Mapping community perspectives for co-designing regional sustainability transitions

DUST
Democratising jUst Sustainability Transitions

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What do communities expect and hope
regarding sustainability transitions?
And how can we map these futures for policy co-design?

The DUST context

Least Engaged Communities (LECs)

youth, miners, women, rural communities

4 Case-study Regions

Norrbotten (SE), Stara Zagora (BG), Lusatia (DE), Katowice (PL)

Regional Futures Literacy Labs (RFLLs)

4 workshops

Community co-designed policy recommendations

The DUST context

Futures: preferred (hopes, dreams), probable — drawing on UNESCO Future Literacy Lab (Miller, 2007; Miller, 2015; UNESCO et al., 2023)

Territorial capital, rooted in policy (OECD, 2015), recognized for its value in regional design (Orsi et. al., 2022) describes physical and non-physical values of a specific region.

Method for mapping the community perspective

Data collection:

- **Transcripts** from RFLLs workshops

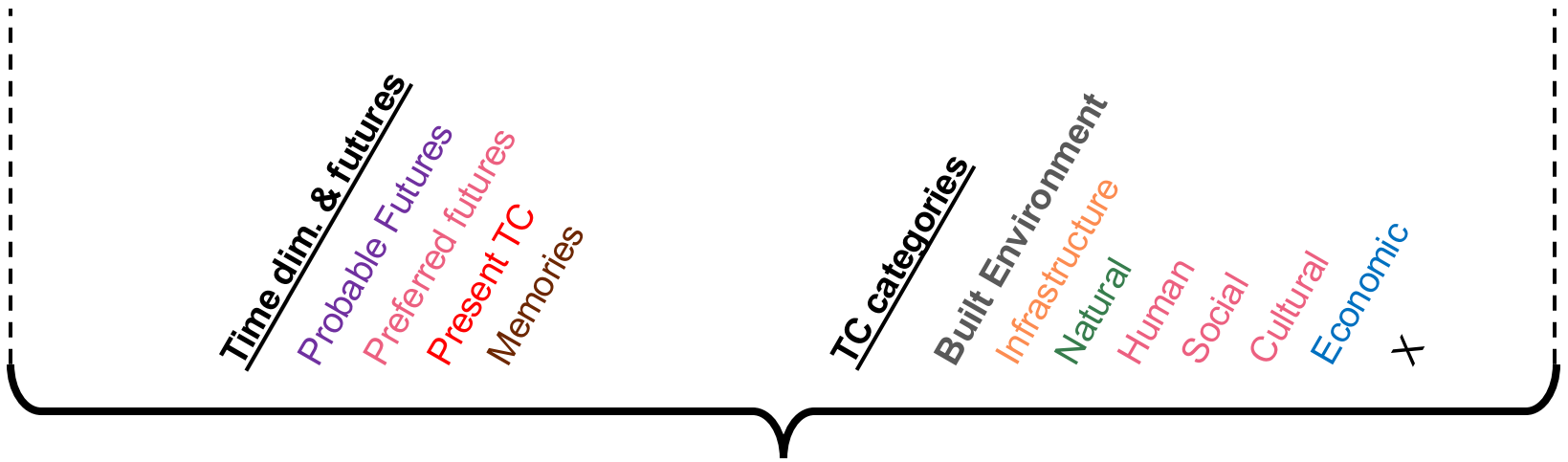
Data analysis:

- **Thematic narrative**
- Combined **inductive deductive**
- CAQDAS **Atlas.ti**

Conceptual frames:

- **TC categories**: Built Environment, Infrastructure, Natural, Economic, Cultural, Human, Social, X
- **Futures:** preferred and probable

Coding system



Inductive

Quotes, Norrbotten transcript:
”Community will be key, we’ll farm together, build houses together.”

“Housing projects will focus on communities, building own small rental houses.”

“small scale farming protects open land…future automated farming, technology will allows us to pursue the things we really want.”

