Economic Growth, Structural Change and Transformation: What's important now?

Andreas Pyka

University of Hohenheim in Stuttgart, Germany

Economics today is under sever critique because of the limited abilities to provide answers concerning long term economic development. Because of the prevailing quantitative orientation and the focus on substitution, mainstream economic theory is not capable to include qualitative developments like structural change and transformation.

Modern evolutionary innovation economics offers an alternative and places central qualitative change triggered in complex innovation systems. However, also modern evolutionary innovation economics falls short when it comes to transformative change encompassing the whole economic systems including the interaction between supply and demand sides.

The current developments in the knowledge-based bioeconomy are an example par excellence for a comprehensive transformation which has the power not only to overcome the lock-in into fossil-based technologies but to contribute substantially to new patterns of production and consumption and to achieve higher degrees of sustainability.

In order to understand better this crucial transformation processes and to derive adequate policy recommendations, innovation economics needs to address the ability of innovation systems to pass tipping points in order to fundamentally change the patterns of production and consumption, before the Earth climate system reaches its tipping point which would go hand in hand with devastating and irreversible effects.