

2nd edition

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Bywaters

recycling made easy

Construction Waste Management



Eliminating waste generation and maximising recycling opportunities in the construction industry

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We offer a wide range of circular solutions for construction companies...

From major project developments to specialised contractors, we deliver sustainable construction waste management services to some of the UK's most notable projects, while reducing their costs and enhancing the sustainability of their portfolios.

When dealing with construction activities, project managers require a recycler that can handle any type of waste. At Bywaters, we ensure that nothing we collect goes to landfill, and our state-of-the-art facilities in East London, including our Gateway Road site dedicated to construction and demolition waste, are expertly tackled to sort all varieties of waste for recycling and recovery.

Who are Bywaters?

Bywaters is London's leading sustainable waste management company. We send zero waste to landfill and work closely with our clients to increase their recycling rates and improve overall sustainability, reducing both costs and emissions at the same time. Whatever your waste management needs, we have the experience to help you enhance your sustainability.

Bywaters is more than a recycling company. Our vision is to lead the UK to a sustainable future, and everything we do is founded upon our commitment to improving the environment. Our team of sustainability executives work in partnership with our clients to have an instant impact, and we are always enhancing our own operations to reduce our own carbon footprint – whether that's by adding more electric vehicles to our fleet, or installing the 4,000 solar panels that power our facility in Bow.

Some of our customers:

We also give our clients access to our bespoke BRAD reporting platform, which stores all of their waste data in one place. We also give our clients access to our bespoke BRAD reporting platform, which stores all of their waste data in one place.

This allows customers to track their environmental performance, including data on the total waste produced, how much was recycled, and the CO2 savings made.

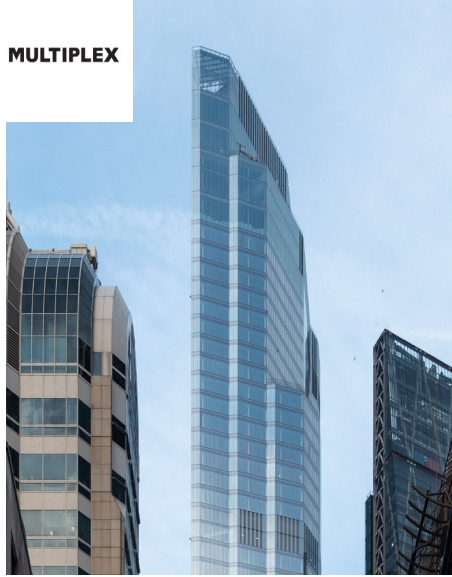
Our Green Team are available to provide consultancy and support to help reduce emissions and increase sustainability. This is in addition to training and engagement sessions for all sorts of stakeholders.



