

Towards a Circular Economy

- **Lecturer:** Michiel Steeman
- **Language of instruction:** English
- **Admission requirements:** No prior subject-specific requirements
- **Number of ECTS credits:** 5 (corresponding to 3 US credits)
- **Type of examination:** Report and business simulation

Course Description

This course is about the business point of view on the transition from the linear “Take – Make – Dispose” system which depletes natural resources and generates waste to a restorative, circular, model in which waste does not exist as such but is used for the next cycle. Circular business models are relatively new, and the companies (see example of Renault, Philips, Nike and others on <https://www.ellenmacarthurfoundation.org>) using these models face challenges. Such challenges will be addressed in this course, for example the necessary changes in the construction of and the collaboration in the supply chain and the financial and legal challenges which come from these models.

Module contents

The purpose of the course ‘Towards a Circular Economy’ is to let students experience what it takes for companies to move towards a circular business model. Key method for the course is the business simulation game The Blue Connection, a virtual Dutch biking company. In teams students take over the management of The Blue Connection to transform the business model from linear to circular, ensuring a healthy Return on Investment and Material Circularity Index (MCI). The focus will be on a number of issues such as supply chain aspects, return flows, shared economy models, product design, material circularity and the impact of innovative technologies.

At the end of the course students should be able to:

- understand new business models in the circular economy and their implications on the supply chain
- recognize perspectives from different departments within companies on circular economy
- utilize methods for impact measuring of circular models
- be aware of the opportunities of using new technologies for circular goals

Methods of teaching and learning within the module

In the teaching and learning there are three important aspects. First, there are interactive lectures wherein theory is introduced, and second, there is an interactive case study via a business simulation wherein theory is applied. Third, we will visit multiple companies.

Recommended list of literature

- Oliver Wyman (2017). Supporting the Circular Economy Transition. The role of the financial sector in The Netherlands.
- Ellen Macarthur Foundation, Granta and Life (2015). Circularity Indicators. An approach to measuring circularity.
- Weetman, C. (2016). *A circular economy handbook for business and supply chains: Repair, remake, redesign, rethink*. Kogan Page Publishers.
- World Economic Forum (2014). Towards the Circular Economy: Accelerating the scale-up across global supply chains
- De Boer, R., Steeman, M., & van Bergen, M. (2015). Supply chain finance, its practical relevance and strategic value: the supply chain finance essential knowledge series.