

GREEN AND CIRCULAR ECONOMY

Sector focus



Servitisation

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Pay-per-use instead of ownership: a trend in circular economy

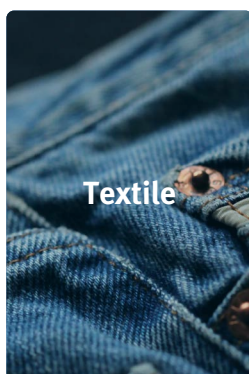
Circular economy is a model of production and consumption of products and services that aims to overcome the traditional linear model of extraction, production, consumption and waste. In pre-industrial economies waste production was minor, as they were based on products of organic origin such as wood and leather - and, once the products were used, matter followed its natural cycle and decomposed. This economic model was set aside with the arrival of the Industrial Revolution. The prevailing production model became linear instead of circular - resources are obtained from nature and transformed into products and services with a limited lifespan, and later become waste.

In contrast, **circular economy supports a transition towards a green and sustainable economy. It promotes an economic model that keeps materials and products inside the production value chain** and therefore lengthens their lifespan. Some circular economy strategies are the following: eco-design and long-term design, maintaining and repairing a product to lengthen a product's lifespan, reusing and recycling products, and researching new materials.

In this context, servitisation is one of the measures gaining more momentum. Servitisation promotes a change in consumption habits: **the value of a product or service is no longer found in owning it, but in using it.** Therefore, companies and individuals pay per use.

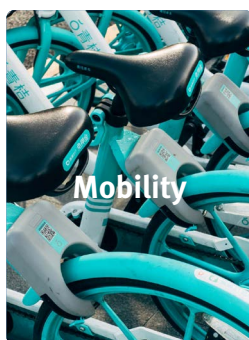


Servitisation focuses on the ownership of a specific product. If all consumers decide to buy it, more manufacturing resources are used, more energy is wasted, and there is a higher demand for materials and raw materials. Shared vehicle fleets are the paradigmatic case of servitisation - vehicles are paid for every time they are used, instead of purchased. **Examples of servitisation in other sectors** may be found below:



Jeans rental: SKFK promotes the initiative Rentvolution, in which customers rent clothes and pay per monthly use. Besides, they have a clothes recycling programme to collect old garments and transform them into new items.

Industrial laundry: Industrial laundry companies working for large organisations (such as hotels, nursing homes and hospitals) own all bedding and supply it to their customers, alongside with related services.



Manufacture and rental of aircraft engines: Rolls-Royce manufactures aircraft engines. They offer a service package in which customers pay per hour of engine flight time.

Shared mobility: Shared bicycle and electric vehicle fleets at the service of individuals and public entities are stealing market share from private cars, which reduces fuel consumption and CO₂ emissions.



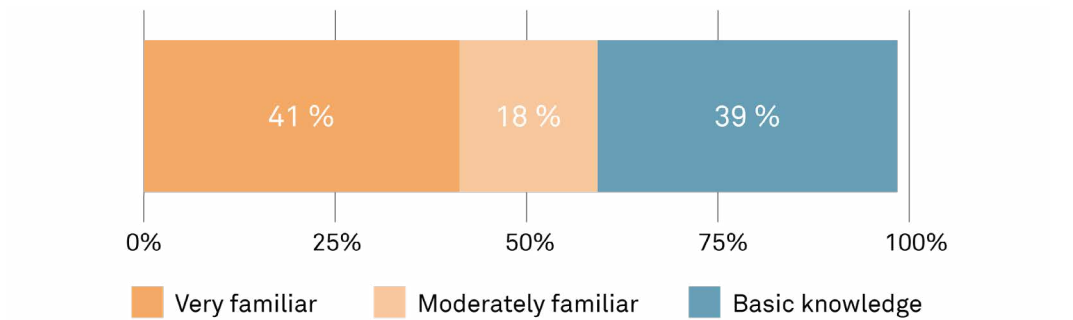
Chemical product rental: Servitisation is also applied to industrial cleaning processes. Instead of products, what is being sold is their function - keeping the equipment clean.

Manufacturing plastic with organic matter: Organic waste is treated in a mobile plant at the customer company's headquarters. Once the bioplastic raw material is obtained, it is adapted to the needs of the customer company - either applied to the production process directly, or sold to another company. This waste-revaluation technology makes it possible to take action towards circular economy.

Several entities have started to study the impact of servitisation on consumption and companies. In a 2020 study, Pimec detected that **companies were becoming familiar with servitisation and had started applying it** to their business strategies.

- Regarding the **degree of familiarity** with the concept of servitisation, nearly 60% of the surveyed companies said they were moderately or very familiar with it.

