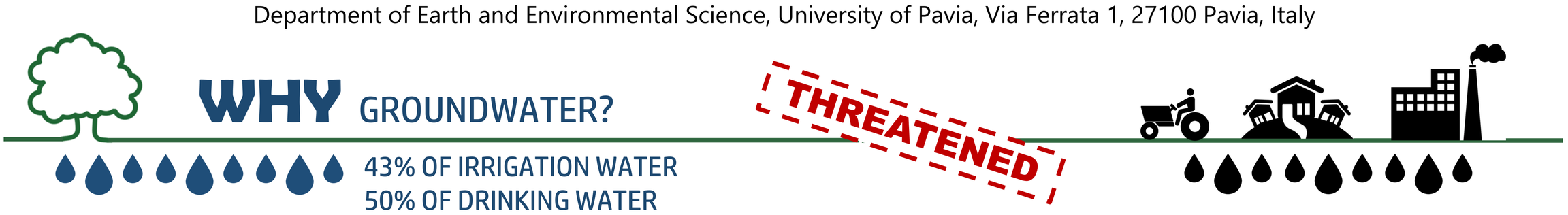
SOCIAL NETWORK ANALYSIS & ENVIRONMENTAL MANAGEMENT

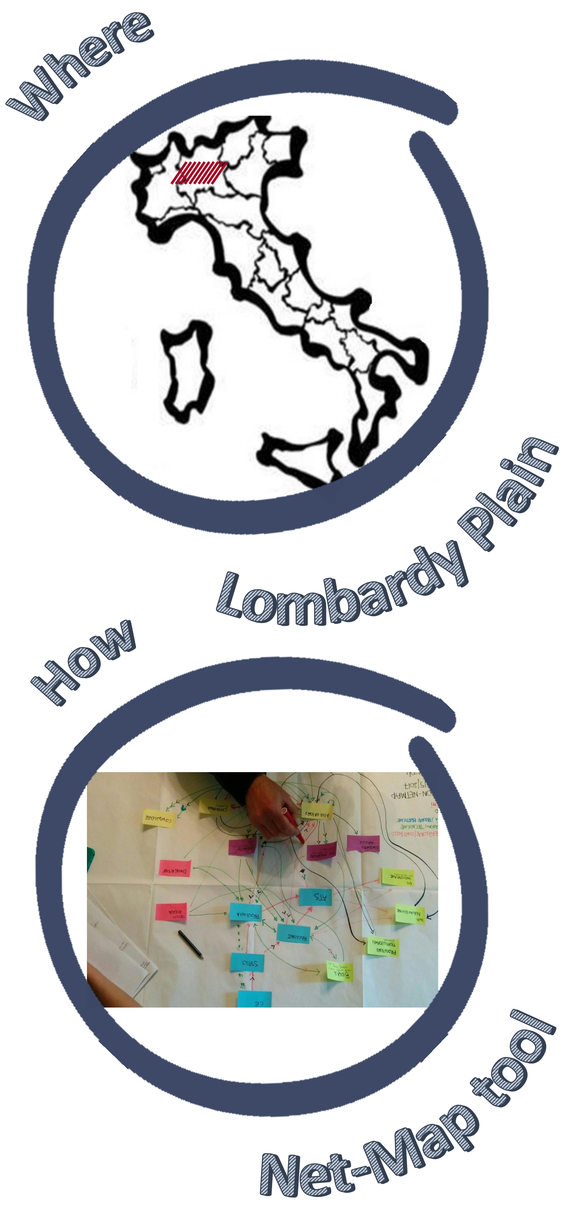
the case of groundwater contamination in the Lombardy plain

Arianna Musacchio, Viviana Re, Elisa Sacchi
Department of Earth and Environmental Science, University of Pavia, Via Ferrata 1, 27100 Pavia, Italy



Groundwater management requires a shift towards a more **HOLISTIC** approach that could permit to consider the **SOCIAL IMPLICATIONS**

IS SOCIAL NETWORK ANALYSIS AN EFFECTIVE TOOL IN SOCIO-HYDROGEOLOGY?



