FoSSNet
CONFERENCE 2025

Food Systems Science: Establishing a Common Framework and Network

First European Food Systems Science Conference

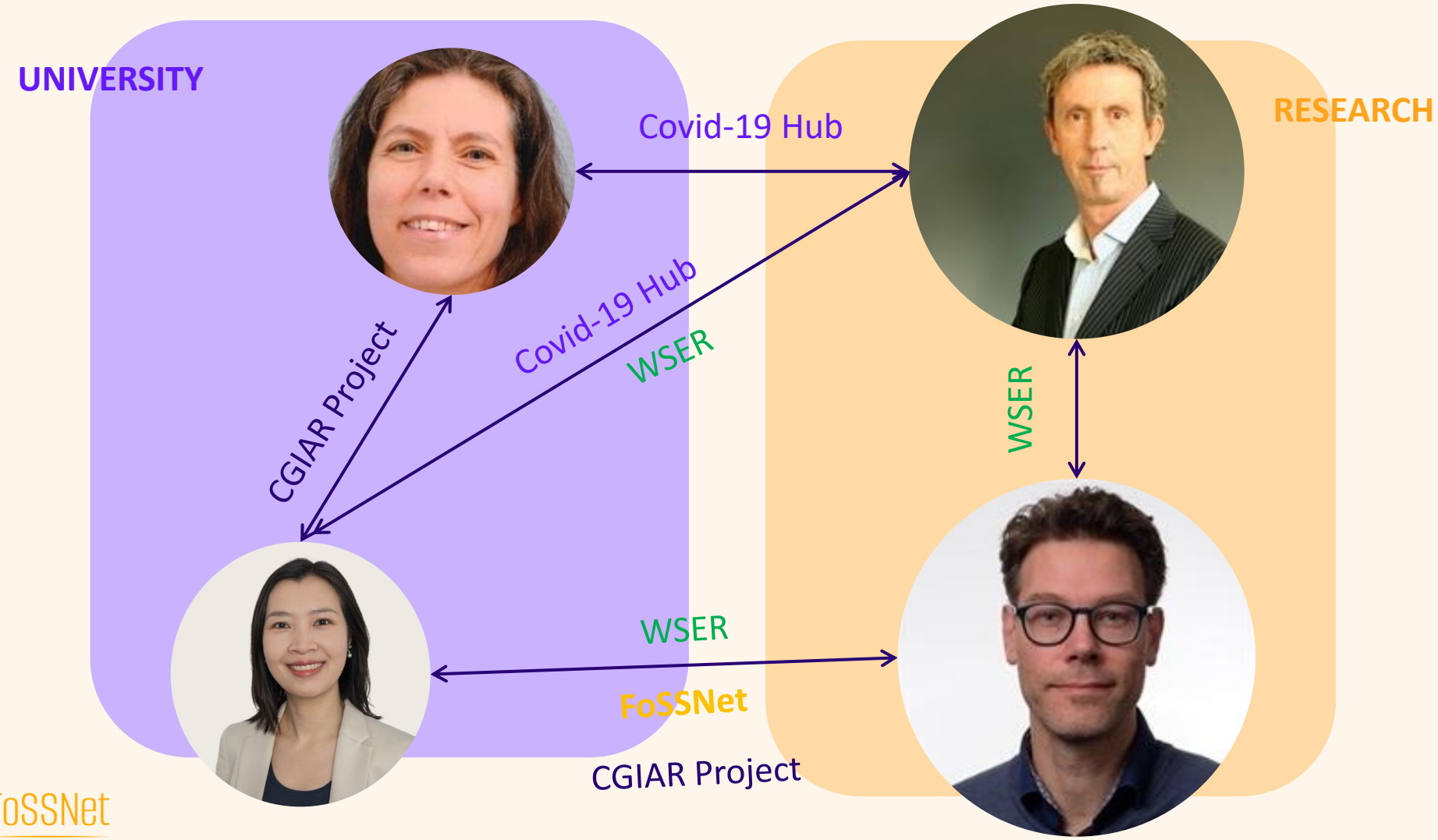
Opportunities for creating an academic network for food systems science: closing the gaps

Trang Nguyen
Wageningen University & Research

Funded by the European Union

UK Research and Innovation

How my network led me to FoSSNet



Social Network Analysis (SNA) method

- How people are connected and how these connections shape **behaviour**, **influence**, and **communities**.
- **SNA** looks at **relationships** first—who interacts with whom and how **information**, **resources**, or **influence** flow through networks.

Why a SNA?

