

Data Driven Policy Co-creation

Borut Sluban and Stefano Battiston

FINEXUS: Center for Financial Networks and Sustainability

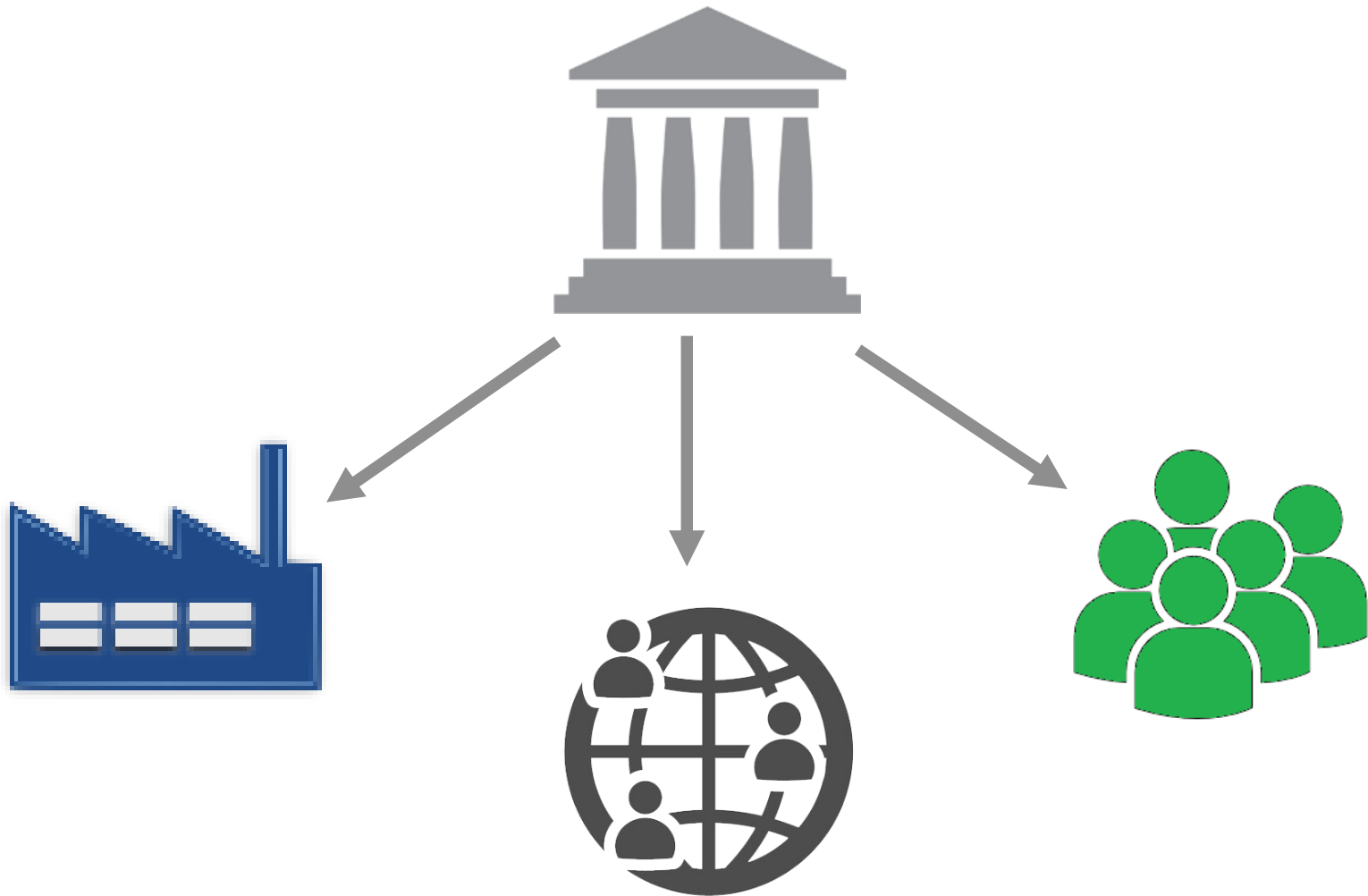
Department of Banking and Finance



**University of
Zurich**^{UZH}

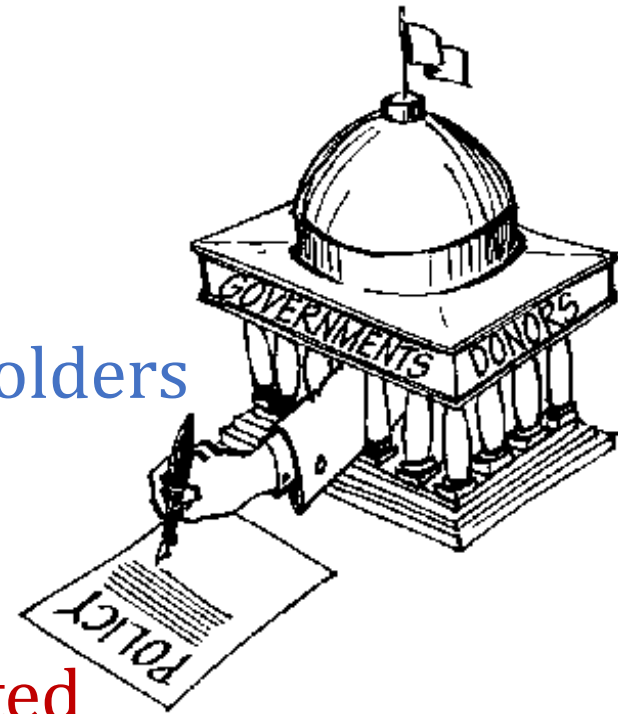
Motivation

Policies \approx principles for and regulations of conduct



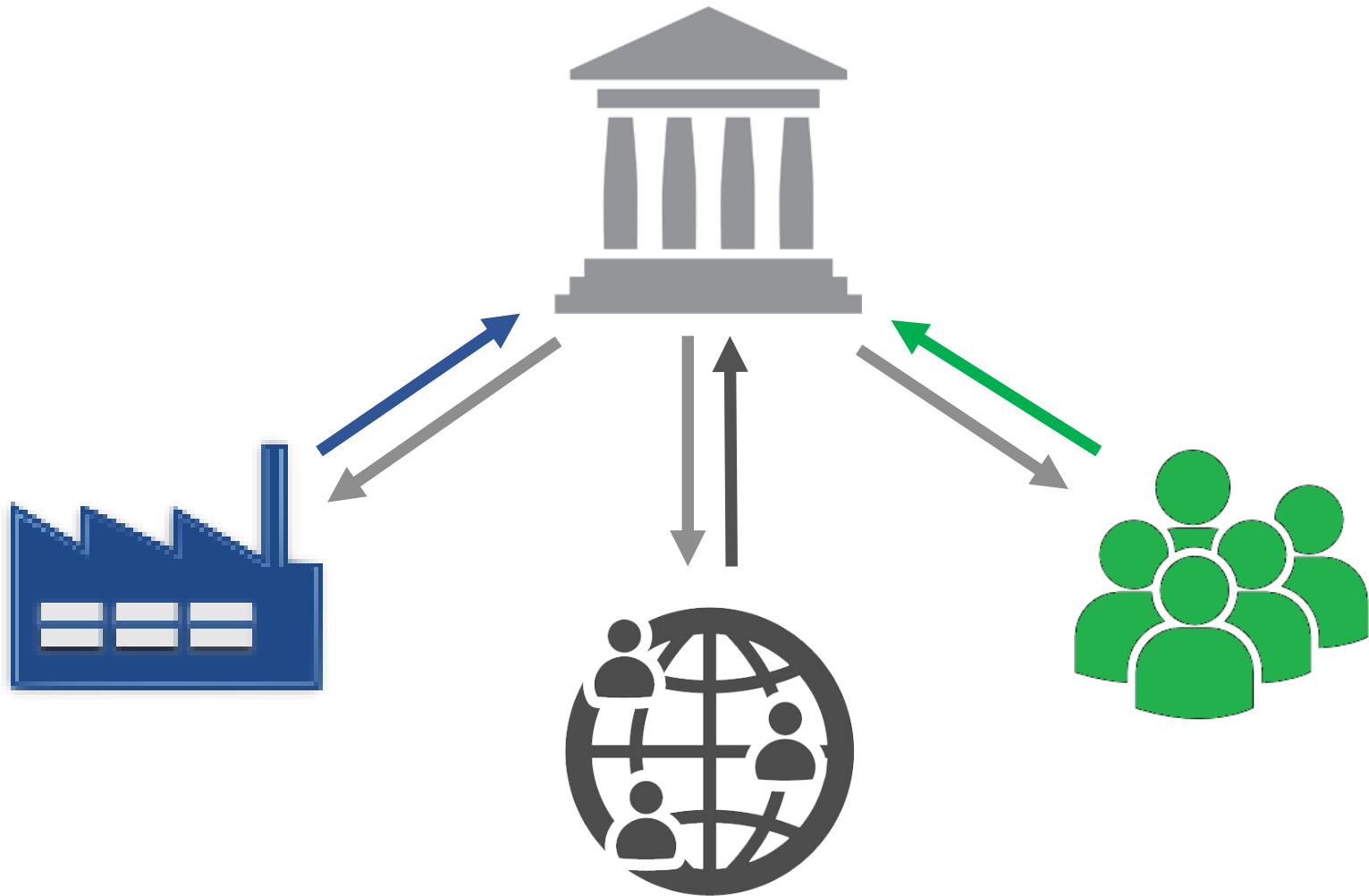
How are policies created?

