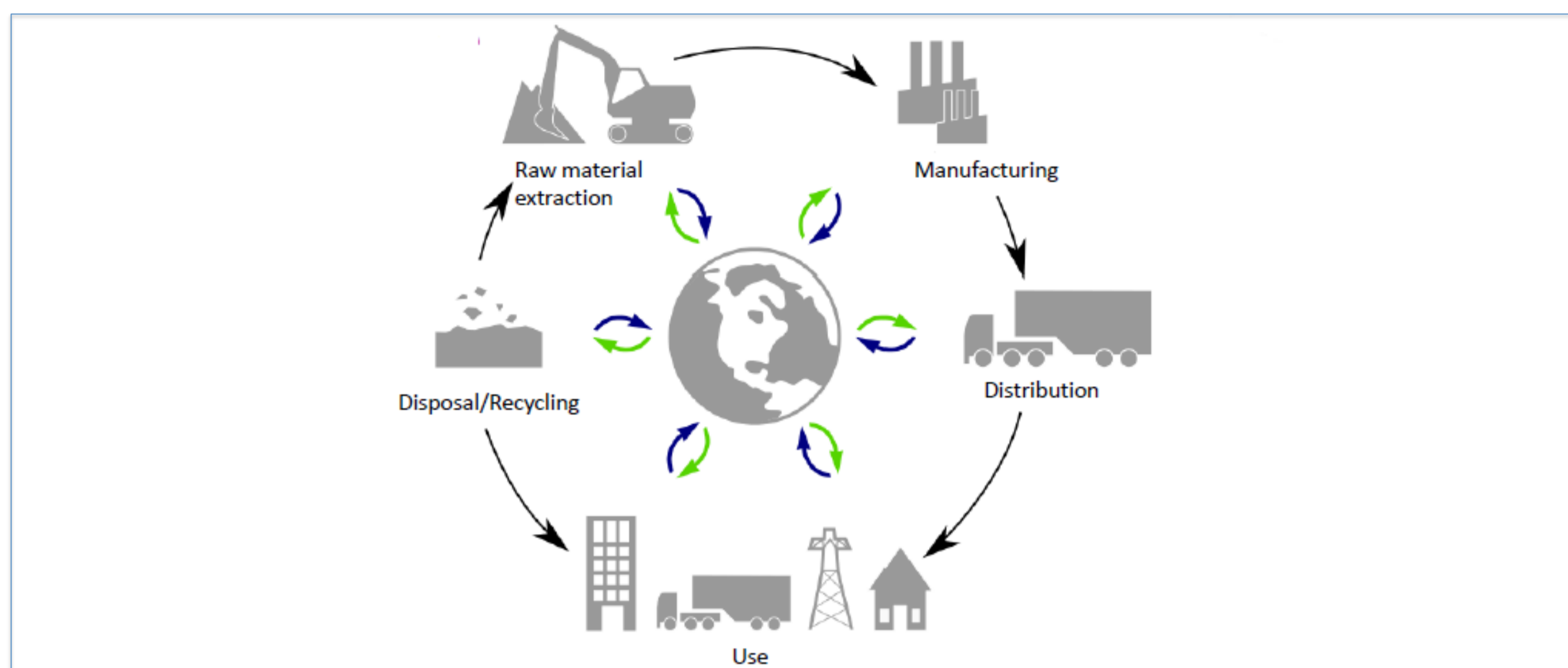


An LCA-based framework to validate sustainable business models

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Life cycle thinking can transform the way we do business

LCAs provide very useful insights in the impacts of a product or service across the entire life cycle – or value chain. However, most traditional business models are limited to the company itself. To create sustainable and shared value it is definitely needed to take a holistic view and integrate life cycle thinking in business. In that respect LCAs can be an essential tool to develop a new perspective on creating value propositions. But how can it help to validate the business case for sustainability?

'Old' business model does not reflect all value created

The key question of every business initiative is whether the business model is viable and sustainable over time. To answer that question, we measure that through a conventional cost-benefit analysis, and we do that even in new, sustainable business models.

Is that the way to go? and Does it reflect all values that are created? Is it at all possible to develop sustainable business when not all implicit values are valued? The answer, of course, is NO, but... how can LCA help to do it different?

