System of spatial planning in Germany
Federalism: national organizing principle of the Federal Republic of Germany (Art. 20 Abs. 1 GG [Basic Law]), Community of equal Länder who determine their own affairs
statehood at two levels: 16 Länder → 1 federal state
Legislation is the right of the central state
Federal law overrides law of the Länder
The Länder of the Federal Republic of Germany have "statehood" (its own constitution, government, administration, parliament, judiciary).
Legislative competence of the federal level vs. Legislative competence of the Länder
„typical“ competence of the Länder is e.g. the cultural and educational policy
Administrative structure in Germany

Spatial structure of the Federal Republic of Germany is considered "balanced".

Decentralized structure is associated with a high number towns, that function as major or middle centres for an area.

Not one center but a network of central places with different importance or “weight”.

Stadttypen in Deutschland

- Großstädte
- Mittelstädte
- Kleinstädte

< 300,000 Einwohner
< 50,000 Einwohner
≥ 50,000 Einwohner
Planning system
basic principles of spatial planning(2)

- Spatial planning is not an investment planning, but organizational planning (management tool).
- In the social market economy, spatial planning is subordinated to social objectives.
- The overall aim is to promote social and economic development with special reference to environmental impacts.
- The specific objectives are
  - Efficient use of the available space,
  - Economic balance of the Regions,
  - Create equal living conditions,
  - Care and development of environmental resources.
Planning system: structure

- Spatial and environmental planning is institutionalized in one planning system in Germany,
- In the federal structure of the Federal Republic, the federal government only has framework competences: Federal spatial planning is limited essentially to the development of guiding principles and principles of spatial planning
- The Länder and the municipalities have the actual planning competence.
- The Spatial Planning Act, the Nature Conservation Act and the Water Resources Act are framework laws on the federal level, only the Building Code regulates the things conclusively and uniformly at the federal level.
- Therefore, on closer inspection, the German planning system has 16 different forms, because each state has developed its own variant of spatial planning (building control law) and environmental planning within the framework of federal legislation.
Planning system: structure (2)
Planning system: legal bases

Legal basis for the system of spatial planning:

- Article 75 Section 1 and Article 30 of the Basic Law, which regulate that the federal government has framework legislative powers on spatial planning, nature conservation and water, but the Länder are responsible for the practical implementation

- the Federal Regional Planning Act (ROG) and the consequent state planning laws

- the Federal Nature Conservation Act (BNatSchG) and the consequent state conservation laws

- the Water Resources Act (WHG) and the consequent state water laws

- and on this basis further legal regulations that relate to content and method

- Article 74, Section 1 of the Basic Law, which stipulates that the federal government has concurrent legislative competence on the housing and human settlements and land use

- the Building Code (BauGB), with which this competence is filled

- the Land Utilisation Ordinance (BauNVO), which outlines the types of land use

- as well as related legal regulations.
Planning system: local urban development planning (Bauleitplanung)

Task of the local urban development planning:
- to prepare construction and other use of land in a municipality in accordance with the Building Code and conduct.

- **Two-tier system** of the local urban development planning
  - First tier/level: preparatory planning → preparatory land-use plan (FNP)
  - Second tier/level: binding land use → binding land-use plan (B-Plan)
Planning system: local urban development planning
preparatory land-use plan (FNP)

- Development out of the regional plan,
- Arrangements of the type of land use for the entire city,
- both for developed as well as undeveloped land,
- The plan outlines where in the city residential areas, commercial areas, green areas, traffic areas etc. are located while taking into account environmental concerns (landscape plan)

- The preparatory land-use plan is binding on authorities, but has no direct legal effect to the citizens.
- From the descriptions of the preparatory land-use plan, the binding land-use plan will be derived.
Planning system: local urban development planning
binding land-use plan (B-Plan)

The binding land-use plan
- focuses and differentiates the framework determinations of the preparatory land-use plan for spatially delimited areas
- lays down legally binding rules (inter alia)
  - Type and level of building use,
  - building height,
  - building density,
  - degree of building coverage
  - spaces for transport and green spaces
- Decision as a statute by the local council,
- legally binding basis for the construction planning legality and the approval of construction projects in its scope,
- Determinations of the plan are mandatory for property owners.
Planning system: local urban development planning
binding land-use plan (B-Plan) (2)

Example of a binding land-use plan of the city of Hanover
Planning system:
Building permission
2011/2013 amendment to the Building Code: climate change mitigation and adaptation

In 2011 and 2013 the Building Code was amended at various points, some of which relate to climate change mitigation and adaptation, e.g.:

- **General clause on climate protection** in local urban development planning (§1a Abs. 5): “The requirements of climate protection should be worn both by measures to counteract climate change, as well as those that serve to adapt to climate change.”