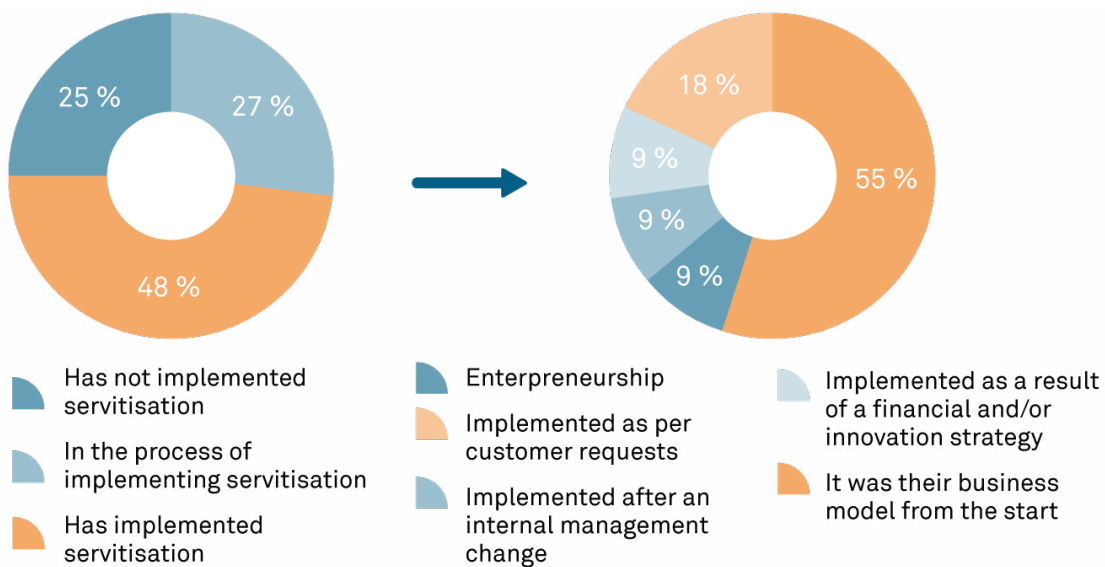
Figure 1. Degree of familiarity of surveyed companies with the concept of servitisation



Source: Prepared by the authors, based on data of *Aplicació de la servització a les pimes catalanes* by Pimec

- As per the **degree of implementation of servitisation** in the surveyed companies, 25% are not considering applying it, 27% already operate with a partially or completely servitised business model, and 48% are either thinking about integrating this shift or on their way to implementing it. Most companies (55%) designed their business model with servitisation in mind. However, 18% state that they implemented servitisation per customer request.

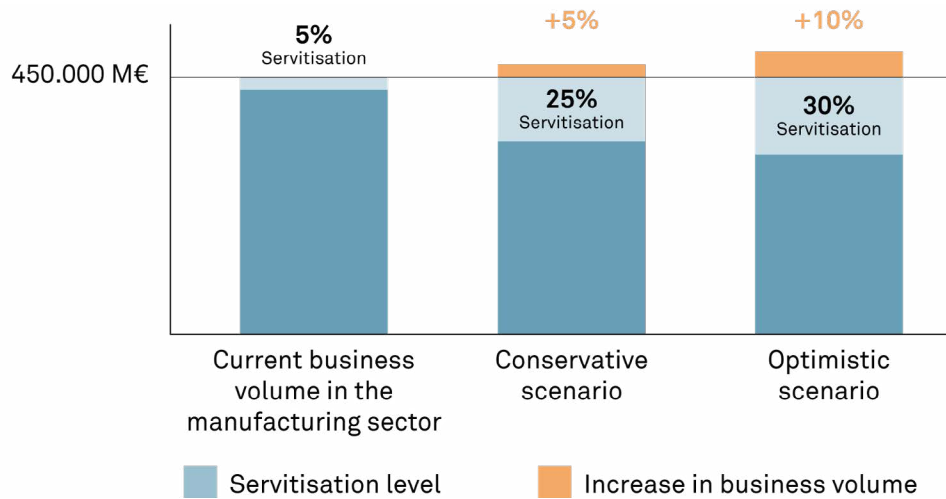
Figure 2. Degree and reasons for the implementation of servitization in companies