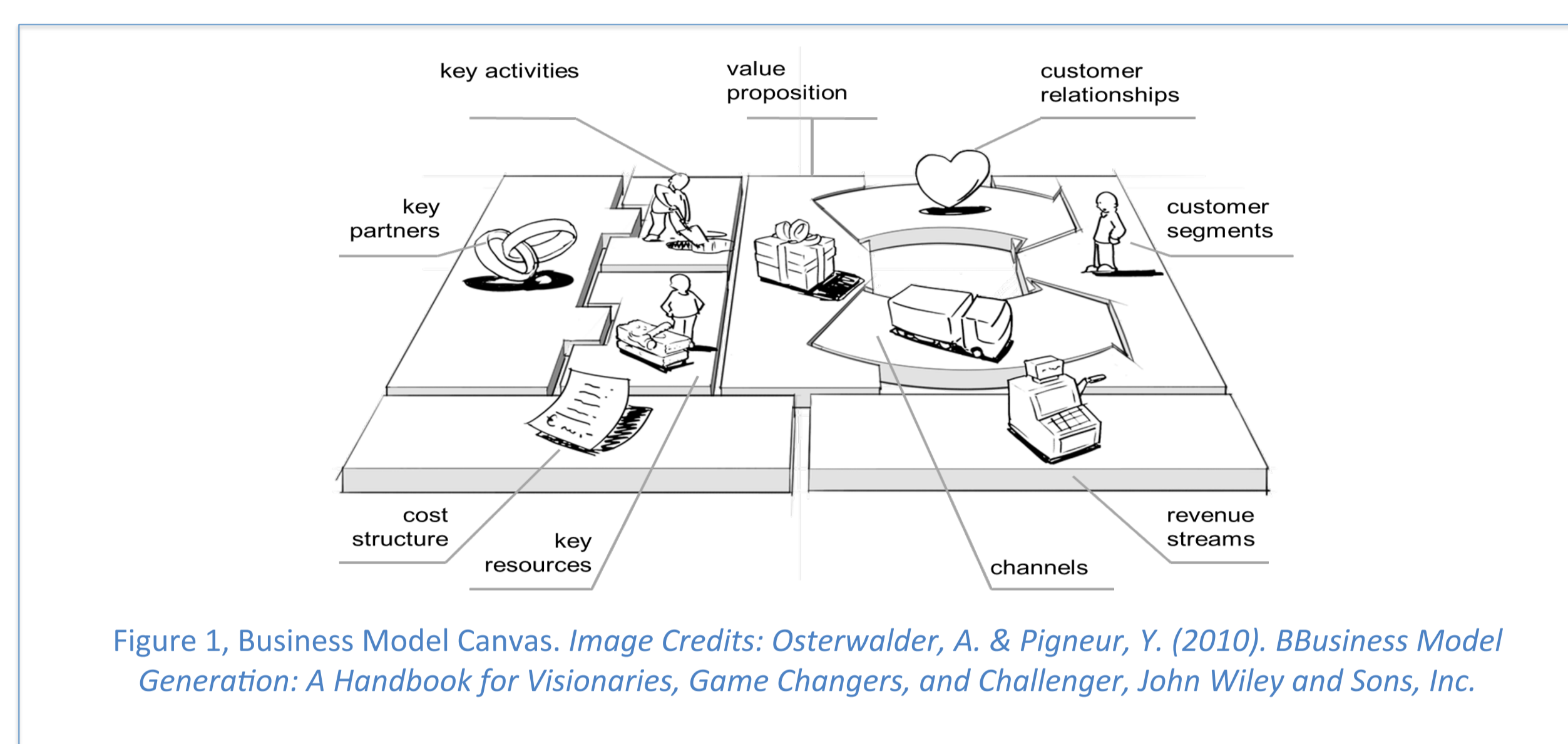


Figure 1, Business Model Canvas. Image Credits: Osterwalder, A. & Pigneur, Y. (2010). *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*, John Wiley and Sons, Inc.

