

An Approach to adapt the Paradigm of Integral Planning to Urban Development

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Part of the Research Program accompanying the „Energy Efficient City“ Contest



BMBF „Energy Efficient City“ Contest

Scope of the invitation for competition:

- considering the whole town
- integrating systemic views, pioneering ideas and services
- regarding the urban system in a technological, social and spatial view

- 72 applications
- 15 cities / projects founded for concept development (1st period)
- 5 cities / projects founded for implementation (2nd period)
- accompanying research program
- total funding period 2008 – 2016

BLM scope:

- transferability of planning processes



[Figure: 2nd Period: Location of Funded Projects and Accompanying Research]

Difficulty: „Making the right choice“ on local level

■ Broad range of issues and possible improvements:

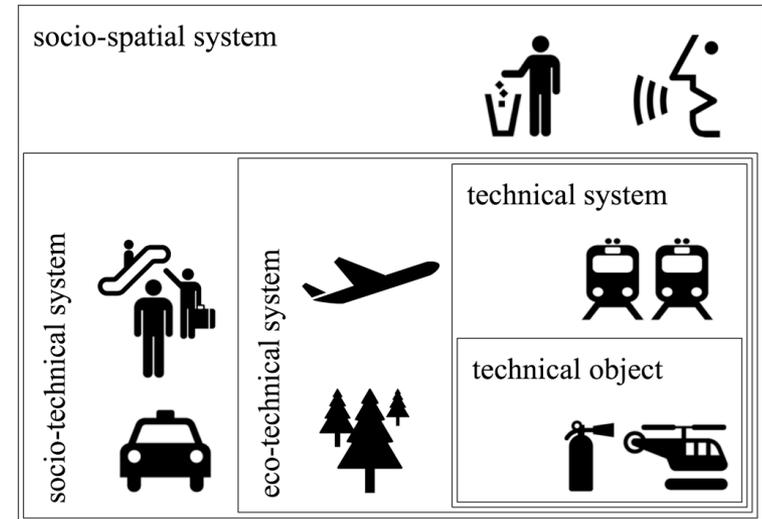
- technological solutions *e.g. photovoltaic systems, building insulation, ...*
- spatial allocation + accessibility *e.g. local supply, pedestrian and cycle traffic, ...*
- new actors and roles *e.g. local energy office, cooperatives, remunicipip, ...*
- support for decision-making *e.g. energy footprint, geoinformation, typology, ...*
- transfer of knowledge *e.g. guidelines, manuals, consulting, ...*
- attract attention *e.g. image campaign, energy award, newsletter, ...*
- small investment + „first aid“ *e.g. building temperature level, 50-50 projects, ...*

[Source: Rexroth et al. (2016): Wettbewerb „Energieeffiziente Stadt“. In: Wagner & von Both (Eds.): Wettbewerb Energieeffiziente Stadt : Band 8. LIT Verlag. p. 11-22]

- **VARIOUS MEASURES ARE VALID AND QUALIFIED – BUT THEY HAVE TO BE CHOSEN AND ADJUSTED IN RELATION TO THE LOCAL SPECIFIC SITUATION AND DYNAMIC – FOR TO BE AN INTEGRAL PART OF URBAN DEVELOPMENT.**

Terms: The range of „Integral Planning“

- **Integral**
„belonging to and constituting a whole“ (Duden, transl.)
- **Ontology**
„What you think the world is about affects what it is about for you.“
Leads to different subjects of planning / subjects of improvement.
- **Nested Structure of Subjects**
Understandings with different prior concerns.
- **Initial questions for each project**
Where to set up the starting point, the scope and problem definition?
- **Who should be included?**
What should be observed?