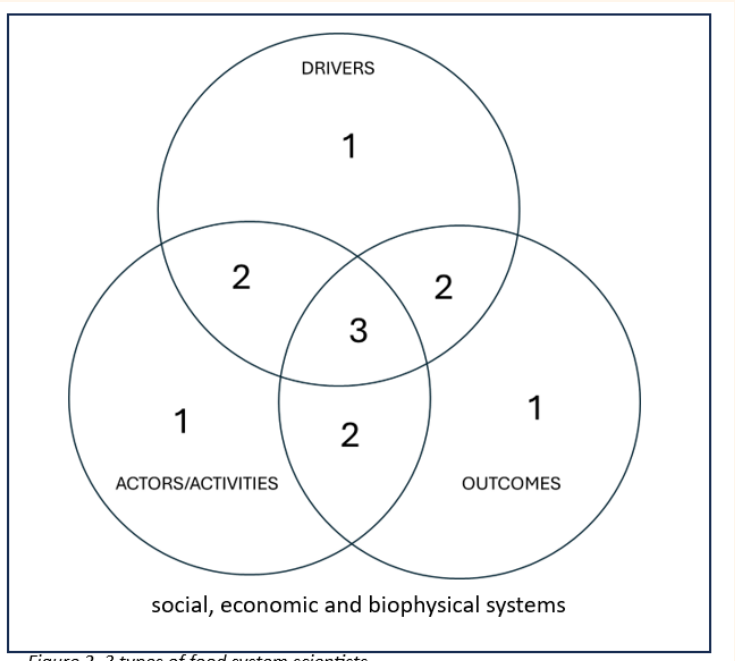
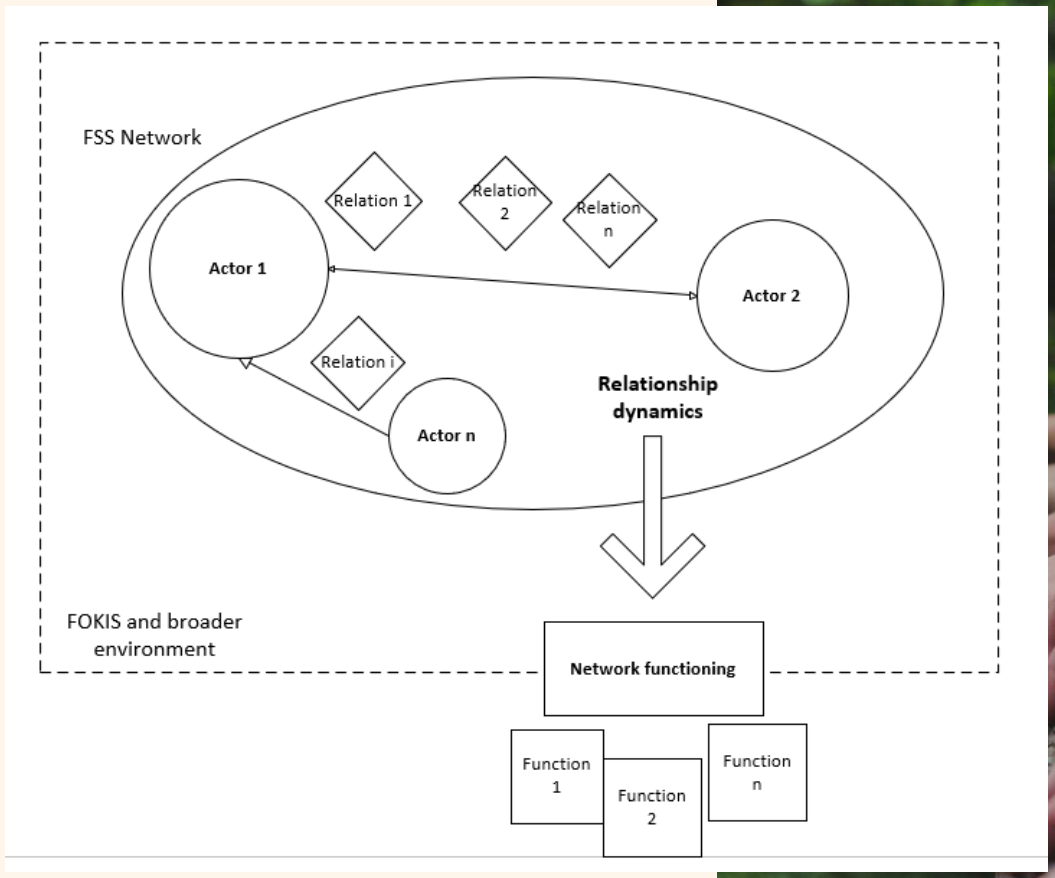
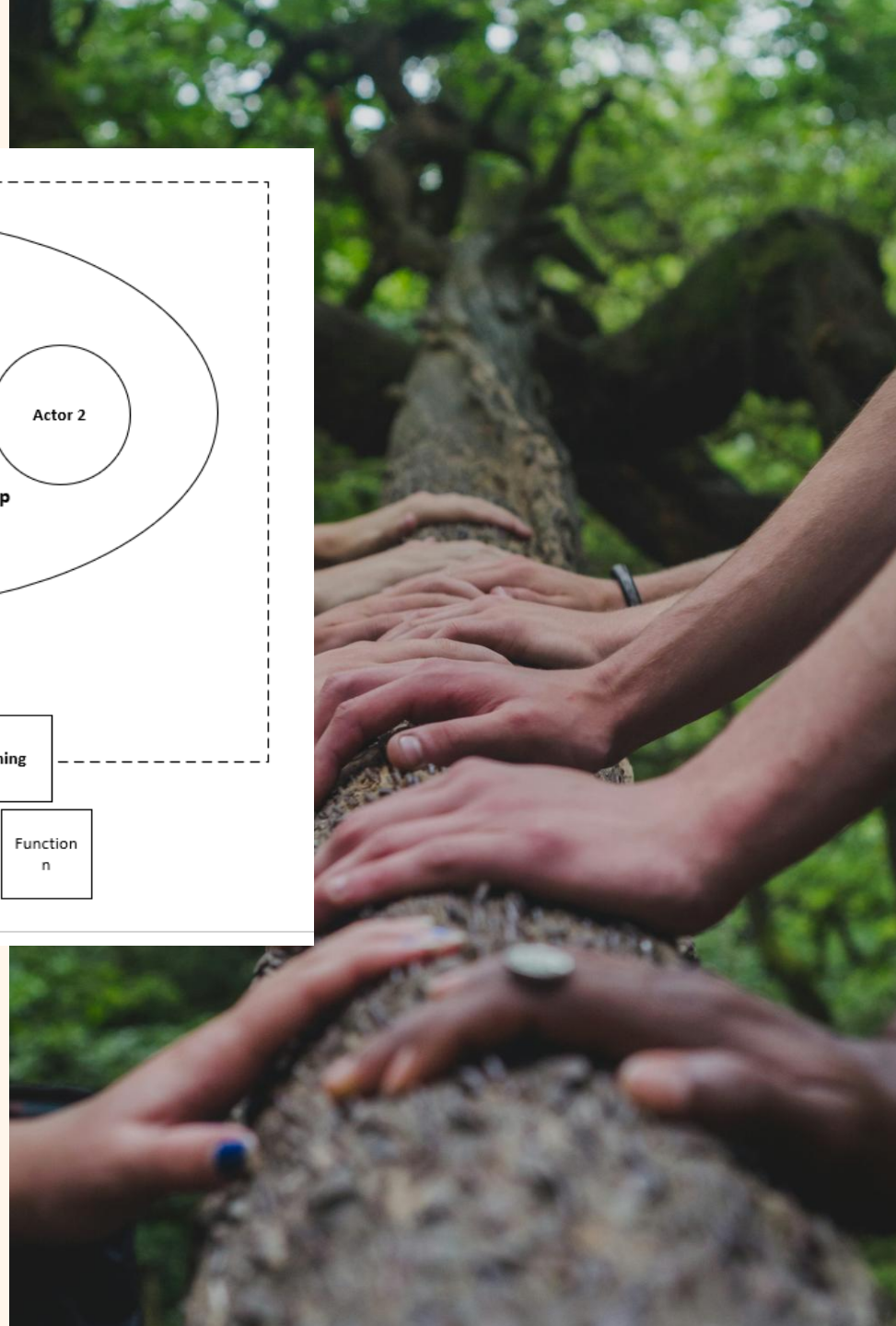


