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Background and need for analysis



Missing knowledge exchange on district heating transformation with regard to

- Measures
 - Types of measures
 - Dependencies between measures
 - Structure
- Strategy development
 - Timely prioritization of steps
 - Needed data and information as well as detailedness
 - Relevant stakeholders and best practice in approaching them

Initiation of <u>District</u>
<u>Heating</u>
<u>Competence</u>
<u>Network</u>

3 Years

Status Quo Analysis

 Identification of potentials for an increase in energy efficiency, decrease in primary energy factor and integration or renewable energies

Target Agreement

- Discussion on form and content of target
- Common signing of target agreement

Annual monitoring

- Monitoring of progress regarding transformation strategy
- Maybe also quantification of energy- and CO₂ savings

Quarterly Workshops

- Lectures by experts on jointly defined topics
- Discussion on future scenarios and strategies regarding network based heat supply
- Exchange of experiences
- On site inspection of host's

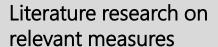


Expert Hotline

Detailed Status Quo analysis with nine district heating operators regarding their current status of district heating transformation and the future strategy

Course of action for the development of a workflow regarding the development of the transformation matrix







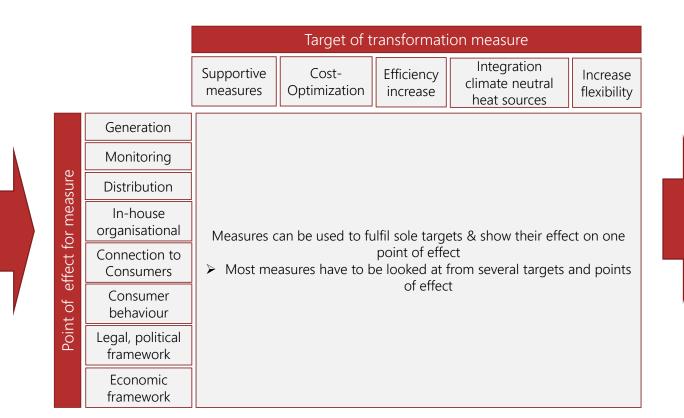
Collecting and embedding own experience



Grouping and logic arrangement of measures



Addition of further measures based on grouped structure



Development
of a
questionnaire
for the
evaluation of
possible
transformation
measures



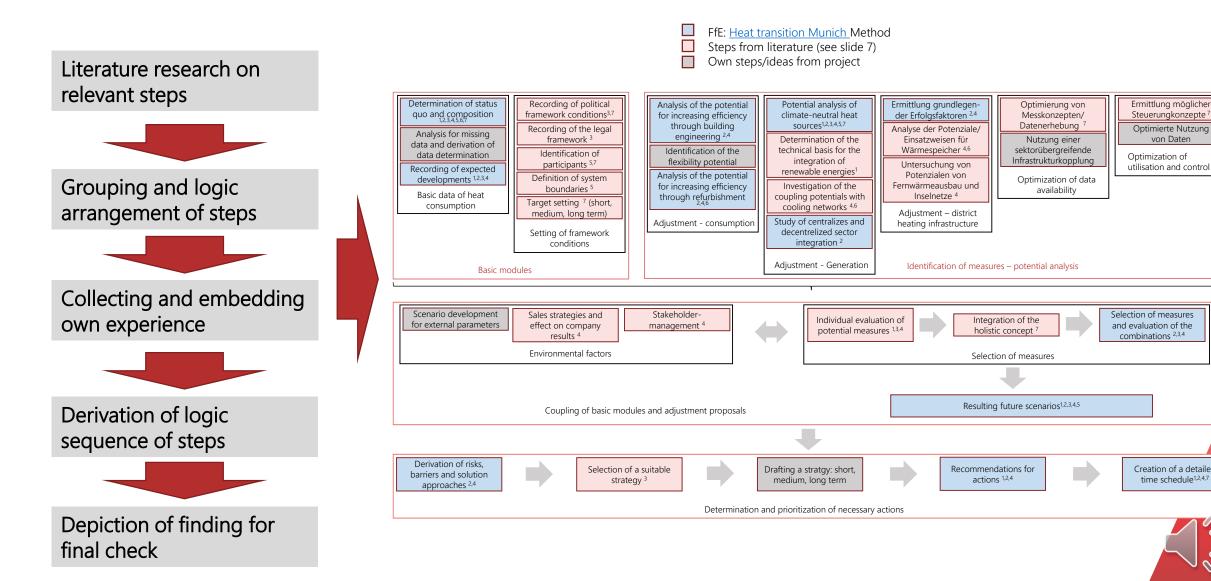
Course of action for the development of a workflow regarding the development of a transformation strategy



von Daten

Creation of a detailed

time schedule^{1,2,4,7}



Conclusion, outlook on paper insights and future work



Conclusion

- Up to now, no standards on district heating transformation (strategy and measure analysis) exist
- Discussions based on the generated questionnaire allowed the suggestion of
 - o transformation measures
 - o next steps regarding strategy development
- Discussions based on the generated questionnaire allowed the addition of further relevant steps which have to be made within strategy development

Outlook on paper insights

- Evolution of status quo of district heating operators transformation strategies
- Prioritization of transformation measures
- Further development of current analysis regarding district heating versus decentralized heat supply



Future work

- Real life check of:
 - Transformation measure applicability check list
 - Duration of strategy development steps
 - Assessment of District Heating Competence Network

Sources for strategy assessment



1	IFEU; GEF, AGFW (2013): Transformationsstrategien Fernwärme
2	FfE (2020): Klimaneutrale Wärmeversorgung in München 2035
3	AIT Austrian Institute of Technology GmbH (2018): Entwicklung von zukunftsfähigen
	Versorgungsstratgien für Fernwärmenetze - Tools und Methoden
4	FfE (2020): Wärmewende erfolgreich gestalten – Impulsvortrag für den Strategieworkshop des
	Verwaltungsrates der Stadtwerke Landsberg
5	Deutsches Institut für Urbanistik (2017): Kommunales Transformationsmanagement für die lokale
	Wärmewende - TransStadt-Leitfaden
6	ISE (2020): Eneff:Stadt - Weingarten 2020 Monitoring und Optimierung
7	Adelphi (2018): Climate smart Hyllie - Fallstudie im Rahmen des Projekts Evolution2Green –
	Transformationspfade zu einer Green Economy





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