

Circular goes digital

Study shows significant untapped potential for Finnish companies

Digitalization is a driving force behind a number of industries. Circular economy, on the other hand, aims at optimizing resource use within industries. There is a clear connection between these two trends, and in order to accelerate change towards a sustainable circular economy, further coordination is needed. Digitalization can help drive this transition towards circular business in a variety of ways.

Deloitte Finland conducted a study on the connection between circular and digital innovation. The objective was to gain insight into what actions companies have taken to promote circular business and what role of digitalization has played within these innovations.

In order to study this, Deloitte Finland mapped 80 companies against Monitor Deloitte's framework of Ten Types of Innovation. The top 30 Finnish and top 50 global companies using circular business models were analysed based on publicly available information. After categorizing the 80 companies' respective circular economy innovations according to the framework, the team studied the role that digital technologies played in each new solution. Digital technologies were defined as those involving machine learning or predictive analysis.

A similar circular economy study was conducted in 2015, but without the digital lens.*

Deeper maturity and strategy shown in circular business

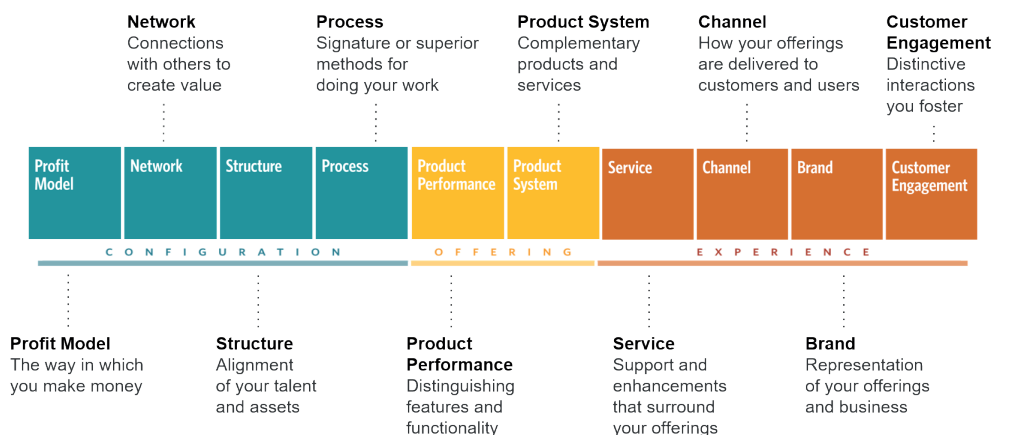
Compared to the findings in the 2015 study, the companies examined in Circular goes digital display a greater diversity of innovation types. This means that circular economy actions are becoming more mature and strategic. Circular economy efforts are found within all innovation categories, but circular practices show especially strong growth among network, process and product-related innovations.

