Never Waste A Good Crisis

Geerten Hengeveld, George van Voorn, Paulien Harmsen, Jeroen Sluijsmans, Luisa Trindade, Esther Koopmanschap, Sinéad O'Keefe, Sanne Kruikemeier, Rens Vliegenthart, Els Weinans, Nathalie Davis, Hubert Fonteijn

Our challenge – system transformation

The market for textiles is overflooded with low-cost, fossil-based fastfashion. Environmental impact would be decreased— and robustness towards climate-action would be increased – with a transformation of the textile-market towards biobased slow-fashion. The complexity of this market – with long supply chains, clearly different processing in biobased versus fossil chains, a large distance between producers and consumers and relatively low bio-awareness with consumers – makes it highly resilient to attempts of transformation towards biobased and sustainable. Technology is ready, so what mechanisms and triggers can we identify to accelerate this transition.

Background ideas – Tipping points & Crises

- Complex systems tend to be conservative, i.e., resilient to change. Once change is beyond the reach of the conservative forces, system transition can come rather abrupt. The so-called tipping point.
- The tipping point can change due to gradual changes within the system.
- The tipping point and the system state can temporarily change due to an external crisis.



• Can we use gradual changes to prime a system such that it can be pushed through a transformative change in times of crisis?

Can we use the disruption of a crisis to accelerate transition towards biobased textiles?

Our approach - workshops & and agent based model

- To address this question we collaborate across different disciplines and approaches.
- We combine insights from material science, transformation thinking, communication science, mathematics & modelling.
- We will build an agent based model to explore the effect of communication & reputation on complex system dynamics.
- Within this model we will identify processes and levers to prime the market for textiles towards transition in times of crisis.

Background ideas – Greenwashing and public opinion

- Front-runners for transitions towards biobased materials challenge companies towards the transition
- Companies and politicians claim green for grey products (greenwashing)
- Commercials communicate that green is good



 Can commercials for greenwashed products positively affect public opinion towards biobased materials?

Agent based modelling of information, financial, belief and policy networks

