



Circular Economy  
Platform Hungary



bcsdh

Magyarországi Üzleti Tanács a Fenntartható Fejlődésért  
Business Council for Sustainable Development in Hungary



# BUSINESS IN CIRCULATION

Report on the situation of the  
circular economy in Hungary



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## INTRODUCTION

It has never been more pressing to talk about the circular economy than it is now. Every year, we use up the amount of Earth's resources that we could sustainably consume earlier (Overshoot Day July 29, 2019), while the Great Pacific Garbage Patch is now much larger than previously thought. We trust that worldwide demonstrations, increasing public pressure, and the climate and environmental emergency proclaimed by the European Parliament will finally bring about real action.

According to the current UN estimates, by 2050 there will be 9.8 billion people on Earth, which will mean greater use of raw materials and energy, assuming no change in consumption patterns. Moreover, we are consuming our resources at a faster rate than they are being reproduced. **Our planet's natural resources are finite; thus their limited availability represents a significant risk to companies in the future.**

The circular economy represents a \$4,500<sup>1</sup> billion business opportunity and is now an **irreversible global** tendency. However, much remains to be done to complete the full cycle process and exploit the related competitive advantages.

In the summer of 2019, the Circular Economy Platform, with the professional lead of the Hungarian Business Council for Sustainable Development (BCSDH) and the Bay Zoltán Nonprofit Ltd. for Applied Research, conducted a survey of the domestic potential of the circular economy. **The aim of the research was to identify the most important challenges and to map business out the solutions that have already been implemented.** The results of this online survey confirmed the demand that brought the Circular Economy Platform to life: **there is a need for innovation, for the presentation of pre-existing business solutions, and for the development of new ones to promote the circular economy and related education.**

<sup>1</sup>Accenture (2015)



Companies that continue to operate using a linear economic 'take-make-waste' approach and the financial institutions that invest in these businesses are exposed to a variety of risks that are mostly overlooked and are missing in traditional risk evaluation approaches [...] If unresolved, these risks could have a substantial effect on the financial industry and the global economy in the future through unanticipated losses. [...] Ultimately, a shift to more circular economic practices is needed to effectively mitigate 'Linear Risks.'

