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Stadtquartiere

Namares 2.0 – Digital Urban Resource Management in Districts

The funding measure Resource-efficient urban districts for the future (RES:Z)

The sustainability and resilience of existing urban neighbourhoods are becoming increasingly important in politics and society. There is an urgent need for action to utilise existing resources and potential effectively, which requires urban transformation and practical solutions. Namares aims to digitally promote this integrated planning and transformation process at the neighborhood level. The software developed in the first phase will be tested and developed in several test areas and municipal planning processes.

The German Federal Ministry of Education and Research (BMBF) is funding the project as part of the funding measure Resource-efficient urban districts for the future (RES:Z). The funding measure focuses on the resource-efficient use of water, land, material flows, energy and urban greenery in urban areas. The goal is integrative planning and sustainability-oriented management of urban neighborhoods with the participation and coordination of all relevant stakeholders.

Sustainable Cities and Municipalities

Cities are in a constant state of change. This process is driven by society's desire for modern, sustainable, and liveable places to live and work. It is also driven by the megatrends of climate change, resource scarcity, demographic change, and globalisation. The involvement of civil society and many other stakeholders is crucial to the success of this transformation. The contribution of cities to sustainable development is, therefore, a complex management task. The challenges are particularly significant in existing and historically grown urban areas and districts.

Digital Support for Urban Development

The project is developing software that digitally maps and evaluates urban neighbourhoods in terms of their resources. This software is intended to support local authorities in communication, decision-making and planning. In the first funding phase, a prototype application has already been developed that serves to record and evaluate the current state of urban neighbourhoods and effectively supports the planning of sustainability measures.

The software application enables detailed statements to be made for each individual parcel or for the entire neighbourhood. This allows to identify improvement potential ('HotSpots') with a particularly high cost-benefit ratio in existing buildings and, in particular, to estimate the ecological effects and the one-off and ongoing costs of possible measures.

Existing urban information on building development and land utilisation is used for this purpose. Although the information situation in public areas of the neighbourhoods is comprehensive, there is a lack of details about private green spaces. To close this gap, data was collected specifically on private green spaces for a detailed analysis and assessment of ecosystem services.

In the first funding phase, indicators for assessing resource efficiency at neighbourhood level were also identified and guidelines for implementing strategies were developed. These results contribute significantly to improving the information situation on existing neighbourhoods with regard to their resource availability and use.

From Proof-of-Concept to Practical Use

In the follow-up phase, Namares 2.0, the developed Software will be extensively tested in practice and further developed according to user needs. The application will be tested in several municipalities (Cologne, Bruchsal and Bretten) to demonstrate how it can support formal urban planning and development processes and to ensure its transferability. Plausibility analyses and validations will be conducted, and workshops with municipalities and urban planners will be held to develop additional functionalities and measures. The implementation and institutionalisation phase aims to permanently use the software application and the guide in the participating municipalities for the continuous and digital support of urban resource management. To achieve this, the software will be made more user-friendly. For dissemination purposes, introductory courses will be offered to other interested municipalities.

Resource management in neighbourhoods encompasses many aspects: Namares aims to digitally promote this integrated planning and transformation process at neighbourhood level.

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Namares 2.0 – Digital urban resource management in districts

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