



# The German Research Landscape

European Research Days, Simon Fraser University  
November 25, 2020

John Paul Kleiner



A modern, multi-story building with a curved facade and large windows. Three tall flagpoles in the foreground hold white flags with the Fraunhofer ISE logo. The sky is clear blue.

# Facts | Structures

Research in Germany

ISE

Fraunhofer - Institut für Solare Energiesysteme ISE



# Facts and figures

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Almost 1,000 publicly funded research institutions



Research expenditures: 105 bn euros = 3,1% GDP



689,000 people in the R&D sector



Bilateral, European and multilateral cooperation with more than 155 countries

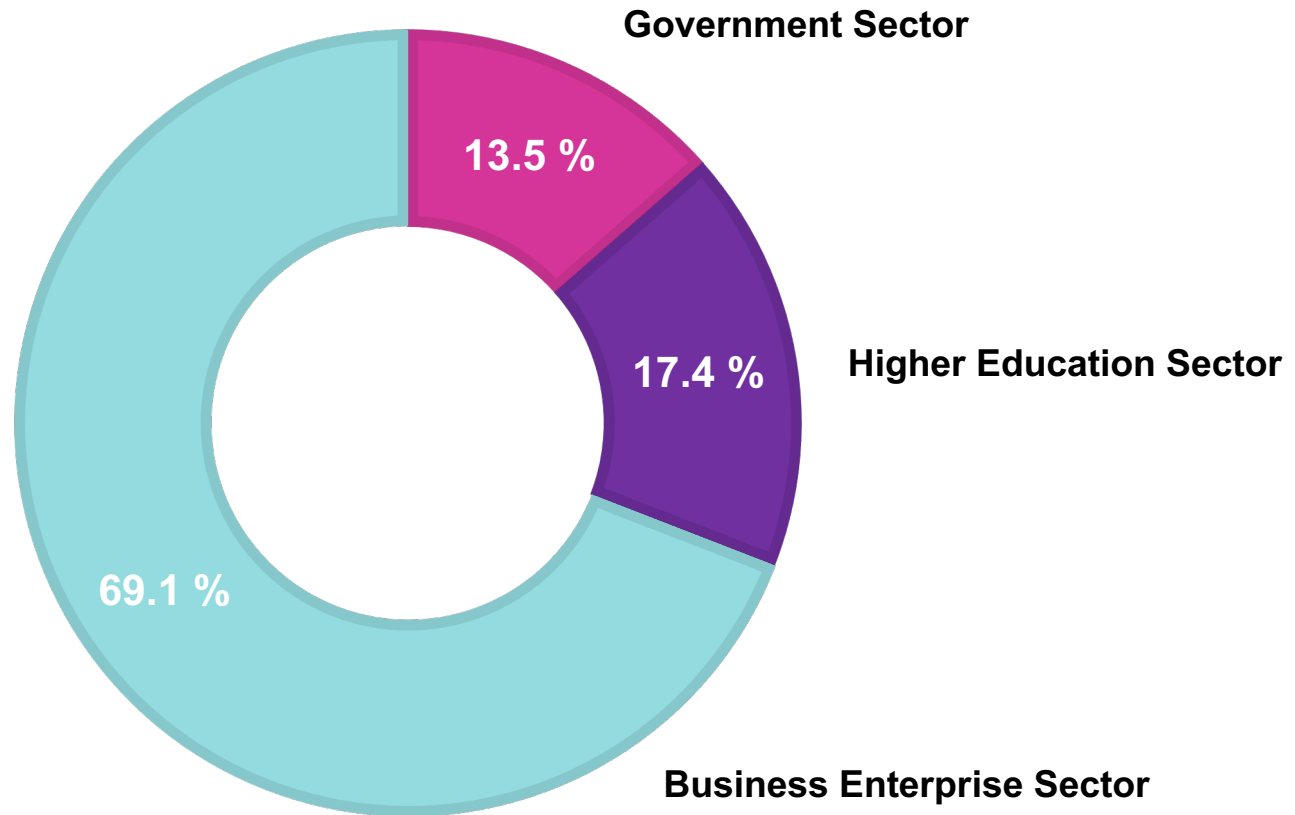
Research in  
Germany



Land of Ideas



# Research expenditures by sector



Source: Federal Statistical Office, 2019

# Research Policy Objectives

- Provide funding for future-oriented issues
- Cultivate a network involving all participants
- Create an innovation-friendly research environment
- Support start-ups and scientific spin-offs in particular
- Provide researchers with good working conditions
- Promote internationality



