

# Learning Communities for the transformation to the Bioeconomy: innovation by dialogue between partners

The ICA Community of Practice Bioeconomy Education

Ingar Janzik

ICA CoP Bio-Edu



# ICA CoP Bio-Edu

The ICA Community of Practice Bioeconomy Education



- **Share** experiences and good practices
- **Consult** with stakeholders
- **Develop** projects
- **Utilise** the network

Mona-Anitta Riihimäki (Chair)



Ingar Janzik (Vice chair)



Han van Osch



Sebastian Goerg



Simon Heath



George Sakellaris



Pawan Kumar Mishra



Konstantinos Vorgias



---

# What is needed for the success of Bioeconomy?

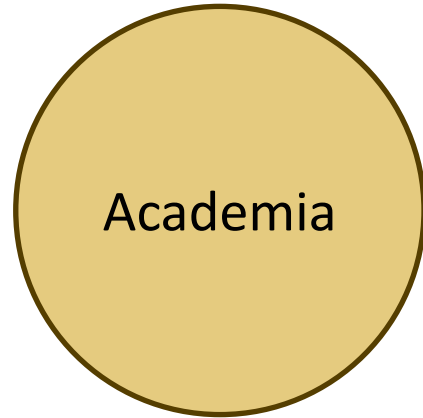
## Why?

Climate, Ressource and Societal challenges  
can be reduced to or only solved by  
circular, sustainable, biobased  
solutions

## Who and how?

---

# What is needed for the success of Bioeconomy?



**Why?**

**Climate, Ressource and Societal challenges  
can be reduced to or only solved by  
circular, sustainable, biobased  
solutions**

**Who and how?**

# Sharing experiences

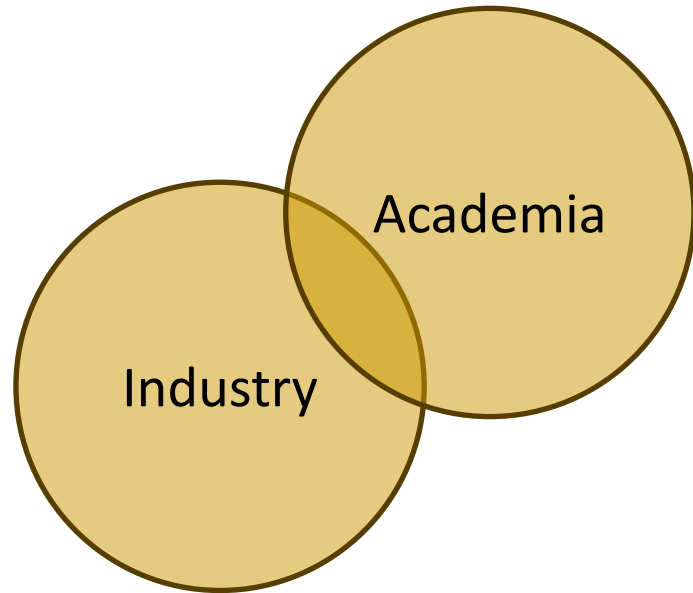


- Workshop Ghent 2021: Embedding the mindset

Interdisciplinary Education for the Bioeconomy: embedding the mindset of the bioeconomy in the curricula of Bachelor degree programmes



# What is needed for the success of Bioeconomy?



**Climate, Ressource and Societal challenges  
can be reduced to or only solved by  
circular, sustainable, biobased  
solutions**

**How?**

# Sharing experiences

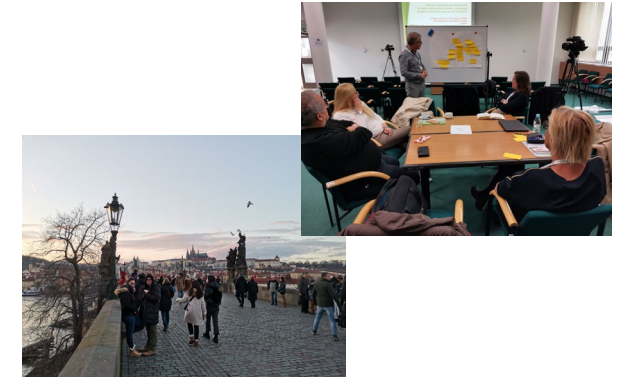
- Workshop Ghent 2021: Embedding the mindset

