

Who presents what at Earth System Governance conferences, and does it get published? A systematic mapping of ESG literature

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<https://sustainability-governance.net>

15 years of Earth System Governance research – time to reflect



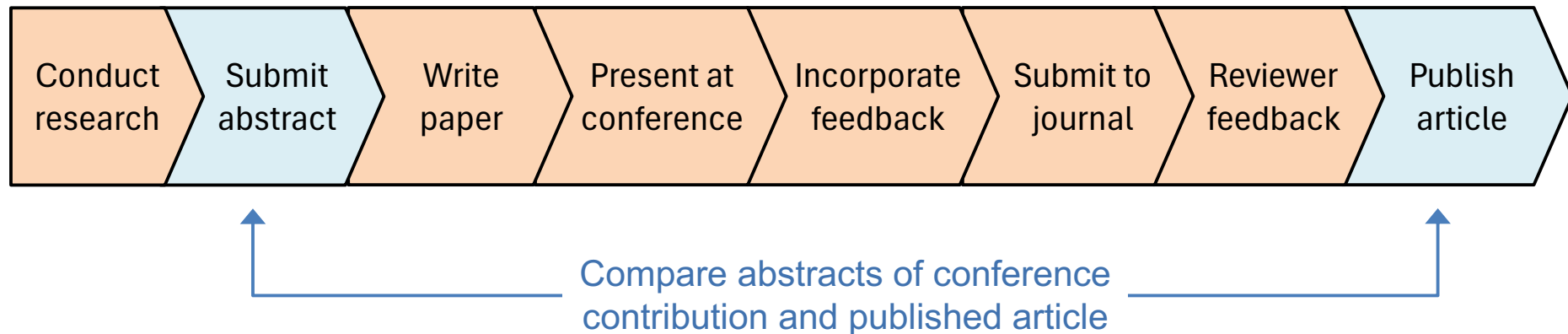
- Earth System Governance project inaugurated in 2008 – time to celebrate and to reflect:
 - What are the topics of research?
 - What share of conference papers ultimately gets published in a peer-reviewed journal?
 - What explains whether papers get published (or not)? In which journals?
- As a community that is interdisciplinary and network-like, relatively loosely bound together by conferences (rather than adhering to strict disciplinary codes), we propose to consider the published output of the regularly held ESG conferences
- How can we identify the body of literature emerging from ESG scholarship?
- → First quantitative assessment of the published body of ESG scholarship
- For our analysis, we produced a unique dataset that comprises both all conference abstracts of the first nine ESG conferences as well as those Scopus-listed publications that match ESG conference presentation abstracts. This allows to study who and what gets published from ESG conferences.

Broader relevance of assessing the published output of research communities

- Research communities: institutionalized structures in the academic system with certain topics of research; research methods, paradigms, but also research ‘culture’, including values and established practices (Becher and Trowler 2001).
- But what is the body of environmental and sustainability governance research?
→ difficult to delimit (by journal? by authors? by keywords?)
- Conferences: Important arenas for scholarly exchange and knowledge production.
- If conferences are a defining feature of such communities, how can we accurately pinpoint the body of literature that originates from these conferences?
- And what, precisely, does “originate” mean: What kinds of conference presentations by what kinds of authors get published (and others not)?
- Identifying the body of literature emerging from conferences to describe a research community has, to our knowledge, never been done before.

Methodology:
**How to identify the published output
of ESG conferences**

Ideal-typical process of presenting and publishing research

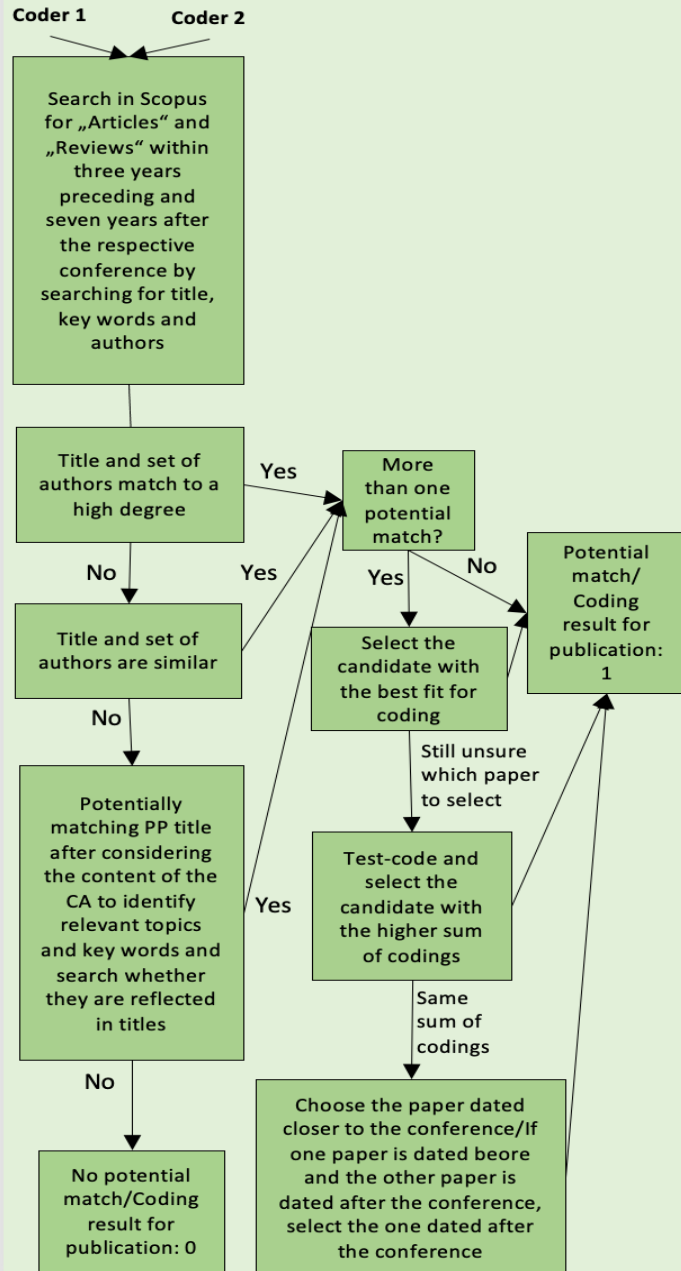


- In each stage, title, set and order of authors, and content of paper (abstract) may change!
- Challenge:
 - not to miss papers whose titles and authors have changed to some degree, and
 - not to include papers by a similar set of authors and on a similar topic which do not match the respective conference presentation

