



Dr Martin Dijst is Professor of Social Geography, focusing specifically on urban development and spatial mobility. He works at the Faculty of Geosciences at Utrecht University.

*Photo by Fred Trappenburg © Geomedia*

## 2 How weather, space and the mobile person influence each other

The CESAR programme ('Climate and Environmental change and Sustainable Accessibility of the Randstad') will produce knowledge and tools for spatial planners who want to take into consideration the changing climate conditions in the low-lying Randstad region. To that end, the researchers will analyse the connections between spatial use and infrastructure, meteorological processes and human mobility patterns. They will also examine how this knowledge can be used in practice in the field of spatial planning. Researchers from Utrecht University, the University of Amsterdam, Radboud University Nijmegen and Wageningen University are working together on the programme.

In truth, Martin Dijst has been less and less occupied with 'pure traffic and transport' in recent years. He is more accurately looking for areas of interaction with other themes, such as daily schedules, health and social cohesion. "I try to look at mobility from a broad perspective. What does it mean for people that they spend a large part of their time on their way to somewhere? How does that influence all sorts of social processes? What kinds of consequences does it have for human health, but also for the population demographics in certain neighbourhoods? Many policies and many scientific studies look at where people work or live, but people spend a great deal of their time as a 'passer-by' or 'visitor'. That has consequences for the support base for facilities and should also be a factor in spatial planning policy. It is also relevant to consider how people experience space. Humans are sensory beings. It matters what kind of weather it is and whether it stinks. It also matters whether a neighbourhood offers lots of diversions and has interesting public facilities, and whether it has lovely old buildings to look at. All these things influence behavioural choices, including choices for mobility. And I want to know exactly how that influence works."

## The mobile person as a recurring theme

The fact that Dijst links mobility to health and social cohesion allows him to build bridges between different disciplines and policy fields. “I see mobility as an integrating recurring theme. If you take the mobile person as your point of departure, you can integrate all sorts of policy fields. That sometimes presents a problem for government ministries.” The CESAR programme, as part of SAR, also emerges from linking various societal problems to mobility. “When the call for the second round was issued, I immediately saw opportunities to intertwine expertise from different disciplines. I first set out in search of meteorologists who are also working with spatial considerations, and I found them in Wageningen. When I went looking for a tangible application for the knowledge to be developed, my search brought me to Urban Strategy at TNO. It is an interactive decision-making support system for determining how different changes in the surrounding area would affect the quality of life in the physical environment. Other people that I’m working with include Luca Bertolini from the University of Amsterdam, Stan Geertman here in Utrecht and Rob van der Heijden from Nijmegen. My sense is that all the pieces of the puzzle have fallen into exactly the right places now. I already knew some of these researchers, but the people from the exact sciences in particular were unfamiliar. The next step is that I also want to expand the scientific network in this field internationally.”

## Keeping journals

CESAR is about the consequences of climate changes at the level of day-to-day weather and how people respond to it. “It is possible that the summers will be hotter. In that case, the cities will become some sort of heat islands. Will people walk and cycle less if that happens? Will they leave the cities in their cars to go to the countryside, where it’s cooler? And what about the progressively milder winters? Will people walk and cycle more if the winters are less cold? And how is that expressed in different groups? The elderly are often less able to deal with heat than younger people. What consequences would that have for the population demographics in cities, for example? And what locations would become more popular – or less popular – for people to go to? We hardly have any insight into these types of mobility choices. In CESAR, we will be taking systematic stock of all of these things.

We will achieve this in part by combining weather data with the Dutch Mobility Survey. But we will also be conducting field research by having a regular panel of people keep journals. I will give them a tool that will make it possible for them to record their direct perceptions of the weather. How people perceive the weather is a highly subjective experience. Besides the weather and the choice to use specific forms of mobility, we will also be looking at the links to how public spaces are structured. We know that the presence of green spaces and water are accompanied by certain weather effects. We also know that people feel safer and more protected in certain types of buildings. All these things affect individual choices about mobility behaviour, but how, exactly?"

## Man with a mission

The first challenge is to decipher the complex relationships between urban buildings and infrastructure, meteorological processes and behavioural patterns with regard to mobility, residential choices and car ownership. CESAR will then integrate the knowledge into an improved version of Urban Strategy in order to support spatial planning to offset the requirements imposed by the climate, bringing them into balance with other interests in the Randstad area. Knowledge transfer mechanisms will be developed and tested for that purpose and a 'climate-proof' Urban Strategy model will be developed and applied in participative workshops. "That means that transferring knowledge to policy-makers, city planners and other people working with space and mobility poses a separate task for us. And before we can convey that knowledge, we have to accomplish the mission of winning people over for our ideas. Climate-proof planning for space and mobility is not yet considered an everyday affair in government circles, although there certainly are a number of municipalities that are already working on it. Many administrators and policy-makers envision the climate issues on a larger scale. But you can actually do something at the local level – not just adapting, but mitigating the impact. The challenge for us is to use simple examples to show exactly how it can be done. That is why we immediately start involving the future knowledge users in our programme."