

**Session Society: April 12th 11.30 hrs**

**2s2: Food safety and risks in a circular system**

## **Assessing risk and building resilience to accelerate the transition towards circular food systems**

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There is potential for circular food systems to improve quality of life for humans, farmed animals, and ecosystems. However, increasing circularity in the food system brings with it novel risks that should be managed to avoid negative unintended consequences. Under circularity, the interconnectivity of food subsystems is likely to increase. For example, waste streams are proposed to be used as feed or fertilizer. Creating such loops brings novel risks that may become reinforcing. Risk is interdependent across system scales and may be related to animal welfare, pollution, spread of disease, or international trade. If these risks are not identified and managed, the project of circular food systems may be undermined.

We propose a new framework for managing and governing risk within circular food systems, more specifically within the EU including the context of the Green Deal. Our framework places an emphasis on building resilience of food subsystems as a pathway to managing risk. We explore how the current movement toward restructuring of interconnections within the food system to increase circularity may introduce novel and unintended risk factors, and how this connectivity can be managed to mitigate these risks. We outline how risk owners can be identified and connected to improve governance across food system scales. Finally, we explain how resilience principles can be applied to manage changing risk associated with transition to a circular food system.

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