- Triggered by initiatives of the stakeholders affected by those future policy
- Policy makers consult:
 - limited number of experts
 - largest directly involved stakeholders
- Issue a new policy proposal
- May leave citizens underrepresented and there may be a lack of transparency



Motivation

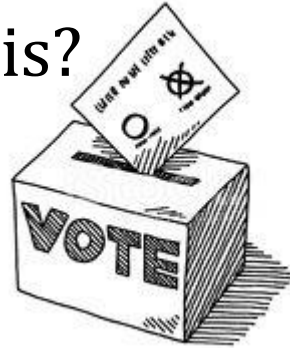
Policies \approx principles for and regulations of conduct



Policy Co-creation



- Involve citizens and stakeholders in the policy making process.
- Aren't politicians elected by the people to do this?
- Do politicians really know what citizens want?
- Governments want to increase:
 - citizens' trust in institutions
 - transparency of the policy making process
 - policy acceptance



Public consultations



An Australian Government Initiative **business.gov.au** skip to content change text size about us contact us

GOV.UK

Consultation search

Business Consultation

- Businesses & individuals
- Government agencies
- Public consultations
- About Business Consultation
- Contact Business Consultation
- Terms & conditions

- business.gov.au
- ABN Lookup
- Registration and licences

Search

- Commission and its priorities
- Policies, information and services**



English EN Search

Publicat

You can use the filters to search for results that match your interests.

- Contains**
- keywords
- Publication type**
- All consultations
- Policy area**
- All policy areas
- Department**
- All departments
- Official document status**
- All documents

European Commission >

Consultations

This list gathers Commission public consultations in one place and replaces the former Your Voice in Europe website.

Filter by

Keywords

Consultation status

- Any -

Consultation open from

Consultation closed by

Policy area

Consultations (377)

- CONSULTATION STATUS: OPEN**
- Public consultation on post-trade in a Capital Market Union: dismantling barriers and strategy for the future**
- Policy area Banking and financial services
- Consultation period 23 August 2017 - 15 November 2017
- CONSULTATION STATUS: OPEN**
- Consultation on lowering the fingerprinting age for children in the visa procedure**
- Policy area Migration and asylum
- Consultation period 17 August 2017 - 9 November 2017

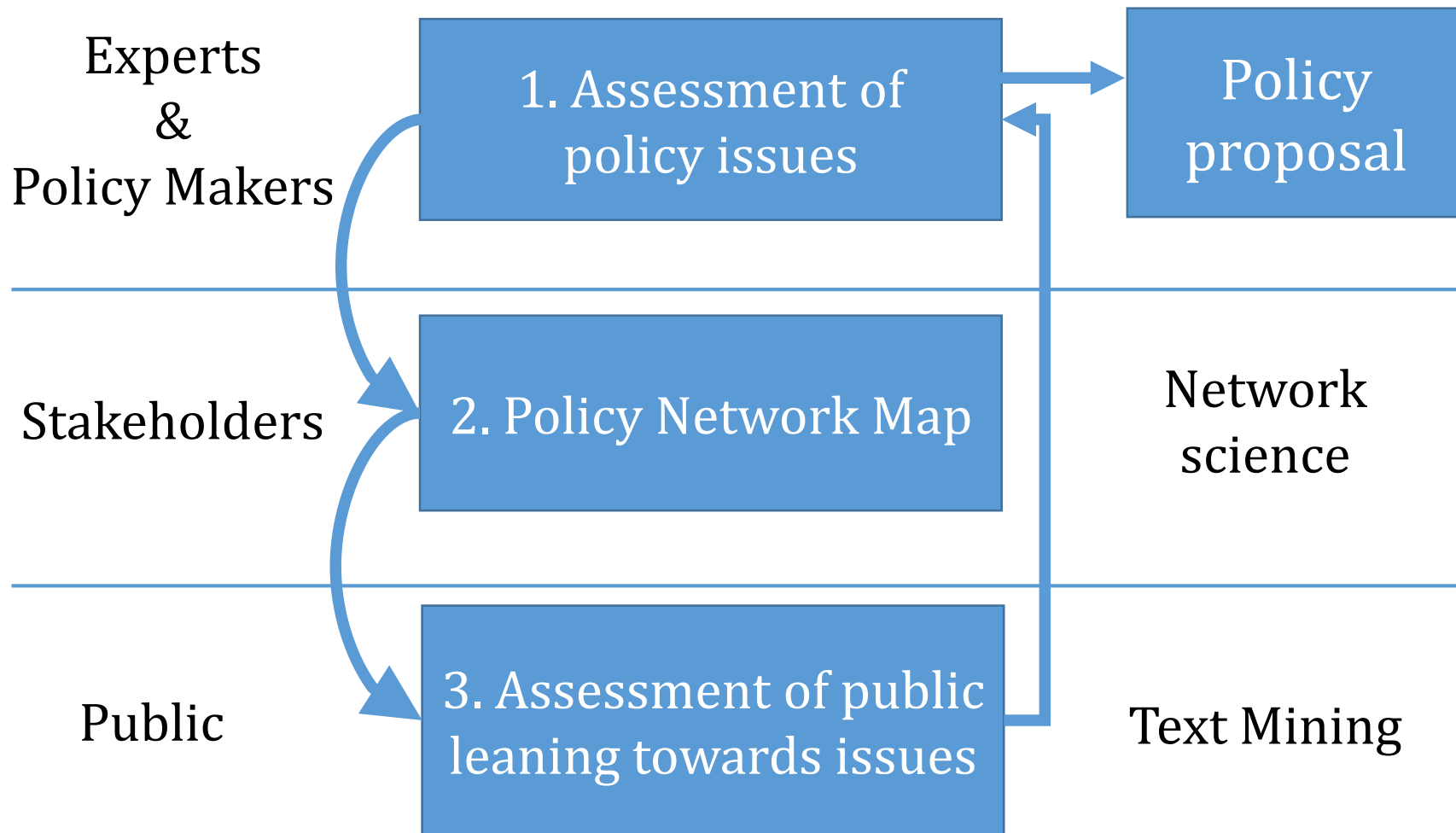
Engaging citizens



- Public consultations:
 - Few hundred responses
 - Mainly from lobby organizations active in the policy area
 - Failed to engage the broader public
- **Improve communication and knowledge representation**
 - Hard to understand the social and economic consequences for individual citizens
 - Difficult to engage citizens if they do not see how they are affected
 - **Information is thus critical to make the public more aware of the implications of policies on their daily lives**

