



UNIVERSITÄT  
HOHENHEIM



Globelics 2025 – Special Session

# POST-SCHUMPETERIAN ECONOMICS – FROM CREATIVE DESTRUCTION TO CREATIVE TRANSFORMATION

Andreas Pyka & Horst Hanusch

# WHY POST-SCHUMPETERIAN ECONOMICS?

We do not want a new edition of this book because we are convinced that - almost 20 years after its publication - we are now facing different issues and need new approaches to solve them.



## Elgar Companion to Neo-Schumpeterian Economics

Edited by Horst Hanusch and Andreas Pyka



# WHAT IS DIFFERENT? WHAT HAS CHANGED?

- We should not repeat the mistake made by mainstream economic theory half a century ago. We are not in a steady state, and there is no 'end of history'.
- The Neo-Schumpeterian approach replaced the quantitative perspective with a qualitative approach. It moved away from the idea of representative actors, a macroeconomic production function and the notion that new knowledge falls like manna from heaven.
- The systemic Neo-Schumpeterian approach enabled the analysis of the interaction between different actors in an experimental economy and thus the endogenization of the innovation process.
- The prolific idea of innovation systems was born.
- With the recognition of the Anthropocene, we now understand that the boundaries of the system have been set too narrowly.
- Today, we are confronted with a polymorphic crisis that threatens the foundations of human existence. At the same time, we are witnessing polymorphic technological developments with unforeseen implications for technological opportunities.

## **POLYMORPHIC CRISIS: THE DYSTOPIAN VIEW**

Dystopias are based on the consequences of man-made climate change and derive bleak prospects of doom for global society. Rising temperatures, loss of biodiversity, crop failures, migration and related military conflicts are responsible for developments leading to extremely threatening scenarios.

# **POLYMORPHIC TECHNOLOGICAL MEGA- TRENDS**

Several technological mega-trends are emerging, mutually influencing each other, suggesting besides powerful new GPTs also the potential to change and modify institutions as well as lifestyles.

- Laboratory automation, AI, quantum computing, synthetic chemistry, LEO-satellites, ...
- allowing for protein design, cultivated cells, T-cell therapies, renewable energies, hydrogen economy, circular economy, digitalization & robotics ...