Figure 2. 3 types of food system scientists





FoSSNet
CONFERENCE 2025

Research Approach

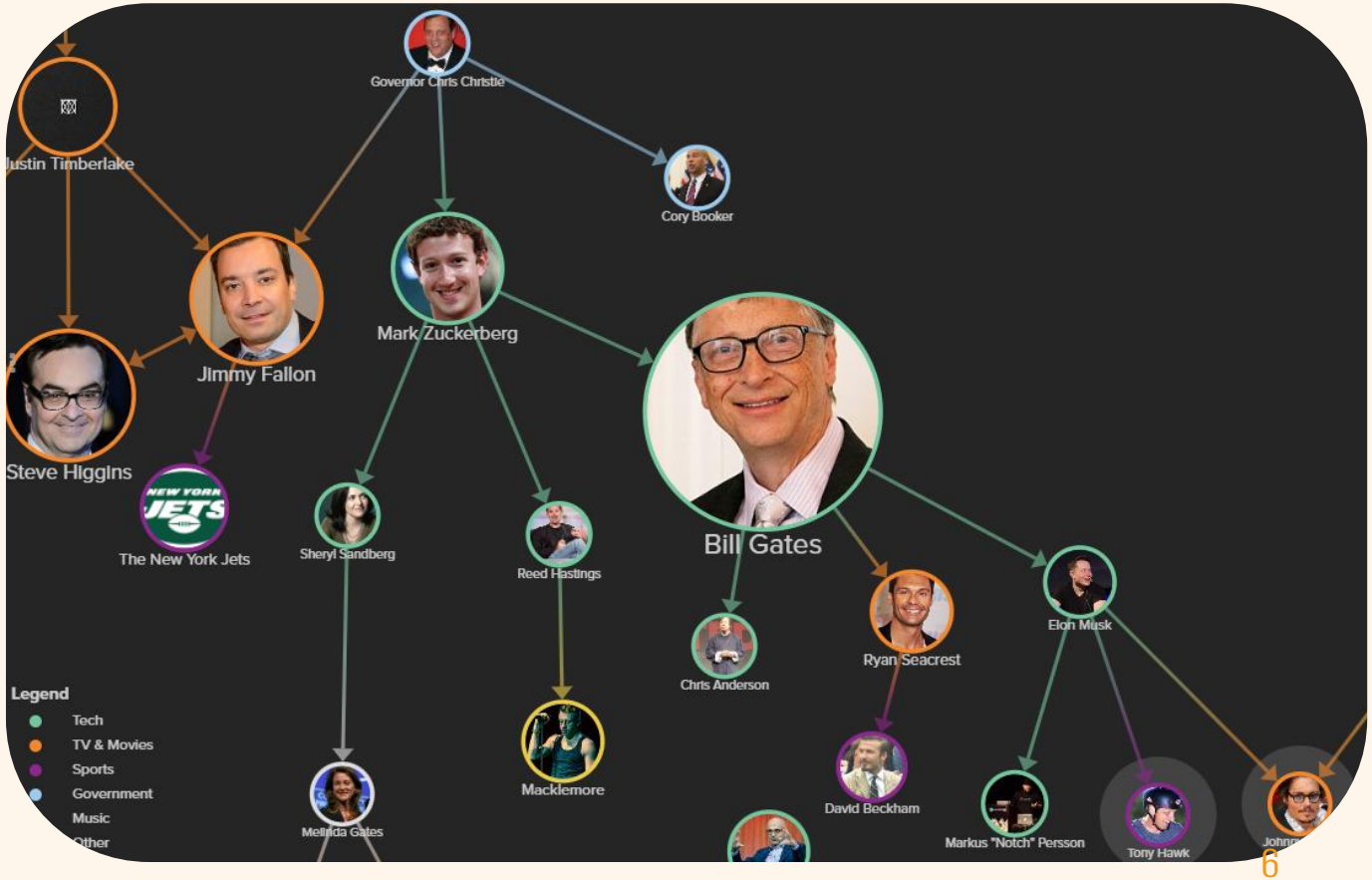
- **Data collection** – Primary data: survey with FoSSNet members (FoSSNet consortium + invitees to the conference)

"Please list the top 5 colleagues you collaborate with on food system science activities"

- **Analysis** – Quantitative: three analytical levels and associated metrics
  - 1. The whole network,
  - 2. Clusters within the network,
  - 3. Individual/institution (node) positions within the network.

Analysing the SNA survey

- **Network Mapping** – Create visuals showing **connections between individuals**
- **Understanding the Patterns** – Identify **clusters, key players, and isolated nodes** to uncover collaboration dynamics in food systems science.



EXAMPLE Visualisation on KUMU. Celebrity Ice bucket challenge: SNA of the network of nominations (source: Jeff Mohr – Kumu.io/gallery

Gaps in the network

Preliminary results of the SNA

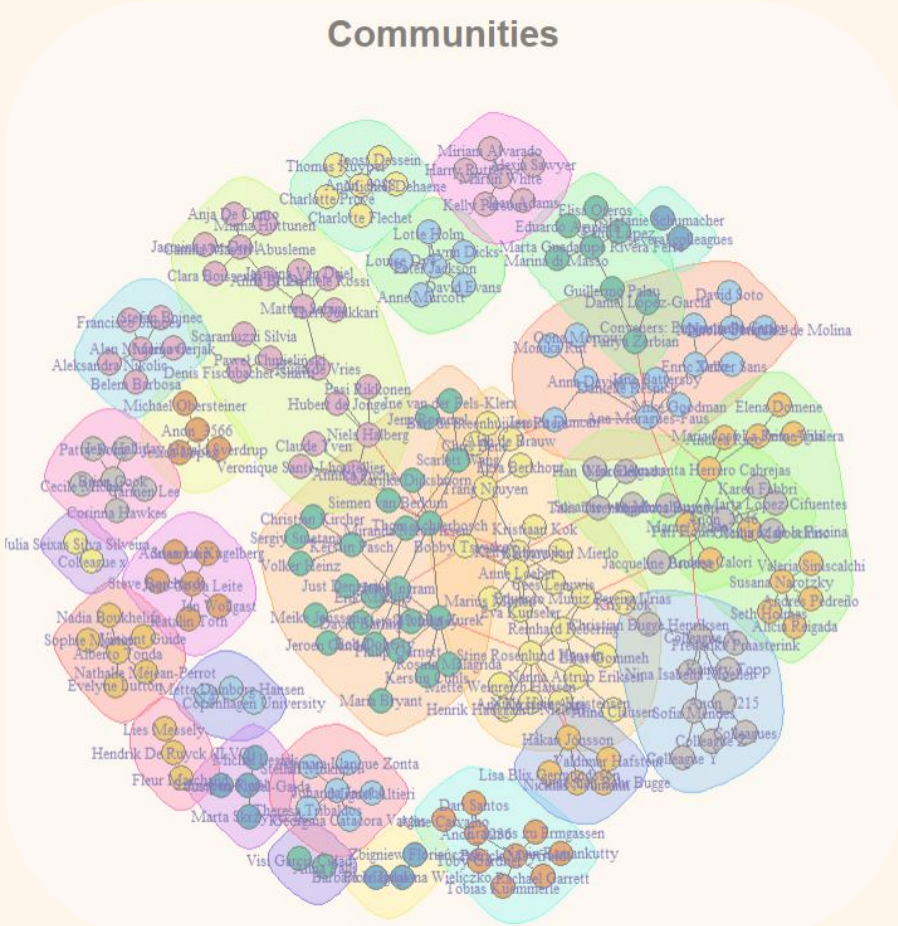
Gap 1: Lack of bridges between communities

Current state

- Clustered communities, less strong interconnections, not very tightly connected internally
- It can take 13 steps to connect the two most distant people!

