



Circulus

Opportunities and challenges of transition to a sustainable circular bio-economy
Newsletter n°3, August 2019



Greetings from Circulus!

Have you heard the many stories about circular economy? Perhaps you heard about how it decouples economic growth from resource use, or maybe how it creates green jobs... Maybe it saves the world or falls short and only takes care of our waste? As stories are important for the development of society, shaping our beliefs and creating the goals that we collectively pursue, in this newsletter we first dive into the deeper meanings behind some of these circular economy stories.

With the Circulus project now more than half-way complete, we would also like to share some of our results and upcoming events.

Last but not least, we have started a new blog on Medium to bring our research to a wider audience; two short articles from the blog are *recycled* for this newsletter. For the complete versions, please visit [Circular Economy Stories](#).

We hope you enjoy reading!



Photo: Martin Ritter

Circular Economy Stories

Avoiding the Circularity Trap

This is a short version of a [blog article](#) by Hanna Helander posted on *Medium*, July 25, 2019

In 2015, the European Commission launched “Closing the loop - An EU action plan for the circular economy.” It states that the circular economy will create jobs and “*help avoid the irreversible damages caused by using up resources at a rate that exceeds the Earth's capacity.*” Sounds like a concept worthy of pursuit! But how does this magic pill work, and how can we make sure it does not have side-effects?

While the communication from the Commission is a result of political negotiation between stakeholders with a wide range of interests, the circular economy has roots in industrial ecology concepts, which are concerned with how to design material flows in industrial societies. By seeing the society as a socio-economic metabolism, we conceptually linked environmental pressures to the abundant circular economy principles (e.g. reuse, recycle and reduce) and identified the necessary changes in material flows to reach the objective of decreased environmental pressures. We looked at the society and all its activities as if it were an organism using materials and other resources from the surrounding environment; we call

these input flows to the society. The society also produces output flows, these consist of waste and emissions. Input and output flows comprise the pressures on the environment, which need to decrease in order to stay within the earth capacity, and thus enable a continuous prospering human population.

We found that most circular economy indicators do not carry information about input and output flows, or only in a limited way. The reasons for this include for instance down-cycling and rebound-effects.

The conceptual idea of a circular economy is however still worth pursuing. Nevertheless, strategies need to be assessed in terms of environmental pressures. Otherwise, we risk falling into the circularity trap: the belief that any activity labelled circular economy will help us stay within planetary boundaries and sustain human life on earth.

Helander H, Petit-Boix A, Leipold S, Bringezu S (2019) How to monitor environmental pressures of a circular economy: An assessment of indicators. *Journal of Industrial Ecology* [OPEN ACCESS!](#)

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Talking in circles? Why discourses matter for the future of Circular Economy

This is a short version of a [blog article](#) by Marius Hohl posted at *Medium*, Nov 2, 2018

Given that nowadays even VOGUE Magazine publishes articles about the circular economy, one can truly say the concept has become fashionable. One advantage of the circular economy seems to be its connectivity to a wide range of crosscutting goals; it offers economic, ecological and social benefits. However, circular economy means different things to different people. Recent analyses have identified a myriad of (competing) scientific and stakeholder definitions of circular economy. Hence, it might lead to rather different understandings of goals and pathways.

The Circular Economy Road Map of the French environmental ministry illustrates this. It could be argued to represent a balanced implementation basis. Nevertheless, a draft of the Road Map was sharply criticized by different French NGOs for hardly mentioning the social dimensions of the circular economy. They suggested that the draft ignored social effects and the important role charitable organizations can and should play in it. These NGOs clearly contested the governmental interpretation of the circular economy. Moreover, a leading network of French communities suggested that community leaders should have a greater say in the definition of key measures.

Hence, the French Road Map clarifies that defining tangible goals and actors of a circular economy is not as straightforward as one might think.

It seems noteworthy that current research on circular economy has neither fully acknowledged the extreme diversity of political strategies and their potential trade-offs nor understood the disparate goals of stakeholders. Political struggles demonstrate that future pathways towards a circular economy must be embedded in previous political discourses and have to enable stakeholders to create a convincing storyline. Hence, circular economy is what we make of it. Stakeholders who manage to create an attractive storyline about circular economy have a considerable say in what future transformation pathways will look like. Political discourses should thus be apprehended as barriers for some and enablers for other interpretations of the circular economy. While studies on prevailing discourses about this concept exist, more research on political discourses and their effects is necessary. At the same time, a closer look at discourses and different interpretations of circular economy might help to avoid talking in circles.

Visit our blog to read our complete stories and more content!



Research highlights

The German Packaging Act, a success story?

