Collaborative governance approaches to address institutional misfit: two case studies from the Spreewald region, Germany

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European Ecosystem Service Conference *'Helping Nature to Help Us'*, Antwerp, Belgium || September 19-23, 2016

cp³ partners:

cp³ funding scheme:

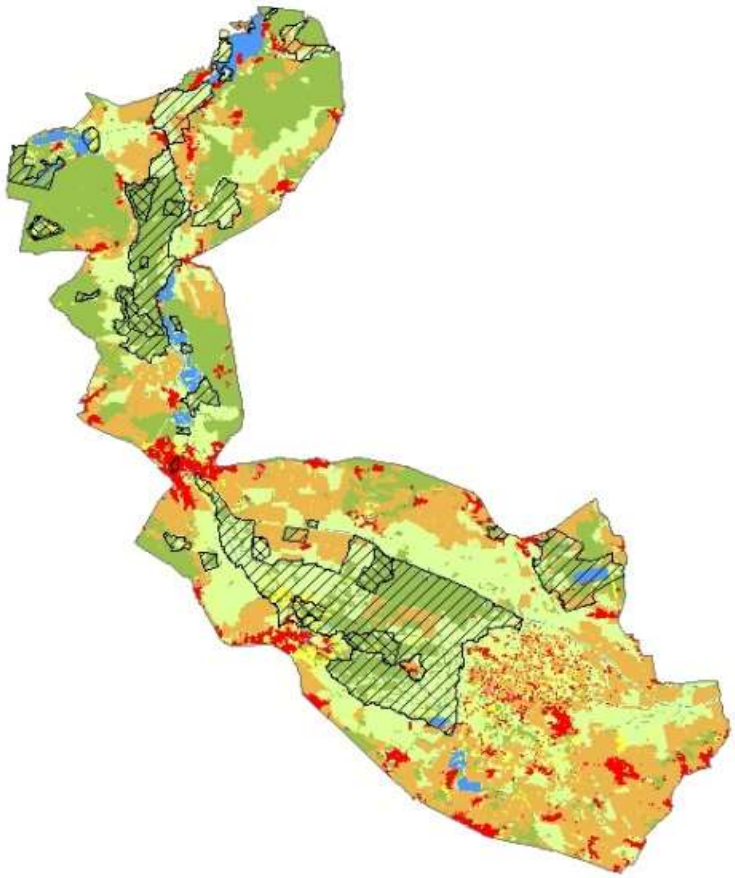
cp³ national funders:

Background

- **Recent trend:** increased cooperation of multiple actors in governance (public/private/civil partnerships = cp³)
- **Hypothesis:** collaborative governance approaches better suited to address 'misfit' in governance
- **Misfit =** governance structures are spatially/temporally ill-aligned to the ecosystem/natural resources they are meant to govern
- **Challenge:** existing approaches diverse→ not known what makes some succeed and others fail
- **Aim:** to understand roles of actors and their interaction + recommendations for improvements (→ **Net-Map/SNA**)

Sources: cf. Loft et al. 2015, Mann et al. 2015, Lebel et al. 2013, Cox 2012, Vatn and Vedeld 2012, Young 2002)

The case study: biosphere reserve Spreewald



Land cover
in the Biosphere reserve Spreewald, Germany

- core zone
- buffer zone
- transition zone
- no data
- arable land
- grasslands
- forests
- water areas
- vegetation (others)
- settlements
- settlements (others)