# CLOSING THE CIRCLE: A CIRCULAR ECONOMY INSTEAD OF A LINEAR ONE

## WHAT IS A CIRCULAR ECONOMY?

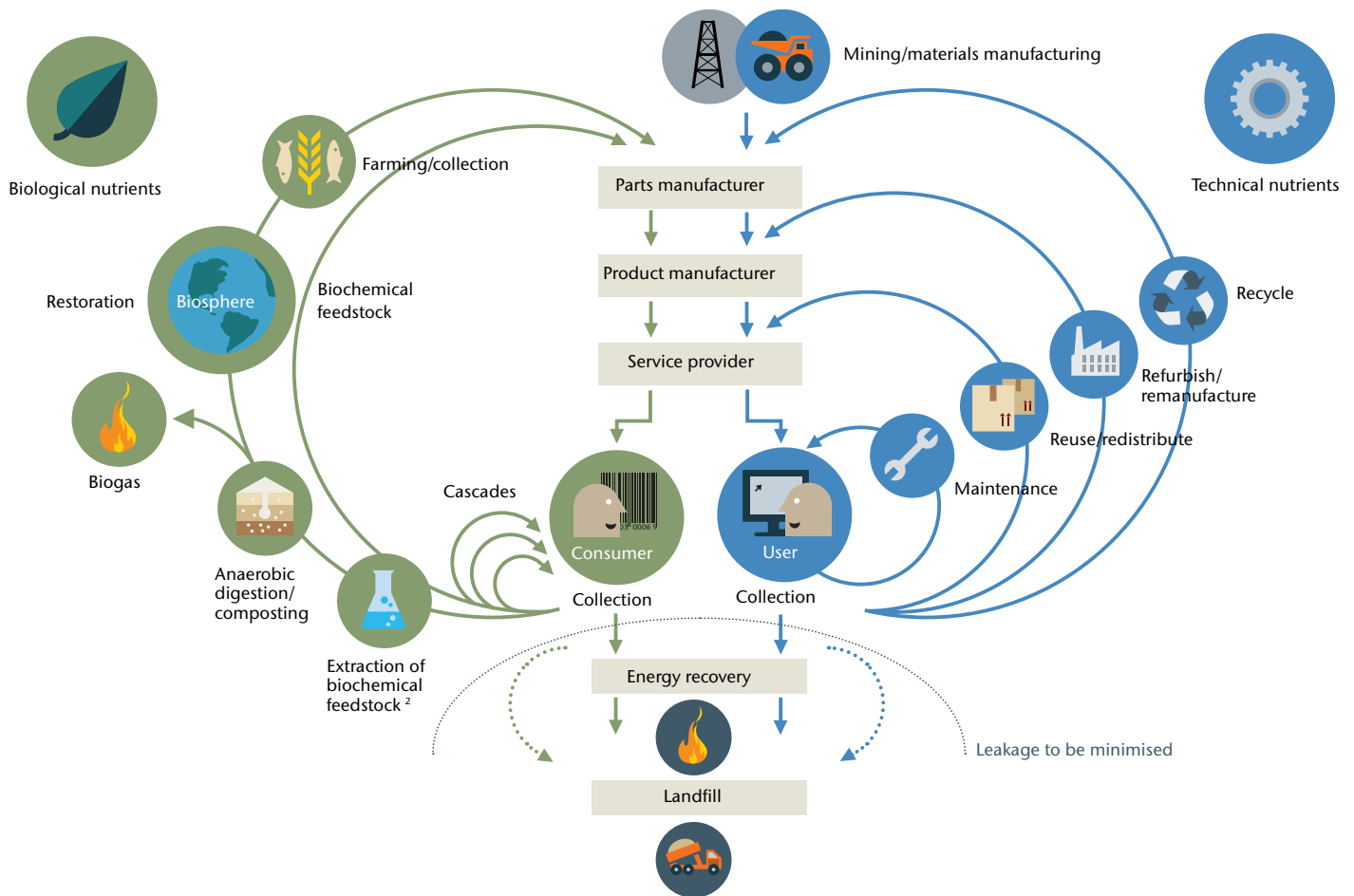
According to the current so-called linear economic model, technical and biological components are extracted from nature, transformed, and are then disposed of without recycling. In contrast, in the circular economic model metabolic processes are involved in a closed circle, waste is almost 100% recycled, and biological and technological components are returned to the cycle with minimum loss of quality.

The transition to a circular economy involves a new way of looking at the relationships between markets, customers, and natural resources through the responsible management of resources.

	WHAT DOES CE MEAN?	WHAT ARE CE'S POSITIVE IMPACTS?
<b>MACRO</b> (countries, cities...)	<ul style="list-style-type: none"> <li>• Change purchasing habits (favor products &amp; services with low environmental impact...)</li> <li>• Enforce laws, programs, frameworks related to CE</li> </ul>	<ul style="list-style-type: none"> <li>• Increase attractiveness thanks to value / job creations</li> <li>• Lanit resources rarefaction and dependency on importations</li> </ul>
<b>MESO</b> (inter-industries...)	<ul style="list-style-type: none"> <li>• Create inter-industries/firms networks</li> <li>• Deploy industrial symbiosis where companies exchange flows and mutualize needs</li> </ul>	<ul style="list-style-type: none"> <li>• Increase dynamism &amp; attractiveness of territories</li> <li>• Reduce impact on environment</li> <li>• Create/ relocate jobs</li> </ul>
<b>MICRO</b> (companies, consumers)	<ul style="list-style-type: none"> <li>• Consume green (favor products with low environmental impact, recycling...)</li> <li>• Produce cleaner (eco-conception, offer services instead of products...)</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce impact on environment</li> <li>• Provide competitive advantage (improved business model, new markets available...)</li> <li>• Improve brand image / reputation</li> </ul>
<b>NANO</b> (product, component...)	<ul style="list-style-type: none"> <li>• Use/extract environmental-friendly goods</li> <li>• Increase life expectancy of goods through recycling, reuse, repairing</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease extraction / consumption of raw materials</li> <li>• Increase value of second-materials and goods</li> </ul>

