Organising the Circular Economy
7 Steps towards a Circular Business Model

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Introduction
The circular economy (CE) is an economic system designed to maximize reusability of products and raw materials and to minimize value destruction\(^1\). Circular economy, as opposed to a linear economy which is a 'take, make, dispose' model of production, is about closing material cycles, and key in reaching national and international sustainability goals\(^1\). A major issue in organising circular loops and models is making them economically sustainable, i.e. in developing circular business models\(^2\). Here we present a method for developing such business models. First we present a new conceptual framework for describing business models for the circular economy, containing seven building blocks. Next we provide a 7-step method for developing circular business models and a practical workbook, the cover is depicted in figure 1, that provides hands-on support for applying the method. The framework and method are also at the heart of a MOOC Circular Business Models (under construction). The workbook is available online for free.

Figure 1: Cover of the workbook "organising for the circular economy"

7 Steps to create a Circular Business Model
The workbook reveals 7 major steps towards creating a Business Model that fits the Circular Economy. Essential to a Circular Economy is that parties create a collective business proposition together. The focus of the workbook is on supporting entrepreneurs in creating or adapting their own Business Model. To guide the process, the following 7 steps are advised:

1. Close or contribute to closing material cycles
2. Look for parties to collaborate with in closing cycles
3. Elaborate the 3Ps or six capitals into value creation
4. Choose strategies that fit the cycles and support value creation
5. Explore how the internal organisation fits the circular principles
6. Create or adapt revenue and calculation models towards the circular economy
7. Generate insight into the impact of the Circular Business Model

Additional to these 7 steps, users of the workbook are invited to discover the central collective value proposition of their business model and the contextual factors that are relevant in making the proposed business model work.

Relevance of the research
The workbook and the 7 steps as presented above are supported by 3 years of empirical research in close collaboration with front running businesses in the Netherlands. The research was done in close collaboration with the Radboud University, Nijmegen, under supervision of Prof. Dr. Jan Jonker. Science shows several recent publications on technical issues related to the Circular Economy. In contrast, research on the organisational and business challenges of the circular economy is scarcely available. As there is little scientific literature to support the creation of a model for circular business models, empirical research was chosen instead. The outcome of this research is mainly intended for entrepreneurs, but is usable for students and scholars as well.

Methodology and main research question
The presented model is created using a comparative case study comprising over 50 cases. The gathering of data was done with the greatest care, supported by a strict interview protocol and training for all researchers involved. The main research question is: Which steps can support entrepreneurs in the creation of a Business Model for the Circular Economy?

The translation of the main principles of the circular economy towards the underlying model in the workbook and the 7 steps can be seen in figure 2.

Figure 2: The workbook and supporting model in one glance

Research outcome
The outcome of the research is the conceptual model containing the seven building blocks, the 7 step method and 31 infographics. The infographics show examples of working business models of front runners of the circular economy, meant to inspire, challenge and support other entrepreneurs in creating their own economically sustainable business model for the circular economy. As an example, one of these infographics is shown in figure 3, depicting the business model of Peeze Koffie.

Figure 3: Infographic showing the circular business model of Peeze Koffie

Discussion and reflection
The outcome of the research is at the time of writing downloaded by entrepreneurs over 2000 times and used to support the minor “Business Models for the Circular Economy”. In the near future, the outcome will be the basis of a MOOC about Business Models for the Circular Economy, that is being co-developed by Saxion and 4 other institutions. This shows the applicability and relevance of the research for both businesses and education.

Still, the research lacks a solid theoretical basis and does not cover all possible angles towards creating a circular economy. The outcome offers guidance, but no solutions. Especially in calculating the impact of the proposed business model, there is need for further research and conceptual model building.

Key references