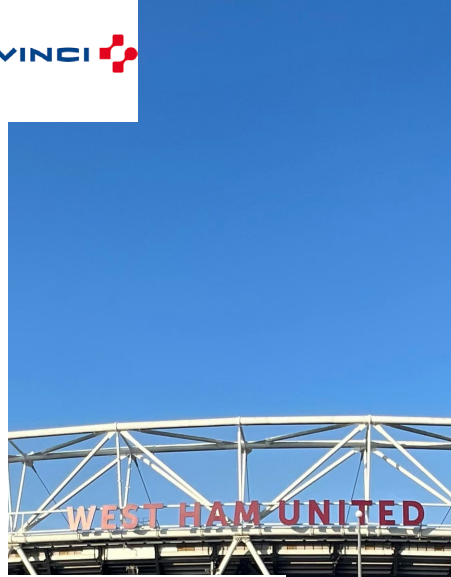
MULTIPLEX



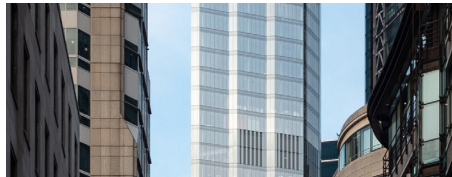
MULTIPLEX



VINCI



Construction Partners



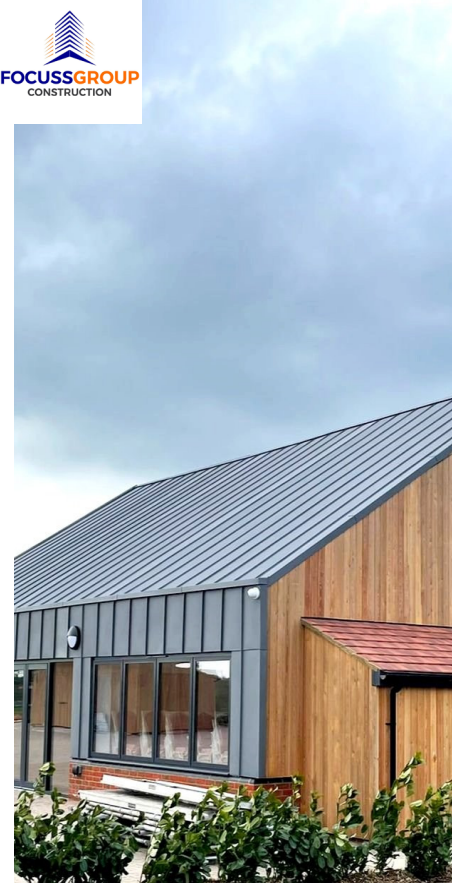
Multiplex

Having delivered over 1,100 projects with a combined value in excess of US\$100 billion across the world, Multiplex is truly a premier global brand. In London alone, it has been the company behind iconic projects such as 22 Bishopsgate and the redevelopment of the Wembley Stadium. Bywaters is honoured to work with Multiplex in delivering sustainable construction waste management for their London projects.

Vinci S. A.

Vinci S. A. is a multinational corporation that stands as a model in the global construction industry. With roots tracing back to 1899, the company has evolved into a formidable force, operating in over 120 countries. As it works towards making their UK-based facilities and construction projects more environmentally conscious, Bywaters is proud to be able to support Vinci S. A. in their journey.

FOCUSSGROUP
CONSTRUCTION



Focuss Group

We are proud to work with fellow family-owned companies such as Focuss Group, a construction company based in the UK. Having started as a one man job, Focuss Group grew to become a reputable construction business. With a portfolio specialising in both residential and commercial projects, Focuss works to deliver high quality services in Greater London and South England.

BOUYGUES
UK



Bouygues Group

Driven by innovation, Bouygues Group is not your everyday construction player. The Bouygues Group is a prominent French multinational corporation with a diverse portfolio encompassing construction, telecommunications, media, and civil engineering. Founded in 1952, the company has expanded its operations globally, establishing itself as a significant player in the construction industry.

Our services

Following the waste hierarchy, which prioritises Reduce, Reuse, Recycle, and Recover, we ensure all waste we process contributes to a sustainable future for both us and the planet.

REDUCE

Championing waste reduction, our sustainability executives empower you to make a real environmental impact. We prioritise reduction, the top of the waste hierarchy, to help you tackle overconsumption and excessive consumerism through engaging initiatives like waste audits, staff training, awareness days, and beach cleanups. These efforts support you in reducing and offsetting your carbon footprint, while also contributing to cost savings for your facility or property.

REUSE

By diverting reusable items from the waste stream, we give them a second life. We partner with various charities and businesses to find new homes for your unwanted items, preventing the extraction of virgin materials and reducing the carbon footprint associated with manufacturing new products. This helps sustain the environment for future generations, saves money, reduces the amount of waste needing to be recycled or sent to landfills, and allows products to be used to their fullest extent.

RECYCLE

At Bywaters, recycling is at the core of what we do. Our facilities sort hundreds of thousands of tonnes of waste for recycling annually. We offer comprehensive services for all recyclables, from various glass grades to hazardous and confidential materials. Committed to responsible waste management, we ensure no waste goes directly to landfills. Whether you need a complete solution or just want to recycle specific materials, Bywaters is your one-stop shop.

RECOVER

Bywaters have a zero waste direct to landfill policy. All non-recyclable waste collected by Bywaters' trucks is instead sent for recovery at Energy from Waste (EfW) facilities in London. Waste is incinerated at these facilities, and the resulting energy is used to generate electricity that helps power the UK's capital. This is the most sustainable way to handle both non-recyclable waste and a large percentage of clinical waste.

Total waste management

We offer comprehensive waste management and recycling solutions for all industries, from small businesses like kebab shops to large venues like the O2 Arena. Our services encompass handling waste from its initial generation to its final disposal.



Waste collection: This involves gathering waste from businesses and industries.

Waste transportation: Once collected, the waste is transported to facilities for further processing.

Waste sorting and separation: At the facilities, waste is sorted into different categories such as paper, plastic, metal, glass...

Waste recycling: Recyclable materials are processed and sent to other facilities to be converted into new products.

Waste disposal: Bywaters sends zero waste direct to landfill. Waste that cannot be recycled is sent for incineration.



What happens to your waste in Bywaters MRF

Operating within a vast space in East London, Bywaters 24/7 operations are a hub of activity. A constant flow of material from all over the UK is tipped in the impressive facility, which makes up London's largest undercover MRF. Capable of processing up to 650,000 tonnes of material a year, recovering over 95% to be recycled.