N

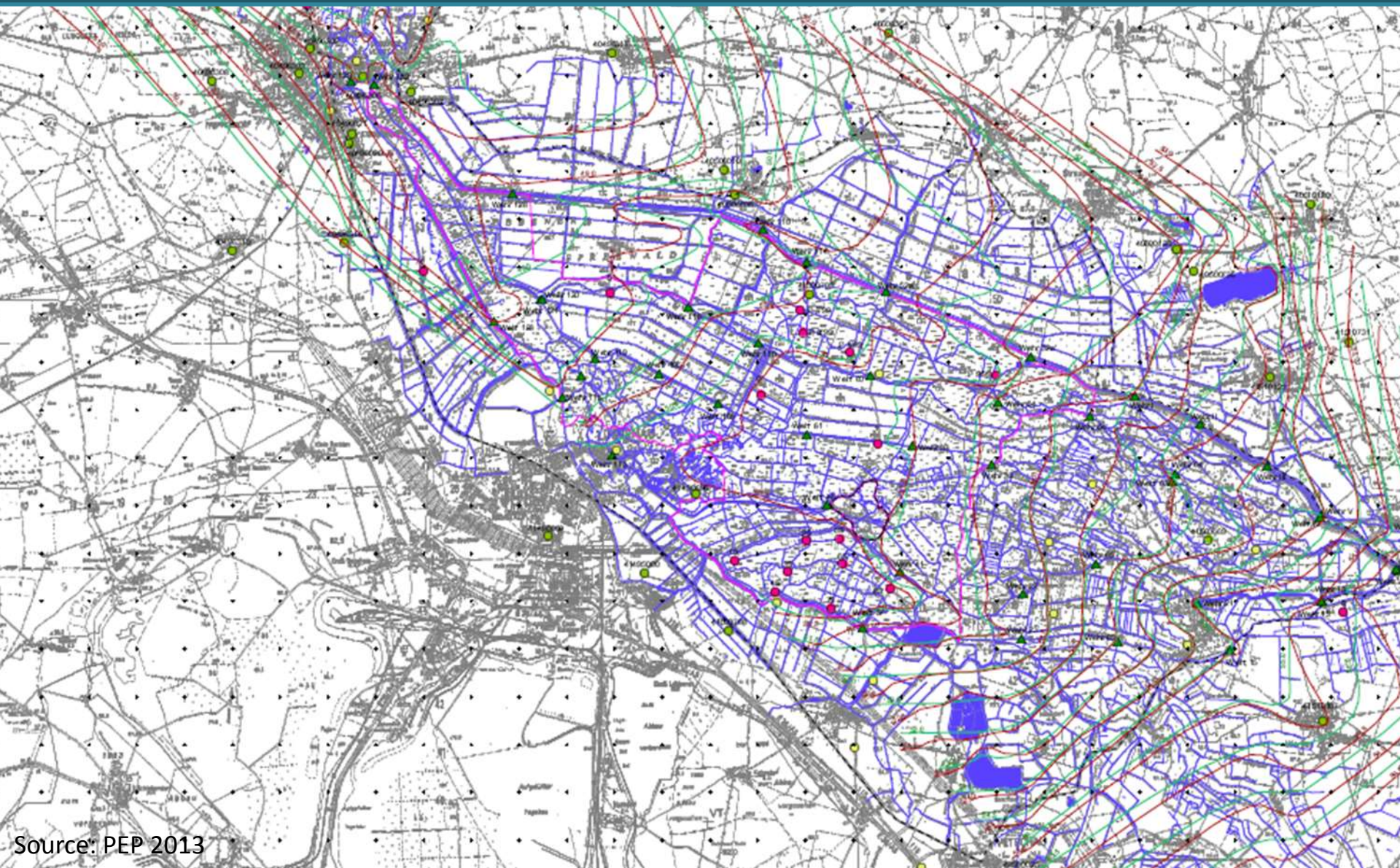
0 5 10 20 km

Source: cp³ ©

The case study: some impressions

Photos: Claudia Sattler

The case study: water is everywhere



Source: PEP 2013

The case study: even garbage collection is by boat

Photo: Badische Zeitung

The case study: local produce

The case study: endangered species

The case study: local crafts and traditional clothing

Selected governance approaches

‚Staubeirat‘	‚Bürgerstiftung Kulturlandschaft Spreewald‘

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Informal	**Formal**
ES: **Water regulation** water management (length/height of controlled flooding summer + winter) **Other ES**: Biodiversity (reproduction of fish species), cultural/recreational	**ES: Preservation of the cultural landscape** Maintenance of the traditional management of Spreewald meadows **Other ES:** Biodiversity

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Financing: Public money (+ honorary work)	**Financing:** Honorary work + private/public money

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Financing: Public money (+ honorary work)	**Financing:** Honorary work + private/public money
Actors: public authorities (ministries at the state and regional level), municipalities, cities, biosphere reserve, farmers, fishermen, tourism agencies, and other	**Actors:** Individuals, local businesses, farmers, municipalities, cities, local NGOs, and other

Methods: Net-Map

Net-Map = an innovative , low-tech, low-cost, interview-based mapping tool for social network analysis (SNA)

3 phases:

1. Preparing Net-Map interviews
2. Conducting Net-Map interviews
3. Analyzing Net-Map interviews

Source: cf. Schiffer and Hauck 2010

Net-Map: Phase 1

Preparing interviews:

1. Develop interview guidelines
2. Organize pre-testing
3. Compile list of potential interviewees
4. Schedule interviews and figure out travel logistics
5. Prepare materials (large sheets, post-its, color markers, stones, audio-recorder, presents)

Net-Map: Phase 2

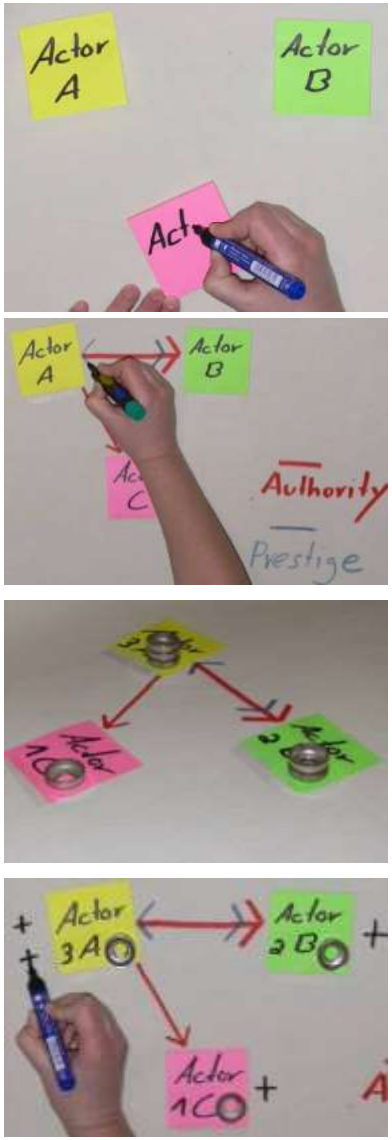
Conducting interviews:

