

# Sustainable Commercial Cleaning in a Circular Economy



## THERE ARE CURRENTLY TWO MEGA-TRENDS THAT ARE EMERGING WITHIN THE CLEANING INDUSTRY ENVIRONMENTAL IMPACT - AIR, WATER AND SOIL POLLUTION USER HEALTH - BOTH DIRECTLY AND INDIRECTLY

When it comes to the pollution of air, water and soil, it is important to focus on the aquatic impact. It is nearly impossible to prevent cleaning product residues from ending up in the hydrological cycle (the physical processes of evaporation, condensation, precipitation, infiltration, surface runoff).

Water, sometimes described as 'blue gold', is an increasingly scarce resource, and we are facing a global crisis. Various organisations across the world have concerned themselves with the water management problem. So far, however, existing measures have not resulted in any noteworthy improvement in water management.

As for user health, the recent study by PhD student Laura Van den Borre (VUB), entitled Health risks in the cleaning industry, provides some very important insights. Van den Borre investigated the cause of death for 250,000 men and women from the Belgian working population, spread over 20 years. Among other things, her thesis revealed that mortality rates for the cleaning sector are 36 to 45% higher compared to other occupational sectors. Moreover, cleaners are twice as likely to suffer from chronic lung diseases and cardiovascular diseases as those in other occupations. Additionally, interior climate is of great relevance to people's health as well. Exposure to certain volatile organic compounds (VOC) can be hazardous to health.

As a major supplier to the professional cleaning industry, Janitorial Express Eco along with its business partner Greenspeed wants to offer solutions to these problems through a Circular, Healthier Cleaning model.

# CIRCULAR ECONOMY: WHAT AND HOW?

The currently prevalent economic model is that of a linear economy. This type of economy is most commonly described as following a take, make and dispose model. Value is created by producing and selling as many products as possible.

The circular economy model follows a very different procedure. Where feasible, closed loop material cycles are employed. That way, a great deal of the value of the material flows is preserved: the life cycle is extended as far as possible, re-use is optimised and the materials can be recycled after use.

## The Organic Cycle.

The circular economy model is inspired primarily by the functioning of natural ecosystems: toxic substances are neutralised and waste products are non-existent, as all residues are transformed into nutrients for flora and fauna. This applies to all materials that are rapidly biodegradable in principle, and therefore could apply to any intelligently designed and manufactured consumables. The general principle here is complete transformation into nutrients of the substances in question after use, so they cease to exist in their current state. Therefore, this is known as the

## The Technical Cycle

Other materials are not biodegradable, or are only over the long term, and their concentrated presence can have a disruptive or even harmful effect on ecosystems – think of car tyres, for example. This group includes most man-made consumables: furniture, cars, tools, textiles, etc. Here, the general principle is possible reuse as raw materials for similar products and/ or possible recycling for use in other products. The material structure is not destroyed, but the shape or appearance may be completely transformed. This is known as the technical cycle.

It is not that one of these two cycles is good and the other is bad, but that each cycle applies to completely different material flows, requiring a specific approach. The two cycles are not just capable of co-existing in harmony, together they ensure that all material flows are optimally processed, that they are not mixed together and that what we now consider 'waste' is eliminated to the fullest possible extent.

In 2002 German chemist Michael Braungart and American architect Bill McDonough described the foundation of such an approach in their book *Cradle to Cradle: Remaking the Way We Make Things*. Prior to this publication, the ecological principle was usually described as 'Cradle to Grave' to emphasise consideration of the entire product life cycle. With this publication Braungart and McDonough changed that to 'Cradle to Cradle'. They therefore wanted to emphasise that an additional step was required – in view of the steadily increasing global population – in order to optimise the value of material flows and scale back on the need for newly extracted raw materials and waste creation as much as possible.

The Cradle to Cradle (or C2C) principle and the circular economy fall under systems thinking. They encourage us to consider not just the cleaning product in itself, but the entire chain, from the extraction of raw materials, through the manufacturing and use of the product and up to the residual phase, with all the effects on people and the environment resulting from that progression. This way of looking at things is the main difference between the current linear economy and the circular economy towards which we strive.

In the wake of the above-mentioned publication, the eponymous Cradle to Cradle label (C2C label) was born. Products meeting strict requirements, such as the use of biodegradable or recyclable raw materials with a low impact on people and the environment, can be eligible to carry the C2C label.