[Figure: Nested structure of exemplary subjects of planning]

Terms: The range of „Integral Planning“

- **Integral (OD)**
concerning the whole organisation and all topics

„**Focused**“

„**Integrated**“

| Range of Issues / Range of Actors | (A) One Primary Issue | (B) Several Equal Issues | (C) Open to all Issues |
|--|---|--|---|
| (1) One Primary Actor | mono-topical / uni-sectoral e.g. energetic modernization of communal buildings building department | pluri-topical / uni-sectoral e.g. local energy and climate concept environmental agency | integrated / uni-sectoral e.g. mayor's five-year plan regarding an integrated urban development mayor |
| (2) Several Communal and Local Actors | mono-topical / multi-sectoral e.g. industrial local heating supply to a municipal sports center building department, public utility, industrial enterprise | pluri-topical / multi-sectoral e.g. energy-efficient and functional urban refurbishment planning authority, energy consultants, redevelopment agency, homeowners | integrated / multi-sectoral e.g. urban development strategy with an included energy and climate concept city council, city administration, local initiative for climate protection |
| (3) Open to all Local and Interested Actors | mono-topical / integrative e.g. communalized power supply shared with a citizens' cooperative citizens, public utility, enterprises, (...) | pluri-topical / integrative e.g. urban redevelopment including energetic, functional and social transformation residents, shop owners, planning authority, housing companies, public utility, (...) | integral e.g. open strategy formation regarding spatial, social, (...) and energetic development citizens, city administration, public utility, local economy, public transport enterprises, NGOs, (...) |

[Table: f. Glasl 2000; modified and with added examples on urban development.]

„**Integrative**“

„**Integral**“

Here:

- **„Integrated“**
broad range of issues
- **„Integrative“**
broad range of actors
- **„Integral“ (idealized)**
no premature limitation in the range of topics an the range of actors