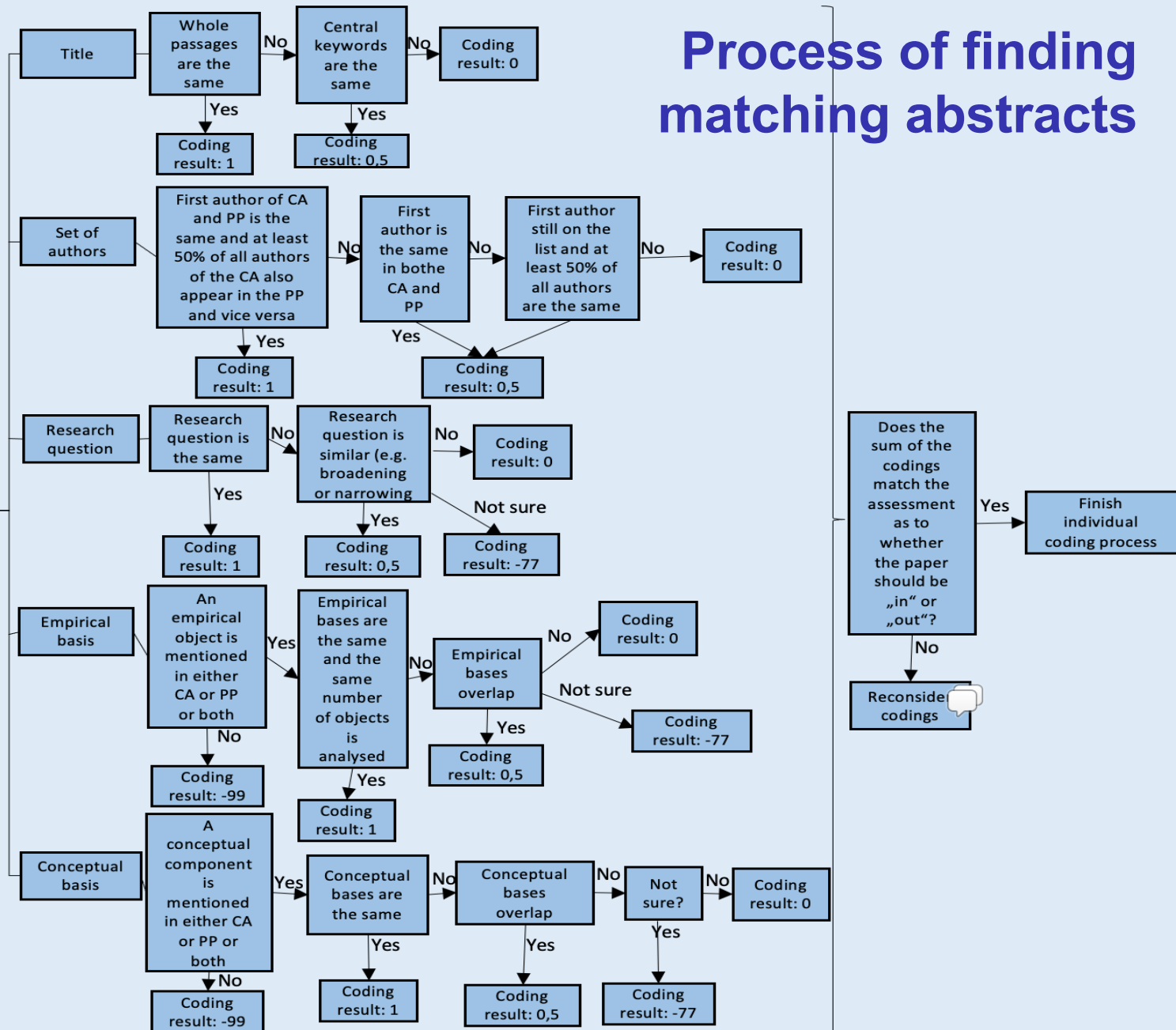
Methodology of paper identification in a nutshell

- For every conference abstract, two researchers find and assess potentially matching Scopus-listed papers.
- Potential matches are assessed through five criteria (each scoring 0, 50% or 100%), for each of which there are clearly defined rules:
 - Title,
 - Set of authors,
 - Research question,
 - Empirical basis,
 - Conceptual basis.
- Individual scores of both researchers are averaged for every potentially matching paper.
- The authors of 100 abstracts of the 2007 Amsterdam conference were contacted by e-mail, asking them whether or not, and if yes, which publication emerged from their conference presentation.
- Using the received e-mail responses for 80 abstracts, we calibrated our assessment and included only those paper matches with an average score of 55% or more.