- Content of the binding land-use plan (§9): supplement to the existing list of possible contents → areas for plants and equipment for centralized and decentralized production, distribution, use, or storage of electricity or heating or cooling from renewable energy or combined heat and power generation (similar in some other sections of the law: §11, §148)

- Admissibility of **solar collectors on buildings in the Undesignated Outlying Area** (§35 Abs. 1)

- **Urban renewal areas** (§136): the goal of up to date measures of climate protection and climate adaptation can be one of the causes for urban renewal

- **Economical and efficient use of energy** (§248): In some cases it is possible to deviate (to a lesser extent) from the fixed measures of the extent of structural use, the type of construction and the buildable land area on existing building to reach the goal an efficient use of energy

- **Repowering** of wind turbines (§249)
Energy efficiency in urban development: possibilities of influence

Urban design allows influence on energy efficiency:

- **orientation of the building**
  - main facade faces south to optimally exploit solar radiation energy
  - deviations of up to 45 degrees are possible without large losses

- **avoidance of shading**
  - avoid shading from other buildings or plants in order to optimally utilize solar radiation energy
  - shading by trees: deciduous and coniferous trees are to be distinguished (in summer shading by deciduous trees can be quite intentional)

- **compactness of the building**
  - geometry and compactness of the structure have a decisive influence on the demand of heating energy
  - compactness follows from the ratio of length / depth / height. The lower the resulting ratio of surface to volume, the lower the annual heating demand.
  - The roof shape influences the compactness and thus the heating demand (unfavorable roof shape: e.g. stacked storeys).
  - Fragmented building subdivisions also have a negative effect on the ratio of surface to volume (e.g. forward/backward jumps, bay windows, dormers, building offset in row houses, etc.)
Energy efficiency in urban development: possible determinations in the binding land use plan

§ 9 Abs. 1 Building Code sets a closed list of legally binding rules – there is no possibility to invent other determinations.

Impact on the energy efficiency can be caused by the determination of

- the type of development (open or closed) (§9 Abs.1 Nr. 2) → impact on compactness
- building lines and set-back lines (§9 Abs.1 Nr.2 in connection with § 23 BauNVO) → impact on orientation of the building, avoiding of shading
- the height of buildings (§9 Abs.1 Nr. 1) → impact on compactness, avoiding of shading
- planting orders (§ 9 Abs. 1 Nr. 25) → impact on avoiding of shading by plants
- exceptions to the admissible degree of building coverage to enable a better thermal insulation (§9 Abs. 1 Nr. 1 in connection with § 16 BauNVO)
- areas for plants and equipment for centralized and decentralized production, distribution, use, or storage of electricity or heating or cooling from renewable energy or combined heat and power generation (§ 9 Abs. 1 Nr. 12).

Further possibilities are

- the designation of areas with local rules (bye-laws) on the compulsory connection to and use of a district heating system (§ 9 Abs. 1 Nr. 6) and
- when mounting a building or other constructions, special structural or technical measures for production, use or storage of electricity or heating or cooling from renewable energy or combined heat and power generation (§ 9 Abs. 1 Nr. 23b).
Energy efficiency in urban development: further possibilities via contracts

The binding land use plan does not give the possibility to determine the compulsory use of a certain energy source or an obligatory energy efficiency standard (e.g. by stating a maximum heat energy demand).

The determinations according to § 9 Abs. 1 Building Code can only establish the conditions for energy efficient buildings or the use of renewable energies.

Further regulations, which are not possible via the Building Code, are governed by a contract if necessary.

- Urban development contract
- Real estate purchase contract

Possible regulations via contracts, e.g.:

- use of renewable energy, definition of certain energy sources,
- reduction of heat energy demand,
- improving energy efficiency,
- connection to heating network and/or use of CHP plants.
Planning system: duty to public participation

In urban land-use planning procedures, the involvement of the public and of public authorities and other public agencies is provided for in **two stages**. The Building Code distinguishes

- **early participation** and
- **formal participation**

Early Participation:

- serves to inform the general public about the general aims and purposes of planning and to hear their views
- Members of the public can put forward their proposals and arguments at an early stage in proceedings, before planning has taken on too definite contours.
- In addition, the municipality is required to inform public authorities and other public agencies at the earliest possible date of the general aims and purposes of planning and to invite them to state their views

Formal Participation:
Thank you for listening!

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