



As-A-Service & Circular Economy Connecting the Dots

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Author: Solène Ponson

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Introduction

This white paper explores the links between the circular economy approach and the **As-A-Service** (AAS) business model. It first establishes the concept of circular economy and then follows with what the **As-A-Service** model is. This paper is written predominantly from the perspective of manufacturers and/or integrators.

This is the first of four white papers, the next paper focuses on planned obsolescence, the third tackles the common mistakes made when connecting **As-A-Service** and circular economy, and the last presents 5 ways to initiate your circular economy contribution with **As-A-Service**.

Our focus is on:

- The performance economy approach defined by Walter Stahel to the circular economy and how it relates to the **As-A-Service** model.
- The **As-A-Service** model and the benefits it provides for the manufacturer or the integrator.
- The **As-A-Service** model being one doorway to the performance economy and therefore one solution for sustainable development.

1. Circular Economy

The concept of circular economy was created in the 60s, the idea of a cyclical system of production was developed by Kenneth E. Boulding. However, it took 40 years for the first major and now famous book to be published in 2002: "Cradle to cradle: remaking the way we make things" by William McDonough and Michael Braungart.

Nowadays the principles of the circular economy are more clear: tackle global environmental and social challenges such as global warming, pollution, and waste. This model aims to transform our economic systems into **regenerative systems**, aligning strongly with the principles of the [United Nations' 17 Sustainable Goals](#).

Martin Geissdoerfer, economist and consultant at McKinsey, defines circular economy as:

"An economical system in which inputs and waste, emissions, energy leaks are minimized by creating cycles, process extensions, intensifying or dematerializing the loops of resources and energy utilization"

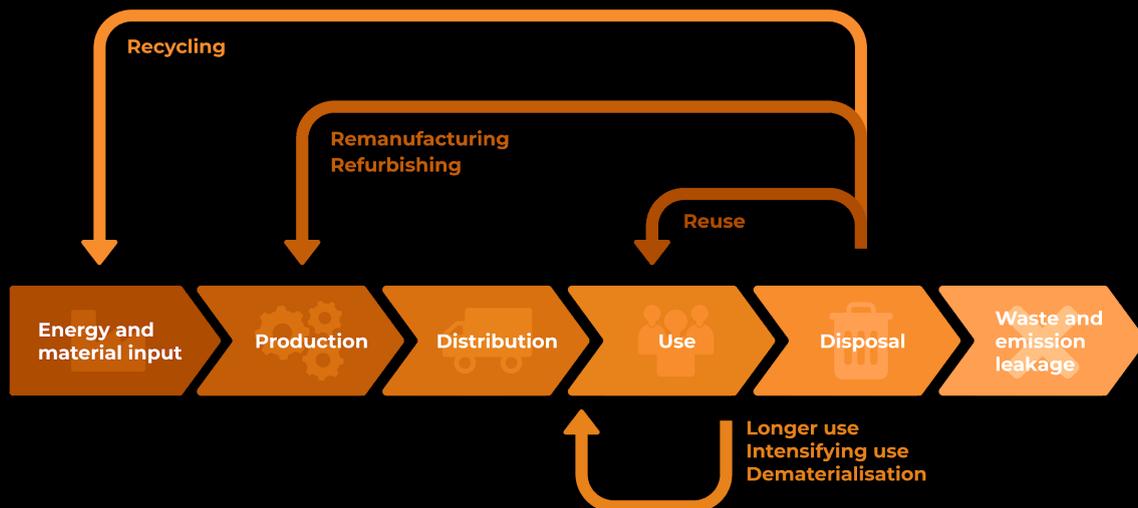
The main goal of the circular economy is to eliminate waste by reusing it in the production process of manufacturing new products. It is often represented as a loop instead of the most commonly used linear system of: extraction, production, use, end of life. In the case of the circular economy, the last step becomes a value creation step. The original product's design defines the value it will have after its first use and how this value

will be created, whether through reuse, refurbishing, recycling, sharing, or remanufacturing.

Therefore, the goal is to keep the products and materials in use for the longest time possible. The Ellen Macarthur Foundation defined three principles on which the circular economy is based:

- designing out waste and pollution
- keep products and materials in use
- regenerate natural systems

One of the major mind shifts of the circular economy strategies is that it replaces the 'concept of the customer being the owner' with the 'concept of the customer being only the user'. The user is not responsible for the end life management of the product he is using.