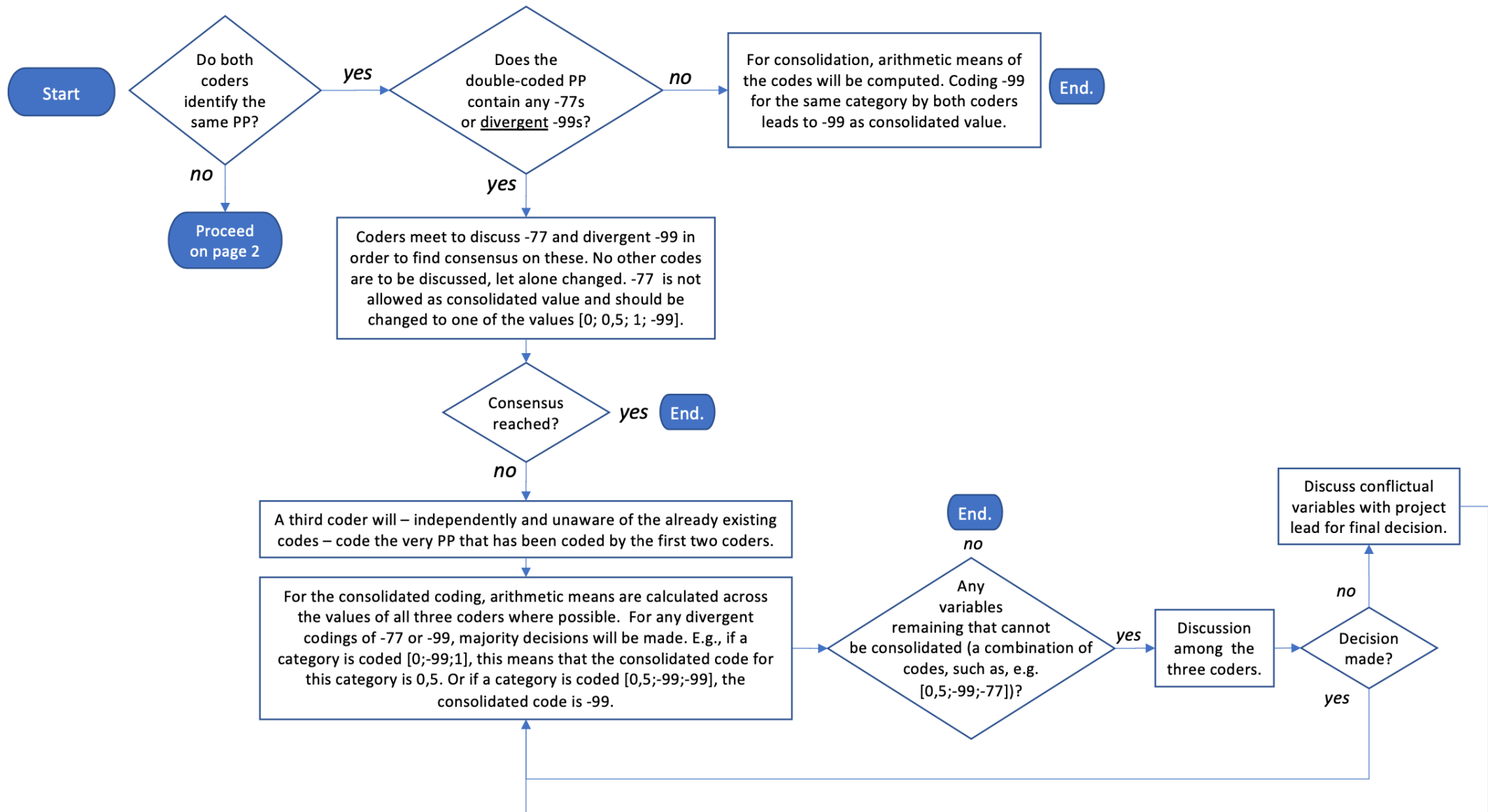
Phase 1: Finding a potential match



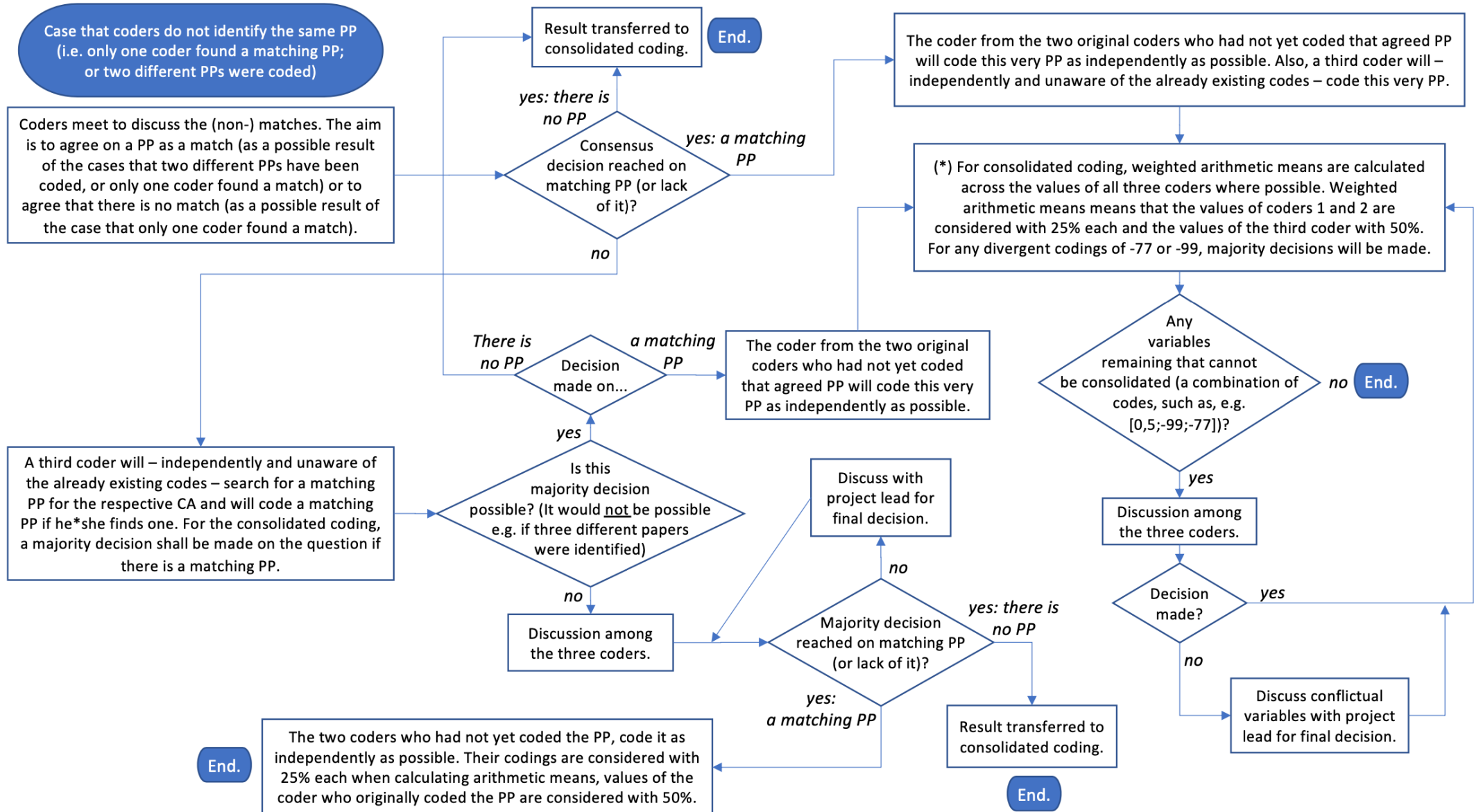
Phase 2: Individual coding



Comparisons of codes by multiple coders



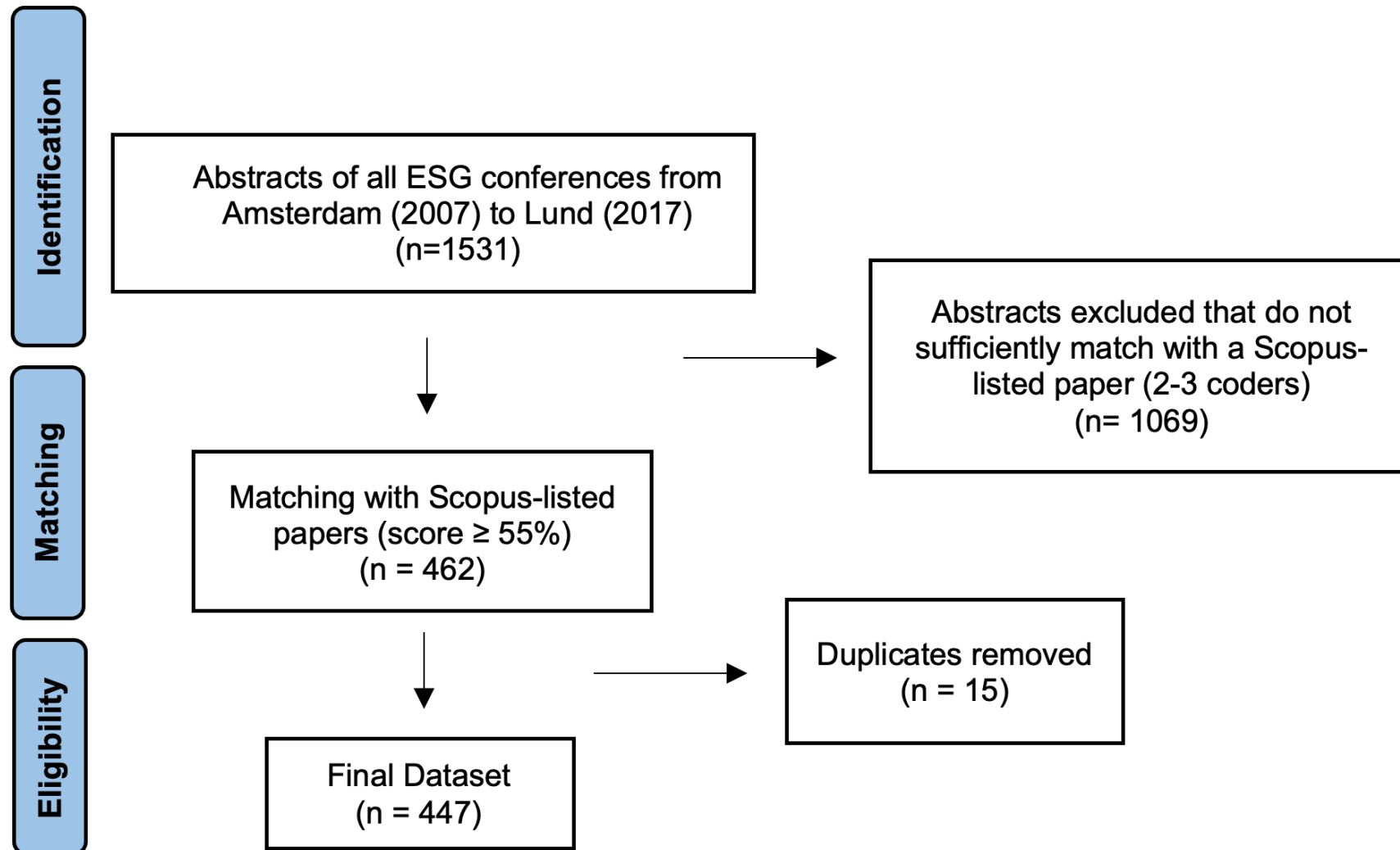
Comparisons of codes by multiple coders



Definition of the dataset

- Case of the Earth System Governance Community, which holds regular conferences
- (Other Communities with regular conferences exist, too, for example the International Sustainability Transitions Conference or the Environmental Politics and Governance Conference)
- ESG Conferences in our dataset: Amsterdam (2007 and 2009), Colorado (2011), Lund (2012), Tokyo (2013), Norwich (2014), Canberra (2015), Nairobi (2016), Lund (2017)

