

# SESSION V: THURSDAY 13<sup>TH</sup> JUNE, 13:30–15:00

## CITIZEN SCIENCE, POWER, RESPONSIBILITY AND FORESIGHT

Thursday 13<sup>th</sup> June, 13:30–15:00

Room: Move-Sali

Chair: Adjunct Professor Tuomas Kuhmonen

### Navigating the future of food: Insights for bio-governance and transformation from New Zealand and Australia

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Disruption is a key theme of the current era, as rapid technological change reconfigures firms, organizations and entire industrial sectors. Recently, the food industry, known for being risk-averse and slow to change, has become a focus for Silicon Valley venture capital and for governments seeking to leverage competitive advantage. Public and private stakeholders recognize the need to imagine the future of food via the tools of participatory foresight. This research compares Australia and New Zealand, two highly developed countries that have global reach in traditional/industrial agriculture, as they navigate the transformation to new forms of agricultural production. It focuses on the debate about cellular agriculture and the implications of “synthetic meat” for both economic and environmental sustainability. The promises of cellular agriculture include a significant reduction in the culling of livestock, climate mitigation, and improvement of protein taste, quality and availability. However, cellular agriculture is also entering the hype cycle, in which overinflated promises can lead to visible failures and public backlash. This paper compares New Zealand and Australia and the foresight tools each is using to develop new forms of anticipatory governance that can mitigate agricultural risk while maximizing opportunities and incorporating stakeholder perspectives. Data for this paper includes expert interviews, textual analysis of media representations of cellular agriculture, and participant-observation of foresight activities being undertaken by relevant firms, stakeholders, and Government agencies. Initial results suggest that cellular agriculture poses new governance challenges and indicates a significant shift towards adaptive bio-governance regimes that leverage the power of foresight.

*Keywords: Bio-governance, Cellular agriculture, Foresight, Australia, New Zealand*

### Building foresight capabilities in agricultural scientific institutions of the Southern Cone: Lessons from a learning-by doing-experience

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The emergence of new technologies, the conservation of biodiversity and genetic resources, the environmental consequences of current agriculture practices, the impacts of climate change, the gaps in

adoption of key technologies and the expansion of plant pest and diseases are all examples of current challenges of the food and agriculture system that requires a scientific, policy and future-oriented, regional approach. The Cooperative Program for the Development of Agricultural Technology in the Southern Cone (PROCISUR), integrated by the National Agricultural Research Institutions (NARIs) of the Southern Cone, conducted a foresight exercise to build capabilities on this discipline and to raise awareness about the usefulness of foresight approaches to policy makers.

A learning-by-doing approach was selected, where more than fifty professionals and external stakeholders of the NRIs of Argentina, Brazil, Chile, Paraguay and Uruguay, with different backgrounds, expertise and levels of responsibility, participated in a series of training workshops during the year 2017. The methodology of scenarios was used to draft four exploratory scenarios of the food and agriculture systems in the Southern Cone in 2035: Bioparadise, Biosouth, Transinia and Biocrash. Risks and opportunities for each scenario were identified and a set of critical dimensions were used to evaluate the desirability of each of them. Finally, policy actions were suggested to lead the Southern Cone to a more sustainable path. The paper will discuss the main results, the lessons learned during the process and the challenges of conducting regional exercises under participatory approaches.

*Keywords: Southern cone, Participatory approaches, Scenarios, Capabilities, Foresight, Agriculture*

## The Practice Approach in Practice: What can it teach us about current efforts and future potentials of Civil Society Organizations towards sustainable food consumption?

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Scholars have paid considerable attention to the role of both private and public sectors in the sustainability transition of citizens' food consumption practices, whereas civil society organizations (CSOs) have received less attention. This paper aims to determine CSOs' current and potential future power to facilitate such a transition in a Swedish context. Several prominent CSOs' work with food consumption is mapped, primarily through interviews with key personnel. Conceptualizing food consumption as a combination of interrelated practices, the interview results are analysed from a social practice theory perspective, in order to make suggestions for how the organizations might work to more effectively contribute to the mainstreaming of sustainable food consumption. Furthermore, the applicability of social practice theory in this context is discussed. Ultimately, the results from this study will be used in the development of transition pathways for a sustainable Swedish food consumption by the year 2030.

*Keywords: Transition, Practice theory, Civil society, Sustainable consumption, Food*