Interdisciplinary Education for the Bioeconomy: embedding the mindset of the bioeconomy in the curricula of Bachelor degree programmes

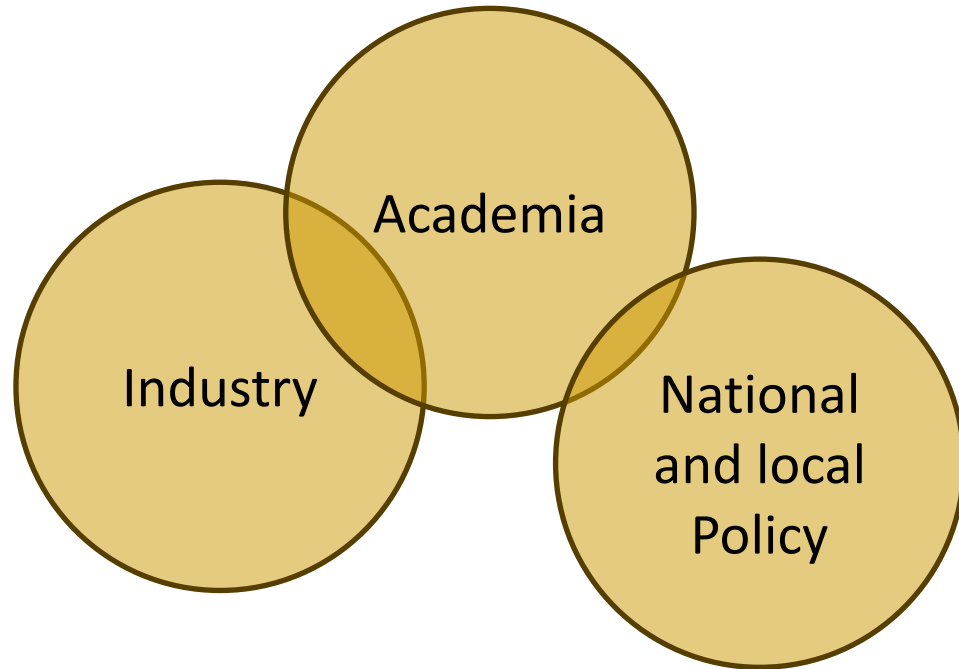


- Workshop Warsaw 2022: Engaging with industry

Engaging with industry to ensure that graduates and professionals are well prepared for (future) employment in the Bioeconomy