PRISMA Flow Diagram on Systematic Reviews



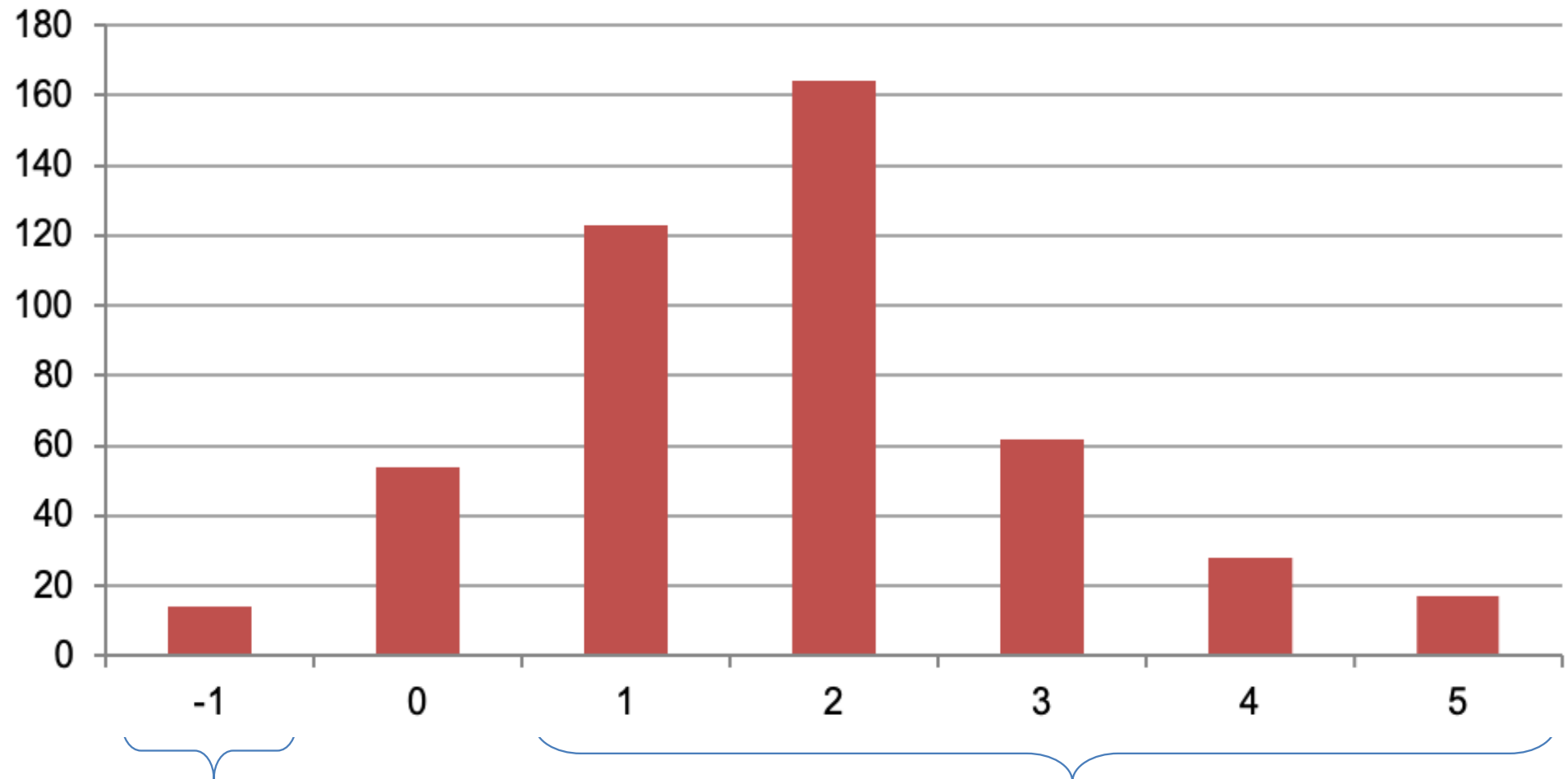
Early results

Overall results of paper identification exercise

(Applying the 55% match criterion)

Conference	Number of abstracts	Number of matching papers	Publication rate (% paper matches)
Amsterdam 2007	145	45	31%
Amsterdam 2009	190	66	33%
Colorado 2011	229	54	24%
Lund 2012	141	46	33%
Tokyo 2013	192	39	20%
Norwich 2014	178	71	40%
Canberra 2015	135	52	39%
Nairobi 2016	98	28	29%
Lund 2017	223	61	27%
Total	1531	462	30%
Duplicate matches		15	
Resulting dataset		<u>447</u>	

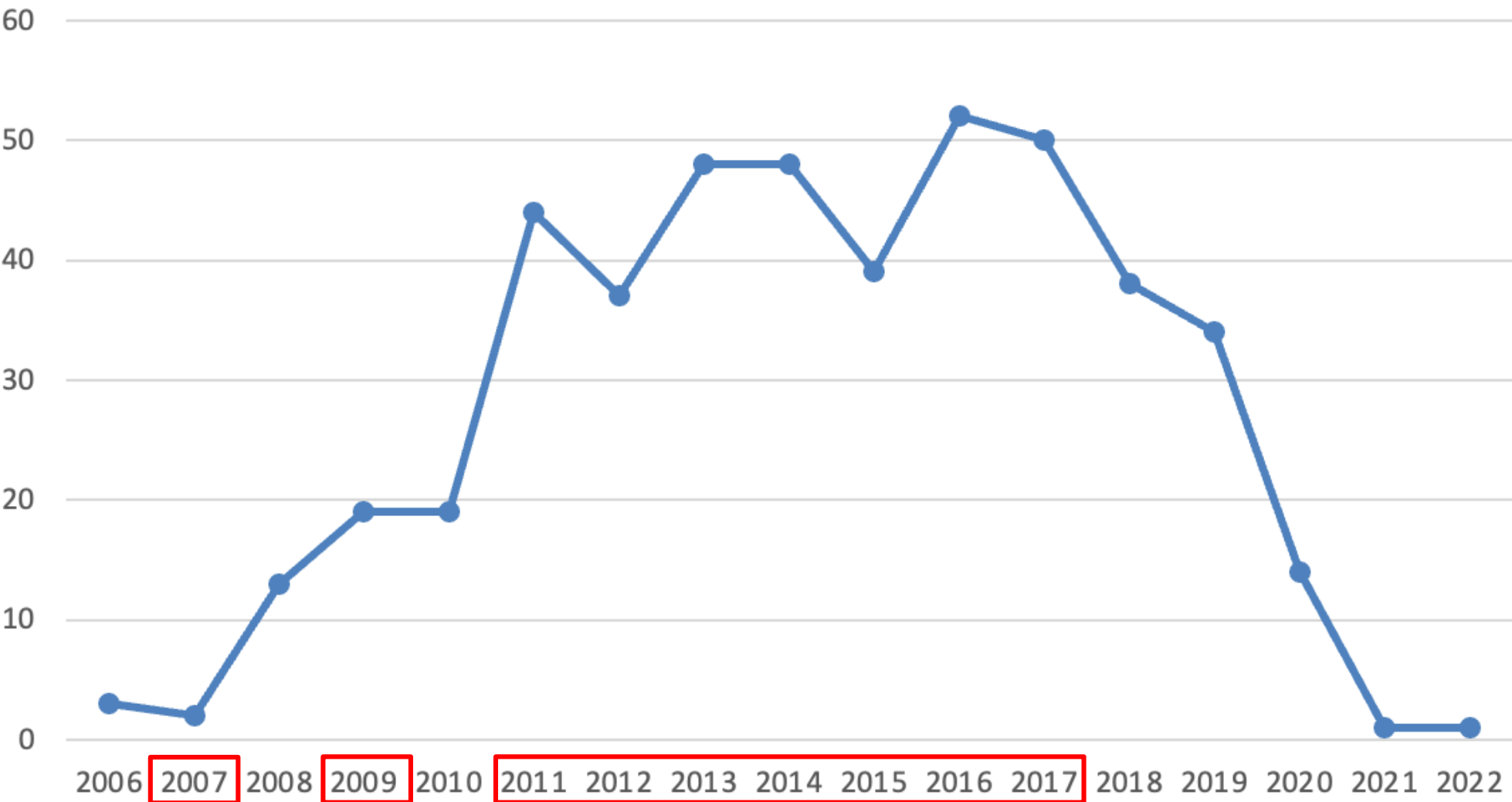
Publication year in relation to the conference



Year before the conference

Years after the conference

Articles per year in the dataset



Years of the included ESG conferences

The top-18 journals with five or more papers combined account for 49% of all papers in the dataset

International Environmental Agreements: Politics, Law and Economics	27
Global Environmental Politics	26
Ecology and Society	24
Environmental Science & Policy	23
Global Environmental Change	23
Ecological Economics	14
Environmental Politics	12
Regional Environmental Change	8
Climate Policy	7
Environmental Policy and Governance	7
Marine Policy	7
Climate and Development	6
Current Opinion in Environmental Sustainability	6
Energy Policy	6
Environmental Innovation and Societal Transitions	6
Journal of Environmental Policy & Planning	6
Geoforum	5
Sustainability (Switzerland)	5
International Environmental Agreements: Politics, Law and Economics	27