1. Identify relevant actors

2. Draw links between actors (e.g. money/information flows, trust relations, contracts, conflicts, etc.)

3. Put influence and benefit towers

4. Define motivations/interests



Photos: Jennifer Hauck

Net-Map: Phase 3

Analyzing interviews:

1. Transfer Net-Maps into spread sheets (*.xlsx, *.csv)
2. Analyze Net-Maps/Calculate SNA indices (e.g. UCINET)
3. Visualize Net-Maps (e.g. NetDraw)

-> quantitative analysis

4. Transcribe interview recordings (*.docx, *.rtf)
5. Analyze transcripts (e.g. MAXQDA, ATLAS.ti)

-> qualitative analysis

Results: Net-Mapping - work in progress

Photo: Andreas Kubatzki

Results: A ‘Net-Map’

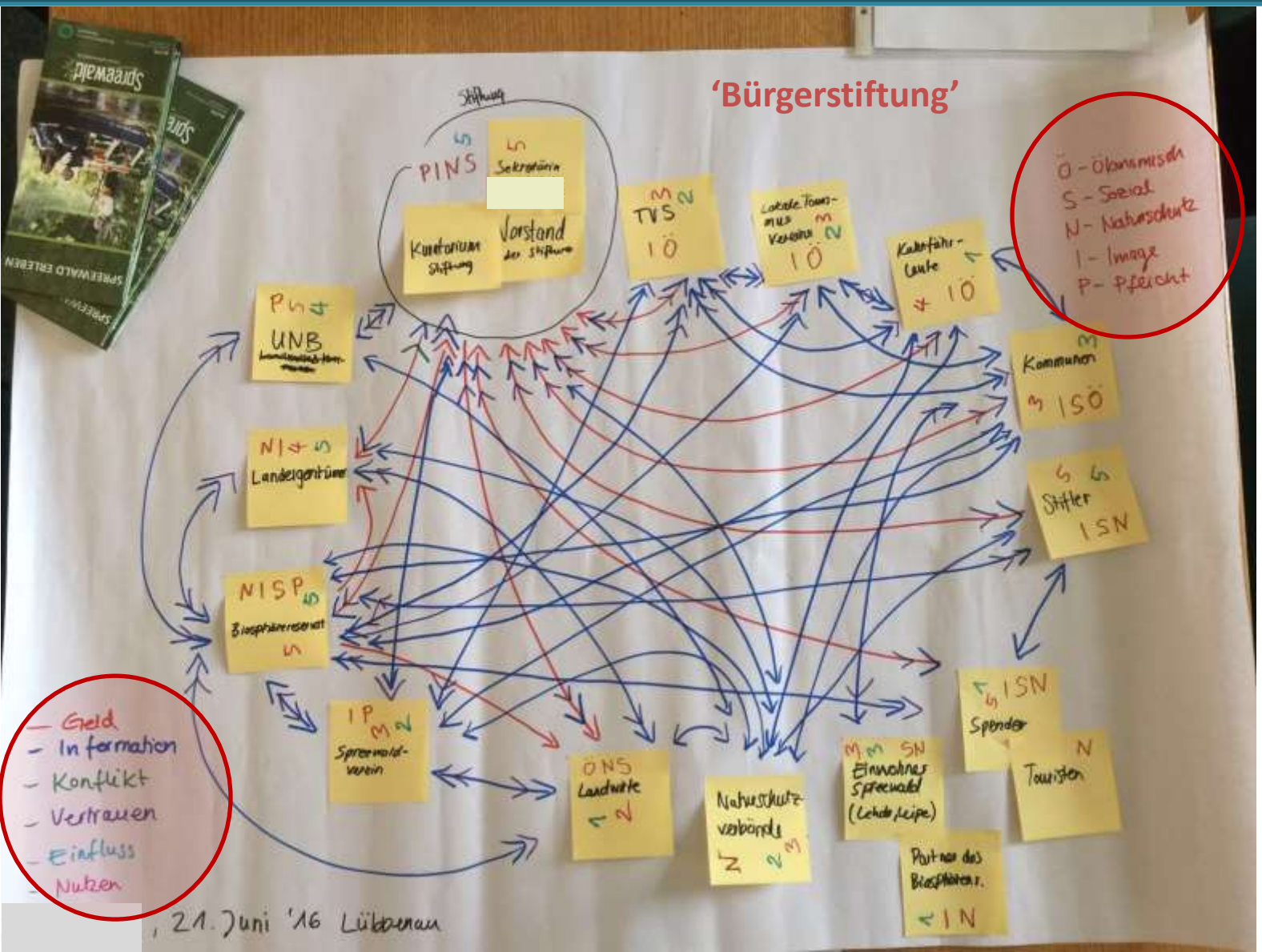


Photo: Anika Hirt

Results: Net-Map transformed into a spreadsheet

Information

'Bürgerstiftung'