Codes:
TC sub-aspects

Community

Small rental houses

Small scale farming

Automated farming

Green technologies

Open land

Categories:
TC aspects

Preferred futures

Social

Community & social relations

Built environment

Housing

Economic TC

Farming

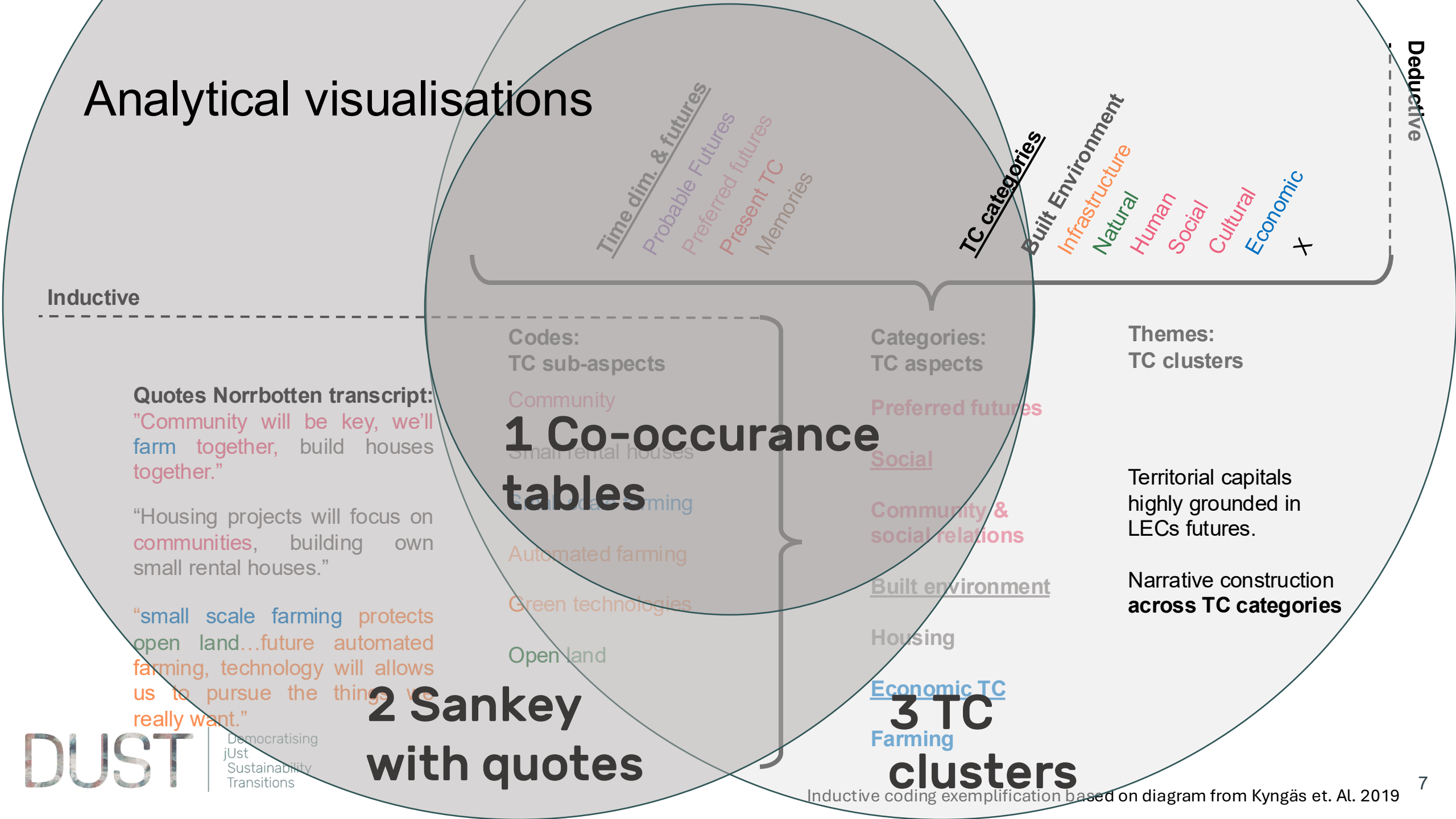
Themes:
TC clusters

Territorial capitals highly grounded in LECs futures.

Narrative construction **across TC categories**

Inductive coding exemplification based on diagram from Kyngäs et. Al. 2019

Analytical visualisations



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Narrative construction **across TC categories**

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Inductive coding exemplification based on diagram from Kyngäs et. Al. 2019

What were the most discussed TC aspects in Norrbotten?

	Memories	Negative	Positive	Preffered futu...	Present_TC	Probable futu...
	23	91	105	47	71	55
Built environment TC 39	6	17	27	8	24	15
Built environment TC: _Villages/ Rural areas 15	3	5	14	3	11	6
Built Environment TC: Community spaces 7	2		6	4	2	1
Built environment TC: Homes 17	2	10	10	2	12	6
Built environment TC: Sustainable energy buildings_ 1			1	1		
Built environment TC: Urban expansion/ overgrowth 3		3				3
Cultural TC 21	5	15	32	11	7	11
Cultural TC: _Sami reindeer herding 1		2				2
Cultural TC: Dissapearance of macho culture 2			3	1		2
Cultural TC: Internationsalisation / Cultural diversity 11	1	5	22	8	1	7
Cultural TC: National identity 5		3		2	3	
Cultural TC: Small scale farming 2	4	5	7		3	
Economic TC 47	8	44	46	14	23	25
Economic TC: Exploatation natural resources 9		11	3	2	2	6
Economic TC: Farming 21	6	21	20	3	16	8
Economic TC: Forests 6	1	9			2	6
Economic TC: Housing projects 5		3	4	1	1	3
Economic TC: Minerals 3		5	1	1		4
Economic TC: Reindeer herding 2		4				4
Economic TC: Rural businesses 1			1	2	1	
Economic TC: Sustainable tax system 5	1	4	6	2	2	3
Economic TC: Tourism 7		8	13	2	1	6
Economic TC: Water 3			2	2		2
Human TC 32	1	14	23	13	9	15
Human TC: Education 3		1	3		1	3
Human TC: Jobs and workforce 17	1	13	7	2	6	8
Human TC: Skills 5		1	8	4	2	3
Human TC: Wellbeing 11			11	9	1	4
Infrastructure TC 72	4	36	65	32	23	20
Infrastructure TC: _Tech_Automation_AI 19	1	4	24	10	5	5
Infrastructure TC: Connectivity and mobility 3			7	5	1	1
Infrastructure TC: Cultural and recreation services 4			7	5	3	
Infrastructure TC: Education services 3		1	2	2	1	
Infrastructure TC: Farming 5	1		8	3	3	
Infrastructure TC: Green technologies (energy) 9		1	12	7	2	2
Infrastructure TC: Healthcare services 9		11	7	3	1	4
Infrastructure TC: Public services 16		11	13	9	5	5
Infrastructure TC: Relational_Political cooperation 8	1	4	7	1	4	3
Infrastructure TC: Relational_Regional Governance 23	2	18	12	6	8	6
Infrastructure TC: Relational_Structure of regional urb... 3						3
Infrastructure TC: Tourism 1			2	1		1
Natural TC 41	10	35	14	10	18	12
Natural TC: Clean environment_ 1			1	1		
Natural TC: Climate 16	5	7	5	6	2	3
Natural TC: Minerals_ 4	2	7			3	2
Natural TC: Open Space 18	4	23	7	2	13	7
Natural TC: Water and waterfronts 4			2	2		2
Natural TC:_ Forests 4	1	5			4	
Social TC 71	9	41	44	30	22	24
Social TC : Social safety 2			3	2		
Social TC: Community and social relations 37	6	19	19	19	17	5
Social TC: Healthcare 2		3	1	1	1	1
Social TC: Population dynamics 27	3	14	21	8	2	18
Social TC: Protectors of rural open space 10	2	15			7	3

Legend

Less quoted — More quoted

Groundedness (number of times quoted)

Data source: WS2 Norrbotten, DUST RFLLs

What were the most discussed TC aspects in Norrbotten?

