





## WITH BRITA PROFESSIONAL.

Waste prevention is one of the best ways to protect the environment. Read on to learn more.





# WASTE BEGETS MORE WASTE.



Take plastic bottles, for instance. Considerable oil and electricity goes into making, transporting and selling each one – generating significant carbon emissions. Following their short-lived use, disposal and recycling inevitably consume yet more energy, and create more waste.

Avoiding or reducing waste should therefore take priority over recycling. But what exactly is waste prevention, or avoidance? As BRITA discovered in an interview with Petra Hutner of the University of Augsburg's Resource Lab, the precise definition varies. But in essence, avoiding waste means minimising the amount generated, and its impact on the environment. In some cases, it also extends to repairing and reusing products.

This approach is not only good for the planet, it is also good for businesses. And even something as simple as swapping bottled water for a point-of-use dispenser is a good start.



#### **INTERVIEW WITH PETRA HUTNER ABOUT WASTE AVOIDANCE**

In a conversation with BRITA, Petra Hutner of the University of Augsburg's Resource Lab explains the ins and outs of waste avoidance – and shares ways businesses can start tackling this issue.

You worked with the Bavarian State Ministry of the Environment and Consumer Protection to develop a guide to avoiding waste for government agencies. Are there recommendations from the guide that apply to businesses?

Essentially, government agencies are themselves businesses, just without the manufacturing aspect. But they run their offices the same way, so the advice published in the guide is relevant for both the public and private sector.

#### What is waste prevention, exactly?

The definition of waste prevention, or avoidance, can vary greatly from country to country. Under German legislation, it includes all steps prior to a product becoming "waste" – i.e. during the manufacturing or consumption phase.

But at European level, there are a few differences. For example, something that was disposed of and then reclaimed



Petra Hutner studied geography and environmental ethics, focusing on resource management. Since June 2013, she has worked at the Resource Lab of the University of Augsburg as a member of a research group for resource strategy, and production and supply chain management.

She played an active role in the project "Guide to Avoiding Waste at Local Authority Level" from June 2013 to its conclusion in December 2015. She was responsible for designing and implementing empirical data collection processes, for developing content, and for life cycle assessments.

The guide was published in March 2016 by the Bavarian State Ministry of the Environment and Consumer Protection.

(such as a broken refrigerator that was discarded and later repaired and reused) – can be viewed as a form of waste avoidance. So the item in question is not so much waste as something waiting to be reused. In a broad sense, that, too, is waste prevention.

People also differentiate between quantitative and qualitative waste avoidance. The former means reducing the amount generated, or avoiding it all together. The latter is about minimising the impact on the environment. That can be measured using a variety of parameters – carbon footprint, or the materials' toxicity, for instance.

## In your opinion, how much of a priority are waste minimisation and sustainability?

I think that waste avoidance garners relatively little attention compared to sustainability, at least in Germany. People tend to focus on and discuss, for instance, energy sources, much more frequently than waste reduction. In my opinion, more emphasis could – and should – be placed on waste avoidance. It's better to do that than to recycle or incinerate it. An occasional talking point is the inverse relationship between the goal of recycling and the goal of waste prevention. In countries where recycling is taken very seriously (in Germany, for example), the issue of waste reduction is often neglected. People assume that everything can be recycled. In contrast, in countries where recycling is not such a priority (e.g. the UK), making the leap to waste avoidance is much easier.

#### In what areas can businesses reduce waste?

A company's waste prevention takes place at several stages – e.g. either prior to manufacture (by minimising toxic mate-

rials or critical metals) or at the consumer level (e.g. the product life cycle of electronic devices or the use of LED lighting in buildings). It

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can also be at the end of the product life cycle (by favouring repair over disposal). Or, in the spirit of the shared economy, resources such as printers can be pooled. Basically, there are many ways to avoid waste – once the mindset is in place. The key is to raise awareness amongst employees and decision-makers.

# What advice do you have for companies that want to avoid waste?

During the workshops held to draft the guide, we developed a corresponding methodology. It included inviting specialists from a variety of disciplines, evaluating the status quo and the potentials and defining the most important goals and activities. An important part of this approach was the identification of performance indicators, e.g. what percentage of lights should be converted to LEDs within two years, within five years, etc. A company can only create an effective plan of action and measure its success if it has identified specific goals.

# What's a relatively simple way for businesses to start?

A good example is cutting paper consumption in the office. Simply switching the default printer settings to duplex and monochrome is a good start. Moreover, the transition from single-use to reusable packaging – or even to cut out packaging entirely – lays a solid foundation for sustainability. Deploying a water dispenser is a prime example. Employees can fill their glass at the point of supply, and cut out the waste of making, transporting and disposing of plastic bottles. These are steps that can be taken with relatively little effort; admittedly, they make a comparably small contribution to waste prevention as a whole. All the same, it is a great and easy way to get started and helps raise awareness amongst employees.

#### What is required for getting started?

There really aren't any specific requirements – just willingness and commitment. The support of the company's decision-makers is essential, as they set an example for their employees. One also has to take a long-term view toward sustainability. In some scenarios, for instance, employees need to be trained so there can be a long-term shift in thinking.

# What benefits can waste avoidance have for businesses and their employees?

Adopting sustainable practices, including waste avoidance, is great for a company's image. In addition, it can be a way to improve customer service: e.g. water dispensers enable businesses to offer guests fresh still or sparking water. Branding on glass bottles strengthens corporate identity. And preventing waste can significantly enhance efficiency and cut costs.

