

## NWUPC Sustainability News

Welcome to the ninth edition of EConnect, the NWUPC's e-newsletter focusing on Sustainable practices and projects from across our member and supplier base. There are some fantastic projects being undertaken by our members and suppliers alike and we are delighted to be able to share them.

In this edition, we learn how data centres can improve AV efficiencies in the classroom; we commend Staffordshire University's charitable initiative to donate surplus furniture to schools in Pakistan; the NETpositive Supplier Engagement tool has been recognised as the preferred choice for universities in England, and we celebrate three member institutions being awarded in the Green Gown Awards 2017.

This edition also features articles on using Car Clubs as a sustainable solution by E-Car, an insight into sustainable waste management by LifeCycle and Gresham discuss their continued investment in a greener future.

If you would like to feature an article in the next edition, please contact [Rikaya Knott](#).



The University of Chester was highly commended in three areas in the Green Gown Awards 2017

### Learning From Datacentres to Improve AV Energy Efficiency in the Classroom

With universities and colleges growing and expanding student numbers, new classrooms are being added all the time. Tackling one of the hidden costs, increased energy consumption, is delivering some unexpected benefits

Data centres have been around since the 1980s and don't show any signs of going away (although innovative shared service providers like Vertus and Rackspace might take them away from the university campus). With such a heritage of lessons learned it's not surprising that the modern data centre is monitored, controlled and overseen by a plethora of efficient and mature technologies. Key among these is power saving, since improved energy efficiency is a key driver for compute in the modern world.

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One of the most promising technologies is eco PDUs (power distribution units) which monitor and manage electrical devices in a rack. These devices are now small and cheap enough to be installed in AV racks, where they allow an administrator to collect reports on energy usage, current and voltage across an estate, providing advance notice of a problem, and enabling the AV service to be costed from the perspective of energy usage as well.

CDEC are bringing a series of Metered PDUs to the market that go one step further, allowing the AV team to individually power sockets on and off over the web, securely and reliably, using industry standard protocols. Not only does this allow equipment to be safely powered off at the end of the day (such as amplifiers, cameras, induction loop drivers and monitors) and automatically turned on in the morning, but technicians can “power cycle” equipment during the day to clear problems, restore default states and save an engineer having to visit. Especially in spaces with a large amount of equipment, savings in energy consumption over a year can amount to thousands of kilowatt-hours per rack.

For larger racks, such as where equipment supports a lecture theatre or hall, Metered PDUs can also measure temperature and humidity, with alarms according to customisable minimum/maximum thresholds, again giving early warning of a problem that can enable your team to work proactively rather than react when something fails.

While data centre technology might not change learning pedagogy, or usher in a new paradigm of student experience in Higher Education, it is another element to consider when creating the most effective and efficient spaces for learning. CDEC are committed to bringing the best of breed to our customers in the AV world. As this world merges with IT and equipment is networked, monitored and supported, CDEC has the knowledge, experience and passion to help our customers work towards a greener future for all of us.



## Gresham Continues to Invest in a Greener Future

### Biomass Benefits

**In a world where energy and commodity prices seem to be constantly increasing, businesses should be reviewing their processes to identify ways to reduce usage and become more efficient.**

Gresham Office Furniture Ltd identified opportunities to reduce the costs of energy and waste management whilst increasing the environmental benefits many years ago and for over 25 years has run a biomass boiler to reduce waste and provide heating for its offices and production facilities.

Utilising a biomass boiler has made good business sense with environmental and financial rewards including:

- Reduced waste management costs
- Reduced gas and electricity usage
- Reduced carbon footprint
- Reduced landfill
- Zero cost heating fuel

The current 2 Megawatt Weiss wood-fired boiler has proved itself to be an invaluable asset to the company, and now that it has come to the end of its natural life, Gresham has not hesitated in ordering a new replacement boiler which is due to be installed in March 2018.

The new Viessmann boiler is a much enhanced model which comes with further new energy reduction opportunities.

Energy from the new boiler will be redirected into the automated paint line and used to heat the pre-treatment wash tanks prior to powder coating. This will reduce the need for natural gas to fire the burners and in turn will reduce the resulting burner emissions.

