



British Sugar: A Homegrown Success Story

The benefit of our beet sugar industry to the UK



BritishSugar

An AB Sugar company

Supports up to **9,500**

UK jobs in the wider economy



Partners with over

3,000
growers



Involved with

7,000
different suppliers





Supplies around

50%

of the UK's demand for sugar



Invested

£250 million

in the past five years to make our four factories even more efficient



Produced over

300,000 tonnes

of sugar for export to Europe and the world in 2017/18

Spends

£90 million

on goods and services, primarily in the East of England



Together with our growers, helped improve beet sugar yields by more than



25%

in the past ten years

Together with our growers, invests

£2 million

a year in R&D through the British Beet Research Organisation to improve yields





A thriving homegrown sugar industry

We're proud to be a vibrant, world-class industry in the East of England. The British beet sugar industry supports 9,500 jobs in the broader UK economy and we work with 7,000 businesses, playing a critical role in the rural economy – truly a homegrown success story.

Against the backdrop of a challenging and competitive marketplace we have consistently invested £50m each year – meaning an investment of over £500m in the past decade – to make our factories in Bury St Edmunds, Cantley, Newark and Wissington as efficient and productive as possible.

We remain focused, as-ever, on producing a quality product and ensuring we are the supplier of choice for our customers – both in the UK and abroad, as we increasingly look to grow our export capability. We face both challenges as well as opportunities in the years ahead and focusing on cost is also central to our future success.

However, we're determined not to stand still as an industry. We continue to work with our growers to drive yield improvement on farm, with a focus on R&D through our joint annual investment in the British Beet Research Organisation, resulting in yield improvements of 25% in the past ten years – a consistent increase of on average 2-3% each year. We're focused on making the most of the latest technology; hiring, training and retaining the best people;



and pursuing our commitment to efficiency and productivity throughout our supply chain and everything we do.

This continued focus on improvement means we are well placed to respond to the challenges and opportunities presented by the competitive market place in which we operate, and which may emerge from Brexit. We're proud to be a vibrant, world-class industry in the East of England and this report takes a fresh look at our industry and the people who make it what it is as we prepare for Brexit and the years to come.

A handwritten signature in black ink, which appears to read 'Paul Rogers'. The signature is written in a cursive style and is positioned above a horizontal line.

Managing Director, British Sugar
September, 2018

What the British beet sugar industry needs to continue to grow over the long term

The British beet sugar industry is one of the lowest cost sugar producers in the world. We are also part of one of the world's largest sugar producers, AB Sugar.¹

This position has been hard earned, through decades of investment and a relentless focus on productivity and efficiency. As we look ahead to Brexit, our current position means we are well-placed to compete with sugar producers across the world, and we are excited by the challenge this presents.

In 2017/18 we've exported more sugar than ever before and we're keen to continue to grow and thrive as an industry. However, in order to achieve this, it is important that we are able to continue to compete on an equal footing with sugar producers around the world.

Continued success for the British beet sugar industry will have significant benefits for the East of England economy, providing jobs in the supply chain, skilled careers in our factories and a continued focus on excellence on farm. Ensuring we have access to skilled labour is vital and we will continue to work hard in the communities where we operate to promote STEM skills in education.

We will continue to drive innovation across our supply chain – from how the sugar beet is harvested and hauled to the best logistics at our factories to ensure that we can always deliver the right product to our customers at the right time. This will involve investment in automation and more efficient transport solutions.

