

## Sustainable innovations transforming industry

As industries worldwide focus on sustainability, several initiatives are demonstrating how circular economy practices can be effectively integrated into business operations. From packaging and food production to industrial efficiency, these approaches illustrate the shift toward more resource-conscious models.

PL • One example comes from **Swapp!**, a Polish startup working on retail packaging waste management. Through its **Refill and Pasta Stations**, the company has partnered with major retailers to introduce reusable packaging systems that help reduce single-use plastic waste. By allowing consumers to refill their own containers with dry goods and other food products, Swapp! has eliminated thousands of plastic packages within just a year. With ongoing expansion plans, this model could influence packaging practices in the retail sector.

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Meanwhile, in Austria, WOLF NUDELN GmbH has adopted fully recyclable paper-based packaging for its pasta products. Developed in collaboration with Bosch and BillerudKorsnäs, this alternative to plastic packaging contributes to reducing waste. Additionally, Wolf Nudeln uses eggs from its own farms and biogas for energy, incorporating more sustainable practices into its production.

HU T T I In **Hungary**, <u>Respray</u> is addressing the issue of single-use aerosol cans in the cosmetics industry. By introducing **refillable deodorant stations** in Rossmann stores, the company offers customers the option to refill their deodorant bottles rather than purchasing new ones. This reduces the number of metal cans entering the waste stream and provides an example of how consumer goods can transition toward circular business models.

cz **\*** The industrial sector is also exploring ways to optimize resources. In **Czechia**, **AGRO Kadaň** has implemented a system that repurposes **waste heat from a power plant** to warm greenhouses where fresh produce is grown. This integration of energy and agriculture helps lower carbon emissions while supporting local food production. Additionally, the company employs hydroponic farming techniques, reducing water consumption.

sI 🖧 In **Slovenia**, <u>CIRCI project</u> has developed a digital platform that connects businesses looking to repurpose industrial waste. By creating a database of post-production materials available for reuse, CIRCI facilitates partnerships between manufacturers, reducing waste and lowering material costs. This initiative promotes the reintegration of materials into production processes rather than their disposal.

IT Finally, in **Italy**, a bio-based materials initiative is reshaping the construction industry. A collaboration between research institutions and manufacturers has led to the development of **hemp-based concrete**, an alternative building material that not only reduces carbon emissions but also improves insulation and durability. By utilizing agricultural waste and renewable resources, this initiative showcases how sustainable materials can replace conventional construction components while enhancing energy efficiency in buildings.

These examples show how businesses across different industries are implementing circular economy solutions. As companies continue to refine their strategies, such initiatives demonstrate the potential for more sustainable resource use and waste reduction.

This text is based on the brochure *SMART-CIRCUIT Circular Success Stories*, available at <u>https://tiny.pl/kxnt238k</u>, prepared by <u>SMART CIRCUIT</u>. We present just a few of the 120 success stories featured in this publication.