Information flow

VON	Anzahl der Verbindungen	Vorstand	Sekretärin: Frau Jakob	Kuratorium	Stifter	Unternehmen, Unterauftragnehmer, Unterstützer, externe Dienstleister	Ehrenamt, private Unterstützer, Unterstützer auf Projektebene	Spender, private Unterstützer	Spreewaldverein, ELER, EU	Vereine und Verbände	Biosphärenreservat, LfU	Ginkoo	Projekte	Imker	UNB: LDS, OSL, SPN; Kommunen; Landreise	Stiftungsaufsicht, MDI (Innenministerium)	Landeigentümer	LELF	Bundesverband Deutschen Stiftungen	Allianz Umweltstiftung	Finanzamt
Vorstand	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sekretärin: Frau Jakob	1	0	1	1	1	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0
Kuratorium	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stifter	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Unternehmen, Unterauftragnehmer, Unterstützer, externe Dienstleister	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Ehrenamt, private Unterstützer, Unterstützer auf Projektebene	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Spender, private Unterstützer	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Spreewaldverein, ELER, EU	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vereine und Verbände	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Biosphärenreservat, LfU	1	1	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0
Ginkoo	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Projekte	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Imker	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
UNB: LDS, OSL, SPN; Kommunen; Landreise	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stiftungsaufsicht, MDI (Innenministerium)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Landeigentümer	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LELF	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bundesverband Deutschen Stiftungen	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allianz Umweltstiftung	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finanzamt	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Anika Hirt

-> Calculate SNA indices (e.g. UCINET):

- **Density =** Number of links divided by the number of nodes in the network
- **Degree Centrality =** Number of direct links an actor has (in- vs. outdegree)
- **Betweenness centrality =** Number of shortest paths from all nodes to all others that pass through that node
- … and more

Source: e.g. Jansen 2003

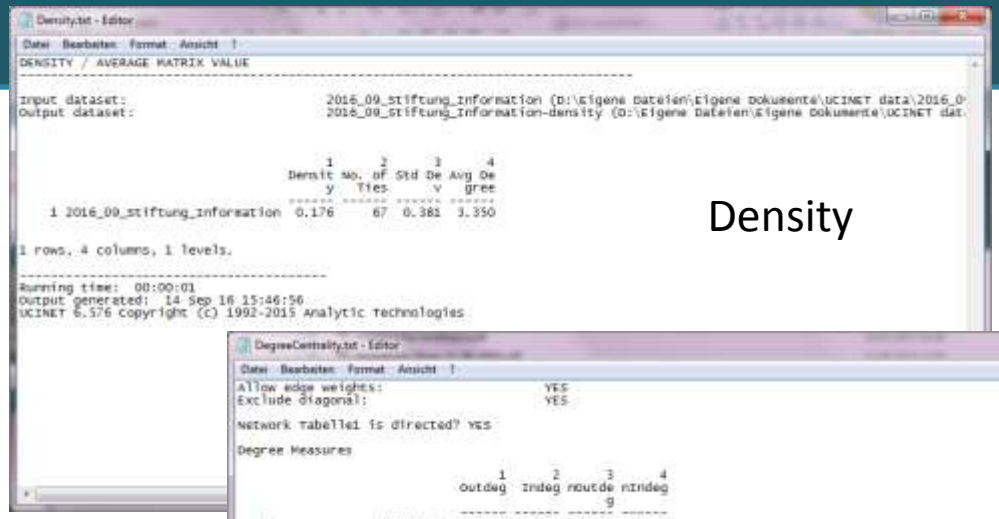
Results: Net-Map as the basis for calculating indices

‘Bürgerstiftung’