	Memories 23	Negative 91	Positive 105	Preffered futu... 47	Present_TC 71	Probable futu... 55
Infrastructure TC 72	4	36	65	32	23	20
Infrastructure TC: _Tech_Automation_AI 19	1	4	24	10	5	5
Infrastructure TC: Connectivity and mobility 3			7	5	1	1
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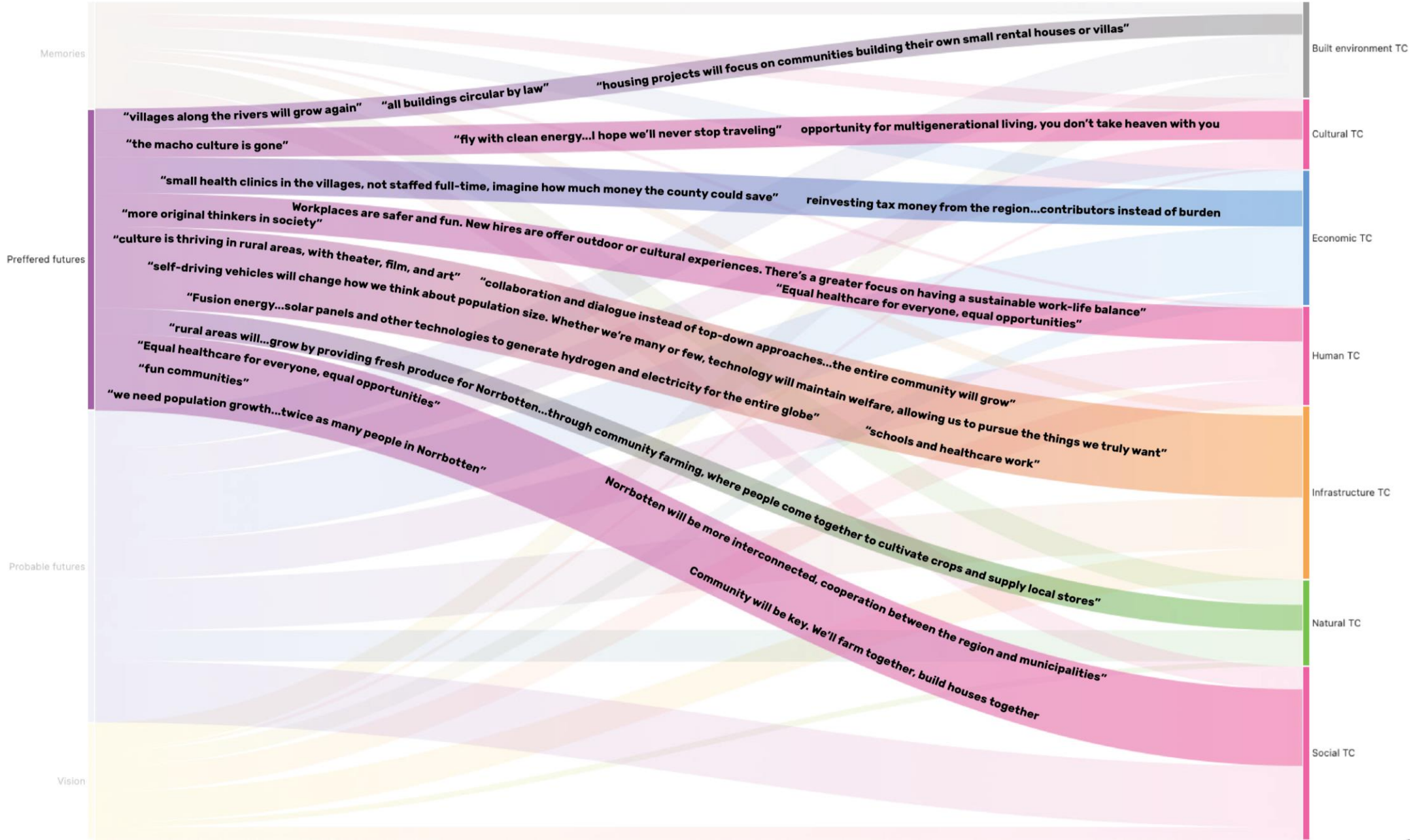
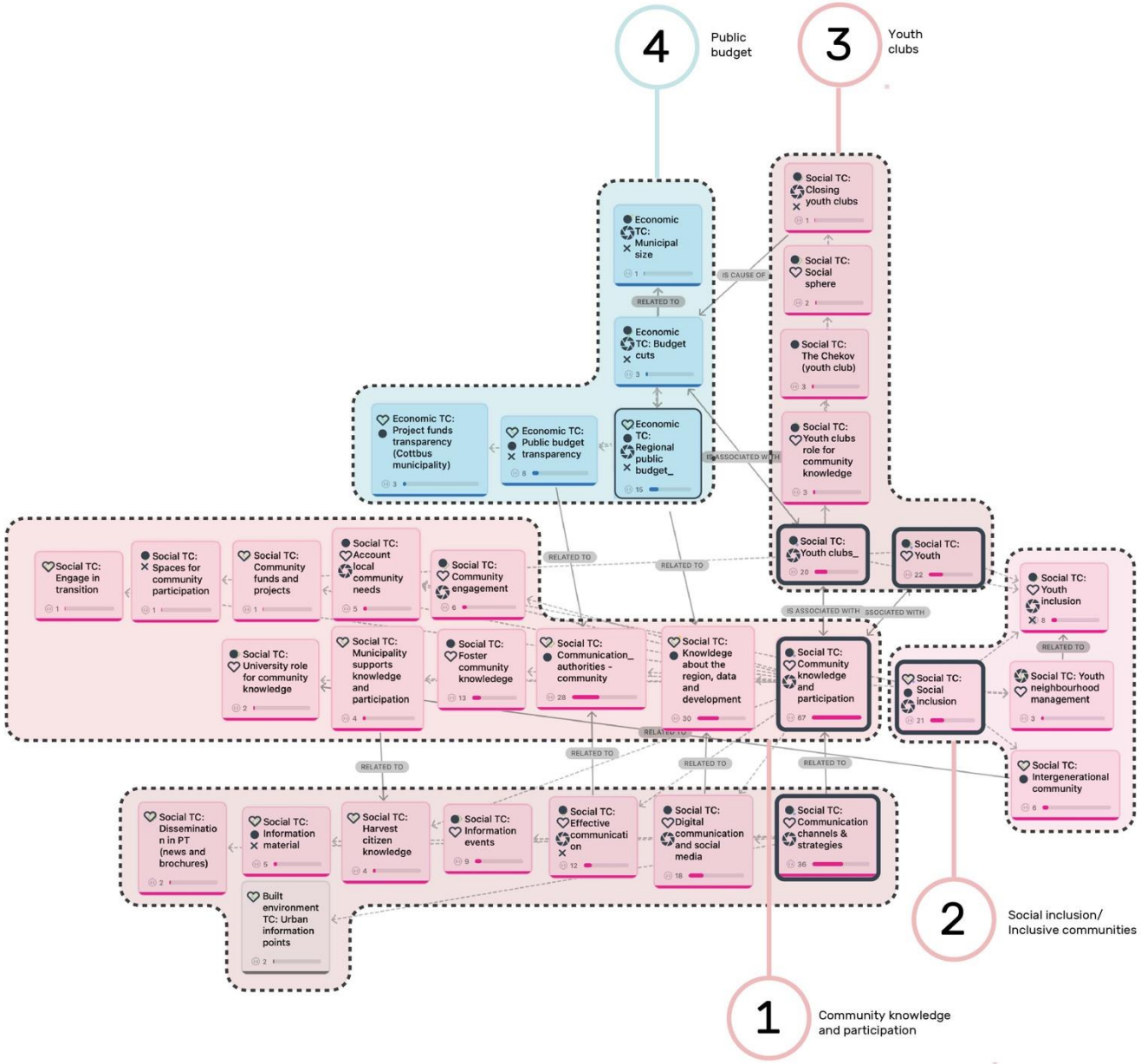
What do rural communities in Norrbotten dream about their future region?



