



Phasing out carbon-based materials in the Fashion industry

Team involved: Anita Hardon (KTI/WU-SSG, Anthropology of Care), Josephine van Zeven (Environmental Law/SSG), Phil Macnaghten (KTI/WU-SSG, responsible innovation), Marloes Moed (external PhD Law/WU-SSG, kenniscentrum Bio-based economy Hanze University of Applied Sciences), Egbert Dommerholt (Bio-based Business Valorisation, Hanze University of Applied Sciences) and Paulien Harmsen (WR/Wageningen Food & Bio-based products)

To which design flagship did you submit your proposal?

A: Design Flagship Methodological Innovation (focus on textile)

What are you exploring? With what objective?

The world's biggest fashion brands fuel plastic pollution and the climate crisis through their reliance on synthetic fibre made from fossil fuels. The system seems locked into a focus on growth and disposability. But there are bright spots. Concerns about plastics pollution and the climate crisis have resulted in a plurality of strategies to stimulate increased use of sustainable materials (supply side), and increased demand for sustainable fashion (demand side); and, policies that enable this transition have been adopted. From January 2023 onwards producers in the Netherlands will be responsible for recycling and reuse of textiles, and the costs of waste-management.

Our nine-month methodological innovation project seeks to learn from innovative efforts to phase-out and recycle carbon-based – synthetic - materials in the fashion industry, including initiatives to promote the uptake of alternatives and the growth of niche grassroots initiatives (objective)

Why is this interesting scientifically?

We combine insights from various disciplines in order to capture the demand and supply sides of the fashion industry. This is novel since it demands the creation of a shared language that works well theoretically but also connects to the practices on the ground.

How is this relevant to the materials transition?

The investment theme acknowledges that the materials transition can only be achieved when technological, societal, legal, economic and ecological aspects are addressed in an integrated manner. The mission of the materials transition is not simply how to produce in a circular way, but what and how much to produce in ways that respects local traditions and local visions of community, aesthetics, conviviality and the good life. For these reasons we will engage with local (niche) initiatives and embody (green) critiques of consumerism and fast fashion examining dynamics of uptake, trade-offs made and potentials for responsible upscaling.

Our project will generate understanding of the ways these aspects are intertwined in existing efforts to make the fashion industry more sustainable, including deep learning of the forces that enable success, values at stake, and unintended consequences.

What are the key activities or steps?

The main activities are:

- Quick scan (Marloes Moed, 4 – 6/2022);
- Case-studies done by 10 research assistants (7 – 9/ 2022);
- Expert Thinktank involving the multidisciplinary project team (10/2022);
- Animation and joint publication (11-12/2022);
- Setting up a consortium for a follow-study to be submitted to the NWA (2023 ORC call).

What are key deliverables?

The key deliverables are:

1. Methodology: articulating the methodology used to learn from existing efforts to phaseout/recycle carbon-based materials in the fashion industry (standard deliverable 1);
2. A presentation at a community meeting of the investment theme (standard deliverable 2);
3. Results: a short report with insights on phasing-out carbon-based materials from successful sustainable fashion efforts – values embedded in these initiatives, affordances that enable their success, and unintended consequences (standard deliverable 3);
4. A quick scan and ten case-study reports;
5. An animation presenting the lessons learned;
6. A joint article (the project teams as authors) for Environmental planning;
7. A consortium, for future studies, with the intention of submitting a proposal to the NWA 2023.

One what issues would you like to get input from others?

- Potential cases
- Theoretical work in this area from different disciplines that may be relevant