# **CONTRASTING THE DYSTOPIAN DESCRIPTION WITH AN UTOPIAN TACKLING OF THE CURRENT CHALLENGES**

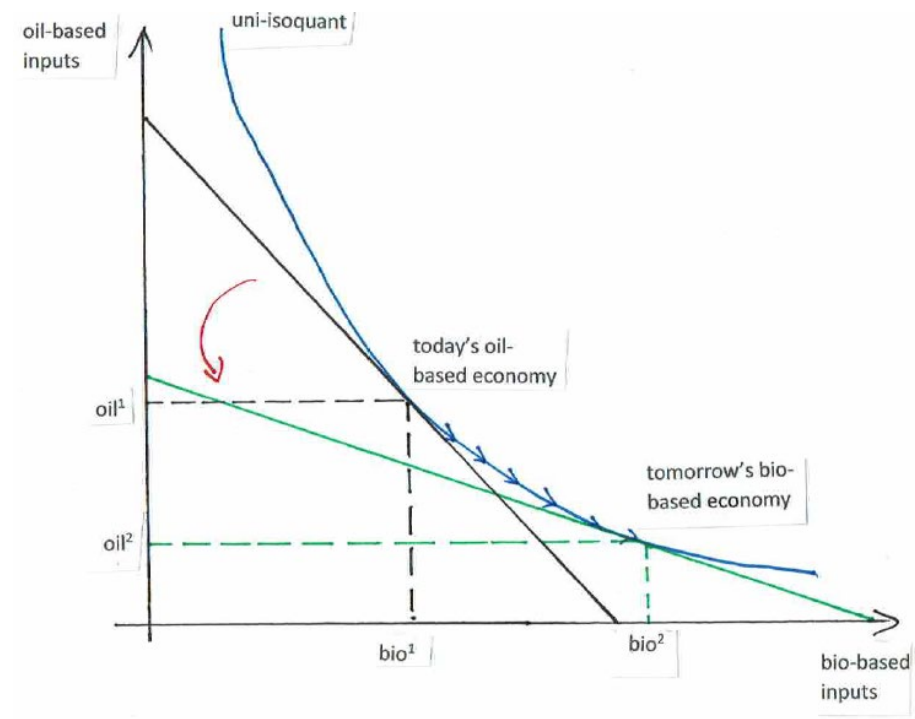
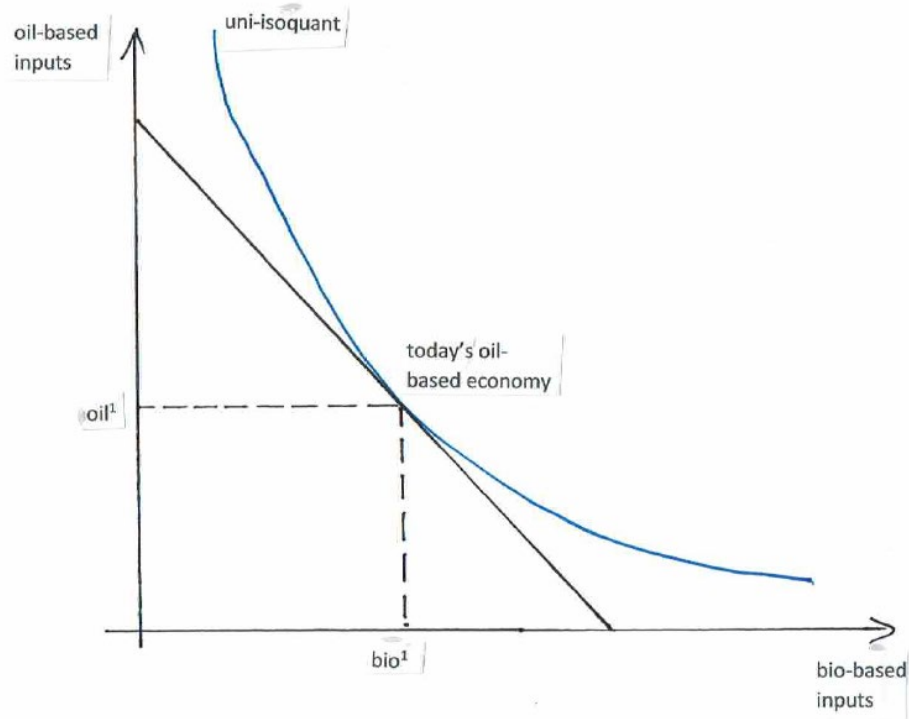
Restoring sustainability will not be a hygge degrowth process.

Rather, restoring sustainability is an exhausting, knowledge-driven, complex process with many uncertainties.