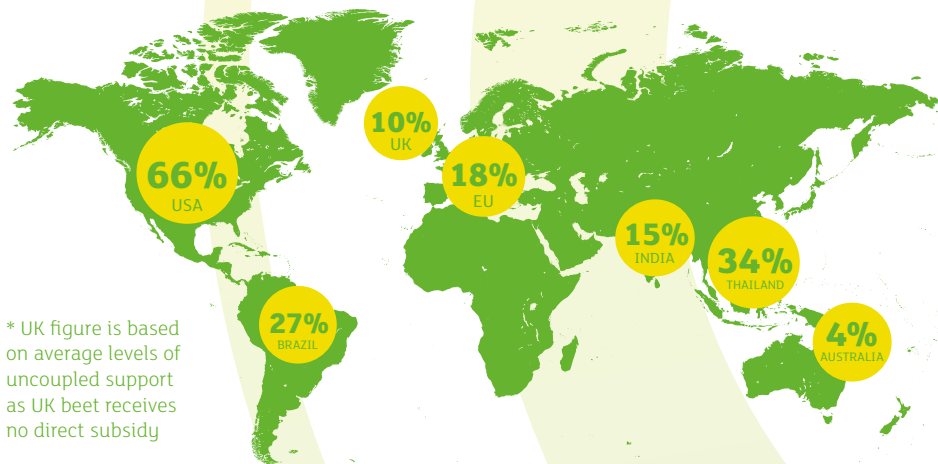


Our three policy asks to ensure we can thrive post-Brexit

1. Allow us to compete on an equal footing – no unilateral reduction of tariffs

The world sugar market is highly distorted, with the six major sugar producing and exporting countries benefiting from state support

Figures refer to subsidisation rate as a percentage of the production value at farm gate, including direct and indirect subsidies such as direct payments, price support mechanisms, production quotas and ethanol policy.²



* UK figure is based on average levels of uncoupled support as UK beet receives no direct subsidy

3. Maintain unrestricted duty and quota free access for Least Developed Countries (LDCs) and African, Caribbean and Pacific (ACP) countries.

Many LDC and ACP countries use preferential access to the UK market to drive positive development outcomes.

2. Ensure reciprocity of sugar tariffs and standards with the EU-27

We successfully compete against EU beet producers in the UK, Ireland and mainland Europe



A trusted partnership with our growers

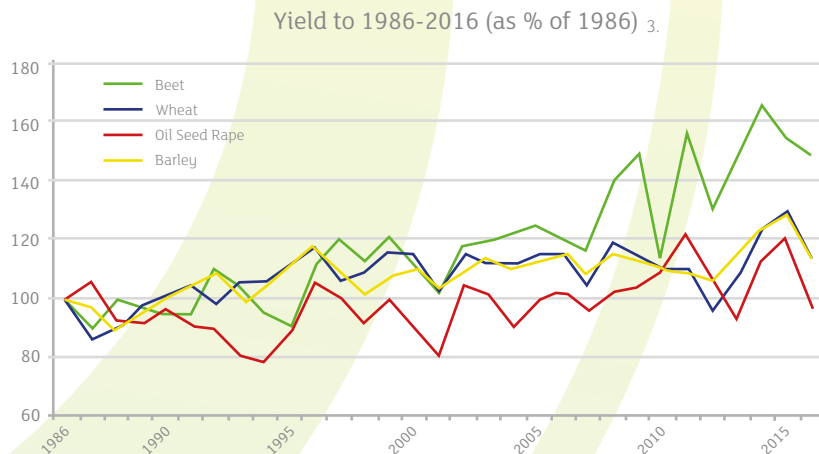
We have worked with NFU Sugar and our growers to improve productivity across the entire sugar beet supply chain. Together with over 3,000 arable farmers who grow sugar beet as part of their arable rotation, we are continually exploring technical innovations which can help drive productivity whilst using the latest research to inform their operations. Jointly, we fund the British Beet Research Organisation (BBRO), investing over £2m a year in its programme of focused, near-market research.

Through both the work of the BBRO and our approach to innovation, we've looked at every aspect of our agricultural processes to drive yield improvements, from plant breeding and genetics to the harvesting and storage of the sugar beet on farm.

Our British Sugar Field Staff provide BBRO technical advice to growers, and information is also shared at regular BBRO events. We take a multi-channel, tailored approach to communicating with our growers and sharing best practice, to drive improvements across the whole industry.

Yields have increased by 25% in the last ten years and 50% in the last three decades. Yield increases have also been achieved with fewer fertiliser and pesticide inputs per hectare. Not only has the industry maintained and improved that rate of annual yield growth but it has outstripped the rate of productivity increase in all other broadacre arable crops grown in the UK.

The British beet sugar industry has raised productivity by more than 50% in the last 30 years



Case study

The work of the BBRO in driving yield improvements

By far the most significant aspect of the BBRO's work is in relation to improving sugar beet yields through plant breeding and genetics. Roughly £0.5m of the annual investment in the BBRO is focused on this work, with ongoing research and investment in plant breeding, including testing varieties and their performance. We estimate that this work alone delivers between 1 and 2 percentage points of yield improvements each year.