The opportunities and benefits the biomass boiler presents sits well with Gresham's ISO 14001 environmental management system and with the company's environmental and investment policies of actively seeking:

- To reduce, reuse and recycle materials wherever possible, and
- to reduce its carbon footprint by instigating strategies which reduce the use of fossil fuels and the amount of greenhouse gases produced by its processes.

**B**unzl Cleaning and Hygiene, together with Selden Research, have a great deal of experience within the educational sectors. They have worked in partnership on a number of projects within the further educational sector; this now represents a substantial amount of business to both companies and we feel that the time is right to offer the benefits of this work to you all within further education.

In 2013 Debbie Gaskell (BCHS) invited Peter Webb (Selden Research) to a joint meeting with Derby University. After listening to the requirements of Derby University it was decided that a trial of VMix Super Concentrate range may be a way forward. The very first trial was a complete success, feedback from questionnaires completed by domestic cleaning operatives was very positive.

## Dosing Waste – the Elephant in the Room

Further successes followed at both Leek and Buxton College along with the Devonshire Road campus of Derby University. The system was then adopted in the catering and restaurants on site Devonshire Road campus, Catering and Hotel Facility management; Peter has now been a guest lecturer in all 3 years of the degree course.

Keele University was introduced to Selden by Jean Borrowman (BCHS) and they quickly followed on with a full free of charge on site trial, this too was a total success. (See quote at the bottom of article). We have now had success at a number of further educational establishments including Shropshire College.

Peter goes on to say “to date BCHS and Selden have not had a single trial fail within the educational sector”.

He feels this is because VMix addresses so many important points and VMix

does this in a very simple way, and simple solutions are usually the best.

Together Bunzl and Selden complete certificated COSHH awareness and product training annually to members of staff. Within Keele this represents over 200 staff trained in one session.

Let’s start a conversation by reading this article below and let us help you make a difference.

So you’ve got a large multi-site cleaning contract, all using the exact same basket of products at the same dilution rate. However, you’ve noticed that the usage figures differ significantly between sites, and even within each site there is variation in the volume of cleaning products used despite the actual cleaning tasks being consistent throughout and the site sizes being the same.

Let’s think about it: many sites will typically use a pelican pump to decant chemical from a 5L container into some water in either a trigger bottle or a mop bucket of water. There are two variables which can both equally explain why varying volumes of chemical are used:

Varying volumes of chemical decanted from the 5L container.

Are all the sites using the same size of pelican pump for the decanting of the product? Whose responsibility is it to order the correct size of pelican pump? (Pelican pumps are available from 5ml to 50ml) For pelican pumps to dispense the declared product, they must be fully pressed down. Can you be sure that all users are fully depressing the pelican pump in a controlled manner? Some users will press down quickly which can result in less chemical being dispensed and can even lead to spillage. Users have been known not to trust the volume of product being dispensed through the pelican pump, and have pressed the

pump more than once.

Inaccurate volume of water used to decant chemicals into.

This isn’t such an issue for trigger bottles – most triggers will have a ‘fill to’ line on the label or on the bottle itself. However, inconsistent volumes of water becomes a problem when it comes to diluting product into a bucket for either damp wiping or damp mopping applications. Filling buckets with clean fresh water opens up something of a can of worms as there are several variables before chemical has been added. Are all the cleaning operatives using the same size of bucket across and within multiple sites? How much water are they filling the bucket with? A 5L bucket will hold more than 5L of water, and most cleaning operatives will fill the bucket with as much water as they are easily able to carry. An inaccurate volume of water leads to issues including both the over and under dilution of chemical.

Over diluting a chemical is just as bad as under diluting a chemical – over dilution leads to slippery residues left on surfaces along with potential health risk implications. Under dilution can lead to a lack of cleaning action.

Under the REACH regulations manufacturers of cleaning chemicals must state approved tasks for each product they produce. Calculations must then be made which determine exposure limits and the risk in use for the user for every given dilution rate. The aim of these calculations is to ensure the safety of the operative using the product for any given task during reasonable professional exposure times. Manufacturers will then state any required PPE which must be worn to ensure the risk calculations produce a low score.

Super concentrates such as Selden’s VMix (a portable exact dose super concentrate system) where a single 1L bottle will produce 100 ready to use triggers or 50 buckets (up to 8 litres). Selden’s reusable trigger bottles can be refilled and re-used over 200 times, saving 199 single use plastic bottles – that’s 199 fewer single use plastic bottles entering the refuse system. Selden’s VMix bottles save 27% packaging compared to standard 5L bottles; but the biggest saving comes in relation to the volume of super concentrate required to produce

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1,000L of in use product. 4L of Selden VMix to make 1,000L of product compared to 25L of standard 5L concentrate. That's a saving of 84%.

