

“Transformative metrics” – workshop
5th and 6th October 2020
Universidad de Antioquia, Medellín, Colombia

This workshop aims to establish a new research agenda around the ways in which existing and new methodological approaches can contribute to study social and technological change.

Transitions scholars have begun to search for new methods and indicators to study transitions. This chimes with research in areas such as the Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change, that call for new indicators, models and methodological approaches to evaluate the implementation of these agendas (Ramirez, Romero, Schot, & Arroyave, 2019). Following, this the transitions research community has called for the development of a “structured navigation” method and a “formal model” to study transformation and sustainability agendas (Köhler *et al.*, 2017, 43-47).

Current approaches in sustainability transitions research

The question therefore arises of how to develop indicators and methods to study sociotechnical systems changes using sustainability transitions as a lens? To reach this goal one should consider using the most common theoretical framework, *multi-level perspective*, which divides a system into three domains: landscape (broader trends) sociotechnical regimes (dominant sub-system) and sociotechnical niches (alternatives to the dominant system) (Geels & Schot, 2007). This approach could be used to develop indicators to study, for instance, in what ways climate change can shape the interactions between decentralised renewable energy (niches) and centralised fossil fuels electricity generation (regimes).

A new framework in transitions studies called Deep Transitions builds on the above but analyses interactions across systems (Schot & Kanger, 2018). A good example of this approach is to study in what ways biofuels (energy) can impact sustainable agriculture practices and the use of water in rural areas. This new approach opens the scope of transitions research for a more complex study of interactions across systems.

Another possibility is to study the spatial dimensions of sustainability transitions (Coenen & Benneworth, 2012). This could include, for example, analysis of how actors build agreements and resolve problems through different territories, or in what ways a regime can change via territories being strong in some regions and weaker in other. Another example is to study how actors’ agency varies through regions, and which actors can contribute to build bridges between these regions to anchor sustainable practices and encourage social well-being. (Vankeerberghen and Stassart, 2016; Rutten, 2017; Arnaiz-Schmitz *et al.*, 2018; El Bilali and Allahyari, 2018).

Another of the very resonant areas in sustainability transitions is to develop scenarios and “Techniques of Futuring” (Hajer & Pelzer, 2018). It implies going beyond approaches which are based on expected futures, to approaches which imagine “desirable futures”. How transformations could be in the future and how to analyse or further a transition is central to this. For example, understanding how to nurture promising niches which are still immature, but may expand to create desirable alternatives in the future. Another central question is to study which actors could be the winners and losers in a variety of transitions scenarios.

Challenges for developing metrics and indicators

Considering the complex dimensions of transitions, how can we develop indicators, models and approaches which support work towards social and environmental goals?

This workshop aims to unpack the potential of methodological approaches to study transformation with a mixed group of researchers from a variety of countries, methodological



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backgrounds and research areas working on topics related to the sustainable development goals. Questions that we hope to address:

- How to make visible transformations and changes that may be occurring in a variety of regions, occurred in the past, or could occur in the future?
- How to identify and analyse interactions across socio-technical systems? How to identify the structure of current, and possible future, socio-technical networks?
- How to analyse incremental and radical change? How to study fast transitions or smooth transitions?
- In what ways can we measure how niches and regimes vary across regions, and how the landscape may shape them in different ways? How can we measure variety in expectations about systems?
- How can participative mapping techniques contribute to identify a variety of knowledges including academic and non-academic knowledge such as social movements which contribute to building niches? Which frameworks can be applied to study interactions across systems?
- Participative mapping techniques to identify niches or disruptive innovation.
- How to identify and study misalignments and alignments between social needs and demands and scientific and technological production in sociotechnical systems such as health or food systems?

We extend an invitation to critically think together and learn from a variety of methodological approaches and academic backgrounds. We encourage you to use the concepts, epistemological and ontological considerations of sustainability transitions. However, we are open to consider novel frameworks to study social and technological change. We suggest the following topics even though we are open to consider other approaches which can contribute to study sociotechnical systems change:

- Mixed methods to develop metrics to evaluate impact of policies, projects and programs which aim to implement the sustainable development goals.
- Trajectories of scientific communities and their role on nurturing and addressing the transformative power of the SDGs.
- “Techniques of Futuring” to develop scenarios and study the implementation of programs which encourage social and environmental goals.
- Scientometrics and Alt-metrics methods in the movement of Next Metrics, Responsible Metrics, Multidimensional measures to discover novelties in knowledge development, metrics oriented to find out promising knowledge fields for the SDGs
- Regional diversification and mixed methods to study the implementation of the SDGs via territories.
- Agent-based modelling, simulation models, mathematical or statistical tools to contribute to the debate of scenarios and strategies to encourage transformations.
- Q-methods or mixed methods to assess transitional experiments or inclusive innovation experiences related to social and environmental goals.

Transformative metrics format

The transformative metrics workshop format aims to encourage discussion and examination of conceptualisations, practices, findings and lessons that participants bring with them.

Participants only need to express interest and, upon invitation, submit **either a maximum 3,000 words** literature review that connect a methodological approach with sustainability transitions literature, **or** interesting findings from your own work that you want to share in the workshop,



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or a methodological proposal to address one of the research questions mentioned. This input could serve to share lessons or your pressing questions regarding the topic.

Important Dates:

30th June	Submission of expression of interest to participate (including a brief description of your research; and explaining which topic and question, you would like to address in the workshop; see section Challenges for developing metrics and indicators) (via email to o.y.romerogoyeneche@uu.nl)
7th July	Notification of acceptance
30th July	Program and logistical information
7th September	Send ‘3000 words paper’ with your inputs to the transformative metrics workshop (via email to o.y.romerogoyeneche@uu.nl)
5th and 6th October	Transformative metrics workshop

Organizing Committee

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