonnes).

Our new energy-from-waste facility came on stream in Severnside, with another two due in 2017 in Cornwall and Teesside respectively. These facilities play an important role in plugging strategic gaps in the UK's treatment capacity and energy market, though more still is needed.

Hand in hand with our achievements in recycling and energy generation, we maintained our enviable track record of environmental compliance.

The year also brought awards for the sustainable design and construction of our Suffolk energy-from-waste facility, the recycling product of the year, and best operational team.

All our people made a telling contribution. We expanded our training programmes and improved our safety performance, but we have more work to do together.

Other challenges we all face are bridging the capacity gap, re-balancing the UK's industrial strategy, and post-Brexit regulation. We put forward positive ideas and will carry on lobbying on these issues.

Just as we will continue working with local communities and giving back.

I thank our people for their commitment to SUEZ, to our values and to our national charity partner, Macmillan Cancer Support.

I hope you find this sustainability report of interest. We welcome your feedback.



David Palmer-Jones

Chief Executive Officer
SUEZ recycling and recovery UK

A handwritten signature in black ink, appearing to read 'D Palmer-Jones', written in a cursive style.

introduction

Last year's report described the pressing need to rebuild the global economy around managing resources as we move away from unsustainable consumption.

In 2016, the SUEZ group set out to be the leader of the resource revolution this requires. This publication outlines our record on sustainability in the UK over the 12 months and the role we are playing in the emerging circular economy.

We have reinvented our company in a short space of time. The waste management company – formed in 1988 as SITA UK – is now a resource manager, energy generator, fuel manufacturer, commodity trader and compost supplier, as well as a service provider and advisor to our clients.

This transformation anticipated and supports the ambition of the SUEZ group to lead the resource revolution. It published a new Sustainable Development Road Map with monitoring indicators and goals to be achieved by 2021.

The road map and the business strategy of our group are based on four fundamental priorities that also frame this report and its three main sections.

leading the resource revolution

priority one

We will lead the transition towards a new **circular economy** that is low-carbon and resource-saving.

Economic sustainability is the theme of the first section of this report.

priority two

We promote **concrete solutions** that support our clients in that transition.

Our performance and its impacts are examined in the second section, which considers environmental sustainability.

priority three

We commit to being open, responsible and **collaborative** in all our company's dealings and relationships with our people, local communities and others.

priority four

Everything we do should, ultimately, be designed to contribute to the **common good** and our vision of a society where there is no more waste.

Both these inter-linked priorities are addressed in the final section of this report, which focuses on our social responsibility.

The performance figures and sustainability indicators for 2016 are set out in [the data tables at the back of this report](#) for ease of reference.

Key figures 2016

£821 MILLION
turnover (including landfill tax)

5,100
employees

10.4 MILLION TONNES
of materials handled

8.5 MILLION TONNES
of materials recycled and recovered

OUR OPERATIONS

655,000 MEGAWATT HOURS
of electricity generated from energy-from-waste

450,000 MEGAWATT HOURS
of electricity generated from landfill

OUR CUSTOMERS

32,000 industrial and commercial customers

11 municipal contracts

12 public private partnership contracts

49 treatment contracts

OUR FACILITIES

9 operating landfill sites

66 transfer stations

6 composting sites

9 materials recycling facilities

106 household waste recycling centres

7 energy-from-waste facilities

1 mechanical biological treatment facilities

3 refuse derived fuel facilities

3 solid recovered fuel facilities

6 wood processing facilities

2 street sweepings recycling facilities

1 end-of-life plastics to fuel facilities

Leading the transition towards the low-carbon and resource-saving **circular economy**



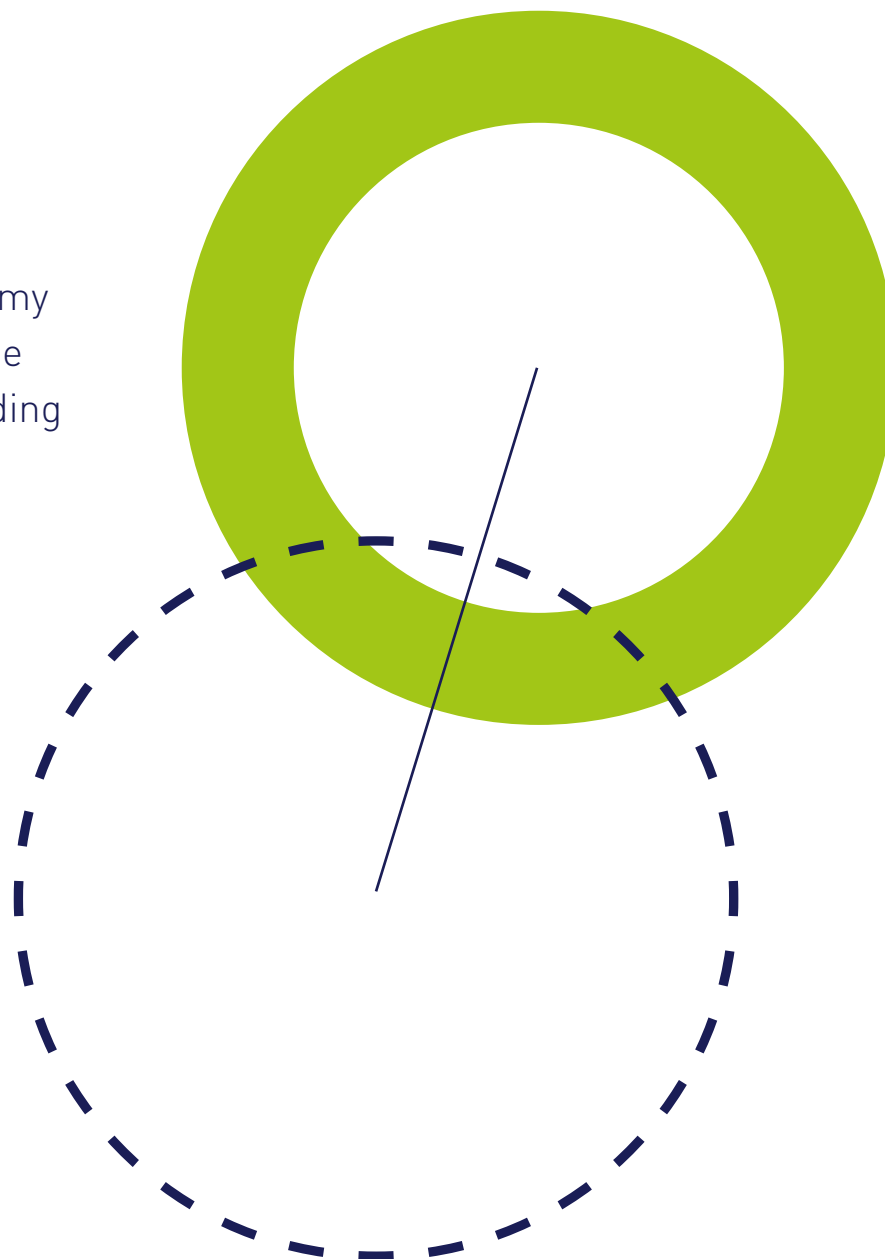
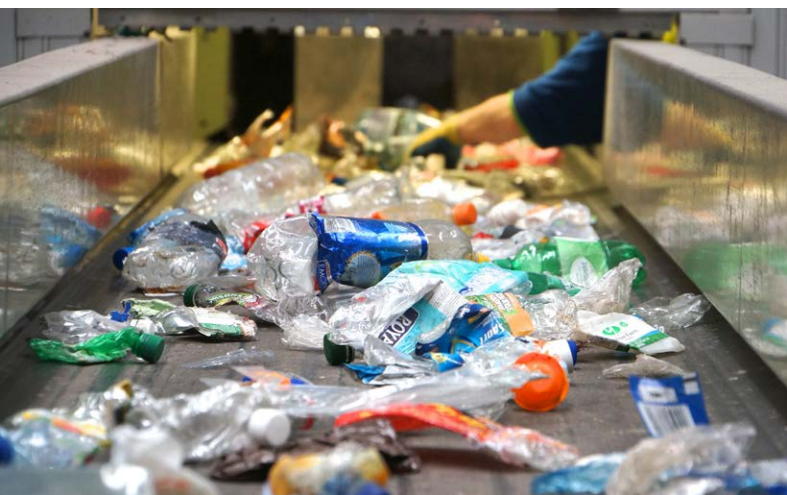
leading the transition towards the low-carbon and resource-saving **circular economy**

SUEZ recycling and recovery UK pioneered the circular economy as a concept and business model in our industry. As part of the SUEZ group, we are now committed to playing our part in leading the resource revolution that will be essential to create it.

Our own transition began in 2008 when we adopted a new business strategy based on circular economy principles. Its goal then and now is to extract as much value as possible from waste.

To do this, we have restructured our organisation, researched and developed new processes, and invested in a variety of treatment and production facilities.

We report here on the economic aspects of our sustainability performance in 2016 – and put this in the context of our parent company's strategy.



The market in 2016

The UK is running out of treatment capacity for residual waste. This fact more than any other defines the market in which we operate.

As outlined in last year's report, we have projected the national shortfall to 2020 and recommended policy changes and initiatives that would address it. Our findings, which drew on unique insights into business waste streams and new research, were published in 2014's Mind the Gap report.

Its analysis still stands. As a country, we are not building the necessary facilities fast enough to live up to our commitments on sustainability and climate change.

Landfill capacity is shrinking rapidly, in line with EU and UK policy to phase out disposal of biodegradable and recyclable materials. The reduction in the number of landfill sites has been dramatic. In the nine years from 2000 to 2009, the UK total dropped from 2,000 to 250. By 2020, it is estimated this will fall to 50. Whereas each local disposal authority typically had five sites, now there is one for every five of these councils.

Alternative treatment facilities are being developed, but the lag is significant. The UK will have 57 energy-from-waste facilities by 2019. That will still leave 14 million tonnes of waste with nowhere to go to except landfill.

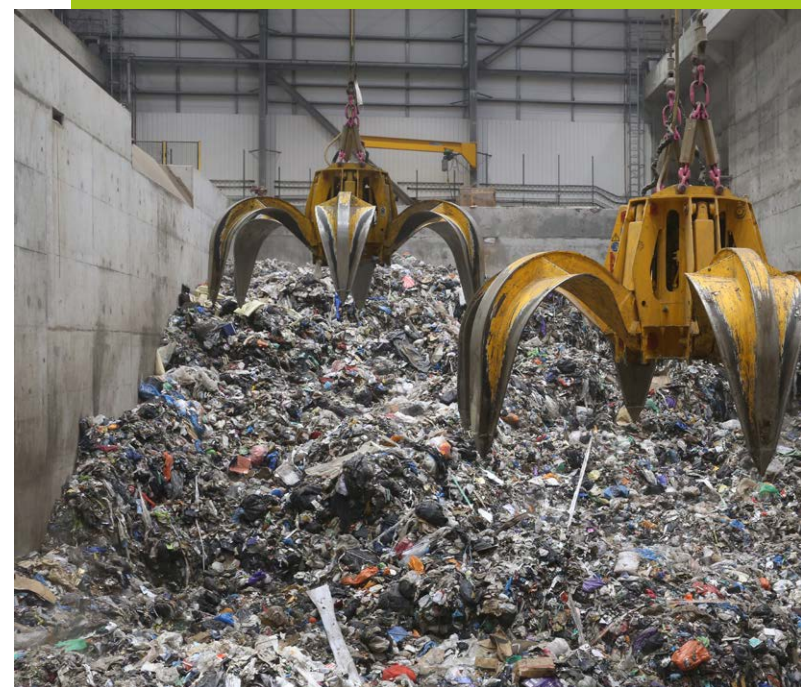
The mismatch between supply and demand applies not just to infrastructure but also to the market for recovered resources. Our sector recovers about £15 million worth of value from waste in the form of secondary materials and energy. Yet 50% of recyclates and 90% of waste-derived fuel is exported overseas. Similarly, some 2.4 million tonnes of outputs from mechanical biological treatment could be without a home in 2019.