Density

Degree centrality

Betweenness centrality



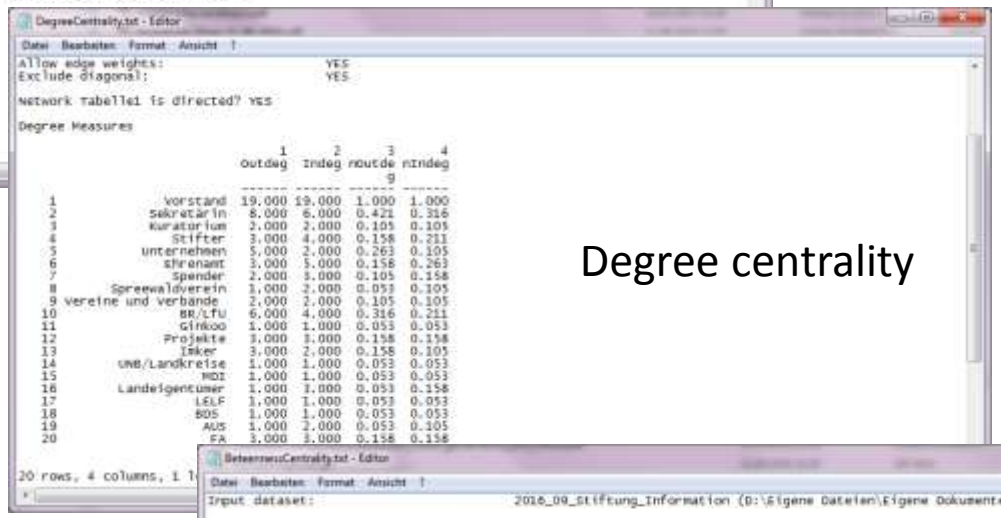
DENSITY / AVERAGE MATRIX VALUE

Input dataset: 2016_09_Stiftung_Information (D:\Eigene Dateien\Eigene Dokumente\UCINET data\2016_0
Output dataset: 2016_09_Stiftung_Information-density (D:\Eigene Dateien\Eigene Dokumente\UCINET dat

		1 Density	2 No. of Ties	3 Std Dev	4 Avg Degree
1	2016_09_stiftung_information	0.176	67	0.381	3.350

1 rows, 4 columns, 1 levels.

Running time: 00:00:01
Output generated: 14 Sep 16 15:46:56
UCINET 6.576 Copyright (c) 1992-2015 Analytic Technologies



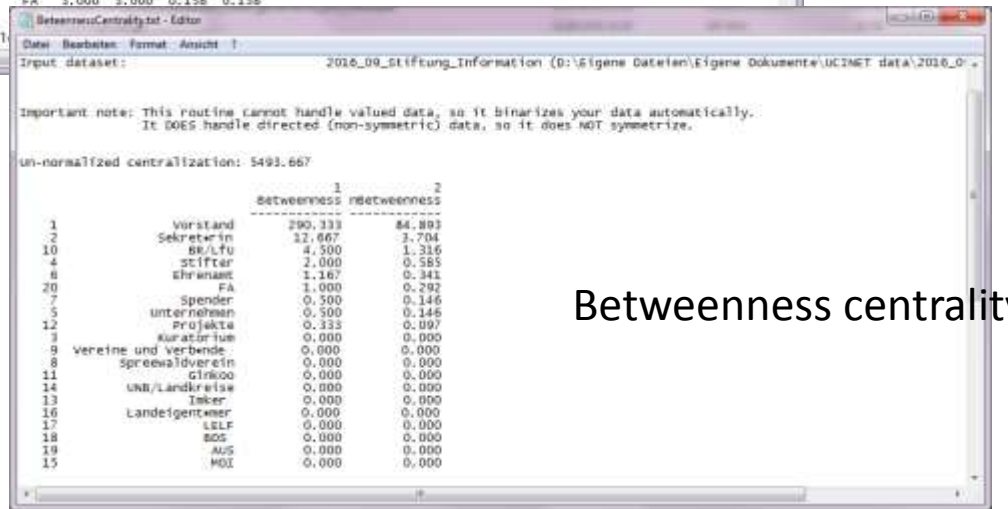
Allow edge weights: YES
Exclude diagonal: YES

Network Tabelle1 is directed? YES

Degree Measures

		1 Outdeg	2 Indeg	3 nOutDeg	4 nInDeg
1	Vorstand	19.000	19.000	1.000	1.000
2	Sekretärin	8.000	6.000	0.421	0.316
3	Kuratorium	2.000	2.000	0.105	0.105
4	Stifter	3.000	4.000	0.158	0.211
5	Unternehmen	5.000	2.000	0.263	0.105
6	Ehrenamt	3.000	5.000	0.158	0.263
7	Spender	2.000	3.000	0.105	0.158
8	Spreewaldverein	1.000	2.000	0.053	0.105
9	Vereine und Verbände	2.000	2.000	0.105	0.105
10	BR/Lfu	6.000	4.000	0.316	0.211
11	Ginkoo	1.000	1.000	0.053	0.053
12	Projekte	3.000	3.000	0.158	0.158
13	Imker	3.000	2.000	0.158	0.105
14	UNB/Landkreise	1.000	1.000	0.053	0.053
15	MOI	1.000	1.000	0.053	0.053
16	Landeigentümer	1.000	3.000	0.053	0.158
17	LELF	1.000	1.000	0.053	0.053
18	BOS	1.000	1.000	0.053	0.053
19	AUS	1.000	2.000	0.053	0.105
20	FA	3.000	3.000	0.158	0.158

20 rows, 4 columns, 1 l



Input dataset: 2016_09_Stiftung_Information (D:\Eigene Dateien\Eigene Dokumente\UCINET data\2016_0

