

How a focus on social sustainability can support the development of DH



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Why social sustainability?

- **Facilitate the development:** integration into the existing ecosystem
- **Competitiveness:** side advantages
- **In-line with policy goals** – New European Bauhaus: fair transition, just transition, democratic transition, inclusiveness, aesthetics, etc.

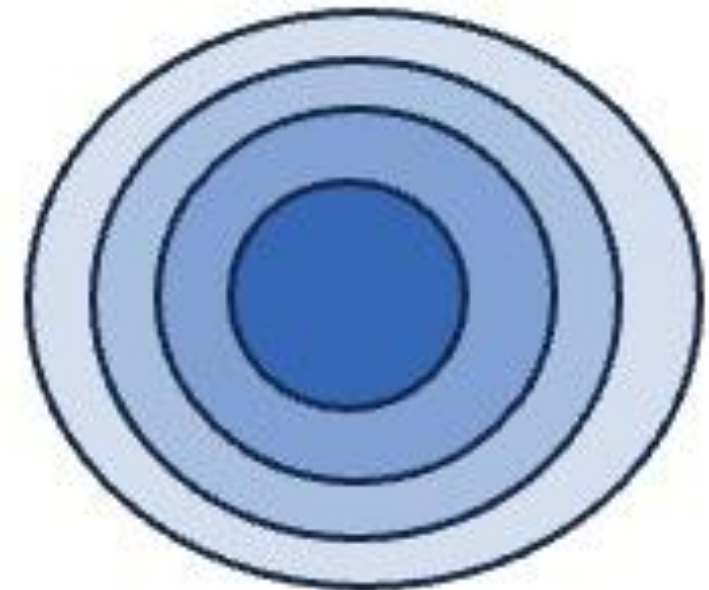
BUT for now less integrated / visible than other types of sustainability

What is social sustainability?

STILL UNDER DEFINITION!

Social sustainability is about identifying and managing business impacts – both positive and negative – on people.

- DH company
- Customers
- Engineering companies
- Architects and developers
- Policy makers



What link to DH?

Can be integrated to all parts of the value chain

	Value chain activities/ Factors	Inbound logistics			
		I/E	E	G	S
1	Capital intensive infrastructure	I	x	x	
2	Natural monopoly	I	x		
3	Price of heat supply	E	x	x	x
4	Locally available heat sources are used	I/E	x	x	x
5	EU Taxonomy	E	x	x	x
6	Heat law	E			

	Value chain activities/ Factors	Operations			
		I/E	E	G	S
1	Stable price	I	x		x
2	Digitalization	I	x	x	x
3	Staff preferences	I	x	x	
4	Local solutions to customers distant to the grid	I	x	x	x
5	Buildings as storage	I/E	x	x	x
6	Building codes	E	x	x	
7	Safety	E	x	x	x

What link to DH?

Can be integrated to all parts of the value chain

	Value chain activities/ Factors	Outbound logistics			
		I/E	E	G	S
1	Substation management	I/E	x	x	x
2	Reduce return temperatures	I/E	x	x	x
3	Maintenance of pipes	I	x	x	x

	Value chain activities/ Factors	Marketing, sales and post sales			
		I/E	E	G	S
1	Interact with society	I/E			x
2	Incentivize customer behavior	I/E	x	x	x
3	Offer a carefree heating alternative	I			x
4	Local heat supply is in demand	E/I	x	x	x
5	Resilient heat supply in demand	E	x		x
6	Cooling in demand	E	x		x

What link to DH?

Identification of several factors that impact social sustainability on DH projects

1	Supports the local community
	Inclusive buildings
	Educational efforts towards young/ society
	Creation of local, long-term jobs (use of local fuels & workforce)
2	Community engagement
	Transparent communication (across value chain)
	Impact on local community (resettlement issues, construction disturbances, traffic around the plants)
	Partnerships (win-win solutions, co-creation of value, co-investments etc.)
3	Aesthetics
	Pipes not seen
	Signature buildings: beautiful: enhancing the city scape & sustainability message
4	Affordable/ stable price
	Lower price than alternatives
	Lever to fight energy poverty
	Stable and predictable price (not volatile)
5	Quality of life
	Carefree & saves space
	Indoor comfort
	Both heating and cooling
6	Sector coupling
	Take load off electricity sector
	Resort to CHP technology for producing both heat and electricity

What next?

Strengthen the integration of social sustainability into DH processes (from early planning to operation) through **social KPIs**

To be continued...

Thank you for listening!

Always open to collaborations...



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	SKPI	Stakeholders to whom the SKPI generates value
1	Carbon footprint of the heat supply is important to consider (what is desirable short versus long term?)	Energy company, customer, wider community
2	Air pollution issues	Energy company, customer, wider community
3	Fairness: who can get district energy? (the just and fair energy transition)	Energy company, customers, wider society
4	Make use of locally available heat supply (limits transportation, recovers assets otherwise lost)	Energy company, owner of local heat source, wider community
5	Local collaboration on heat supply	Energy company, owner of local heat source
6	Inclusive buildings (where people can see what happens on the inside, visit the premises for recreational purposes like in a park or for educational purposes)	Energy company, construction companies, architects, wider community
7	Aesthetic buildings (not disturbing the city scape)	Energy company, construction companies, architects, wider community

8	Indoor space use	Energy company, construction company, architects, customers
9	Sector coupling (across gas-electricity-district energy) for flexibility gains	Energy company, wider community
10	Philanthropic activity (undertaken by the energy companies)	Energy company, wider community
11	Education of the young (site visits, traineeships and other)	Energy company, wider community
12	Research & Development projects	Energy company, wider community
13	Sustainable investment thresholds (low interest rates for sustainable projects)	Energy company, wider community
14	Resettlement issues	Energy company, wider community
15	Disruptive road works (limited amounts of time)	Energy company, wider community
16	Creation of long term, local jobs	Energy company, wider community
23	Stable price	Customer
24	Affordable price	Customer

17	Indoor comfort (legislation exists soon also for providing demand for heating and cooling)	Energy company and customer
18	Customer empowerment (to manage customer behavior, encourage co-creation, prosumerism)	Energy company and customer
19	Transparency across the value chain (including end customer dialogue)	Energy company, customer
20	Safe energy use (explosions, shocks, floodings)	Energy company, customer
21	Reliable heat supply	Energy company, customer
22	Carefree energy use (energy as a service is developing across energy vectors)	Energy company, customers