Specific initiative – seed priming and pelleting

In 2007, work began on seed priming and pelleting, taking raw seed and, through Germains (a seed technology business which is part of AB Sugar), advancing its potential by hastening the crop's emergence from the ground. The benefits of the new seed products and outcomes of the field trials were communicated through the BBRO, encouraging uptake from growers. Research has shown that these developments accelerated the rate of seed emergence by up to 7 days, which in turn reduces the risk of damage to seeds. This development also resulted in plants emerging more uniformly, enabling efficiencies for growers when applying plant protection products.

Providing tailored advice for growers

Tailoring advice to growers is essential as the needs of individual growers will differ based on numerous factors including soil type, crop rotation and farm size. An example of BBRO tailored advice has been the specific recommendation, on soils susceptible to beet cyst nematode infection, to use tolerant seed varieties that had been tested in the BBRO's seed variety trials. This resulted in significant uptake in the use of tolerant varieties where needed.



Driving value and efficiency across our business

Our capital expenditure highlights ongoing spend in innovation and productivity improvement measures. We have invested £250 million in our four factories over the last five years. Our plan is to maintain this level of investment in the future as we continue to look for productivity and efficiency improvements. Our investments to-date have resulted in reduced costs

and carbon emissions, and have combined with our yield improvements on farm to enable us to become one of the lowest cost sugar producers in the world.

Today, we produce as much, and sometimes more, sugar in our 4 factories than we did in 10 factories twenty years ago.

20 years ago

- 1.1 - 1.4 million tonnes
- 10 sugar factories
- 193,000 ha
- 10,000 growers
- 100 days per year
- Sugar as the primary product

Today

- 1.1 - 1.4 million tonnes
- 4 sugar factories
- 107,000 ha
- 3,000 growers
- 300+ days per year
- Diversified business with a wide variety of co-products



We are more than just sugar...

British Sugar has built a business model around using resources more efficiently and developing new revenue streams from waste. We use our raw materials to produce 11 co-products. We were the first company to produce bioethanol in the UK in 2007, and can produce up to 80 million litres each year. We produce enough electricity to power 250,000 homes each year. We produce quality topsoil which has been used in major landscaping projects including the Olympic Park. Animal feed and aggregate for building and construction are also among the co-products we produce from the sugar making process.

This focus on maximising the use of our raw materials means our production process produces less than 200 grams of waste for every tonne of sugar produced.

The British beet sugar industry is one of the lowest cost sugar producers in the world





A customer-led agriculture business

We're a customer led agriculture business. We supply over 170 food and drink manufacturers including many household-name brands in the UK. Our sugar is also sold to wholesalers, and in retail markets under the Silver Spoon brand. We supply a wide range of sugar products to our customers in the UK, Ireland, Europe and across the world. Our 'core' product is granulated sugar, but we also offer a range of specially manufactured sugars designed to meet the needs of, and add unique benefits to, the final product and/or its manufacturing process.

British Sugar supplies around 50% of the UK's demand for sugar. The total UK market is roughly 2 million tonnes and is split as follows:



**1.7m
tonnes**

Food and drink
manufacturers



**0.2m
tonnes**

Retail



**0.1m
tonnes**

Wholesale

Growth and exports

We're increasingly looking to grow our exports and take advantage of the export opportunities in our newly liberalised market. This year we've exported around 300,000 tonnes into the EU and the rest of the world.

This is significantly more than we were able to export prior to the end of EU sugar quotas in October 2017. With sugar grown in the East of England increasingly being sold around the world, we're calling on Government and policy makers to ensure that this growing export market can continue to thrive.