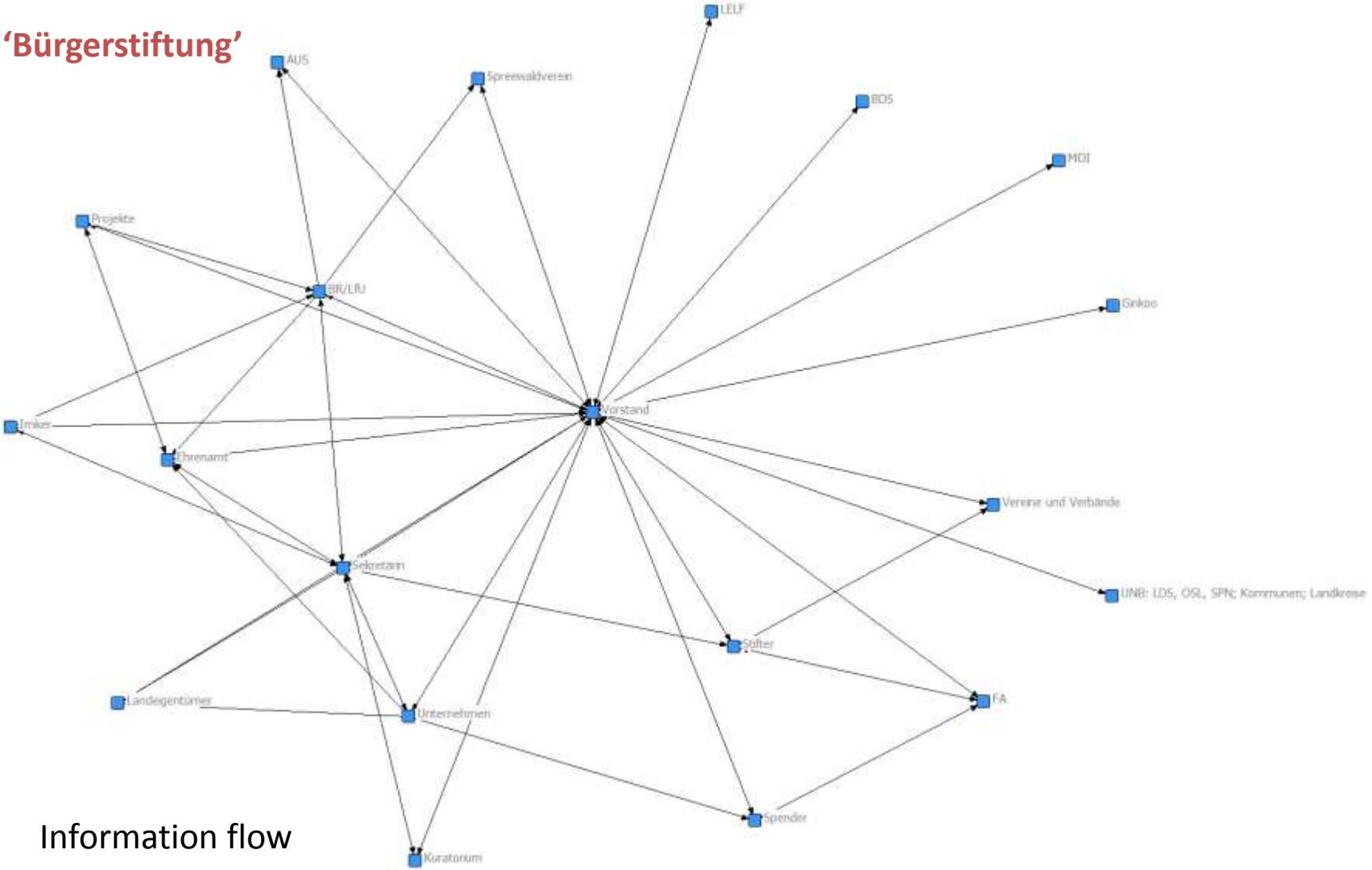
Important note: This routine cannot handle valued data, so it binarizes your data automatically.
It DOES handle directed (non-symmetric) data, so it does NOT symmetrize.

Un-normalized centralization: 5493.667

		1 Betweenness	2 nBetweenness
1	Vorstand	290.333	84.893
2	Sekretärin	12.667	3.704
10	BR/Lfu	4.500	1.316
4	Stifter	2.000	0.585
6	Ehrenamt	1.167	0.341
20	FA	1.000	0.292
7	Spender	0.500	0.146
5	Unternehmen	0.500	0.146
12	Projekte	0.333	0.097
3	Kuratorium	0.000	0.000
9	Vereine und Verbände	0.000	0.000
8	Spreewaldverein	0.000	0.000
11	Ginkoo	0.000	0.000
14	UNB/Landkreise	0.000	0.000
13	Imker	0.000	0.000
16	Landeigentümer	0.000	0.000
17	LELF	0.000	0.000
18	BOS	0.000	0.000
19	AUS	0.000	0.000
15	MOI	0.000	0.000