Once your waste is tipped, it is greeted by Bywaters friendly staff for inspection. Contaminated waste and non-recyclable waste is separated from the recyclable material and siloed to produce energy from waste. To reduce emissions, the waste is transported to the incinerator via barge.

After the inspection is complete, your waste is collected by 'the grab'. An automatic material picking machine that scoops bulk material and deposits it into two large rotating bag splitters, to remove any excess packaging.

Before your waste goes through a wild journey of spinning discs, speeding conveyor belts, infrared lasers and whirling magnets. Bywaters employees remove non-recyclable waste at the presort cabin, as well as any other residue that could obstruct the efficient processing of the dry recyclables.

Bywaters state-of-the-art equipment works in harmony, taking mixed recyclables like metals, plastics and glass and sorting them to be turned into new products like cans, bottles and notepads.

Flying out of the cabin, the mixed recyclables speed on to a series of large screens designed to separate waste based on shape. First, an OOC (old corrugated cardboard) screen consisting of numerous giant rotating axles/gears simultaneously sorts large pieces of cardboard whilst extracting fine material to be used as aggregate in many local building projects.

A second screen is aligned at a steep 45-degree angle, the gyrating screws help separate 3D and 2D items. 2D items gain traction, climbing up the polishing screen to a final sorting cabin where the paper is sorted based on quality – whilst 3D items tumble down the screen in a spinning whirl of colour, leaving just plastics and metals to be separated.

Trundling along the conveyor belt, the 3D materials, mainly consisting of plastic and metal drinks containers, travel toward the high-tech "triple-level near-infrared optical sorting system". Using infrared lasers to read the material's chemical makeup, plastics are shot with a jet of air throwing them into the required silo, ensuring HDPE, PET and any other plastics are kept separate. An overband magnet attracts ferrous metals whilst an eddy current simultaneously repels non-ferrous metals like aluminium, sorting the materials ready to be baled.

The siloed materials are compressed and baled into blocks that can weigh up to 700kg. The baled material, which can be up to 99% pure, is sent to reprocessors, where it is cleaned and processed into brand new products that can be sold and reused, starting the process again.



Gateway Road: Our dedicated recycling facility for construction and demolition waste...

Introduction

Nestled in the heart of Leyton, our Gateway Road site is specialised in sustainably processing construction and demolition waste. Being only a 30-minute drive from London Bridge, it one of the closest recycling centres of its kind to the centre of London, making it an ideal location for construction activities.

Bywaters has been providing sustainable waste management solutions at Gateway Road since purchasing the plot in 1983, and today the site is home to its own materials recovery facility – supplementing the services offered at Lea Riverside. From Gateway Road, Bywaters is able to handle all construction waste.

Whether you're undertaking a short-term renovation project or are constructing a new building, our Gateway Road facility can segregate your construction waste into individual streams that we then send for recycling.

Sustainable Construction Technology...

Using our construction MRF and trommel screens, we can extract cardboard, wood, bricks, metals, and more from your waste, before baling these streams individually



and sending them to reprocessing partners. Any residual material is sorted to extract fines – e.g. soil – and then sent to generate electricity for the National Grid at an energy from waste facility, preventing anything from being sent to landfill. This ensures that Bywaters processes these materials as sustainably as possible.

Small Tipping Services

Bywaters caters to small tipping jobs at Gateway Road, with a minimum tipping load of half a tonne (500kg). This is lower than the usual 1 tonne minimum found elsewhere, meaning that Bywaters is not only the most environmentally sustainable place to tip, but also often the most cost-effective.

Bywaters has the capability to sort waste from all streams and divert them either to recycling or recovery, meaning – along with other types of waste – Bywaters allows mini-tipping of construction and non-recyclable waste. Bywaters understands that many businesses not only want to dispose of their waste in the most environmentally sustainable way, but also often need to tip small amounts. This is why Gateway Road facility's first-class operations have been made accessible to all businesses.



Recycling Advice For Sustainable Construction Organisations

1. Conduct A Waste Audit

A waste audit assesses an organisation's operations to quantify the amount and types of an organisation's waste. Recycling specialists like Bywaters can help conduct these to assess and improve waste practices.

2. Centralise Your Bins And Clear Signage

Personal bins discourage standardising waste segregation. Implementing centralised bins is an effective strategy for improving waste sorting. Clear signage indicates where to dispose specific waste to sort litter correctly.

3. Engage Your Organisation

Train your staff and host sessions to engage your organisation with recycling practice.

4. Extended Producer Responsibility (EPR)

Work with organisations with Extended Producer Responsibility (EPR) programmes for a responsible lifecycle of the products you use.