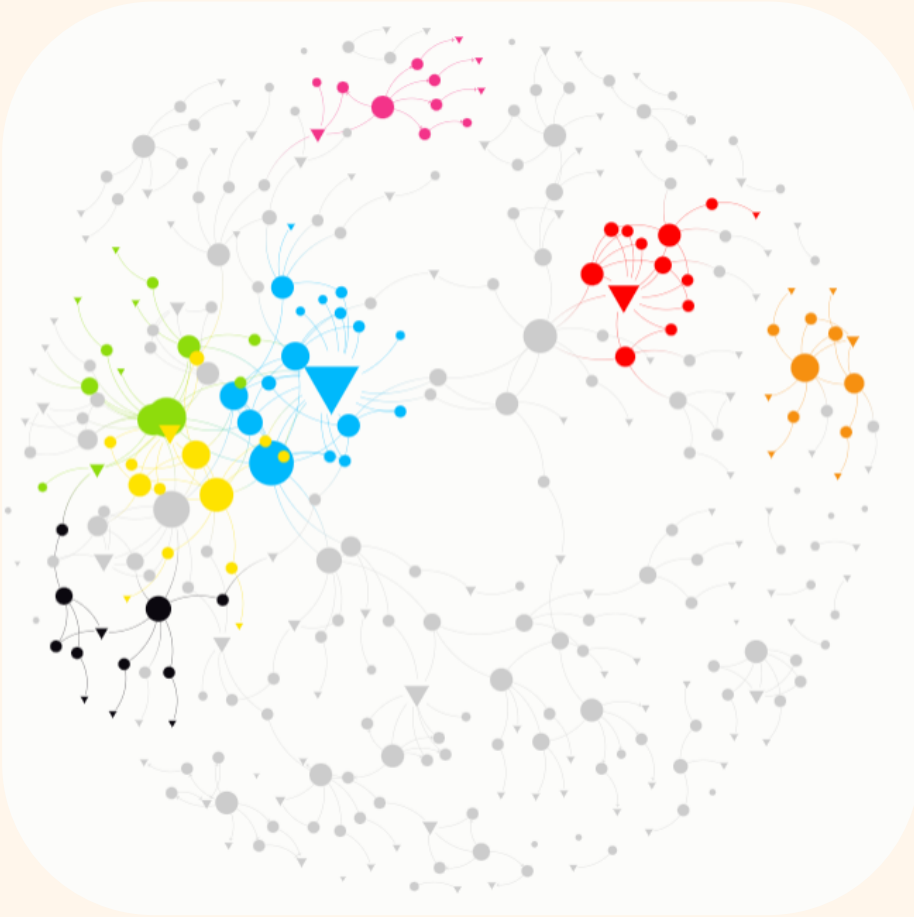
Ideal state (?)

- Clear communities, and active but not overwhelming communication: a good balance between **collaboration** and s**pecialisation**.



Gap 2: Vulnerable Hub-driven Network

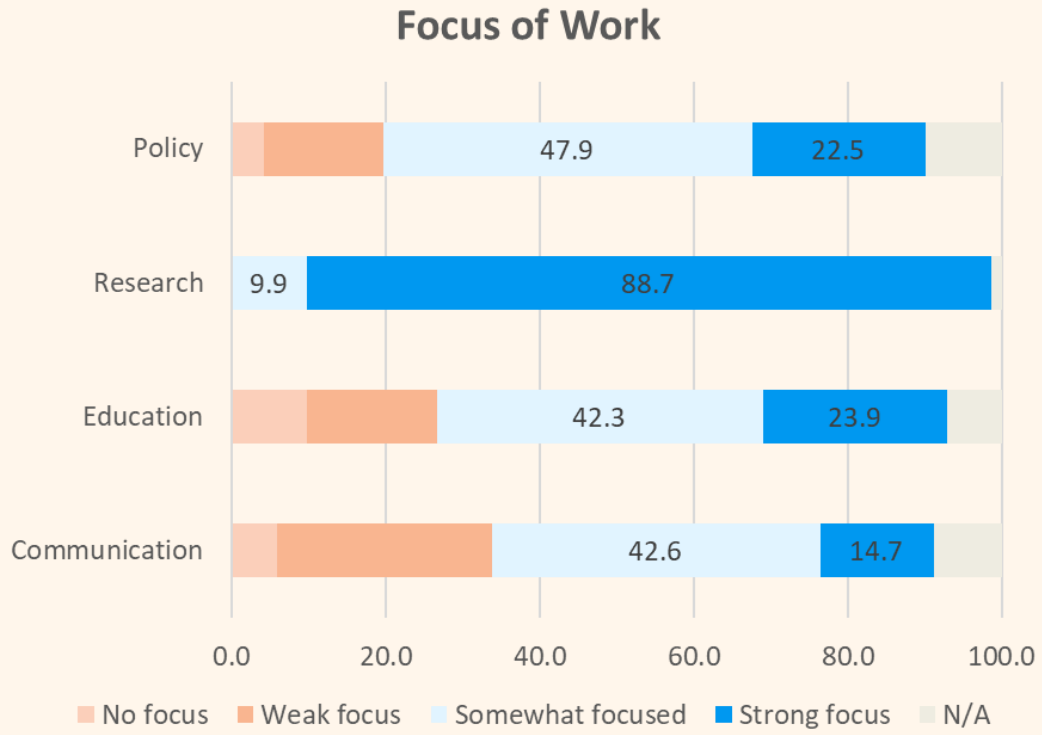
- Most nodes in the network are sparse or isolated, with a majority having only one connection.
- Potentially "hub"-driven network: nodes with many more connections than others
  - Unequal influences and power dynamics
  - Bottlenecks and overloads