Unlike a lot of super concentrates available on the market, Selden's VMix has been specifically formulated as a super concentrate, meaning its cleaning performance remains of the highest calibre expected of all Selden products.

The VMix exact dose bottle has been designed so exactly 10ml of super concentrate is dosed every time, resulting in no chemical waste.

Selden are currently researching and developing a way to create a bottle return policy for super concentrates. Selden would fill bottles on site, which are then returned to Selden and filled again.

But is Selden's VMix system any good? Keele University trialled VMix alongside a number of other manufacturer's products...

"After an 18month period of product trials Selden product was chosen by our domestic team of nearly 200 for the way forward in our cleaning of the university. They liked the products and we had no complaints from any of them because the product did the work for them." Sandra Gacek, Cleaning Services Manager, Keele University. Selden and BCHS worked closely together to ensure Keele University received the very best solution to their set of issues and both continue to support Keele University with training and product recommendations.

Contact Debbie Gaskell (Bunzl Cleaning and Hygiene Supplies Regional Account Manager – North) for any further information.

# Car Clubs as a Sustainable Solution

St Andrews (pop. 16,800) is a town on the east coast of Fife in Scotland, a ½ hour drive from Dundee and 1½ hours from Edinburgh. The town has limited regional transport links, with no train station, and suffers from congestion and parking pressure, during term-time, due to the student population bringing privately owned cars to the town. St Andrews does however have a very compact town centre with good levels of local bus services and accordingly lower levels of car ownership in the local population and high numbers of people walking to work.

The University of St Andrews is an integral part of the town and the largest local employer with over 1000 members of staff and around 8000 students. In 2015 the University took the initiative and established a fully electric car sharing club to provide low cost and ultra-low emission, sustainable transport for staff, students and residents of the town, to be delivered by E-Car Club.

With support from the Developing Car Clubs in Scotland programme, funded by Transport Scotland, E-Car Club started operations with 10 electric vehicles (8 Renault Zoe and 2 Kangoo vans) in St Andrews in April 2015 and now, in 2017 have over 560 local car club members. For most of these members, joining the car club is the first experience they have had of driving an electric car.

The aims of setting up the car club were to provide an alternative to private vehicle ownership, significantly reduce carbon emissions from car use, improve issues surrounding congestions and parking pressure, reduce the university's business travel costs and provide students and residents of the town with low cost access to electric vehicles. St Andrews is also a popular tourist destination, with over 5 million visitors annually, which meant that a car club could positively contribute to the tourism economy in St Andrews.

The car sharing solution provided by E-Car Club consisted of a fully managed car club service including: vehicle purchase and management, telematics equipment, vehicle booking system, insurance, licence checks, breakdown recovery, 24/7 driver support service, and logistical vehicle support. E-Car Club also designed an ongoing marketing campaign to promote the scheme, in collaboration with the University, and manages its implementation on an ongoing basis.

The close working relationship between University of St Andrews and E-Car Club means the scheme in St Andrews is moving from strength to strength. Since inception in April 2015 there are now over 560 active users of the St Andrews scheme. These users have travelled over 120000 miles and have made close to 2,000 bookings.

The vehicles are currently available at 3 sites; the Gateway Building, Agnes Blackadder Hall and Davis Russell Apartments however due to latent demand, E-Car are currently in the process of launching two new hubs in the town centre.

If you would like to find out more or discuss how E-Car could help your organisation achieve its sustainable transport objectives, please contact [business@ecarclub.co.uk](mailto:business@ecarclub.co.uk)



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Tel Mobile: 07721 378940



# Staffordshire University Donates Surplus Classroom Furniture to Schools in Pakistan

**Did you know that 9% of primary schools in Pakistan do not have a blackboard, 24% do not have textbooks available for the children and 46% do not have desks for the students?**

In excess of 7 million primary school-aged children are out of education within Pakistan; this is one of the highest number of out-of-school children in the world.