SOURCE: WBCSD (2018): Circular Metrics Landscape Analysis

## HOW DOES THE CIRCULAR ECONOMY WORK?



**SOURCE:** Ellen MacArthur Foundation

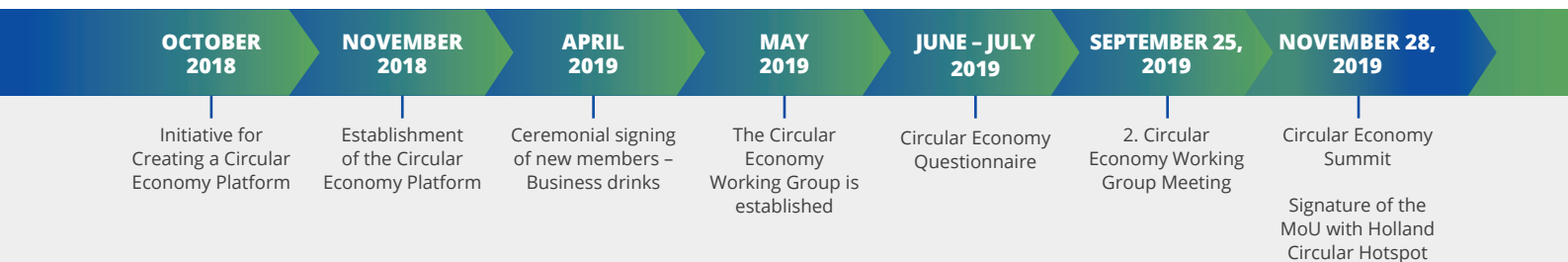
**The transition to a circular economy has catalysed the most transformative economic, social, and environmental changes since the first industrial revolution.**

# THE CIRCULAR ECONOMY PLATFORM

On 29 November 2018 the Circular Economy Platform was officially established in Hungary as an initiative of the Business Council for Sustainable Development in Hungary (BCSDH), the Embassy of the Kingdom of the Netherlands, and the Ministry of Innovation and Technology.

## WHY IS THE CIRCULAR ECONOMY PLATFORM IMPORTANT?

- Because most economic operators are not yet fully aware of this model, even though it will increase the resilience of the world economy and facilitate the achievement of the Paris Climate Change Agreement and the United Nations Sustainable Development Goals.
- Because BCSDH and its partners have a key role to play in creating a change of mindset and shared thinking, in shaping community-minded and action-driven change leaders, and in sharing business solutions that bring about real change.
- Additionally, because collaboration and knowledge transfer between corporate, governmental, and scientific communities is needed for a paradigm change in terms of helping the model to gain ground.



