Resolution of the 694th Executive Board of the HRK on 25 January 2021 Video conference

COVID-19 crisis: impacts on university research

Position paper

HRK German Rectors' Conference

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Initial situation

The beginning of the COVID-19 pandemic in the spring of 2020 brought with it significant restrictions at universities, not only in relation to teaching, but also for research - which in many cases had to be interrupted or even abandoned, or continued under difficult circumstances. The restrictions lasted throughout the winter semester and threaten to affect the summer semester in 2021, too. Challenges to research may arise when infrastructures are unavailable, or only partly accessable due to the necessary hygiene measures, for example. In these cases it may be necessary to consider whether and when research work from the spring should be picked up again or whether it would be preferable to start new projects. At the same time, universities must decide whether to continue or initiate collaborations with external partners, including industry partners. All these decisions have implications for the (continued) employment of highly qualified staff. Networking and cooperation, particularly at the international level, have been negatively affected by travel restrictions and the limitations that apply or have to be imposed at short notice for events such as conferences and workshops. In addition, cooperation with partners in industry may suffer in the medium term if, due to poor economic trends, companies are no longer able to raise the necessary funds for research cooperation with universities.

Impacts

Pandemic-related limitations on research not only have short-term impacts on universities but may also have negative consequences in the longer term. This is especially true for research funding and the prospects of academic staff. Both also pose significant risks for Germany's medium-and long-term development as a place of research and innovation, since valuable capacities and competences could be lost.

Funding for university research is under pressure due to the additional costs arising from the crisis and as a result of reduced income. The former may result, for example, from the increased staff costs and project costs resulting from project delays, which are only be partly compensated in third-party funded projects. Reduced income is especially likely if project partners have been forced to cease payments or withdraw from planned projects. 2

¹ Since in some cases businesses are deferring their own contributions and universities, where possible, are contributing in advance, it is not currently possible to calculate a definite, accurate balance of additional expenditure and reduced income. A survey of various university alliances carried out by the HRK indicates that there is an especially urgent need to find solutions for research carried out for the purpose of academic qualifications.

² This HRK survey revealed that universities within the alliances are already experiencing losses of tens of millions of euros. There is also considerable uncertainty as to future developments (as at October 2020). The discontinuation of ongoing or planned collaborations may cause long-term disruption to institutional research programmes and result in a loss of trust which may impede future cooperation.

Funding shortages are having direct impacts on the employment situation with regard to research. Researchers in projects supported by third-party funding, who normally have temporary contracts, are especially affected. If their projects are discontinued, or extended without sufficient compensation funding, there is often no means of extending their employment contracts.

Overall, the negative consequences of the pandemic restrictions have been felt especially hard by researchers in the post-graduate qualification phase - both those who are currently working towards a doctorate or postdoctoral qualification and the next generation. Since qualification times are being prolonged in many cases, there are fewer positions available for the next cohort. In recent months, many researchers have also done a lot of teaching work. For those at an early career stage, this has meant being unable to focus on developing their own academic profile. This task, so essential to an academic career, has been made more difficult by the reduced opportunities for networking with the relevant (international) community and gaining attention for individual work among one's peers. The difficult economic situation is also impacting on the transition to the non-academic job market, with the result that employment prospects for young researchers may become much poorer overall. The impacts described apply particularly to researchers with family obligations, who, with the closure of schools and daycare, have also had to take on additional responsibilities.

Cautious hiring behaviour on the part of companies – combined with the direct negative effects of the collapse of research partnerships between industry and universities – may also damage capacity for innovation in the medium term. Ultimately, most doctoral candidates find employment outside universities and public research institutions, thus ensuring a steady knowledge transfer to the economy and society. Cuts to funding for basic research would be similarly fatal to Germany's research and innovation capabilities. The new knowledge generated by basic research is not only crucial to future breakthroughs in technology and the development of new products, but also to social progress, greater sustainability and better resilience.

Conclusions and action needed

The problem described suggests a need for various actions both for universities themselves and for the federal government, federal states and other funding providers.

For universities

- To prevent further shutdown of research activities, hygiene measures must be strictly implemented. As part of this, staff and students must be encouraged to comply with the relevant rules both on and off campus.
- To prevent career interruptions, universities should make the most effective use possible of available legal and financial options.
- With respect to staffing decisions such as

- appointments or tenure evaluations, quality standards must be maintained. Pandemic-related limitations must be given appropriate consideration.
- In particular, the need to take on additional care responsibilities during the pandemic must be taken into account in a fair performance evaluation. One possibility is the genderappropriate consideration of such periods when calculating a person's academic age.³

For the federal government, federal states and other funding providers

- The practice in the federal states of working with universities to find ways of maintaining stable research activities even in pandemic conditions should be continued.
- Compensation for reduced income will continue to be required to ensure successful project completion and research competence.
- Financing for additional costs will also remain necessary to prevent career interruptions and avoid compromising the aim of improved planning reliability for early career researchers. Universities are increasingly reaching the limits that can be achieved with cost-neutral extension options alone.
- The long-term availability of funding for purely knowledge-driven research must be ensured at the national and European level. This is the only way to maintain innovation capability and strengthen societal resilience in future crises through a broad reservoir of knowledge.

³ For example, European Women in Mathematics made the following suggestion in an open letter: "Women with dependent children should be automatically eligible (although not required) to subtract up to 12 months from their academic age – for the purpose of hiring, grant eligibility, tenure deadlines, etc. – due to disruptions from the COVID-19 pandemic. Men with minor children or researchers involved in eldercare during the crisis will be eligible if they can demonstrate that they were responsible for caregiving." (EWM 2020, https://www.europeanwomeninmaths.org/ewm-open-letter-on-the-covid-19-pandemic/).