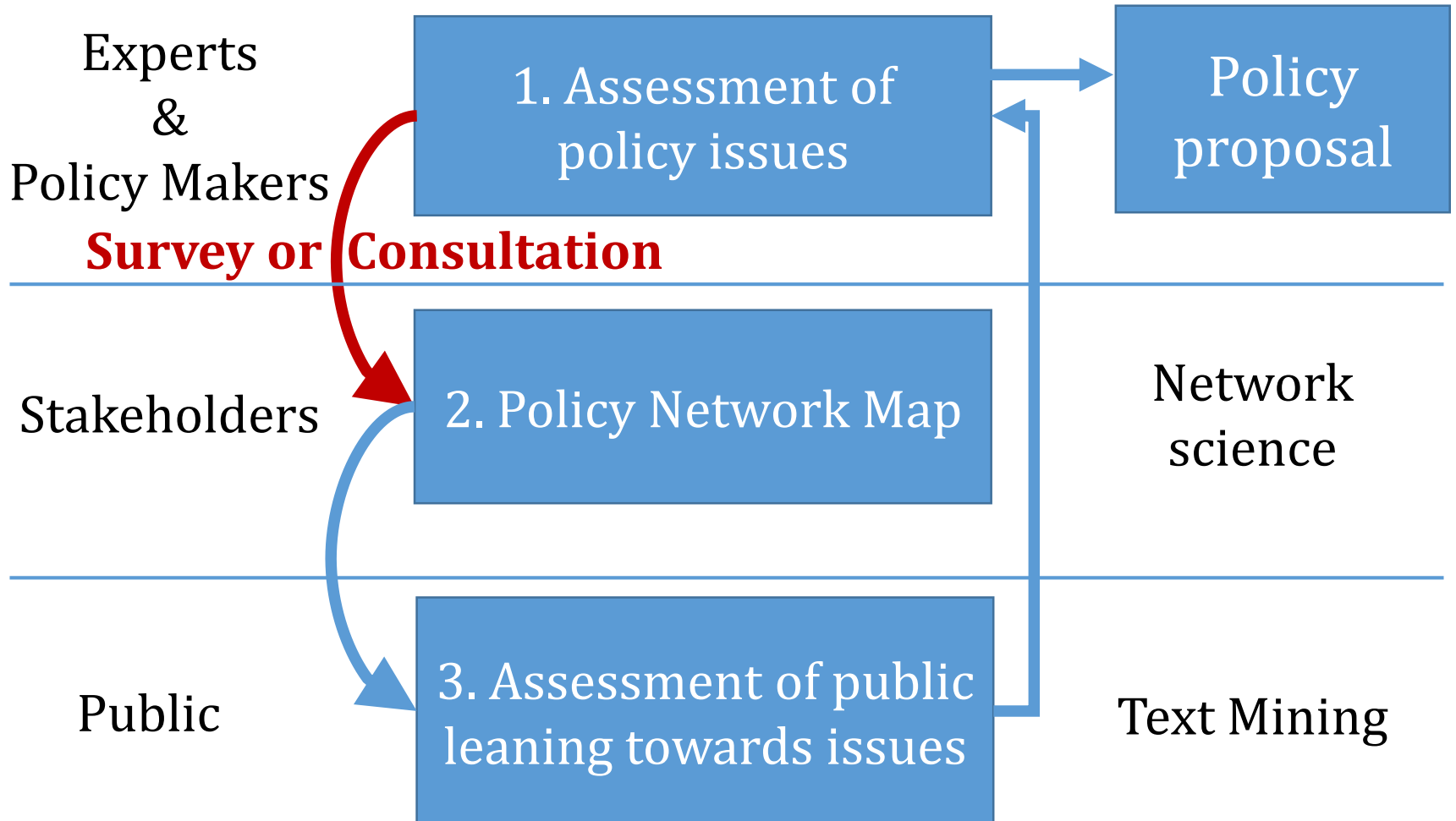
Policy Co-creation Framework

Workflow Stages



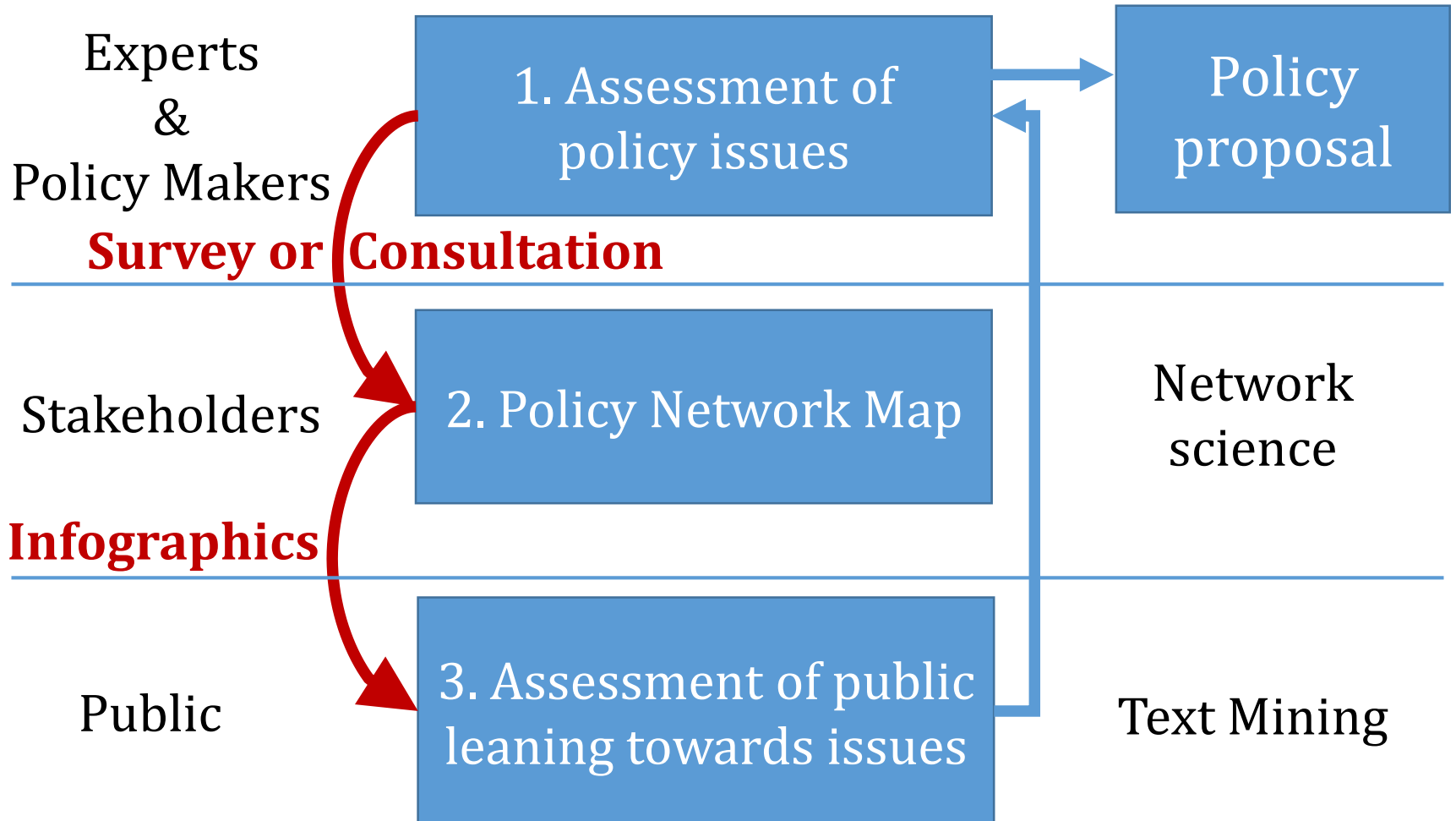
Policy Co-creation Framework

Workflow Stages



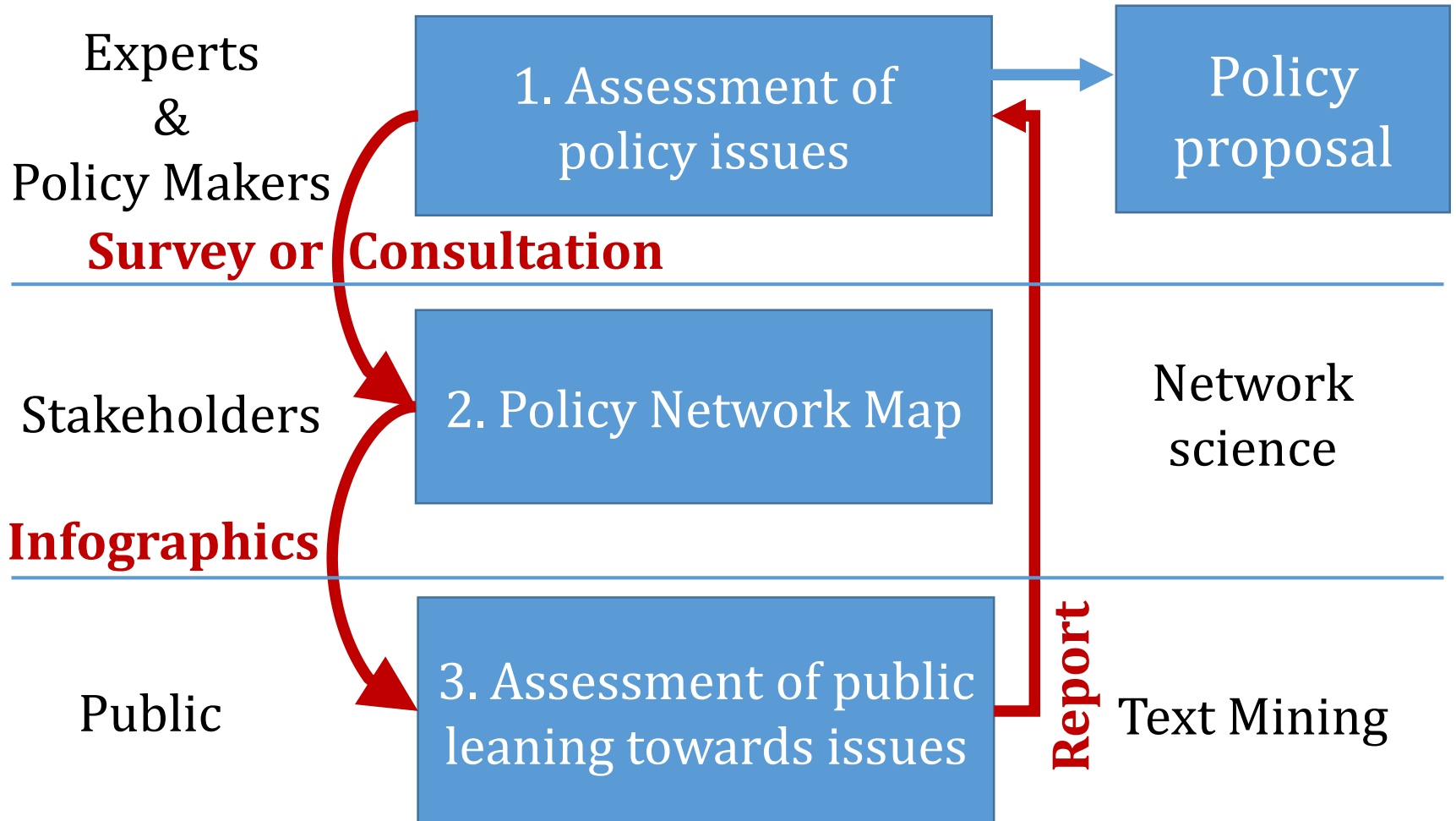
Policy Co-creation Framework

Workflow Stages



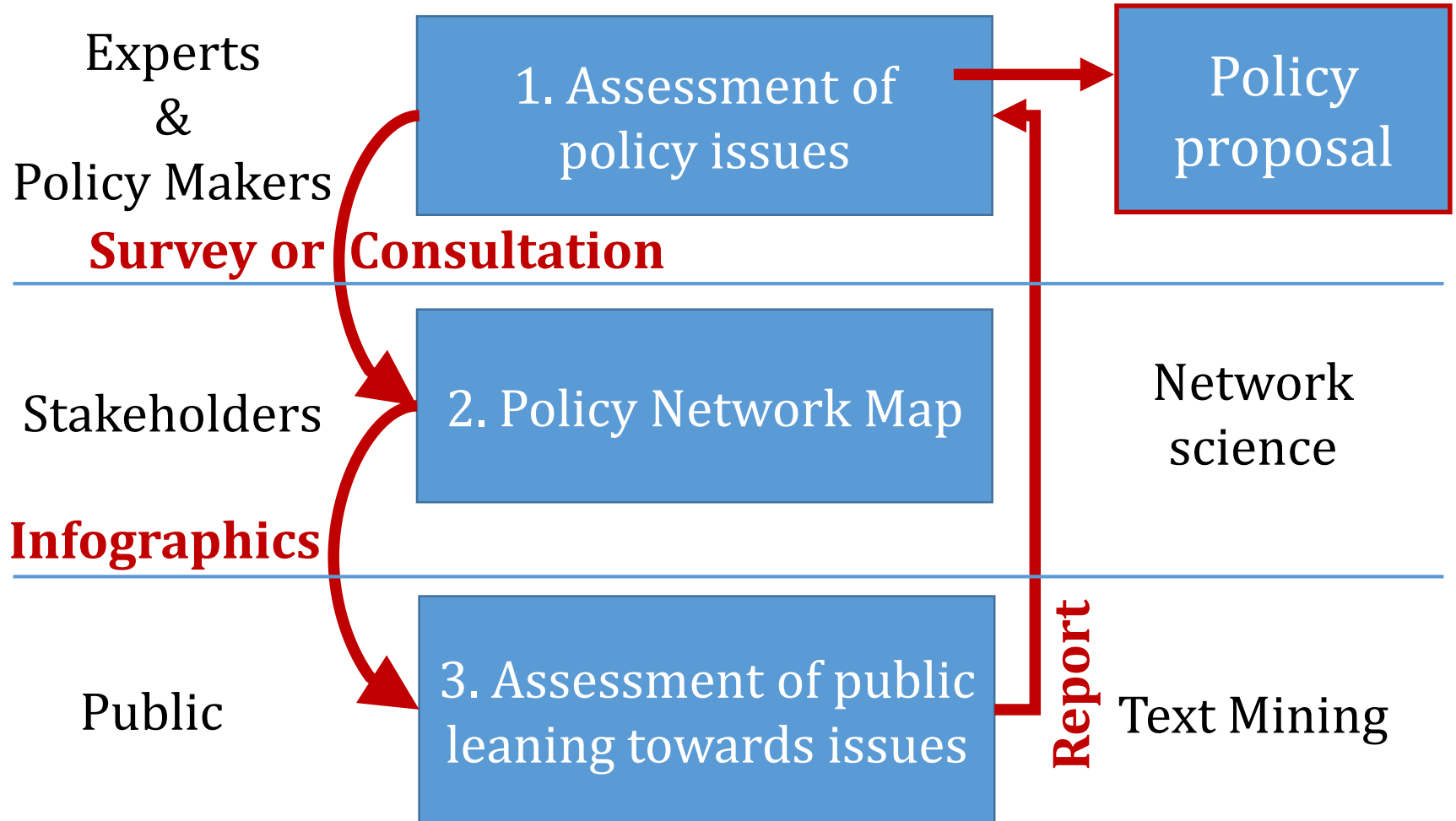