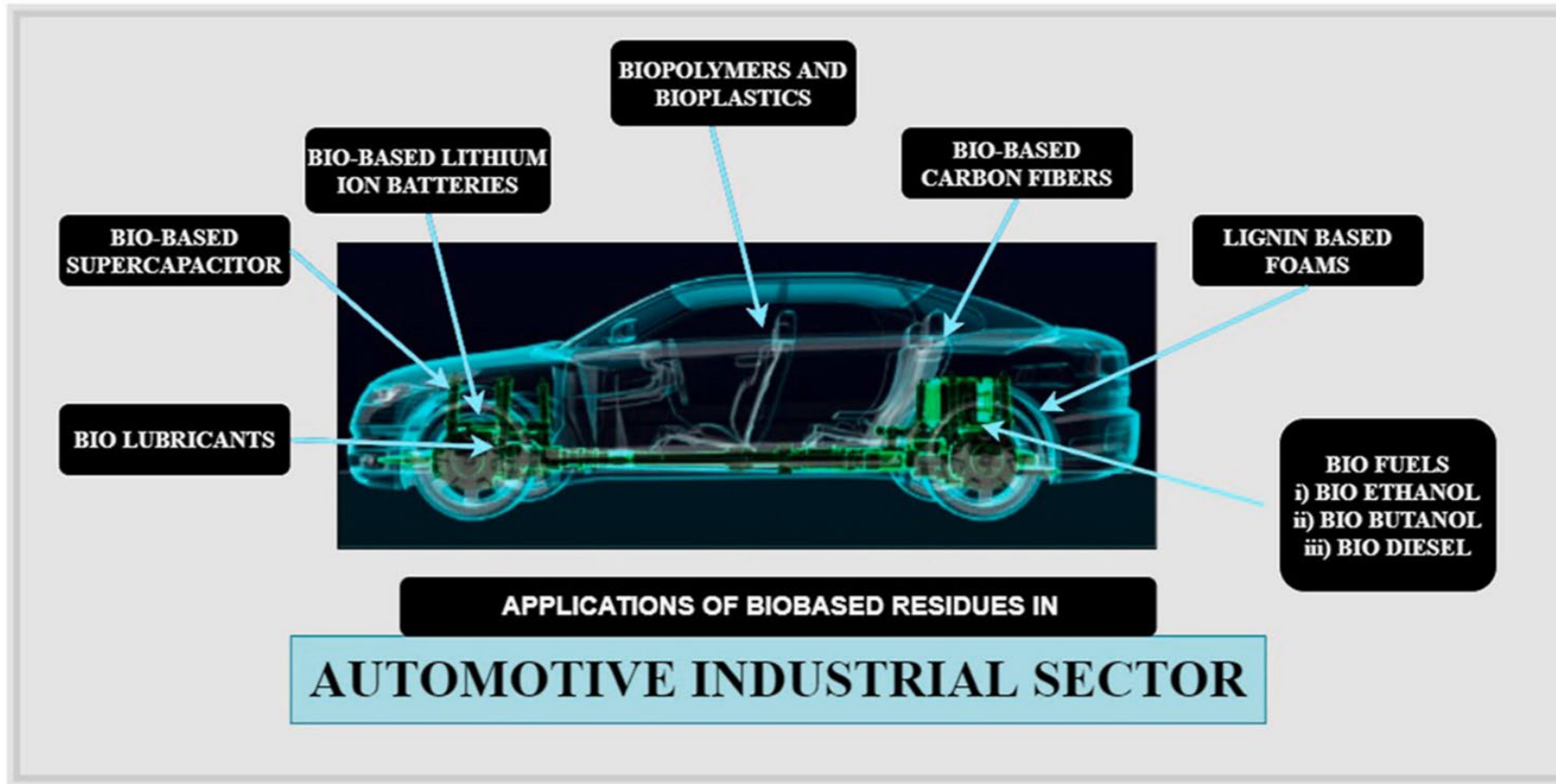
Neither Neoclassical growth nor Neo-Schumpeterian structural change are relevant and/or sufficient concepts.

Post-Schumpeterian Economics instead suggests the concept of transformation.

# ECONOMIC GROWTH – THE PERSPECTIVE OF MAINSTREAM ECONOMICS



Substitution perspective: 'Green growth' is achieved through increased production using environmentally friendly resources.