Text: Machteld Simoens

Seven years of intensive discussions led in January 2019 to the adoption of a not so ambitious and innovative approach to packaging waste management in Germany. Machteld analyzed the policy making process of the Packaging Act. Although the involved actors agreed on the need for enhancing Germany's waste management for a circular economy, only minor discussions were held on the ecological aspects of the regulation. However, different stories were circulated about how and why the organization of waste management system should change in order to become sustainable for the future. Comparing different discourses and strategies informing the discussion, the analysis shows how core values of private versus public actors were impossible to unite. By balancing the diverse interests, the Packaging Act is a compromise that no actor fully supports. As such, the Act does not form the final step towards a full-functioning circular economy, but is rather an interim step, on which further stories will be based.

Global circular economy perspectives

Text: Anran Luo

Last summer, Europe and China signed a [Memorandum of Understanding on the Circular Economy](#). Although not legally binding, this MoU has been hailed by the Ellen MacArthur Foundation for paving the way for circular economy's global adoption. Through six months of fieldwork primarily in Brussels, Beijing and Helsinki, where this year's World Circular Economy Forum dedicated a whole panel to trade and the circular economy, Anran Luo gained policy stakeholder perspectives on goals, visions, opportunities and challenges for circular economy activities between Europe and China. Preliminary results suggest that trade and China are strongly linked from a European perspective; Chinese concerns focus on domestic environmental barriers to growth where European technology, policy experience and funding are considered helpful tools. While Europe is seen as the leader on circular economy, many connect circular economy to the Green Belt and Road, China's 'soft power' project.

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Barriers and Enablers of a Transformation to a Circular Economy: A Panel Discussion

4th International Conference on Public Policy (ICPP),
Montreal, June 26th-27th 2019

To address the pressing need to move to more sustainable production and consumption systems, two of the world's economic and political powers, China and the EU, have developed political strategies to introduce the 'Circular Economy'. These strategies describe the circular economy as a new paradigm implying a transformation of the economy and, subsequently, of the society in these regions. The realization of this transformation will have large impacts on the global economy, and, thus, on how world politics is to be governed. Nevertheless, the political, institutional, and social barriers and enablers of such transformations have so far not received much scientific attention. By shedding light on the political and governance struggles, much can be learned regarding its potential global effects. On this basis, Sina Leipold organized a four session long panel at the 4th ICPP conference in Montreal, with the aim of initiating a structured discussion of this new economic model from social, political, legal and governance perspectives.

As part of the panel, Anran Luo presented the results about the China - EU policy discourses on circular economy. The analysis carved out the political and governance struggles, seeing the circular economy as both a transformative policy paradigm and as a regulatory, geopolitical and socio-economic project.

Sina Leipold presented an analysis of the EU policy discourse on the circular economy. The study, done together with Tim Griebel (University of Erlangen-Nürnberg), shows that media belief in the steering power of certain "intervention" or "leverage" points (e.g. entrepreneurs, innovators, technology) and that experts highlight considerable adverse "leverage" points. Based on such insights, the barriers and enablers of a circular economy can better be understood, which may serve future-oriented stakeholder debates on a circular economy in the EU and beyond.

Related news...

The European Commission issued a summary of a recent publication: [*Science for Environment policy- Bioeconomy perceptions of the circular economy, Germany*](#)

[*Von der Feinwurzel zum Footprint*](#), Sina Leipold in „Uni-Wissen“ 01/2019, page 16-19 (German)

Germany recently adapted a new [*National Strategy to reduce Food Wastage*](#) (German)

Upcoming Events

Shaping a bio-based circular economy sustainably: Objectives and opportunities

Circulus interims Workshop (German)
12th of November 2019, Berlin

At the *Circulus* interims-Workshop, we will present project results and evaluate them in dialogue with participants and selected experts in the fields of circular economy and bioeconomy. It is an opportunity to discuss initiatives, to network and exchange ideas with other experts from business, science, politics and civil society. For more info, please send an email to vera.marx@transition.uni-freiburg.de

(New) Sustainable Economies - Conceptualization and Assessment

Interdisciplinary Seminar for Young Researchers
21st -22nd of November 2019, Freiburg

To design a road map towards political visions, such as a circular economy or a bio-economy, we need targets, standards, assessments and ways to enforce compliance. At our Interdisciplinary Seminar for Young Researchers, we will explore the connections between policy development, conceptual backgrounds and assessment methods.

How to create a bio-based circular economy – From political goals to actions across cities and industries

Circulus Workshop at World Resource Forum
November 2019, Geneve

Circulus will present its results in short presentations before entering in a dialogue with you and other invited experts from the fields of circular economy and bioeconomy. This will provide apt opportunity to exchange about innovative approaches and initiatives for a bio-based circular economy with other experts from industry, science and civil society.

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