Networks evidence the **EMERGING MULTIPLE PERCEPTIONS** permitting to obtain a better comprehension of social complexity and to point out the **OBSTACLES AND OPPORTUNITIES** in groundwater management. Social network, associated with a participative approach, results a **POWERFUL TOOL** to reach a more comprehensive representation of the links between groundwater and human systems.

3 GROUPS OF KEY-INFORMANTS

were asked to draw an Influence Network Map

RESEARCH QUESTIONS

- **Who can influence** groundwater pollution reduction?
- **Who can influence** the implementation of new groundwater protection actions?

ANALYSES

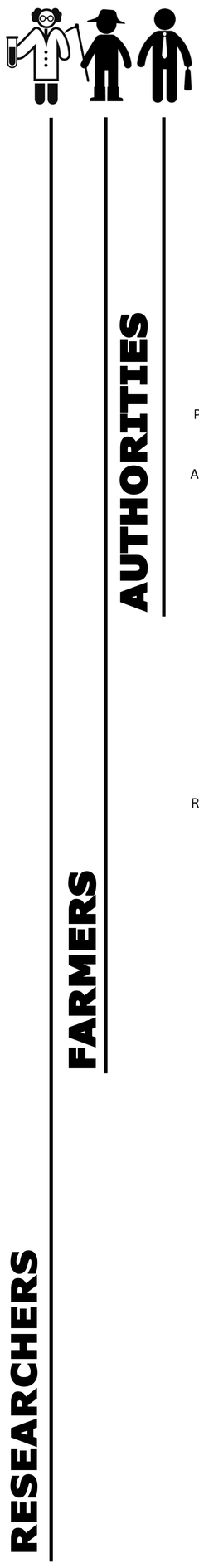
- Degree centrality
- Network density

Legend
Stakeholder groups

- Industries
- Organizations
- Individual actors
- Research institutes
- Administrations