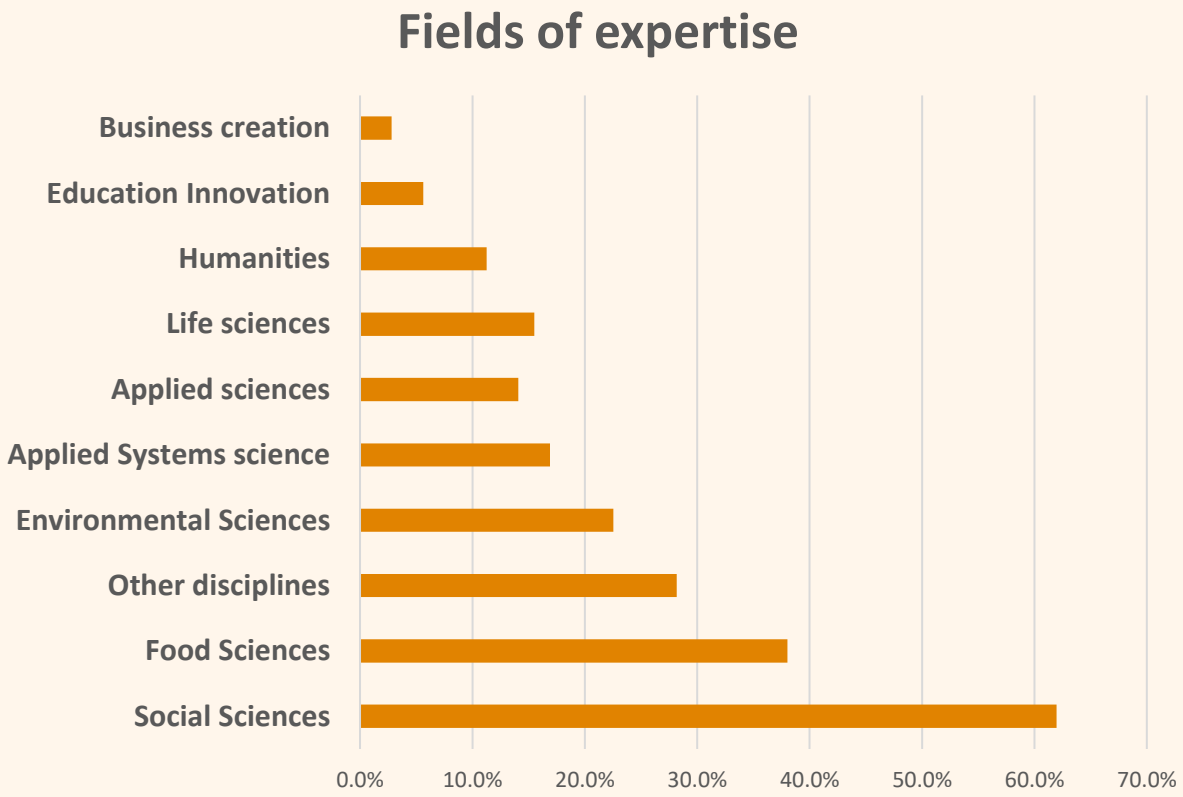


Gap 3: Lack of Collaboration beyond Research

	Collaboration activities	% of all connections
RESEARCH	Working in projects together	79%
	Applying for research grants	60%
	Publishing scientific publications	58%
POLICY	Members of science advisory board steering committee	15%
	Development and formulation of policies	14%
	Other	8%
EDUCATION	Development of bachelors/masters/postgraduate programmes	13%
	Development of career trainings	11%
	Other	7%
COMUNICATION	Co-organisation of events and gatherings	44%
	Building partnerships	37%
	Collaboration on social media platforms and websites	17%

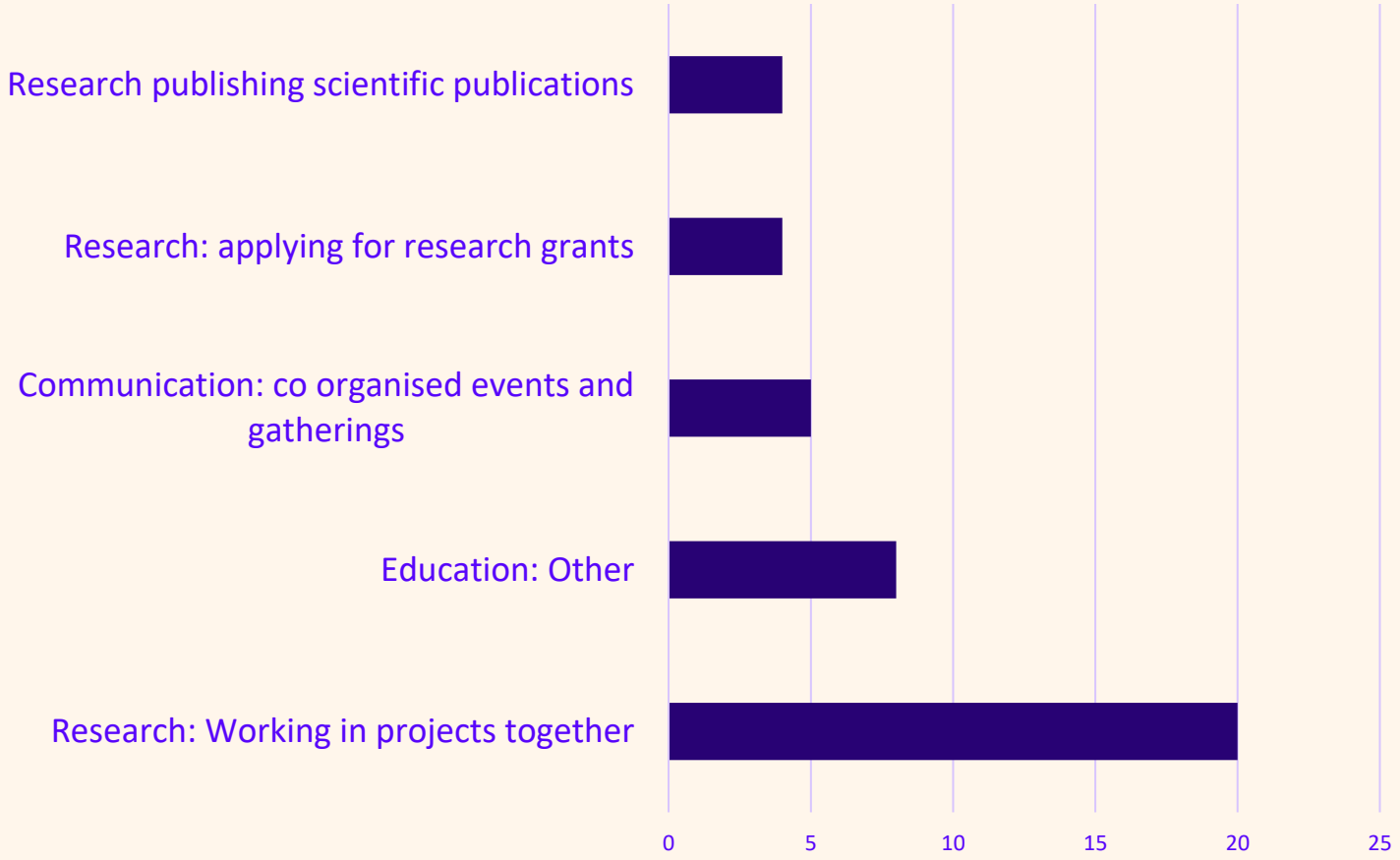
Gap 4: Limited Integration of disciplines & roles





