Circulus

Opportunities and challenges of transition to a sustainable circular bio-economy Newsletter n°4, February 2020



Text: Sina Leipold

Greetings from Circulus!

Welcome to a new decade where we must curb greenhouse gas emissions, reduce resource extraction and redirect our economies towards sustainable visions. The last decade ended with overwhelming call-to-action from social movements for inter-generational justice and new pathways that steer us away from societal catastrophe. Now, more than ever, we need to join forces.

For this joint societal transformation, research must not only describe ecological problems, but also suggest and assess solutions. This requires interdisciplinary approaches, relevant research questions and stakeholder exchange.

Circulus is part of these research efforts. During the last months of 2019, we organized a number of events, including a workshop with practitioners, a seminar on "New Sustainable Economies" and an interactive session at the World Resource Forum in Geneva. And this year, more events are waiting. Enjoy reading!



Circulus Interims Workshop, November 12th 2019, Berlin

Transformational Research and Practice

Shaping a sustainable bio-based circular economy – objectives and opportunities for action

Circulus workshop, November 12th, 2019 | Berlin

In November 2019, the Circulus team presented its intermediate results to its partners from civil society and the private sector. The results were based on extensive empirical evidence (e.g. more than 120 stakeholder interviews from the EU and China) and insights from more than 200 reviewed scientific publications, that the team had collected in 2017 and 2018. So far, this evidence suggests that current EU policy debates, implementation strategies, and monitoring tools for a circular economy risk creating frustration about the pace and scale of change. It demonstrates that EU political debates emphasize business opportunities and engagement, while large industries in many European sectors show little innovative activity so far. In cases where countries like Germany and France implemented circular economy strategies in specific industries, struggles over prioritization and responsibilities constrict effectiveness

or leave stakeholders disillusioned. Although practical experience and scientific knowledge on the realization of circular economy concepts like 'cascading' exists, political and business debates do not tap this knowledge base enough. Many current scientific studies and monitoring tools focus on barriers and enablers for specific circular economy strategies, while a prioritization of the myriad strategies along ecological benefits and context-specific practicability remains underdeveloped. Based on these results, the Circulus team suggests that tremendous potential for both industry and regulators lies in (1) carefully reflecting on what is worth measuring and putting resources to, (2) exploiting experiences with older concepts, and (3) prioritizing specific circular economy strategies by their effectiveness and efficiency.











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New Sustainable Economies: Policy-relevant research and (inter)actions

Early-Career Researchers Seminar, November 21st-22nd, 2019 | Freiburg

Text: Anran Luo & Hanna Helander

As the development of new sustainable economies is inherently policy-relevant, early career researchers focusing on the circular economy, bioeconomy and low-carbon economy gathered to share and discuss their work as well as to identify their role in societal transformations. Researchers discovered that their selfpositioning in relation to policy, whether it is more neutral or more involved, depended on disciplinary backgrounds, research topics and contexts, and also the stage of research. Researchers in earlier work stages preferred to remain neutral towards policy decisions until they gained more clarity.

One main topic that emerged out of the seminar centred on how to ensure science integrity and transparency while at the same time communicate concise and engaging messages to policymakers and the public. The keynotes, supported this discussion through a dialogue between Meadhbh Bolger, campaigner at Friends of the Earth Europe and Stephan Lutter, senior researcher at the Vienna University of Economics and Business. The speakers expanded on the seminar conversation by bringing in their own experiences working together at the interface of science and lobbying. Presenters, seminar participants and the audience enjoyed a lively discussion on the research ethics of science participating in lobbying efforts for environmental policy change, the idea of science remaining non-prescriptive in times of urgent environmental crises, as well as what researchers and civil society can do to strike a balance.

To read more about the discussions and take-aways from the seminar, come read our blog.



Workshop at World Resources Forum

October 23rd-24th, 2019 | Geneva

Text: Machteld Simoens

The Chair of Societal Transition and Circular Economy hosted a workshop at the World Resources Forum 2019 in Geneva. Guided by the topic "How to create a biobased circular economy - From political goals to action" workshop speakers Anran Luo, Hanna Helander and Machteld Simoens presented their research results.

Based on these insights, the workshop participants were asked to engage in an open dialogue and share their ideas and experiences on the prioritization of different strategies to enhance a bio-based circular economy, as well as the effectiveness of these strategies and tensions that might rise between them.

Moderated by workshop organizer Sina Leipold, the arguments were manifold and addressed among others the need for information exchange and innovation as well as the role of scale in implementing the circular economy. Furthermore, the tensions between a prioritization of 'end-of-life strategies' and 'product and system design' to enhance the circular economy globally, were intensively discussed.















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Outstanding Research



Helmut-Lieth Prize on Environmental Research October 23rd, 2019 | Freiburg

Cities are actively seeking for new solutions that help them meet the needs of rising populations without compromising the environment. In this context, a number of cities worldwide are taking up the circular economy concept and are in the process of discussing, planning or implementing new strategies under this umbrella. Are the selected strategies actually environmentally friendly? How has industrial ecology research supported the understanding of their environmental effects? Dr. Anna Petit-Boix was awarded the Helmut-Lieth Prize on Environmental Research 2019 for a publication addressing these questions. The School of Environment and Natural Resources at the University of Freiburg recognizes outstanding publications and the academic task conducted by early-career researchers.

Find the paper here:

Circular economy in cities: Reviewing how environmental research aligns with local practices

Recent Publications - Selection

Peer-reviewed scientific publications:

- How to monitor environmental pressures of a circular economy: An assessment of indicators
- **Discourse analysis of environmental policy** revisited: traditions, trends, perspectives
- Transforming the bio-based sector towards a circular economy - What can we learn from wood cascading?

Other publications:

An Alternative Action Plan to Avoid the **Circularity Trap**

Upcoming Events

Interdisciplinary Circular Economy Conference 2020

September 21st-22nd, 2020 Freiburg, Germany

Determining the implications of circular economy initiatives on the environment and human wellbeing is essential for successful policy development and monitoring. While technical and business aspects of circular economy initiatives receive growing perspectives power struggles, attention, on socioecological justice and trade-offs implementation are underdeveloped.

Keynote speakers:

- Prof. Julia Leventon, Sustainability Science, Leuphana University Lüneburg
- Prof. Damien Giurco, Resource Futures, University of Technology Sydney
- **Prof. Stefanie Hellweg, Ecological Systems** Design, ETH Zürich

Related news...

Newspaper Article on Circulus research: "Müllvermeidung taucht nirgendwo auf" interview with Sina Leipold about German Packaging Policy in the German Newspaper TAZ by Heike Holdinghausen

Circulus research informing policy and practice in Australia: The Office of the Chief Scientist, Government of New South Wales (NSW), Australia, invited Sina Leipold to present the Circulus research as New South Wales is working on implementation strategies for a circular economy.