Local situation

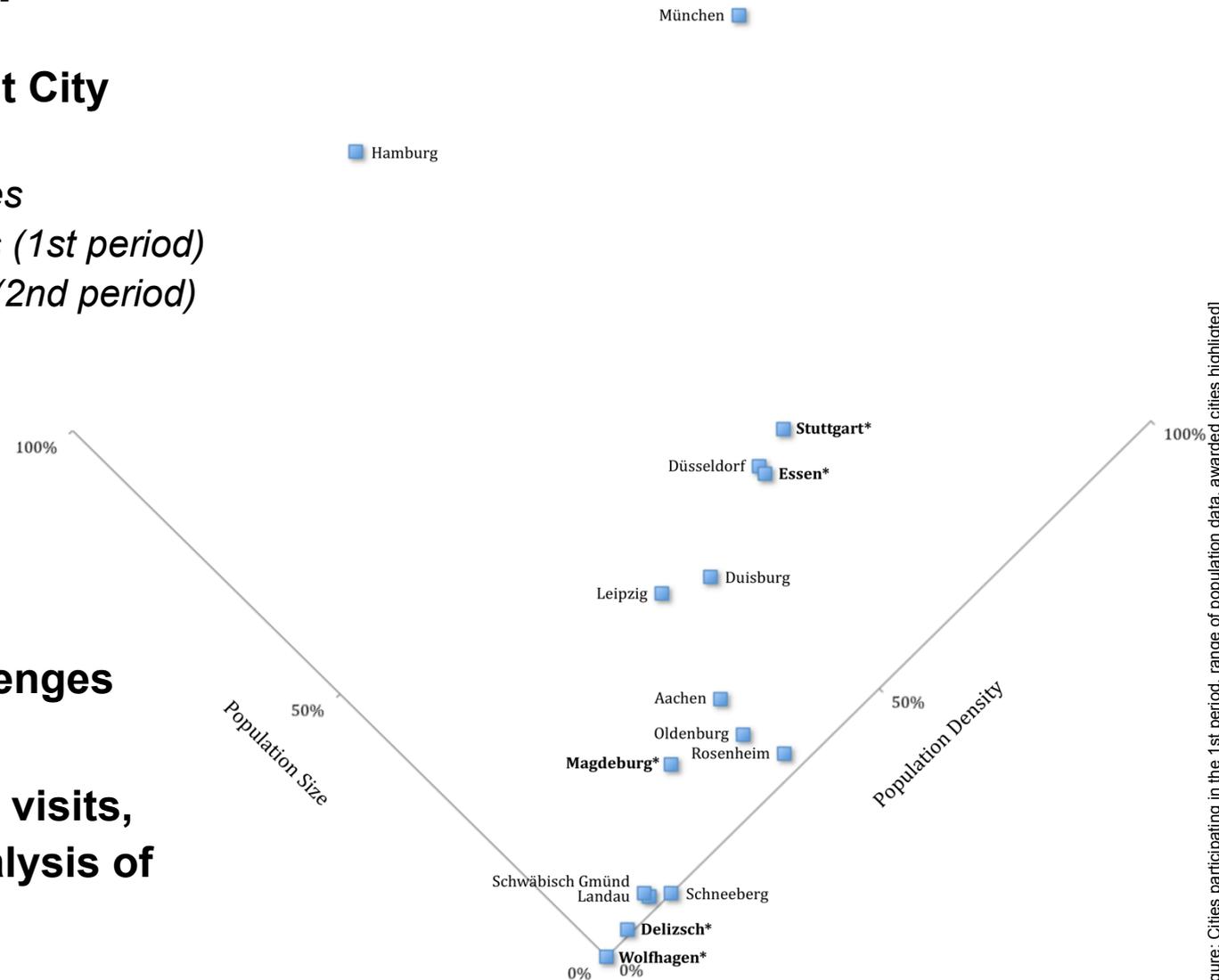
- „Energy Efficient City Contest“

17 participating cities

15 founded projects (1st period)

5 founded projects (2nd period)

- Search for challenges and dynamics
- Interviews, local visits, comparative analysis of available data



[Figure: Cities participating in the 1st period, range of population data, awarded cities highlighted]

Local situation

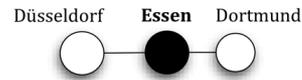
■ „Energy Efficient City Contest“

17 participating cities

15 founded projects (1st period)

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■ Search for challenges and dynamics



■ Interviews, visits, comparative analysis

■ Focus on 5 case examples:

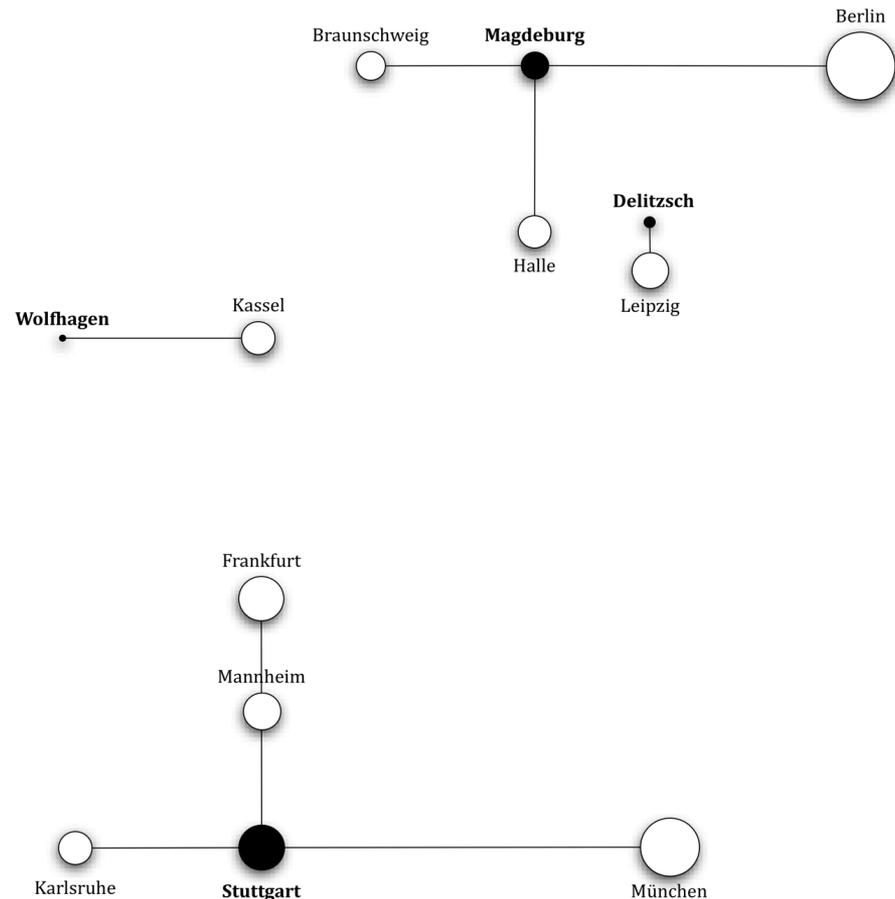
Delitzsch | Saxony | 25.000 Res.