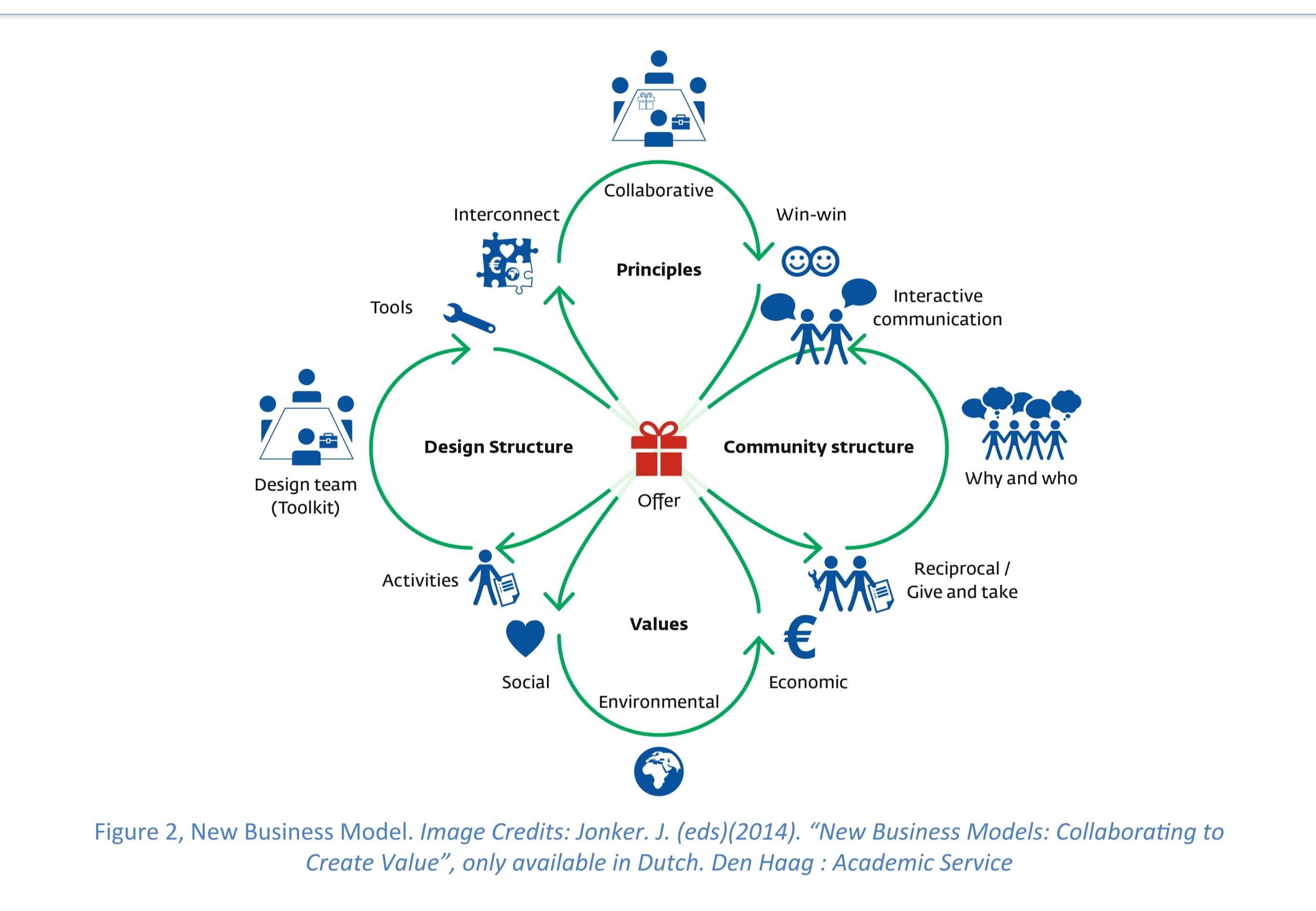


Figure 2, New Business Model. Image Credits: Jonker, J. (eds)(2014). "New Business Models: Collaborating to Create Value", only available in Dutch. Den Haag : Academic Service

Assess your New Business Model on more than money

In a traditional approach to a business model, it is primarily about mapping out all costs and benefits, quantify them in Euro's or Dollars, and then determine bottom line whether the business initiative is viable. The result of this approach is a closed model: there can be only one ultimate comparison. Furthermore, the model is limited to the company itself. Values that are created for others are not taken into account.

Therefore, it is time for an open business model. In this model, everyone in the ecosystem of a company should be able to derive value from their participation in the ecosystem, in one way or another. In LCA we call this 'defining the system boundaries'. The model must not only be open, but also dynamic. One can look at all the values that are being generated for the various parties in the business ecosystem.

LCA Based metrics for new , sustainable business models

Existing LCA methodologies can provide a good starting point to identify social, environmental and economic indicators. A traditional P&L looks at the profits and losses for the company. In this framework the P&L is extended and broadened. This approach goes further than just monetizing the environmental (and social) impacts. It values all impacts for the whole ecosystem of a company.

This framework can be used to measure social, environmental and economic value created by businesses across the entire life cycle. It allows you to adapt the framework to your specific situation and make your own choices on what you value most important. And, because it's linked to the business model, it can answer the key questions of every company: is our business model viable?

Example indicators		
Ecological	Economic	Social
Environment	Financial result	Autonomy
Resources	Productivity capital	Trust
Climate change	Productivity resources	Social cohesion
Biodiversity	Labour productivity	Vital community
Waste	Financial risk	Equality
Healthy environment	Innovation	Purpose