**(Remaining 51%:
167 journals with
four or less papers
each)**

Gender distribution

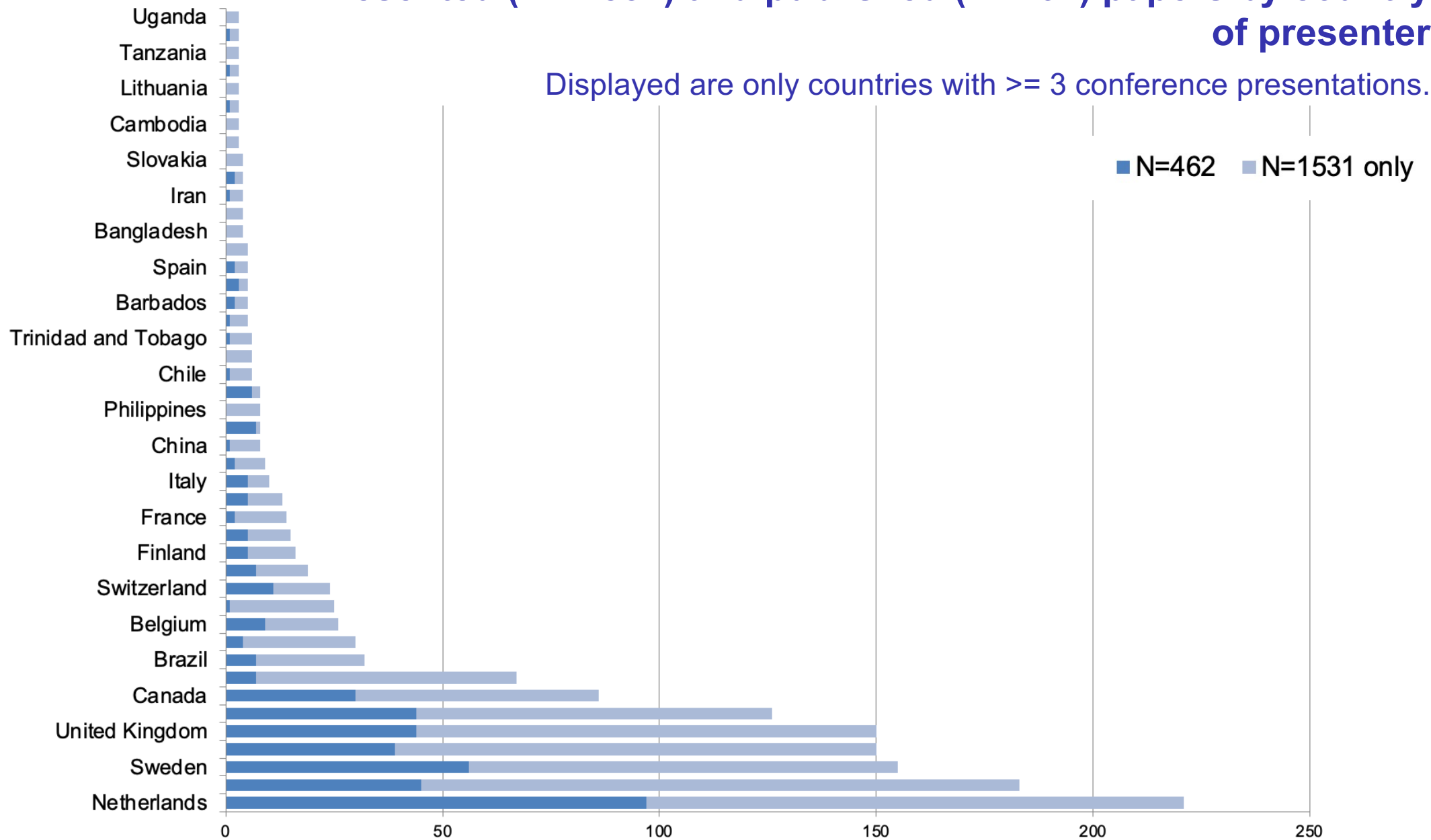
Gender of paper presenter	Number of presentations	Number of Scopus papers	Publication rate
Male	827	244	30 %
Female	688	216	31 %
Unclear or neither	16	2	13 %

Distribution by World Bank world regions

	Number of presentations	Number of Scopus papers	Publication rate
Europe (incl. Turkey)	832	290	35 %
North America (USA: 68% of pres.)	269	75	28 %
East Asia / Pacific (Aus: 52%, Jap: 28% of pres.)	243	61	25 %
Subsaharan Africa (Nigeria + ZA: 62% of pres.)	65	11	17 %
Latin America / Caribb. (Brazil: 52% of pres.)	62	11	18 %
South Asia (India: 70% of pres.)	43	6	14 %
Middle East / N. Africa (Israel: 67% of pres.)	12	8	67 %

Presented (N= 1531) and published (N=462) papers by country of presenter

Displayed are only countries with ≥ 3 conference presentations.

