Recommendation by the 133rd Senate of the HRK on 15 June 2016 in Berlin

Towards strengthening research and development and early career researchers at universities of applied sciences
1. **Introduction**

   The major funding programmes within research and higher education policy, which are currently the subject matter of upcoming final decisions, such as the Excellence Strategy and the Early Career Pact, are in their substance targeted at university research and personnel structures. To date, there have been no comparable initiatives of this scope for research and development at universities of applied sciences (FH/HAW). This means that there has been a failure to provide urgently needed stimuli for the innovative power behind business and society at large. The Senate of the HRK thus recommends that politicians take the following measures:

2. **Coordinated funding programmes for universities of applied sciences**

   The framework conditions for universities of applied sciences differ in structure from those for universities, and professorships at universities of applied sciences take a different career path. Professors at universities of applied sciences need dual qualifications. In addition to an above-average doctoral degree, they have to provide evidence of excellent performance in a practical career of at least three years while expanding scientific knowledge. For this reason, different instruments of funding are required for universities of applied sciences. Therefore, this greater support for research and development and early career researchers at universities of applied sciences should happen in well-coordinated programmes.

3. **Enhancement of programme-based funding for research and development at universities of applied sciences**

   The programme-based funding of individual projects by universities of applied sciences must be enhanced within the framework of the recognised programme formats of the Federal Ministry of Education and Research (BMBF) and the German Research Foundation (DFG). This means that soon-to-be researchers can obtain qualifications following their master’s degree within the scope of research projects in employment associated with universities of applied science. In recent years, universities of applied sciences have established themselves as reliable partners for small and medium-sized enterprises (SMEs). As such, programme funding can additionally be seen as innovation funding for SMEs and society at large as universities of applied sciences are key partners for SMEs and society with regard to applied research. In order to satisfy the sharp increase in the need for funding, the specific funds within the remit of the BMBF should see an annual increase of €20 million over a period of 5 years.
In order to provide support for the profiling and development of R&D priorities with a thematic focus in the form of structural funding at universities of applied sciences with strong research capabilities, the "FH-Impuls" funding line should be continued on a permanent basis.

4. Targeted funding for early career researchers at universities of applied sciences

a. Expanding doctoral training groups
The cooperative doctoral training groups should be expanded in addition to the seven BMBF financed cooperative doctoral training groups established five years ago. This will make it possible to offer, in cooperation with universities, scientific careers for early career researchers with a close thematic relationship to universities of applied sciences with their specific research profiles. In this way, it will be possible to attract and retain early career researchers for a later career goal of taking up a professorship at a university of applied sciences. In this context, people with professional experience can also be approached with regard to doctoral training. Mindful of the more than 200 key research areas of the universities of applied sciences marked on the HRK’s Research Map, expanding the number of doctoral training groups to a total of 50 seems reasonable. This would provide broad support for cooperation between universities of applied sciences and universities within the scope of cooperative doctoral training and would also constitute advertising at an early stage for professorships at universities of applied sciences as a career path.

b. Facilitating the acquisition of intersectoral dual qualifications
After they have obtained their doctoral degree, it must be possible to offer early career researchers various forms of part-time positions that would enable them to work, for example, up to 50% at a university of applied sciences and at least 50% at partners in the practical world (businesses, public bodies). The objective is to enable these people to acquire the required dual qualifications in a scientific employment contract quality assured by the university and to reinforce and promote their interest in practice-oriented teaching as well as research and development. In this way, an application for a professorship at a university of applied sciences at a later date can be made attractive to these people. 50 adequately financed positions, phased in over a period of time, each with a term of six years, should be funded by the BMBF for this purpose.
5. Summary

The funding measures required here aim at strengthening the innovative ability of German SMEs in particular, which, according to recent studies, is constantly on the wane. They are in keeping with the resolution of the executive committees of the CDU/CSU parliamentary group and the SPD parliamentary group of 16 April 2015 ("Driving Innovation, Accelerating Technology Transfer").

At the same time, they are a possibility of solving the specific personnel requirements of universities of applied sciences through targeted early career support for professorships at universities of applied sciences. This therefore ensures that the research staff needed is available to universities of applied sciences in line with their specific terms of appointment and requirements placed on the qualifications of applicants.

Measures to support early career researchers also serve to raise the number of positions of permanent employment for early career researchers at universities of applied sciences. In order to be able to safeguard the necessary supervision ratio in teaching also at universities of applied sciences with strong research capabilities, it will be necessary to increase the number of professorships in these key areas.

In addition, these programmes must be accompanied by permanent measures to develop research infrastructure and academic staff below professorial level.