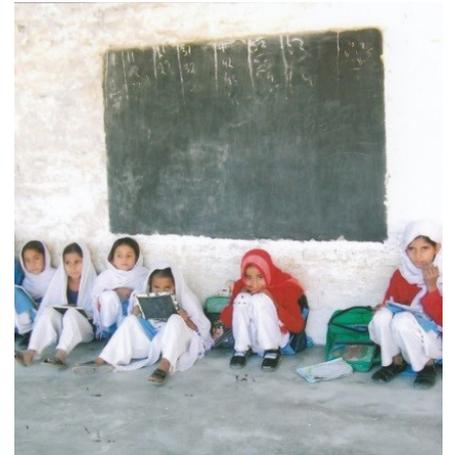
Unfortunately, public education is not free in Pakistan. Students are required to pay for their pens, paper, uniform and books. These fees are why the poorest children are unable to attend school – their parents simply cannot afford it.

The Andrhal Welfare Trust was set up in 2007, they are a non-religious, non-political and non-profit organisation. Their mission is to educate the poor and to educate the world about the poor. They help disadvantaged

children by improving the accessibility to school based education and the provision of key basic facilities such as classroom furniture.

Following on from the amalgamation of Stafford Campus into Stoke, combined with Learning Space furniture upgrades, Staffordshire University had some surplus classroom furniture including; office chairs, desks, whiteboards, filing cabinets and office storage units – all of which they donated to the charity.

A 'Tetris' packed 40ft shipping container full of classroom furniture was then sent to schools in the poorest parts of Pakistan and used to support children, giving an equal opportunity to all and the best chance of a good education. The benefit of such assistance is felt in many ways such as direct improvement of literacy standards and improvements in the health and wellbeing of the students.



## Leading the Way in Sustainable Waste Management for a Better and Brighter Future

**With the UK's population on the rise and predicted to hit 68.5 million by 2025, bold policies will need to be implemented to cope with the demographic changes. Finding ways of creating alternative fuel is on top of the list and phs Group are making a start with LifeCycle.**

LifeCycle is a process for disposing of hygiene waste products (sanitary products, incontinence products and nappies) in an environmentally sustainable way. Hygiene waste products are diverted away from landfill and instead, processed to be used as an alternative fuel source. The aim is to minimise the environmental impact with a target of zero to landfill.

We all produce all sorts of human waste throughout our lives. It's a natural function of being human. Hygiene products (sanitary, incontinence products and nappies) bring fantastic benefits to everyone, by giving us the freedom to continue with our lives. They're an essential part of our everyday lives but disposing of them has always been an issue. However, the waste products are wet and unhygienic – we may not like to think about it but we need to, because we all contribute at some point in our lives.

Disposing of hygiene waste has been expensive and environmentally unfriendly, until now. With LifeCycle, for the first time we have a choice.

We can enjoy all the benefits that the products bring and dispose of them in an environmentally sustainable way. Before LifeCycle, hygiene waste could either be incinerated or sent to landfill. Burning wet waste is expensive because more energy is needed to heat it before it can burn. The other option is to send it to landfill but current estimates are that within a decade, our landfill sites will be full.

With LifeCycle, we can divert hygiene waste away from landfill and through our patented process, make it dry enough to recover energy from it in the form of Refuse Derived Fuel (RDF) – and we can do it on an industrial scale. Refuse Derived Fuel is a term used to

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describe fuel produced from waste that has undergone some sort of process. Materials for recycling and non-combustible materials, such as glass and metals are removed before the waste is processed.

RDF can be used in several ways. It can produce electricity and heat for homes and business and is often used alongside traditional sources of fuel, to power industry. Using non-recyclable waste as a fuel also helps us reduce our reliance on traditional fossil fuels such as coal. The process is unique as LifeCycle dries wet waste and squeezes out the fluid leaving a clean burnable mass.

To find out more about our LifeCycle process, or to join our journey, visit [www.phslifecycle.co.uk](http://www.phslifecycle.co.uk)



## NETpositive – Demonstrating Sector Commitment to Sustainability

The NETpositive Supplier Engagement tool (HE), has now, following the results of the sector survey on responsible procurement, been recognised as the preferred choice for Universities in England. The tool enables suppliers to develop a sustainability action plan for their business based on their context and leading-edge sustainability thinking. Using the tool means supporting suppliers to go beyond simply stating a commitment to sustainability by providing them with a customised action plan, which can be monitored and measured. Institutional tool providers are able to interrogate the associated data dashboard across their supplier base. Data can be used to plan supplier engagement activities, gather evidence of good sustainability practice and the action plan provides a clear and measurable focus for your contract management discussions.