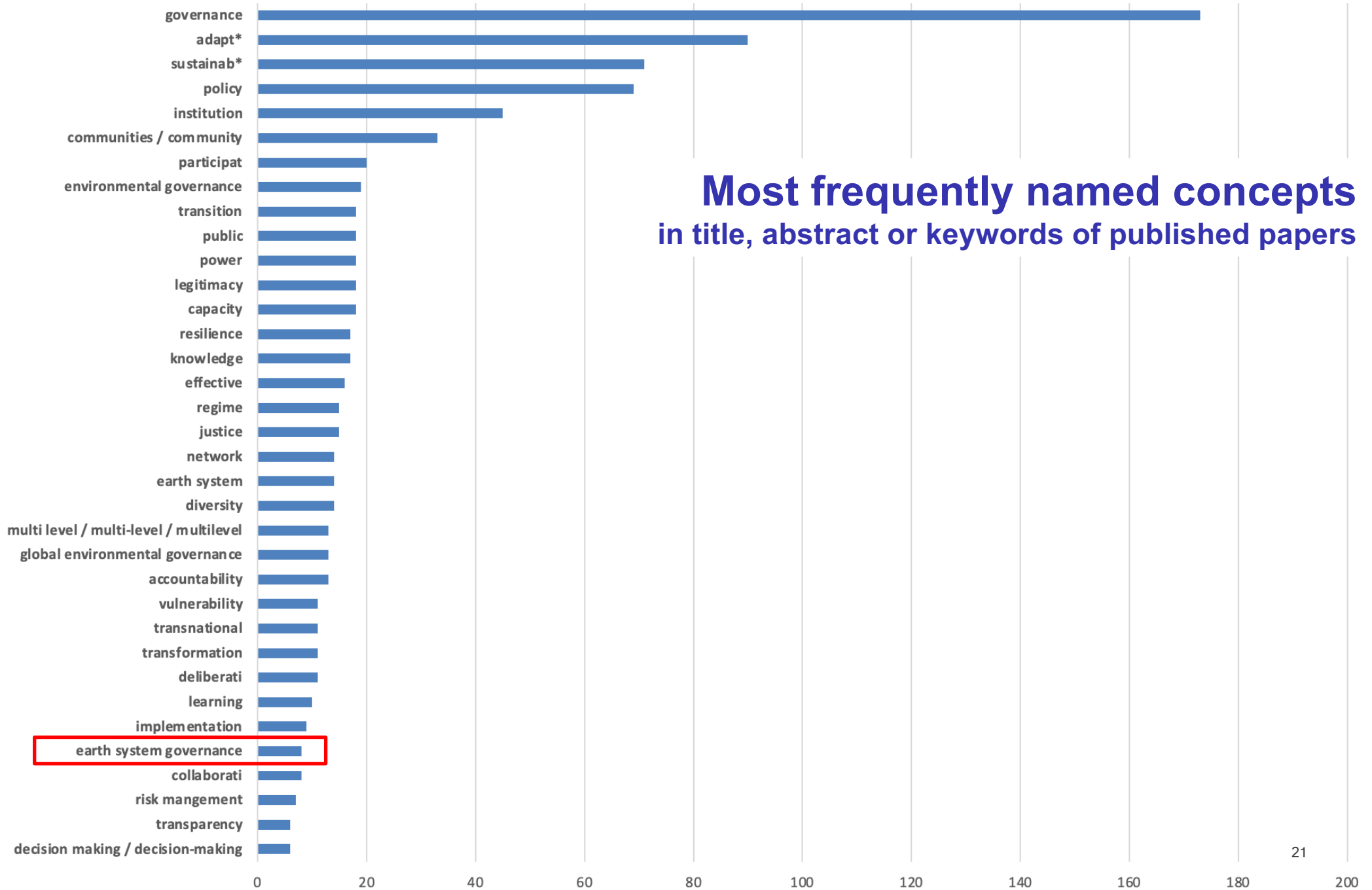


The 70 most frequent terms in published paper titles

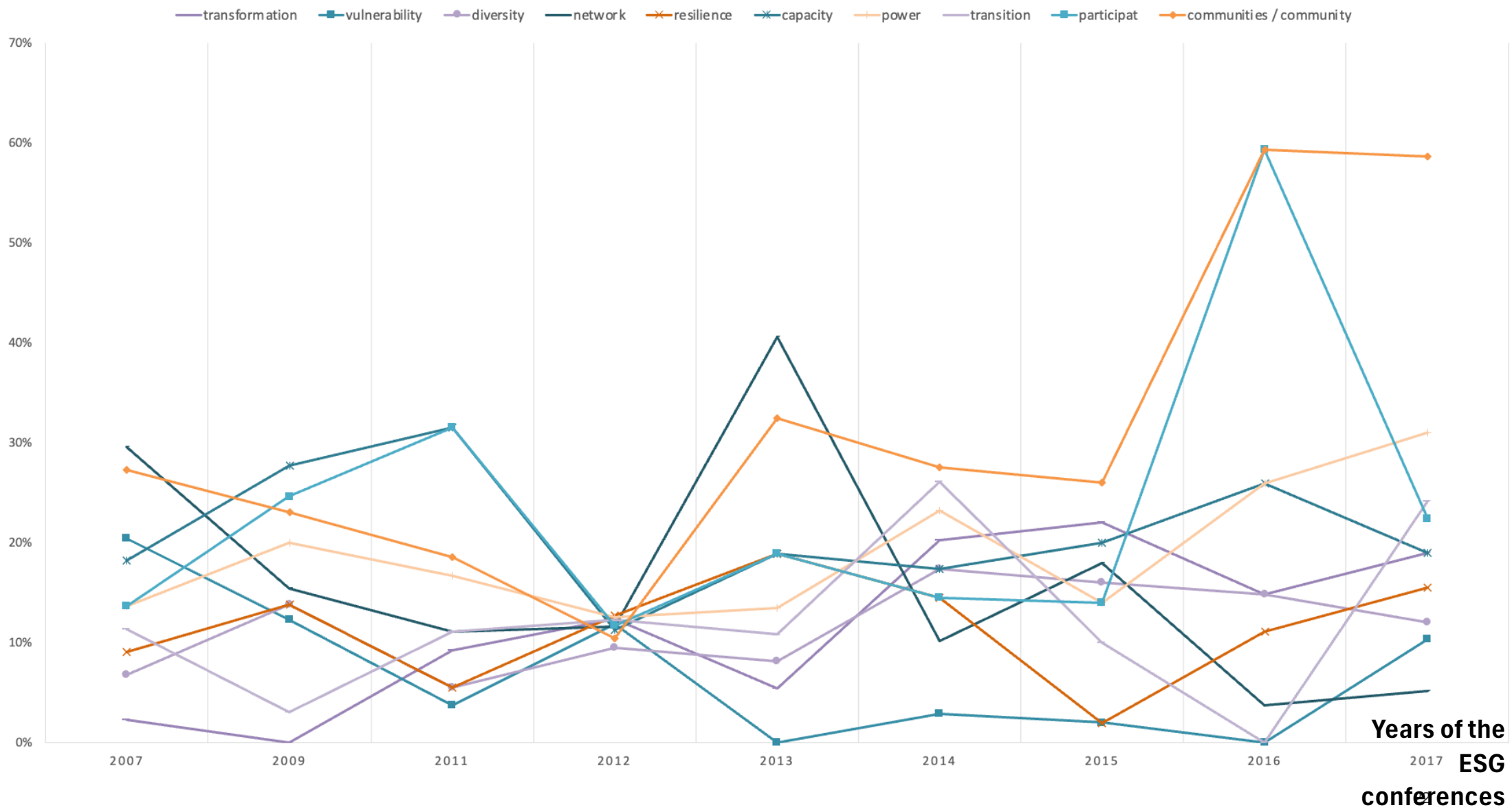
Only terms mentioned at least twice. Created with <https://monkeylearn.com/word-cloud/>



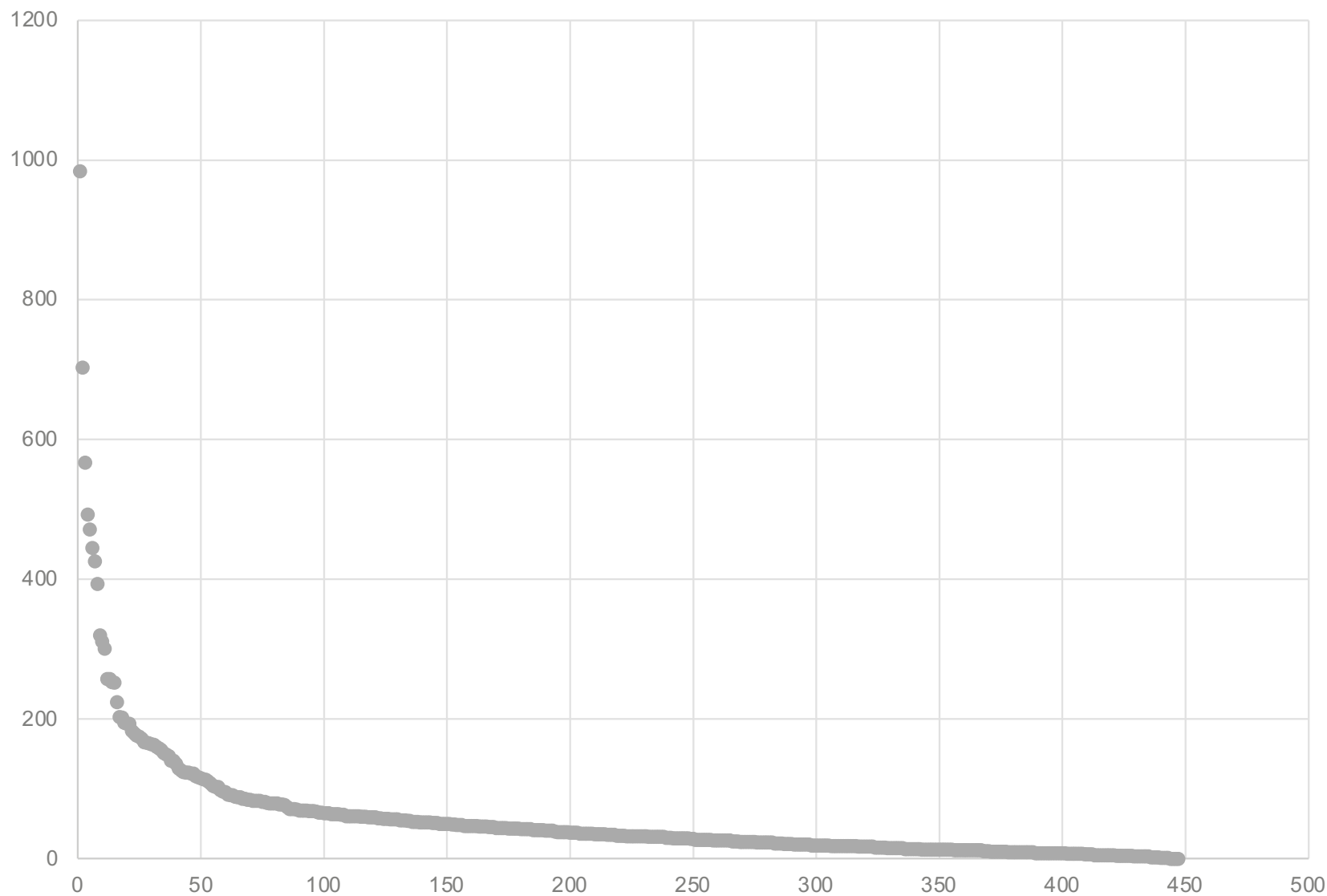
Most frequently named concepts in title, abstract or keywords of published papers



Temporal development of some key concepts



Distribution of citations (Scopus)