**More information about the Circular Economy Platform here:**

[www.bcsdh.hu](http://www.bcsdh.hu) → Projects → Circular Platform



# MEMBERS OF THE CIRCULAR ECONOMY PLATFORM HUNGARY



Status – november 28, 2019

# SURVEY OF THE DOMESTIC CIRCULAR ECONOMY

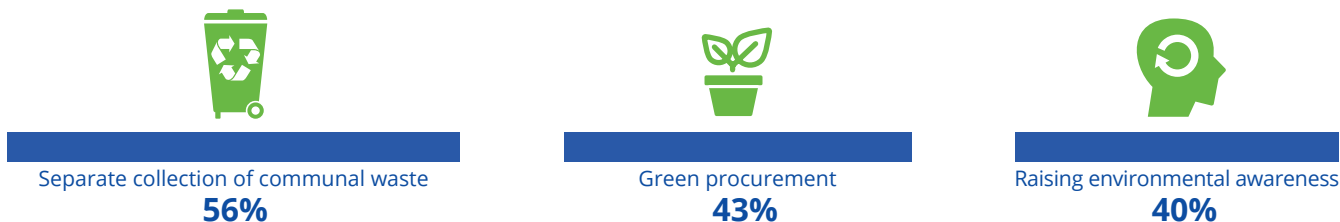
In the summer of 2019, the Circular Economy Platform, with the professional lead of the Hungarian Business Council for Sustainable Development (BCSDH) and Bay Zoltán Nonprofit Ltd. for Applied Research, conducted a survey of the domestic potential of the circular economy. **The aim of the research was to identify the most important challenges and to map the business solutions that have already been implemented.**

Nearly 90 organizations participated in the survey, **84%** of which are **in the corporate sector**, while most of them (60%) are small and medium-sized enterprises.

Most respondents know about the concept of the circular economy.

Most indicated that selective waste collection is a pre-existing activity that they undertake related to the circular economy. However, the circular economy cannot be reduced to the complex issue of waste management as the transition from the current linear economic model to a circular economy is not only a problem that concerns waste prevention and the environmentally friendly management of waste.

## ACTIVITY RELATED TO CIRCULAR ECONOMY PRESENTLY



Plans to be implemented by 2025 also mainly include **conventional activities**. Companies that participated in the survey **have not yet implemented these new models**, are not part of the sharing economy, and the application of the concept of Industry 4.0 is not widespread.

## PLANS TO BE IMPLEMENTED BY 2025

Tightening environmental recommendations (expectations) for suppliers



Developing business partnerships for the circular economy (B2B)



Increase the amount of energy from renewable energy sources



- We do not currently take such action, but we plan to implement it by 2025.
- Yes, we are currently taking such action.
- Not relevant to us
- No, and there is no plan to implement such action before 2025.