# What is needed for the success of Bioeconomy?

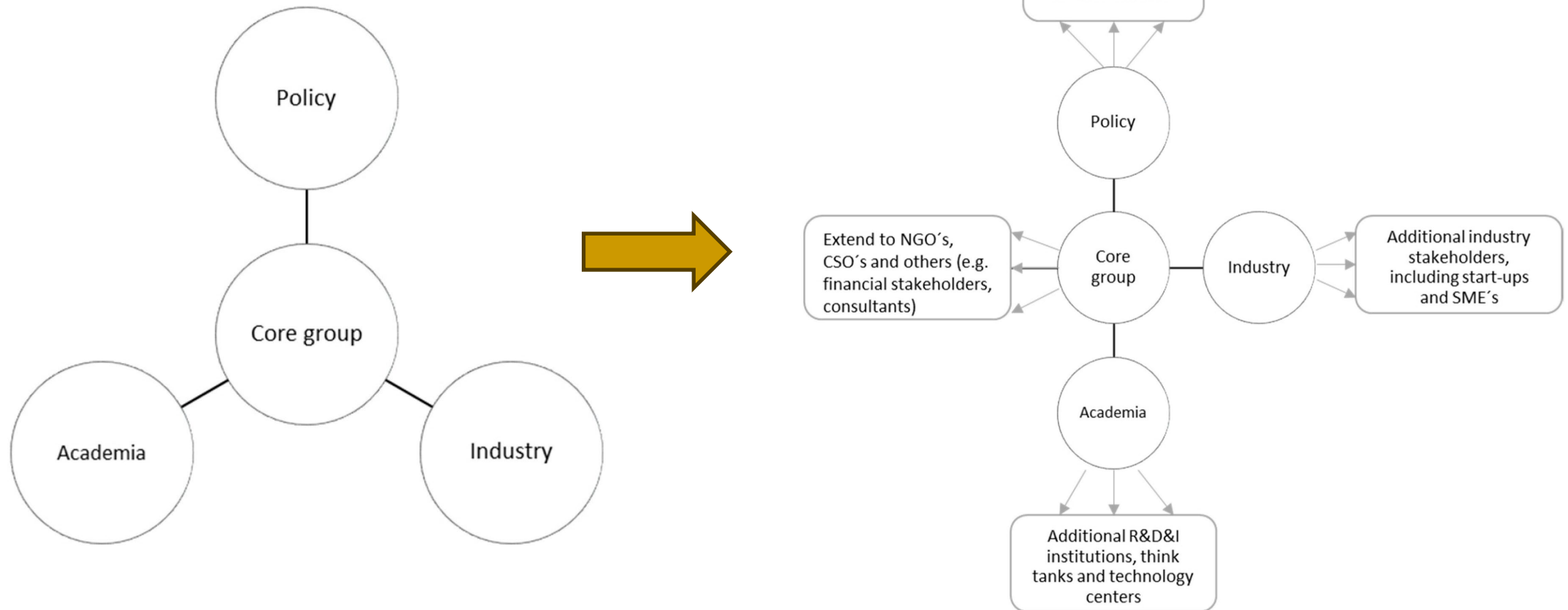


**Climate, Ressource and Societal challenges can be reduced to or only solved by circular, sustainable, biobased solutions**