Essen | North Rhine-Westphalia | 575.000 Res.

Magdeburg | Saxony-Anhalt | 235.000 Res.

Stuttgart | Baden-Württemberg | 620.000 Res.

Wolfhagen | Hesse | 12.500 Res.

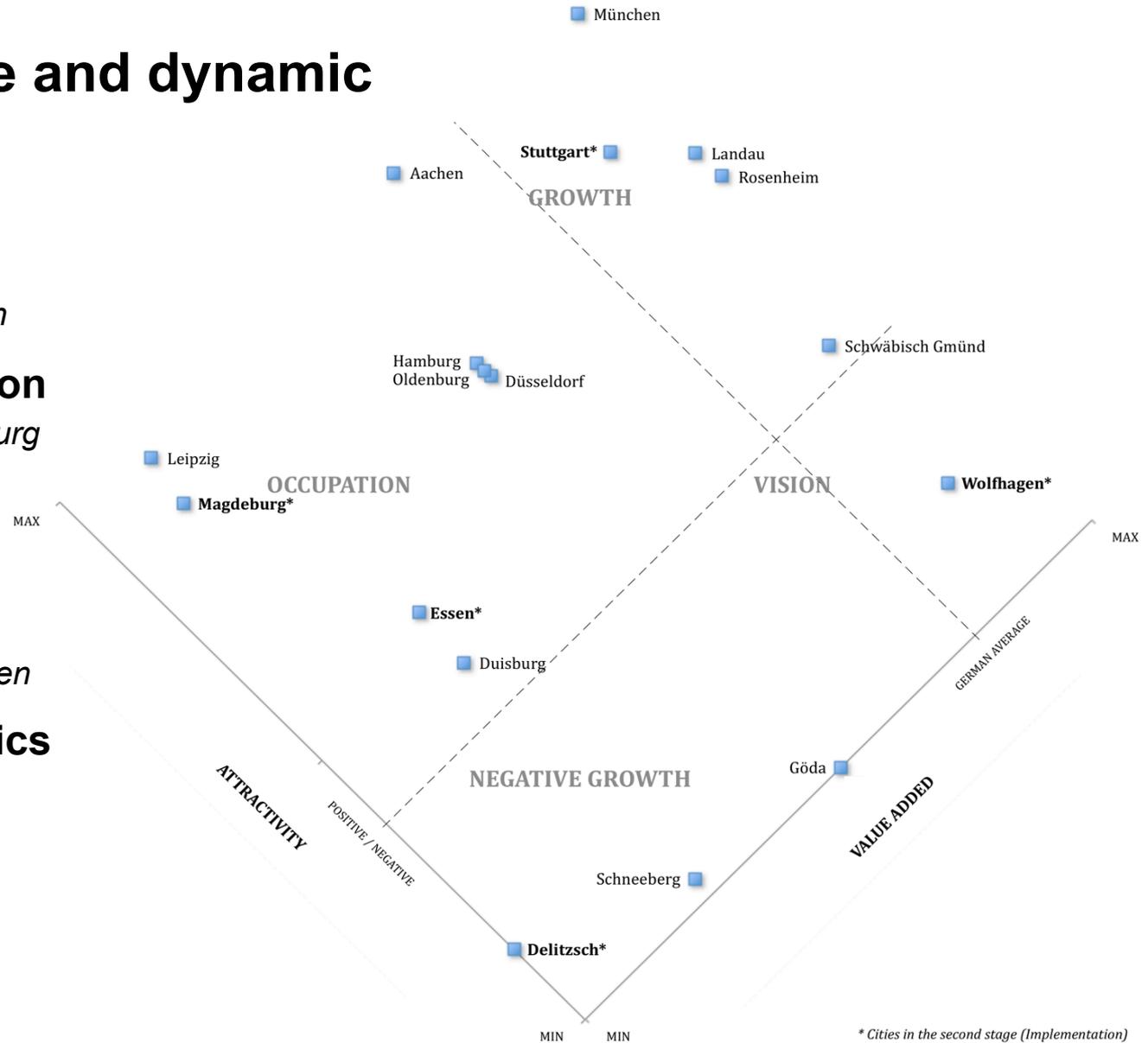


[Figure: Cities participating in the 2st period, public transportation: temporal distances to other large cities]

Local challenge and dynamic

„Constrained by ...“

- **Negative Growth**
Case Example Delitzsch
- **Limited Occupation**
Case Example Magdeburg
- **Growth**
