

# Moving Knowledge

FAU Strategic Framework

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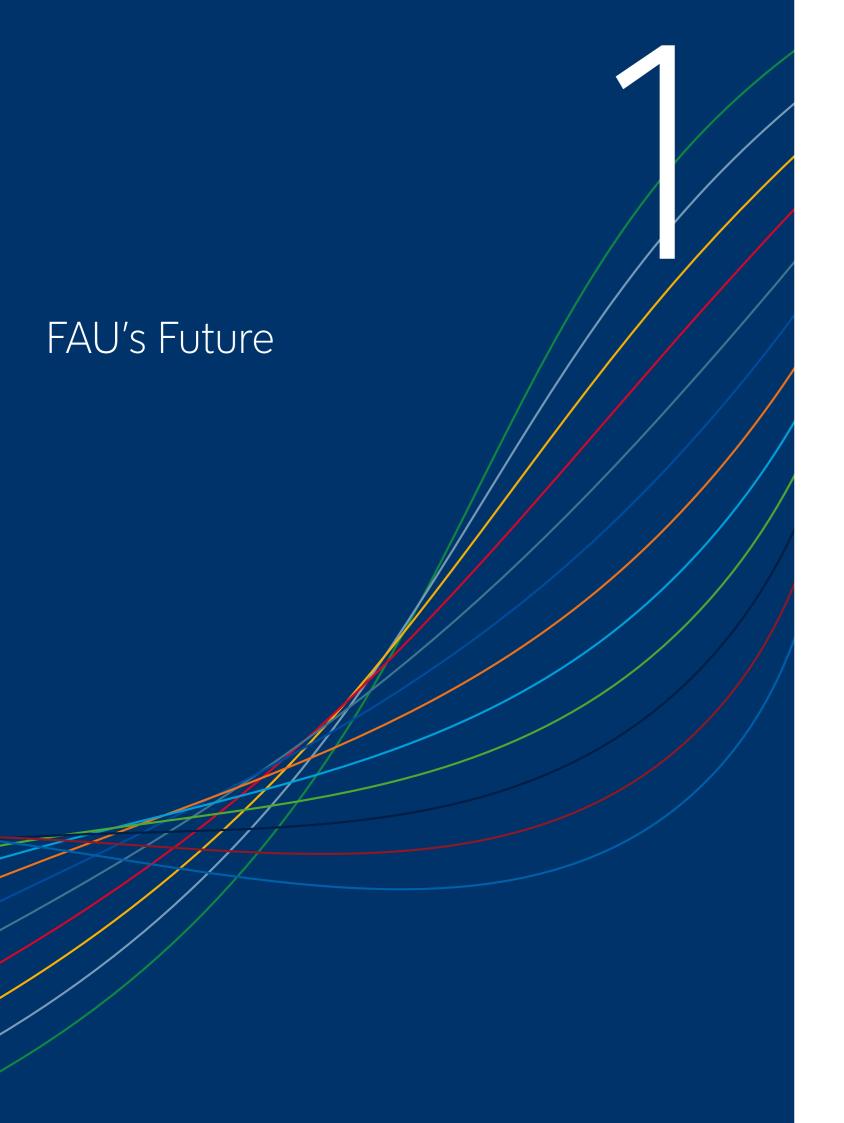
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Founded in 1743, we at Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) are aware of our strong tradition and our role in assuming global responsibility. At the same time, we are committed to shaping the future. We are determined to further develop FAU as a home for curious, ambitious and open-minded people.

Knowledge is the currency of our time. That is why our motto at FAU is "Moving Knowledge". We envision FAU as a place where knowledge is shared and circulates freely, where inquisitive students meet passionate faculty, where innovative research is conducted, and where the best minds work together. All of us – students, faculty and staff – work together, using our collective knowledge and energy to achieve our goals and create the greatest positive impact. At the core of what we do, we prioritize building a culture of learning and understanding, and driving innovative research and value creation for the society in which we live.

Innovation, diversity and passion are the values that guide us into the future. Together, we continue to create an open platform where innovative minds feel free to explore, learn, teach, find opportunities and solve future challenges. In doing so, we are developing a close-knit innovation network and a dense ecosystem. With our combined efforts and strengths, we move knowledge – in science, in society, in politics and in industry.