#### Is waste avoidance costly?

Upfront investment cost varies depending on the exact approach or mechanism. While the switch to LEDs inevitably has a price tag, simply changing default printer settings can be cost-effective and avoid waste in a small way. Water dispensers, too, have to be purchased – but people need to consider how much money they save by not buying bottled water. Basically, when it comes to waste prevention and sustainability, making the transition will cost money – but in the long term it will pay for itself.

#### In particular, how important is it to make the switch from plastic bottles to water dispensers?

It's important to start with highly visible changes, to bring employees on board. Replacing bottled water with a dispenser does just that. It's something employees see

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and take part in. It encourages appreciation of a valuable resource, and promotes a healthy and eco-friendly alternative to disposable bottles. With this in mind, it's best to start with something like this —

something that, in the big picture, is just one small aspect of waste avoidance, small aspect of waste avoidance, but that fosters awareness.



#### **IN SUMMARY**

Businesses can avoid waste in many ways, both big and small. This includes eliminating plastic bottles, less product packaging, heightened employee awareness, and green architecture. Let's get started!

# **5 WAYS TO GO GREEN**



#### **INSTALL WATER DISPENSERS**

Water dispensers prevent waste by providing a point-of-use (POU) solution for the supply of still or sparkling water. Filtered water straight from the mains avoids the waste associated with manufacturing, packaging, transporting and storing bottles. Overall, its impact on the environment may be up to 90% less than bottled water.

Dispensers can be combined with personalised carafes and glasses, fostering a stronger corporate identity. A POU solution also encourages guests and employees to stay hydrated. And an integrated cooling system and carbon dioxide cartridge allow water to be adjusted in line with individual tastes. Moreover, some mains-fed dispensers also supply hot water (in addition to still or sparkling chilled water) – perfect for preparing tea.

A company with 100 employees can cut its waste by 506 kg annually by installing a water dispenser



#### **SHARE DATA VIA USB DRIVES**

As a general rule, information that is distributed internally and externally ends up on paper. And afterwards – the used or unused pages end up in the recycling bin.

By digitising and disseminating data via USB flash drives, paper waste is avoided. Moreover, after they have fulfilled their task, the drives can be reused. And if there are more than required, files can simply be deleted, and the device repurposed. In all, USB drives can reduce costs, foster a positive image, and support targeted sharing of information.



#### **FURTHER REDUCE PAPER USAGE**

The concept of the paperless office is nothing new. And increasingly digital processes and electronic media should significantly reduce paper waste – however, this has yet to manifest itself. Offices need to take action, and put theory into practice. There are several simple ways they can cut down on paper: by using tablets, replacing snail mail with email and phone calls, reusing notes or misprinted paper, and switching default printer settings to duplex and monochrome.

Plus, to raise awareness of paper consumption, each employee should keep track of how many pages they print each month. By taking action, offices can considerably reduce the amount of paper they consume – and act as a role model for others.



### SWITCH TO LED LIGHTING

Light-emitting diodes (LEDs) are exceptionally energy-efficient – in other words, the lumens they emit for each unit of input electricity greatly exceeds that of conventional light-bulbs. Additionally, they have a much longer life.

Capable of operating for approximately 15,000 hours, an LED quickly outlasts a typical lightbulb that lasts just 1,000 hours. Because the base and sockets remain the same, replacing outdated lighting is possible without a major investment in infrastructure. In this way, costs can be reduced, waste avoided, and a positive image achieved.

With a lifespan of some 15,000 hours, one LED lasts as long as fifteen conventional lightbulbs. In other words, LEDs require only 15% of the electricity bulbs do. And at €0.288 per kWh, an LED can save €147 in energy costs.



#### **DEMATERIALISE THE WORKPLACE**

IT hardware is part and parcel of today's work environment. Essential equipment includes computers, screens and input systems (keyboard and mouse). But innovation never sleeps – and ICT devices evolve rapidly. As a consequence, they are typically used for just a few years, prematurely ending their life cycle and leading to significant waste.

The dematerialisation of electronic workstations, i.e. providing fewer or smaller devices with the same functionality, can contribute to waste avoidance. Systems can be carefully selected so only certain components need to be replaced and upgraded to keep pace with technological development. Additionally, longer warranties provide greater incentive to continue using and repair devices, instead of simply throwing them away.

\* Erarbeitung eines Leitfadens zur Erstellung kommunaler Abfallvermeidungskonzepte (http://www.lfu.bayern.de/abfall/abfallvermeidung/kkonzepte/index.htm, available in German only; lit. Guide to Avoiding Waste at Local Authority Level), Bavarian State Ministry of the Environment and Consumer Protection, 2016.

# **BRITA WATER DISPENSERS** FOR YOUR ENTERPRISE



A complete, environmentally responsible solution: Dispensers in combination with attractive, personalisable bottles.

**OUR** 





**VIVREAU Bottler** 

High performance bottling concept for hospitality areas.



**VIVREAU VITap** 

Multifunctional Tap with unique Premium Design - ideal for teakitchens and buffets.



#### VIVREAU Sodamaster

Multitalent with hygiene-plus also available as countertop.

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BRITA's mains-fed dispensers eliminate the waste and CO<sub>2</sub> emissions associated with buying, transporting, and storing bottled water. Moreover, they reduce the number of plastic containers that have to be manufactured, conserving precious natural resources - and shrinking your ecological footprint even further.