5. Plan Deliveries And Storage

Inefficient ordering, poor storage and material mismanagement cause excessive construction waste. Proper storage, including using high-quality PP bags and segregating materials, is crucial. Accurate ordering cuts surplus and delays, minimising waste and cost.

6. Plan Deliveries And Storage

Reduce waste by analysing site space, material flow and disposal. A Site Waste Management Plan (SWMP) raises efficiency,

awareness and assigns responsibilities. Plan for leftover scrap reuse or resale before project completion.

7. Regular SWMP Training And Feedback

Training for staff, including subcontractors, on the planned SWMP is vital. Emphasise the SWMP and provide consistent feedback to minimise waste.

8. On-Site Monitoring

Monitor waste to track recycling rates, costs and materials. Update data to identify waste sources and measure progress. Calculate waste data and disposal methods for reference.

9. Leverage Compaction Equipment

From balers to PODs, using Bywaters' leading compaction equipment reduces collections, and ensures that waste is handled sustainably.

10. Work With Sustainable Partners

Ensure sustainable waste management by working with specialists like Bywaters.



BRAD



Bywaters Reporting Analytics Dashboard (BRAD)

Bywaters clients can monitor their environmental performance in real time with our bespoke reporting tool, the Bywaters Reporting Analytics Dashboard (BRAD). Through this specialised platform, all our clients can access their waste management and recycling data at the touch of a button.

The Bywaters Reporting Analytics Dashboard allows you to find and download all information about your business' waste management, in a variety of formats to make everything easily digestible. Using BRAD, you can access your recycling data, contracts, compliance documentation, CO2 emissions information, waste transfer notes (WTNs), monthly reports, invoices, complete service history, and more.



CASE STUDY

BOUYGUES

Diverting K15 from Landfills with Sustainable Solutions

Introduction

In the construction industry, generating vast amounts of waste is a common challenge. However, leading companies are finding innovative solutions. Building giant Bouygues has partnered with Bywaters to ensure sustainable disposal of their materials.

In one of their major projects, Bouygues needed to dispose 7.340 tonnes of K15 Rainscreen Cladding Board, a high-performance insulation material. Landfilling this material wasn't an option. Not only does landfill disposal take up space, but it also raises risks of potential leaching of harmful chemicals due to K15's slow decomposition and thermoset phenolic plastic components.

From Waste to Energy

In a joint effort, Bywaters and Bouygues diverted K15 cladding from landfills. Bouygues staff collected the cladding and disposed it in 40-yard RORO open containers. These were then transported to a recycling centre for sorting. Recyclable components were salvaged and reprocessed, and leftover materials were converted into Refuse Derived Fuel (RDF), a renewable energy source.

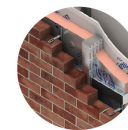
The RDF was incinerated at a high-efficiency Energy Recovery Facility (R1 status) at scorching temperatures around 1,800°F. This process breaks down the waste's organic contents, releasing captured heat energy. Flue gas produced during combustion is treated by a sophisticated system of filters, scrubbers, and other technologies to ensure clean emissions exit through a tall chimney.

The energy from this waste heats water in a boiler, creating high-pressure steam. This energy is then captured through a turbine generator. This energy is used to produce electricity that is fed into the national grid for distribution to homes and businesses.

The incineration process also generates a by-product called bottom ash, which is recycled to create construction aggregates. These aggregates can be used in road construction and as fillers in building applications.

Results and Impact

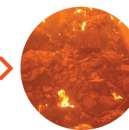
This joint effort diverted 7.340 tonnes of K15, a difficult material to dispose of, from landfill. This not only cuts landfill use but also reduced their carbon footprint. By implementing such initiatives, companies can contribute to a more sustainable future.



K15 cladding is transported in RORO containers to a MRF.



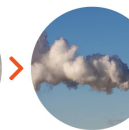
K15 is turned into recyclables and RDF.



RDF is incinerated to divert waste from landfills.