Results: Net-Map visualized with NetDraw

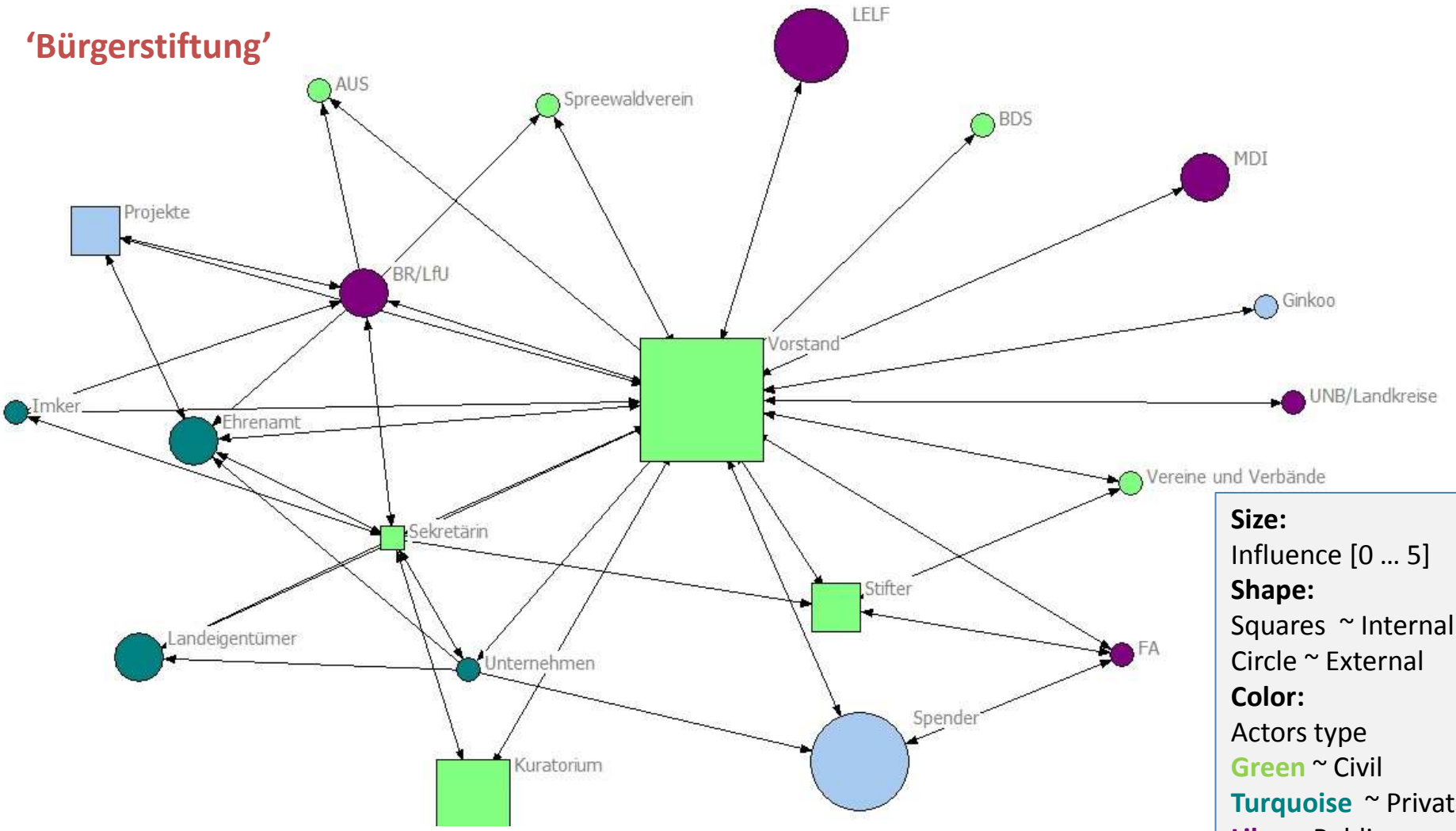
‘Bürgerstiftung’



Information flow

Results: Net-Map visualized with NetDraw

‘Bürgerstiftung’