This disconnect between the UK's environmental and industrial policies was highlighted in a September 2016 report we commissioned. The report, A Resourceful Future – Expanding the UK Economy, showed how integrating circular economy principles into the country's emerging industrial strategy could provide a £9 billion boost to the economy by 2030.

This would also create greener jobs. The Waste and Resources Action Programme (WRAP) says an expansion of circular economy activities could create over 500,000 British jobs by 2030.

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Commodity prices

The market value of the materials we trade tends to be volatile as demand and prices react to those for virgin materials. Our industry has been prepared to bear this risk, but as volatility gave way to a prolonged slump, this caused great difficulty.

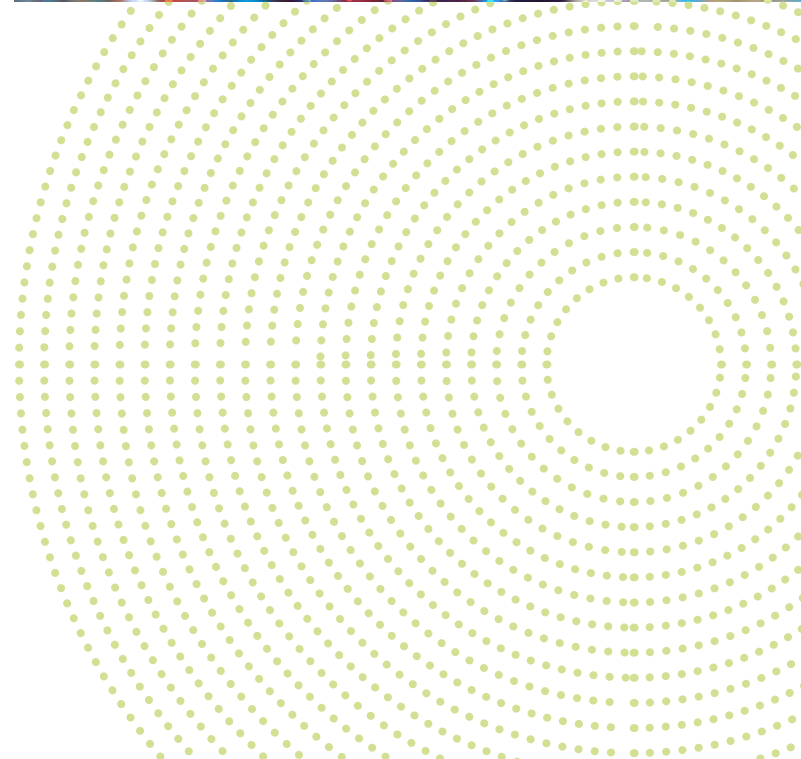
In 2016, the fall in prices for recycled goods put pressure on every part of the resource management industry as falling stock markets fuelled concerns about the Chinese economy and world commodity markets.

Plastic has suffered most from downward pressure on the price for scrap plastics due to low oil prices. As new plastics are made from the byproducts of oil and gas production, it became cheaper for the manufacturers of water bottles, ice cream containers and yoghurt pots to buy their raw materials new, rather than recycled.

Manufacturers in China ramped up production of plastics and demand for plastics scrap from the UK and Europe was not as strong as in recent years.

But nearly all material prices have plummeted. The price of steel cans nearly halved over the past two years from £125 a tonne to between £45 and £70, while the price of clothes in textile banks dropped by about £100 to just £160 a tonne.

The outlook for commodity trading continues to be challenging.



Taking control of resources

What should our future recycling and waste management industry look like?

These were among the questions we posed for Eunomia Research and Consulting in 2016. The specialist consultancy's work was designed to inform the new Department for Business, Energy and Industrial Strategy (BEIS) as it considers how to reinvigorate our country's industrial fortunes. It was also the first comprehensive assessment, following the EU referendum, of policy priorities for shaping our sector to better support a circular economy.

The resultant report, *A Resourceful Future – Expanding the UK Economy*, found that there was a real opportunity – largely overlooked in government policy – to develop a symbiotic relationship between our sector and other industries that would support the growth of the UK economy.

Integrating resource conservation into industrial strategy could add up to £9 billion to our economy by 2030. This was measured as gross value added (GVA) – the value of goods and services, resultant profits, new jobs and wages, and taxes flowing back to the government.

Examples of how economic value would be created include reshoring the recovered resources exported for reprocessing overseas – not least ferrous materials and aluminium, in which we have trade deficits. Other contributions would come from savings through waste reduction, substituting virgin materials, and lower carbon emissions.

The report set out a series of measures that government departments – the Department for Business, Energy and Industrial Strategy (BEIS), the Treasury and Defra (the Department for Environment, Farming and Rural Affairs) – could take to embed resource management within industrial strategy. We called on them to:

- ▶ Legislate to extend warranties, so goods are manufactured to be more durable and repairable.
- ▶ Oblige public bodies to procure goods with specified levels of reused or recycled materials.
- ▶ Extend producers' responsibility to pay the cost of recovering and recycling their products and packaging.

And what role can recovered resources play in the UK's new industrial strategy?

- ▶ Reduce VAT on recycled materials compared with primary resources.
- ▶ Give research and development tax breaks for novel processing techniques that save resources.

These recommendations are applicable to the UK now as a EU member, during the negotiations to leave, as well as any transition period, and beyond Brexit.

A green paper on industrial strategy has since been published by the Department for Business, Energy and Industrial Strategy (BEIS). We welcomed its promise to promote well-functioning markets for secondary raw materials. In our response to the consultation, SUEZ will spell out how our sector can support each of the proposed strategy's 10 pillars as we continue to lobby for a more substantive role in the development of the emerging industrial strategy.

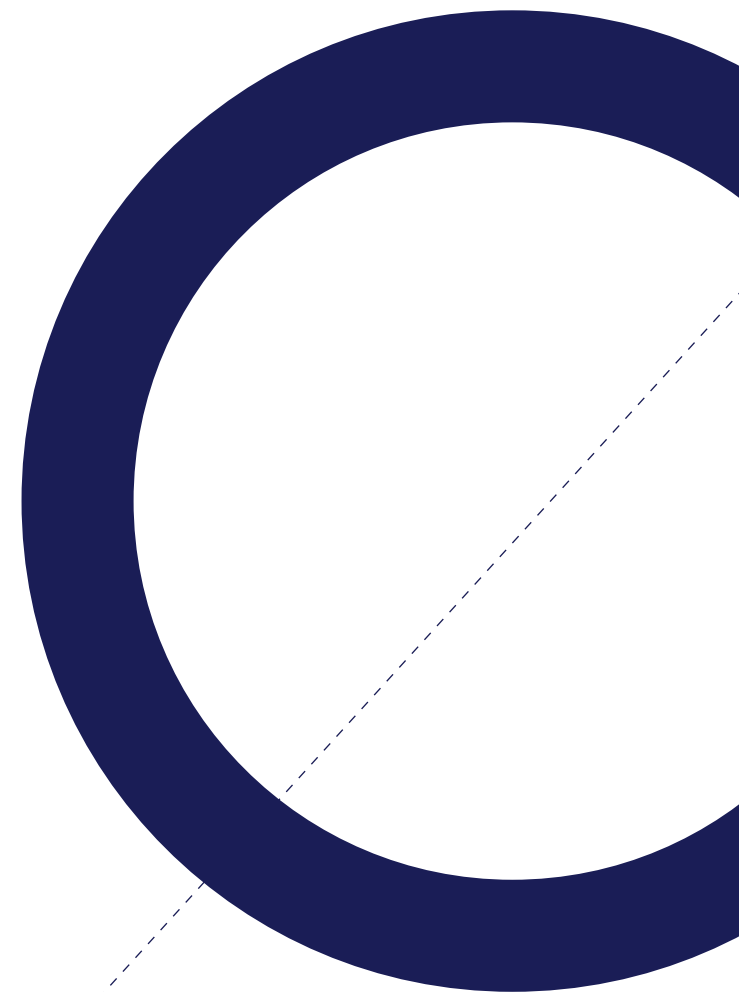
A smarter move

SUEZ has been a vocal supporter of the EU and its environmental priorities, not least its role in pushing up recycling rates in the UK. Brexit, however, opens up opportunities for smarter regulation that could speed the transition to a circular economy.

We welcome the commitment to incorporate all EU regulations in British law. But when, for example, recycling regulations are reviewed and amended, they should shift the emphasis from end-of-life disposal to cradle-to-grave stewardship of materials.

Regulating for product take-back (as proposed in A Resourceful Future – Expanding the UK Economy) would oblige manufacturers to recover products and packaging, encouraging re-use and recycling. This in turn would grow the market for secondary materials and make it less vulnerable to fluctuating commodity prices.

Such an approach could mirror the EU's Waste Electrical and Electronic Equipment directive, and would be less burdensome for business than some form of tax or levy system.



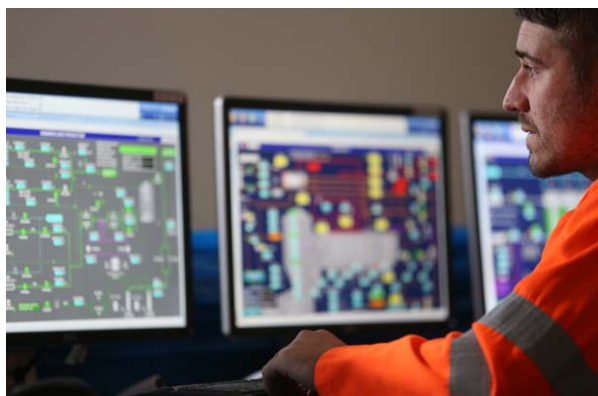
Creating economic value

The annual turnover of SUEZ recycling and recovery UK grew by almost 6% in 2016 to some £821 million. The year saw two other records for our company that are important for the economic sustainability of the business.

Over the 12 months, we handled more waste than ever before, topping the 10 million tonnes mark. We also took the amount of resources recovered to new levels.

In all, of the more than 10.4 million tonnes of waste that passed through our hands, almost 8,550,000 tonnes were put to good use. That represents more than 82% of the total – and a valuable advance on 2015 when the recovery rate was 77.5%.

This is a testament to our strategy and its execution, not least through our ongoing investment in waste treatment and processing capacity.



Sustaining investment

Investment continued apace in 2016. At just over £90 million, the total allocated for new facilities and research and development rose above the already high average of recent years.

More than £460 million has now been invested over the last six years in infrastructure, ranging from alternative fuel production to energy-from-waste. Including investment by our partners in joint ventures, some £1.5 billion has been funnelled into new infrastructure over that period.

As already mentioned, our research shows that the UK suffers from a deficit in waste treatment capacity. This infrastructure gap must be bridged if our country is to divert all waste currently sent to landfill to productive uses and achieve self-sufficiency.

More energy is being recovered from residual waste materials in the UK, but we are far behind continental Europe. Energy-from-waste facilities there routinely supply local communities with their heating and electric power. One consequence of the under-supply of such facilities here is that an estimated 3.5 million tonnes of refuse derived fuel are exported to power homes and factories in other countries each year – that is the equivalent of Birmingham's annual energy needs.



New generation

During the year, we opened one new energy-from-waste facility and saw excellent progress on a further two due to open in 2017. The additional capacity will amount to one million tonnes, sustaining the rate of expansion achieved in each of the previous two years and will bring our portfolio of energy-from-waste facilities to nine by the end of 2017.



