

PRESS INFORMATION

RWTH Aachen Campus Research needs room, buildings and facilities

With its new RWTH Aachen Campus, RWTH Aachen University is becoming one of the leading universities for technology in the world. The campus project creates a bond between academia and industry with the objective of finding answers to the challenges posed by mega trends. The respective long-lived topics are represented by the clusters, which at the same time stand for the constructional development of the buildings. In the centers of the clusters, interdisciplinary teams and industry consortia work jointly on specific relevant issues of the future and develop visionary approaches to solving these issues. With 16 research clusters on an area of 800,000 square meters, RWTH Aachen is developing one of the largest technology-oriented research landscapes in Europe.

Room for Research

RWTH Aachen University has two expansion areas available for the development and extension of RWTH Aachen Campus: Campus Melaten and Campus West. The first expansion stage, Campus Melaten, was started in 2009. There are currently six clusters under construction on Campus Melaten, utilizing half of the available expansion area with an investment volume of around 300 million euros: Bio-Medical Engineering, Sustainable Energy, Photonics, Production Engineering, Heavy-Duty Drives and Smart Logistics. The second expansion stage entails the development and construction of Campus West. Campus West is the temporary location of a reference construction site for the Construction Cluster. The two areas will be connected to create one continuous campus integrated in public life and significantly upgrading the visibility of RWTH Aachen. The development of the two campus areas will entail the construction of university and research buildings, as well as investor facilities.

Unique Investment Model: Research Buildings

The federal states, which provide the basic financing of the universities, cannot be held solely responsible for catering to growing demands for research buildings and infrastructure. That is why private investors are building and operating the required cluster buildings on RWTH Aachen Campus by way of works concessions. This model is already playing a pioneering role in the establishment of the new asset category of research buildings. They are investment objects in a renowned university environment with growth and future perspectives. The first cluster buildings were sold on at attractive conditions to portfolio holders by the initial project developers.

The current investor and architect teams are:

- Smart Logistics Cluster: ante4C GmbH (Aachen) with Architectural Office Meyer & van Schooten (Amsterdam)
- Production Engineering Cluster: IMMOFINANZ (Vienna) with HENN Architects (Munich)
- Photonics Cluster: ante4C GmbH (Aachen) with KPF Architects (New York)
- Bio-Medical Engineering Cluster: Frauenrath Group (Heinsberg) with sop Architects (Dusseldorf)

Federal and State Funding for Research Buildings

RWTH Aachen Campus will additionally be the site of publicly financed research buildings and large-scale facilities with importance beyond the local region. These will include so-called 91b research buildings, which will be awarded by way of public tender competitions. The term is based on Article 91b, Section 1, Basic Law for the Federal Republic of Germany, which regulates the joint task of the German Federal and State governments in the funding of science, research and teaching. Since 2008, RWTH Aachen has been taking part in these tender competitions and has always awarded the tender in the event of its participation:

- E.ON Energy Research Center – E.ON ERC (2008)
- Replacement building for the Institute of Textile Technology – INNOTEX (2009)

- Center for Mobile Propulsion – CMP (2010)
- Center for Next Generation Processes and Products – NGP² (2011)
- Center for Wind Power Drives – CWD (2012)
- Center for Biohybrid Medical Systems – CBMS (2013)
- Research Center for Digital Photonic Production – CDPP (2015)
- Programmatic-structural line "high-performance computer": High Performance Computing Cluster in Aachen – Claix (2016)
- Center for Ageing, Reliability and Lifetime prediction of Electrochemical and Power Electronic Systems – CARL (2017)

Construction Development on Campus Melaten

The existing clusters on Campus Melaten will be further consolidated during the second development stage with the construction of additional cluster buildings and research support facilities in the Campus Park.

In 2020, the Center for Digital Photonic Production (CDPP) building will be commissioned as the second construction phase of the Photonics Cluster. The research building will be home to the interdisciplinary and holistic research of digital photonics production chains with the objective of utilizing the unique physical properties of photons for the future of production – for example for additive manufacturing processes, i.e. 3D printing of functional components from digital data. Financing for this research building is provided by federal and local sources.

Construction of the Center for Aging, Reliability and Lifetime Prediction of Electrochemical and Power Electronic Systems (CARL) in the Sustainable Energy Cluster began in early 2020. Financing for this research building is provided by federal and local sources. The research building will be home to work groups focusing on aging issues, service life and reliability of performance electronics and batteries. There are plans for office and work spaces for a total of 160 people, as well as various workshop and laboratory areas.