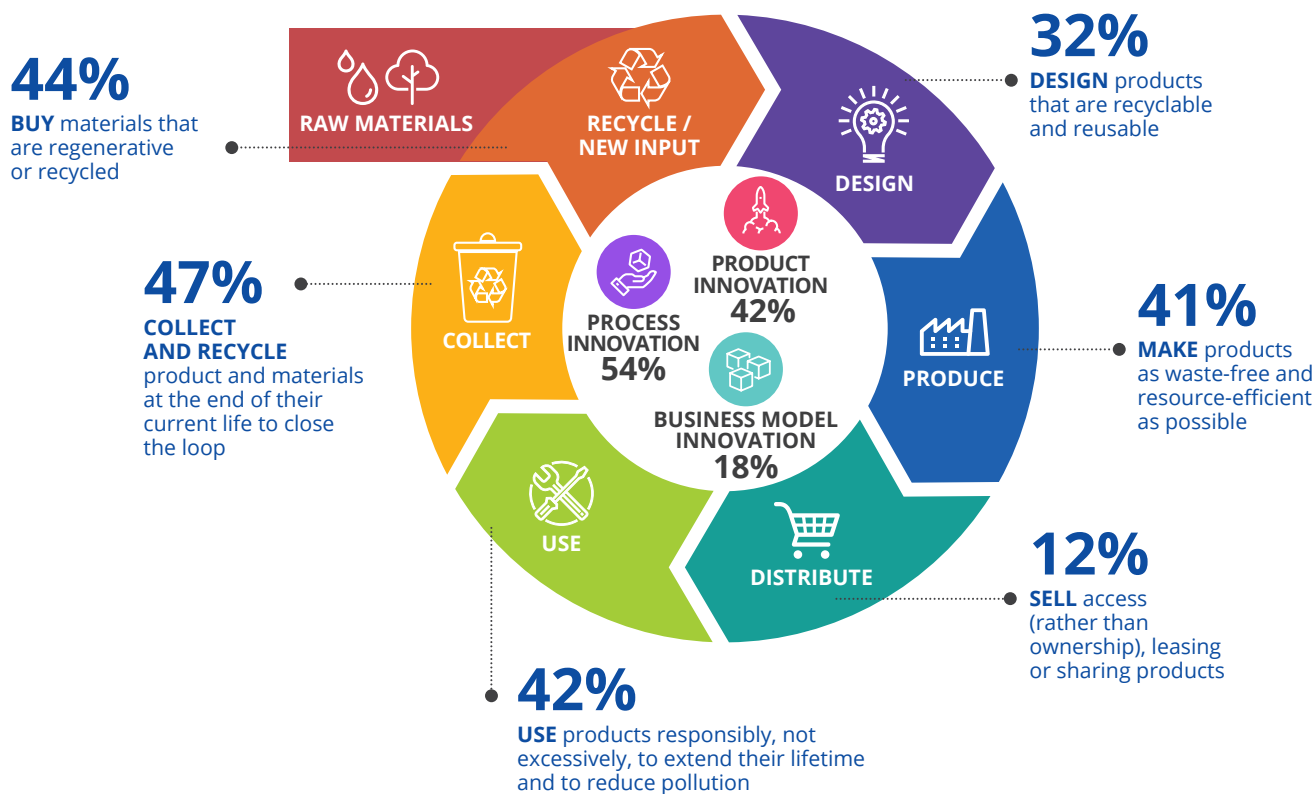


# INNOVATION AT EACH AREA OF THE VALUE CHAIN

According to a 2017 Business-to-Business Survey by the World Council for Sustainable Development (WBCSD) and the Boston Consulting Group, the implementation of the circular economy can be successful in every area of the value chain.

## CIRCULAR ECONOMY ACTIVITIES ALONG THE VALUE CYCLE

\*Percentage below show the share of surveyed companies that are active and successful in each area.

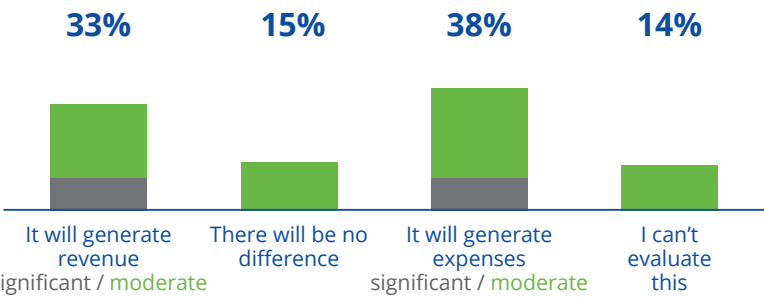


SOURCE: WBCSD, BCG (2018): The new big circle

# ENCOURAGE THE TRANSITION TO A CIRCULAR ECONOMY

In order to accelerate the transition to a circular economy, further innovation and investment is needed, so it is an important question **who will finance the changeover** and **what makes companies interested in it**.

In your opinion, considering the **economic perspective**, will the transition to a circular economy generally mean **more expenses or more revenues** for your company in Hungary by 2025?

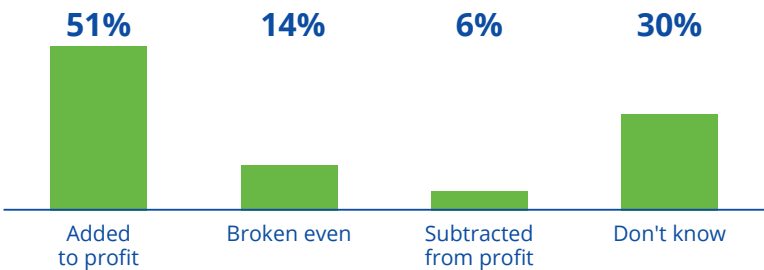


Most respondents think of the circular economy as an expense (38%), while 33% see it as a revenue-earning opportunity. Understanding that **costs can be reduced through the circular economy** is of outstanding importance. This can include reducing expenses through greater resource efficiency, saving on water use, energy and raw materials.