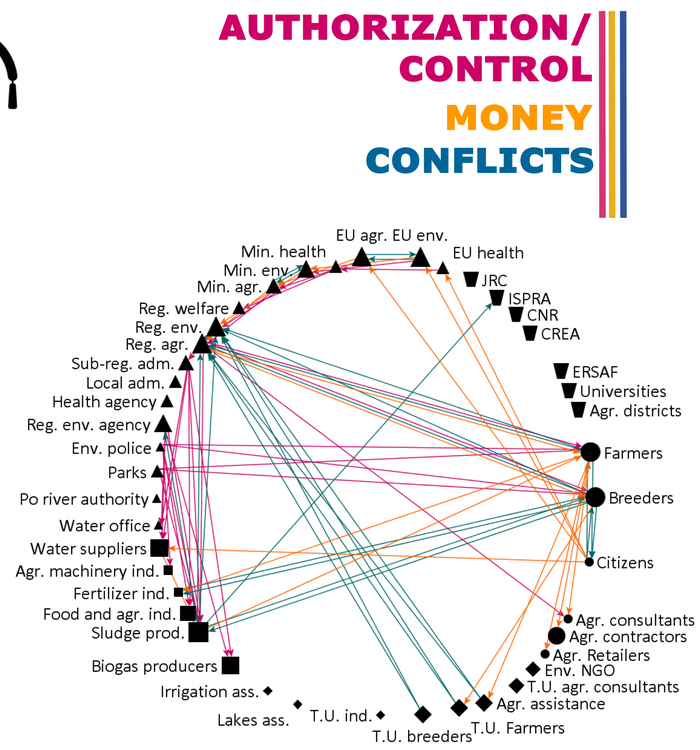
Influence level

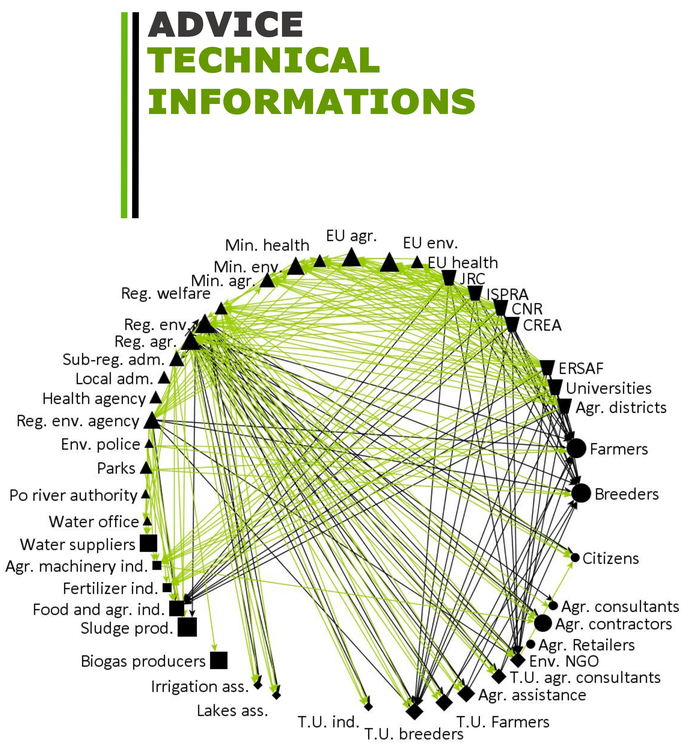
1 ▲▲▲▲▲ 5



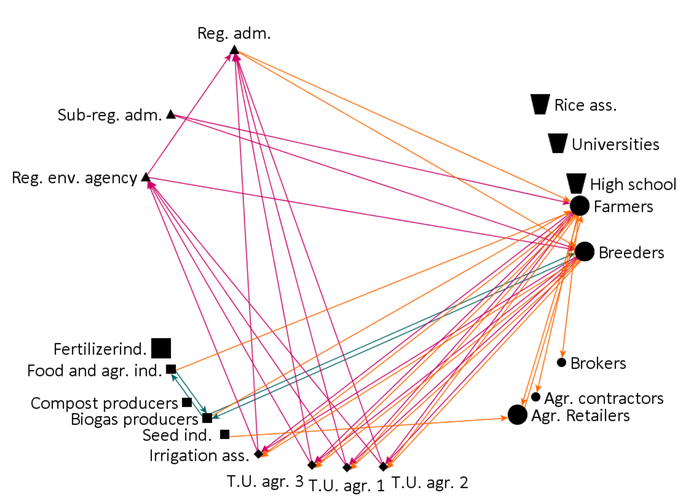
Analysed flows

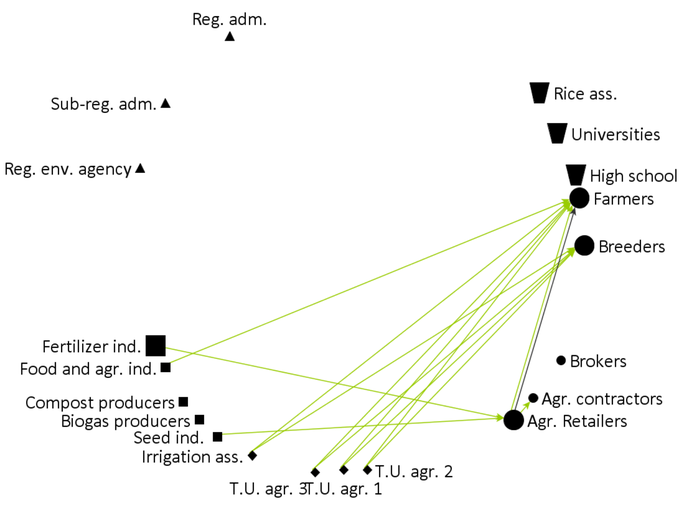
AUTHORITIES





FARMERS





RESEARCHERS

Abbreviations: Ass. (Association), Adm. (Administration), Reg. (Regional), Sub-reg. (Sub-regional), Env. (Environmental), Agr. (Agricultural), T.U. (Trade Unions), Ind. (Industries), CNR, CREA, CRPA, ISPRA (national research institutes), ERSAF (regional research institute), Econ. (Economy), LS (large-scale), Int. (international)