Sevenside

December 2016 saw the start of operations at the Sevenside energy recovery centre in South Gloucestershire. Part of our public private partnership with West London Waste Authority, the facility will receive up to 400,000 tonnes a year of residual waste shipped by rail. In turn, it can export around 34 megawatts of electricity, enough to power 50,000 homes. Investment – including a new mainline rail connection and sidings, and a facility for processing incinerator bottom ash for use in construction materials – amounted to £244 million. Aberdeen Asset Management and the ITOCHU Corporation are our other partners in the project.

Cornwall

August 2016 was a landmark moment for the company as the Cornwall energy recovery centre began necessary testing and commissioning phases. The St Dennis facility was commissioned successfully by the end of the year in preparation for handover scheduled for early 2017. Built to serve our integrated waste contract with Cornwall Council, it can divert 240,000 tonnes of residual waste each year from landfill – and generate enough electricity to power 21,000 homes.

Wilton

Another energy-from-waste facility scheduled for handover in 2017 underwent commissioning before the year's end on Teesside. Located in Wilton International industrial park, this £200 million facility was developed for Merseyside Waste Disposal Authority under its 30-year contract with SUEZ and our joint venture partners, Sembcorp and ITOCHU Corporation. Capable of handling more than 430,000 tonnes of household residual waste a year, it is designed to power 63,000 homes and export steam to local industry. More than 127,000 tonnes of carbon emissions will be saved each year compared with landfilling. Transporting the waste by rail from a new £12 million transfer station in Knowsley avoids 21,000 truck movements.



Other developments

The first of a suite of new facilities at Eco Park Surrey opened in April 2016. A recyclables bulking facility, it supports a network of community recycling centres in the north of the county. As well as storing segregated materials before their onward shipment to specialist processors, the bulking facility also has a valuable role during the building works for an anaerobic digester and gasification facility. It will handle general and food waste and street sweepings collected by local boroughs until the Eco Park is fully operational. Our 25-year private finance initiative contract with Surrey County Council is funding the development.

Construction started in January 2016 on a £27 million facility in **Aberdeen** for recycling materials and production of refuse derived fuel. Developed for our 25-year contract with Aberdeen City Council, the site will also replace a depot for refuse collection vehicles. The aim is to increase the city's recycling rate from 37% to 56%, while saving up to £5 million a year in landfill tax. Building work has also been planned with sustainability in mind. By the end of the project, 27,000 tonnes of rock, soil and aggregate will have been reused in screening bunds, foundations and levelling the site. Solar panels will power the site's offices, air source heat pumps will supplement heating, with LED lighting also contributing to the finished building's A rating for energy efficiency. Commissioning is scheduled to start in summer 2017.

Blueprint for greener design

Our Suffolk energy-from-waste facility won the top prize for sustainability in the Blueprint Awards 2016, which celebrate the very best in world architecture and design.

Designed by Grimshaw architects, the building was up against shortlisted entries that included the Theatre Royal in York and projects in Australia, Denmark and Malaysia.

Earlier in the year, the facility was awarded outstanding BREEAM status, placing it in the top 2% of buildings assessed against this international standard for environmental performance in design, construction and operation.

A joint initiative between Suffolk County Council and SUEZ, the energy-from-waste facility generates enough electricity for 30,000 homes. It began operating in December 2014 after three years of construction and commissioning.

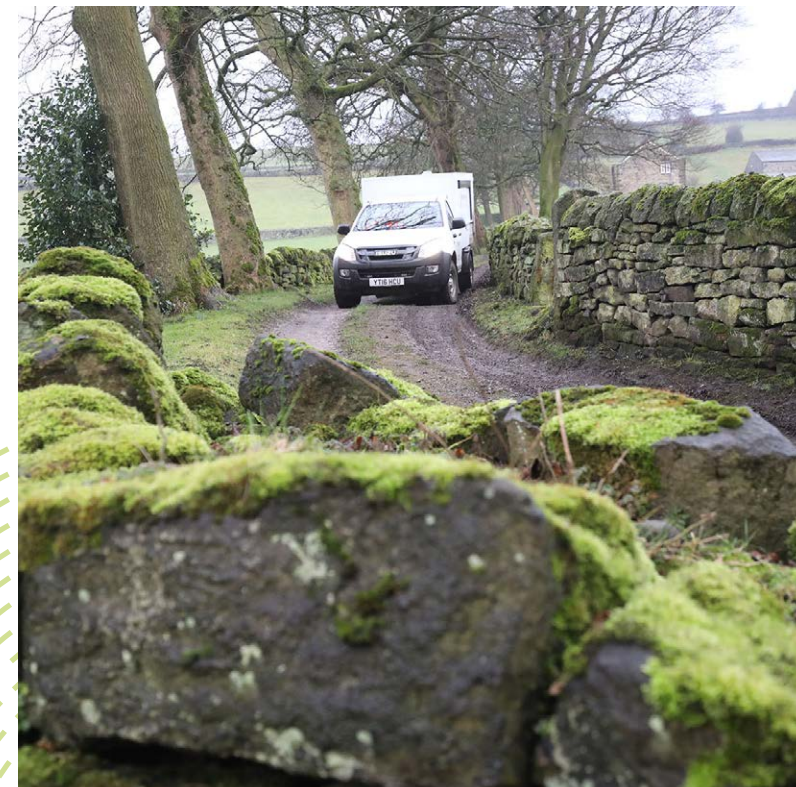
CNIM/Lagan were the main contractors.

The architectural watchdog CABI had previously praised the building as an 'exemplar' for future industrial design.



Commercial highlights

- ▶ The first recycling and waste management contract in the country provided on a pay-by-weight basis got underway. Seven higher education establishments – including the universities of Southampton, Portsmouth, Bournemouth and Winchester – are covered by the agreement with the South Coast Affinity Group consortium.
- ▶ Waste and recycling collection contracts were retained in East Devon and Calderdale following re-tendering competitions.
- ▶ The Devon deal is for seven years, and sees the introduction of an innovative new recycling scheme, and a switch to three-weekly residual waste collections in 2017 when new kerbside sort vehicles are in place.
- ▶ A wider range of recyclable materials are being collected under the new eight-year contract with Calderdale Metropolitan Borough Council. Cardboard, plastic pots, tubs and trays, Tetra Pak cartons and small electrical items are now being collected in addition to cans, glass and plastic bottles, paper, textiles and food. This has been enabled by a fleet of 17 Romaquip recycling vehicles. The borough's five household waste recycling centres now recover reusable items for re-sale at a shop at the Brighouse site.
- ▶ February 2016 saw the start of an eight-year waste and recycling contract for Maldon District Council in Essex. Wheelie bins were introduced in summer 2016 when residual waste collections went fortnightly. Food waste, recyclables and green waste are collected weekly.
- ▶ Meanwhile, in west London, SUEZ handed back responsibility for household waste collection in Hounslow after eight years' service. We helped raise the recycling rate from 20% to 33% within two years, introducing borough-wide collections of food waste and mixed plastics. An innovative service for residents living in flats above shops used special blue-and-purple bags to identify their waste and recycling, and discourage fly-tipping. Following the recent roll-out of wheelie bins, the recycling rate was sustained at around 35%.



A leaner business

Our people's expertise extends to advising clients on how to minimise waste. But time, effort and money are wasted too in many business processes.

Since 2015, we have been applying lean thinking – pioneered in the motor industry by Toyota – to drive out waste and increase efficiency across our organisation.

Led by our transformation team, the roll-out continued during 2016 as training in lean principles and methodology cascaded through the company.



The results were impressive:

- ▶ Production of solid recovered fuel began at Malpass Farm in March 2015. Implementing lean resulted in workplace organisation and visual management standards that are now considered best practice for optimising these facilities across Europe.
- ▶ Lean's 5S process was applied to the workplace organisation at Lee Mill transfer station in Devon. 5S stands for – sort, set in order, shine, standardise and sustain. Afterwards employees reported feeling more engaged in their work, recycling rates improved, customers benefited from faster turnaround times and financial performance has also improved.
- ▶ The 5S approach has had a similarly transformative effect in other fuel production facilities in the Midlands and in our Blackpool transfer station, which hosted training for staff from sites in the north west.

We are continuing to roll out lean to other parts of the business as the benefits are not just economic – greater efficiency enhances environmental performance and our people are enthusiastic about the improvements too.

Cost re-cast as revenue

Lateral thinking by a SUEZ recycling and recovery UK purchasing manager has cut the cost of landfill restoration.

Ricardo Martinho, Procurement Category Manager for Landfill, was tasked with sourcing soils to be used in restoring landfills. He and his team decided to explore alternatives to buying soil supplies and identified excavated waste from building and highways contractors as a viable alternative.

As a result of this work, the contractors can now pay SUEZ a fee to deposit and spread this material on landfill sites.

Procurement colleagues from around the SUEZ group gave Ricardo their award for operational performance at an international convention.

Said Ricardo: "Realising we can turn costs into revenue is exciting. This approach can be applied to lots of projects in the future."

Rebranding progress

Following the decision to replace the SITA name in 2015, the task of rebranding the company's assets got underway in earnest during 2016.

The SUEZ name and its banner – 'ready for the resource revolution' – unified more than 40 different brands across 70 countries as our parent company SUEZ environnement also simplified its title. It means that the two sides of the global business – waste and water – have come together along with their associated company identities as the group focuses on sustainable management of resources.



ready for the resource revolution





In the UK, we rebranded

- ▶ more than 5,000 new employee uniforms. we recycled 5,360kg of old clothing, which was used to make roof insulation and industrial cleaning cloths.
- ▶ 60,000 waste containers around the UK.
- ▶ 1,100 vehicles.
- ▶ premises signs at more than 220 locations across the UK, from St Erth to Inverness, and Avonmouth to Suffolk.
- ▶ operational documents, forms and printed stationery.

SUEZ Group's integrated report

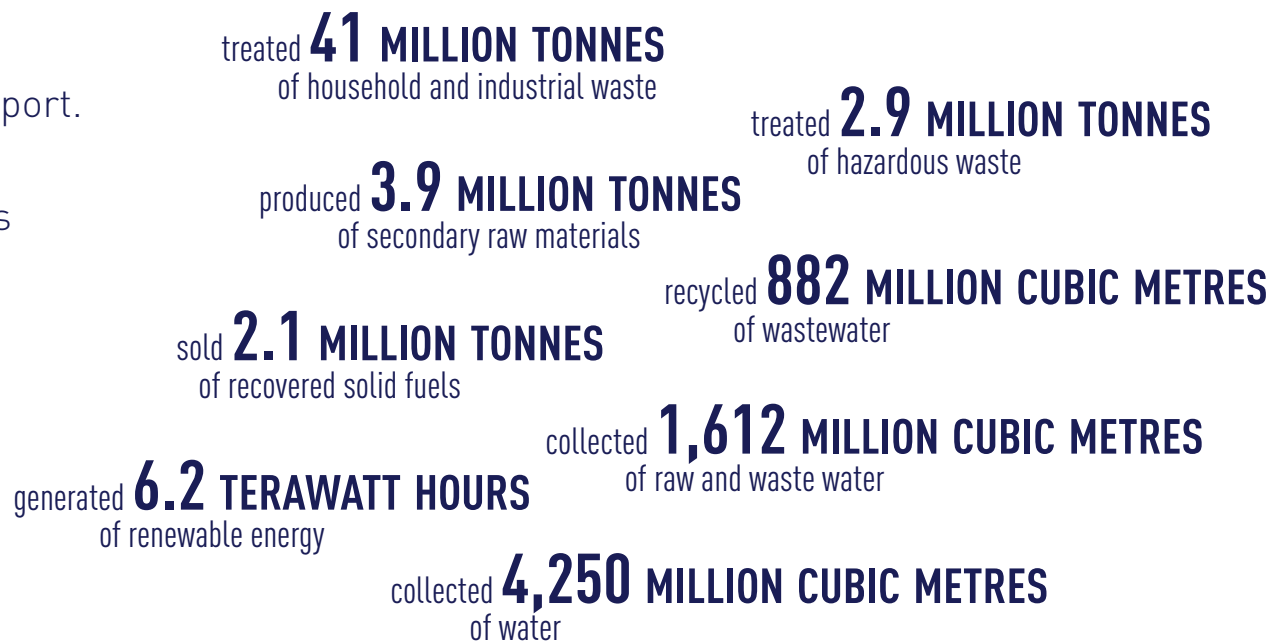
For the second year running, our parent company published an integrated annual report. The 2016 report consolidates the financial results and sustainability performance of its global operations, including SUEZ recycling and recovery UK.