For multinational companies that already have circular economic activities in operation, the picture is clearly more positive:

## EFFECT OF CIRCULAR ECONOMY ON PROFITABILITY

How do your company's circular economy-related actions/decisions affect its profitability?



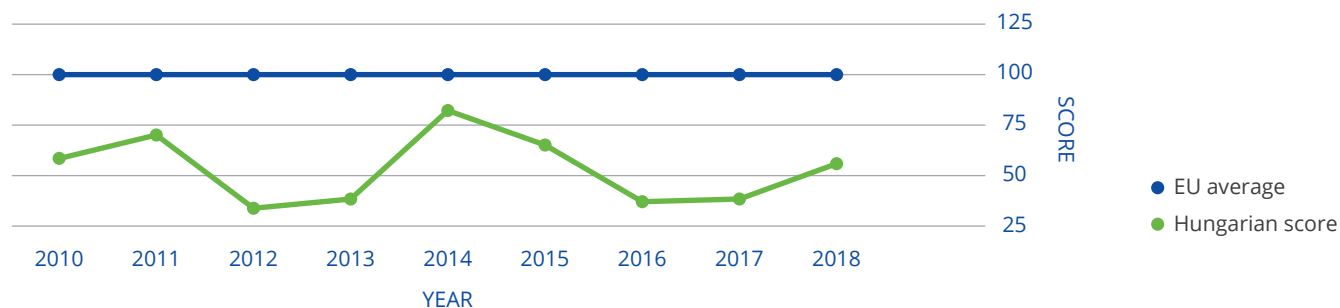
SOURCE: WBCSD, BCG (2018): The new big circle

## THE FACTORS THAT FACILITATE THE TRANSITION:



Hungary is ranked 24th in the EU 2018 Eco-Innovation Index, below the EU average. We still have a lot to do to ensure that we have the **right material cycle that helps avoid wasting our precious resources**. Moving towards a more productive and less resource-intensive economy requires investing in eco-innovation, which can also bring about significant benefits in terms of competitiveness and job creation.

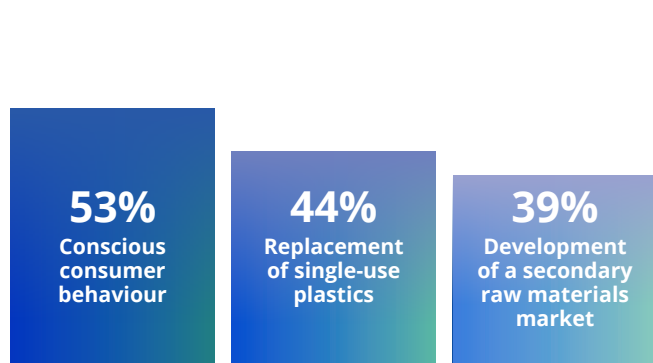
### ECO-INNOVATION INDEX



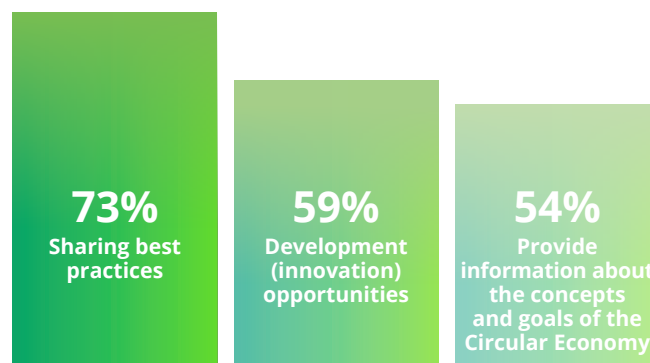
SOURCE: [https://ec.europa.eu/environment/ecoap/indicators/index\\_en](https://ec.europa.eu/environment/ecoap/indicators/index_en)

The transition to a circular economy **requires the active involvement of the population in changing consumption patterns**. It must be better demonstrated what circularity means, and companies also need to be more involved in properly informing stakeholders.