Policy Co-creation Framework

Workflow Stages



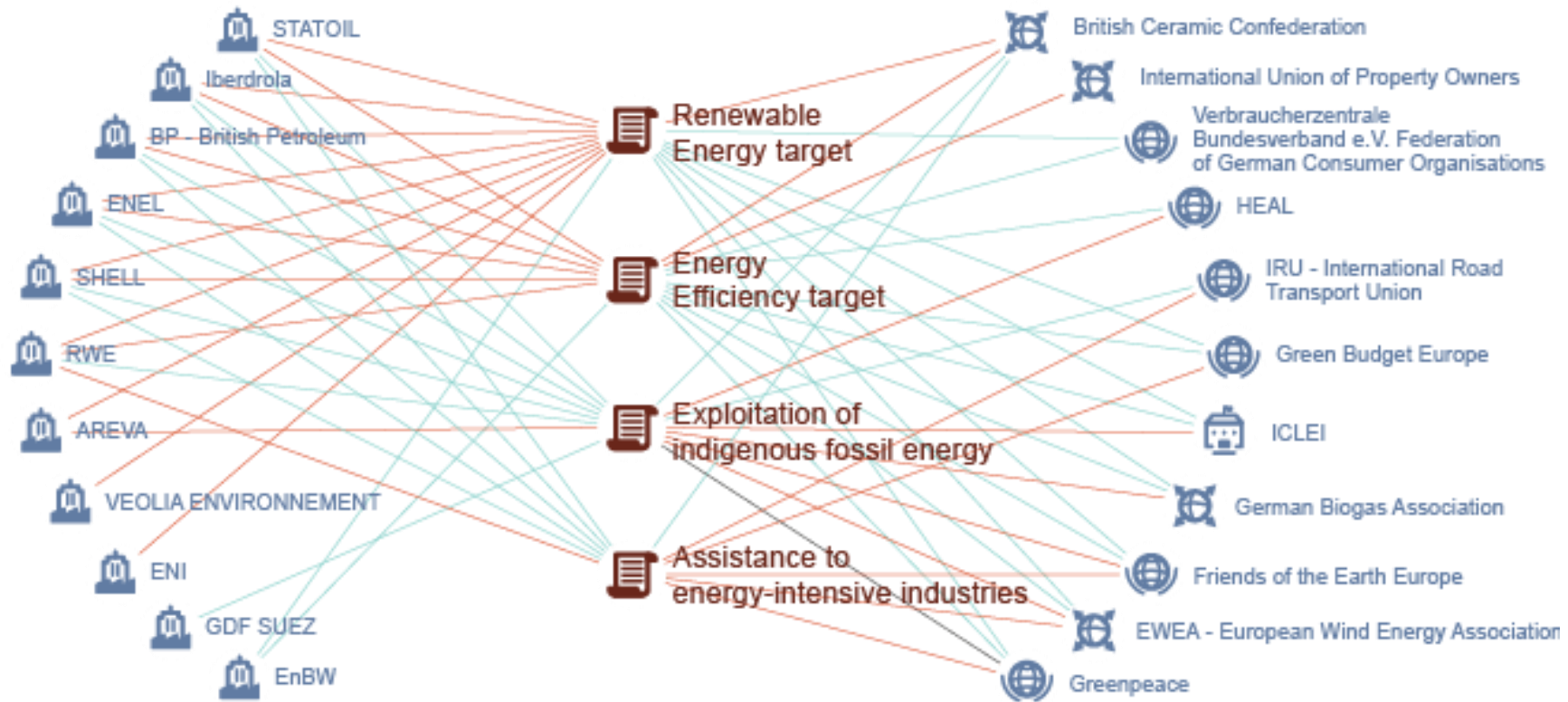
Policy Co-creation Framework

Workflow Stages



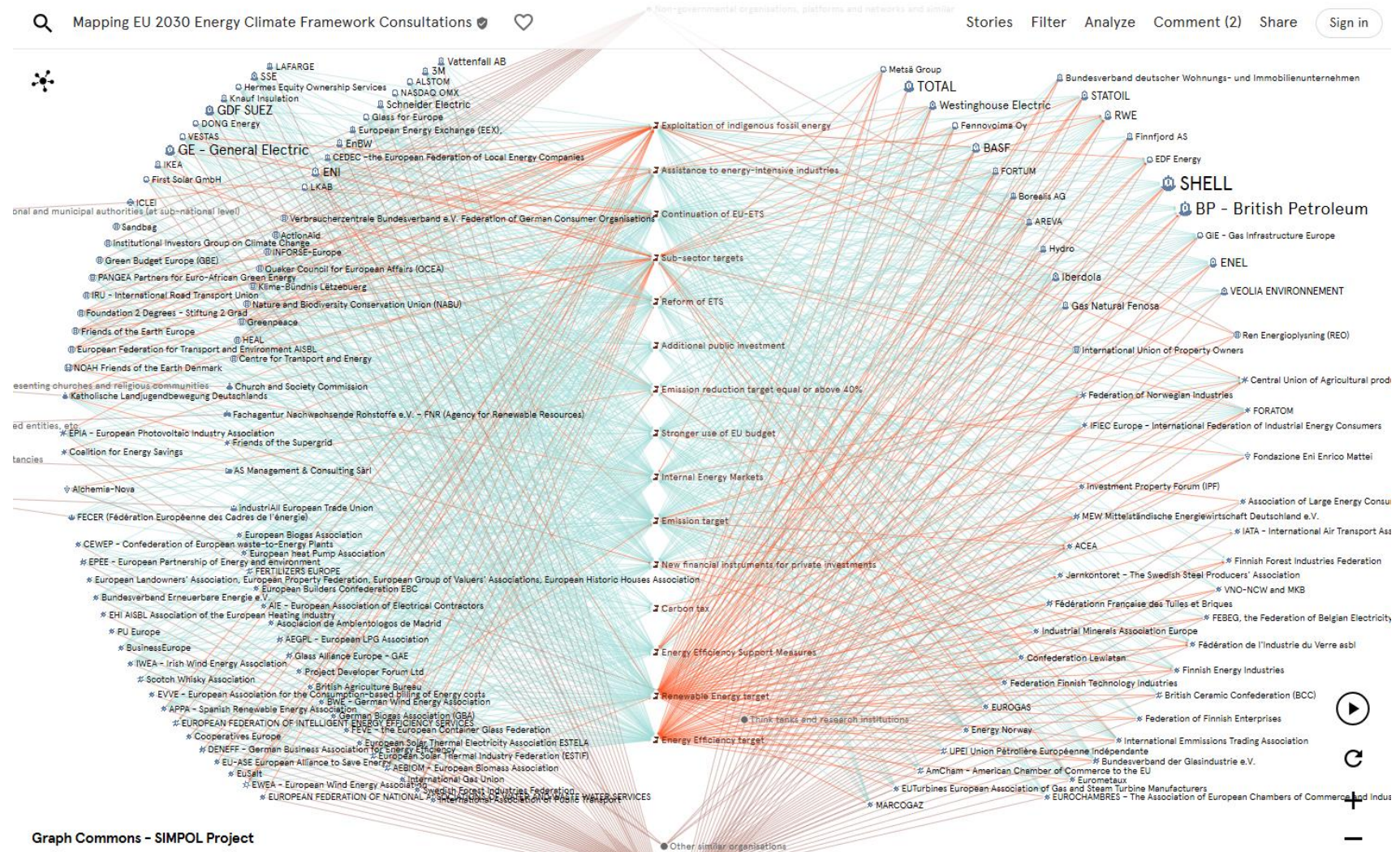
Visualizing Stakeholder Responses

- Visualize stakeholder preference patterns using Policy Network Maps



