

Pathways to an innovative circular economy Introduction

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Pathways to an innovative circular economy

Introduction

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3. PATHWAYS TO AN INNOVATIVE CIRCULAR ECONOMY



Innovation has a crucial role to play in turning the circular economy's promises into reality. The concept is currently generating countless innovative projects, but assessing their potential and long-term durability is not easy. What do circular innovations look like? What potential do they have to go beyond local experiments to create economic and ecological value as well as jobs? What partnerships and actors are emerging in relation to this topic? How are these innovative processes put in place and what are the obstacles to their success? These are the questions we ask in Part 3 of this issue as we explore circular economy pathways. To answer them, we have chosen to give a platform to actors that have implemented proven projects providing a good indication of the variety of topics that circular innovations tackle: closed-loop recycling of electric vehicle batteries; creating a reuse and repair economy; online platforms specializing in reuse and second-life products, and the functional economy and circular transition within companies.

THE IMPORTANCE OF CLOSED-LOOP ELECTRIC VEHICLE BATTERIES RECYCLING

Recycling electric vehicle batteries is a major ecological, health and economic issue with the anticipated expansion of this market worldwide. These batteries are composed of toxic substances that must be cleaned up under appropriate conditions, but also of metals - particularly strategic metals - that have a high economic value and could be recovered. Recycling these metals in a closed loop means avoiding the polluting extraction of virgin materials, reducing greenhouse gas emissions and avoiding dependence on a small number of producing countries for supplies. Veolia has launched this new activity in Europe and China through the development of advanced recycling technologies. After describing the challenges associated with the development of this activity, the article presents the main technical stages of the recycling process and the business models to be built. It concludes with a discussion of the strategic potential associated with the development of this activity.

THE POTENTIAL FOR CREATING JOBS AND VALUE THROUGH REPAIR AND REUSE

In terms of strong circularity, reuse and repair are seen as priority strategies for extending product lifespans and reducing the material footprint linked to consumption. Envie, a fast-growing network of businesses working in the social and solidarity economy with a 40-year track record in France, illustrates the potential for creating jobs and economic value these strategies have in the field of waste electrical and electronic equipment. Working in partnership with extended producer responsibility schemes and retailers, Envie has emerged as a go-to industrial, economic and social actor, complementing the solutions offered by private sector actors.

THE ROLE OF ONLINE PLATFORMS IN BOOSTING THE GROWTH OF REUSE AND SECOND-LIFE PRODUCTS

Two major obstacles hamper growth in the market for reused and second-life products: the dispersed nature of the actors and doubts about the quality of the products on offer. Online platforms are now emerging as a way to overcome these hurdles. The best known is Back Market, which offers refurbished and secondhand products in 15 countries around the world. But Back Market is more than simply a marketplace. It plays a far broader role, assigning a quality rating to each product on sale in the form of a 12- or 24-month warranty designed to create trust between buyers and sellers. This approach is key to overcoming consumer reticence and scaling up markets of this type.

THE IMPORTANCE OF CREATING ACTOR ECOSYSTEMS

It is often difficult to measure the potential offered by recycling and reuse due to a lack of detailed information about regional sources and outlets. The construction industry is a case in point. In Europe, hundreds of millions of metric tons of construction materials and equipment are sent to landfill every year, even though a large proportion could undoubtedly be used at other work sites. Matériaupôle provides an example of the rollout of a shared strategy for work site management that is used to recover these resources. We are now seeing the emergence of new reuse actors and physical platforms at the local level to meet the demand from urban projects and work sites keen to use recycled materials and second-life equipment.

FROM PRODUCT TO PRODUCT-AS-SERVICE

One of the pathways to strong circularity is to intensify the total use made of a product. This is the functional economy strategy, which aims to transition from selling a product to selling a product-as-service paired with a performance commitment. Signify, formerly Philips Lighting, has taken this route, opting to sell its professional clients lighting services rather than lightbulbs. The challenge of this type of strategy is both economic and technical: it entails pivoting to an entirely new business model and a complete shake-up of the company's specialties and structures.

CIRCULAR TRANSITION WITHIN A COMPANY

Beyond trialing changes in specific areas of business activities, what does implementing a company-wide circular transition entail? Interface Inc., the global leader in carpet tiles, has had just such a strategy in place for the past 25 years in order to limit its environmental footprint as much as possible while simultaneously transforming the company's business model. This systemic strategy, covering every facet of the business, from production to design, sales, maintenance and skilling, is presented here.

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