

# More and more employees at RWTH Aachen choose environmentally friendly transport modes

Aachen, Germany



## In brief

As part of the project CIVITAS DYN@MO, RWTH Aachen has kept developing its mobility management, making it more professional. For this purpose, the current state was first analyzed and the existing mobility concept was updated.

The goal of the new mobility concept is a sustainable and efficient university transportation that covers both employees' and students' journeys to work/school and other passenger trips and freight transport. The measures include all transport modes and mobility offers as well as the accompanying mobility information and marketing campaigns.

To guarantee the continuous improvement of mobility management at the universities, the measures have been evaluated and will be monitored scientifically.

## Context

With 4,517 students and about 8,600 employees<sup>1</sup> (2016), RWTH Aachen is among the ten largest universities in Germany.

It is also the largest employer in the region and therefore a major traffic generator. The results – which are not limited to just the university areas – are traffic loads that affect the environment and the urban quality of life.

RWTH Aachen is not a campus university, but rather consists of a large number of facilities dispersed throughout the city. The university has four campuses in various locations in the city.

The growth of the university, which has come with urban infill and the development of extended university areas (some in cooperation with private companies) on the outskirts, make it necessary to deal in-depth with the use of space and future transport connections as well as the accessibility of the university facility. In cooperation with the administration of the city, we agreed to reduce the number of parking spaces required by BauO NRW (North Rhine-Westphalia (NRW) building regulations) in favor of mobility management measures. The rectorate therefore tasked the Institute of Urban and Transport Planning at RWTH Aachen with developing a “Master Plan Mobility” for RWTH Aachen.

## In action

Following the introduction of parking space management, the job ticket and new bike racks in 2011, which constituted the first mobility management measures at RWTH Aachen, the first impact analysis was conducted as part of the CIVITAS DYN@MO project in 2013.

In the subsequent project years, existing measures such as car sharing for business trips were expanded and others newly implemented. These include the introduction of a digital ride matching service for carpooling (commuter portal) and the installation of a pedelec rental system, which will also be available for business trips

<sup>1</sup> <http://www.rwth-aachen.de/cms/root/Die-RWTH/Profil/~enw/Daten-Fakten/>

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in the future.

In addition, several information offers about mobility at the university were developed and published. These include a mobility brochure, which covers accessibility at RWTH Aachen for all transport modes and introduces the mobility services that can be used both for the trip to work and business trips. In addition to the brochure, which is available both in German and in English and will be handed out to all new employees upon hiring, the university website was expanded to include the topic of mobility. A mobility portal was created, providing comprehensive information about the connections of the university as well as mobility services and additionally including a campus navigator, which makes navigating the university areas much easier. For the development of the mobility information, focus groups of employees and students were conducted beforehand in order to adapt the offers to the users' needs.

Furthermore, a mobility handbook was developed for the extended university area of Melaten, which will help investors take mobility management into account as early as in the planning stage in order to create the conditions for an efficient and sustainable mobility.

An expanded mobility survey was conducted among the university employees in 2016 to evaluate the impact of the measures implemented in the course of the project. Moreover, the developments were monitored continuously so as to make possible adaptations as quickly as possible.

## Results

The mobility management measures implemented at RWTH Aachen (esp. job ticket and parking space management) and the distribution of extensive mobility information using various channels have led to a change in the employees' mode choice.

The share of motorized private transport shrank from 58% in 2010 to 44% in 2016 while the share of public transport as the main transport mode increased from 19 to 30%. As a result, the number of car trips and car kilometers on work journeys were reduced significantly. Extrapolations show that about 3.15 million car kilometers are saved compared to 2010. This is equal to saving about 650 tons of CO<sub>2</sub> per year. The results of the evaluation also show that the shift in mode choice is primarily the result of car users increasingly choosing public transportation instead. Most employees who changed their mode choice on work trips in the course of the mobility management stated that the job ticket in particular has made using buses and trains more attractive.

The shift in modal split of journeys to work is also reflected by the utilization of public transportation and parking spaces. While bus and train services have been expanded steadily in recent years and demand grew, the demand for parking spaces during the same period of time declined. Many parking structures exhibit occupancy rates no greater than 40%. Today, the majority of employees use environmentally friendly transport

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modes (walking, cycling, public transport) for their journeys to work.

Furthermore, mobility management has been entrenched in numerous planning and administrative processes at the university as a result of project CIVITAS.

### **Challenges, opportunities and transferability**

The measure “Sustainable University Transportation” has once again shown that implementing business mobility management can be a lengthy process. But it has also clearly shown what effects and successes can be achieved at a comparatively small budget with a demand-based approach.

Following a status analysis at the university and the development of an initial mobility concept, the responsible stakeholders needed to be brought together and convinced of the need and reasonableness of implementing the concept and the individual measures. At the university, this primarily concerned the administration including the staff councils.

In the present case, the expansion of the university, the accompanying structural development and the resulting traffic effects surely were advantageous for the implementation of mobility management. The stakeholders involved (City of Aachen, Bau- und Liegenschaftsbetrieb NRW and RWTH Aachen University) were keen on reducing the traffic volume in the university areas and creating the right conditions for sustainable and efficient mobility.

The result of the comprehensive, in-depth evaluations show that especially the introduction of the job ticket and the simultaneous expansion of public transport services have led to significant changes in the mode choice of the university employees.

### **In depth**

This is a resource box for readers who would like to learn more. It should include:

- [www.rwth-aachen.de](http://www.rwth-aachen.de) → Mobile at RWTH Aachen & Campus Navigator
- [www.rwth-aachen.pendlerportal.de](http://www.rwth-aachen.pendlerportal.de)
- [www.isb.rwth-aachen.de](http://www.isb.rwth-aachen.de)
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