# From Circular Economy to Circular Cleaning

Greenspeed strives to have its entire range of products, accessories and techniques fit the circular economy model. In practice this means all substances used in detergents and microfibre cloths and mops must be re-usable in one of two ways:

Directly via the technical cycle, as raw materials for new or different products

Indirectly via the organic cycle, as nutrients within ecological systems

Greenspeed's microfibre cloths and mops, detergents and cleaning techniques are closely inter-related. This led us to develop a model for Circular, Healthier Cleaning, a comprehensive approach to professional cleaning fitting the circular economy model perfectly.

In cleaning, microfibre cloths and mops are used as well as detergents being consumed.

The microfibre products belong in the technical cycle and can be washed and re-used again and again. During the phase of their use as a microfibre cloth or mop, they stand for ease of use, ergonomics, and water and product savings. All our current microfibre products carry the Scandinavian Nordic Swan Ecolabel. Our goal is a fully closed loop, even when the end of their life as a microfibre cloth or mop has been reached. We are currently working on an associated development project with the EPEA, the German institute that has been involved in C2C from the start. Their mission is to help develop high-quality products that are safe for people and the environment and also suitable for re-use through either the technological or organic cycle.

Detergents are consumed as part of the cleaning process. We select the raw materials and manufacturing techniques for our Greenspeed products with great care: no substances that may be harmful to people and the environment are used, and product residues are rapidly transformed into nutrients through the organic cycle. The detergents currently provided by Greenspeed already carry the Gold C2C label. In addition, they carry the European Ecolabel.

The cleaning techniques developed and recommended by Greenspeed are not just the most suitable when using the aforementioned detergents and microfibre products. They minimise product, water and energy consumption and generate as little waste as possible, while optimising ergonomics and cleaning results.

# The Circular Cleaning Path

Greenspeed has made considerable progress along the circular cleaning path already. In doing so, we take both the work environment and social impact into account under the motto: Healthy & Clean.

## Detergents

Our detergents are made from renewable (plant-based) resources, and contain only substances with a proven minimal impact on people and the environment.

Cradle to Cradle rates these detergents as outstanding for Material Health. That means our detergents contain neither harmful toxic substances nor harmful VOCs (volatile organic compounds). The detergents therefore have a minimal impact on human health. The packaging consists of plant-based plastic in combination with 25% recycled plastic. These detergents are manufactured using green energy and minimal water. Our detergents are powerful products for professional use: they guarantee ease of use and a hygienically clean result.

The highly concentrated detergents generate over 20% less packaging waste than average; furthermore, the packaging is recyclable.

Our detergents have a minimal impact on aquatic life.

## Microfibre

Our microfibre cloths work best with a spray technique, an ecologically responsible method that reduces water and detergent use.

Thanks to the use of Greenspeed microfibre cloths, grime is not just removed three times as fast, this method is also comfortable and convenient.

If the right detergent and right wash programme are used, our microfibre cloths can be washed at least 600 times. Use C2C detergent.

Greenspeed microfibre cloths maintain their shape and properties when re-used.

## Cleaning Trolleys

The Greenspeed C-Shuttle range consists of three types of instrument carts, each made out of 75% recycled plastic; all of the materials used are of the highest quality and completely recyclable. The instrument carts are very user-friendly; compact and maneuverable and provided with a stable handle with bumpers.

# The Path Continues

Greenspeed products already meet the highest quality standards and have thus managed to obtain three labels: the European Ecolabel, Scandinavian Ecolabel and the prized international C2C label.

That does not mean that we have reached the end of the road, though. Not only does Greenspeed continue to evolve in tandem with scientific and technological developments, we also proactively encourage this evolution through the creation of and participation in development projects.

Our most recent innovation is our range of probiotic cleaning agents. Probiotic detergents consist of benign micro-organisms of organic origin that remove organic grime. When the good bacteria re-enter the environment after use, they actively contribute to water purification and maintaining a natural microbial balance. Only by continuing to innovate and evolve can we further decrease our impact on people and the environment without detracting from safety, hygiene and ergonomics requirements.



Renewable non-toxic  
detergents from  
organic origins

Biodegradable  
detergents have  
minimal impact on  
marine life

Plant-plastic and 25%  
recycled plastic used  
in packaging

100% recyclable  
packaging with  
lower dosage  
rates reduces  
packing by more  
than 20%

Produced in  
ecological factories  
using sustainable  
energy and  
responsible water  
usage

Efficient user-  
friendly cleaning





**For more information contact:**

**Tel 020 7700 3322**

**Email [sales@janitorialexpress.co.uk](mailto:sales@janitorialexpress.co.uk)**

**64 Brewery Road, Islington, London, England. N7 9NT**

**f** /janitorialexpress



**@janitorialexp**