130kt
to the rest of
the world

40kt
Ireland

0.1kt
Portugal

3kt
Spain

5kt
Belgium

63kt
France

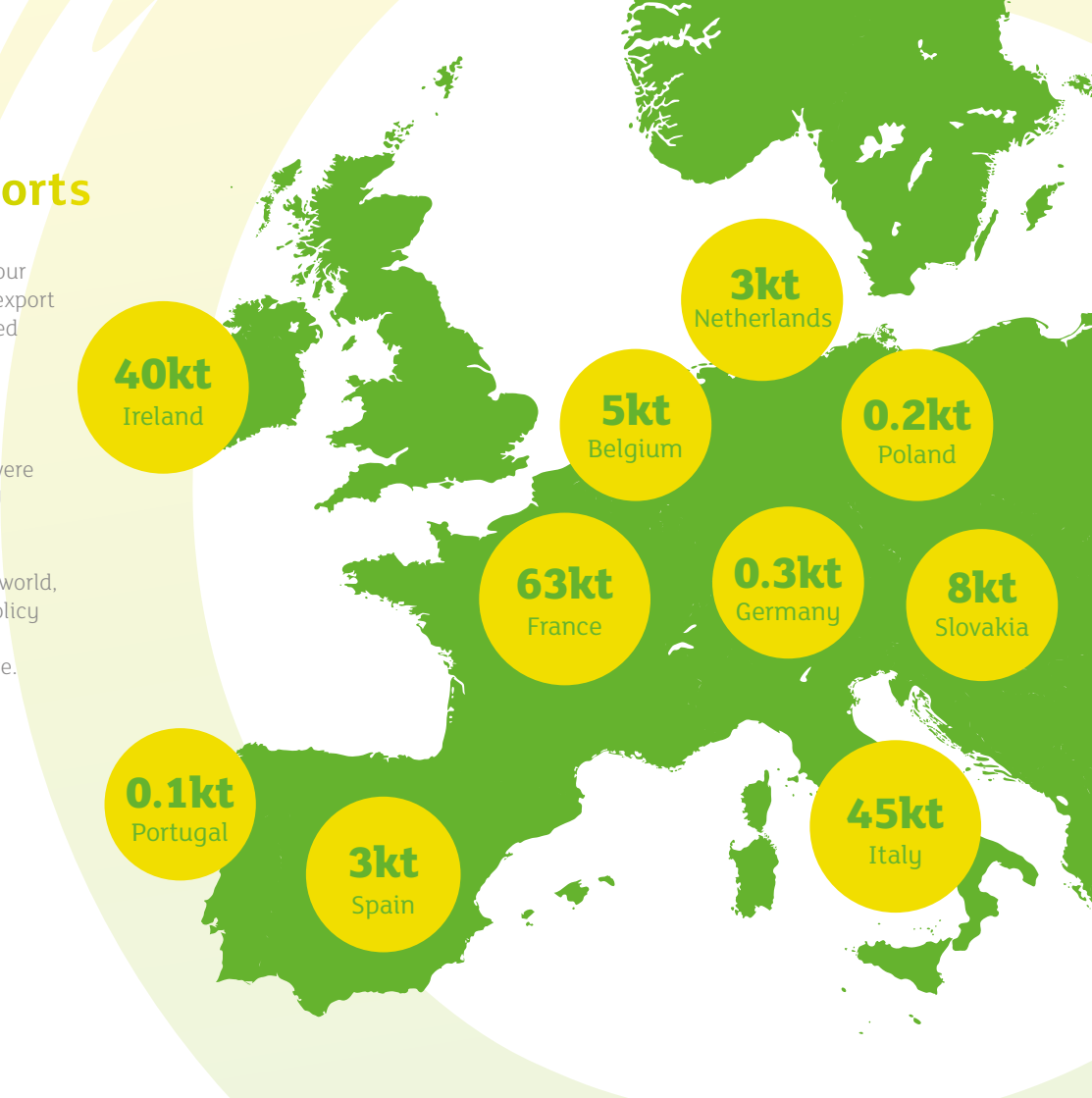
3kt
Netherlands

0.2kt
Poland

0.3kt
Germany

8kt
Slovakia

45kt
Italy





**We are
focused on
delivering
responsible
growth in
the UK**

Putting sustainability at the heart of everything we do

Sourcing locally

Our beet is sourced from local farms in the East of England and it is cultivated, on average, 28 miles from our 4 sugar factories. The resulting UK-produced sugar travels an average distance of 168 miles from beet to bulk delivery point at the sites of UK customers.

Applying best practice in sustainability, British Sugar works to ensure that best practice environmental measures are applied to all aspects of beet sugar production. Sugar beet is grown according to Red Tractor Combinable Crop and Sugar Beet Assurance Standards and these standards, combined with UK legislative requirements, have achieved Silver level equivalence with the SAI Platform's Farm Sustainability Assessment (FSA) 2.0.

Encouraging biodiversity

The inclusion of sugar beet in the arable rotation benefits biodiversity. The RSPB emphasises that UK sugar beet production supports "internationally important populations of pink-footed geese and nationally important populations of stone curlews", and is "associated with a uniquely high wildlife conservation benefit". After the sugar beet harvest from September to February, birds, including the pink-footed goose, skylark, golden plover, pied wagtail, meadow pipit and various breeds of swan are attracted to the remaining beet tops for food.



