



Department of European and International Affairs





Bavaria in Germany and in Europe

- **Location:** in the heart of Europe
- **Area:** approx. 70.000 km²
- larger than Switzerland (41.000 km²)
- much smaller than Australia (7.692.030 km²)
- **Population:** 13.2 million
- Australia: 25.4 million
- Germany: 83.4 million
- EU: 447.0 million





Bavaria and EU-27 States (Population 2021)

Country	Population
Germany	83,4 Mio.
France	64,5 Mio.
Italy	59,1 Mio.
Spain	47,5 Mio.
Poland	38,2 Mio.
Romania	19,2 Mio.
Netherlands	17,5 Mio.
Bavaria	13,2 Mio.
Belgium	11,6 Mio.
Sweden	10,5 Mio.
Czech Republic	10,5 Mio.
Greece	10,4 Mio.
Portugal	10,2 Mio.
Hungary	9,6 Mio.

Country	Population
Austria	8,9 Mio.
Bulgaria	6,8 Mio.
Denmark	5,8 Mio.
Finland	5,5 Mio.
Slovakia	5,4 Mio.
Ireland	5,0 Mio.
Croatia	4,0 Mio.
Lithuania	2,7 Mio.
Slovenia	2,1 Mio.
Latvia	1,8 Mio.
Estonia	1,3 Mio.
Cyprus	1,2 Mio.
Luxembourg	0,6 Mio.
Malta	0,5 Mio.



Bavaria and EU-27 States (GDP 2021)

Country	GDP / in mio. €
Germany	3.570,620
France	2.483,616
Italy	1.781,211
Spain	1.205,063
Netherlands	860,719
Bavaria	661,541
Poland	570,206
Sweden	530,356
Belgium	506,950
Ireland	421,529
Austria	403,370
Denmark	334,526
Finland	252,934
Romania	240,154

Country	GDP / in mio. €
Czech Republic	238,714
Portugal	211,277
Greece	182,830
Hungary	153,536
Slovakia	97,122
Luxembourg	73,313
Bulgaria	67,872
Croatia	57,310
Lithuania	55,383
Slovenia	52,020
Latvia	32,922
Estonia	30,660
Cyprus	23,352
Malta	14,533

Source: Statista 2022



Bavaria and EU-27 States (GDP per capita 2021)

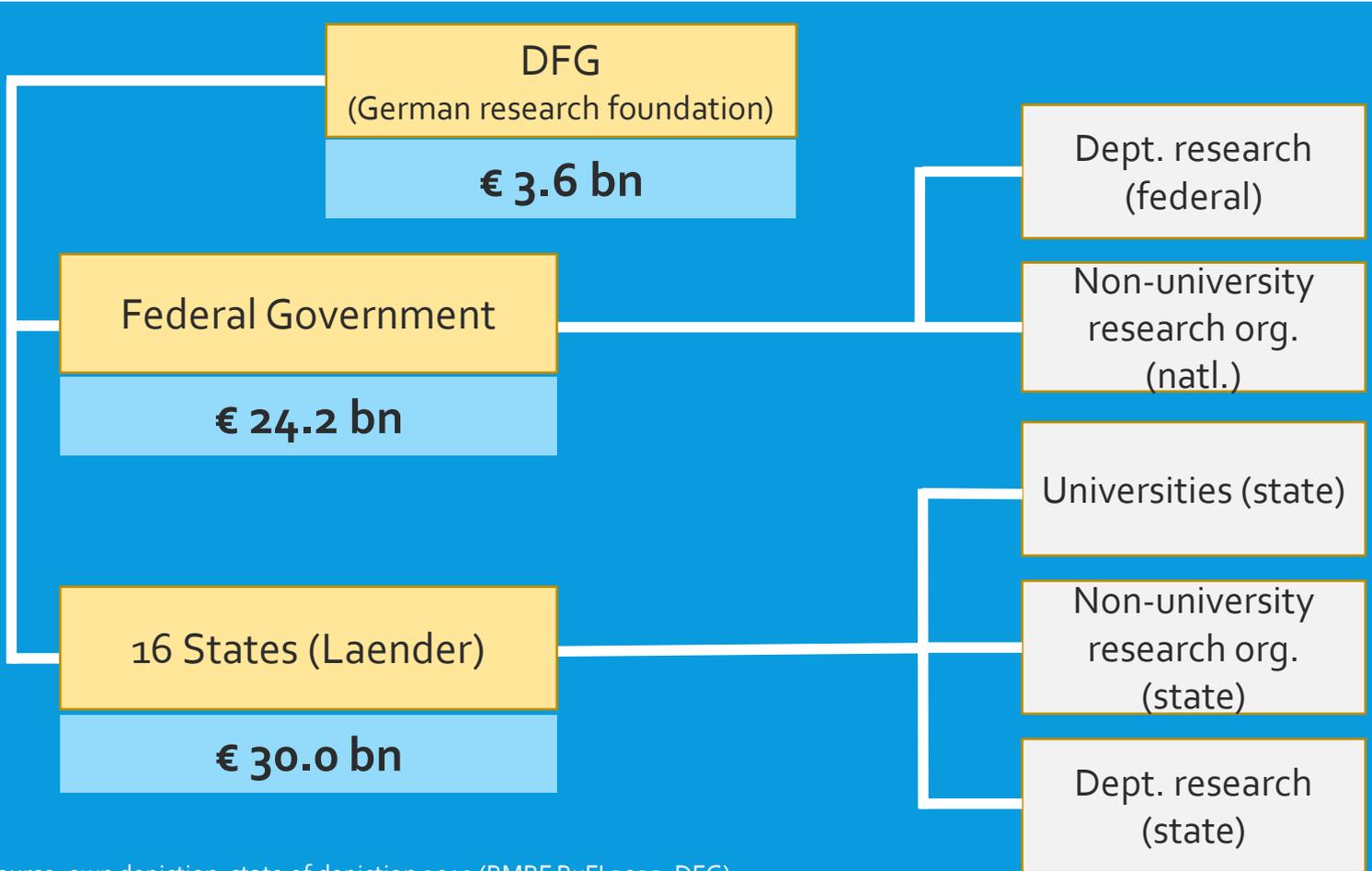
Country	GDP per capita / €
Luxembourg	112.780
Ireland	84.940
Denmark	57.520
Sweden	51.590
Bavaria	50.239
Netherlands	48.840
Austria	45.370
Finland	45.360
Belgium	43.680
Germany	43.290
France	36.660
Italy	30.150
Malta	28.310
Cyprus	26.680