The initial construction phase for Georesources with laboratory and office space for the Institute of Mineral Engineering (GHI) is under construction at the so-called "Parkspange", the former parking lot on Forckenbeckstraße. Completion of the 1st construction phase is planned for October 2020. The research focus here will be on the development, manufacture, processing and recycling of metal and mineral-based materials. The new construction represents the starting point for additional construction phases. Financing is provided by the state.

After the fire at the machine hall of the Laboratory for Machine Tools and Production Engineering (WZL) at RWTH Aachen in February 2016, sections of the damaged construction wing were recommissioned in April 2019. Works were finalized in October 2019, marking the completion of the rehabilitation project. A new building to replace the machine hall of the WZL is under parallel construction. In addition to the new hall, the entire building will receive a new, unified facade. Construction completion is envisaged for the fall of 2020. Financing is provided by the state.

The increased demands of electrotechnology on the technical infrastructure posed by teaching and research at the existing multi-purpose building for Electrical Engineering (Walter-Schottky House) can no longer be adequately satisfied. Since the beginning of construction in 2018, a new building has been under construction on Campus Melaten close to the Physics faculty, which shares common topics and research issues with technology-oriented electrotechnology institutes that will find their home there in three construction sections: An extension of the clean room center with a new lab area and relevant office space for 5 associated institutes. The location-strategic concept is based on the scheduling of the University Development Plan (HSEP) of the federal state of North-Rhine Westphalia. Completion is planned for 2021.

The following buildings/institutes were officially opened/occupied during the past years:

- 2010 Heavy-Duty Drives Cluster | Heavy Drive Train Center (HDTC)
- 2011 Bio-Medical Engineering Cluster | Center for Biomedical Technology (ZBMT)
- 2011 Sustainable Energy Cluster | E.ON Energy Research Centers (ERC) |
91b Research Building
- 2012 Bistro-Restaurant Forckenbeck
- 2013 Smart Logistics Cluster | 1st Construction Phase | Investor Building
- 2014 Heavy-Duty Drives Cluster | Center for Wind Power Drives (CWD) |
91b Research Building
- 2014 Smart Logistics Cluster | 1st Construction Phase | Techniker Krankenkasse | TK
Aachen-Melaten Subsidia
- 2014 Vincerola – International Montessori Day Nursery and Preschool |
Private, bilingual Montessori daycare facility | Campus Park
- 2015 Smart Logistics Cluster | 2nd Construction Phase | Electromobility Laboratory
(e.Lab)
- 2016 Smart Logistics Cluster | 1st Construction Phase | Sparkasse Aachen
- 2016 Photonics Cluster | 1st Construction Phase | Investor Building
- 2016 Student housing units | Temporary accommodation | Campus Park
- 2017 Production Engineering Cluster | 1st Construction Phase | Investor Building
- 2017 Center for Next Generation Processes and Products – NGP² |
91b Research Building
- 2018 Production Engineering Cluster | Parking facility
- 2018 Bio-Medical Technology Cluster | Center for Biohybrid Medical Systems (CBMS)
| 91b Research Building
- 2018 Bio-Medical Engineering Cluster | 1st Construction Phase | Investor Building |
CT² Center for Teaching and Training incl. auditorium/event location with space
for 400 attendants

- 2018 Bio-Medical Engineering Cluster | 1st Construction Phase | Investor Building | REWE To Go
- 2018 Bio-Medical Engineering Cluster | 1st Construction Phase | Investor Building | apoBank branch
- 2019 Photonics Cluster | 2 Construction Phase | Center for Digital Photonic Production (CDPP)
- 2019 Production Engineering Cluster | Restaurant Boulevard 30

Campus West Development

RWTH Aachen purchased around 170,000 square meters of the terrain of the former Aachen's train station "Westbahnhof" from Building and Real Estate Management North Rhine-Westphalia (BLB) in 2018. The purchase opened up new possibilities for the university to develop the future Campus West with additional clusters and research-complementary infrastructure under its own management. The project partners BLB, the City of Aachen and RWTH Aachen entered into a trilateral development agreement for the continuation of urban development planning, the provision of required traffic and development areas, as well as cost-sharing. The urban development planning for Campus West (Development Plan No. 923 and Zoning Plan No. 118) are currently underway. The development for the terrain is a joint project of the City of Aachen and RWTH Aachen Campus GmbH on the basis of the Masters Thesis submitted by the offices of RKW Rhode Kellermann Wawrowsky. The plan is set for approval in 2020.

www.rwth-campus.com/en