Federal Ministry  
of Education  
and Research

Research in  
Germany



Land of Ideas



# High-Tech Strategy 2025

## Fields of Future Relevance

### Health and Care



© Volker Lamerf/DAAD

### Sustainability, Climate Protection and Energy



© UFZ/André Kunzelmann

### Mobility



© Karlsruher Institut für Technologie

### Urban & Rural Living: Equal Chances



© www.bnmbf.de

### Safety and Security





# Excellence Strategy

## Federal- and state-funded research programme

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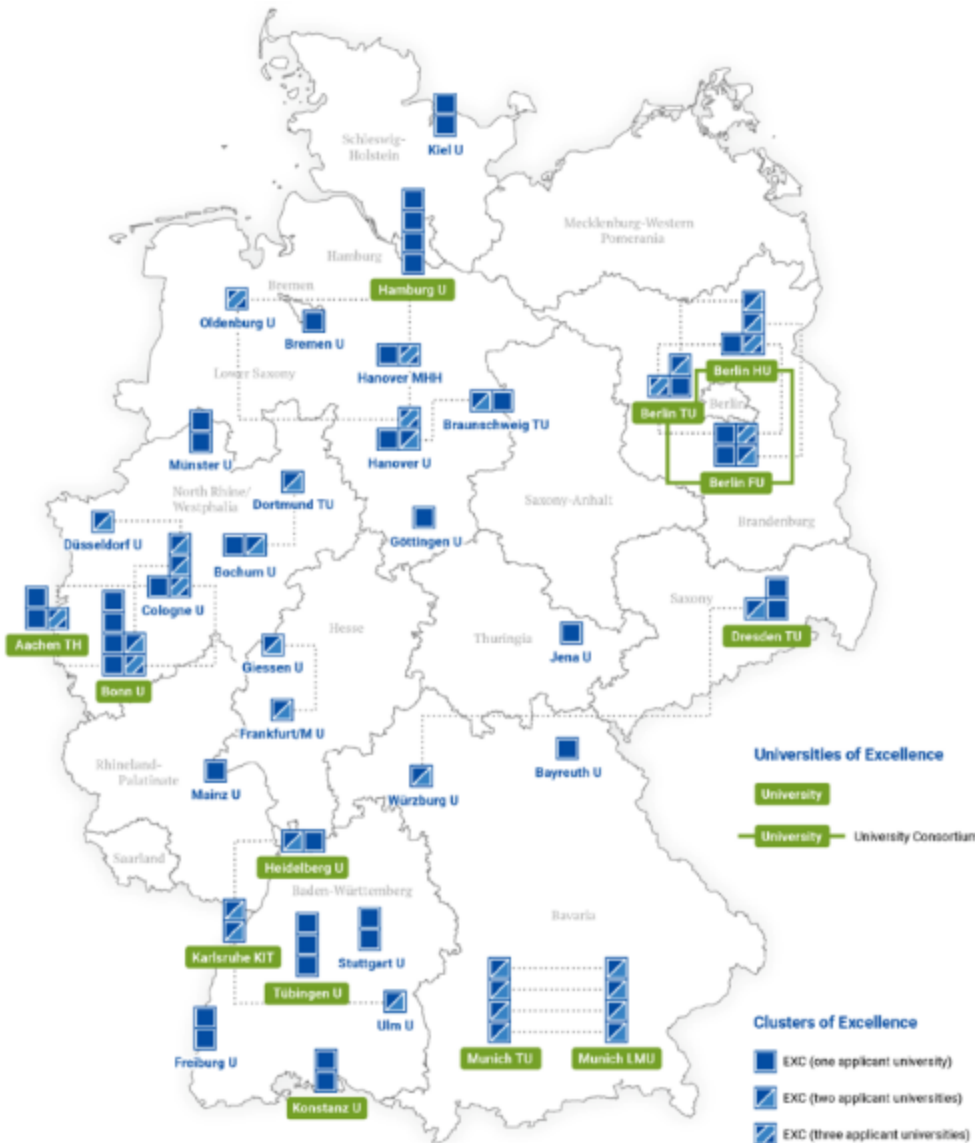
- Duration: open ended
- Total funding volume: annually 533m euros
- Focus: university research activities
- Cooperation with research institutions, universities of applied sciences and companies