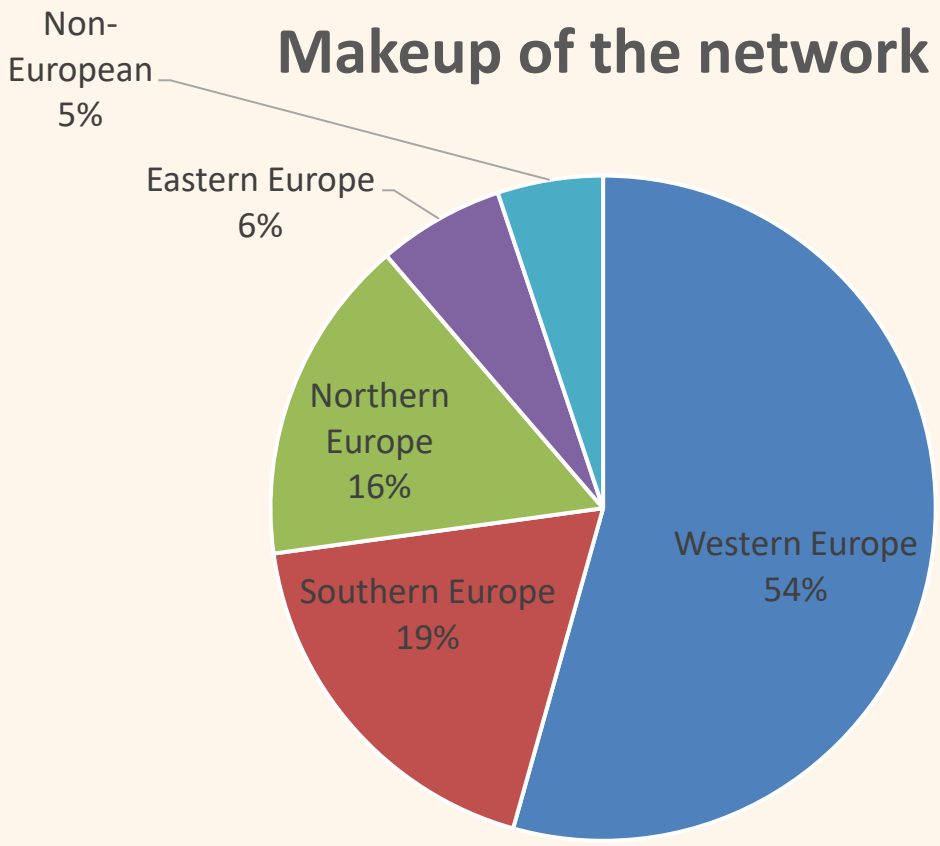
Gap 5: Limited role of earlier career researchers

- Focus on research
- More likely to work with people of their own organisations
- Fewer types of collaborations