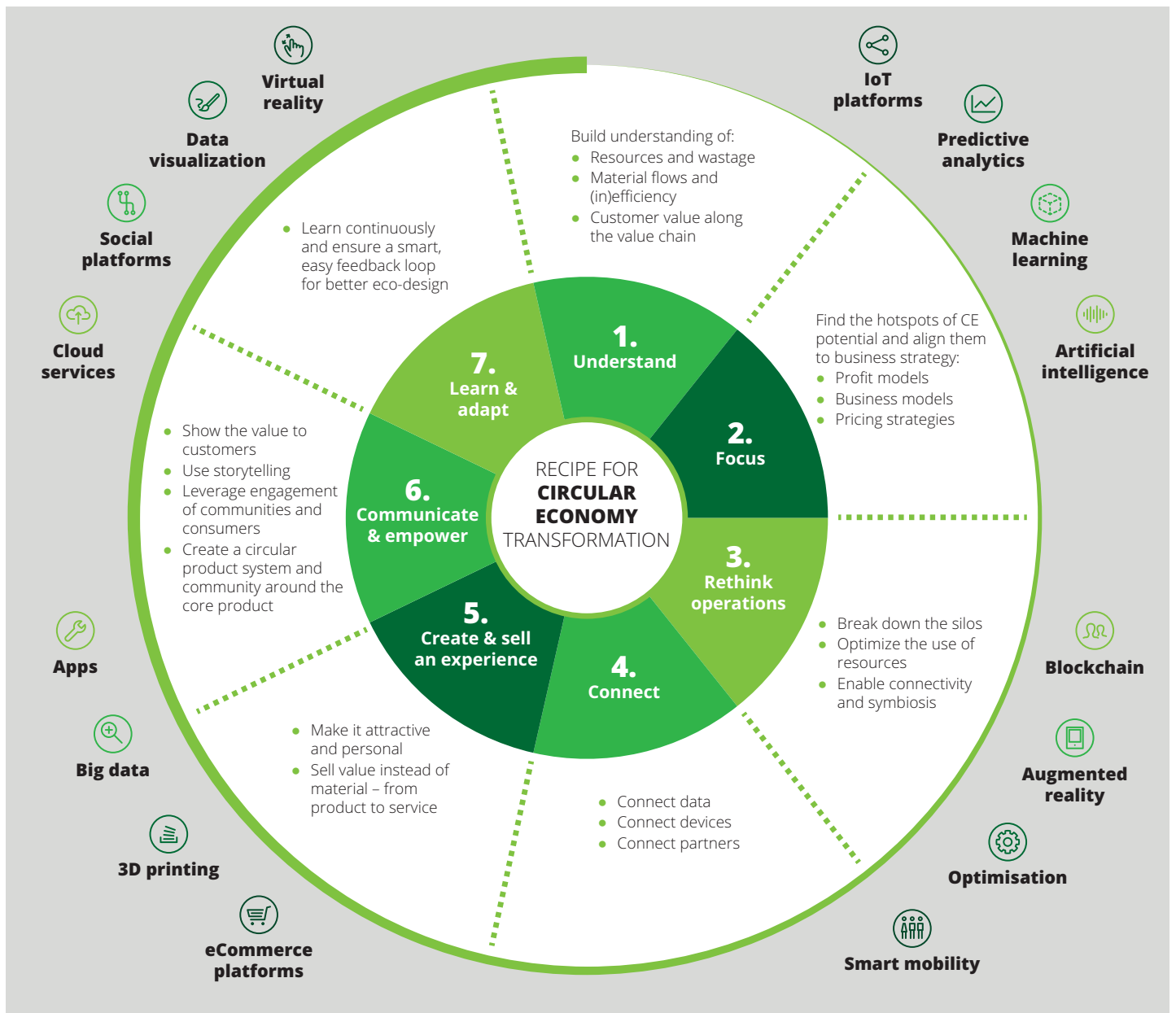
Profit model innovations, however, are surprisingly rare among the studied companies – such innovations require large structural changes in operations and may not be easily adopted by established companies. This innovation type could nevertheless be worth the risk, even if only introduced in one product category or service – the fresh idea may open up completely new revenue streams.

Circular economy efforts within the customer experience innovation types also show growth. This is a new development, indicating that companies are building circular operations in collaboration with their customers.



* TEN TYPES OF INNOVATION FRAMEWORK





DIGITALISATION CONNECTS DATA, DEVICES & DECISIONS FOR CIRCULAR ECONOMY

What does a transformation towards circular business models require from a company? Systematic steps – each of which can be enabled, supported and accelerated by digital solutions.

Digitalization sparks circular solutions

The results suggest that digitalization enables circular economy innovation quite frequently. In some cases, digitalization may even have been the spark for creating a circular solution in the first place. Innovation around circular economy seems to be less disciplined and strategic than digital innovation, which is highlighted by the lack of large-scale, disruptive digital circular transformations. Such large-scale innovations require drastic changes to business models: e.g. from selling products to selling services.

Digital innovation and circular economy innovation have a positive correlation, but digitalization does not seem to play a central role in circular economy innovations. It was a vital part only in 30 % of all identified innovations. Digitalization in circular innovations is mostly used to connect data, partners, devices and

customers in individual/isolated parts of the value chain. Digitalization enables the efficient use of data for designing and implementing circular solutions and e.g. utilizing side streams.

A window of opportunity for digital circular innovation

Digital transformation is a major opportunity for individual companies to re-think their future, their strategy, their value chain, their value creation, their operations, and the basis of pricing, as well as their sales channels and customer engagement. Each of these changes is also possible from a circular economy point of view. Currently, there is a window of opportunity for fundamental circular economy innovation. Companies are encouraged to seize this opportunity and enhance their operations through digital circular innovation.

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