The group employed more than 83,900 people on five continents, turning over €15.3 billion in revenue in 2016. Net investment amounted to €705 million. Recycling and recovery operations in Europe took a 37% share. Another third of investment went to European activities in water supply and treatment, while other international operations accounted for the remainder.

SUEZ Group focuses on the sustainable management of resources through four main activities:

- ▶ recycling and re-use of waste
- ▶ management of the extended water cycle
- ▶ water treatment solutions
- ▶ consulting services for sustainable urban and regional development

In 2016, the SUEZ group



SUEZ operates a responsible procurement policy for the near €6 billion of purchases it makes annually from 95,000 suppliers. For the first time, it has analysed the wider socio-economic impact of its supply chain, notably indirect employment. In 2016, the group is estimated to have supported more than 103,000 jobs in Europe, which is almost double the number of direct employees in its subsidiaries in the eight countries where SUEZ operates. In the UK, the total number of jobs supported by our business is estimated to be 10,540.

Road map for sustainability

The integrated report's centrepiece is a new Sustainable Development Road Map for the SUEZ mission to lead the resource revolution.

Covering the five-year period 2017-2021, it sets even more ambitious goals than its predecessor for 2012-2016 – notably for material recovery, energy-from-waste and greenhouse gas emissions.

SUEZ will:

- ▶ **Increase production of renewable energy by 10% by 2021.**
- ▶ **Reduce greenhouse gas emissions by more than 30% by 2030.**
- ▶ **Help customers to avoid more than 60 million tonnes of greenhouse gas.**
- ▶ **Double biogas production over the next five years.**
- ▶ **Double the volume of recycled plastics by 2021.**

The Road Map also enshrines a series of commitments covering health and safety, respect for human rights, women in management, collaborative ways of working, and flexible solutions for clients.

As a global enterprise focusing exclusively on managing waste and water, SUEZ aims to be the world leader in sustainable resource management. As in the UK, this involves transforming company operations in line with the needs of a circular economy and developing integrated services that support clients through this transition.

The report lists a series of related initiatives, both at subsidiary and group level. To give a few examples:

- ▶ SUEZ sent a strong signal to the markets and policymakers by setting a carbon price for investment decisions. This is designed to encourage clean energy and low-carbon economic development in line with the commitment of the Paris Agreement to limit global temperature rise this century to well below 2°C above pre-industrial levels and to pursue efforts to limit the rise to 1.5°C.
- ▶ New strategic alliances were struck during the year with the aim of extending capabilities to recycle more waste materials, including in the UK. The group signed a partnership with Terracycle, which specialises in collection devices for specific waste flows.
- ▶ With Chemelot Ventures in the Netherlands, SUEZ built a new polymer manufacturing plant. Using recycled plastics, this facility will produce high-quality materials for manufacturing.

Innovative partnership in recycling

In October 2016, SUEZ formed a partnership with TerraCycle to develop innovative collection and recycling programmes in six European countries, including the UK.

The group has taken a 30% stake in TerraCycle, which works with big consumer brands, municipalities and networks of volunteer collectors to target hard-to-recycle waste streams. Numbering more than 100 mainly post-consumer items not captured by traditional recycling channels, these waste streams include disposable products, flexible packaging, office supplies, beauty and oral care products, used coffee capsules and even cigarette butts.

This collaboration will extend the range of collection and recycling services SUEZ can offer local authorities and commercial clients. All the additional waste collected will be reused or recycled into new products, exploiting SUEZ's recycling expertise.

providing
concrete solutions
that support the
environmental transition
of our clients



providing **concrete solutions** that support the environmental transition of our clients

Once again, we have taken the amount of material resources and energy recovered from our clients' waste to new levels.

At the same time, we have maintained the highest standards of environmental protection. As recovery rates rise, sustaining this continuous improvement becomes more challenging and it will demand further investment and innovative solutions.



Environmental management

From the lifting of a bin to high-temperature incineration, every activity we undertake is governed by procedures designed to manage the environmental impact of what we do. The same integrated management system also provides for the safety of our people and the quality of service we provide.

This management system is accredited to relevant international standards: ISO 14001 for environmental management, ISO 9001 for quality management, and BS OHSAS 18001 for health and safety management.

These accreditations are subject to independent verification. In 2016, assessors SGS conducted a 41-day audit at various SUEZ sites between January and July. Based on its findings, our accreditations were extended for another three years.

Other sites were subsequently added under these accreditations later in the year. This followed a further seven days of SGS audits, between September and November, at transfer stations in South Tyneside and Doncaster, and a civic amenity site in Sunderland.

On the Isle of Man, our energy-from-waste facility is additionally registered under the European Union's standard, EMAS – European Eco-management and Audit Scheme. This facility retained its accreditation in 2016 following an audit by SGS and verification of its annual report.

Managing compliance

Environmental compliance with site licences and legislation is regulated by the Environment Agency in England and Wales, and equivalent bodies in Scotland and the Isle of Man.

This external regime is in addition to our own specialist internal audit team and SUEZ group auditors.

The Environment Agency assesses how well waste management facilities are operated and their risk of pollution. As part of our environmental protection policy, we set targets – using the Environment Agency Compliance Classification Scheme scores – to spur continuous improvement.

A score of less than 30 represents good performance. In 2016, some 97.3% of our sites achieved this.

Our policy is to set the benchmark for SUEZ sites at a score of less than 10, which requires a combination of very high standards of management and extremely low pollution risk. In line with recent years, more than 93% of our 292 English sites were in this range. The average score for all sites was just 3.12.

The Scottish Environmental Protection Agency has adopted its own compliance scoring scheme. Nine of our 16 Scottish sites were assessed in 2016. Six were adjudged 'excellent' or 'good', with three given an 'at risk' or 'poor' rating. New plans and regimes have been implemented to address any issues and improve the ratings of these sites.

Our compliance record

Our excellent compliance record in 2016 would have been unblemished were it not for extreme weather events at the start of the year.

No prosecutions were taken against the company for non-compliance with environmental regulations, but two enforcement notices were received. Both related to odours resulting from severe flooding at our Path Head landfill site in the north-east of England.

A series of exceptionally heavy and persistent rainstorms in December 2015 and January 2016 gave rise to extensive flooding across the region. Significant surface run-off from the A695 onto the adjacent landfill added to the flooding, inundating part of the gas collection system and saturating waste in the landfill. When odours were detected in the local vicinity, our operations team proposed a package of remedial measures to the Environment Agency. This included temporary and permanent capping of the site and installing additional gas extraction wells.

These actions were then formalised by the regulator in enforcement notices issued in February and March. More than £250,000 was spent implementing the measures, which fully satisfied the notices.



Impacts and outputs

All our varied activities have environmental impacts, both negative – mainly in the form of carbon emissions – and positive. The various outputs from our operations – from recovered materials to alternative fuels and energy – not only have inherent value, but by displacing virgin resources they also conserve resources and avoid emissions.

Calculating these impacts is complex. The following commentary and [data tables at the end of this report](#) give our best estimate of the company's impact on climate change. We also examine each of our main activities in turn and their outputs in the following pages.

Climate change

Putting waste to good use helps our customers reduce their carbon footprints and supports the UK's programme to curb climate change.

Our challenge is to make the most of their waste streams while minimising our own carbon emissions.

We monitor the impact of our operations and support functions – from transport to electricity use at our locations – and report on carbon emissions to our parent company.

The SUEZ group sets targets to reduce greenhouse gas emissions. Its Sustainability Road Map for 2017-2021 commits the group to the Paris Agreement's objective of limiting global warming to two degrees. The two related targets that directly address emissions are:

- ▶ to reduce greenhouse gas emissions by more than 30% by 2030.
- ▶ to help customers avoid more than 60 million tonnes of greenhouse gas.



Carbon and energy efficiency

We also report on carbon emissions each year to the Carbon Trust and to the Environment Agency.

The company was first certified to the Carbon Trust Standard in 2010. Certified organisations must cut their carbon dioxide emissions year on year. Performance is verified by the Carbon Trust's independent assessors.

In 2016, we achieved re-certification on the basis of our performance over the previous 12 months and a 16.5% reduction in emissions.

The Environment Agency administers the Carbon Reduction Commitment Energy Efficiency Scheme. Mandatory for large private and public sector organisations, it is designed to support the UK's objective of cutting carbon emissions by 80% from 1990 levels by 2050.

Emissions are calculated on the basis of electricity and gas consumption. Under the narrow terms of the scheme, SUEZ recycling and recovery UK remained carbon neutral in 2016. The emissions avoided by exporting electricity generated in energy-from-waste and landfill gas energy facilities more than offset those arising from our own consumption.

Calculating our footprint

For this report, we estimate the carbon emissions from our commercial transport fleet as well as those from energy-from-waste facilities, landfill sites and the electricity consumed on operational sites.

Emissions from landfill sites declined by around 7% in 2016. This is to be expected as the production of methane and other greenhouse gases tails off over time, and more landfills close.

Meanwhile, emissions from energy-from-waste facilities grew by a similar amount, mainly due to the inclusion of a full year's operations in Suffolk. This source first overtook landfill as our main carbon generator in 2015 and the gap will grow as more facilities come on stream.

Inter-year comparisons for imported electricity usage are clouded by a change in the indicator. The more complex calculation used for 2016 indicates that emissions rose by almost 7%.



On the positive side of our carbon account – i.e. avoided emissions – the contribution from electricity generated from energy-from-waste is rising. This has not offset the declining output from landfill gas-to-energy schemes. Again, a change in the methodology – specifically the factor for converting megawatt hours to tonnes of carbon dioxide – had the effect of reducing the computed value of avoided emissions.

The overall result is a net carbon emissions per tonne of waste handled figure of 0.03 equivalent tonnes of carbon dioxide (Teq CO₂) in 2016.

A more meaningful comparison – applying the new conversion factor to electricity exports in both 2015 and 2016 – shows that total avoided emissions fell by just shy of 2%.

These calculations do not take account of the carbon-reducing impact of the waste derived fuels we supply for use in cement kilns and combined heat and power plants.



total avoided emissions
fell by just shy of 2%



Transport

More waste was transported by our collection vehicles in 2016, but the distance travelled and fuel consumption both reduced by the same proportion – around 5%.

Taking into account the amount of waste moved by our fleet, the fuel used for each tonne of waste transported went down from six to five litres per tonne.

Fuel economy has otherwise been stable year-to-year following previous improvements in fleet management, including vehicle routing and maintenance.

For company cars, the volume of fuel used decreased by around 2%, compared with 2015.

