

The Planning Advice Map of Hamburg: Checking its usefulness while advising city planners

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In 2014, the City of Hamburg in northern Germany commissioned a tailor-made urban climate analysis. Its essential tool is – among others – a planning advice map that contains spatially positioned information, hints and recommendations for resilient and adaptive urban planning. Although this tool was officially approved by the city council, it is used rather reluctantly. One of the reasons may be that the city planners in charge know little about its benefits for urban climate.

In our presentation we will explain how we – as urban climatologists – advised the planning department of Hamburg's borough „Wandsbek“ in their decisions to shape a building project in accordance with a local cold-air flow (which is an important source of fresh air for local housing zones during weak wind periods) and – above all – helped them to get to know „their“ tool. In doing so, we contributed to a planning process support one overall goal of Hamburg: Becoming a „Climate Smart City“.

Surprisingly, the first step was to help the city planners extracting the information relevant for their project out of the planning advice map. In a joint process, the reading and interpreting of the maps and charts of the urban climate analysis was studied. Then, the benefits of this valuable tool were discovered and applied to a public housing project for refugees in a highly climate sensitive area of Hamburg. In this context we will talk about the planners' feedback and their needs in every day work concerning urban climate analysis.

Another part of advising the borough authorities was to provide input for a public presentation. Together with staff members of the department for city planning we faced concerned citizens during a public department meeting. Providing an objective view on climatological facts helped substantially to clear out fears of neighbours and rumors about bad consequences of the project regarding urban climate. In our talk we will present the maps and charts used at the public meeting as an example of how scientific results have to be translated for the public to understand.

Additionally, we will show how we quantified the influence of the project on the local cold air flow. We will present maps of cold air depth and speed and show how far the fresh air reached into housing zones with and without the planned buildings. For this comparison the cold air production and flow model KLAM 21 provided by the German Weatherservice DWD was used.