TC clusters: regional values from community perspectives



Legend

- Groundedness (number of times quoted)
- Preffered future TC
- Probable future TC
- Present TC
- Negative feelings

- Highly grouded TC aspects (thick black border)
- Related TC aspects (black border)
- Relation between TC aspects and their sub-aspects
- Economic TC aspects and sub-aspects
- Infrastructure TC aspects and sub-aspects
- Social and Human TC aspects and sub-aspects
- Built Environment TC aspects and sub-aspects

Data source: WS1-2 Lusatia, DUST RFLLs

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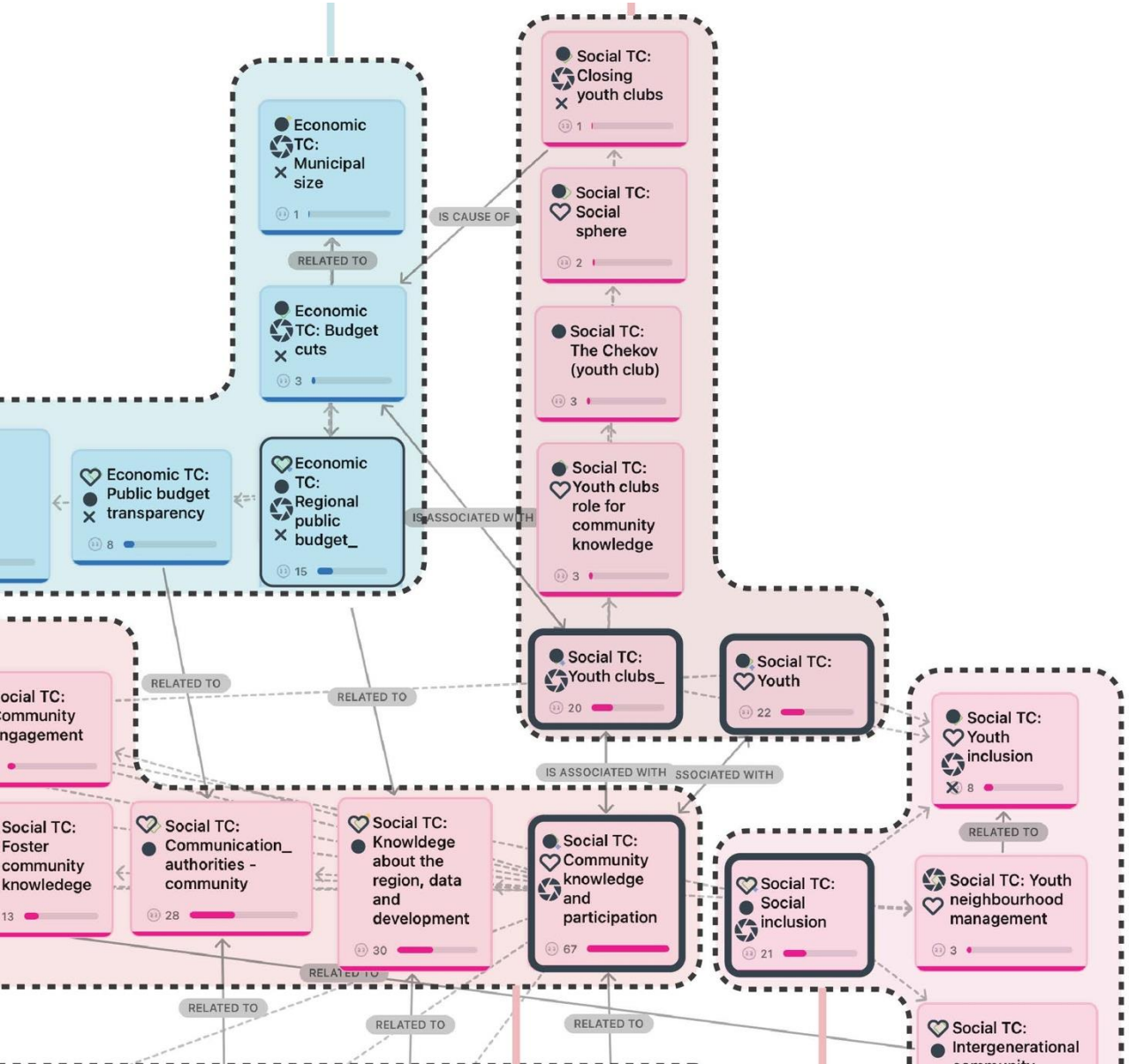