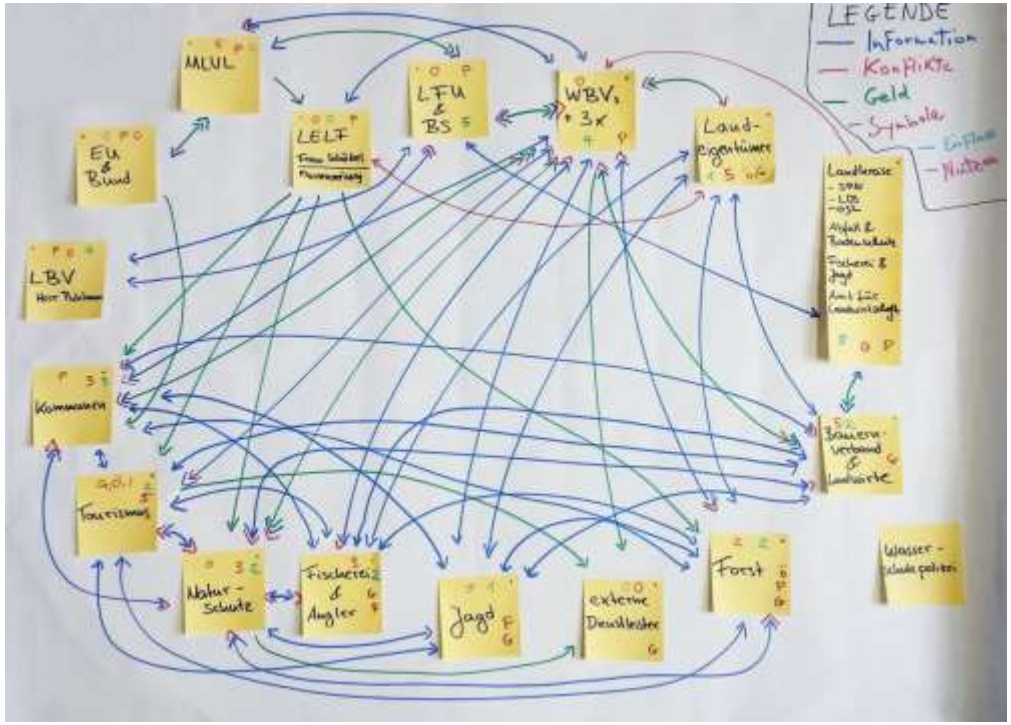


Information flow

Size:
Influence [0 … 5]
Shape:
Squares ~ Internal
Circle ~ External
Color:
Actors type
Green ~ Civil
Turquoise ~ Private
Lilac ~ Public
Blue ~ Mixed

Results: Net-Maps represent different perceptions

‘Staubeirat’

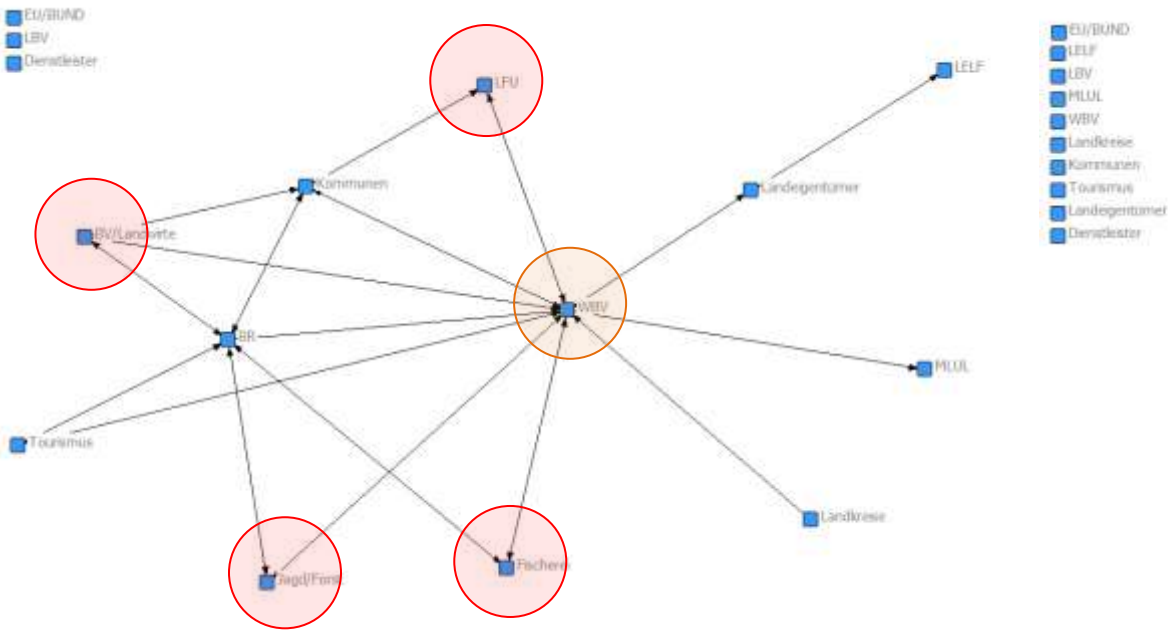


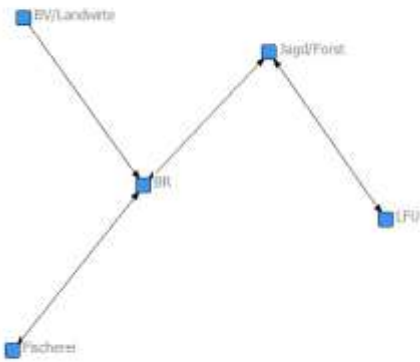
complex vs. simple

Photos: Andreas Kubatzki

Results: represent different perceptions

‘Staubeirat’





complex vs. simple

Conflicts

Conclusions: methods' pros and cons

+ Yields very rich data, in-depth insight into cases
+ Enables quantitative and qualitative analysis (as opposed to classical SNA)
+ More interesting for interviewees than ‚conventional' interviews
+ Allows for mutual learning effects (network as basis for discussion)

- Results are not representative (individual perception)
- Quite time-consuming
- Not everyone's ‚cup-of-tea'

Thank you!!!

Contact info:

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cp³ partners:

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