The overall size of our fleet increased again after contracting in 2015. We operated more than 940 trucks over 3.5 tonnes (including long-term hire), an increase of 40 from the year before. Of these, 178 conform to Euro 6 legislation – a considerable increase on the 20 Euro 6 vehicles we first ordered in 2013. Euro 6 is the latest diesel engine emission legislation from the European Commission. Euro 6 supersedes the Euro 5 enhanced environmentally-friendly vehicle standards and introduces even stricter limits on pollutant emissions of nitrogen particulates and oxides.

In addition, our fleet includes six hybrid diesel electric vehicles. Operated on our municipal collection rounds for local authority customers, these Mitsubishi FUSO Canter Eco Hybrid models feature stop-start engine function and automated manual transmission.

We maintained a 93.5% MOT pass rate, comfortably above the UK average for HGVs of 82-84%.

Compliance risk score

The Vehicle and Operator Services Agency was replaced by the Driver and Vehicle Standards Agency in 2014. The agency targets inspections based on Operator Compliance Risk Scores.

The Operator Compliance Risk Score (OCRS) system is based on data collected by the Driver and Vehicle Standards Agency over a three-year rolling period.

Data is taken from annual tests, roadside inspections and inspections at operators' premises. Scores are split into two categories – one for vehicle roadworthiness and the other for traffic, including various factors such as drivers' hours and tachograph offenses – and a combined score.

Operators get points when a test or inspection finds a defect or infringement of the rules. The more serious the defect or infringement, the more points. Operators are then given a score – red (highest risk), amber (medium risk) or green (lowest risk).

SUEZ was awarded a green score at the end of 2016.



Recovering resources

New peaks in the throughput of waste and the volumes diverted to productive use were reached in 2016. While this mostly takes the form of secondary materials – recyclables, compost and alternative fuels – energy recovery is becoming increasingly important.

As we succeed in extracting more value from discarded materials, further advances are harder-won. Ongoing investment in energy-from-waste will be essential, along with more inventive solutions for hard-to-recycle waste streams. These may involve new technologies or collaborations, such as our partnership with TerraCycle ([see page 21](#)).

As reported in the economic sustainability section, SUEZ recycling and recovery UK handled a record 10.4 million tonnes of waste in 2016.

▶ excluding energy-from-waste, some **6,807,500 tonnes** of secondary materials were recycled and recovered

▶ taking energy recovery into account, **more than 82%** of this material was put to good use – almost **8,550,000 tonnes**



Recycling

Recycling rates are not just stagnating, this millennium's steady progress in recycling household waste has gone into reverse across England.

It means that the UK is not going to meet its target (agreed with the EU) to achieve 50% recycling by 2020, without decisive action.

This was our conclusion on analysing the statistics for local authority recycling of household waste, published in December 2016. Given the sharp reductions in recent years in local government funding, we argued that the most realistic option for reinvigorating the UK's recycling performance was to extend producers' responsibility for their products.

Severe pressure on local authorities' finances is a major obstacle to recycling progress, but other SUEZ initiatives in 2016 showed how public attitudes are also part of the problem – and that better communication and partnerships offer at least a partial answer:

A **YouGov** survey we commissioned in 2016 laid bare a significant disconnect between what the British public think (or say) about their recycling and the actual performance of households, as shown in national statistics.

In the poll, 38% of the population claimed they recycled 'everything' their household possibly could. A further 41% said they recycled the 'vast majority' of items. Only 19% admitted to recycling 'half or less', and just 3% owned up to not recycling at all.

The survey showed support for compelling major manufacturers and retailers to standardise packaging and pay more tax on packaging materials as a way of boosting recycling. Nearly half of respondents also backed the idea of council tax reductions for households that recycle well, while others favoured reward vouchers.

A **communications campaign targeting householders** has shown how recycling of metals can be boosted.

In Warwick, SUEZ and the MetalMatters industry partnership jointly funded a two-phase leaflet drop to 53,000 homes plus advertising at council information points, a local cinema and on recycling vehicles. Six months into the campaign, metals recycling had increased by 28%. Warwick District Council, which no longer has a budget for a recycling officer or waste-related publicity campaigns, also saw a 3% rise in recycling across the board.

The publicity drive cost 29p per household, but achieved payback in just over six months.

The MetalMatters campaign is being rolled out to our contracts across the UK.

A short video, launched at the Local Authority Recycling Association Conference, can be viewed here: <https://youtu.be/TvjZltSoejw>

Switching to **fortnightly collection of residual waste** can offset some of the additional cost of expanded recycling services. A trial by SUEZ and East Devon Council showed that the public will accept three-weekly collection when the environmental and financial benefits are explained.

The success of the trial – involving an initial 1,300 homes – convinced the council to extend the streamlined service to all 67,000 households in the district during 2017.

Shortlisted for a public-private sector partnership award, the trial involved extending weekly kerbside collections to include card and plastic, as well as food, paper and cans. Leaflets, letters, roadshows and a dedicated website explained the rationale. Then, in practice, residents saw that their black bins did not need emptying so frequently when they recycled more.

A move that risked controversy over what could be perceived as a worse service actually proved popular with residents. Recycling rates increased by 66% and the amount of food captured rose 147% as residual waste contracted.

Who will pay for recycling?

The statistics for local authority recycling of household waste published in 2016 showed the first fall in England in the 16 years since records began. Our analysis confirmed that every region had lost ground, except the south west, which flat-lined at 47.6%.

The average recycling rate for England's local authorities fell back from 44.7% to 43.9% (2014/15). In urban areas, the drop was sharpest. London's household recycling rate fell for the third year running to 32% (in 2015/16).

Wales, with a rate of 60.2%, showed what could be achieved with protected funding and a clear national policy of enforceable local targets. This was a 4% rise for the year (to end-March 2016).



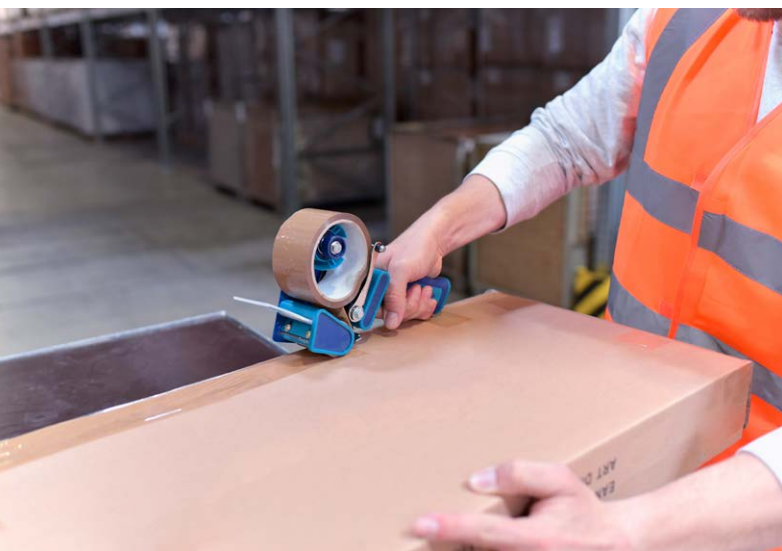
SUEZ recycling and recovery UK CEO David Palmer-Jones suggested an alternative approach of shifting some of the responsibility and costs of recycling household waste away from the public purse to producers and the point of sale.

He explained: "A wider producer responsibility regime would see packaging and product manufacturers taxed on a sliding scale according to the amount of recyclable and non-recyclable materials used in their goods. This levy would help pay for more comprehensive material capture schemes for a much wider range of materials."

A levy scheme would get around the huge funding challenge facing local authorities. It would give manufacturers an incentive to use more recycled materials and get involved in systems designed to collect and return these materials to them.



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Awards stack up

Concrete blocks made from street sweepings have won SUEZ two industry awards for innovation in recycling.

The company was the first, in 2012, to collect and process street cleansing waste for use in concrete. Since then, we have perfected the method and now process around 70,000 tonnes a year at two facilities: Neachells Lane in Wolverhampton and Coleshill, near Coventry.

Previously, street sweepings were landfilled. Now sand and aggregates are extracted, washed and used in the production of concrete blocks and pedestrian barriers.

Organic materials in the waste (mainly leaves and twigs) are separated for use in landfill restoration. So too is the filter cake – a sludge residue left after secondary separation and silt treatment.

This results in a recycling rate of up to 99%.

The concrete blocks were named best recycled product in the National Recycling Awards organised by industry magazine MRW. Earlier in the year, SUEZ won the letsrecycle.com news website's Award for Excellence in the circular economy success category.



A krushing success

For a number of years, SUEZ recycling and recovery UK has handled the clear-up after the annual Notting Hill Carnival on behalf of Kensington and Chelsea Borough Council. This massive task was somewhat easier in 2016 thanks to the creation of our Karnival Krush Zone.

Carnival-goers recycled some 40,000 drinks cans over the July weekend rather than discarding them on the streets, where bins cannot be provided for security reasons.

They were encouraged to swap their empty cans for full ones or other giveaways in the zone, such as temporary tattoos and T-shirts.

Our other partners were the Every Can Counts campaign and AG Barr, who supplied the giveaways.





Composting

Just under 134,000 tonnes of compost was produced at SUEZ facilities in 2016.

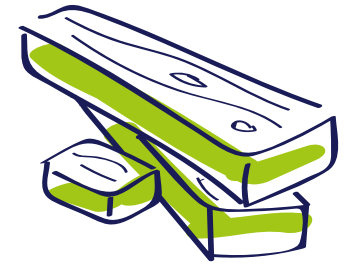
High-grade compost suitable for sale in garden centres accounted for 19,500 tonnes – half as much again as produced in 2015 thanks to increased production at our facilities in Lount, Leicestershire, and Packington in Coventry.

Production overall, however, was down by around 8% on the previous year – in line with the level of incoming waste.

No new composting or anaerobic digestion facilities came on stream in this period, but our licensed capacity would allow a doubling of production at current sites, given the demand.

Wood

Our wood reprocessing operations have doubled in scale over the last three years.



We operate six facilities dedicated to turning timber waste into wood chip. Production ceased at Ridham, in Kent, in November 2016.

Our national network provides strategic coverage of Great Britain: it stretches from Binn Farm in Perth and Kinross to Higher Brynn Farm in Cornwall. Most of the wood chip is used as fuel.

In 2016, we produced more than 287,000 tonnes – almost a quarter more than the previous year and more than twice the output in 2014.

Much of the recovered timber comes in the form of manufactured MDF or chipboard sourced from our municipal and industrial clients. Difficult to recycle, this material usually goes to landfill. Processing requires removal of metals before shredding.



Alternative fuels

The market for alternative fuels made from residual waste has taken longer to develop but is also growing strongly.

Recovering this resource provides a renewable source of energy, displacing coal and fossil fuels in cement kilns and combined heat and power plants.

We produce two types.

A mixture of household and commercial waste is used to make refuse derived fuel. In 2016, we produced more than 250,000 tonnes.

It is mainly commercial and industrial waste that goes into solid recovered fuel, which has a lower moisture content and higher calorific value. Its output jumped by more than 70% to 220,000 tonnes, boosted by the first full year's production at Malpass Farm and Tilbury. Towards the end of the year, the Malpass Farm facility moved to 24/7 production, so that it can supply local cement-maker Cemex's full demand for Climafuel®.

The Tilbury facility can produce both fuel types. Meanwhile, in Aberdeen, capacity to turn a further 70,000 tonnes of residual waste into waste derived fuel is due to come on stream in 2017.



Electricity

Energy recovery from waste is an essential and growing part of the circular economy. It is vital to bridge the gap in the UK's waste treatment capacity. This source can also help plug a structural deficit in our country's energy market as coal-fired and old nuclear power plants shut down.

