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Critical thought on the rehabilitation project Innovation City Bottrop - A positive example for an energy efficiency future through sustainable energy and climate change mitigation

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The city of Bottrop is one positive example, where since 2010 a transformation through active public-private partnerships and an engaged citizenry into a living laboratory can be observed (ICLEI 2014:1).

Over 200 projects focused on climate-friendly urban redevelopment were initiated in the last years. The “InnovationCity Ruhr” has become a model for the renewal of the entire Ruhr area, but also to other industrial cities worldwide. The main idea of the project was to develop seven districts in the heart of the city with more than 14,000 buildings and 70,000 inhabitants into a blueprint of energy efficiency. The city became a living laboratory for urban redevelopment, sustainable energy and climate change mitigation. Under the slogan, “InnovationCity Ruhr”, the Initiative Group launched a campaign to find a pilot city to conduct comprehensive urban development, with the final objective of replicating the pilot’s successful projects across the Ruhr region (ICLEI 2014:1).

The energetic restructuring of existing buildings is one of the most important measures of the CO_2-reducing. The city has a modernizationrate of 7,82 % over the last two years, which is in comparison to the German average with 0,9 % very high (Bottrop 2014). The Bottrop Model City is also from a scientific point of view a unique

testing ground for the exploration of possible pathways to a climate-friendly and energy efficiency urban redevelopment. (ICLEI 2014:5).

Background to all these efforts is the Climate change which have taken place during the last three decades and have influenced environment and nature (Federal Government 2008: 15). In future strategies and measures for adaptation to climate change must be closely connected to the political of change and must be focussed on the objectives of sustainability (Federal Government 2008: 15).

Climate researchers expect climate protection measures to have a growing impact on the building sector (Federal Government 2008:19), because it makes up to about 40 % of the energy consumption in Germany. In fact, the remediation rate of existing buildings stagnates at approximately 1 % per year (BMWI 2012: 6). This potential in the building sector should be activated more strongly in the future (BMWI 2014: 22).

For achieving the federal goals like the CO_2-reduction of 40 % by the year 2020 (Bundesregierung 2015) there are manifold financial funding programs, that support municipalities to implement energy saving measures on the local level. Today one aim of city planning is to reduce the impacts of climate change. The aims of the government can be reached through efficient measures on a local level more easily and with a lasting effect.

In Germany exists a support program system, which doesn`t exist in this form in other countries. Some German cities like Bottrop have a successful strategy to use the support program system effectively. The German administration system is divided in three levels: federal government, federal state government and the local communities. For example, there are programs which are offered by the federal government to the implement certain measures at the local level. Because of this reason climate protection and energy efficiency concepts and the specific measures are promoted. Even the positon of the reconstruction manager who has the task to implement the measures can be promoted. Through this support program system it is possible to increase energy efficiency on local level.

Because of the precarious budgetary situation of many German cities and municipalities, the implementation of the ambitious climate protection goals set by the

German federal government causes a serious dependency of the cities and local communities to public funding programs. To be able to implement city development projects local communities use different forms of funding, that are provided both by local or federal government. Whenever an applicable commune tries to use funding from the beginning until the end of a project, the phenomenon can be observed, that a local community does not stick to one funding program, but applies for and uses different funding at the same time or in a progressive way. In the end, the project will be congruent with the goals of support programs, but maybe not with the goals of sustainable city development that also related to other goals such as recompaction and minimization of land consumption. Hence, in summary, this practice might not be the best and most efficient economic solution.

This paper analyzes the development and project process from project to implementation of measures. The focus lies on the correlation of the support program system with the project development. The aim is to discover if there are path dependencies of the municipality of Bottrop and to analyze if the objectives of the programs are congruent with the objectives of sustainable urban development. The theory of path dependency distinguishes the different possibilities in the beginning of a project, the influences upon the eventual outcome and the implementation of it (David 1985: 332). Therefore, path dependency processes (like the implementation of an energy efficiency concept) do not have a clearly formulated result in the beginning and have in later processes effects which strengthen itself so that a path is aligned with the result (Pierson 2000: 75).

As methodology the paper uses literature review and structured interviews with experts of the local community of Bottrop. They are asked about the main problems of support programs and by implementation of energy efficiency concepts.

Finally, the research paper tries to answer the question, if the structure of funding's forces municipalities and their decision makers into path dependencies. This should emphasize the importance of rethinking the structure of funding programs and their influence on decisions making in communities.

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