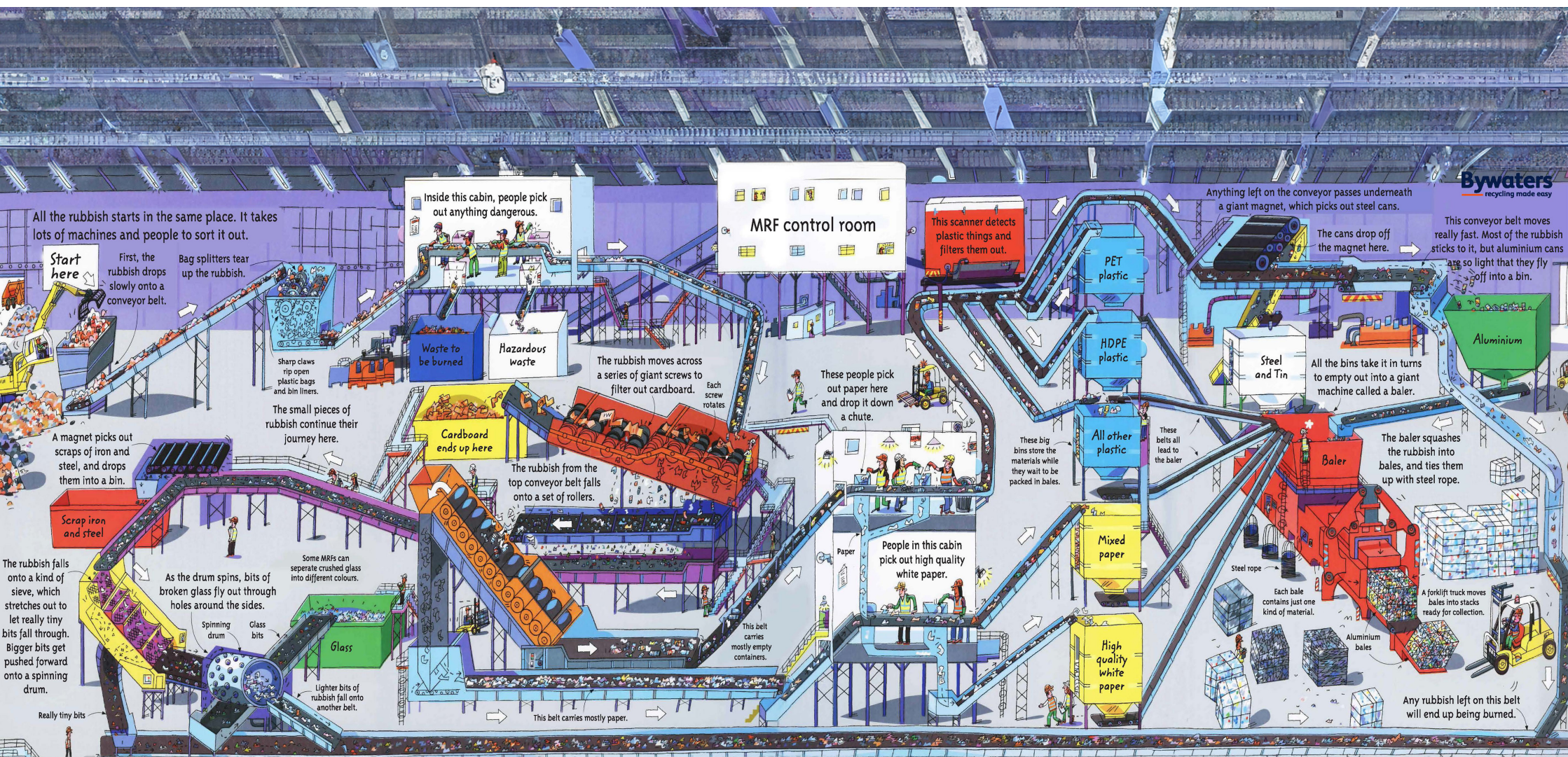
Incineration bottom ash becomes aggregate.



Steam from incinerated waste is transformed into energy.



The energy is used to power our homes and businesses.



All the rubbish starts in the same place. It takes lots of machines and people to sort it out.

Start here
First, the rubbish drops slowly onto a conveyor belt.
Bag splitters tear up the rubbish.

Sharp claws rip open plastic bags and bin liners.
The small pieces of rubbish continue their journey here.

Inside this cabin, people pick out anything dangerous.

Waste to be burned
Hazardous waste

The rubbish moves across a series of giant screws to filter out cardboard. Each screw rotates.

Cardboard ends up here

The rubbish from the top conveyor belt falls onto a set of rollers.

MRF control room

These people pick out paper here and drop it down a chute.

Paper

People in this cabin pick out high quality white paper.

This scanner detects plastic things and filters them out.

PET plastic

HDPE plastic

All other plastic

Mixed paper

High quality white paper

Anything left on the conveyor passes underneath a giant magnet, which picks out steel cans.

Steel and Tin

The cans drop off the magnet here.

This conveyor belt moves really fast. Most of the rubbish sticks to it, but aluminium cans are so light that they fly off into a bin.

Aluminium

All the bins take it in turns to empty out into a giant machine called a baler.

Baler

The baler squashes the rubbish into bales, and ties them up with steel rope.

Steel rope

Each bale contains just one kind of material.

Aluminium bales

A forklift truck moves bales into stacks ready for collection.

Any rubbish left on this belt will end up being burned.

A magnet picks out scraps of iron and steel, and drops them into a bin.