Energy-from-waste should expand more rapidly as a cost-effective local source of energy for factories and other businesses under a new and greener industrial policy. These facilities will also complement other forms of renewable power with a steady, 24/7 supply, while energy from wind and sun rises and falls, depending on weather conditions.

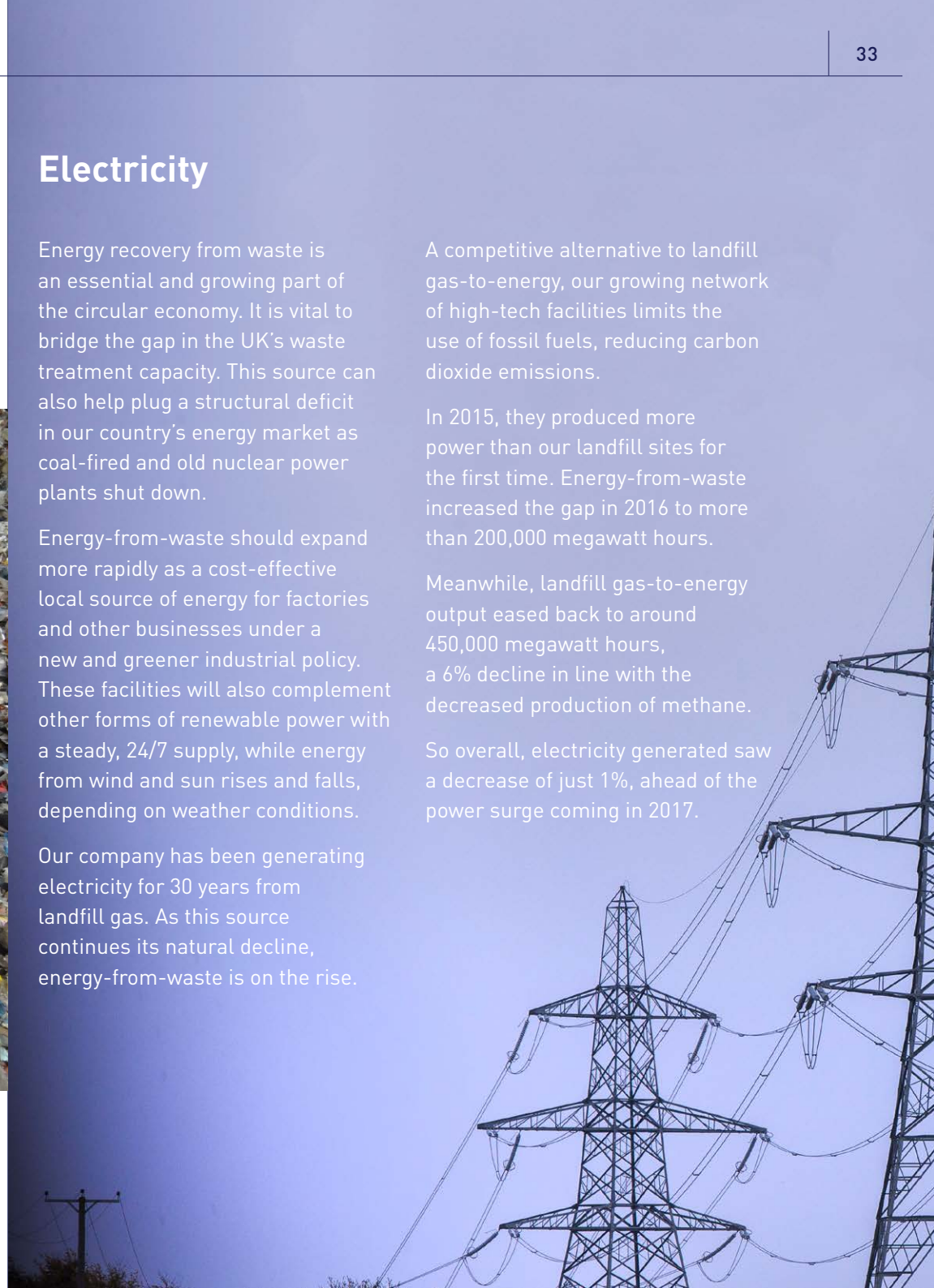
Our company has been generating electricity for 30 years from landfill gas. As this source continues its natural decline, energy-from-waste is on the rise.

A competitive alternative to landfill gas-to-energy, our growing network of high-tech facilities limits the use of fossil fuels, reducing carbon dioxide emissions.

In 2015, they produced more power than our landfill sites for the first time. Energy-from-waste increased the gap in 2016 to more than 200,000 megawatt hours.

Meanwhile, landfill gas-to-energy output eased back to around 450,000 megawatt hours, a 6% decline in line with the decreased production of methane.

So overall, electricity generated saw a decrease of just 1%, ahead of the power surge coming in 2017.



Landfill

Two more of our landfill sites closed their gates in 2016: New Crosby and Cranford in west London.

That leaves nine operating landfill sites, almost half the number of five years ago.

As outlined elsewhere in this report, the landfill gas from our portfolio of closed and operating sites is on a downward curve – though it will continue to be a valuable source of alternative energy for years to come.

Leachate is the other main output from landfill sites. It is a mixture of water and liquids released by decomposing waste. Leachate requires treatment to ensure that contaminants are removed before it can be safely discharged.

Fast track to restoration

New Crosby landfill near Scunthorpe was due to continue operating for another couple of decades, but closed during the year.

A former quarry, the site is served by a rail link. This made it feasible to ship non-hazardous residual waste from west London – during the construction of a dedicated energy-from-waste facility – without adding to traffic and pollution on the roads north to Scunthorpe.

Deliveries were stepped up in January 2014, when the former quarry still had capacity for a further 20 years of operations. This operation continued over the following 30 months, filling most of this void space, and ended as the Severnside energy recovery centre came on stream.

As London's waste now heads west by rail to South Gloucestershire, restoration of the New Crosby landfill can proceed much sooner than originally planned.

Restoring land

During 2016, we restored 90 hectares of landfill, an area of roughly 90 rugby pitches.

Over the last six years, a total of 276 hectares of former landfill has been capped and prepared for future use as amenity, such as green space, or light agricultural use.

Restoration works during the year also involved the planting of more than 43,000 trees. In all, more than 117,000 have been planted at sites around the country since 2012.

In addition, we were responsible for planting 1,500 metres of hedgerow at Henthorn, in Clitheroe, Lancashire. This was in line with planning requirements for the Lancashire site, whose aftercare has since been taken over by the council.



**a collaborative,
open and responsible
company contributing
to the common good**



a collaborative, open and responsible company contributing to the common good

To be collaborative and contribute to the common good are the two other priorities adopted by SUEZ Group. They are also twin pillars of our social responsibility as a company.



Collaboration is also one of our core values. We see it as being central to the ongoing development of SUEZ in the UK.

The reorganisation of our business over recent years was designed in large part to facilitate closer working. Examples include: supporting new specialisms such as alternative fuels, improving cohesion within regions, or sharing best practice across different energy-from-waste facilities.

In this section, we focus on our responsibilities to our employees and local communities, and how we engage with wider society for the greater good.

Our values

▶ enthusiasm

We have a 'can do' attitude

▶ excellence

We strive to be right first time, every time

▶ creativity

We think and act smarter

▶ responsibility

We do what we say we will do

▶ communication

We take the time to talk and listen

▶ collaboration

We help each other to create value

Improving health and safety

Of all our obligations, protecting our people from harm has to be, and remains, the overriding commitment.



The previous chapter described our integrated management system, which lays down procedures to ensure ways of working are safe while also assuring quality and environmental protection.

This system has been certified compliant with the international standard for safety management (BS OHSAS 18001).

SUEZ recycling and recovery UK actively promotes safe behaviour and awareness through the work of its dedicated health and safety teams, training courses, safety auditing and the Safety in Mind programme, which encourages a safety-aware culture.

Our company, and our industry, has made great progress in reducing injuries at work in recent years. But incident rates are not declining as fast as we would all like.

The primary indicator for our safety performance is the number of incidents reportable to the Health and Safety Executive under the RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences) Regulations 2013.

Accidents must be reported if they fall under the list of 'specified injuries' stated in the regulations or if they result in an employee being away from work, or unable to perform their normal work duties, for more than seven consecutive days as the result of their injury. Prior to 2013, the RIDDOR incapacitation threshold was three days.

At 606, our RIDDOR measure was down 19% on the previous year (749).

These figures represent very worthwhile avoidance of pain and harm to our employees. However, this indicator is still above the 'Hard Target' level of 549 set for our industry. This is a joint initiative to encourage continuous improvement in safety performance by the Environmental Services Association and the Health and Safety Executive, now in its third five-year cycle.



We also monitor and set annual targets – set by SUEZ Group – for the frequency of injuries generally, and their severity.

The number of days lost to incidents per million hours worked is an indicator of the severity rate. In 2015, this stood at 268. By the end of 2016, the measure had fallen to 247. This is a reduction of almost 8%, but still above our target of 200. The frequency rate is the number of such incidents – again, per million hours worked. In 2015, the indicator showed a figure of 13.40, which dropped to 12.27 over the next 12 months. This reduction of almost 8.5% took us beyond the year's target of 12.8.

This strong performance is attributable to the attitudes and actions of individual employees as well as the efforts of our safety teams and managers, but more will be done to spur and sustain further improvement.

Safety in Mind

Our behavioural safety programme remains central to our strategy.

Safety in Mind was launched in 2013 and has won industry awards for its innovative approach. Unlike many safety initiatives, it was designed not top-down, but by employees for employees.

Its aim is to develop a safety culture in which everyone takes personal responsibility for their own and their colleagues' safety. Intensive courses for site managers and safety leaders, and a variety of training modules tailored to employees' roles, have been developed and delivered under the programme.

Now, some five years on from its planning, the group who helped shape Safety in Mind are going to review and update the programme. Employee representatives on our UK Works Council contributed to this initiative to refresh and reinforce Safety in Mind. We will describe its evolution and impact on performance in future reports.



Other developments

- ▶ In April 2016, SUEZ recycling and recovery UK marked World Day for Safety and Health at Work with a series of events and presentations. CEO David Palmer-Jones praised "the enthusiasm, dedication and commitment that is helping us change our culture and the way we think about safety". However, he emphasised that an even more proactive approach was needed to eliminate accidents that could be prevented.
- ▶ We launched a survey of employees' views on health and safety. Again designed with the help of the UK Works Council, the survey probed opinions on ways to reduce work-related risk and improve working conditions. Employees' anonymous responses will help shape our safety strategy and influence the next stages of the Safety in Mind programme.
- ▶ The number of reported near misses increased in 2016. Employees are encouraged to log these incidents, which are reviewed so the lessons can be applied to safety procedures and in training. We welcome higher reporting as a sign of growing risk awareness and engagement.
- ▶ In October 2016, our managers and supervisors started a company-wide conversation with colleagues about welfare facilities. The results of the fortnight-long consultation were fed back to a working group on employee wellbeing that is reviewing welfare policy and provision.



Vital statistics on wellbeing

A survey gauging the vitality of employees is guiding the efforts of the company's working group on wellbeing.

More than 200 employees participated, answering questions about their lifestyles and other topics related to clinical and mental wellbeing. Using the information, an algorithm then computed a risk-based 'vitality age'.

Areas flagged up by the survey included back problems, diet and exercise, and stress. The Wellbeing Working Group is focusing its attention on these areas in 2017.

Training and development



The demands of our diverse business call for a wide and intensive programme of training. We recognise that developing our staff and their capabilities generates shared benefits for employees and for SUEZ recycling and recovery UK.

We encourage and support people to advance within our organisation, and offer employees the opportunity to re-train for new roles, including technical posts. SUEZ also operates dedicated recruitment and training programmes for apprentices and graduates.

