

## Quantum Cube: Quick facts about the project



### What is the Quantum Cube?

The Quantum Cube is a new research building at the University of Vienna which will be used by the Faculty of Physics for research on quantum optics, quantum nanophysics and quantum information. The new building will be constructed from 2026 in courtyard 2 of the Campus of the University of Vienna.

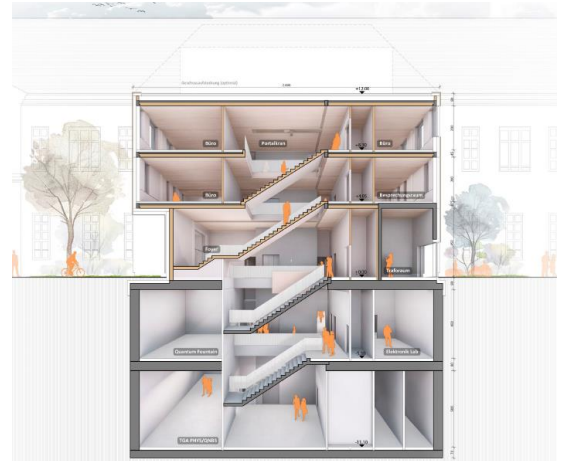
### Why is the new building necessary?

Until now, high-precision quantum experiments have been carried out in the laboratories at Währinger Strasse/Boltzmanngasse. However, due to vibrations and magnetic fields – for example, caused by traffic and construction work on the U5 underground line – it is no longer possible to carry out these experiments there with the necessary level of precision. The new location on the Campus, an area of building land owned by the University of Vienna, offers the right construction and physical conditions as well as a surrounding area free from vibrations and magnetic disturbances in order to carry out excellent research in state-of-the-art laboratories.

Basic research and blue-sky research are incubators for the next generation of high-tech and deep-tech innovations – and therefore key to long-term economic growth and prosperity in society. In order to compete with the best on a European and global level, Austria must fully exploit its potential for excellence in research. Infrastructure is a key element in the international competition to attract the best-qualified talents to Vienna.

## Fast facts about the Quantum Cube

- Floor area: approx. **400 m<sup>2</sup>**
- **5 floors**, including 2 underground floors
- Approx. **1,730 m<sup>2</sup> total floor space**  
(laboratories, offices)
- Laboratory space: approx. 650 m<sup>2</sup>
- Total construction cost: 22 million euros



## Schedule

Planning approval and search for general planner	From summer 2024
Award of contract and kick-off for general planner	Spring 2025
Start of planning	March 2025
Preliminary design	May 2025
Construction approval	Summer 2025
Start of construction work	Late May 2026
End of construction work	Late June 2027
Full operation	End of 2027

## Project organisation and general planner

Organisational, operative and financial planning of the project

- Construction project/construction (University of Vienna)
- Furnishing and equipment (University of Vienna)

Planning and consultants:

- General planner:
  - Delta Pods Architects ZT-GmbH
  - Technical building equipment and technical planning: Zentraplan Planungsges.m.b.H.
    - Electrical planning: TB Eipeldauer + Partner GmbH
    - Laboratory planning: [dP]3 das Planungslabor GmbH