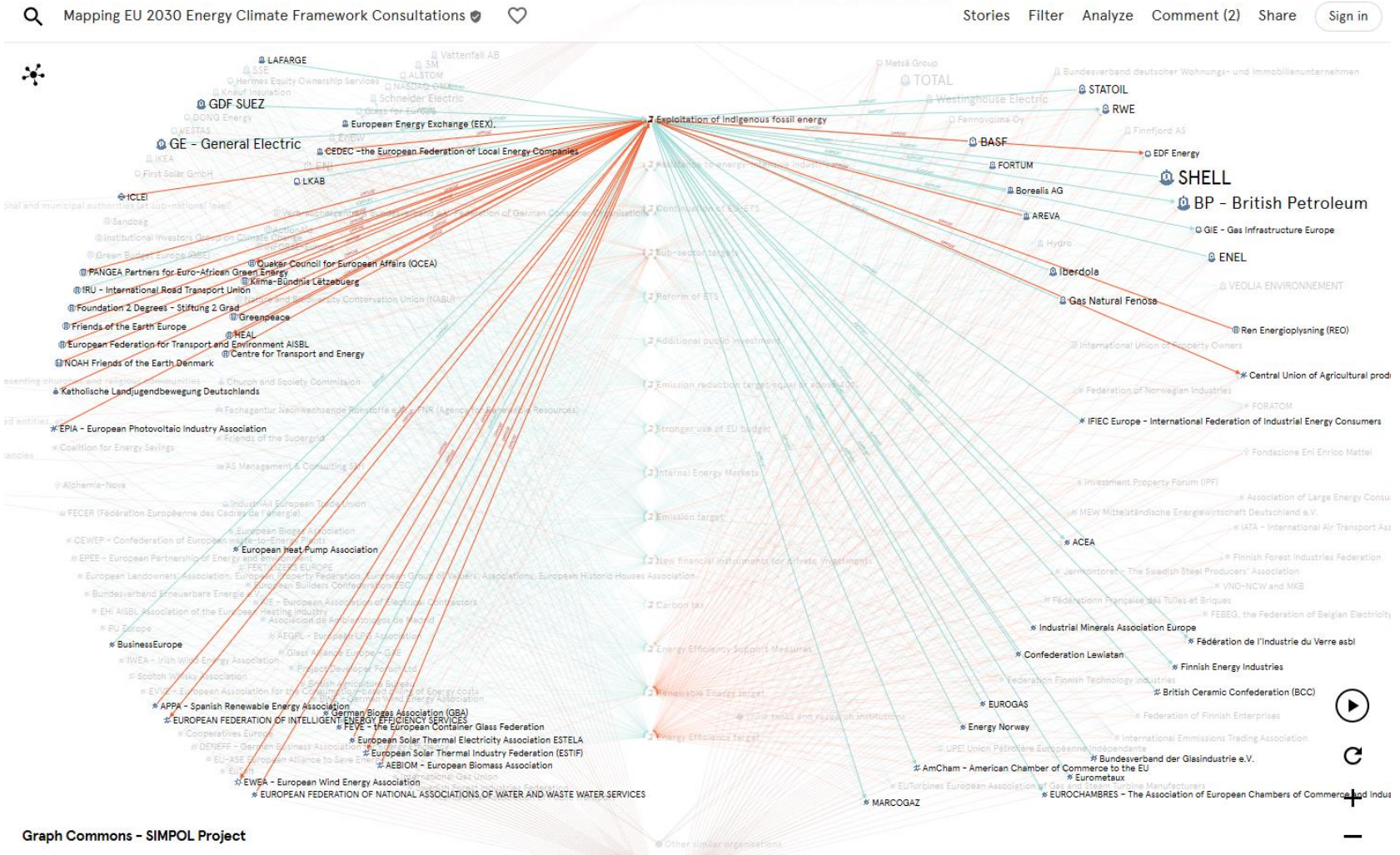
- Feedback to policy makers
- Medium to foster public debate on social media

Policy Networks Maps use case



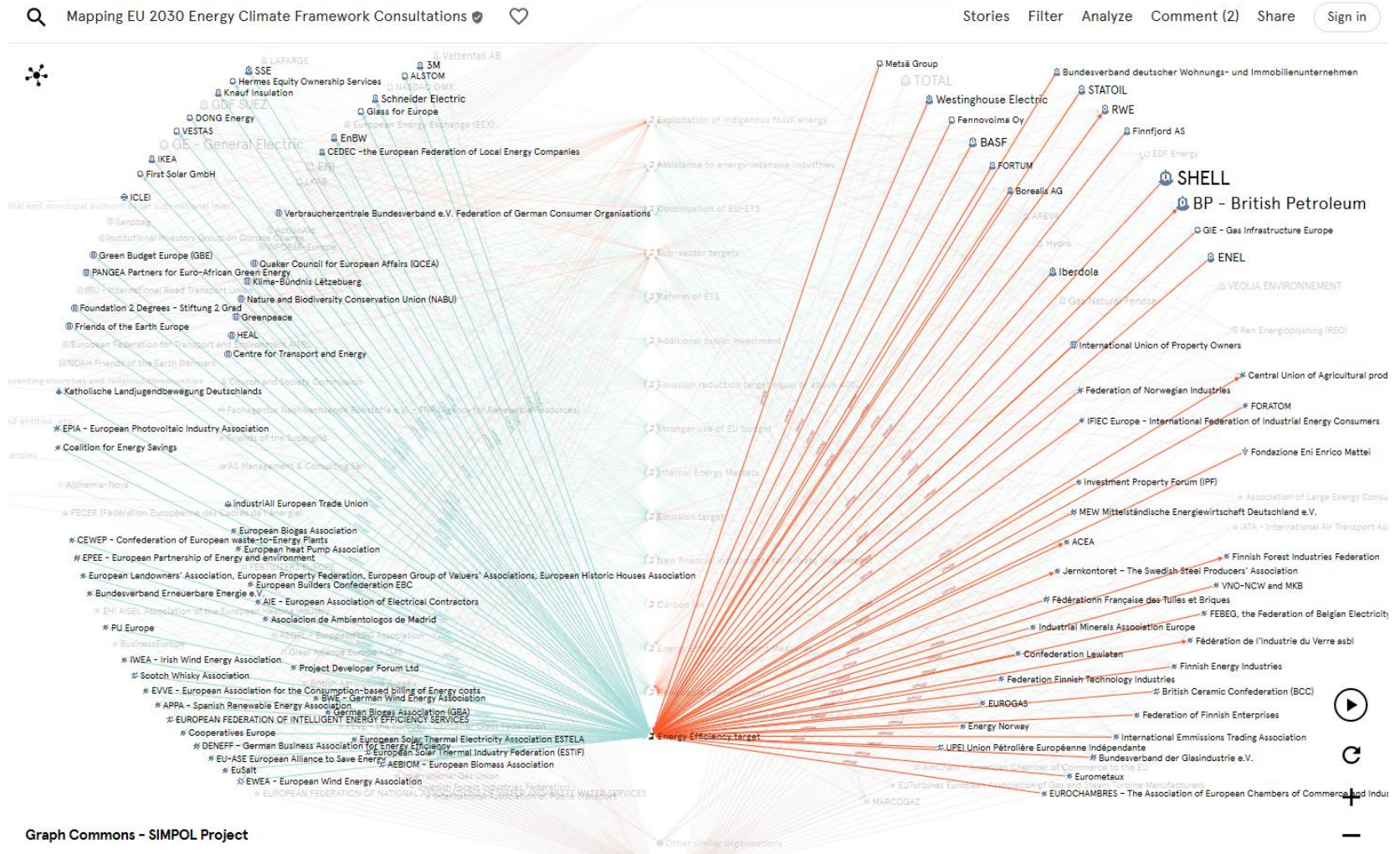
Sluban, B., Balint, T., Mandel, A., Schütze, F., Zeytinoglu, H., Battiston, S.:
Policy Network Maps, work in progress, 2018