In 2016, we ran 620 courses and trained 4,955 people. In addition, employees received some 515 hours of e-learning.

More of our people will be able to avail of this highly flexible form of training delivered digitally through a new learning management system called iLearn.

The iLearn platform hosts a vast amount of development material, including bespoke learning resources produced in-house. iLearn allows employees to access personalised content and follow training courses selected to meet their needs. As we blend our off-job and on-line training, we can reduce the need for travel and associated emissions. Meanwhile, trainees can access training when and wherever they like and on any device.

iLearn also has fun and innovative learning modules. Users can share videos with colleagues and make their training interactive by using the discussion feature.

Other developments

We continued to develop the training we offer during 2016. Other examples include:

- ▶ **Coaching:** Our coaching culture is growing through a two-stage programme. We have now taken all managers through our 'manager as coach' one-day, off-job course. Managers who show a talent for coaching are being identified for a more advanced, two-day course. So far, more than 50 managers have completed this structured training. As a result of this programme, we are seeing improvements in management style and the way managers approach people development.
- ▶ **Energy-from-waste:** Operations staff in our expanding portfolio of energy-from-waste facilities are benefiting from our EFWPro training programme. Accredited by City and Guilds, this 10-module course consolidates the knowledge new and existing staff need to operate our facilities safely and efficiently. The themes of these modules range from thermodynamics to energy and the environment. The flexible design of the course means trainees can complete the programme in five weeks or 10 months, depending on their availability.
- ▶ **Mobile plant:** We have improved the quality of training provided to mobile plant operators by appointing our own training team. The training they provide is accredited with ITSSAR (the Independent Training Standards Scheme and Register). Not only does this training meet more exacting standards of health and safety, it is also better attuned to our own internal policies and procedures. Improving operator competence will, in turn, enhance safety and efficiency.

Employee engagement

The achievements and loyalty of our employees deserve to be celebrated. At our regional employee conferences, in our staff magazine and in the workplace, we recognise their contributions.

This also takes the form of long service. In 2016, there were **177 people with 10-year anniversaries** to celebrate. Another **36 marked 20 years with the company**, while **19 reached their 30-year milestone**.

Representing colleagues

Our people at every level of SUEZ are represented, and influence decision-making, through our UK Works Council. Twenty employees are elected from 13 constituencies across the UK. They sit on the council alongside members of the executive committee.

The purpose of the council is to inform and consult employees on issues that may affect them in the future, and also to provide a forum where their representatives can contribute ideas and support the continuous improvement of the company and their working environment.

In 2016, the UK Works Council helped shape company thinking on the apprenticeship programme, Safety in Mind, employee engagement and other areas.

How we rank as an employer

Our status as an enlightened employer was confirmed during the year with the renewal of accreditation to Investors in People.

This followed a review by two independent assessors who interviewed 166 employees across the business.

We were the first of the 'big five' companies in our sector to obtain the accreditation, in 2009, and have retained this stamp of approval ever since. An Investors in People Award is 'a sign of a great employer, an outperforming place to work and a clear commitment to sustainability'.

Power of the people

The team running our Suffolk energy-from-waste facility won the Peel People's Cup awarded by the Chartered Institute of Wastes Management (CIWM).

Presented to the best operating team of the year, the award recognises that the success of any waste operation – no matter how well equipped or technically advanced – depends on the people involved day to day.

The team exceeded all the targets set for the first year of operations at the Suffolk facility, which won awards for its architecture and sustainable design and construction.

Our team in the Isle of Man are previous winners of the CIWM accolade.



However, we are not complacent. Commitment to employee development and two-way communication is essential to attract, retain and engage our people.

Makeover in Maidenhead

Employees at our headquarters in Maidenhead have a more flexible and appealing workplace after a complete renovation of the five-storey building.

The redesign of SUEZ House, completed in summer 2016, cleverly freed up space for a variety of different working and breakout areas – in line with employees' suggestions.

Rooms have moving walls to create the right areas for meetings, standalone 'hot' offices are free for anyone to use and the café area increases dramatically in size when reconfigured.

The décor uses graphics showing recycling and nature as visual reminders of SUEZ's core values, which were reflected in the refurbishment.

Doors and tables are made from sustainably sourced wood. The heating and cooling system is 30% more efficient. New LED lighting with motion sensors also reduce power use. More than 80% of the materials removed from the building were recycled or reused.

Call for support

Employees can now call a confidential telephone support service to air any concerns they may have about work.

The Freephone line was introduced in 2016 to supplement our existing employee assistance programme and human resources support.

With work sites spread across the country, staff working shift patterns, and sometimes in small teams, some of our people have limited opportunity to sound out supportive workmates for advice or just sound off after a stressful day.

Selected colleagues are on the other end of the line, with good listening skills and professional training to provide this kind of support in confidence.



Working for communities

Our obligations as a responsible company extend to the local communities we serve and to wider society.

As well as managing environmental impacts, we strive to be good neighbours, contribute to good causes and to the common good – for example, through our education programme.

At our larger sites, and where there is sufficient interest from local people, we host liaison committees. In 2016, there were 38 locations where site management met regularly with community representatives in these forums to discuss any concerns and outline developments that might affect those living in the vicinity.



Rising to the challenge

SUEZ teams in the north of England came to the aid of local communities in the wake of severe storms and flooding.

In a challenging turn of the year, staff in Calderdale and Kendal sacrificed time with their families and worked overtime during the Christmas and New Year period of 2015/16.

As waters receded after the Boxing Day floods, the 36-strong crew in Calderdale undertook a mammoth clear-up operation. It took six weeks to deal with more than 4,000 tonnes of flood-damaged goods from homes and businesses in the Calder Valley.

Nine extra collection vehicles were drafted in along with extra staff. Nevertheless, the team never missed a single black bin and recycling collection from the 94,000 homes in the borough.

they worked long hours, clocking up more than 7,500 hours' overtime, as most people enjoyed the festive break

Their swift and effective response brought plaudits from the local community and a nomination for team of the year at the National Recycling Awards.

Over in Cumbria, our Kendal Fell transfer station had also come under extreme pressure following widespread flooding earlier. A typical monthly throughput of around two tonnes in bulky items swelled to 390 tonnes as the three-person team dealt with damaged home appliances, furniture and mattresses.

Giving something back

Our people are energetic, enthusiastic and giving. We encourage employees to get involved and support community projects and good causes.

Our Giving Something Back programme helps us to contribute to national charities and to get involved with local causes. It does this in three ways:

- ▶ Fundraising activities and events
- ▶ Building a network of education ambassadors
- ▶ Raising awareness of SUEZ Communities Trust and the projects it funds

2016 saw more of our employees sign up to Give As You Earn – a voluntary scheme that allows employees to donate tax-free, straight from their pay, to any registered UK charity. As 5% of our workforce now takes part, the Charities Aid Foundation awarded the company its Silver Award quality mark, upgrading our status from bronze.

A variety of charities – including Barnardo's, Mesothelioma UK, The Dogs Trust, and Make a Wish Foundation – benefit from this highly valued, steady stream of funding. As SUEZ covers the administration costs, charities receive the full value of each donation plus the related tax relief.

We work with an organisation called Hands on Payroll Giving to promote the scheme at all our sites as part of our Giving Something Back programme. Our aim is to take participation to 10% and gold status.

Virtuous recycling on high

The virtuous circle of the recycling loop was made even more so when a SUEZ team matched recovered materials with money for charity.

Working with officers from Kensington and Chelsea Council, they went knocking on doors in Notting Hill's Treverton estate to promote recycling on a Saturday morning in October 2016.

Recycling rates tend to be lower in urban high- and medium-rise estates compared with terraced streets and suburbs.

Advice on what could and could not be recycled in the estate's bins was provided, and residents were encouraged to separate recyclable items.

Residents were also told that in return for every kilogram of recycling they brought down to a waiting collection truck, a donation would be made to a local charity.

In total, 80kg of material was recovered on the day and £500 from the contract's innovation fund was donated to Full of Life, which supports parents caring for disabled children and adults.



Education

Raising awareness of environmental issues is important to us, not least when it comes to the young.

We provide online resources for pupils, teachers and parents through re:think, an interactive education zone hosted on our website.

Our 'education ambassadors' go into schools to give presentations on recycling and the environment. School groups also come to our sites on organised tours or to the seven visitor centres we operate at our facilities.

Education and awareness-raising takes other forms, including the media and TV. During the year, SUEZ people also helped spread the word through:

- ▶ A TV documentary, Hidden Britain by Drone, featured a SUEZ materials recycling facility. Narrated by Sir Tony Robinson, the programme showed the inner workings of our materials recycling facility in Avonmouth, filmed by a remote-controlled drone.

- ▶ Community recycling centres in Surrey and Walsall appeared in the BBC One show Money for Nothing, which highlighted the value of items routinely thrown away. Interior designer Sarah Moore selected furniture and other items at the SUEZ facilities, and then showed how they could be turned into desirable furnishings. Around a third of the 1.6 million tonnes of bulky waste thrown out each year (electrical appliances, textiles and furniture) is reusable in its current state, rising to more than half with minor repairs.
- ▶ On Radio Four, our CEO David Palmer-Jones talked BBC Economics Editor Kamal Ahmed through the revolution happening in the waste industry. Listeners to the Today programme's Friday Boss slot also learned about the huge investment by SUEZ in treatment infrastructure and the case for factoring waste and recycling into the UK's emerging industrial strategy.



A second lap for runners' bottles

Plastic water bottles thrown away at the Great North Run found a fresh purpose on Tyneside – as a greenhouse.

Thousands of drinks bottles are discarded by runners along the route each year. Following the 2016 race, we recovered enough to build a greenhouse at our visitor and education centre in Wrekenton.

The project was organised with South Tyne and Wear Waste Management Partnership to mark National Recycle Week in September 2016.

Its purpose was to demonstrate how plastic bottles can be reused to make something functional. Visitors were later able to see how fruit and veg were grown, and discuss food waste.

The education centre, which is managed by environmental charity Groundwork North East and Cumbria, also ran roadshows, competitions and fun activities on recycling themes at various locations during the week.



Working with charities

Macmillan Cancer Support is our national charity partner. Our people raised over £100,000 in the two-year period (2014-2015) to support Macmillan, helping people diagnosed with cancer.

It was always going to be a challenge to top that feat and the Big Ride event that saw 300 of our employees take part in a 2,400-mile relay between our sites from Aberdeen to Cornwall. But we did, achieving our £75,000 target.

This involved a wide array of fundraising activities – from bake sales and coffee mornings to football keepy-uppy contests, individual races and challenges, and sweepstakes.

However, the year's main event took its theme from the summer Olympics.

RIO 
Roadshow

The Rio Roadshow

SUEZ employees raised thousands of pounds for Macmillan Cancer Support by running, rowing and riding the distance from London to Rio de Janeiro.



The Rio Roadshow, which took place between 20 June 2016 and 22 July 2016, saw hundreds of our employees across the country participate in sponsored sporting challenges – each aimed at covering as many miles as possible to contribute to the 5,761 mile distance between London and Rio. Together they smashed the target, clocking up an impressive 7,400 miles.

A special 'carnival bus', decked out with exercise equipment, travelled to 130 of our locations over the five-week period in a continuous 'roadshow' – starting in Inverness, Scotland, and finishing in St Erth, Cornwall.

Participants at each location sought individual sponsorship to rack up as many miles as they could on the equipment before the bus moved on, although they could also contribute miles accrued doing other sponsored activities – which included serious endurance tests, such as a 70-mile ultra-marathon and a hike across the Glens of Scotland.

For those seeking an extra challenge and to help really cover some ground, there was a competitive element too, with numerous individual and team competitions taking place within the event.