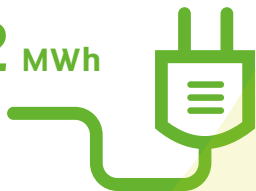
26%
water usage
reduction since 2014

12.3%
reduction in energy
usage since 2014



17.8%
reduction in CO2
since 2014

655,182 MWh
exported to the
grid in 2017/18



Sustainability is at the heart of everything we do as a business. Our parent company, AB Sugar, recently launched its 2030 sustainability commitments, which include building vibrant, diverse value chains that increase the prosperity of our communities; providing objective scientific advice on sugar, the diet and health to over 25 million people around the world; and reducing our end-to-end supply chain water and CO2 footprints by 30% and ensuring all our plastic packaging is reusable, recyclable, biodegradable or compostable.

What are we doing at British Sugar?

Reducing plastic waste

In addition to beginning work to ensure that all our plastic packaging meets the AB Sugar commitment, at British Sugar we are also taking additional steps to reduce our plastic waste today, by phasing out single-use plastic cups from our factories and head office in the year ahead.

Reducing water usage

We've taken action across all of our sites to reduce our water usage. This includes training and education, installation of better hoses for cleaning, the installation of a system at Cantley to use waste condensate water rather than river water for certain processes, the installation of a tertiary water treatment plant at Newark to displace town mains water usage with cooled excess process condensate or treated water, and halving the amount of water going to drain at Wisington through improved monitoring and a new cleaning system for part of the purification process. British Sugar's efforts to reduce our water usage have resulted in a 26.15% reduction in usage since 2014 – representing enough water to cover the annual usage of over 2,000 homes.

Making Sense of Sugar

Through Making Sense of Sugar, we are helping to inform and educate people about sugar and the role it can play as part of a healthy balanced diet.

Attracting, developing and retaining great people

In 2017 we invested £1.5m in our graduate and apprentice programmes. We're proud of our retention rates on both of these schemes, with a 60% retention rate for our graduates and an 80% retention rate for our apprentices. 48% of our operations leadership team started as grads and 32% as apprentices. 4.

Since 2014 we've taken on 30 apprentices and this is vital to our future pipeline of talent. We place an emphasis on providing opportunities for local communities in the East of England, and all of our apprentices are recruited from local schools and colleges close to our sites.

Separately, the Sugar Industry Programme (SIP), which is delivered with NFU Sugar and is now in its eighth year, continues to engage younger growers and others in the industry through a training and development programme. Each year, the participants learn about the beet sector in its entirety, including how the factory operates, seed production and industry research.



48%
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32%
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Case study

We are very proud of the great careers people carve out at British Sugar and wanted to do more to recognise their achievements. We were therefore delighted when two of our engineers were shortlisted in the Food and Drink Federation awards for Engineer of the Year.

Ed Pooley studied Motor Sport Engineering at Oxford Brookes University and quickly caught the problem solving bug. He joined British Sugar in Bury St Edmunds in 2014 as a soil sampler, moving to the laboratory as a technician and then putting himself in front of the Factory Manager to demonstrate why he believed he could be an asset to the factory longer term. His move to continuous improvement began...

Fast forward to today and Ed is managing a team and driving outstanding results – in just four months from September 2017 he has coordinated savings for the factory of £326k against an annual target of £500k.

Adam Grief joined us at Newark in 2007 on our graduate programme. For the last two years Adam has spearheaded a steam reduction project at the factory which has delivered over a 10% reduction in energy use. Adam delivered this with very minimal capital investment – a credit to his attention to detail and enthusiasm to doing more with less.

What also makes Adam stand out is his desire to involve others in his solutions and also hold them to account. And he doesn't stop with the day job – he's currently working with Lincoln University to create a stronger relationship and develop opportunities at the factory for placement students.

Savings for the factory of £326k

in just four months from September 2017 Ed has coordinated savings for the factory of £326k against an annual target of £500k.



A British success story

Across the business approximately £600 million is spent each year, of which over £200 million is spent on sugar beet, £60 million on utilities, £30 million on engineering services and contractors and around £40 million spending to support production. This underlines the broader contribution of British Sugar to the local economies where it operates.

