

## Paper Session

# [A38] User involvement in the up-scaling of sustainable innovations: putting the virtual community in place

Toon Meelen [Netherlands]<sup>1</sup>, Bernhard Truffer [Netherlands]<sup>1</sup>, Tim Schwanen [UK]<sup>2</sup>

Copernicus Institute, Utrecht University<sup>1</sup>, Oxford University<sup>2</sup>

*Users are increasingly acknowledged as important actors fostering large-scale systemic innovations needed to achieve a sustainable society. This paper shows how virtual user communities can make a contribution to the up-scaling process of system innovations. Based on the sustainability transitions literature, a framework is developed for investigating the work performed by actors in the up-scaling of system innovations.*

*Traditionally, user involvement has been associated with limitations in scope, geography and dynamics during the process of up-scaling. However, the conception that the role of users in up-scaling is inherently limited is increasingly challenged. Additionally, a growing number of studies look at “virtual user communities”, of which the online organizational structure provides users with all kinds of new means and resources for innovation. Against this background, it is our aim to investigate the role of the virtual user community in the up-scaling phase of systemic innovation.*

*Empirically, a case study of a virtual community around the Electric Vehicle (EV) is performed. Forum threads from the Tesla Motors Club forum, a large-scale global forum with national and regional sub forums, are analyzed. Discussions on these fora are not limited to Tesla cars, but include a range of electric-vehicle-related topics. Forum threads (set of posts that form a discussion about a particular topic) with a focus on user activities related to electric vehicle up-scaling are selected. The focus of this study is on EV users from The Netherlands. Importantly, the studied interactions on the Tesla Motors Club forum are not exclusively between these Dutch users, but also between Dutch users and users of other countries. In these interactions we “follow the network wherever it leads”.*

*It was found that the virtual user community can make a distinctive contribution to the work needed in the up-scaling process. The virtual communities are able to simultaneously perform a broad scope of work, ranging from infrastructure development to image-building. In terms of geography, they have a global reach, which enables them to serve as an interaction between innovation niches in a variety of geographical contexts. In terms of dynamics, they address some changes needed to current socio-technical systems in order to enable innovation growth. These results hold some interesting implications for the literature on sustainability transitions, which is currently turning towards a focus on actors and mechanisms of change. Also for the user innovation literature, relevant insights in the role of users in the diffusion process of innovations are obtained.*

---