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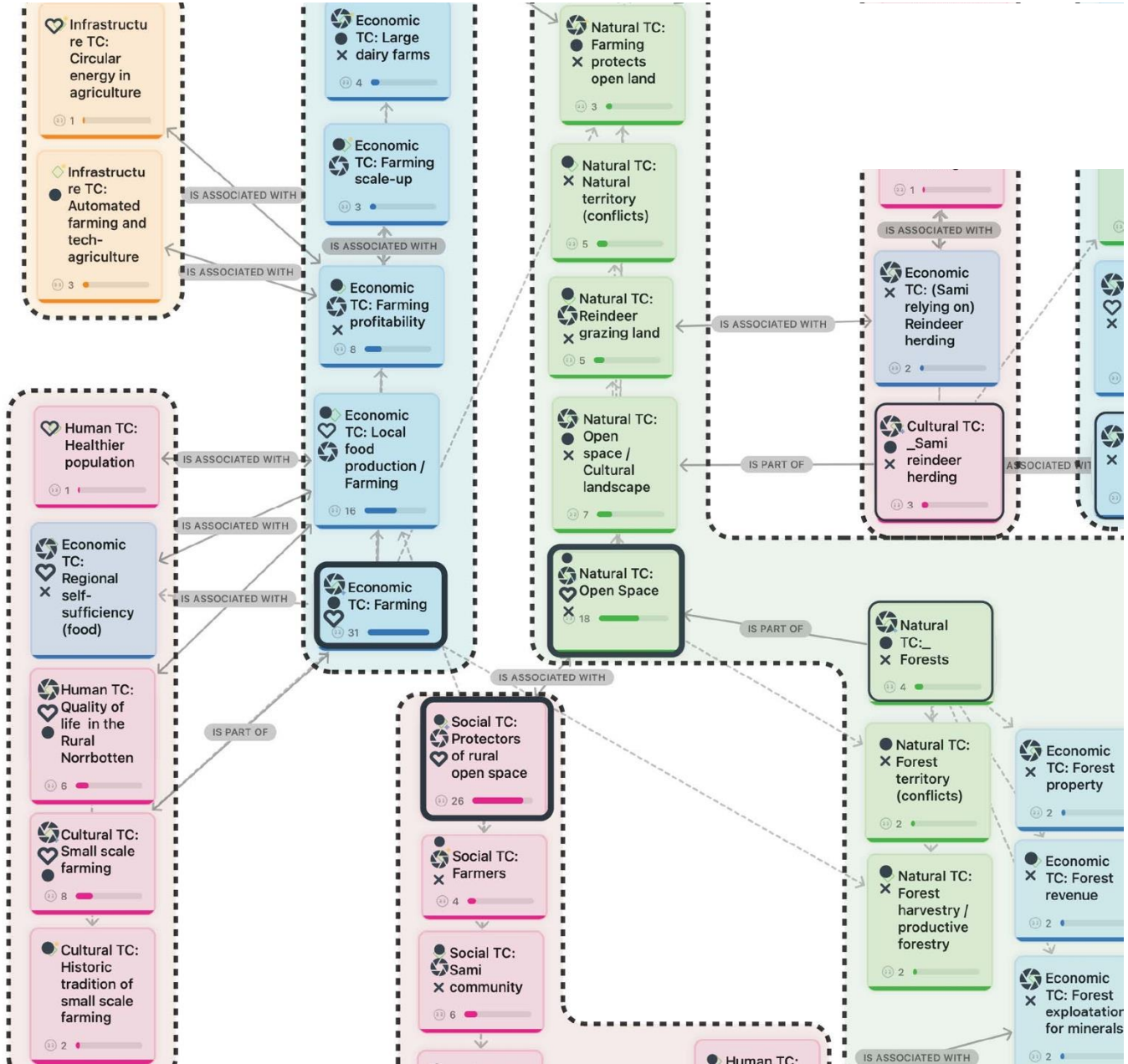