Jobs are created in the manufacturing plants and on farms. Suppliers to the factories also create more jobs as the demand for services increases in line with sugar production and manufacturing processes. Indirect effects arise through the increased demand for consumer goods and services, arising from employment and higher income levels provided by the industry. In total, 9,500 jobs are created by the UK sugar beet supply chain. 5.

Supporting rural communities

The beet sugar supply chain is concentrated in rural areas and directly involves over 3,000 growers based across over 70 parliamentary constituencies. In 2017/18 these British farmers received over £200 million in receipts from British Sugar.

Working with local businesses

In addition, our supply chain involves around 7,000 different businesses making it one of the largest customers for many goods and services in the East of England. Our annual spend on transport, storage, maintenance, rates and rent is around £90 million in the East of England.

£60
million

on logistics



£30million

on engineering services
and contractors



£4 million
on packaging



£12million
on engineering parts

£60
million

on energy



Case study

Embedding our sustainability principles in our supply chain

Abbey Logistics is an important partner to British Sugar, providing us with bulk tanker transport from our factories to our industrial customers. Over the last couple of years, we've worked with them to explore opportunities to improve our transport road safety and the efficiency of our vehicles.

17 new vehicles are powered by 11 litre, 2,150 newton metre output engines, and have low rolling resistance tyres, helping to reduce fuel consumption. The latest high capacity blowing equipment also reduces fuel consumption significantly when unloading sugar deliveries to customers, and greater load capacity enables the transportation of greater volumes than the current vehicles, also resulting in efficiencies. The approximate CO2 savings compared to a diesel vehicle are 85 per cent.

All vehicles are also fitted with state of the art safety equipment, including four-way camera recording systems, audible left turn indicators, and telematics which measure driver performance and identify areas for improvement.

As a result, our new trucks are the best on the market in terms of safety, efficiency and drivability.

CO2 savings compared to a diesel vehicle are 85 per cent.

All 17 new vehicles are powered by 11 litre, 2,150 newton metre output engines





Thriving communities

We're committed to being a good neighbour in all our communities. British Sugar employees are involved in a range of activities across the East of England. We've brought the sugar beet story to thousands of families by taking part in events that have included the Kids Country food and farming programme in Peterborough, Open Farm Sunday activities, the Royal Norfolk Show, Countryfile Live and open days for friends and family at our four factories.

To encourage all our people to build on the great work we already do in our local communities, we allocate funds to each site to help local causes. Over the past five years we've given £150,000 to local community groups and projects, charities, schools, sporting teams and other great causes across East Anglia and the East Midlands. The support ranges from kitting out local football teams, providing new community facilities and raising money to support causes important to our people.

Case study

Our graduates and apprentices are actively encouraged to get involved with local schools and not just from a recruitment perspective

Jo and Harry, first year science and mechanical engineering graduates, from the Bury St Edmunds factory recently designed a STEM (Science, Technology, Engineering & Mathematics) activity day for Year 6 pupils (aged 10 and 11) at Abbots Green Academy, a local primary school. The day was made up of different interactive activities aimed at broadening the horizons of younger people when it comes to the subjects above.

Using money from the British Sugar One Team One Community Fund, Jo and Harry purchased all of the equipment needed to successfully deliver the day, as well as producing a stock of resources that could be used by enthusiastic volunteers in the future.

Jo said "the day was a huge success; the students really enjoyed the hands-on activities and by the end of the day many of the students said they would

consider a career in STEM. Now that we have all of the equipment we need, we should be able to deliver more of these days in local schools and reach even more young people!"

Jo Utley, Deputy Head Teacher at Abbots Green Academy stressed the importance of the part businesses can play in the classroom. "It is so important that schools help children to make the connections between their education and the real world of employment.

"This is even more so when it involves local businesses. Raising aspirations and informing children of opportunities brings the curriculum to life. We were so pleased when British Sugar contacted us with regards to providing a STEM day of activities. We hope that this is the start of building relationships between our school and local businesses."



**65 local groups
and charities
have benefited
from British
Sugar funding
in 2017/18**

References

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2. Flint and ECIPE: UK Sugar trade in the global market after Brexit, 2018
3. DEFRA, Structure of the Agricultural Industry, 2018; Sugar beet data compiled annually by British Sugar based on paid crop yield
4. British Sugar data – retention rate calculated as proportion still with the business after ten years
5. British Sugar, A Homegrown Success Story, 2017





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