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EUROPE'S TECHNOLOGY INDUSTRIES

Schneider Electric

TECHNOLOGY IN ACTION

Why digital technologies are key to circularity

Orgalim's Technology in Action series showcases how the technology industries we represent are shaping a future that's good for Europe's economy and society – and how the right policy framework can help them do even more.

Schneider Electric smart factory in Le Vaudreuil, France.

Challenge

When it comes to designing products for the circular economy, building for reparability is key to reducing waste and closing the loop, especially in the case of consumer goods. Take the current reality, where it is often easier and cheaper to buy a new household appliance or phone than get it repaired.

But what about preventing something from breaking down in the first place? And optimising infrastructure design to avoid redundancies? Preventing failure, extending durability and making the lifetime of assets much more efficient – before they even get to needing repair – is an equally crucial part of creating a more circular economy. Especially in industry, where one product is often part of a complex infrastructure.

This 'non-failing' and 'build better' part of the circular economy is not always easy to recognise, as it is less tangible. Indeed, finding the value often requires creating entirely new services and business models. But crack it and asset lifecycle management falls into place as a business driver rather than a cost.

Solution

How? Predictive maintenance, coupled with surgical infrastructure modernisation to improve efficiency and supervision, are the needed ingredients to foster resource efficiency, says Esther Finidori, Schneider Electric's VP Environment.

Digital innovation, such as digital twins and infrastructure information management, is also key to unlock inefficiencies in infrastructure design.

> **Digital solutions for predictive maintenance, modernisation and optimised design are key to maximising asset value in a circular economy.**

Esther Finidori, VP Environment, Schneider Electric

French food giant Danone recently modernised its Evian plant to become certified as carbon neutral, and key to the process was a seven-year, fixed fee service, modernisation and maintenance contract with Schneider Electric.

Schneider experts first conducted a thorough analysis of how to optimise the life and efficiency of existing equipment. From this, they determined that much of the equipment did not need to be replaced but that the plant could effectively be modernised with Schneider's retrofit digital solutions.

Schneider Electric solutions helped Danone Evian upgrade its bottling facility.

The result: Danone calculates that, by retrofitting instead of replacing parts of the plant, it has effectively saved 8 tons of materials and 70 tons of CO_2 emissions. Moreover, the operating data of the plant is now digitalised so that the company can monitor and manage its power quality and energy use in real time. This has helped reduce its energy consumption, down by a third since 2008.

By leveraging data, the company can optimise the environmental impact of assets over their entire lifecycle, from design to construction and maintenance. "Digital tools will help break silos and catalyse a needed change in industry working practices" explains Ms Finidori.

Policy implications

From the company's perspective, policy implications are many, mostly revolving around the importance of recognising the key role digital solutions play in driving a more circular economy. Among those highlighted by Ms Finidori:

- Recognise digital technologies as an enabler of the circular economy in the EU taxonomy.
- Facilitate public procurement of digitally enabled circular solutions, for example by making systematic provisions for data capabilities that will enable assets condition monitoring.
- Accelerate data-sharing in B2B ecosystems to foster collaboration in infrastructure construction and modernisation.

Related Orgalim position papers

- Circular Economy Action Plan
- Sustainable Products Initiative
- Sustainable Finance
- EU Taxonomy

About Schneider Electric

Schneider Electric's purpose is "to empower all to make the most of our energy and resources, bridging progress and sustainability for all." It aims to drive digital transformation by integrating world-leading process and energy technologies, endpoint to cloud connecting products, controls, software and services, across the entire lifecycle, enabling integrated company management, for homes, buildings, data centres, infrastructure and industries. One of the targets in the company's Sustainability Impact programme is to save and avoid 800 million tons of CO_2 emissions for its customers by 2025, since 2018. Headquartered in France, Schneider Electric reported €29 billion in sales in 2021 and employs more than 135,000 people worldwide.

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