In addition, we held a nationwide raffle for all of our employees and donated a top prize of a trip for two to Brazil, while many of the company's generous suppliers, customers and partners also donated great raffle prizes.





Vehicle supplier MAN Truck & Bus UK Ltd, which supplies many of SUEZ's heavy goods and plant vehicles, kindly provided a HGV tractor unit for the duration of the event, while trailer supplier Acquila, provided a plush hospitality trailer to host the exercise equipment, which was refitted and serviced by Truck Engineering.

S&B Commercials PLC kindly donated a smaller second vehicle which could access the SUEZ sites which were too small to accommodate the bigger carnival bus.

The event follows on from the success of SUEZ's first major charity sporting event, The Big Ride, in 2014, which raised in excess of £50,000 and saw SUEZ employees cycle, in a relay, approximately 2,200 miles across the country between SUEZ locations.

We set ourselves a goal of raising at least £75,000 in 2016, through individual participant sponsorship, raffle ticket sales and supporting activities arranged at each site, such as competitions, fancy-dress and bake sales.

Our CEO David Palmer-Jones said: "In 2014, we managed to raise many thousands for Macmillan and most of that was generated by the Big Ride event, which was fantastically well received by our employees and clients.

"We wanted to do something similarly sporting in 2016, which would involve as many of our employees as possible. However, with it being an Olympic year, the event had to have an Olympic theme, so we set ourselves the ambitious target of 'getting to Rio' – covering nearly 6,000 miles by human power alone.

"I would like to thank all of our employees for their incredible efforts and the sponsors who generously contributed to make this event happen."

On being presented with the company's donation, Macmillan Fundraising Manager, Natalie Wiltshire, said: "The Rio Roadshow was an amazing event, full of colour, enthusiasm, excitement and dedication to raising as much money for those affected by cancer as possible.

"It's only with the support of companies such as SUEZ that we can continue to provide the services we offer to those living with and beyond cancer. We're not there yet, but together, if we are all Macmillan, one day we'll be able to say no one will face cancer alone."



SUEZ Communities Trust

More than 170 local communities across Britain benefitted in 2016 from funding provided by SUEZ Communities Trust.

The Trust is a registered and accredited environmental body within the Landfill Communities Fund and an approved body within the Scottish Landfill Communities Fund.

As a landfill operator, we are able to channel a portion of landfill tax to eligible projects in communities near our facilities. SUEZ Communities Trust distributes the funds contributed by SUEZ recycling and recovery UK.

The Trust provides funding awards of up to £50,000 to not-for-profit organisations for projects eligible under the rules of the Landfill Communities Fund and Scottish Landfill Communities Fund. The Trust considers projects which focus on long-lasting physical improvements at a specified site or amenity. Funding is typically awarded for the purchase of materials, equipment and the appointment of a contractor to undertake improvement work. The Trust does not fund staff posts, organisational running costs, training or events.

Since 1997, the Trust has supported more than 4,000 projects to the tune of more than £110 million.

since 1997, the Trust has supported more than 4,000 projects to the tune of more than £110 million

In 2016, the Trust

- ▶ shared out just under £4.5 million among 179 community projects
- ▶ granted £3.51 million of this to 144 projects in England and Wales
- ▶ supported a further 35 projects in Scotland with £948,000



SUEZ Communities Trust selects and supports initiatives under three programmes – Enhancing Communities, Accessing Nature and the Community Upgrade Challenge.

Community Upgrade Challenge

2016 was the final year of this programme, which challenged groups of young people to improve community facilities in the West Midlands and north-east England.

Run in partnership with Foyer Federation, the programme involved more than 1,450 young people in improving 23 community facilities. Parks, community centres and sports facilities all benefitted as the volunteers committed some 4,400 hours of effort.

Plessey Woods Art Trail was one project, which went on to win the Love Northumberland Best Young People's Project 2016. With an award of more than £18,000 from the Trust, young volunteers created a mile-long art trail around Plessey Woods Park. Working with an artist, they designed and built art installations to encourage more families to visit the woodland park.



Accessing Nature

This programme makes awards of up to £50,000 to projects that improve physical access to outdoor spaces so more local people can appreciate and enjoy wildlife. More than £400,000 was awarded to 20 projects that made wetlands, meadows, fells, river parks and woodlands across the country more accessible.

Morden Hall Park in the London Borough of Merton, for example, is a green oasis in the city with a rare habitat that could not be fully appreciated by visitors. The River Wandle, which meanders through the Grade II listed Victorian park, is a haven for wildlife. Its wetlands are now accessible for the first time thanks to new boardwalks and a dipping platform. The project also improved connections to the 12-mile Wandle Trail Network from the river Thames in Wandsworth to Croydon.

Enhancing Communities

This programme supports local communities by improving buildings and spaces of amenity value – primarily leisure and recreation – and those of historical interest.

A variety of projects were backed in 2016, including a children's play area and rugby facilities in England's south-west.

Parents in St George, Bristol, were motivated by a lack of facilities for children to start fundraising for a play area. The Trust contributed £50,000 to the Troopers Hill amenity, which opened in October 2016.

Meanwhile, Avonmouth Rugby Club was outgrowing its facilities for its teams, which cater for boys and girls at both junior and senior level. A £50,000 contribution by the Trust helped fund provision of additional pitches and the installation of floodlights, allowing for an expansion in youth rugby.



performance data

Key figures

		2016
Local authority contracts	-	72
Industrial and commercial customers	-	32,102
Annual turnover	£M	821.3
Employees	-	5,133

Waste minimisation

Amount of materials recycled and recovered from waste stream	t	8,549,528
As proportion of waste handled	%	82.2
Waste handled	t	10,400,811

Electricity generated

Electricity generated from landfill	MWh	450,298
Electricity generated from energy-from-waste	MWh	654,905

Compost

Amount of waste accepted at compost sites	t	201,935
Amount of high-grade (10mm) compost material produced	t	19,500
Amount of compost produced	t	133,905

Refuse derived fuel

		2016
Total amount produced	t	252,713

Solid recovered fuel

		2016
Total amount produced	t	220,000

Wood chip

		2016
Total amount produced	t	287,793

Land use and wildlife

		2016
Area of land restored	ha	90.0
Number of trees planted	-	43,444
Length of hedges planted	m	1,584

Transport

		2016
Fuel used by waste collection vehicles	l	11,218,570
Distance travelled by waste collection vehicles	km	28,046,425
Fuel used by company cars	l	600,326

Fleet

		2016
MOT pass rate	%	93

Compliance

		2016
Number of enforcement notices	-	2
Number of prosecutions	-	0

Emissions

		2016
Landfill (operating and closed)	Teq CO ₂	318,098
High temperature incineration (energy-from-waste)	Teq CO ₂	369,115
Vehicles >10 tonnes	Teq CO ₂	36,617
Imported electricity used on sites	Teq CO ₂	18,195

Avoided emissions

		2016
Energy exports from landfill	Teq CO ₂	180,343
Energy exports from energy-from-waste	Teq CO ₂	237,065
Total avoided emissions	Teq CO ₂	417,408
Total net emissions	Teq CO ₂	324,617

Neighbourliness

		2016
Number of site liaison committees	-	38

Health and safety

		2016
RIDDOR incidence rate (2013 regs)	-	606

Training and development

		2016
Number of courses delivered	-	620
Number of people trained	-	4,955

Long service

		2016
Number of people achieved 10 year service	-	177
Number of people achieved 20 year service	-	36
Number of people achieved 30 year service	-	19

SUEZ communities trust

		2016
Number of projects supported	-	179
Amount granted	€M	4.54

glossary

Anaerobic digestion

The process by which organic matter is broken down by bacteria in the absence of oxygen.

Biodegradable waste

Waste capable of being decomposed by bacteria or other biological means.

Carbon Reduction Commitment Energy Efficiency Scheme

A mandatory UK government scheme designed to improve energy efficiency and cut carbon dioxide emissions in large public and private sector organisations across the UK.

Climate change

Refers to the build-up of greenhouse gases in the atmosphere that trap the sun's heat, causing changes in weather patterns on a global scale.

Driver and Vehicle Standards Agency (DVSA)

An executive agency of the Department for Transport, the Driver and Vehicle Standards Agency carries out driving tests, approves people to be driving instructors and MOT testers, carries out tests to make sure lorries and buses are safe to drive, carries out roadside checks on drivers and vehicles, and monitors vehicle recalls.

Environment Agency

The industry regulator for waste management. A non-departmental government public body, set up under the Environment Act 1995 to take an integrated approach to environmental protection and enhancement in England and Wales.

Environmental Services Association (ESA)

The trade association representing the UK's private waste management and secondary resources industry.

Energy-from-waste (EfW)

The combustion (burning) of waste at high temperatures to reduce its weight, volume and also reduce the toxicity of waste materials, with the energy used to generate electricity.

Euro 6

The latest diesel engine emission legislation from the European Commission. Euro 6 supersedes the Euro 5 enhanced environmentally-friendly vehicle standards and introduces even stricter limits on pollutant emissions of nitrogen particulates and oxides.

Gasification

Gasification is a method for extracting energy from different types of materials through thermal treatment.

Greenhouse gases

Natural and man-made gases that influence the greenhouse effect, including carbon dioxide and methane.

Hazardous waste

Defined by EU legislation as the wastes most harmful to people and the environment.

In-vessel composting

Adopted to cover a wide range of composting systems, from enclosed halls through to tunnels and containers that contain the material, allowing a higher degree of environmental protection and process control.

Investors in People

The UK's leading people management standard.

ISO 9001

The international standard for quality management.

ISO 14001

The international standard for environmental management.

Landfill

The deposit of waste into or on to land in such a way that pollution or harm to the environment is prevented and, through restoration, reclaims land which may be used for another purpose. Energy can be recovered from this process and used to generate electricity.

Landfill gas

The by-product of the decomposition of biodegradable waste in a landfill site typically comprising a mixture of methane (approximately 60 per cent) and carbon dioxide (approximately 40 per cent), plus trace concentrations of other vapours and gases.

Landfill tax

A government tax that applies to waste disposed of at licensed landfill sites, which is designed to promote alternatives to landfilling.

Leachate

Water that has come into contact with waste in a landfill site.

Materials recycling facility (MRF)

A facility where recyclable waste is sorted into material streams before being transported to reprocessing plants.

Mechanical biological treatment (MBT)

A waste treatment process that uses a combination of sorting and biological treatment — either composting or anaerobic digestion.

Municipal waste

Waste that comes from domestic households including some industrial and commercial waste that is similar in nature or composition to household waste.

OHSAS 18001

The international standard for health and safety management.

Recovery

The introduction of materials and energy derived from waste into the wider economy.

Recycling

The direct reintroduction of a waste material into the production cycle as a total or partial replacement for new material.

Refuse derived fuel (RDF)

Fuel produced from municipal solid waste and business waste by removing non-combustible material and shredding the residual material.

RIDDOR

The UK's Reporting of Injuries, Diseases and Dangerous Occurrences Regulations which require the reporting of certain work-related accidents, diseases and dangerous occurrences.

Safety in Mind

An internal safety programme developed using the input and experience of our employees and designed to encourage all employees to put safety first.

Solid recovered fuel (SRF)

Fuel produced from mainly commercial waste using a similar process to refuse derived fuel, but with additional processing to improve quality and calorific value.

Transfer station

A facility where waste is bulked up and transferred to larger vehicles for onward transport to disposal or treatment.

Waste and Resources Action Programme (WRAP)

Created as part of the UK government's waste strategies, WRAP works in England, Scotland, Wales and Northern Ireland to help businesses and individuals reap the benefits of reducing waste.

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