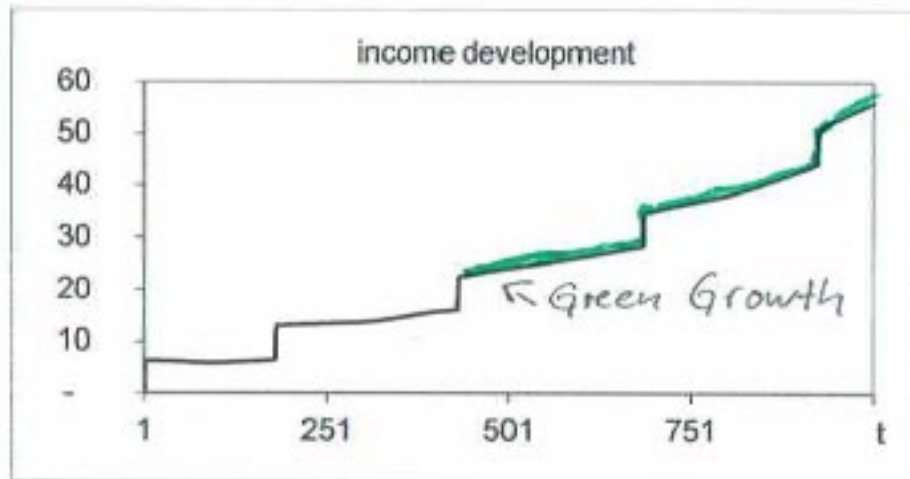
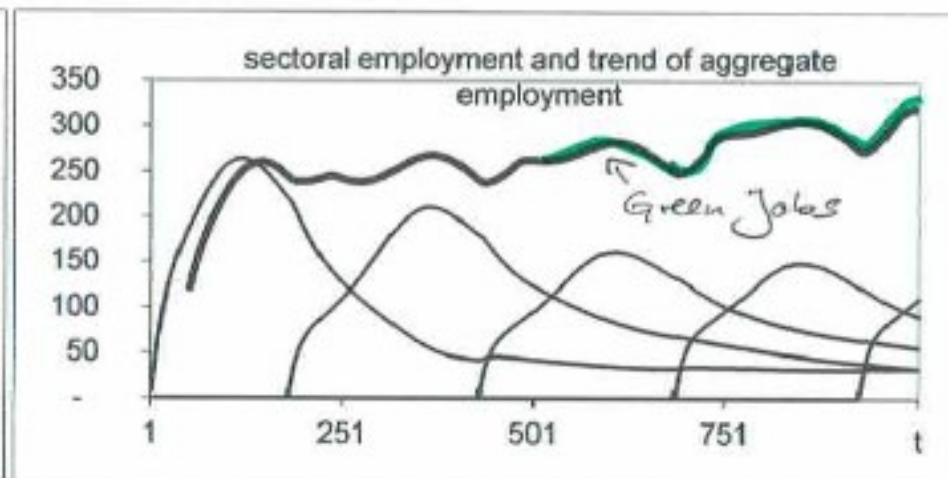
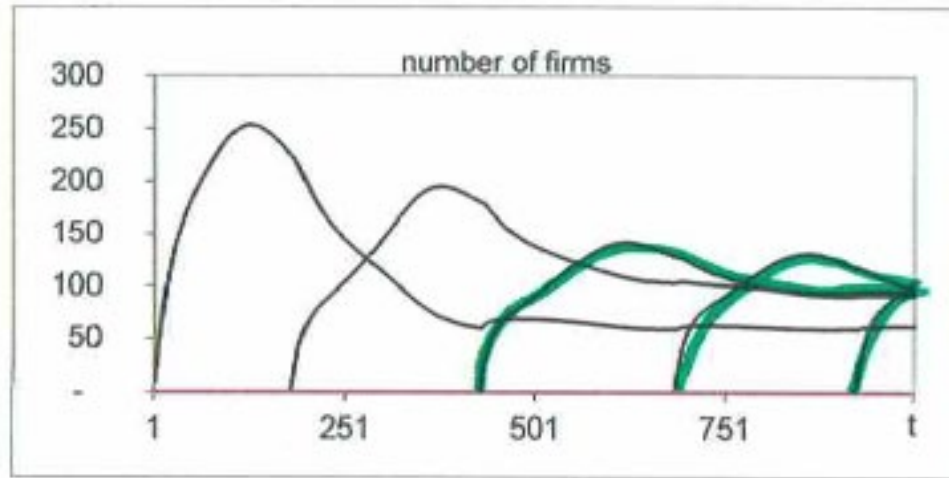
Prasanth et al. (2021)

An example

Bioeconomic input factors in cars: many possibilities, but unchanged output.