#### THE BIGGEST CHALLENGES:



#### TOPICS THAT SHOULD BE ADDRESSED AS PRIORITIES:



The results of the online survey confirm the demand that brought the Circular Economy Platform to life: **there is a need for innovation, the publication of pre-existing business solutions for the circular economy, and more related education**. The circular economy is an irreversible global tendency today. However, much remains to be done to complete the full cycle and exploit the associated competitive advantages.

#### NEXT STEPS OF THE CIRCULAR ECONOMY PLATFORM:



**Innovation**



**Sharing good practices**



**Education**

# BUSINESSES ALREADY HAVE SOLUTIONS



## RUBBER BITUMEN

Rubber bitumen, an innovative product made by MOL, is a patented road construction material developed jointly with the University of Pannonia. Roads constructed with rubber bitumen are less likely to develop potholes and cracks than conventional roads. As a result, roads constructed with rubber bitumen are more durable and economically more sustainable than the roads that are currently in use. Rubber bitumen is an environmentally friendly solution as it is produced using waste tires. The new rubber bitumen plant in Zalaegerszeg, which will operate from 2020, will use 3,000 tons of crumb rubber per year, thereby contributing to the recycling of about half-a-million used tires, or 8-10 percent of all tire waste generated annually in Hungary.



## CIRCULAR PAPER MANAGEMENT MODEL

Paper waste collected by Inest Nonprofit Ltd. will be used as a raw material in paper mills after receipt, transport, sorting and shredding, resulting in the production of various hygiene-related paper products. Prostrated and baled paper remains are pulverized through water-based decomposition and the base paper is used in the production of recycled paper products. The essence of the program is that paper is recycled, reducing the burden on the environment and the amount of waste it produces.



## JOINT DEVELOPMENTS WITH STARTUPS AND SMES

BAY supports and professionally mentors' players in the domestic startup and SME sector through several internationally funded projects (EIT Raw-ORCERIS and H2020-KET4CP), identifying and delivering environmental sustainability related research, development, and manufacturing needs for the circular economy. BAY plays an active role in raising companies' awareness and formulating research and development needs from domestic businesses that lead to the enforcement and integration of policies related to the circular economy. With this approach, BAY has obtained several domestic and international funding for a number of R&D projects.



### MANURE PELLETS

The circular economy is playing an increasingly important role in the food industry as well, a good example of which is Master Good, where the integration of the entire production process is part of a long-term conscious process of construction. Master Good buys wheat for feed-mills and produces litter from wheat straw, which is used in poultry farms. The manure from deep-litter poultry sheds is fermented and sterilized, and the resulting fermented product (manure pellets) is used as organic nutrient and returned to the soil. This process reduces the amount of residual (waste) product, improves the biochemical status and productivity of the soil, and contributes to the circular economy.



### ENERGY FROM WASTE

The main profile of Biofilter Co. is collecting, and processing used cooking oil which is then utilized as biodiesel. In addition, collecting and disposing of food waste and expired food are some of their core activities. Food waste is also utilized as environmentally friendly energy at the biogas plant of Soroksári Road belonging to the Budapest Sewerage Works. In 2017, 14,000 tonnes of organic waste were collected, thereby avoiding the emission to the environment of 20,000 tonnes of carbon dioxide.



### CLOSING THE LOOP:

#### DAIKIN MOVES ONE STEP CLOSER TOWARDS A CIRCULAR ECONOMY FOR THE HVAC-R INDUSTRY

Building a circular economy is part of Daikin's wider strategy of minimizing environmental effects throughout the entire lifecycle of its products, from procurement and manufacture to recovery and recycling. The reclamation of refrigerants is essential to this process. Exclusive to Daikin, the 'Certified Reclaimed Refrigerant Allocation' designation assures customers of both the quality and quantity of the reclaimed refrigerants. Assessed by an independent laboratory, the reclaimed refrigerants used by Daikin are the same quality as virgin refrigerants and meet AHRI700 standards.

