

THE HUMAN DIMENSIONS IN THE BIO ECONOMY FRAMEWORK – applications with relevance for the broad field of agriculture.

The evolution of a "bio-economy" has implications for the agro - food sector that involve the full range of the production of feed, food, fiber and fuel. From a European perspective, the sector serves a multitude of functions, including, in addition to economic activity, furnishing basic necessities for a growing global population and providing an array of ecosystem services in the face of climate change. The agro-food sector has to increasingly compete for scarce natural resources, help preserve biodiversity, handle water and soil quality, and care for the restoration of fragile ecosystems. The sector also plays a key role in mitigating the effects of climate change and has to adapt to its direct consequences such as higher average temperatures, more extreme weather events and increased incidences of flooding and crop loss, as well as new plant and animal disease threats. The continuous development and application of new technologies, but also new organizational forms, will be crucial to the realization of these ambitions. In particular increasingly rapid advances in ICT and molecular biology, have the potential to transform the sector. These aspects already are important and will continue to provide key elements with regard to the development of a dynamic circular bio-economy.

However the tendency to assess challenges and necessary transitions only in terms of economic costs and benefits - including its political connotations - is since long not adequate. The agricultural sector, as a provider of food and other public goods is part of a cultural and social common 'inheritance' built on a set of formal and informal rules that developed over generations. It also is strongly related to regional development aspects. The growing impact e.g. of the digital economy, but also other changes in society, are bound to change these cultural and social connotations. Therefore these challenges call for a much broader approach than just being limited to technical and economic considerations. This means a call for e.g. behavioral, social, cultural and historic perspectives. A careful analysis based also on such inputs might help to secure a competitive and sustainable future for the agro - food sector as inserted in a wider societal frame of understanding. It might also help this societal domain to be better understood as part of a wider bio-economy perspective. This must be based on citizen acceptance and public policies that govern new partnerships locally, regional and global respectively. All these aspects have strong social and cultural implications i.e. concern the human dimensions of development. This is at the heart of the EURAGRI workshop seminar.

The workshop will approach these complex issues in a three step program. Each step is focused on a separate but interlinked aspect.

Agenda for the day:

10.30-11.00 Arrival and coffee

- 11.00 -11.20 Welcome by Pascal Bergeret, President of EURAGRI Introduction to workshop by Uno Svedin, member of the EURAGRI board
- 11.20-13.00 What are the concerns, issues and questions that should be highlighted within a human dimension perspective? (with special regard for the future of the agro-food sector)

In this session we would like to highlight the main areas and contributions from Social science and the Humanities to secure a holistic approach to the challenges ahead allowing a clearer framing and strategizing of the measures to be taken. The connections to other domains of knowledge will also be considered.

Introduction: Carole Crumley, SLU Moderator: Uno Svedin, Stockholm Resilience Center

13.00-14.00 Lunch

14.00-14.45 What value aspects are connected to these issues?

In this session we intend to discuss the values that could guide us when e.g. employing new technologies and new organizational settings and how they should be handled in research, development and in practice.

Introduction: Jessica Paddock, Manchester University **Moderator:** Gianluca Brunori, University of Pisa

15.00-15.45 What does this means in terms of changes of the educational system?

In this session we would like to examine the educational system to see if it prepares new generations (academic as well as non-academic) to the changing needs of a different framing of the activities of the sector. Do we e.g. need new curricular and ways to widen the understanding of the relevant topics?

Introduction: Gerlinde van Vilsteren, Center for bio-based economy,Wageningen UniversityModerator: Pascal Bergeret, IAM , Montpellier

16.00-16.30 Discussion and reflections from the day and summary