#### **Innovation is our Passion**

At FAU, we drive innovation. FAU is one of the most important innovation leaders in Germany, Europe and the world. We proudly hold this position by constantly combining our internal innovative power with external impulses. We are committed to open innovation. We connect and serve a variety of social and economic actors in our innovation system. Located in the heart of Central Franconia, we benefit from an outstanding social, cultural and entrepreneurial environment. At the same time, the innovation system benefits from the talent we nurture and create, the ideas, research results and educational formats we maintain and use. We excel in patent strength in one of the most patent-rich regions in Europe, we encourage start-ups and collaboration, and we provide and share knowledge. We encourage the circulation of knowledge and spark ideas to multiply and grow. Our strong culture of collaboration is extremely helpful in shaping our innovation system.

Leadership with freedom and responsibility strengthens the ability to discover the unexpected. The capacity for innovation that makes us strong and for which we are so valued by our partners. And yet, we are fully aware of the following: While everyone who knows us appreciates the true value of our FAU, all too often people are not really aware that we exist. Internationally, we seem to have the reputation of being "the best university you never heard of". At least that's what British innovation researcher and FAU ambassador Professor John R. Bessant said, echoing the words of Frank Zappa. Changing this perception will require cautious but determined steps and a common path of future development. The FAU Strategic Framework will guide us along the way.

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#### **FAU Strategic Framework**

The FAU Strategic Framework provides guidance and sets priorities for the future development of our FAU, its faculties, schools and departments. It follows the understanding of our both decentralized and centrally orchestrated FAU: Inspired by and based on feedback from stakeholders across the FAU, it provides a framework for drafting, consolidating, and implementing strategic plans for each of the decentralized units.

As an overarching framework for our perspective-rich FAU, the FAU Strategic Framework cannot list specific goals applicable to all individuals and units, but requires independent interpretation and translation into specific cultures and implementation contexts.

As part of our ongoing strategy process launched in 2017, the FAU Strategic Framework provides the foundation for future strategy development. It supports FAU's future development in three areas: **Strategy** (#FAU2025), **Culture** (identity, brand, and communications), and **Structure** (governance, organizational development, infrastructure development, and campus development).

**#FAU2025** as the core area incorporates the strategic priorities **PEOPLE**, **EDUCATION**, **RESEARCH** and **OUTREACH**, as well as the cross-sectional topics of Equal Opportunities, Internationalization, Sustainability and Digitalization. In order to implement the strategic commitments, the most important sources of funding at the regional (with a focus on the Hightech Agenda Bavaria | HTA), national (with a focus on the Excellence Strategy | DFG) and European (with a focus on Horizon Europe) level must also be taken into account.

All in all, the FAU Strategic Framework can be compared to a map: It condenses the various options available in the 18 fields of action, identifies promising priorities, interactions and commitments. It thus provides a framework and suggestions for setting one's own priorities with a view to achieving common goals.

#### **FAU's Future Development**

benefit of society.

The FAU Strategic Framework provides guidelines for strategic actions with respect to the FAU as a whole, its units and each individual member. FAU's faculties and administrative units define their goals in specific agreements, decide on appropriate measures for implementation and report regularly on progress. Students play a constructive role within and across all areas.

Our shared priorities follow the lines of the strategic fields of action:

- Institutionalize individual development pathways across the lifespan and for all.
  - At FAU, the strategic priority PEOPLE aims to attract, retain and develop talent and focuses on institutionalizing reliable individual development pathways for students, scholars and staff alike.
- Establish FAU as a place-to-be for curious, open-minded, ambitious people.

  At FAU, EDUCATION means guiding individuals to take a critical stance and apply their newly-acquired skills independently, responsibly and for the
- Expand our research strength and profile within and across all faculties
  At FAU, RESEARCH means expanding our research and innovation strength by
  opening up new research fields, increasing intra- and interfaculty cooperation
  across disciplines, and providing professionalized research support structures.
- Increase FAU's awareness, accountability and impact
  At FAU, OUTREACH promotes engaged scholarship for the benefit of science, business, society and politics by raising awareness, encouraging responsible action, and leveraging innovation and impact.