# Excellence Strategy

## Excellence Clusters & Universities of Excellence



## Universities of Excellence

-  RWTH Aachen University
-  Berlin University Alliance
-  University of Bonn
-  Technische Universität Dresden
-  Universität Hamburg
-  Heidelberg University
-  Karlsruhe Institute of Technology (KIT)
-  University of Konstanz
-  Ludwig-Maximilians-Universität München (LMU)
-  Technical University of Munich
-  University of Tübingen





# Pillars of the German research sector

## Universities (HEIs)



## Non-university research institutes



## Industrial research





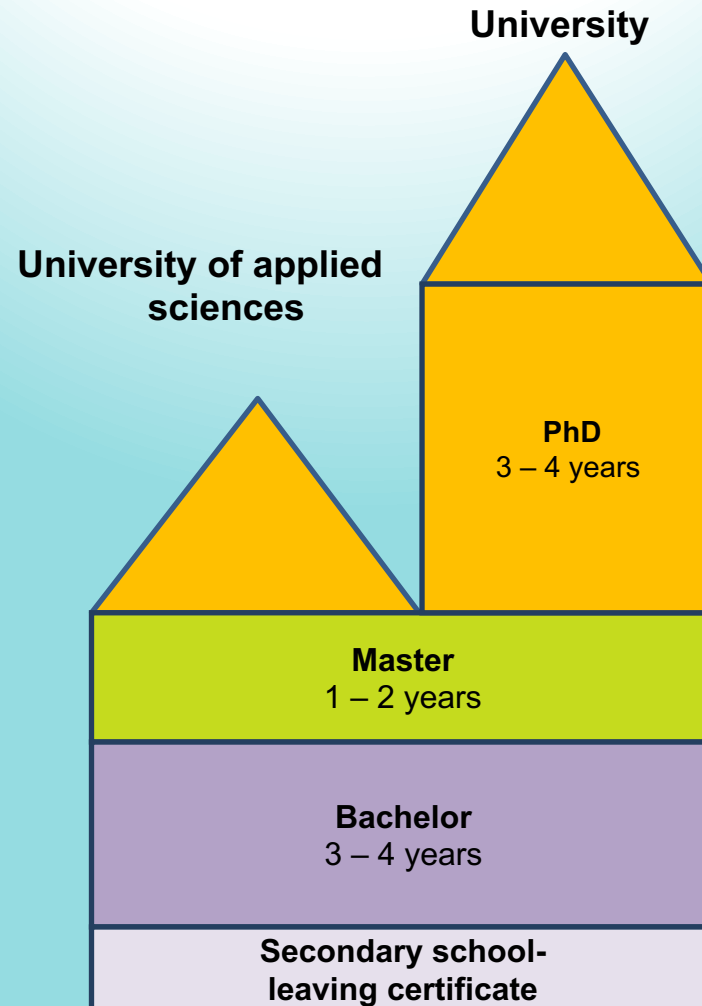
# Universities

- ~ 400 HEIs – 156 authorized to confer doctorates
- 2.86 million students (2018/19),  
~ 374,000 international (~13%)
- ~ 28,000 international doctoral candidates
- Most popular non English-speaking study destination
- Fourth most popular study destination worldwide
- Almost 40% of German students study abroad





# Degree Programs





# Max Planck Society



MAX-PLANCK-GESELLSCHAFT



86 institutes



1.8 bn euros



15,000 researchers



52% international researchers

[www.mpg.de/en](http://www.mpg.de/en)

MAX PLANCK INSTITUT



19 research centres



5 bn euros



42,000 staff in total



7,023 international researchers

[www.helmholtz.de/en/](http://www.helmholtz.de/en/)



96 institutes



1,9 bn euros



10,520 researchers



24,4% international researchers

[www.leibniz-gemeinschaft.de/en.html](http://www.leibniz-gemeinschaft.de/en.html)