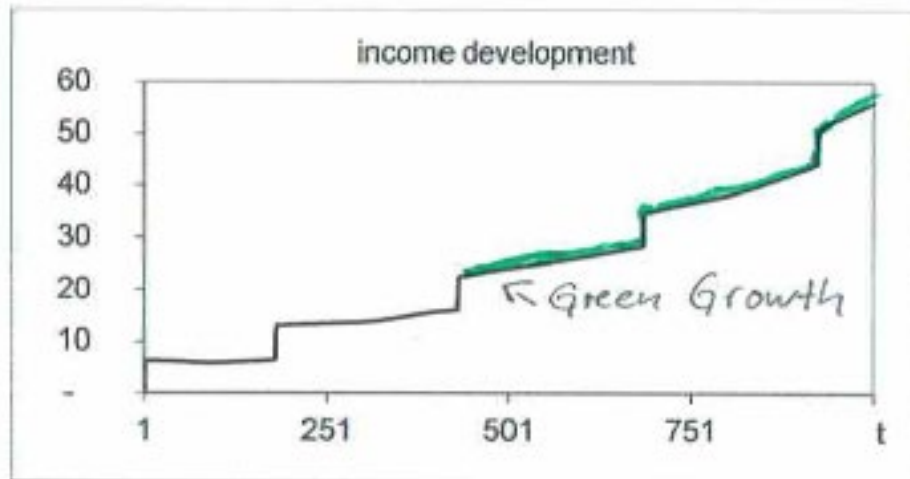
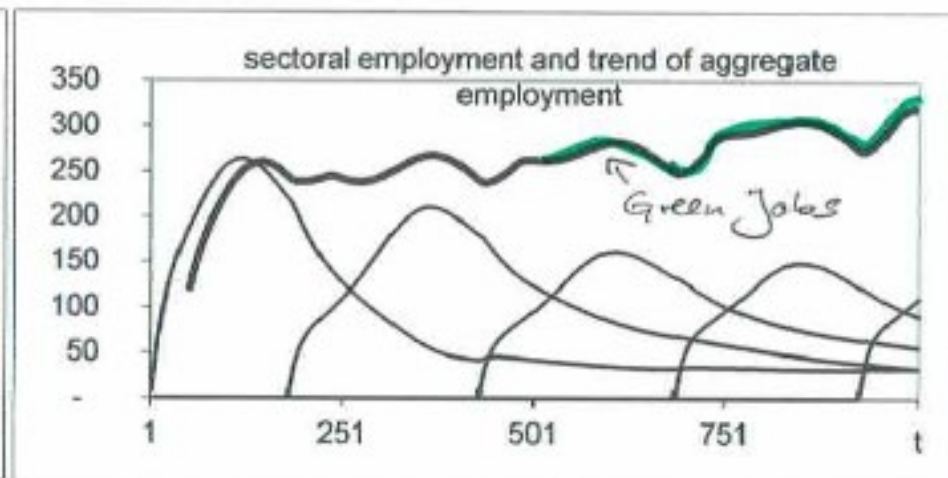
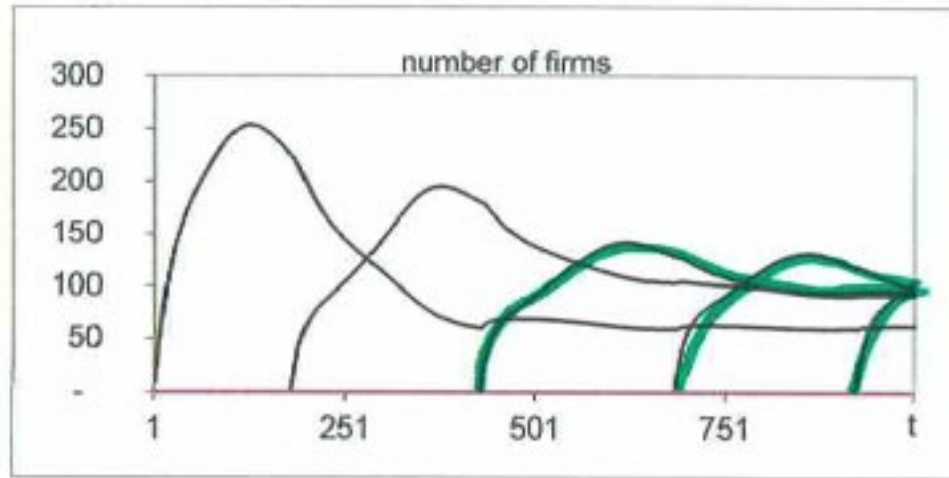