Country	GDP per capita / €
Spain	25.500
Slovenia	24.770
Estonia	22.580
Czech Republic	22.270
Portugal	20.840
Lithuania	20.000
Slovakia	18.110
Latvia	17.860
Greece	17.140
Hungary	15.840
Poland	15.060
Croatia	14.750
Romania	12.560
Bulgaria	9.850

Source: Statista 2022



Research and Funding in Germany





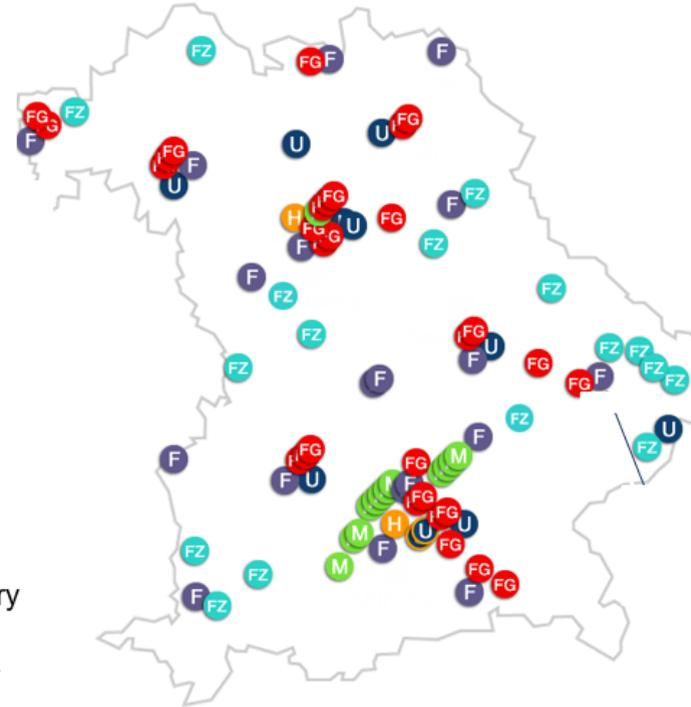
Research Infrastructure in Bavaria

- M 13 Max Planck Institutes + 1 Research Group
- H 2 Helmholtz Centers + 3 Helmholtz Institutes
- FG 30 Institutes & Research Establishments of the Fraunhofer Association
- FZ 26 Research and Technology Transfer Centres

U 11 Universities (10 state funded)

F 25 Universities of Applied Sciences (17 state funded)

Numerous projects funded by the Federal Ministry of Education and Research (BMBF) and the European Research Council (ERC) + 8 institutes of the Leibniz-Association





Important Research Areas in Bavaria

- **Digitization**
AI, ICT, Sensor Technology, Mechatronics, Robotics, Quantum Computing
- **Materials**
Advanced Materials, Nanotechnology
- **Health**
Biotechnology, Medical Engineering
- **Natural Sciences**
Physics, Chemistry
- **Energy**
Renewable Energies, Environmental Technologies
- **Mobility**
Automotive, Aerospace



Hightech Agenda Bavaria

Strategic investment of € 3.5 billion (2020 – 2023)

Promotion of AI and SuperTech

- Quantum technology
- Aerospace
- Cleantech

Renovation and Acceleration Programme for higher education institutions

Higher Education Innovation Act

- Agility
- Excellence
- Innovation

Booster for small and medium- sized enterprises (SME)