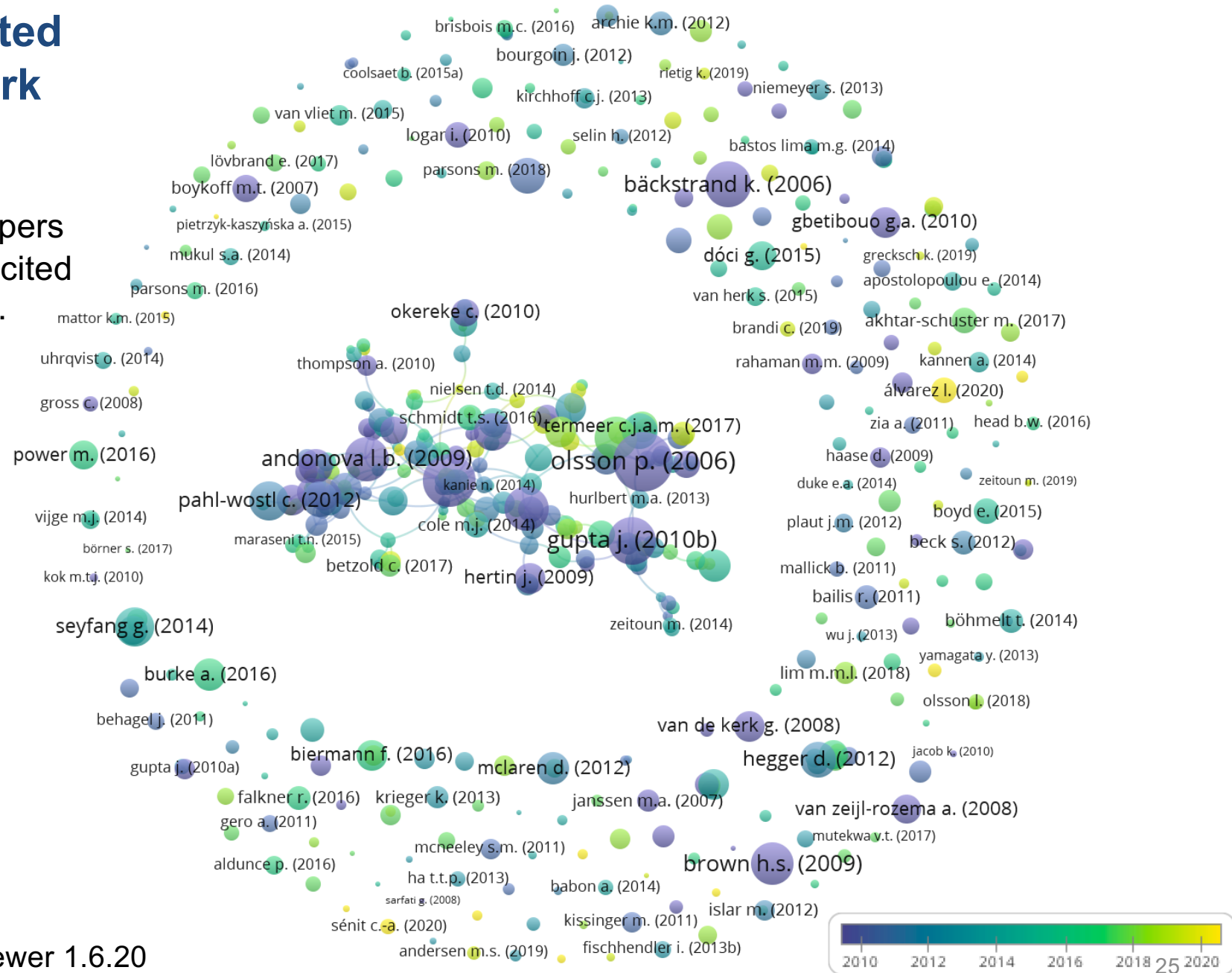
Top 10 – cited articles (Scopus)

Authors	Title	Year	Source title	Citations	
				Total	ESG
Olsson P., Gunderson L.H., Carpenter S.R., Ryan P., Lebel L., Folke C., Holling C.S.	Shooting the rapids: Navigating transitions to adaptive governance of social-ecological systems	2006	Ecology and Society	984	18
Biermann F., Pattberg P., van Asselt H., Zelli F.	The fragmentation of global governance architectures: A framework for analysis	2009	Global Environmental Politics	703	30
Gupta J., Termeer C., Klostermann J., Meijerink S., van den Brink M., Jong P., Nooteboom S., Bergsma E.	The Adaptive Capacity Wheel: A method to assess the inherent characteristics of institutions to enable the adaptive capacity of society	2010	Environmental Science and Policy	567	15
Bäckstrand K.	Multi-stakeholder partnerships for sustainable development: Rethinking legitimacy, accountability and effectiveness	2006	European Environment	493	11
Duit A., Galaz V.	Governance and complexity - Emerging issues for governance theory	2008	Governance	471	9
Andonova L.B., Betsill M.M., Bulkeley H.	Transnational climate governance	2009	Global Environmental Politics	445	10
Patterson, J., Schulz, K., Vervoort, J., (...), Sethi, M., Barau, A.	Exploring the governance and politics of transformations towards sustainability	2017	Environmental Innovation and Societal Transitions	426	3
Brown H.S., de Jong M., Levy D.L.	Building institutions based on information disclosure: lessons from GRI's sustainability reporting	2009	Journal of Cleaner Production	393	1
Seyfang, G., Hielscher, S., Hargreaves, T., Martiskainen, M., Smith, A.	A grassroots sustainable energy niche? Reflections on community energy in the UK	2014	Environmental Innovation and Societal Transitions	320	1
Pahl-Wostl C., Lebel L., Knieper C., Nikitina E.	From applying panaceas to mastering complexity: Toward adaptive water governance in river basins	2012	Environmental Science and Policy	311	1

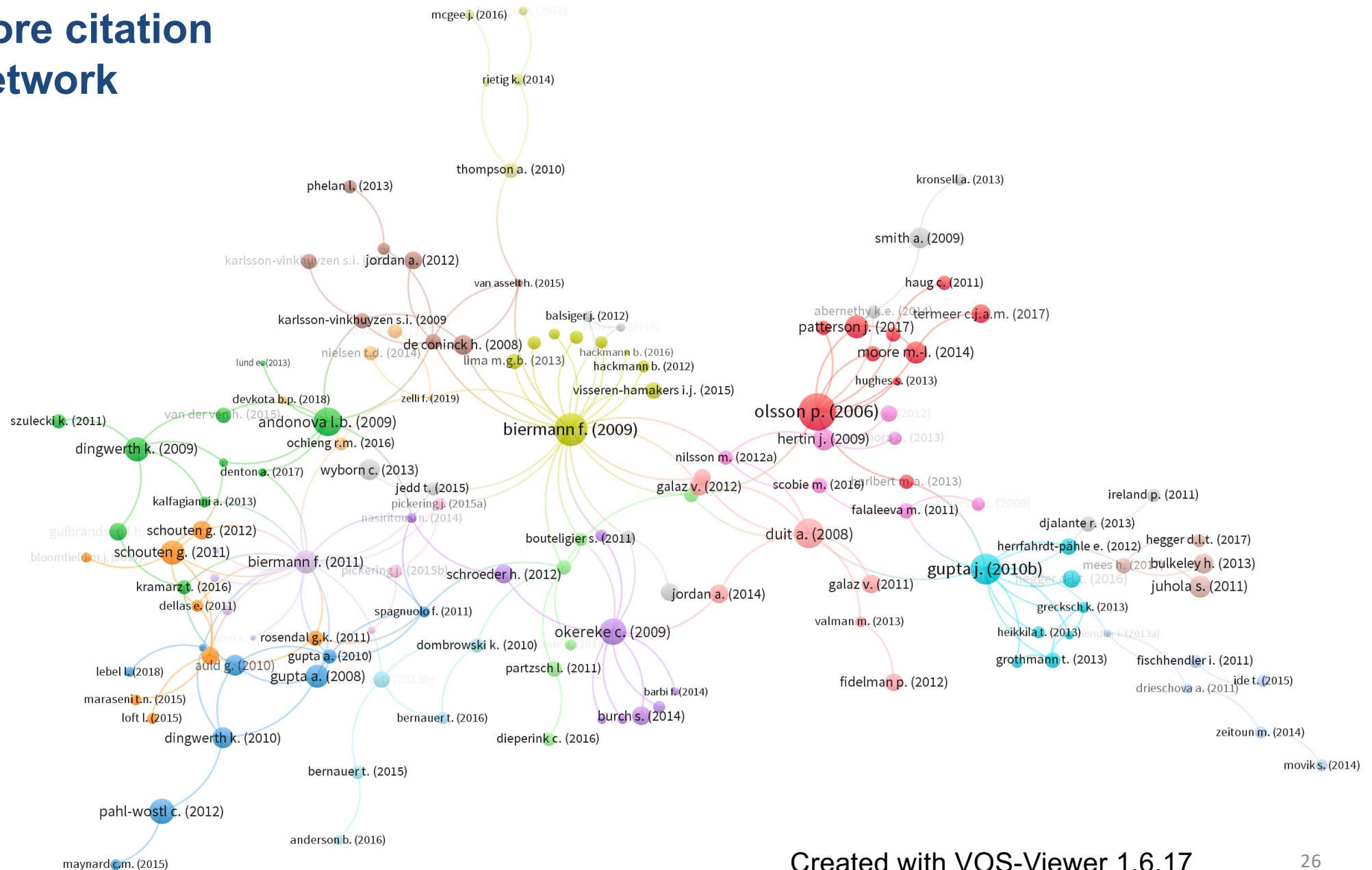
Semi-fragmented citation network

Only 235 of 447 papers
(= 53%) cite or are cited
by others in the set.