# STRUCTURAL CHANGE – THE PERSPECTIVE OF NEO-SCHUMPETERIAN ECONOMICS



- Development as a sequence of overlapping industrial life cycles.
- Green industries replace or co-exist with fossil fuel industries.
- Qualitative change allows for gradual increases in sustainability over time.

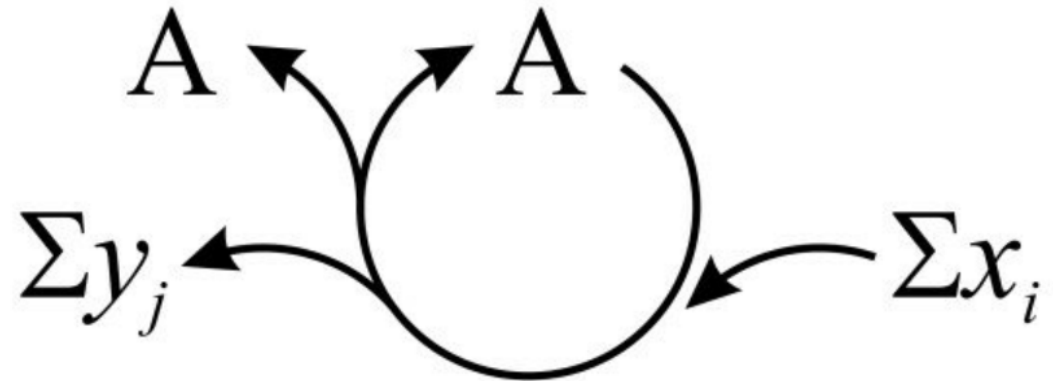
# STRUCTURAL CHANGE – THE PERSPECTIVE OF NEO-SCHUMPETERIAN ECONOMICS



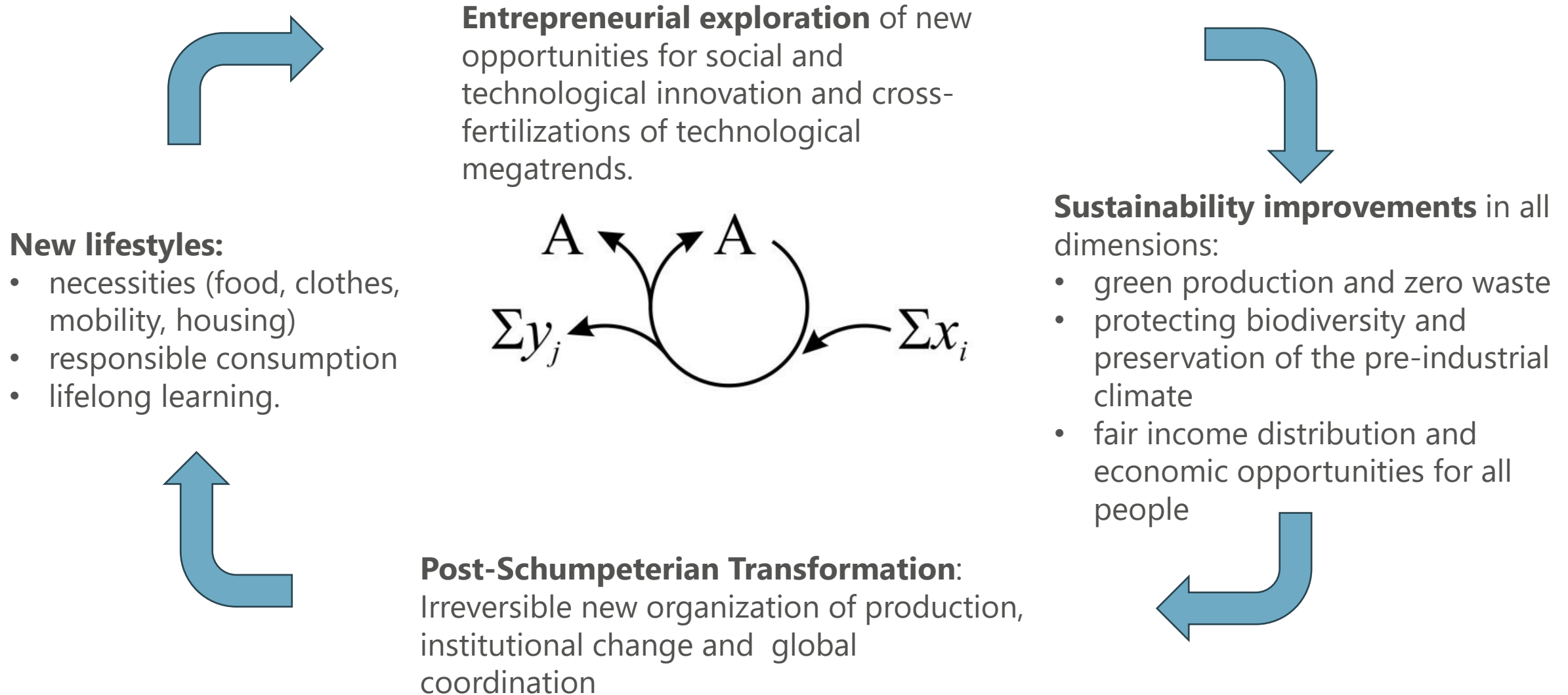
- Too slow a process in view of planetary boundaries.
- Opportunistic structural conservatism leads to long-term coexistence with fossil fuel industries.
- Top-down/mission orientation.
- Dependent on political agenda.

# TRANSFORMATION – THE PERSPECTIVE OF POST-SCHUMPETERIAN ECONOMICS

- Socio-economic systems are complex systems with tipping points.
- Beyond the tipping points lies a fundamental reorganization of all economic activities: New lifestyles, new institutions, new technologies...
- It is an autocatalytic process.
- There is only one conclusion: we must reach the tipping point of sustainability transformation before we reach the tipping point in our planetary boundaries and climate catastrophe irreversibly strikes.