Gap 6: Uneven geographical coverage

- 5 countries from Southern Europe, 3 from Eastern Europe

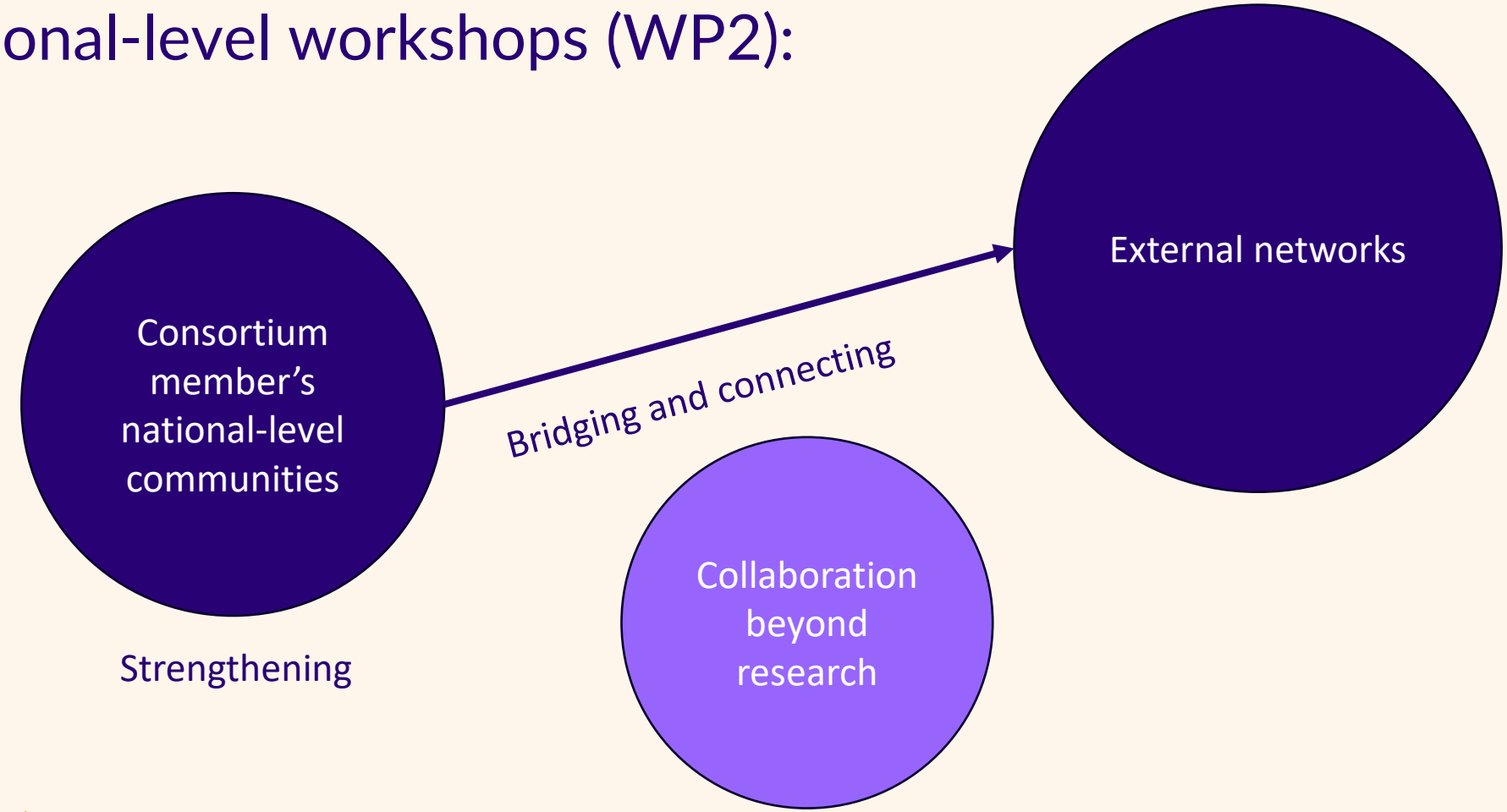


Opportunities

FoSSNet Upcoming Activities

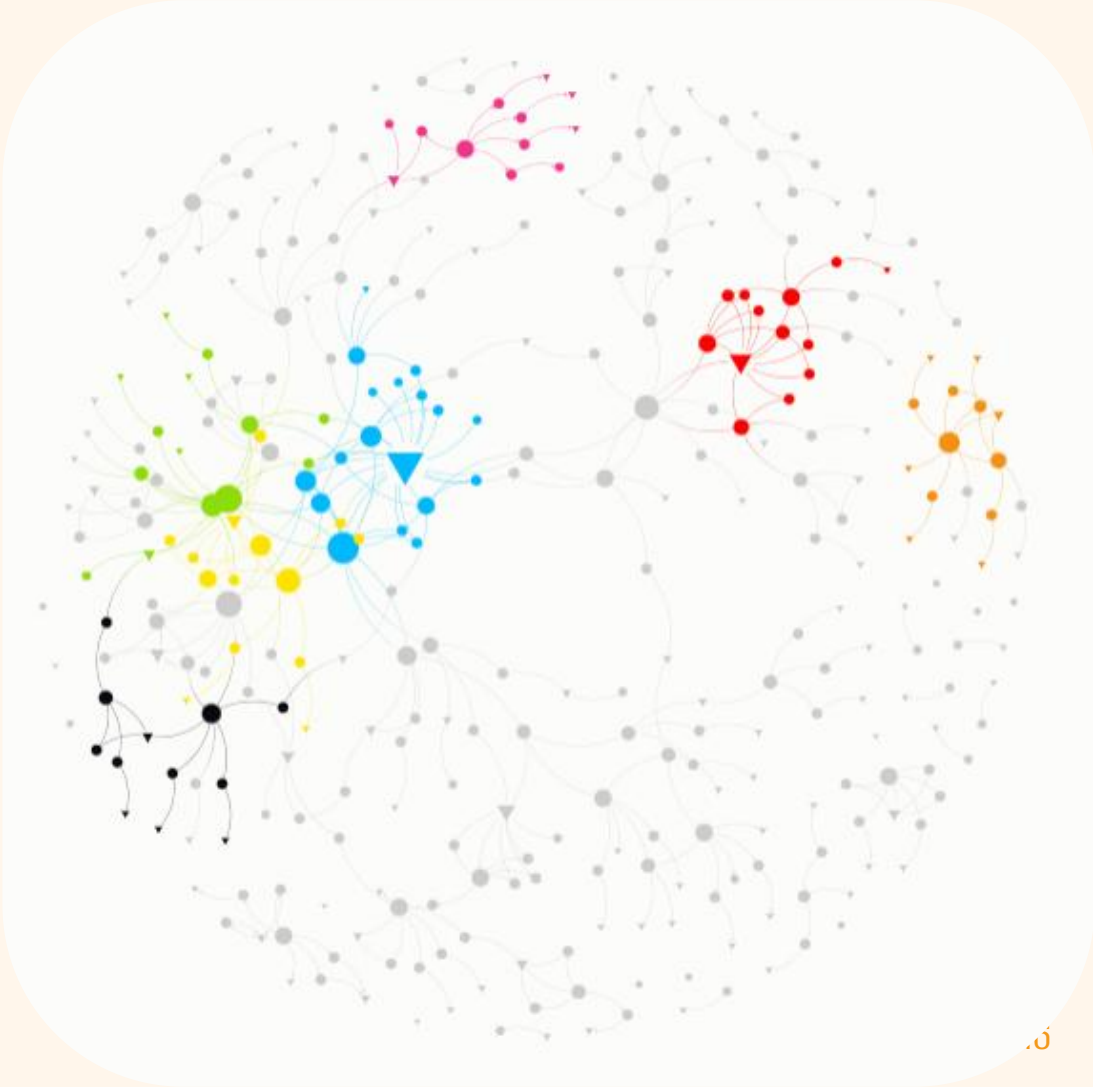
Leveraging Communities

- National-level workshops (WP2):



