Resolution of the
40th General Assembly of the
German Rectors' Conference
on 13 May 2025
in Magdeburg

Modernisation, energy refurbishment and new construction of universities

Modernisation, energy refurbishment and new construction of universities

1. Introduction

Universities play an indispensable role in the interplay between education, innovation and progress. They make a significant contribution to the capabilities of our country by generating knowledge through research and leading the way in technological and social development. In order to ensure a high standard of research and teaching and to drive innovation, it is essential that universities can work in a safe, modern and functional environment.

At the same time, the infrastructure of many universities is in a startling state. A large proportion of university buildings date from the 1960s and 1970s, and the consequences of long-delayed redevelopment measures are becoming visible. Numerous buildings are not only outdated, but in some cases no longer usable or not (or no longer) geared towards the internationally competitive requirements of research and teaching. These deficits are comparable to the dilapidated public infrastructure in other areas and, just like dilapidated roads and railways, lead to a decline in the efficiency of the federal and state governments.

Financial deficits and capacity bottlenecks in public construction are leading to a lack of urgently needed new construction and refurbishment measures. Where measures are nevertheless initiated, sluggish planning, approval and implementation processes hinder efficient university construction. It is not unusual for 15 years to pass between the first plans for a new building and its completion. As a result, the buildings often no longer meet current research and teaching requirements nor reflect the necessary state of the art when they are opened.

2. Demands

It is urgently necessary – and cannot be postponed – for the federal and state governments to make their contribution and invest decisively in university construction. In light of the disastrous state of the building fabric and an estimated total funding requirement of at least €90 billion for the building infrastructure and energy refurbishment of German universities, the HRK is therefore calling on the federal and state governments to ensure:

1. The fast-track construction initiative for financing the most urgent construction and renovation needs at German universities with a volume of at least €38 billion from the infrastructure fund
2. A subsequent permanent funding architecture with a volume of at least €52 billion that fulfils the joint responsibility of the federal and state governments in the renovation and maintenance of the university infrastructure (the 'Transformative Universities' pact for the future)
3. The immediate critical review of, reflection on and reorientation of the planning and approval procedures in the federal states as well as the legal framework conditions for university construction with the close involvement of the universities, with the aim of accelerating construction and renovation projects and creating future-oriented building structures
4. The consideration of the activities of the universities in the reorganisation of the building infrastructure in terms of environmental, economic and social sustainability in the negotiations of the basic budgets and the higher education development plans of the federal states.

3. Rationale

For 1: As the total refurbishment requirement at German universities for building infrastructure and energy refurbishment is estimated to be at least €90 billion, priorities must be set. Not all refurbishment cases can be dealt with at short notice. Buildings that are threatened with closure, no longer fully functional and essential for ongoing research work and university teaching must be renovated or replaced as a matter of priority. Ideally, financial resources should therefore be made available as a fast-track construction initiative, as set out in the coalition agreement. This immediate action programme should not fall short of €38 billion; this requirement is based on the 2024 study by the German Economic Institute (see overview in the annex).

For 2: Following the fast-track construction initiative, a permanent funding model and solutions for optimising the legal framework should be agreed between the federal and state governments with the involvement of the universities. University construction, energy refurbishment, modernisation and upgrading are an ongoing task. Due to the close link between infrastructural requirements and the dynamics of scientific use, the task of refurbishment and modernisation is never finished, so to speak, but requires

continuous follow-up and decentralised optimisation under the responsibility of the respective university.
The HRK proposes a 'Transformative Universities' pact for the future as part of the structural fund for joint federal and state funding and optimisation of university construction in terms of environmental, economic and social sustainability: a basic consensus across party political boundaries for the long-term financing of university construction and the renovation of university infrastructure as the cornerstone for a gradual reduction in the backlog of renovations in the German higher education system.
The HRK is in favour of establishing a funding system that promotes university construction and energy refurbishment in a sustainable, transparent and appropriate manner, without releasing the federal and state governments from their respective responsibilities. The federal and state governments will each provide €2.6 billion annually for ten years as infrastructure funding for university construction. The scope will then be readjusted on the basis of an evaluation. The total requirement is based on an extrapolation of a study by the Federation of German Industries (see overview in the annex; university hospitals, canteens, cafeterias, digital infrastructures and investments in cybersecurity are not included in these amounts).