Between 2015 and 2017, 42 Universities from around England signed up to the tool and in turn, 3279 suppliers have now been supported to create their own bespoke action plans for their business (for free!). NWUPC, alongside HEPA and the Steering Group are currently exploring how the vast

amount of national data can be used to demonstrate the contribution and impact UK HEI procurement has had and is having on sustainability in the UK. NWUPC have supported members and suppliers throughout the year including:

- 27 procurement staff benefitted from 4 training sessions designed to help the 'Squeeze the Value' from their use of the tool (and arguably their spend!)
- a range of guidance documents designed to help tool providers exploit the full value that using the tool can unlock in their own institutions has been developed
- Most recently the sector's first Responsible Procurement Supplier Awards used the tool as a mechanism to both engage and celebrate suppliers with sustainability (at the University of Manchester) and a guide for Tool Providers was developed to help others run a similar celebration in their own context

You can read more on the new dedicated website provided by NETpositive Futures, which provides support and guidance for procurement professionals deploying the tool in their own institution as well

as for suppliers creating their action plans.

Working with the other partners, including HEPA, we are currently exploring ways of developing this approach further. These may include:

- National Supplier Awards recognising and celebrating sustainability activity across the supply chain
- A Sector Impact Report with a focus on the contribution and impact in relation to sustainability and social value made through HE spend
- Using the data to develop practical guides to support the development of commodity strategies, which are emerging in best practice across the sector
- Training and support designed to raise the profile and practice of HE procurement teams

Get in touch with [Rikaya Knott](#) or [NETpositive Futures](#) directly if you want any specific information, otherwise, watch this space for the next exciting stage of the project and how it will help you.



# FREE \* WEEE Collection Service From Stearn

Show how pro-actively you recycle!

Receive a WEEE certificate for each collection Stearn make.

Reduce your carbon footprint!

Stearn collect WEEE goods at the same time a delivery is made.

One order, Two jobs done!

Not only do you receive your new product order, but we will also take away your WEEE eligible product.



Place Your Order  
Stating you have a WEEE eligible product



We Deliver Your  
New Product



We Collect WEEE Free

\*We offer NWUPC a fully free large & small appliance collection and disposal service when a like for like product is purchased through Stearn

**NWUPC are delighted to announce that four member institutions have gained recognition for responsible and sustainable practices at the 13th Annual Green Gown Awards, hosted by the Environmental Association for Universities and Colleges (EAUC).**

With sustainability becoming an increasing concern within the Education Sector, the Awards have become established as the most prestigious recognition of best practice within the tertiary education sector. Hosted at the University of Manchester on Wednesday 15th November, Colleges and Universities won big, and joined together to recognise the exceptional sustainable initiatives being undertaken in FE and HE.

The Awards hosted 113 finalists from around the UK and Northern Ireland, representing 1.5 million students and close to a quarter of a million members of staff, all of whom are leading the way with their commitment towards global Sustainability Development Goals and are acting as agents of change within our communities.

NWUPC are delighted to celebrate and share the great success and inspirational examples of sustainability best practice of our members:

## **Carbon Reduction**

**HIGHLY COMMENDED – University of Chester**

### **Lights, solar, action!**

The creation of the Energy and Carbon Lab two years ago has seen the University's understanding and control of utility consumption, energy management and implementation of successful energy and carbon reduction measures grow. The implementation of LED lighting replacements, combined with installing 411.8kWp of solar panels has achieved savings of 3361 tonnes CO<sub>2</sub> and avoided £848,909 in utility costs.

## **Enterprise**

**HIGHLY COMMENDED - Manchester Metropolitan University**  
**MetMUnch**

MetMUnch is a global award-winning, student-led social enterprise based at Manchester Metropolitan University. MetMUnch provides the skills and training to promote health and wellbeing, encouraging students to embrace sustainable food.

## **Food and Drink**

**HIGHLY COMMENDED - University of Chester**

### **Just the VEGANning**

This initiative focuses on reducing the environmental impact of the whole institution by encouraging and advocating the environmental and health benefits of vegetarian and vegan diets. 'VeggieFest' provided a unique occasion for staff and students at the University, local social enterprises and other local businesses to share their passion and enthusiasm for locally sourced, vegetarian and vegan food.