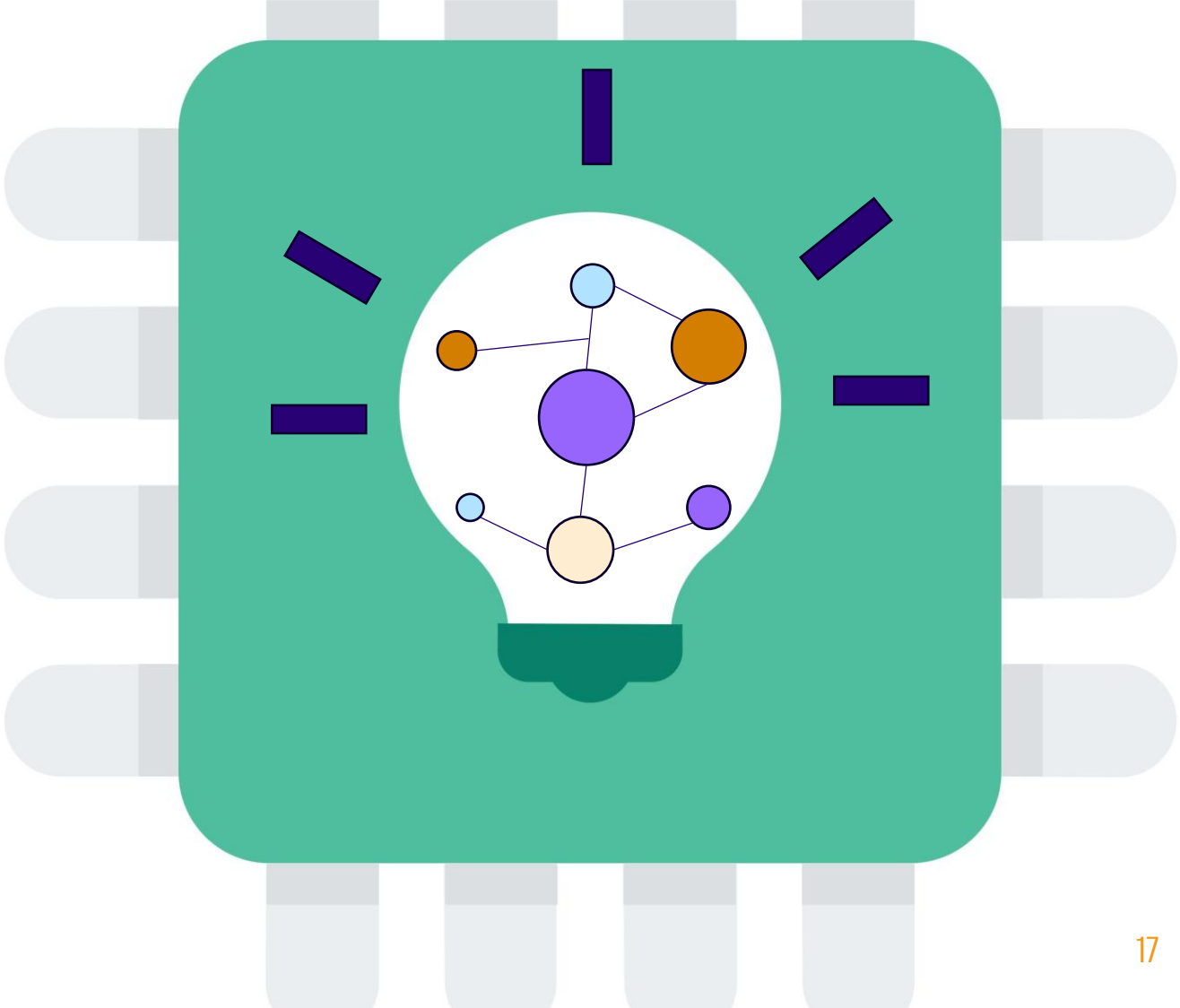
Disrupt and avoid exclusion mechanisms

- Identification of exclusion mechanisms (WP3):
  - Methods to disrupt and avoid exclusion mechanisms and foster inclusive inter- and transdisciplinary FSS.



Open Innovation to engage stakeholders

- Value proposition
- Hackathons (WP2)
- Knowledge hub (WP2)

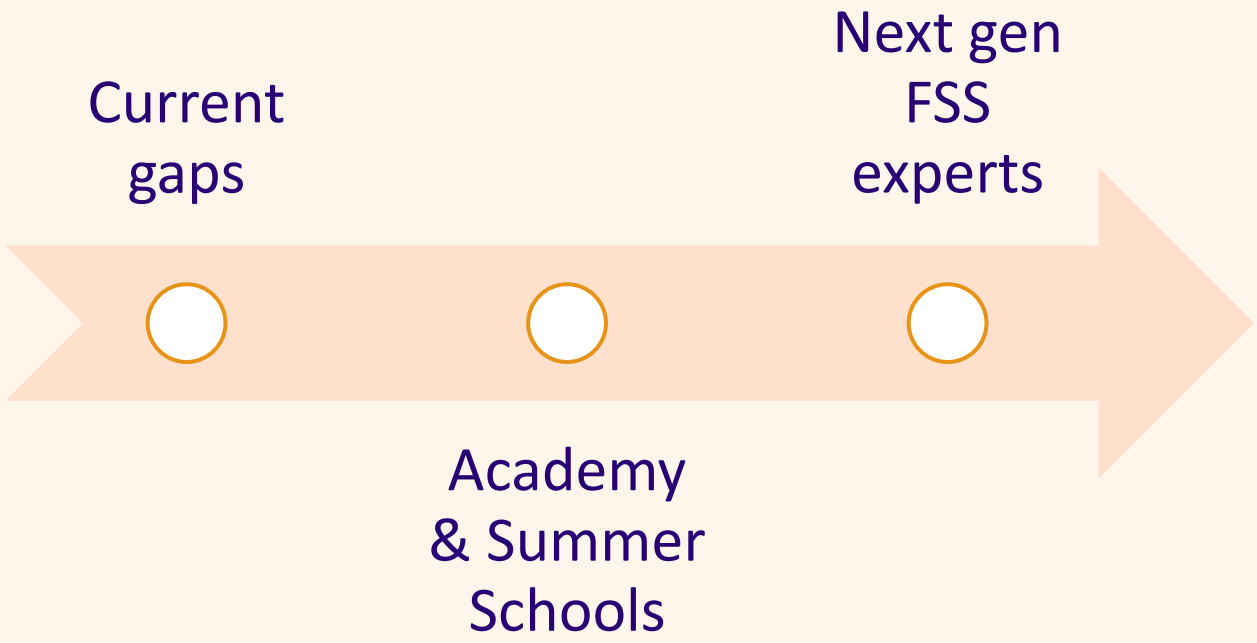


Inter- and transdisciplinary research

- Territorial and systems-oriented labs (WP4)
  - identify collaborative responses to food systems' challenges
  - research projects, development of joint programmes and activities, pilots, and other activities beyond research

Food systems Capability Building

- Academy and summer schools for food systems scientists and professionals (WP5)
  - Develop next-generation Food Systems curricula, to train future generations in FSS



Next steps for the SNA

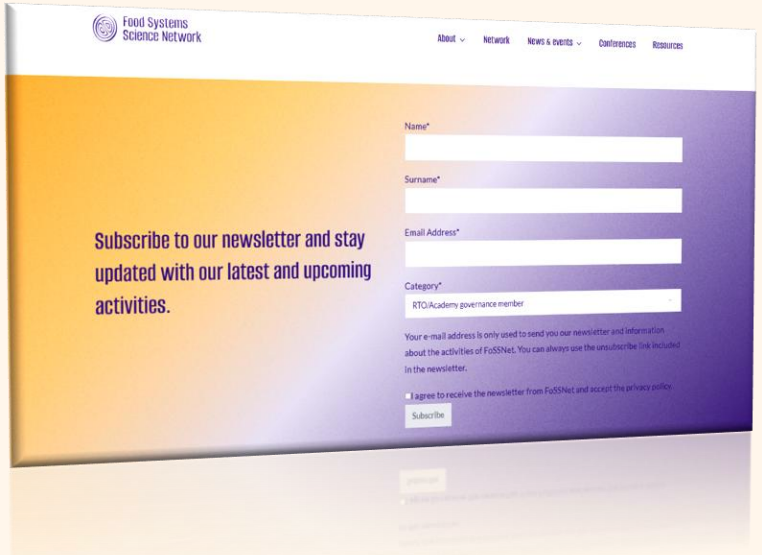
- Complete findings with full dataset of respondents

75% considered a minimum threshold for data to be considered reliable in network analysis (80% is the gold standard)

PLEASE FILL IT IN!

- National-level workshops: FoSSNet consortium partners will select identified gaps and bottlenecks to validate in their own networks.

Contact



FoSSNet

info@fossnet.eu

SciFoodHealth #FoSSNet

#FoSSNetCon2025

fossnet.eu