Policy Networks Maps use case



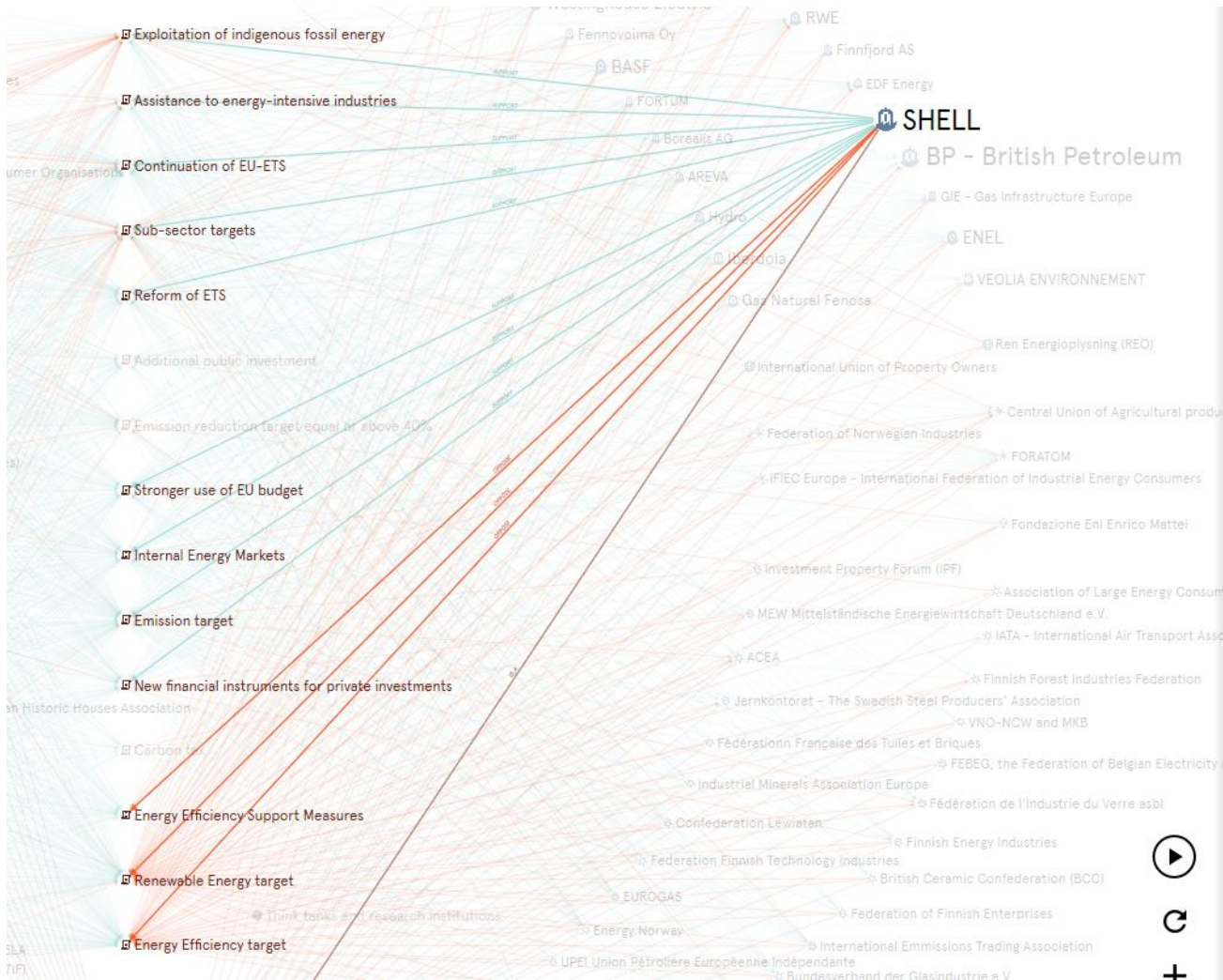
Sluban, B., Balint, T., Mandel, A., Schütze, F., Zeytinoglu, H., Battiston, S.:
Policy Network Maps, work in progress, 2018

Policy Networks Maps use case



Sluban, B., Balint, T., Mandel, A., Schütze, F., Zeytinoglu, H., Battiston, S.:
Policy Network Maps, work in progress, 2018

Policy Networks Maps use case



<http://www.shell.com>

Abbreviation

Shell

Country

Netherlands

Organization Type

Companies & groups

Consultation response

<http://crowdsourcing.simpolproject.eu/static/staticdata/gpc/consultations/shell.pdf>

Sector

b - mining and quarrying

NACE 2 Category

<http://www.cso.ie/px/u/NACECoder/NACEItems/610.asp>

GUO Name

ROYAL DUTCH SHELL PLC

Total Assets (2015) [th. \$]

340157000

Operating revenue turnover (2015) [th. \$]

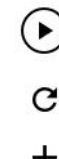
265003000

Current market capitalisation (2015) [th. \$]

105340256

Number of employees (2015)

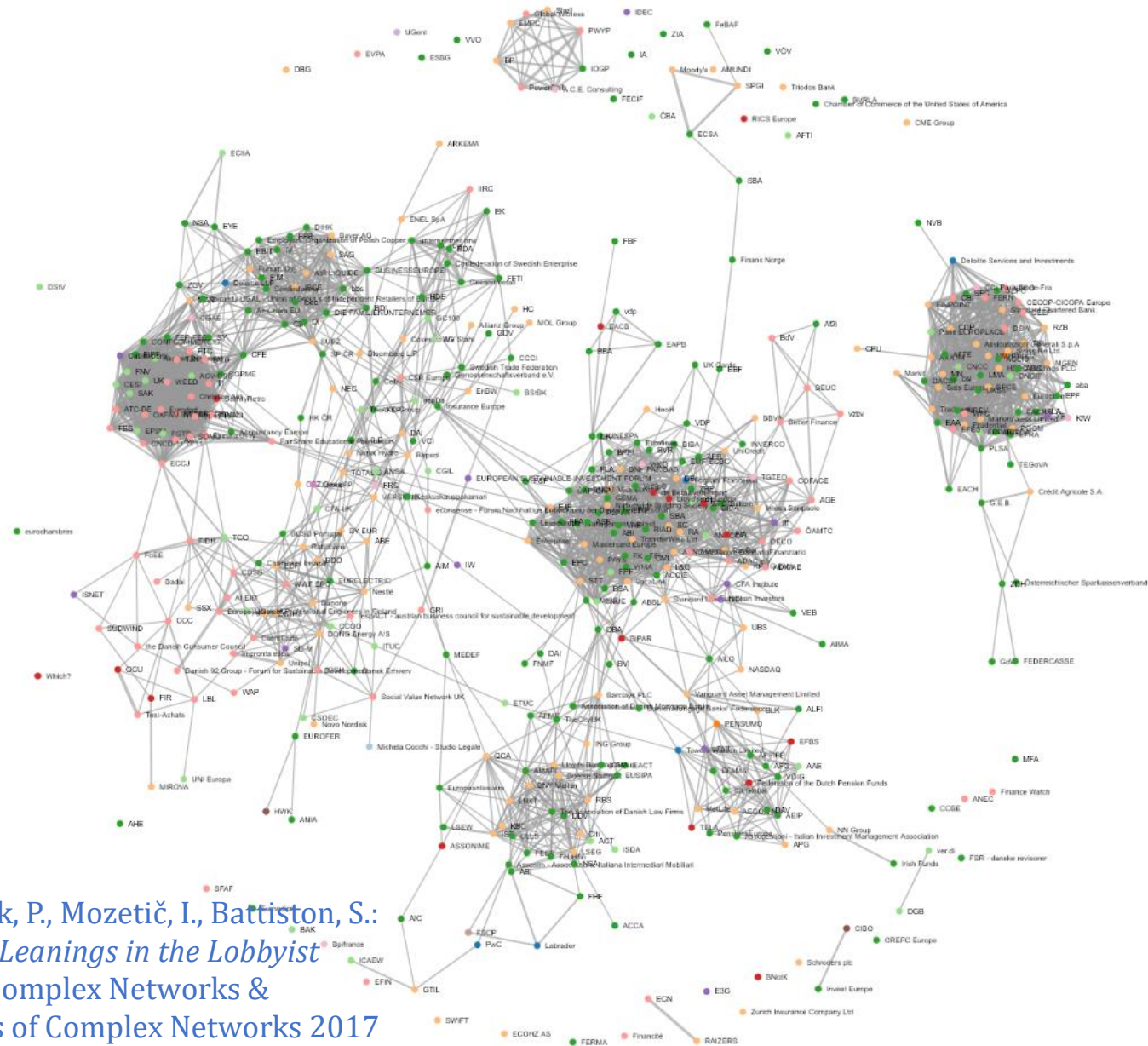
93000



Sluban, B., Balint, T., Mandel, A., Schütze, F., Zeytinoglu, H., Battiston, S.:
Policy Network Maps, work in progress, 2018