One of the 6 economic approaches to the circular economy, **the performance economy** retains our attention when it comes to connecting the dots with **As-A-Service**. It was developed by Walter Stahel in the '70s. This approach defines the maximisation of a product's use in order to maximize wealth, knowledge and nature. In other words, it means **selling performance** instead of a product. One of the main goals is to create a product that will last for the longest time possible, using the least amount of resources and energy. So that before the inevitable end of life, many cycles can be added to the product for different users, whether it is reusing, recycling or refurbishing. The economic value lies in the **utilisation value**. Innovation is one of the key components as products must be designed with performance and durability in mind.

2. The As-A-Service business model

Behind the buzzword “As-A-Service”, there lies a business model strongly developed in the last decade due largely to the digitalization of our society. From cloud computing As-A-Service has now become Anything-As-A-Service, defining the sale of the use of the product, instead of the product itself.

There are numerous types of As-A-Service solutions, the most widely recognized being Software-As-A-Service where the user has access to software without having the burden of providing the resources required to ensure the software runs properly. But there are also Mobility-As-A-Service, car renting companies are a good example, Healthcare-As-A-Service now exists thanks to the digitalization of remote patient care and computer assisted surgery. Every day new As-A-Service offers come to life to increase the user experience.

The As-A-Service business model gives the possibility to customers to satisfy their needs without the burden of ownership. It means that the manufacturer or the integrator owns the product and is in charge of maintaining the product in as near to purchase day condition as possible. The main advantage for the user is the access to state of the art tools without making a large investment and without being the owner of the products. To be profitable, the organizations implementing the As-A-Service business model have to offer strong and durable products that will satisfy the users for as long as possible.

When the manufacturer or the integrator offer the As-A-Service model, selling the use instead of the product, combined with a strategy to extend the product life cycle, it increases its **profitability**.

There are five great advantages to this type of sale:

- Increasing customer loyalty because the needs of the customers are better understood and can be anticipated, therefore the services offered are better fitting.
- Increasing the stakeholders' commitment (employees, clients, users, business partners, etc.) by involving them during the business model switch from ownership to usage.
- Service quality is increased by means of continued client communications thereby fuelling a success driven improvement strategy. This strategy makes it possible to maintain a competitive advantage whilst increasing service prices
- Anticipating governmental regulations and the consumers' behaviors change, possible thanks to the anticipation of innovations and risks.
- Unburdening from the product allows a company to return focus towards core activities and a re-energization of company fundamentals.

3. Connecting the dots

Whilst As-A-Service provides a shorter term of use for the end user, the opposite occurs on the side of the manufacturer or integrator, The goal of the As-A-Service model from a

manufacturing or integration point of view, is that the product is to be used for the longest time possible by a variety of clients whilst providing the best user experience possible. This then results in an optimized return on investment. Therefore, the durability of the product is crucial, a solid and dependable product will be used for a long time, whether it is with the same user or with a new one. The **As-A-Service** model reduces the cycle because the products have a lengthier time of use. With these models, the components are reused as much as possible.

The **As-A-Service** business model means a **centralization of the ownership** of the product's life cycle in the hands of a few manufacturers or integrators. The product owner, and not the user, is responsible for the after-use step, whether it is remanufactured, recycled, reuse, etc. The fact that ownership is no longer fragmented into a huge number of users allows the **As-A-Service** provider to keep the value of the products as well as their components. Because the organization is able to re-use the raw materials and various components after the product's main lifecycle, the natural resources consumption decreases.

It is a financial advantage for the organization because the purchasing of raw materials is reduced. Forecasting the resource consumption is made easier, with tight contract management and monitoring, the organization is able to anticipate product returns, the quantity of raw materials they can re-use and then the quantity they should order. Moreover, it reduces the social and environmental impact of its activities, especially because the primary resources consumption is decreased.

The value of the raw materials are optimized to the maximum. The **As-A-Service** business model allows for reverse logistics at the end of term; it is only possible when the **As-A-Service** provider retains complete ownership of the product. Switching business models is complicated, structural changes must happen and it demands precise and calculated steps.

4. Black Winch



Black Winch supports organizations to create and/or improve their **As-A-Service** business model according to their objectives: feasibility analysis, improving profitability, securing the market share, improving customer loyalty. By turning and developing the product-based linear business model into an **in-house subscription model**, it will bring value to the end users, the stakeholders and the shareholders.

The Black Winch experts help organizations to develop a successful **As-A-Service** business model through a proven methodology. With a personalized framework, Black Winch helps to build or adapt an **As-A-Service** offer, find financial partners, train teams, and provide the financial engineering required to ensure the success of the project. Additionally, it opens the door towards the circular economy and sustainable development. Black Winch is proud to be part of the [Ellen MacArthur Foundation](#) community.

From a buzzword to a business model, are you ready to take your organization to the next level? Contact info@blackwinch.eu

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