Case Example Stuttgart
- **Lack of Vision**
Case Example Wolfhagen
- **Moderate Dynamics**
Case Example Essen



[Figure: Cities participating in the 1st period, range of population data, awarded cities highlighted]

Preselection of a Planning Approach

Matching „prior concerns“ and planning approaches:

■ Top:

*Efficient use of spatial capacity
Sophisticated coordination
necessary*

■ Down:

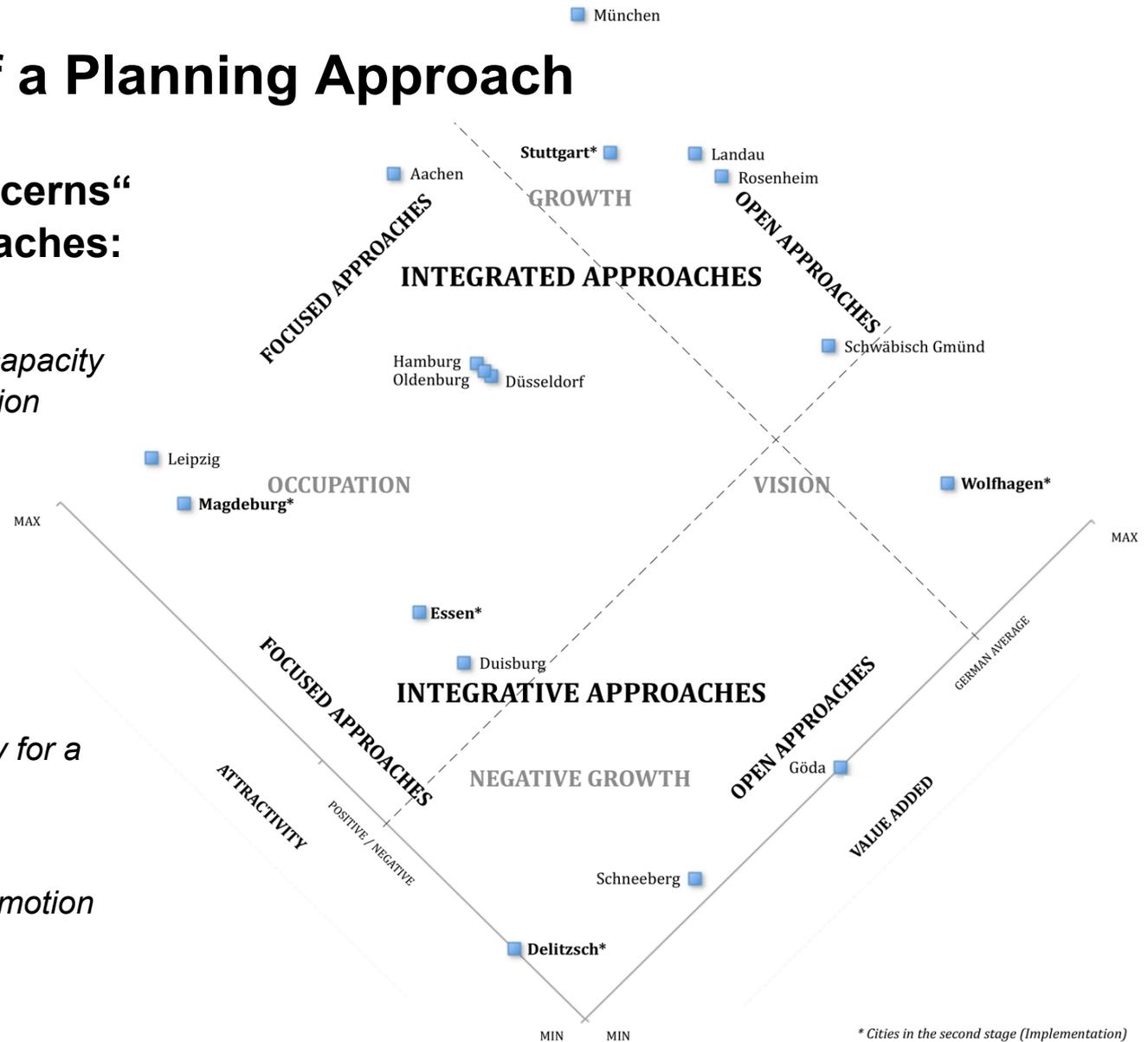
*Losses in level of living
Common awareness is
necessary*