Scrap iron and steel

The rubbish falls onto a kind of sieve, which stretches out to let really tiny bits fall through. Bigger bits get pushed forward onto a spinning drum.

As the drum spins, bits of broken glass fly out through holes around the sides.

Spinning drum
Glass bits

Some MRFs can separate crushed glass into different colours.

Lighter bits of rubbish fall onto another belt.

Glass

Really tiny bits

This belt carries mostly paper.

These big bins store the materials while they wait to be packed in bales.

These belts all lead to the baler.

Sustainability Executives & Activities

Think of our Sustainability Team as experts who are there to consult you on any sustainability related matter that could help your business increase recycling rates or lower its carbon footprint. At Bywaters, we're fully committed to sustainability. That's why each of our clients is assigned a dedicated sustainability expert as part of our service.

Whether you're a boutique café owner or a Fortune 500 powerhouse, your sustainability expert will help you minimise your company's environmental impact and keep costs down.



Audits

Our sustainability team audits your waste streams, recommends improvements, and tailors a waste strategy for you.



Waste Awareness Days

Learn by doing with Waste Awareness Days! Gain hands-on experience through engaging activities including sorting challenges and VR tours.



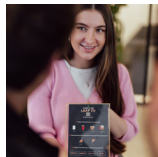
Reporting

BRAD, our online platform, offers transparency into your waste data, including a recycling performance rating and actionable insights to help you improve your recycling.



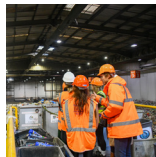
Volunteering and community building opportunities

Clean up communities, fight food waste! Join our diverse volunteer projects: litter picks, beach cleans, and supporting charities.



Training

Level up waste management! Bespoke staff training & "Train the Trainer" empower long-term impact, ideal for sites and businesses with high turnover.



Facility visits

Go behind the scenes! Take a guided tour of our Material Recovery Facility (MRF) and see how your waste gets a second life. Learn sustainable disposal tips firsthand.