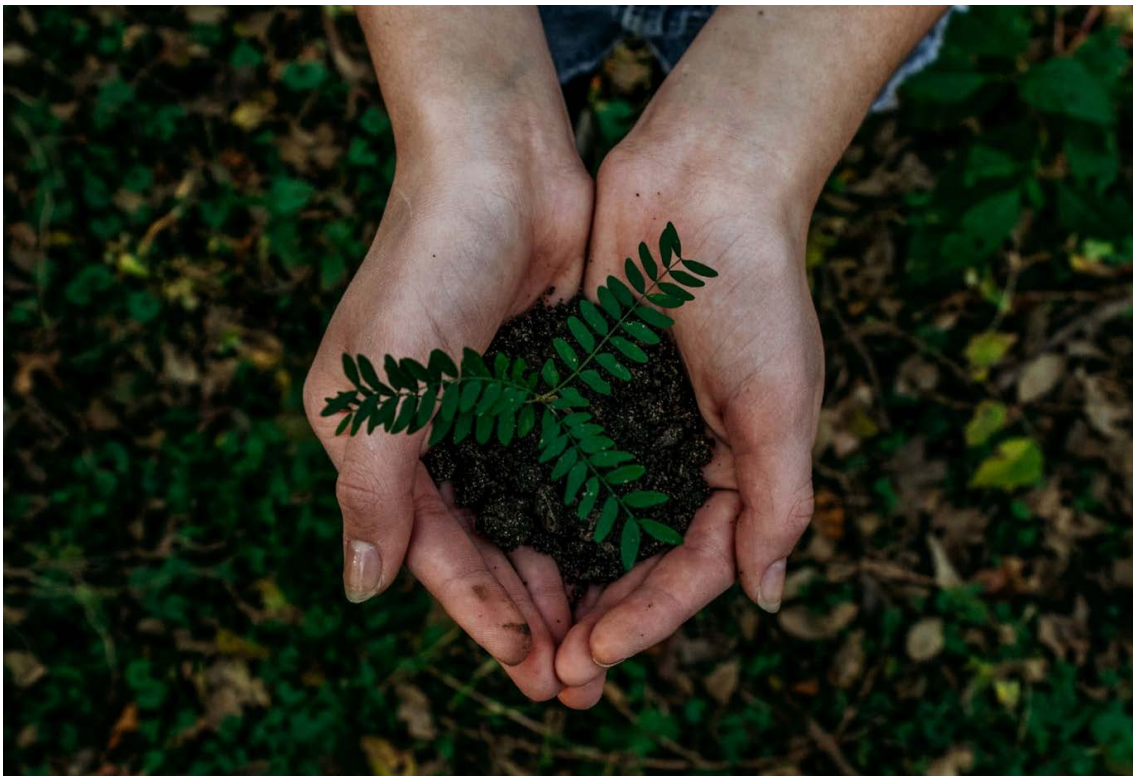
Source: Prepared by the authors, based on data of *Aplicació de la servització a les pimes catalanes* by Pimec

- Predictions of the future of this trend** point towards larger volume of business in industrial production, provided the implementation of servitisation reaches levels of more advanced countries. According to the Barcelona Provincial Council (Diputació de Barcelona), in a conservative scenario the volume of business would increase by 4.5 B€, whereas in an optimistic scenario there would be a rise of 11.3 B€.

Figure 3. Future predictions of volume of business by servitization level



Source: Prepared by the authors, based on data of *Cicle de tallers "Economia circular al món local"*, by Diputació de Barcelona



Implications of the servitisation process

As servitisation is a cross-cutting strategy – as are all in circular economy – it may be applied to several sectors of economic activity. At the same time, it will imply **changes in the organisation** of companies and in the **way they bring value** to their customers.

Companies choosing to focus their business model towards servitisation for other companies or consumers will undergo **changes in the products and services offered as well as in the professional profiles of their staff**. These companies will need to offer quality not only in their products, but also in the services related and the shared use of said products. Therefore, they will no longer focus on manufacturing and selling products, but on offering services instead.



There are **three servitisation levels** in the sector of Green and Circular Economy:

- **Product-oriented services** (e.g. an advisory service to use a washing machine in the most efficient way).
- **Use/access-oriented services** (e.g. laundries where customers may use washing machines that they do not own)
- **Result-oriented services** (e.g. paying for the service to always have clean clothes).

As **products are not owned by customers, they remain assets of the company**, so more value is obtained from them during their lifespan. As a result, companies boost innovation and eco-design with the aim to guarantee the maximum duration of the product. However, servitisation requires the following conditions:

- **Resource sufficiency.** When a resource or product is scarce, people choose to buy it as property. There must be enough resource availability so that ownership is no longer a key factor.
- **Trust.** Trust should be promoted amongst customers, so that they feel that they are accessing the service equally and under the same conditions.
- **Accessible technology.** Technology and digitalisation are two key elements for an agile and easy management of the servitised products.
- **Consumer's ecological awareness.** Beyond servitisation's advantages and efficiency in terms of management and finance, customer loyalty comes mainly from a greater awareness of the need to reduce unnecessary consumption and of the impact it has on the planet.