■ Right:

*Open mind is necessary for a
realignment of strategy*

■ Left:

Focus on economic promotion



* Cities in the second stage (Implementation)

[Figure: The Field of Planning Approaches regarding different Dynamics]

Further Information

■ Web Page:

<https://www.wettbewerb-energieeffiziente-stadt.de/>

■ Book Series „Wettbewerb Energieeffiziente Stadt“ (LIT Verlag):

Band 1: Gebäude und Haushalte

Band 2: Energieversorgung, Energiebilanzierung und Monitoring

Band 3: Methoden und Modelle

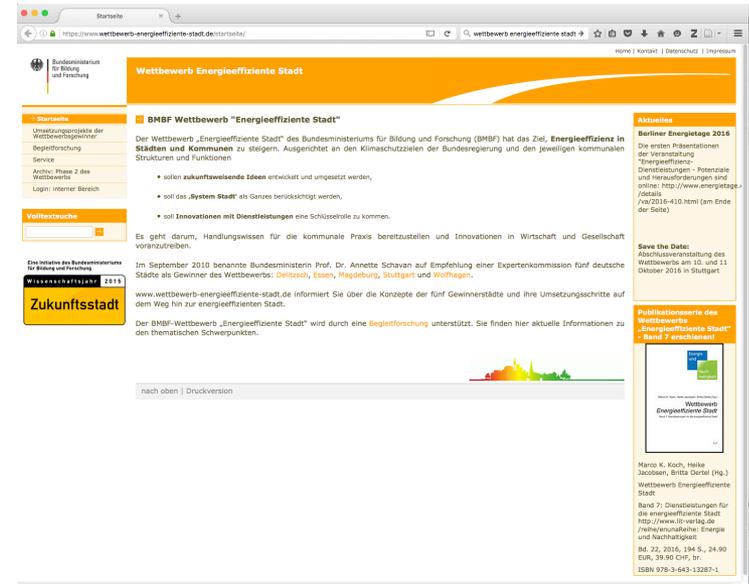
Band 4: Stadtentwicklung und Mobilität

Band 5: Kommunikation und Partizipation

Band 6: Akteure und Netzwerke

Band 7: Dienstleistungen für die energieeffiziente Stadt

Band 8: Gute Beispiele der Umsetzungsphase



Thank you for your attention!