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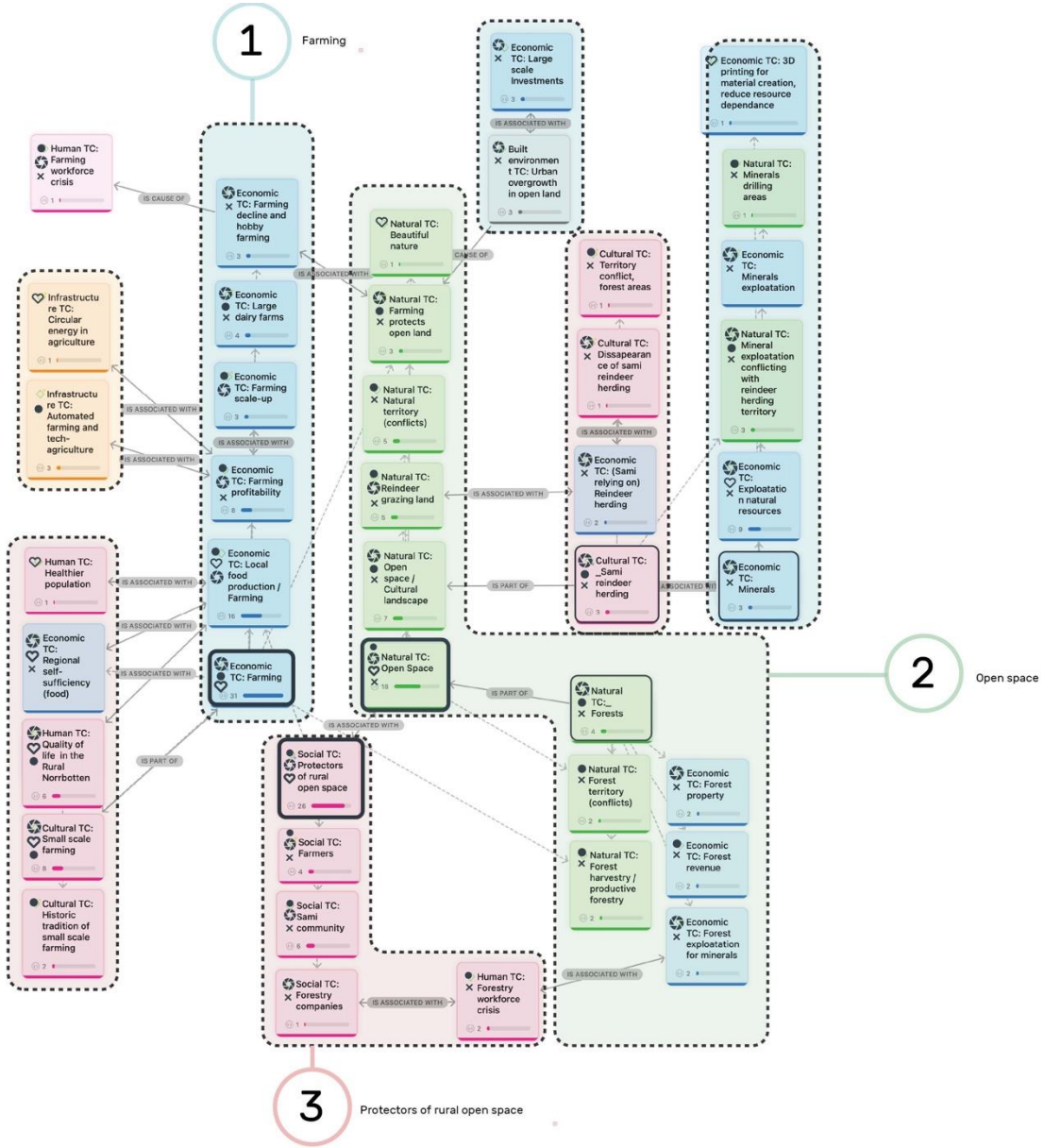