Impact of servitisation on professional profiles

Broadly, the trend towards servitisation is expected to transform the demand for professional profiles in two ways:



Firstly, there will be **new professional profiles in the customer company**. These roles will likely be **specialised in circular economy**. They will respond to the need to define new services with a lower environmental impact by promoting alternatives such as servitisation. Therefore, these professionals will have a strategic vision to **incorporate this trend and adapt** it to the possibilities of their company. At the same time, they should be able to evaluate, appreciate and communicate the advantages of implementing servitisation to their company.

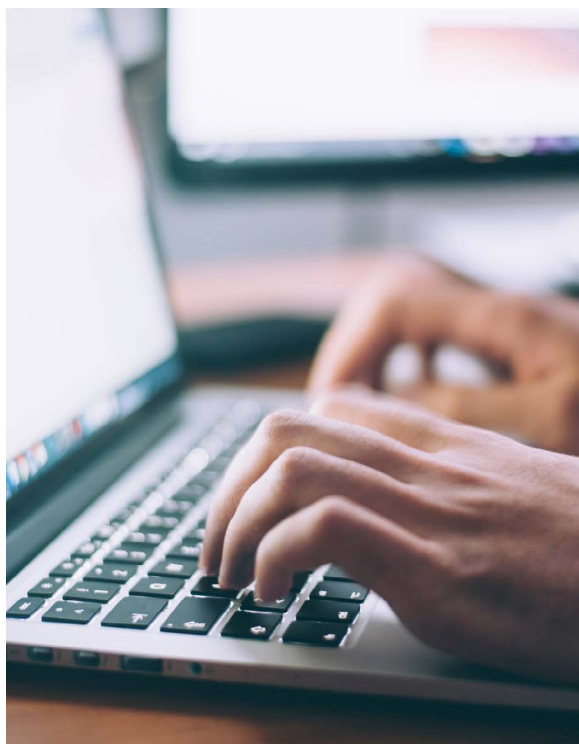


Secondly, new **professional profiles in the company offering servitisation** will be in charge of **implementing the service** in the customer company, ensuring it functions correctly and maintaining it when necessary. This category encompasses, for instance, the roles that will provide tailor-made training for new servitisation tools and service maintenance.

In this context, and taking into account that many occupations are tending towards robotisation, these professional profiles bring a kind of **expert knowledge** that **makes their role difficult to automate**.

Professional profiles related to servitisation should have **cross-cutting skills** in the fields of **circular economy, marketing and communication**. At the same time, they should have a **systemic and integrated view of production processes**. In certain profiles it will be particularly strategic to integrate servitisation knowledge. These include quality managers, automated line managers,

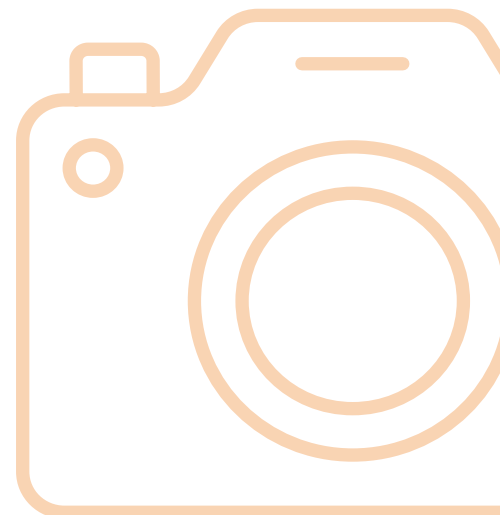
Finally, the trend towards servitisation does not only favour professional transfers and requalifications within a company or organisation. It also promotes professional **mobility amongst different sectors of economic activity** that may apply similar solutions in terms of sustainability. However, professionals should always undergo a **requalification** process in one or more of the aforementioned fields of knowledge.



Servitisation, in focus

It is difficult to predict whether the trend to servitisation will expand for reasons related to the fundamentals of circular economy, or, instead, because of the typical business trend to capture more value by positioning itself in the production chain, including positions of production, distribution, use and maintenance. With servitisation, **production companies become particularly interested in manufacturing low-consumption, lasting products.** For this reason, as well as other factors, the two servitisation trends should meet at this point.

Furthermore, the sources consulted focus on the future **behaviour of the final client/consumer**, who is considered the key and independent factor. Companies that communicate and educate their customers on the advantages of servitisation will be the best positioned ones in this trend.



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