There is a cluster of 178 relatively well-connected papers.



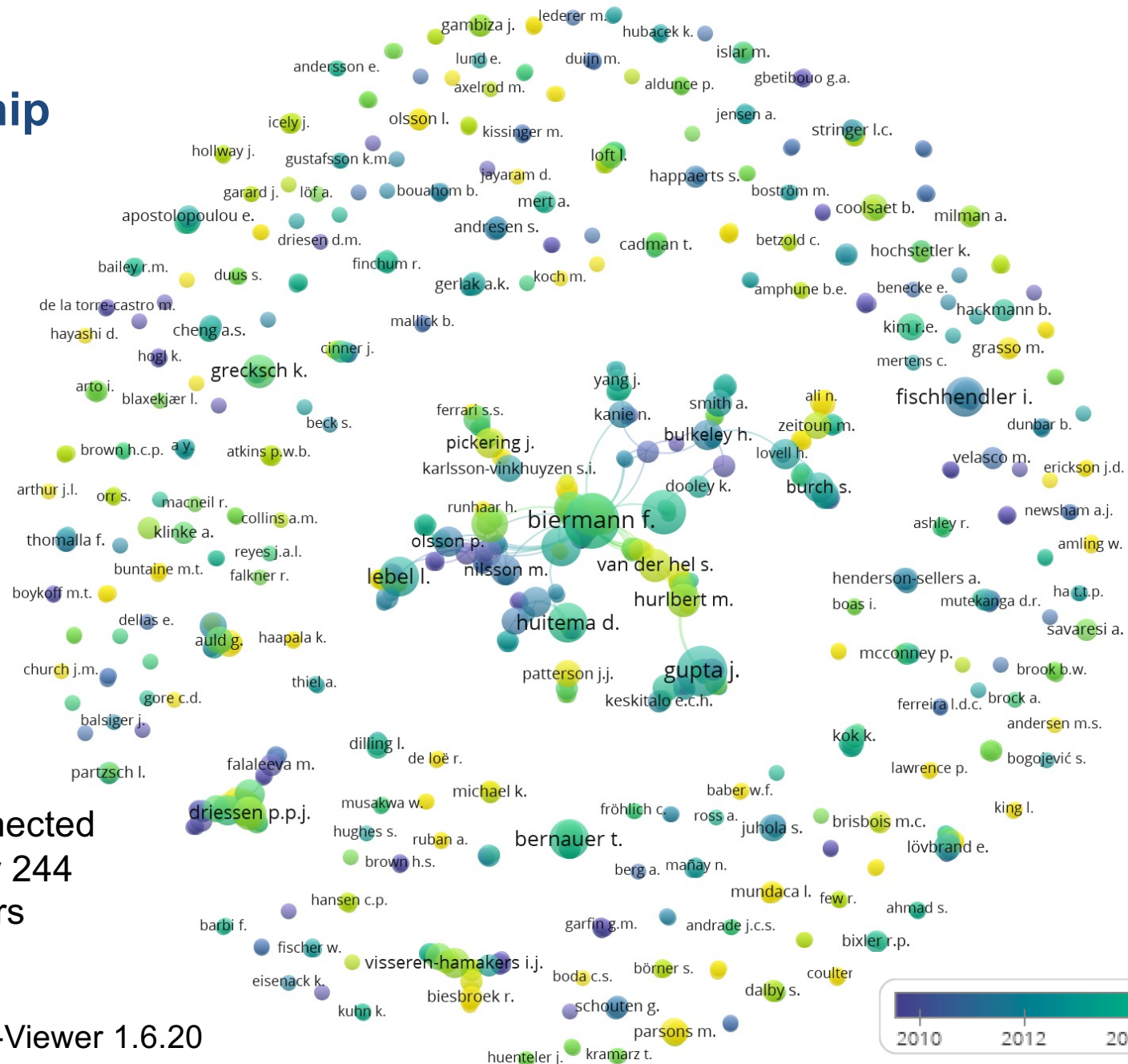
Core citation network



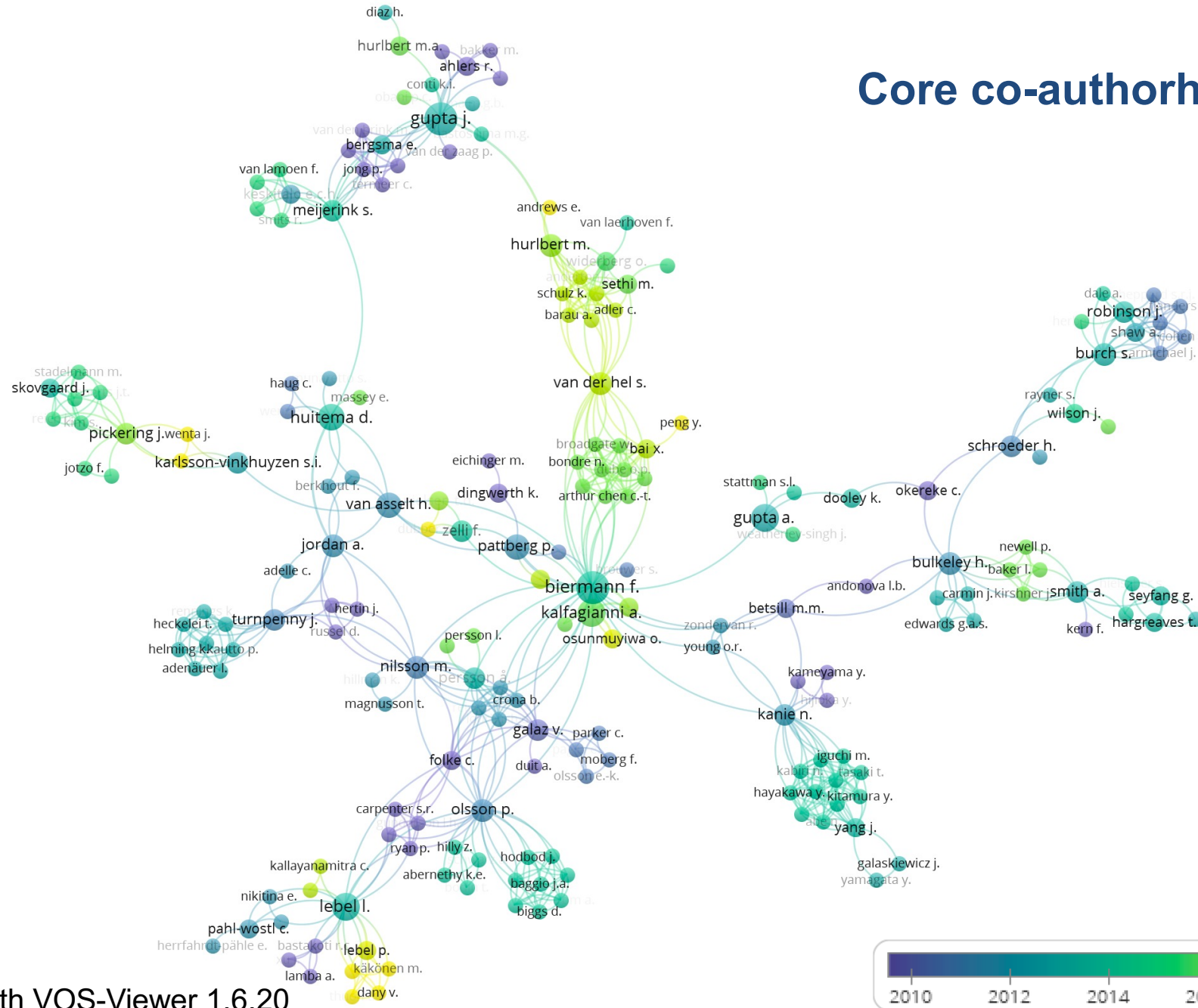
Co-authorship network

The largest connected set involves only 244 (=27%) of authors

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Core co-authorship network



Early conclusions

Methods

- We contribute a thoroughly applied method of matching published papers to conference abstracts, building on similarity of (1) title, (2) authors, (3) research question, (4) conceptual and (5) empirical basis.

Results

- Individual conferences and authors' region / country of affiliation differ hugely in publication output
- Gender differences less pronounced
- Heterogenous journal landscape
- Network analyses show 'core' community + disconnected 'periphery'
- Key concepts show some temporal dynamics, e.g. 'vulnerability' declining, 'transition/transformation' on the rise

Open questions

- Are some topics more likely to get published than others?