74 institutes



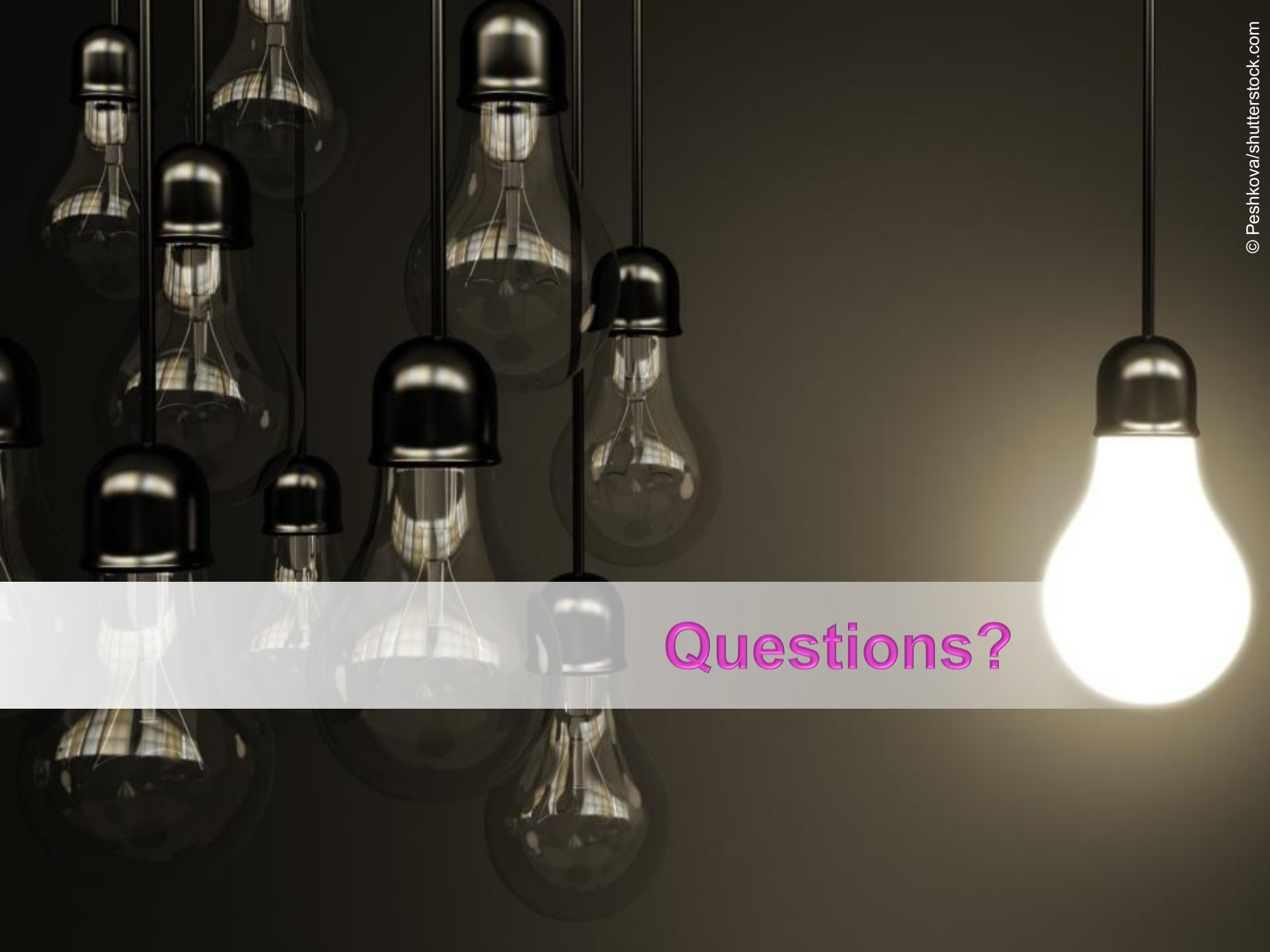
2.8 bn euros



28,000 staff in total

[www.fraunhofer.de/en.html](http://www.fraunhofer.de/en.html)





Questions?