An independent audit process also ensures that the reclaimed gas is allocated administratively to 100% of the factory charge of the VRV IV+ heat recovery and VRV IV S-series units, produced in the Daikin Europe (Ostend, Belgium) factory. This means that these units support F-gas regulation by recovery and reclamation within the European Union.

Choosing a product certified with Reclaimed Refrigerant Allocation means supporting the reuse of refrigerants and avoiding more than 150,000 kg of virgin gas being produced each year.





## TORK HAND TOWEL PAPER COLLECTION & RECYCLING

Essity is a leading global hygiene and health company dedicated to improving well-being through products and services essential to everyday life. They are present on the Hungarian market as a market leader and 100% their sought to the circular economy realization. Tork PaperCircle™, available in several countries across Europe, enables customers to reduce their ecological footprint and create recycling by locally disposing of used paper towels and recycling them into new paper products.

This solution was the winner of the InterClean Innovation Award 2018 Audience Award and Management Development Solutions and Related Products category.

The Tork EasyCube™ service approaches the problem from the other side. It is a web application that involves Tork dispensers providing information about the condition of premises, so cleaning staff have more time to dedicate to those areas which are visited more frequently. As a result of its efforts, the company has been one of the winners of the 2018 European Cleaning Awards in the "Technology Innovation of the Year" and "Best Practices - Sustainability" categories.



## CLIMATE-NEUTRAL STAMP

Folprint Green Printing Company is committed to sustainable solutions in all its printing activities. Their exemplary behaviour is proven by the fact that the stamps they offer come from innovative, climate friendly Trodat products made from recycled plastic and are carbon neutral. Use of an eco-friendly design and reused materials can reduce carbon emissions by 49%. These kinds of savings on the carbon footprint compared to those of other stamps is an outstanding result, thus by selling them Folprint contributes to the creation of a circular economy.



Jó étellel teljes az élet

## RECYCLABLE OR REUSABLE PACKAGING MATERIALS

Nestlé attaches great importance to continuously reducing its environmental footprint and pays great attention to minimize the impact of packaging materials on the environment.

The company's Switzerland based Institute of Packaging develops new functional, safe and environmentally friendly packaging solutions - the paper-wrapped YES! snack bars or the NESQUIK All Natural Cocoa Powder in recyclable paper are good examples to address these challenges. With these steps, the Swiss food manufacturer has moved closer to its ambition to make 100% of its packaging recyclable or reusable by 2025.



### **FOOD SURPLUS DONATION PROGRAMME**

Tesco has operated its food surplus donation programme with the Hungarian Food Bank Association since 2014.

As part of the programme, Tesco donates food that cannot be sold but which is still fit for human consumption to the Hungarian Food Bank Association and its charitable partner organizations. Since the launch of the programme in Hungary, the company has donated more than 23,300 tons of food (between September 2014 and the end of September 2019), which represents more than 58 million meals for people in need. The company aims to halve its own food waste by 2030, in line with the UN's sustainability goals. With the Perfectly Imperfect produce range Tesco is using fruit and vegetables from producers that are not aesthetically pleasing but which are of good quality and perfectly fine from a nutritional point of view, thus contributing to the reduction of food waste from the producers' side.

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### **LESS PLASTIC, BETTER PLASTIC, ZERO PLASTIC**

The Unilever Sustainable Living Plan has served as the basis for planning corporate strategy for nearly a decade. The main emphasis is now on efforts to renew packaging. So far, the company has launched innovative solutions such as Signal bamboo toothbrushes, refillable toothpaste tablets, and Coccolino fabric softener packaged in a 100% PCR bottle. Outstanding activities include the LOOP shopping assist system which encourages consumer behaviour change. With LOOP, the premium durable packaging is delivered directly to the consumer and then collected and refilled after use. Company decisions are based on minimizing negative impacts on the environment.

## THE 2019 SPONSORS OF THE CIRCULAR ECONOMY PLATFORM:

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