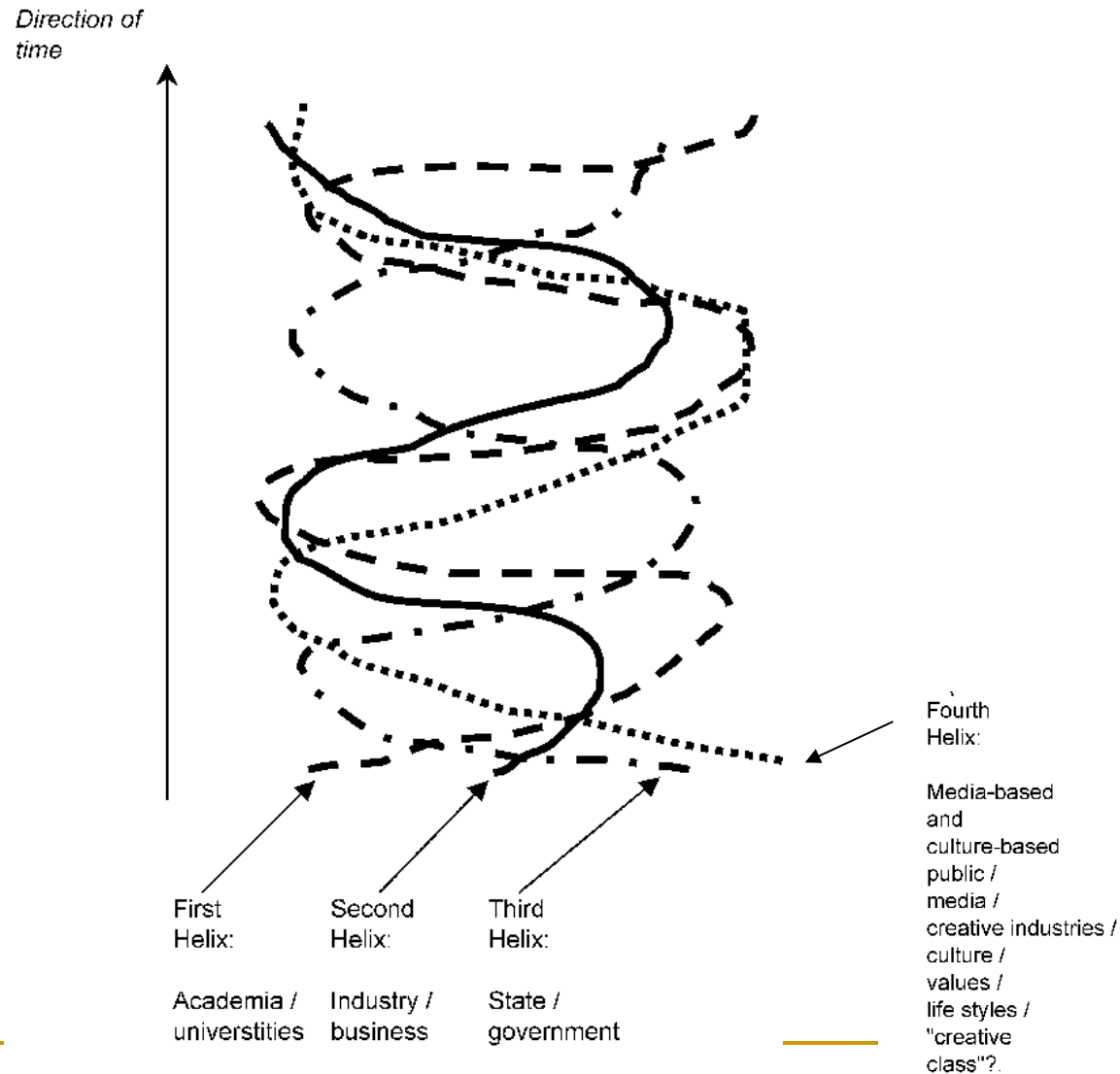
**How?**



# “Stakeholder Engagement in the Co-Design of Regional Bioeconomy Strategies”

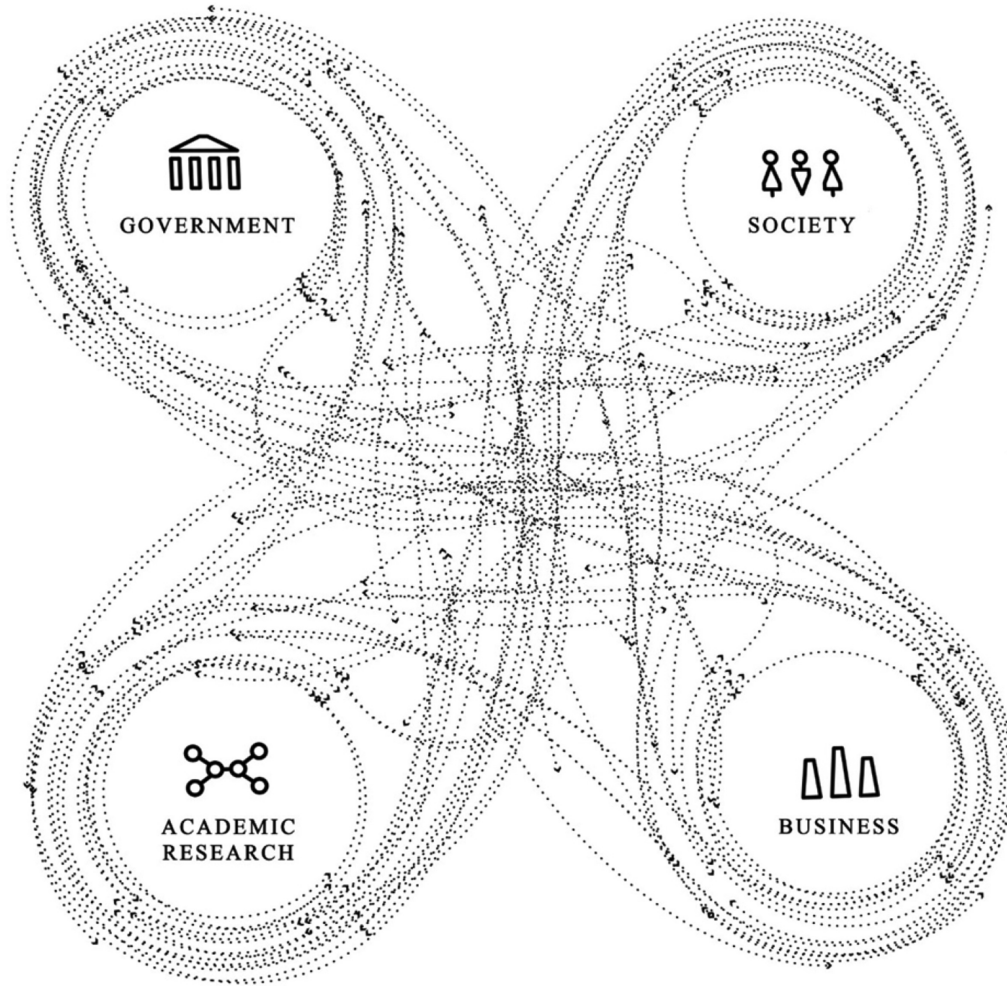


# Members of the Quadruple Helix for Innovation



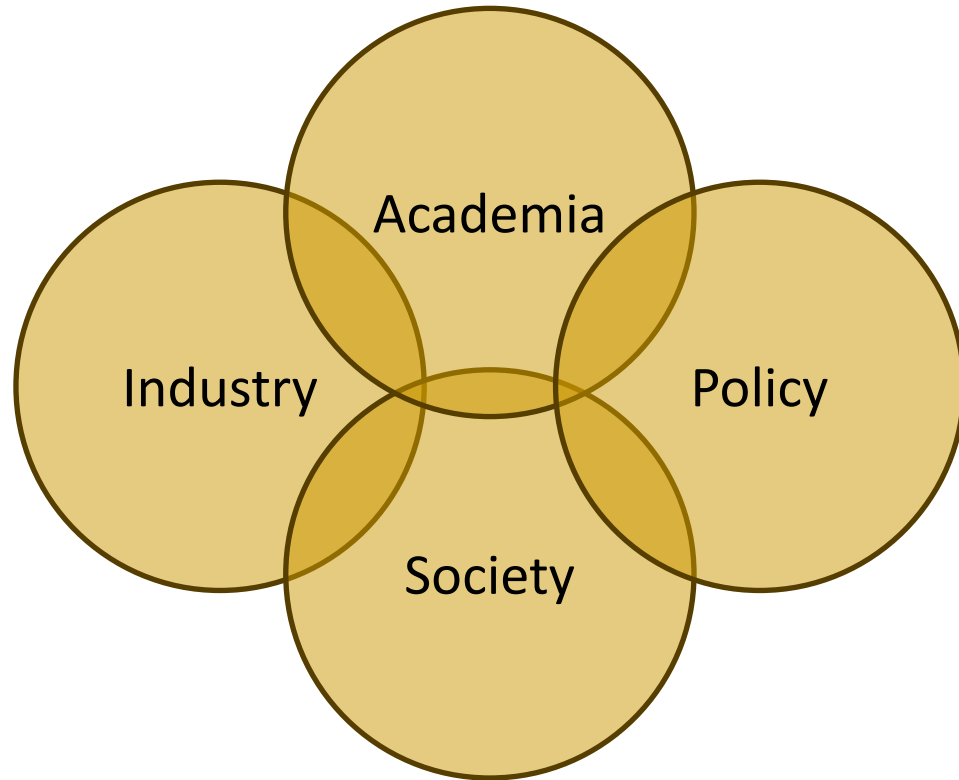
Carayannis, Elias &  
Campbell, David. (2009).  
'Mode 3' and 'Quadruple  
Helix': Toward a 21st century  
fractal innovation  
ecosystem. Doi:  
10.1504/IJTM.2009.023374.

# Complexity of the Quadruple Helix



Florian Schütz et al.  
Co-shaping the Future in Quadruple Helix  
Innovation Systems:  
Uncovering Public Preferences toward  
Participatory Research and Innovation,  
2019,  
<https://doi.org/10.1016/j.sheji.2019.04.002>.