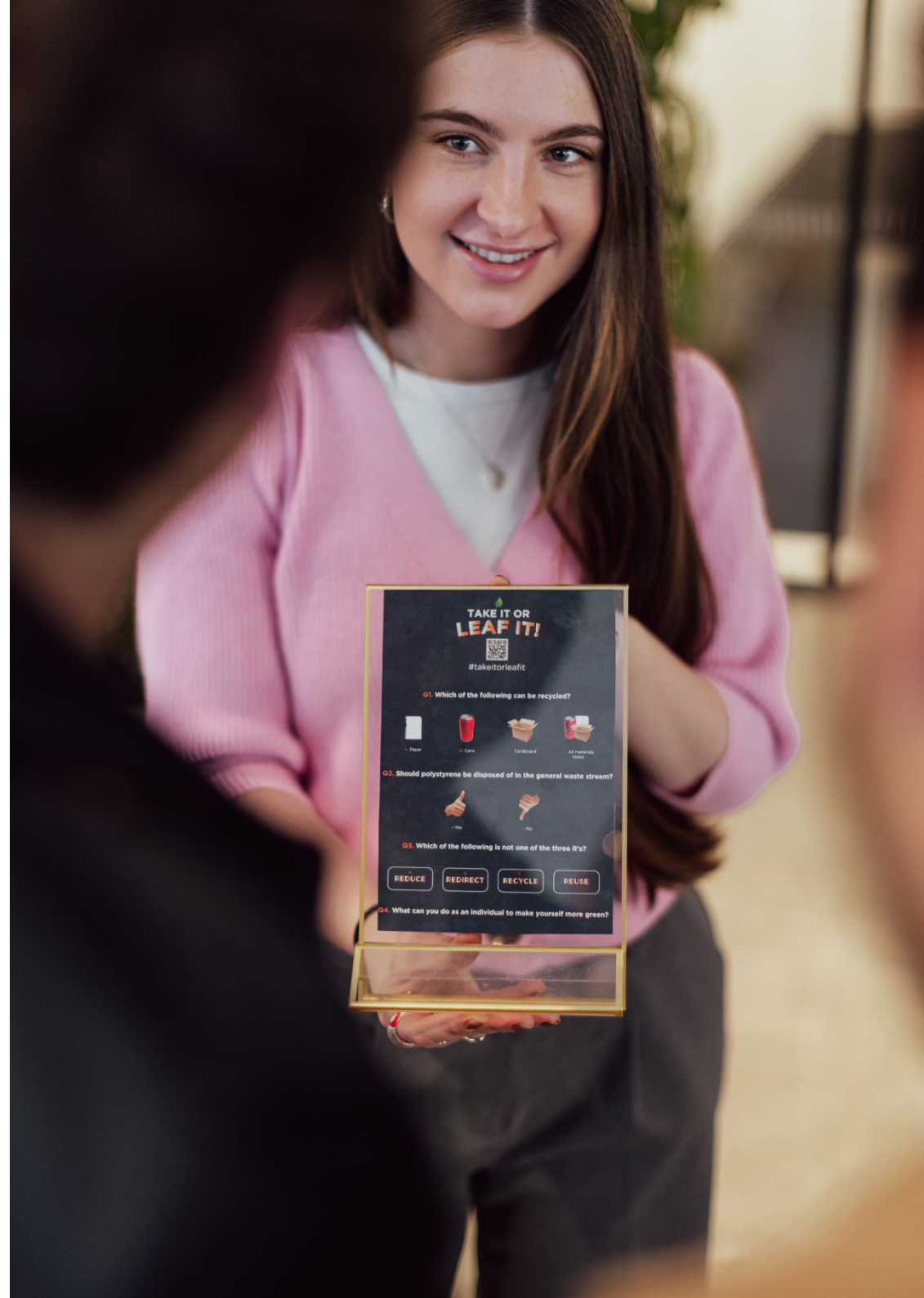
Signage

Recycle right every time. Our posters simplify sorting with colour coded & clear instructions, and images. Customisable for any space and language.



Sustainability webinars

Go green by joining our quarterly webinars! Learn about sustainability, engage with experts, and drive positive change in your facility.





Containers

Bycycler Containers

Bywaters provides external containers in three different sizes for dry recyclables and non recyclables waste, which are colour-coded for easy identification. The available sizes are 240 litres, 770 litres, and 1100 litres. The containers are coloured orange and blue, designed to complement the entire Bycycler range. Furthermore, all of these containers are fully compatible with our dustcart fleet, ensuring efficient waste management and collection.



240 litre



770 litre



1100 litre



Glass containers

Bywaters offers 240-litre containers for glass specifically designed for the recycling of mixed glass bottles and jars. These specialised containers are a part of our commitment to sustainable waste management, making it easy for individuals and businesses to participate in glass recycling efforts and contribute to a greener environment.



240 litre

Food Containers

Bywaters offers a sustainable food recycling service that keeps your food waste out of landfill. Our durable, clean, secure, and purpose-built food waste wheelie bins come in two sizes: 120 litres and 240 litres.



120 litre



240 litre

Confidential waste containers

Bywaters are pleased to offer the unique confidential secure container for all your confidential paper.

We offer a wide choice of secure solutions from security containers, sacks and seals, to enclosed lockable skips.



Confidential Bag



120 litre



240 litre



660 litre

Confidential waste tags

Bywaters confidential waste containers come with optional waste tags for sorting different confidential waste types.



Media waste only



Confidential paper only (small)



Confidential paper only (large)

Battery Containers

Bywaters makes battery recycling easy with our Box and Tube containers, which are durable and compact containers for recycling portable (household) batteries.



Battery box



Battery tube

WEEE & Fluorescent Tube Containers

We offer a wide range of containers to our clients, enabling them to recycle their WEEE waste efficiently. These specialised containers are designed to accommodate different types of WEEE waste, ensuring proper separation and disposal of electronic and electrical equipment.



WEEE Box



Fluorescent Tube Station

Internal Containers

The Bicycler internal containers make it easy for staff to recycle at source and are ideal for offices looking to maximise their recycling and minimise their effort.



Essential Bin



U Bin



Stark Bin



Bin soft close



Combi bin



Contemporary

External containers

Skip Containers

Bywaters can provide a range of skips from 4 to 12 cubic yards (3 to 9.2 cubic metres) in capacity, perfect for disposing of bulky household waste such as furniture, garden waste, and building materials.



Rear End Loading (REL) Containers

Bywaters offers REL containers for dry recyclables and residual waste, colour-coded orange and blue to work in conjunction with the full Bycycler range. REL containers are easily loaded through waist-height rear doors. They also have Duraflex lids with front access. Those containers with Duraflex lids are lockable. They come as 8, 12, 16 yard containers.



Rolonof Containers

Bywaters can provide a range of open and enclosed roll-on/roll-off containers in the following sizes: 15, 30 and 40 cubic yards. The 15 cubic yard container is particularly appropriate for heavy loads due to its low sides for ease of loading. The larger containers are walk-in and are suitable for bulky waste or when more capacity is needed.



Baby Hooklift Containers

These containers can be delivered on a baby hooklift vehicle and are therefore ideal for areas with space, height or weight limitations.

These containers feature 'barn door' walk-in access. They are fully enclosed and lockable, offering secure storage and are particularly suitable for large bulky items that may not fit into a standard skip container. The open door allows items to be wheeled in if desired.