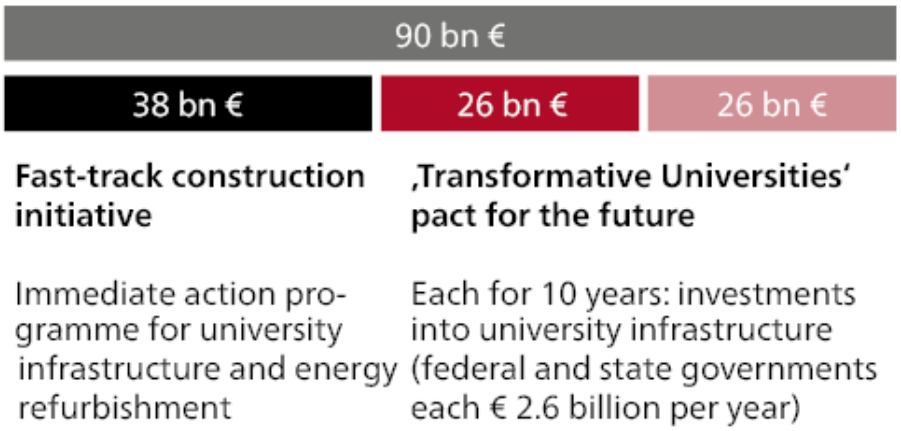


Fig. 1 Schematic representation of the requirements for the modernisation, energy refurbishment and new construction of universities

For 3: Planning and approval procedures are structured very differently in the various federal states. The duration of the procedure must generally be shortened and at the same time planning security should be increased. By way of example, this might include the early involvement of all stakeholders such as audit offices, state real estate and construction companies and state ministries, and the prioritisation of construction projects or public-private partnerships based on the strategic development needs of the university. Budget ceilings for the measures to be carried out can also be beneficial in cases where a university has the

capacity to plan and carry out building projects, planning authority or complete autonomy.

In addition, future demands on university buildings must be forecast together with the universities at an early stage and taken into account in the planning process today. Flexible spatial concepts are just as much a part of future-proof university architecture as innovative and sustainable concepts for energy supply and climate balance. In order to identify good practice, it is suggested that a dialogue be organised between representatives from the federal and state governments and university leaders.

For 4: Universities are already working hard to design their building infrastructure in terms of environmental, economic and social sustainability. This includes the targeted refurbishment of existing buildings, the use of energy-efficient technologies and the optimisation of thermal insulation.