## **Learning and Skills**

**WINNER - The University of Manchester**  
**Whole institution sustainability engagement through innovative learning programmes**

The Sustainability Challenge and 10,000 Actions are initiatives which provide undergraduate students and staff to engage with an action-based approach to sustainability. The Sustainability Challenge is offered to all 8,000+ 1st year students and immerses students in a highly interactive simulation activity, based on building a new campus for a fictitious university. 10,000 Actions is the UK's biggest sustainability initiative launched to a higher education staff, which encourages learning and action around key sustainability issues.

## **Institution**

**WINNER - University of Salford**  
**The Energy House**

This objective provided a world-class stream of evidence to support technological change in domestic energy use, which accounted for 30% of the UK's greenhouse gas emissions, and to contribute to a raft of initiatives to save on energy bills. The university developed Europe's first full-scale house in an environmental chamber, the results of which led to 3000 homes being refitted, methods of reducing bills by 15% proven, 3.5 million grants attracted and more than 500 companies awoken to the possibilities of energy-saving.

**Sustainability Champion Award – Staff**  
**HIGHLY COMMENDED - University of Chester**

### **Shaunagh Smith**

Shaunagh Smith has been recognised for her commitment at the University of Chester for embedding sustainability in all she does, engaging colleagues,

community, family and friends. Her enthusiasm to encourage others to succeed with their initiatives made this year's Green Impact programme the most successful yet.

**Our winners: University of Manchester, Manchester Metropolitan University, University of Salford and University of Chester**





# Sustainability at Screwfix Committed to the Future Service

**At Screwfix, sustainability is integral to our long-term strategy of achieving convenience, value and unrivalled product leadership for our customers.**

Our parent company, Kingfisher plc, provides a Sustainability Strategy and common framework to enable operating companies, such as Screwfix, to deliver and monitor our sustainability impacts. We are progressing across several areas and recently we exceeded our targets in two particular initiatives.

## Managing Our Waste

There are now over 520 Screwfix stores nationwide, with more stores planned to open over the next 12 months, offering customers the convenience of getting what they need the very same day. We want to keep growing while reducing our operational impact on the environment.

For a number of years now Screwfix has achieved zero waste to landfill from our stores and distribution centres by reorganising our waste management. Our stores sort their waste and we then transport it in our delivery vehicles back to our distribution centre. All recyclables are extracted and any non-recyclables are sent for incinerations for energy-from-waste. Even our head office waste is sorted then recycled or incinerated.

The majority of Screwfix's construction waste is either recycled or reused. Our two main contractors building our stores work alongside Screwfix to ensure this happens. We currently have an excellent result of 97% of construction waste being recycled.

## Sustainable Products for Customers

We make it easy for customers to choose great quality, affordable, sustainable products. Sustainability credentials can mean that a product has been sourced ethically; has closed loop elements or helps customers to save money by saving energy and water. For example, the products in our Connected Home range allow users to control heating, lighting and security systems remotely, potentially reducing energy use and saving money.

In fact, 59% of all our energy using products sold meet our best practice standards on energy efficiency and 62% of all our water using products sold meet our best practice standards on water use. Products which Save Water, Save Energy or are Solvent Free can be identified in our catalogue with a green logo, as shown below.

**SAVE  
WATER**

**SAVE  
ENERGY**

**SOLVENT  
FREE**

Timber is used in many more products than you might think. It is thought that demand for timber will triple by 2050 with implications such as wood shortages and possible global price increases. But we know that our customers rely on many of these products to get their jobs done. So, for the past 5 years, from the big items like sheds and doors to smaller ones like hammers and pencils we make sure the timber is sustainably sourced and certified by either FSC® (Forest Stewardship Council®) or PEFC (Programme for the Endorsement of Forest Certification). Currently Screwfix have gained a 97% achievement of timber by volume for FSC or PEFC certified products.

We are working towards certification with our paper products such as sandpaper and masking tape to achieve 100% compliance. In addition, the paper we use within the business, including our catalogues and publications are also printed on sustainably sourced paper.

We are proud of our achievements so far but there is still a lot of work ahead of us.

For full details of our sustainability plans and achievements please visit [www.screwfix.com/environment](http://www.screwfix.com/environment)