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FAU Culture: A Strong Foundation and Driving Force

Culture is the foundation that drives development. How do we define our culture? What is FAU's identity? How do we interact with each other? What are our values that guide our actions in work, study, and teaching? What can we do to promote a common identity beyond the rich and valuable diversity of cultures in the various disciplines and fields represented at FAU? What channels of communication do we use internally across all status groups? Which ones do we use externally in society? These are all questions that will be answered by working together. When we live up to our cultural values, we have an even greater impact. To achieve this, we recognize that feedback is key and we want to encourage active communication to help us better understand and appreciate each other in our daily work.

There are three areas in which we intend to work together to make our mark. Our identity is the underlying attitude that informs our daily actions and defines who we are and who we, the FAU community, aspire to be. It symbolizes our posture and standing while enhancing our visibility and impact. Our brand development builds on our identity and acts as a reinvigorating impetus. It creates productive tension and stimulates active reflection. Internal and external communication is the key to shaping the culture, structure and future development of an organization.

# 2.1 Identity

Our FAU consists of five faculties, three schools, 24 faculty departments, numerous institutes and central facilities as well as a strong decentralized yet centrally organized academic support structure with four central administrative units, 25 administrative teams, as well as staff departments, staff units and subject areas.

A total of 6,568 people are employed throughout the university (as of December 1, 2021), making our FAU together with the university hospital the second largest employer in the region. The entire FAU community of students, scholars and staff numbers approximately 55,000 people. In addition, there is a worldwide network of FAU alumni who are increasingly willing to take an active role in the FAU community.

Positioning ourselves in the overarching strategic development process of our FAU is important for each of our members as well as for the institutional units of our FAU. Defining our position in this way makes it easier to achieve goals with less effort. At the same time, a reflected identity in the overall context of the FAU promotes mutual understanding. It transforms potential tensions caused by opposing positions into an open, respectful and innovation-promoting exchange. It is also a prerequisite for the responsible use of one's own freedom in the community.

We value the diversity and individuality of our faculty, researchers, students, and staff. We take a clear stance against discrimination and exclusion and foster a culture of mutual respect. We are committed to equality, diversity and a healthy work-life balance. We value the achievements of everyone at FAU equally, creating a shared and inclusive sense of community and identity. We provide a creative and lifelong culture of diversity of thought and action. We foster the enthusiasm and motivation of our employees through an appreciative leadership culture and provide attractive opportunities for professional and personal development.

We embrace and apply the freedom granted by law to all our members at all levels. But freedom always requires responsibility. We therefore strive to provide a platform for both. We combine academic freedom in research and teaching with the role of a responsible actor in society. We grant institutional freedom and demand organizational responsibility. Together, we set and achieve strategic and operational goals to move our university forward and into the future.

This is reflected in our daily communications and actions. Our identity is the foundation of what we do. We build on our past and help shape our future.

# 2.2 Brand Development

**Moving Knowledge** is our motto and our main goal. As a university, we are engaged in the production, use, transformation and dissemination of knowledge. We generate and activate, transmit and transport, mobilize and combine knowledge in new forms. We do this by studying, researching, teaching, reflecting and inspiring reflection.

**Innovation**, **Diversity** and **Passion** are our values and the foundation of our actions. Understanding innovation in its broadest sense allows us to benefit from diverse perspectives, opinions and beliefs to channel our shared passion and make FAU fit for the future.

#### Moving Knowledge. FAU

Innovation - Diversity - Passion

We are active agents of change. We look to external forces for inspiration, but we are the ones who hold the compass and decide where we are going. This is a challenge for all of us. It requires visionary strength and a reliable community. An overarching vision and mission help give us a sense of direction.

#### Vision

We create a platform of freedom for innovative thinkers: in studies, in research, in teaching and in being and working together.

#### Mission

Curious, courageous, sustainable, respectful, open-minded – these are the strengths we use to ask questions, consistently think things through to the end, foster talent, develop personalities, and measure ourselves in a competitive global environment.

We foster a culture of collaboration with our internal and external partners. In this way, we contribute to education, knowledge, exchange and social values.