- digital
- start-up
- automotive funds



Hightech Agenda Bavaria

Strategic investment of € 3.5 billion (2020 – 2023)

Promotion of AI and SuperTech

- Quantum technology
- Aerospace
- Cleantech

Renovation and Acceleration Programme for higher education institutions

Higher Education Innovation Act

- Agility
- Excellence
- Innovation

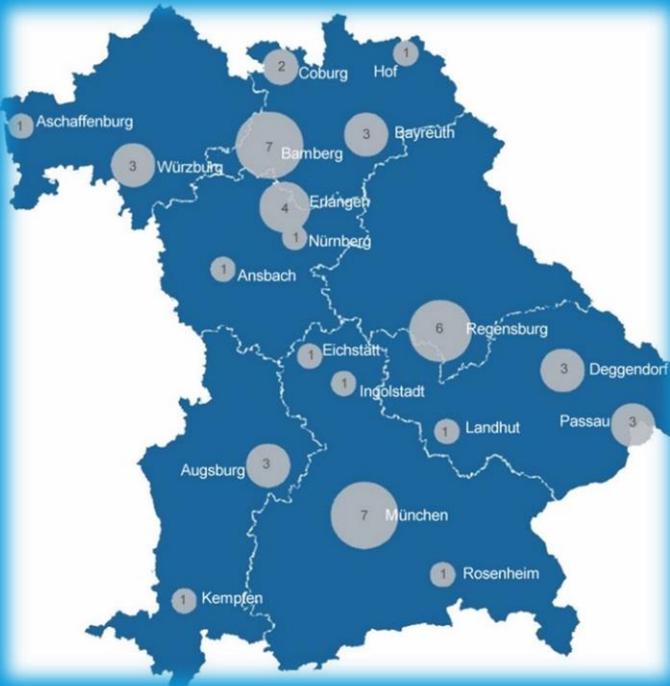
Booster for small and medium- sized enterprises (SME)

- digital
- start-up
- automotive funds



The AI District of Bavaria

More than 100 new AI-professorships



50 AI-professorships aim to strengthen four Bavarian AI-hubs:

- Intelligent Robotics hub in Munich
- Data Science hub in Würzburg
- Mobility hub in Ingolstadt
- Health hub in Erlangen

50 additional professorships were awarded following a science-led AI competition



Munich Quantum Valley

- promotes quantum science and quantum technologies in Bavaria
- aims to develop and operate competitive quantum computers
- connects research, industry, funders, and the public
- promotes an efficient knowledge transfer from research to industry
- establishes a network with international reach and provides educational offers for schools, universities and companies



www.munich-quantum-valley.de/



Hightech Agenda Bavaria

Strategic investment of € 3.5 billion (2020 – 2023)

Promotion of AI and SuperTech

- Quantum technology
- Aerospace
- Cleantech

Renovation and Acceleration Programme for higher education institutions

Higher Education Innovation Act

- Agility
- Excellence
- Innovation

Booster for small and medium- sized enterprises (SME)

- digital
- start-up
- automotive funds



Hightech Agenda Bavaria

Strategic investment of € 3.5 billion (2020 – 2023)

Promotion of AI and SuperTech

- Quantum technology
- Aerospace
- Cleantech

Renovation and Acceleration Programme for higher education institutions

Higher Education Innovation Act

- Agility
- Excellence
- Innovation

Booster for small and medium- sized enterprises (SME)

- digital
- start-up
- automotive funds



Bavarian Higher Education and Innovation Act

More agility

More excellence

Internationalisation
and talent scouting

Additional strength
in research

New era of
entrepreneurship

Transfer of knowledge
and technology



Hightech Agenda Bavaria

Strategic investment of € 3.5 billion (2020 – 2023)

Promotion of AI and SuperTech

- Quantum technology
- Aerospace
- Cleantech

Renovation and Acceleration Programme for higher education institutions

Higher Education Innovation Act

- Agility
- Excellence
- Innovation

Booster for small and medium- sized enterprises (SME)

- digital
- start-up
- automotive funds



Transfer Offices and Technology Transfer Centres

Goal:

strong regional
university-industry
networks

Tool (I):

Transfer Offices at
universities (11) and
UAS (19) →



Tool (II):

26 Technology
Transfer Centres
located in smaller
towns without their
own higher
education
institution, but with
strong companies.



Promoting University-Industry Collaboration

Bavarian Cluster Platforms

Digitalization

Information and
communication
technologies

Mechatronics
and automation

Power electronics

Sensor technologies



Energy

Energy
technologies

Environmental
technologies



Health

Bio-
technologies

Medical
technologies

Food industry



Materials

Chemical
industries

Forestry
and wood

Nano-
technology

New materials



Mobility

Railway
technology

Aerospace

Automotive





Bavarian Companies – Successful Players in the World