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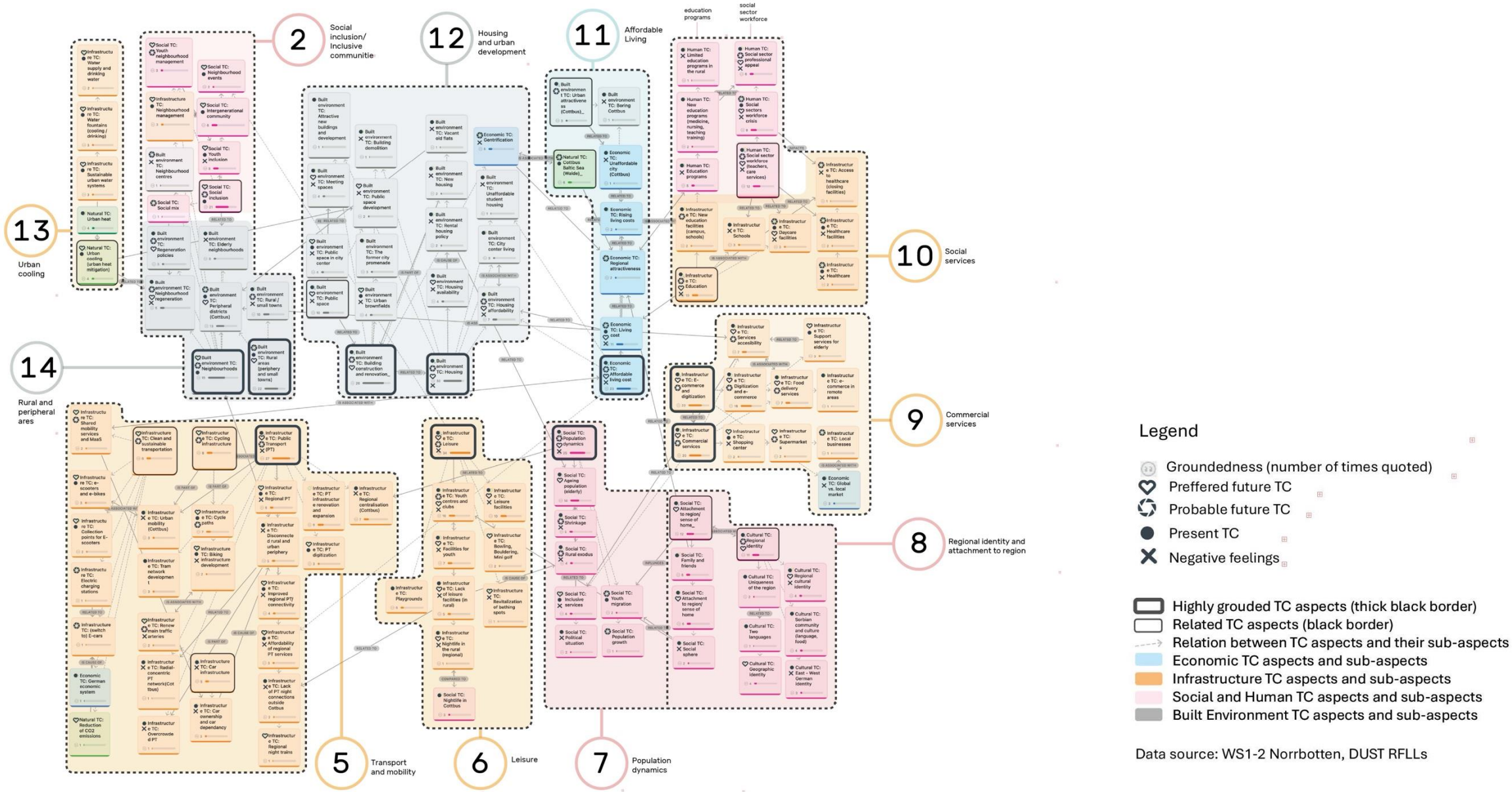
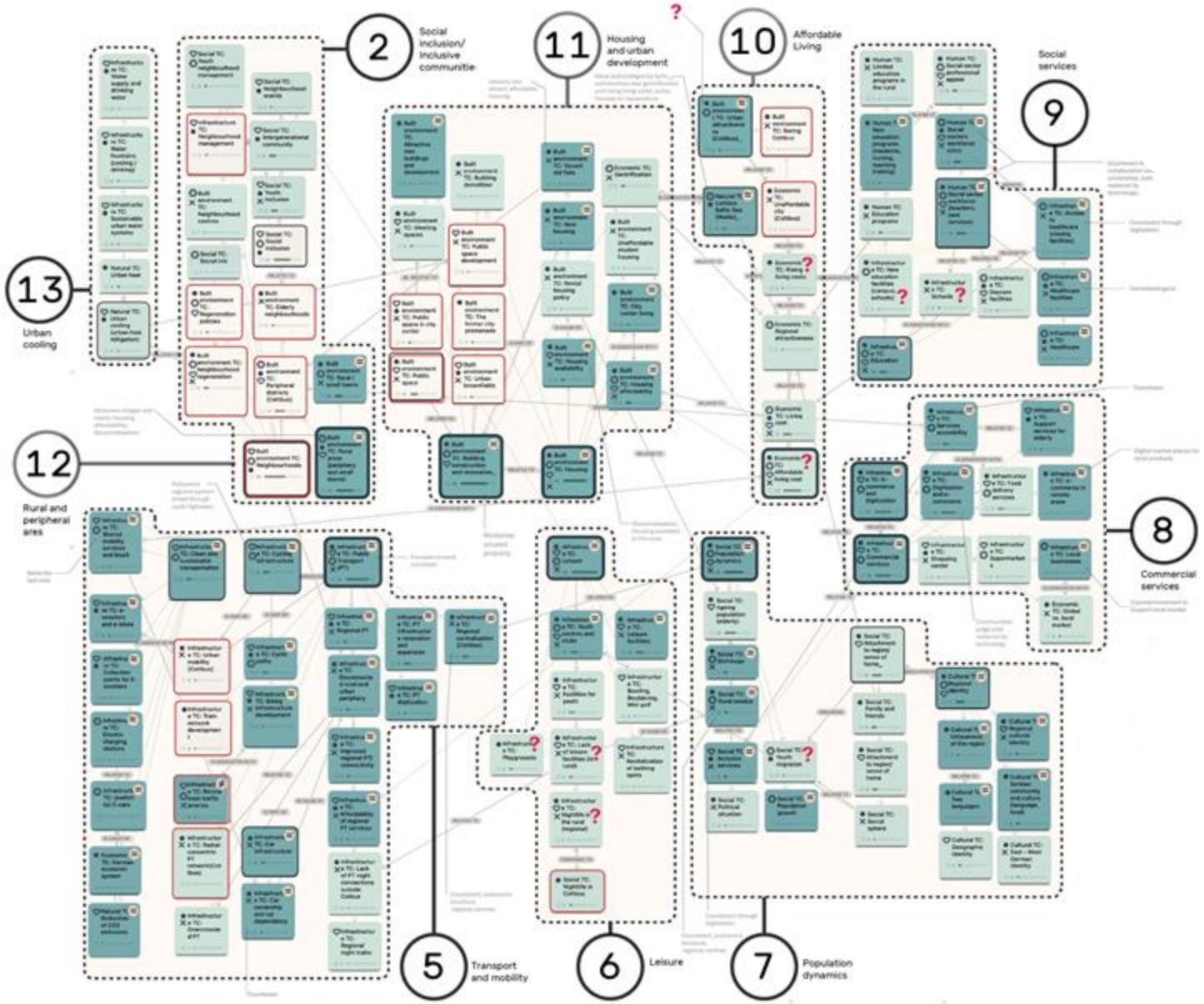


How do LECs' futures compare to policy?