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Our motto, values, vision and mission define our FAU brand. But they are only brought to life by the commitment, dedication and pioneering spirit of each and every one of us. But what makes a pioneer? They need curiosity, courage, vision, respect and openness to the world, and they need to be driven by their intrinsic motivation. The willingness to consider innovative approaches and perspectives enables them to realize their visions for the future and achieve success. As a platform for freedom, FAU provides guidance and direction and creates a framework in which everyone can reach their full potential.

We want to move FAU forward together. Our word and image brand FAU symbolizes our intention. The logo, with its open lines up, down and sideways, as well as the deliberately ambiguous perspective, illustrates our willingness to change perspectives, to network and to take an interdisciplinary approach in order to explore topics from different angles.



The seal is very carefully changed in detail – but as a whole it is revolutionary. The name of the university and the year of its foundation became part of the seal. The portraits of Friedrich and Alexander are closer to the 1832 original. The seal is suitable for use in digital media and, unlike our previous seal, is easily scalable.

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## 2.3 Communication

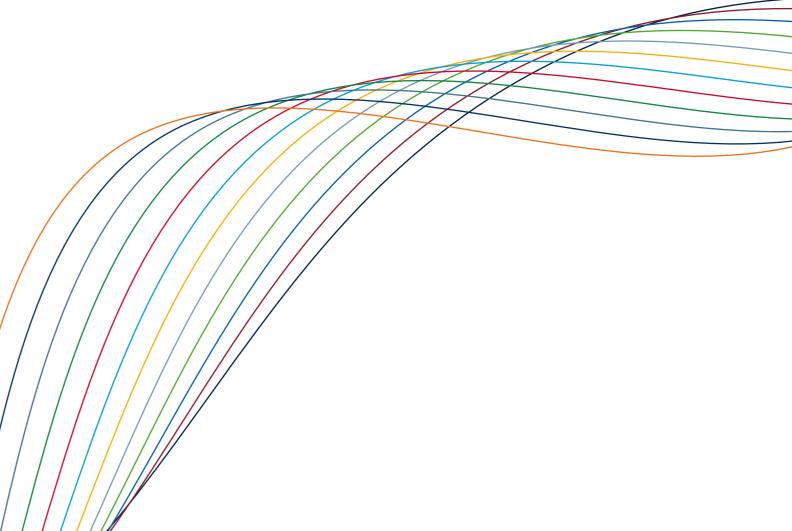
Internal and external communication is essential to shaping the future and driving change. Communication fosters a sense of community within the university and strengthens connections with those in the wider community. It strengthens our ability to take action and increases our visibility.

Communication on the level of committees and the organization as a whole plays a critical role in setting direction. This is where content is developed, decisions are made and messages are communicated. Recently, we have made an effort to make strategic issues accessible to all members of FAU in our regular FAU Dialog format, encouraging discussion regardless of hierarchy and faculty. Semester meetings provide an opportunity to discuss developments in the strategic fields of action PEOPLE, EDUCATION, RESEARCH and OUTREACH and to decide on plans for the future in consultation with the heads of the faculties. Target and performance agreements for individuals or institutions are one of the tools we use to actively monitor developments in the strategic fields of action. Overall, the intensity and quality of communication has already increased significantly in recent years. Communication among equals has always been an important consideration for us at FAU and is the reason why we are always interested in finding and trying out new informal and easily accessible formats to encourage communication between all levels of management and students, teaching staff, researchers and administrative staff. Nevertheless, there is still considerable potential for improvement in terms of quality, closer interaction, and also more transparent and agile communication. All members of the FAU should feel accepted and valued from the outset.

Communications and Press has a pivotal role. It bridges the gap between FAU's internal stakeholders and the outside world and handles issues of media and science communication as well as research and student marketing. To date, it has focused primarily on regional and national communication. It ranks in the top third of German universities in terms of press and communication activities and has ambitious goals for the future in terms of innovative formats, prioritization, diversification, conveying meaning, and using multipliers in communication. It pursues a clear enabling strategy and is in close contact with internal communications experts, with experts in the profile-building research and teaching areas, with the relevant administrative units as well as FAU's committees, in particular the University Board (UL) and the Extended University Board (EUL).

The President's Staff also serves as a communications engine. They communicate details of strategic development planning, data, and management information to those within the university and to external decision-makers. When it comes to international affairs and outreach support, they primarily target FAU alumni and the FAU community as well as strategic partner organizations. In addition, they liaise with start-ups, funding organizations and the relevant stakeholders in politics, society and the general public.

The strongest internal and external communication force is undoubtedly the approximately 55,000 members of the FAU itself through their daily communication. With this in mind, we should be aware of the responsibility we have every day as FAU's most important calling card.



# FAU Strategy: Core of Future Development

Launched in 2017, our future concept #FAU2025 is the core of our strategic framework and sets out the priorities and processes that each of us should follow to move FAU forward and position it for the future. It provides an overview of the strategy process to date, consolidates key developments and forms the basis for our ongoing development, initially until 2025.

Since then, "Knowledge in Motion" has inspired many people – sometimes in a general way, sometimes in very specific measures and methods, and often in a motivational or metaphorical way. Now, we have modified it into the active FAU motto "Moving Knowledge".

Implicitly and explicitly, FAU's values "Innovation - Diversity - Passion" already guide our actions in many ways. They constantly remind us of our strengths and emphasize what unites our full-spectrum university and all its members. At the same time, they challenge us to align our actions and decisions even more clearly with these values.

The four strategic fields of action "PEOPLE - EDUCATION - RESEARCH - OUTREACH" (PERO) provide the central priorities for future development within which each individual can shape his or her own goal development and realization. They provide direction and make it easier for individuals to play their own special part in contributing to FAU as a whole. These strategic fields of action are reflected in the daily, short-, medium- and long-term prioritization of the faculties, the administration and the Executive Board. They are the focus of internal organizational and committee communication as well as external communication and public relations. They are also reflected in the areas of responsibility of the respective Vice Presidents.

These four strategic fields of action are complemented by four cross-cutting issues that must be equally represented in all PERO fields in order to have an impact throughout the FAU. These cross-sectional topics are **Equal Opportunities**, **Internationalization**, Sustainability, and Digitalization. Together with the PERO fields of action, they form the thematic matrix structure at the core of our future development.

The following figure shows the relationships schematically.

Strategic Fields Education Research Outreach People Cross-sectional topics **Equal Opportunities** Establishing a Culture of Tolerance and Respect in Diversity Strenghtening Internal and External International Ties Internationalization Sustainability Using Synergies to Create Impact **Digitalization Shaping Digital Transformation** 

All objectives and plans related to the strategic fields of action and cross-sectional topics that are developed centrally and decentrally require resources for implementation. These resources can be obtained in two main ways. First, the establishment of specific priorities and focus areas automatically implies a certain prioritization in the allocation of scarce resources. Second, we at FAU have access to important public resources at regional, national and European level that we can use for both our day-to-day operations and strategic actions. These funding sources not only provide funding for individual or joint projects, but also for the strategic development of the institution, its structures, processes and priorities.

Prioritized funding sources at the regional, national and European levels therefore offer significant opportunities for future development:

At the **regional** level, the Free State of Bavaria offers significant funding opportunities: In addition to regular funding opportunities, the Innovation Alliance and a number of funding initiatives from various ministries and the Bavarian Research Foundation are offered. In the current strategic phase, the Hightech Agenda Bayern (HTA) is of particular importance to us for the further development of our research profile.

On a **national** level, in addition to the generous funding programs of the state ministries (e.g. BMBF, BMWi), the DFG offers important funding opportunities for the future development of FAU. The DFG **Excellence Strategy** is an important priority for the FAU's strategic future development beyond the scope of regular funding. The AStra Committee (Strategy Committee) advises the Senate and supports the strategic positioning of our FAU in this respect.

At the **European** level, substantial funding is available for strategic development, in particular through the **Horizon Europe** framework program. The potential is not yet exhausted and offers great opportunities for growth. In addition to initiatives at the level of specific subjects and faculties, our membership in the European Engineering Learning Innovation and Science Alliance (EELISA) allows us to mobilize and expand our strategic initiatives.

