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CITIES



## Masterplan Energy Transition Dortmund

# Citizens leading an energy revolution

Dortmund has responded to Germany's energy revolution by implementing a city-wide plan that has achieved far more than acceptance of the need for change. It has also inspired participants to generate fresh and relevant ideas for energy systems and savings.

Germany's decision to shut down all nuclear power stations by 2022 and switch from fossil and nuclear energy to renewables and efficiency presented a challenge for the whole country. A challenge to restructure energy supplies so that they are safe, sustainable and economically viable. Dortmund is an old industrial city, traditionally reliant on coal and large infrastructures. Creating a flexible, modern energy system required mainstream understanding of the issues and cooperation to re-imagine the future.

Dortmund came up with a plan to lay the groundwork for an energy transition across all sectors of society. The plan centred on a participation process enabling citizens, scientists, the energy industry and business and political communities to share their experiences and anxieties and start shaping a new vision. This process was coordinated by a project team and overseen by a steering committee led by the lord mayor. At its heart were workshops where people were asked to think broadly about what they want for their city.

### Gaining new knowledge

Over 400 people got involved in these workshops, which explored the risks, threats and opportunities associated with issues such as energy education, climate change and energy poverty. At the outset, participants needed time to assimilate a lot of new knowledge and some were confused by the openness of the brief.



The Masterplan project succeeded in creating acceptance of both the participation process, which will be invaluable to the city as it faces other challenges in the future, as well as acceptance of the opportunity we have to help energy transition in Germany fly.



*Dr Jan Fritz Rettberg, TU Dortmund  
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cities in action

October 2015

where: Dortmund, Germany  
what: environment  
when: 2012+

Once they realised the connection between the issues and what mattered to their own lives and livelihoods, they began to direct discussions and promote their own project ideas.

These ideas were seen as an important indicator of participants' growing understanding of how energy efficient behaviour could be part of everyday life and knowledge and use of renewable energy more widespread. Many of these projects were approved by an advisory committee and went on to be developed by consortia involving local companies. This helped add value to the whole initiative by enabling tangible progress and supporting the local economy without additional municipal funding.

## Making an impact

Thirty of the 215 projects put forward have already been implemented, and many more will follow. The first set of projects includes a mobile app for 12-25 year olds that turns learning about the benefits of renewable energy into a game. The goal is to earn enough virtual money from installing renewables on Dortmund's most famous buildings to buy its football stadium. Another project is helping companies jointly analyse energy issues in the supply chain and find more efficient ways of producing, transporting, storing and selling goods.

In other projects, electro-mobility is being given a boost by a 'Customer and Innovation Lab' which is inspiring suppliers to introduce new ideas and kick start new services. Over 100 new homes capable of generating more energy than they use are being built in the city. And companies in one innovation business park are being challenged to reduce their carbon emissions and energy costs to establish a precedent that can be copied across the city's industrial parks.

## Creating extra value

As well as leading to purposeful projects like these, the Masterplan Energy Transition project has also been successful in terms of creating a culture of discourse and consensus building in the city, which will undoubtedly be valuable in the future.



In the meantime, Dortmund is making the most of two additional opportunities that have emerged unexpectedly.

As a result of the range and quality of projects generated, the city has decided to integrate many of these into Dortmund's Urban Development Plan. This will see half of the city become a demonstration area for innovative projects.

The Masterplan project has also given the city the smart ideas, participation structures and impetus to apply for EU funding to become a smart city.



The mobile app we developed brings knowledge about Dortmund's energy needs and opportunities to teenagers in a fun and realistic way. It features the city's actual buildings, sunshine levels and wind speeds within a game they can play, master and share via social media.

*Jochen Meis, head of research, GeoMobile*