Compactors

A waste compactor is a machine that compresses waste into manageable volumes. This process offers several advantages: efficient use of space, fewer collections, reduced costs, as well as a lower environmental impact.

Bywaters offers these to our clients with facilities that produce large amounts of waste.

Our compactor options vary to suit our clients' specific requirements, from compact portable models to larger industrial units.

Skip Compactors

Bywaters specialises in compaction systems and holds the largest stock in the London area. These portable compactors are integral units incorporating the container and compaction unit.

Our compactors are fully supported by our team of compactor engineers who service and maintain our equipment to the highest standards.



Baby Hook Compactor

Much like the skip compactor, this baby hook compactor is also available with manual loading. This compactor also benefits from having its cylinders tucked away, ensuring that they do not need to be deep cleaned. This compactor is suitable for all waste types.



The POD

The Pod, smaller than traditional compactors, fits into confined spaces where most don't. It comprises two sections - the Pod and the Compaction unit - allowing for easy exchange of full Pods during collection. It can compact up to four tonnes of material, equivalent to 24-30 1100L bins, while occupying the space of only six bins. When space is limited but waste production is high, the Pod System offers an ideal solution.



Compactors

Static Compactor

On-site static compactors are heavy-duty machines, explicitly designed for compacting large volumes of dense waste material into a smaller physical space. For businesses of all sizes, a static waste compactor can provide a variety of advantages and are a more efficient alternative to bins and skips.



Balers

These are typically found in recycling facilities or businesses that generate a lot of waste. They compress materials like cardboard, plastic, metal cans, or paper into dense cubes. This reduces the volume of the waste, making it easier to transport and store.



In-Bin Compactor

Bywaters offers 1100-liter in-bin compactors for general and recyclable materials, perfect for limited space. Specifically designed for durability, cleanliness, and security, these compactors offer a lasting and safe waste solution. With up to four times increased volumes per bin, maximum payloads are achieved without additional space requirements.



Innovations

Weightron

Weightron is specially designed on-site weighing solution. It provides accurate and detailed data of their liking to help you with a wide range of issues, including monitoring recycling, monitoring financial waste information for multi-level sites and giving you clear indications for developing clear auditing plans.

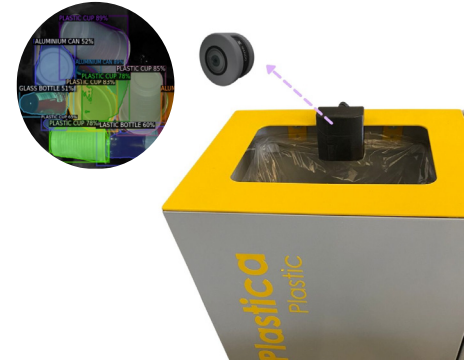
To complement the Byweigh system, Bywaters are able to create tailored



barcoded stickers for each tenant or floor (dependent on your requirements). The barcode data is pre-programmed into the Byweigh system to enable data streaming, making the Byweigh system a convenient and easy way to keep track of all your waste.

Nando AI

Nando uses AI technology to reduce environmental impact by monitoring waste produced by weight and type as well as picking up on any contamination. This data can be used to identify the most common cause of contamination as well as providing the information required to increase environmental sustainability.



ORCA

ORCA is an innovative new technology designed to process your food waste on site; reducing vehicle movements, minimising CO₂ emissions and eliminating bad odours. This versatile system helps you to take control of your kitchen, reducing wastage through detailed reporting and cutting-edge technology. Mimicking the natural digestion process, ORCA mixes your food waste with microorganisms within a compact container. Once digested, all that is left is a liquid which is safely expelled down your waste pipe.



Awards

Bywaters' commitment to sustainable waste management has been recognised through numerous awards over the years, a testament to our dedication to continuous improvement. These accolades not only validate our efforts but also highlight the impact achieved in collaboration with our valued clients.

We take pride in partnering with clients to win awards. Bywaters approaches each contract as a true partnership, working hand-in-hand to enhance sustainability, boost recycling rates, and champion environmental initiatives. These shared successes demonstrate the power of collaboration in driving positive environmental change.

A selection of awards we have won:



Accreditations

Bywaters is fully compliant with all relevant waste management and sustainability legislation, and we have also attained a variety of accreditations for going above and beyond these requirements.





Corporate Social Responsibility (CSR) & Environmental, Social and Governance

Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) are central to Bywaters' mission. We strive to provide the most sustainable waste management solutions possible while collaborating with our clients and select charities to build a more sustainable society. We participate in a multitude of initiatives and partner with multiple charities to achieve this goal!



Charities we work with:



