

# **Hightech Agenda Bavaria**

- Unique campaign for large-scale investments in high-tech-related research and innovation in Germany
- > Investment volume of 3.5 billion euros
- ➤ Implementation 2020–2023
- > 1,000 new professorships, 3,800 new positions in total
- ➤ 13,000 new university places for students
- Germany's most innovative Higher Education Act

#### 4 PILLARS:

- ✓ Al and SuperTech (quantum technology, aerospace, cleantech)
- ✓ Renovation and Acceleration Programme for our higher education institutions
- ✓ Higher Education Innovation Act
- ✓ Booster for small and medium-sized enterprises

#### 4 GOALS:

- ✓ We bring the brightest minds to Bayaria!
- We create an excellent environment for research and teaching by providing the most modern infrastructure!
- ✓ We provide answers to the pressing questions of our time!
- ✓ We put innovative ideas into practice!

# We bring the brightest minds to Bavaria!

- 1,000 new professorships with adequate equipment (resources and staff)
- Leading-scientists-programme designed to attract and promote top-notch researchers
- Germany's most modern appointment law with direct appointment and excellence-appointment
- The Hightech Agenda furthers successful talent scouting through internationalisation of study programmes, new career centres, post-doc development positions, new academic pathways, tenure track and targeted promotion of women.
- In response to ever-growing national and international competition, we empower higher education institutions to offer autonomous degree programmes conducted in foreign languages. Foreign students enrolled in such programmes may attend German language courses taught at higher education institutions in order to obtain sufficient proficiency in German.

# We create an excellent environment for research and teaching by providing the most modern infrastructure!

- Faster construction, for example by making our higher education institutions eligible to build facilities under their own authority
- Innovative processes and organisational measures
- 400 million euros from our Renovation and Acceleration Programme
- Boost for excellence networks and university cooperation, e.g. One Munich Strategy: as global competition among metropolitan regions intensifies, the two Universities of Excellence, LMU (Ludwig-Maximilians-Universität München) and TUM (Technical University of Munich), are consolidating their scientific strengths in future-oriented and high-potential research fields.

# We provide answers for the pressing questions of our time!

### Artificial intelligence (AI)

- 112 new Al professorships at four thematic Al-centres in Munich (Intelligent Robotics), Würzburg (Data Science), Erlangen-Nuremberg (Health), Ingolstadt (Mobility) and other locations all over Bavaria, creating a state-wide Al network
- First-rate research institutions in Munich, such as the Munich Institute of Robotics and Machine Intelligence (MIRMI) at TUM, focussing on the fundamentals of robotics, perception and artificial intelligence
- CAIDAS Center for Artificial Intelligence and Data Science at JMU (Julius-Maximilians-Universität
  of Würzburg) and CAIRO Center for Artificial Intelligence and Robotics at FHWS (the University
  of Applied Sciences Würzburg-Schweinfurt), connecting research on methods of data science and
  corresponding fields of AI with scientific areas of application
- Department Artificial Intelligence in Biomedical Engineering (AIBE) at FAU (Friedrich-Alexander-Universität Erlangen-Nürnberg), focussing on medical processes, data, sensors and devices, as well as medical robotics
- The Al Mobility Node Ingolstadt Almotion located at THI (Technische Hochschule Ingolstadt), dedicated to Al-based mobility of the future

#### **Quantum Technologies**

- Total investment of 300 million euros to bolster Bavarian excellence in the field of quantum sciences and technology
- Munich Quantum Valley (MQV) promotes quantum science and quantum technologies in Bavaria with the primary goal of developing and operating competitive quantum computers. MQV advances an efficient knowledge transfer from research to industry, establishes a network with international reach and provides educational offers for schools, universities and companies.
- The Leibniz-Supercomputing Centre of the Bavarian Academy of Sciences and Humanities with its exascale-supercomputer is our Bavarian IT-Cathedral as part of our Europe-wide Gauss Centre for Supercomputing (GCS)

#### **Life Sciences**

 Specialised life science facilities in different parts of Bavaria, strengthening regional development and unleashing the full potential of regional innovation

#### **Aerospace**

- Department of Aerospace and Geodesy at TUM
- Hyperloop programme near Munich (including a full-scale technology demonstrator, consisting of a 24-metre-long vacuum tube and matching-sized capsule)

#### We put innovative ideas into practice!

- Growing importance of third-mission activities such as start-up promotion and the transfer of knowledge and technology
- Streamlined administrative procedures for entrepreneurial engagement
- Simplified access to university infrastructure and entrepreneurial leave for professors
- Strengthened technology and knowledge transfer: Expansion and further development of centres for the transfer of knowledge and technology and entrepreneurial activity