Visualizing Stakeholder Responses

■ Similarity Networks



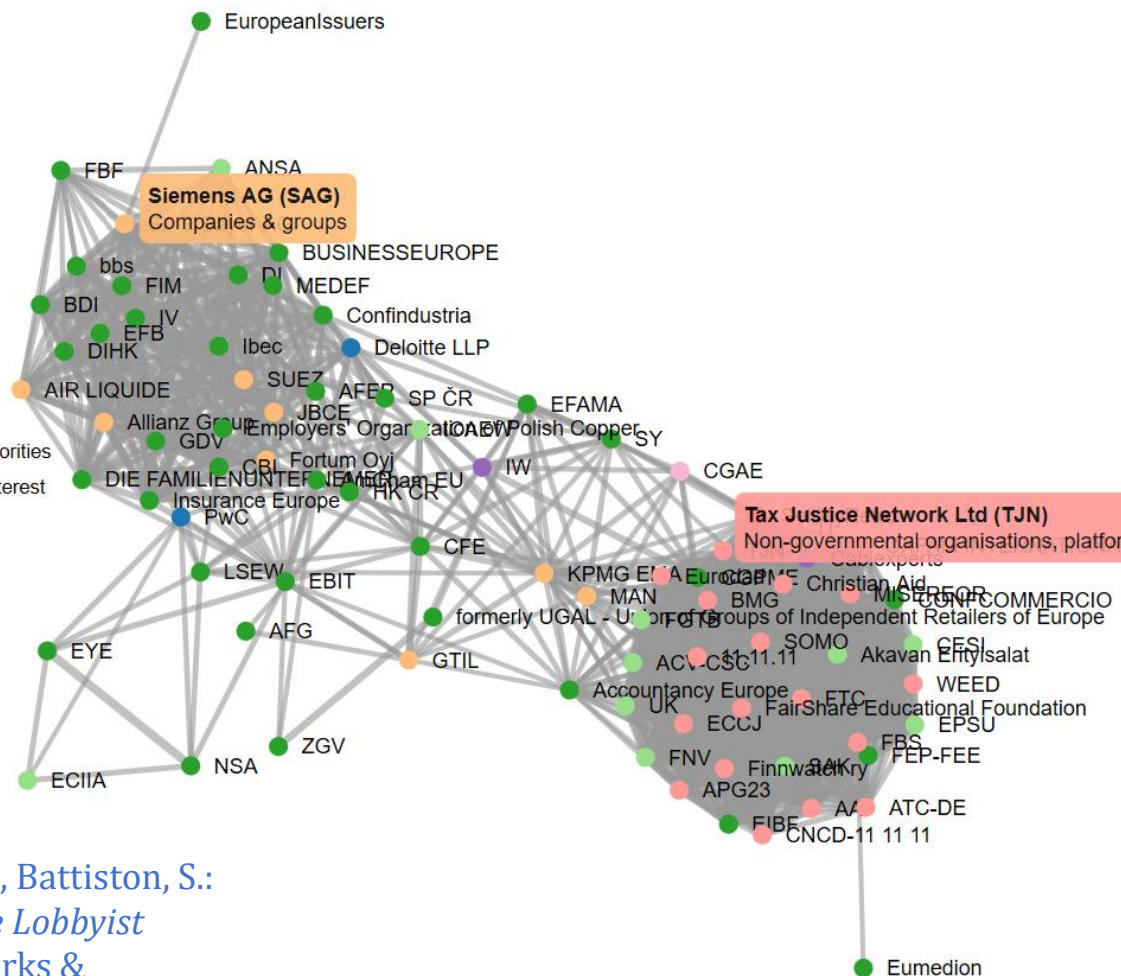
Sluban, B., Smailović, J., Kralj Novak, P., Mozetič, I., Battiston, S.:
*Mapping Organizations' Goals and Leanings in the Lobbyist
Network in Banking and Finance, Complex Networks &
Their Applications VI: Proceedings of Complex Networks 2017*

Similarity Networks use case

■ Consultations of Banking and Finance

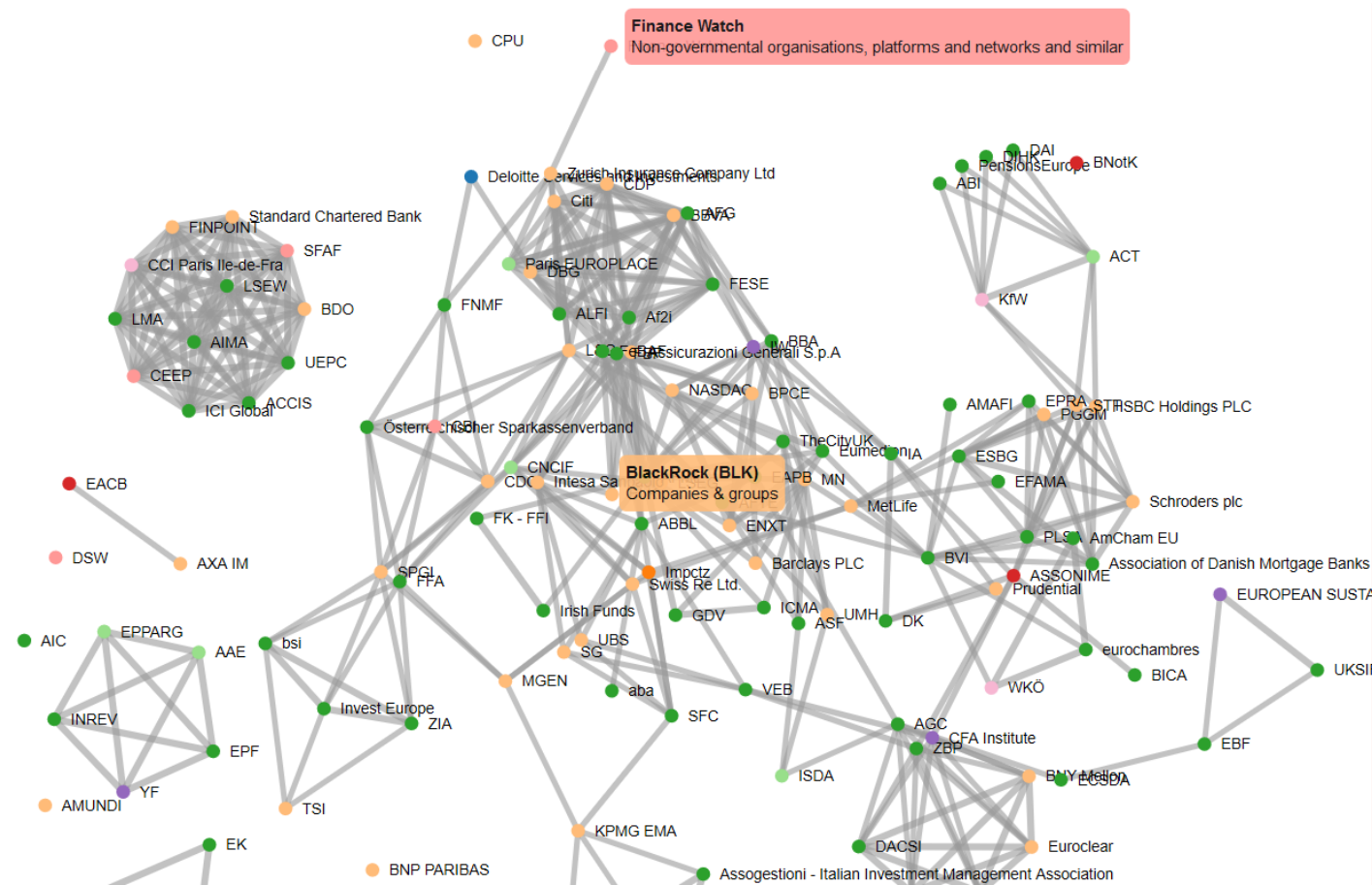
- Professional consultancies
- Law firms
- Self-employed consultants
- Companies & groups
- Trade and business associations
- Trade unions and professional associations
- Other organisations
- Non-governmental organisations, platforms and networks and similar
- Think tanks and research institutions
- Academic institutions
- Regional structures
- Other sub-national public authorities
- Transnational associations and networks of public regional or other sub-national authorities
- Other public or mixed entities, created by law whose purpose is to act in the public interest

● DSTV



Sluban, B., Smailović, J., Kralj Novak, P., Mozetič, I., Battiston, S.:
 Mapping Organizations' Goals and Leanings in the Lobbyist
 Network in Banking and Finance, Complex Networks &
 Their Applications VI: Proceedings of Complex Networks 2017

Similarity Networks use case



O1: Finance Watch
Non-governmental organisations, platforms and networks and similar
O2: BlackRock (BLK)
Companies & groups

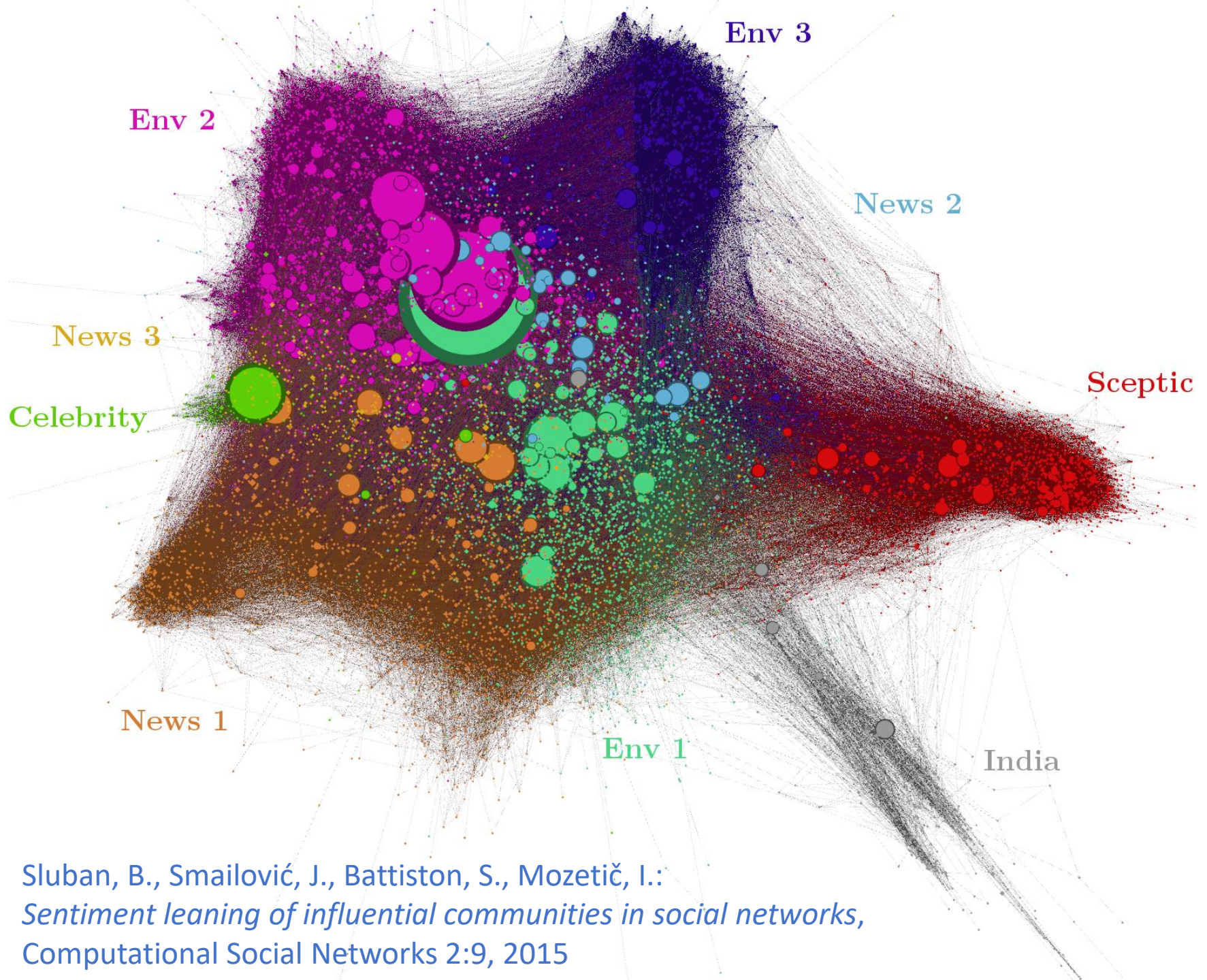
■ - highlights matching non-empty answers