## Sustainability and compensatory measures

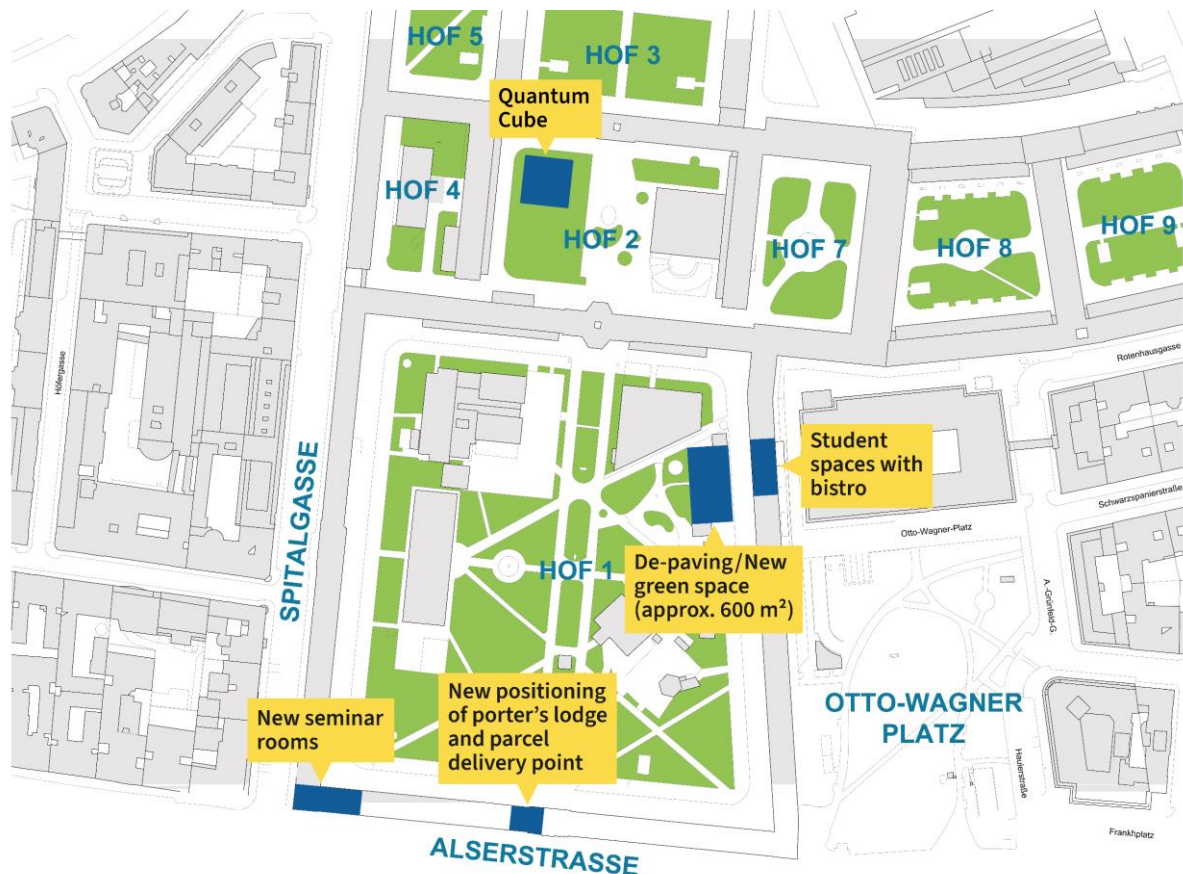
The University of Vienna is well aware of the special location and the significance of the area where the Quantum Cube is to be built. The area in courtyard 2, where the Quantum Cube will be built, has always been designated as a building plot, but has been used for many years as a green space where students, employees and people from other nearby institutions can rest and relax. For many campus users it is a well-known and well-loved part of their everyday lives – a place to take a break, study or meet with friends.

The planned construction project raises understandable questions and concerns, for example with regard to available green spaces, disturbance resulting from the construction work and the question of how the new building will fit in with the rest of the Campus. There are also

worries that the arrival of a new research building focusing on natural sciences could prove detrimental to the existing arts and humanities departments on the Campus.

The University of Vienna takes these concerns seriously and will be taking measures in this regard going forward. The Quantum Cube is therefore not just an individual construction project but part of a bigger, holistic project entitled Campus 2030, which aims to take into consideration the needs of all users.

The core idea at the heart of these efforts is to not only construct a building but also give space back to the users.



This means that

- in the adjacent courtyard 1 – at the heart of the public campus area – around 600 m<sup>2</sup> of area (which until recently was used as the outdoor seating area of the pizzeria) **will be de-paved and turned into a green space in order to compensate for the green space lost to the Quantum Cube.** (The area will be cleared of all existing infrastructure, building foundations, etc.). The concept for how the space will be used once it has been cleared is still being developed in detail, but it will certainly contain a green space/meeting area open to the general public.
- The space in courtyard 1 which used to house the pizzeria will be turned into a Student Space where students are free to gather without any obligation to purchase



drinks or snacks ([modelled on the existing Student Spaces](#) in Porzellangasse and Währingerstrasse 29). There are also plans for a small café/bistro in this space.

- Further spaces which become available (for example the former Facultas bookshop) will in future be used for university-related purposes such as seminar rooms – these concepts are currently going through the approval process.
- Compensatory de-paving measures:
  - Completed de-paving measures in courtyards 3+5: approx. 290 m<sup>2</sup>
  - De-paving measures in courtyard 1 (implementation in 2026): 600m<sup>2</sup> contiguous newly de-paved green space (former outdoor seating area and indoor area of pizzeria), see above
  - Courtyard 7 (implementation in 2025): de-paving measures (asphalt > grass paving and expansion of green spaces, totalling + 196 m<sup>2</sup>)
- Sustainability goes beyond merely the use of space. The Quantum Cube is to be built with comprehensive ecological criteria in mind – including green façades and roofs, rainwater drainage, the use of energy-efficient systems and resource-saving materials.
- In the past, the University has made many efforts with regard to biodiversity in the design and operation of public open spaces (own university honey, wild bees, nesting boxes, participation in the ‘Blühendes Österreich’ (Austria in bloom) project, etc.) and an expansion of corresponding initiatives is planned for the future. Going forward, the Sustainability Office of the University of Vienna, which is located on the Campus, aims to make the strategic priority of ‘climate, environment, sustainability’ even more visible.
- The Judas tree (a natural monument) on the meadow next to the Quantum Cube will be protected using special measures throughout the entire construction period.

The aim is to create a Campus that not only facilitates cutting-edge research but also offers a place where a wide range of people can meet and relax – and which lives up to the claim of being a visible example of sustainable, responsible university development.

DISCLAIMER: The implementation of the measures is subject to technical and financial feasibility. The University of Vienna will provide regular updates on the progress of the planning and offer opportunities to get involved, e.g. as part of the Campus 2030+ working group.