# What is needed for the success of Bioeconomy?



**Climate, Ressource and Societal challenges can be reduced to or only solved by circular, sustainable, biobased solutions**

**How?  
Life Long Learning?  
Learning communities?**

# Sharing experiences



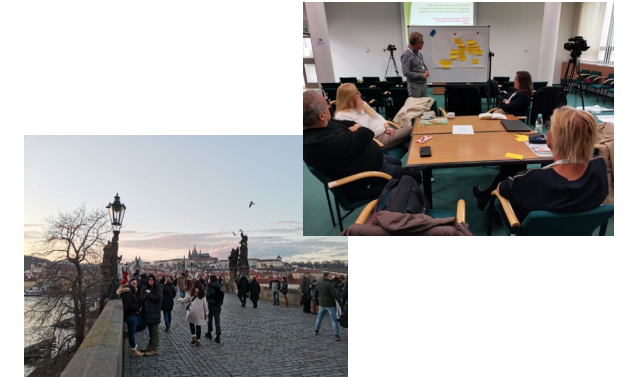
## ■ Workshop Ghent 2021: Embedding the mindset

Interdisciplinary Education for the Bioeconomy: embedding the mindset of the bioeconomy in the curricula of Bachelor degree programmes



## ■ Workshop Warsaw 2022: Engaging with industry

Engaging with industry to ensure that graduates and professionals are well prepared for (future) employment in the Bioeconomy



## ■ Workshop Zagreb 2024: Life Long Learning

Engaging with the corporate world to enhance the provision by life science universities and faculties of lifelong learning for professionals in the Bioeconomy

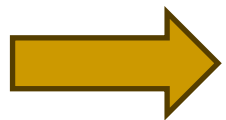


# Prerequisites: How Learning works

**Key processes and preconditions of organizational hearing, listening, and learning capabilities:**

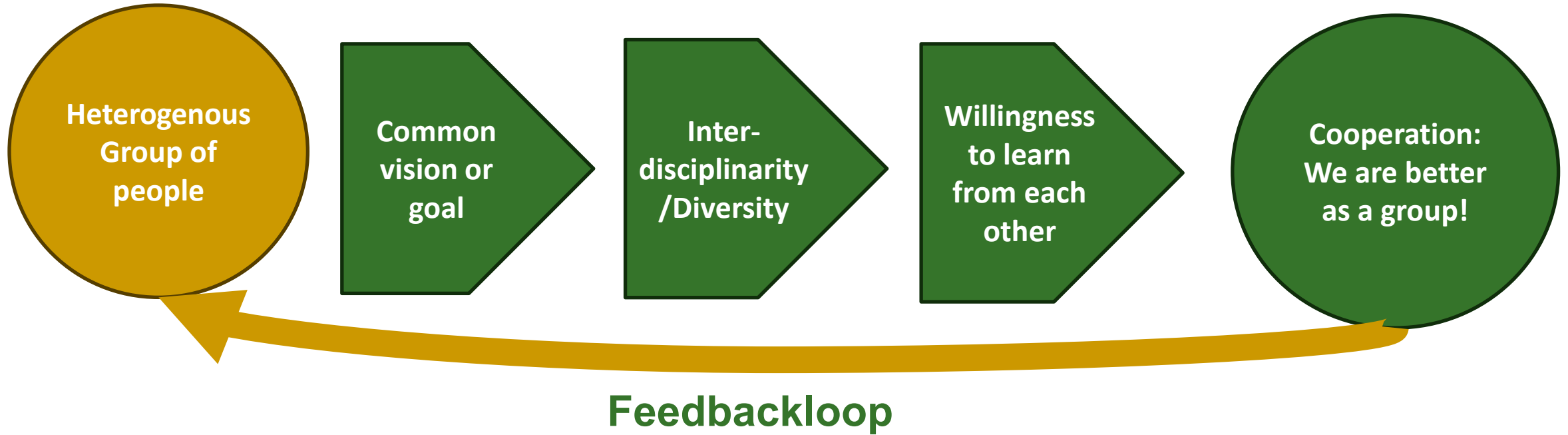
Sustainability Science (2024) 19:1661–1675

Capability	Processes	Preconditions
Hearing	Detection of back talk	• Network outside of cluster boundaries
Listening	Interpersonal generation of meaning	• Hearing • Meaningful relationships with outsiders
Learning	Reflection and implementation of required adaptations	• Listening • Ability to share knowledge across and beyond cluster boundaries • Organizational memory



**Not exchange of results, but co-creation of results**

# Starting point: What is a Learning Community?



to adjust the goals!  
to adjust the way how to achieve it!  
to take action!