Question	Answer O1	Answer O2
4. Is any action by the EU needed to support the development of private placement markets other than supporting market-led efforts to agree common standards?	/	Yes
7. Is any action by the EU needed to facilitate the development of standardised, transparent and accountable ESG (Environment, Social and Governance) investment, including green bonds, other than supporting the development of guidelines by the market?	Yes	Yes
12. Should work on the tailored treatment of infrastructure investments target certain clearly identifiable sub-classes of assets?	No	Yes
23. Are there mechanisms to improve the functioning and efficiency of markets not covered in this paper, particularly in the areas of equity and bond market functioning and liquidity?	Yes	Yes
26. Taking into account past experience, are there targeted changes to securities ownership rules that could contribute to more integrated capital markets within the EU?	/	No
27.1 Should work be undertaken to improve the legal enforceability of collateral and close-out netting arrangements cross-border?	/	Yes

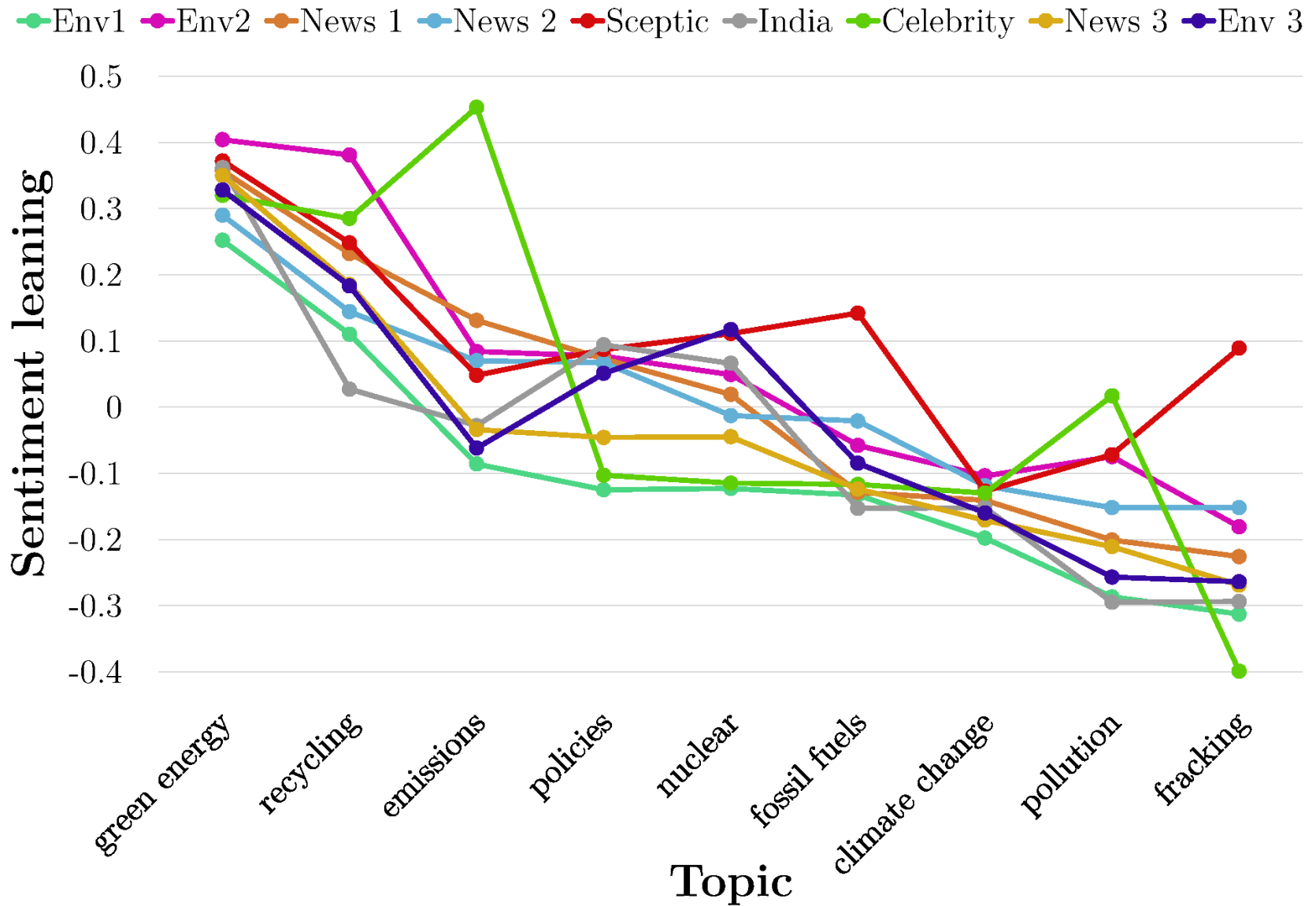
Sluban, B., Smailović, J., Kralj Novak, P., Mozetič, I., Battiston, S.:
*Mapping Organizations' Goals and Leanings in the Lobbyist
Network in Banking and Finance, Complex Networks &
Their Applications VI: Proceedings of Complex Networks 2017*

Assessment of public leaning

- Spark the online public discussion by publishing the “infographics”
- From the collected tweets, posts, etc:
 - identify the major groups active in these areas,
 - detect what their were talking about,
 - assess their leaning on a selection of topics
- Example from the area of:
 - Environment, Sustainability, Energy, and Finance



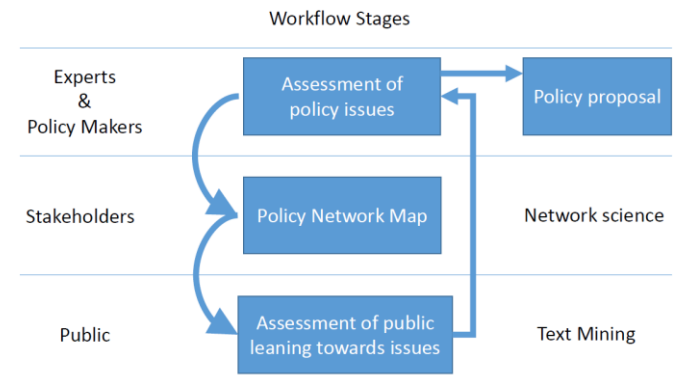
Sluban, B., Smailović, J., Battiston, S., Mozetič, I.:
Sentiment leaning of influential communities in social networks,
Computational Social Networks 2:9, 2015



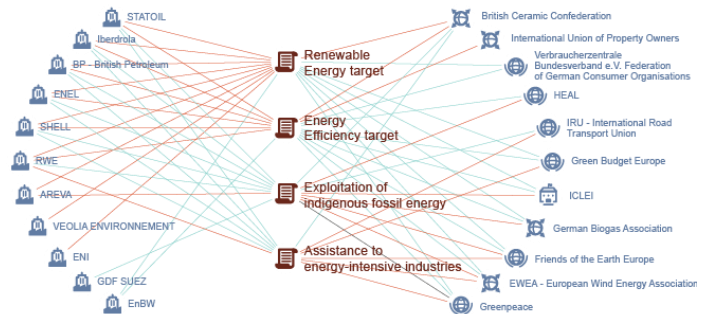
Sluban, B., Smailović, J., Battiston, S., Mozetič, I.:
Sentiment leaning of influential communities in social networks,
 Computational Social Networks 2:9, 2015

Conclusions

- Iterative policy co-creating process, supported by network and data mining



- Assessment of policy issues
- Map stakeholder positions – Policy Network Maps
- Initiate debates and model public leaning on policy issues
- Improve communication and knowledge representation
→ efficient policy co-creation cycle
- Feasible and sustainable policies can be co-created by the synergy of policy makers and the civic society



Thank You

borut.sluban@uzh.ch



**University of
Zurich** ^{UZH}