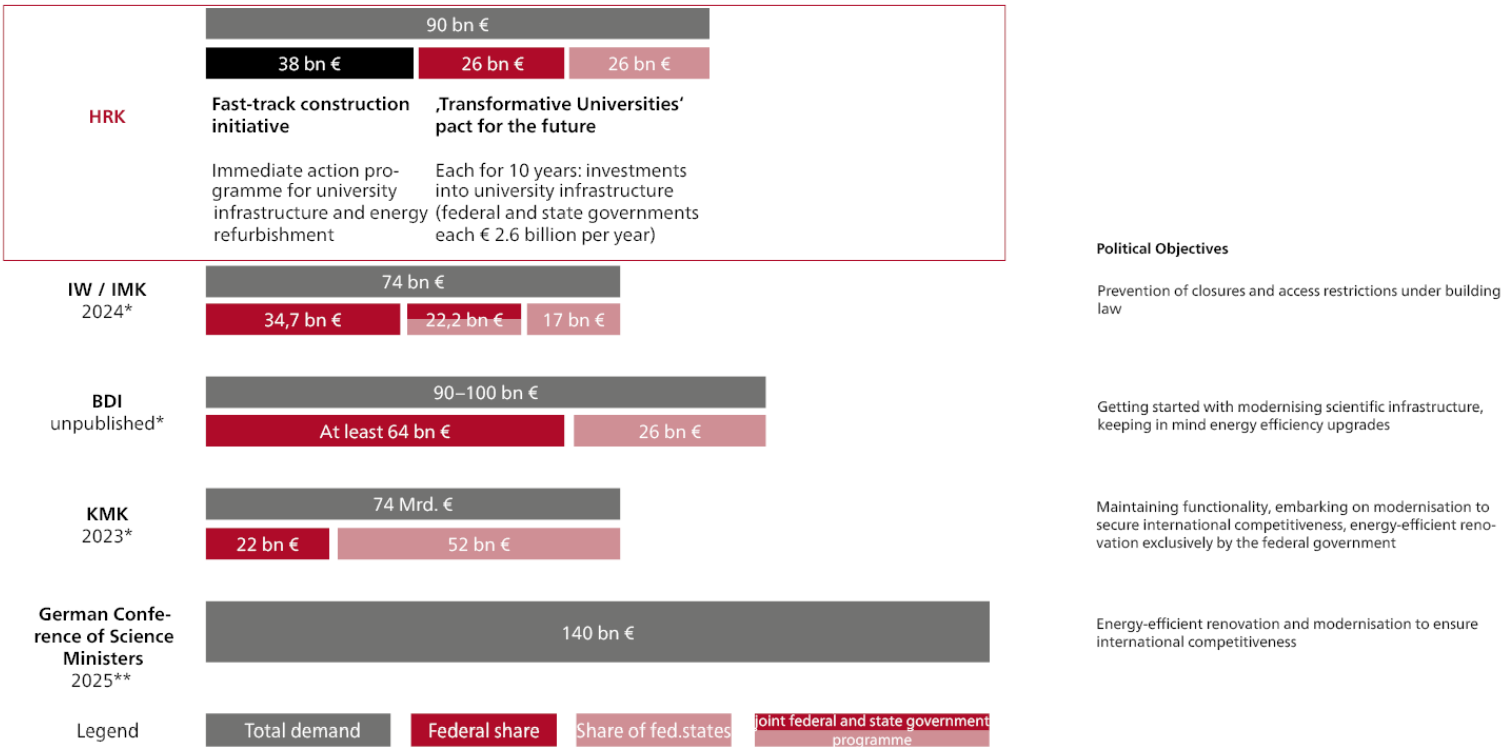
The use of modern heating, ventilation and lighting systems reduces energy consumption while reducing carbon emissions.

Universities will pay more attention to more efficient utilisation of buildings and spaces, for example through more flexible spatial concepts, more intelligent use of space and the reduction of unoccupied premises.

The aim is to promote environmental as well as economic and social sustainability and to optimise the long-term use of university resources. These efforts must be taken into account in the negotiations on basic budgets and in the higher education development plans of the federal states and professionalised through comprehensive space management, demand planning and regular capacity utilisation analyses by the universities.

Annex:

Fig. 2: Overview of estimated infrastructure investment requirements in university construction



* Data basis of HIS-HE on behalf of the KMK in 2023 with data status of 2020/2021.
** Extrapolation of the need for refurbishment, modernisation and new construction of Hamburg's universities to the estimated total area of German universities.
Sources: German Economic Institute (IW)/Macroeconomic Policy Institute (IMK) = Sebastian Dullien et al, "Herausforderungen für die Schuldenbremse. Investitionsbedarfe in der Infrastruktur und für die Transformation (IW Policy Paper 2/2024), May 2024, https://www.iwkoeln.de/fileadmin/user_upload/Studien/policy_papers/PDF/2024/IW-Policy-Paper_2024-Investitionsbedarfe.pdf, last retrieved: 13 May 2025; Standing Conference of the Ministers of Education and Cultural Affairs (KMK), "Bericht zur klimagerechten Sanierung der staatlichen Hochschulen in Deutschland", 23 June 2023, https://www.kmk.org/fileadmin/veroeffentlichungen_beschluesse/2023/2023_06_23-Klimagerechte-Sanierung-Hochschulen.pdf, last retrieved: 13 May 2025; Unpublished extrapolation from: Federation of German Industries (BDI): Standort D mit Investitionen stärken. Programm für Infrastruktur, Transformation, und Resilienz erforderlich, 12 June 2024. https://bdi.eu/publikation/news/standort-d-mit-investitionen-staerken, last retrieved: 13 May 2025;
Wissenschaftsministerkonferenz (German Conference of Science Ministers), Position paper „Wissenschafts-, Forschungs- und Innovationsagenda für ein zukunftsfähiges Deutschland", 31 January 2025, https://www.kmk.org/fileadmin/pdf/PresseUndAktuelles/2025/2025_01_31-Positionspapier-Wissenschaftsagenda.pdf, p. 3, last retrieved: 13 May 2025.