# POST-SCHUMPETERIAN TRANSFORMATION AS AN AUTOCATALYTIC PROCESS



# POST-SCHUMPETERIAN ECONOMICS

- With this session, we would like to invite everyone to join us in developing the Post-Schumpeterian approach.
- It is no coincidence that we have chosen the GLOBELICS 2025 annual conference for this purpose.
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- At the end of the session, further information will be provided on how to proceed.

# POST-SCHUMPETERIAN ECONOMICS: THE SESSION

9:30 – 9:40	Andreas Pyka	„Post-Schumpeterian Economics – From Creative Destruction to Creative Transformation”
9:40 – 9:55	Horst Hanusch	“From Creative Destruction to Innovative Growth and Climate Security – Elements of Post Schumpeterian Transformation”
9:55 – 10:05	Yasushi Hara	“G-20 Countries in Post-Schumpeterian Transformation”
10:05 – 10:15	Bengt-Ake Lundvall	“How evolutionary economics can respond to the global challenges of our time”
10:15 – 10:25	Glenda Kruss	“Forging new socio-technical imaginaries to shape innovation policy for development in Africa”
10:25 – 10:35	Orachos Napasintuwong	“Sustainable economic growth in Southeast Asia”
10:35 – 10:45	Diogo Ferraz	“Post-Schumpeterian Pathways to a Green Transition: Mapping Green Jobs in Brazil’s Bioeconomy Sector”
10:45 – 11:00	A new Companion to Post-Schumpeterian Economics + Call for Contributions	