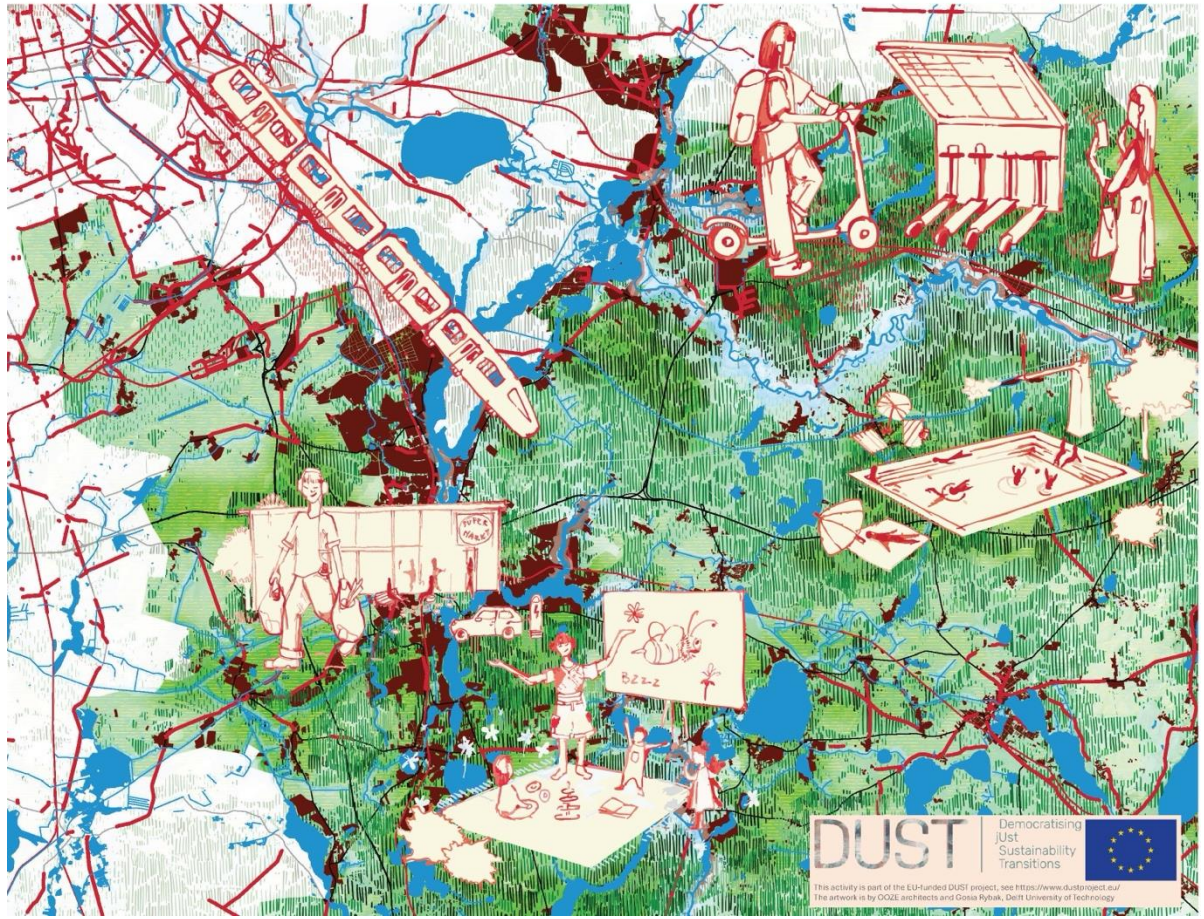
Legend

- Areas of focus (determined by CS partners) — not defined
- TC sub-aspects related to the key topics
- TC aspect or sub-aspect present in both policy and community
- TC aspect or sub-aspect only mentioned by the community
- = Policy and community perspectives align
- ≠ Perspectives do not align
- ≈ Perspectives partially align
- Notes from policy
- Highly grouded TC aspects (thick black border)
- Related TC aspects (black border)
- Relation between TC aspects and their sub-aspects
- (x) Groundedness (number of times quoted)
- Preffered future TC
- Probable future TC
- Present TC
- ✕ Negative feelings

Data source: WS1-2 Lusatia, DUST RFLLs;

Junge Menschen aus der Region sollten gezielt für soziale Berufe wie Pflege oder Bildung ausgebildet und begeistert werden.

Wir sind alle Teil des Wandels. Lasst uns gemeinsam eine lebenswerte Zukunft gestalten



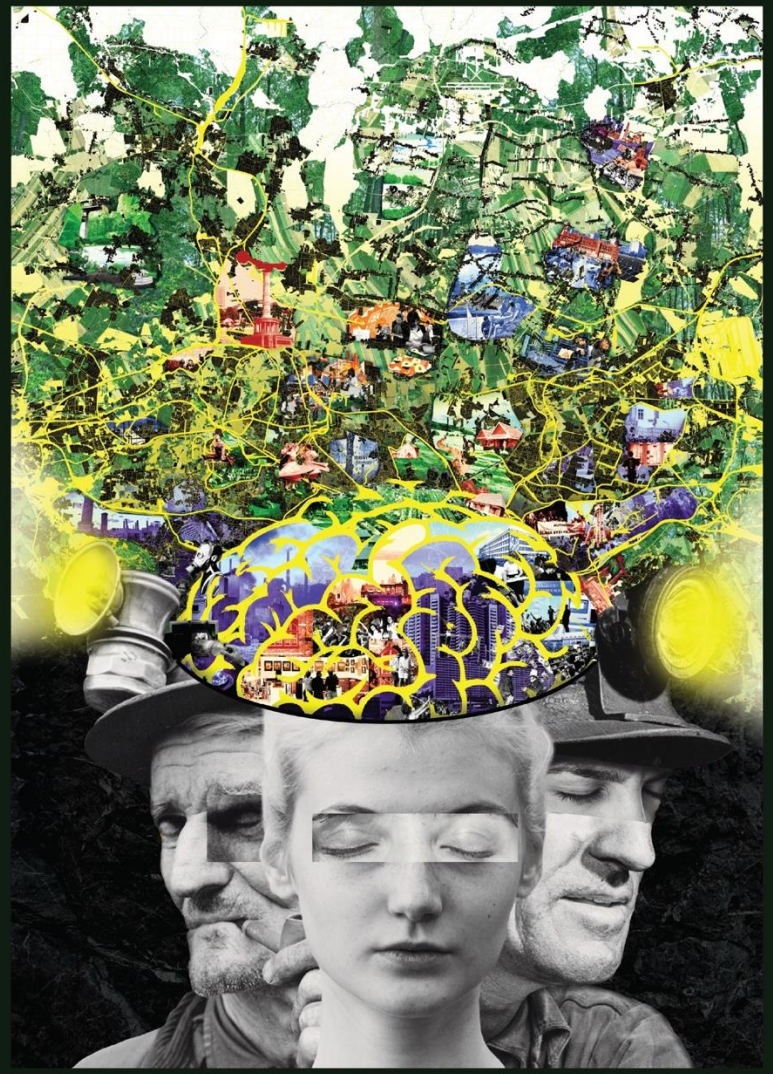


Illustration by OOZE architects and Małgorzata Rybak (TU Delft)

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Contribution and discussion

- Further demonstrates the value of the **TC concept and use of 'futures' for regional policy co-design** (by successfully mapping and comparing policy and community perspectives).
- Contributes to overcoming the challenge of **combining inductive and deductive approaches**.
- Integrates **different levels of information**: from in-depth and detailed to general and abstract.
- Offers **a systemic perspective**: demonstrates the value of integrated approaches and reveals specific relations across TC categories.
- Proposes a **nuanced TC categorization** based on community perspectives **(TC X)**.
- Studies **community perspectives at different time scales**.
- **The three types of analytical visualizations** can effectively capture community perspectives, potentially becoming a decision support tool for place-based policy making.

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