The four strategic fields of action PEOPLE, EDUCATION, RESEARCH and OUTREACH, the four cross-sectional topics Equal Opportunities, Internationalization, Sustainability and Digitalization, as well as the three central sources of funding at regional, national and European levels, together form the eleven fields of action at the core of our FAU Strategy Process (#FAU2025). They are presented below in terms of their fundamental importance and in relation to promising priorities, interactions and voluntary commitments. This can then be used as a framework within which members and units of our FAU can adapt each of the fields of action to their individual needs. The Executive Board and the Deans have an important orchestrating role to play in this process.

# 3.1 Strategic Priorities: PERO

The strategic fields of action PEOPLE, EDUCATION, RESEARCH and OUTREACH represent the priorities for future development. As you would expect from a university, education and research are at the heart of everything we do. Our accomplishments in these fields are only possible because of the people at FAU. Outreach drives the awareness, accountability and impact of our people's research and education at FAU through the transfer of knowledge.

#### PERO

The FAU PERO Diamond sets the focus in the interaction of the strategic fields of action:



# People When it comes to people at FAU, we want to attract, retain and develop talent, and we focus on creating conditions for lifelong personal growth and career development for students, researchers and support staff alike. 22 FAU Strategy: Core of Future Development June 2022

# Core content: Individual development pathways – across the lifespan and for all

People make the university – current members, potential future members, and alumni. At FAU, we consider all members of the FAU community equal, whether they are students, scholars or support staff. To that end, we will design FAU's existing career paths as reliable career paths for everyone at all stages of their professional and personal lives.

## FAU Change Track

The FAU Change Track allows people at FAU to move between institutions and represents the most conventional form of career progression for students, scholars and staff. It contributes to the expansion of the national and international academic network, and personnel changes help to maintain the necessary dynamism and flexibility of the academic system. At FAU, we encourage a change of perspective as a means of personal development: semesters abroad or internships for students, a change of department for staff, or a change of context for researchers are just a few examples.

#### **FAU Tenure Track**

The FAU Tenure Track provides a stable approach to the merit-based development of internal talent. It fills the strategic gap in the traditional career development system. We have already implemented the tenure track in our appointment procedures in all faculties at FAU, and we continue to make improvements wherever and whenever we can. Currently, we are beginning to explore how to tailor the tenure track for students, mid-level research staff, and research support staff.

#### FAU Joint Track

The FAU Joint Track specifically aims to open up cooperative career paths between internal units at the FAU and between the FAU and its external partner institutions, be they research institutions, cultural institutions, industrial enterprises, service providers or public administration organizations. Joint appointments for professorships, head of junior research groups with dual affiliation, staff with dual roles and students on cooperative degree programs are only some examples. While the FAU Joint Track has already been established in the FAU's appointment process and initial experience has been gained with junior faculty, we still need to develop a concept for the reliable implementation of the FAU Joint Track across the entire institution.

Of course, attractive, transparent and reliable career paths can only be systematically implemented across the university with the participation of all FAU units. This is a challenge we must face together. Strategically, however, numerous measures have already been implemented, both decentrally and centrally. They are designed to attract new members, retain existing members and encourage members of FAU and the extended FAU community to reach their full potential. From onboarding at one end of

the spectrum to offboarding at the other, members can count on FAU for help and support at all stages of their careers, as well as the opportunity to gain further qualifications along the way. Programs are available for all FAU members, from prospective students to retired members.

## **Interactions**

As this strategic field of action is tailored to all people and their roles at FAU, it naturally takes into account all other fields of action in the FAU Strategic Framework. By placing a strategic focus on career paths for all members of FAU, interactions between the various areas can be prioritized and made a feature of life at our university.

#### **CULTURE:**

Efforts in the area of PEOPLE inevitably have an impact on establishing and shaping the culture at our FAU. Therefore, communication is key and should be a priority, both when communicating within the FAU community and when communicating with those outside the university.

#### PERO:

The interactions between the strategic fields of action are already included in the parameters of the target and performance agreements and in various formats from onboarding to offboarding. However, there is still room to identify, understand and leverage synergies even better than before.

#### **Cross-Sectional Topics:**

We should explore how interactions on the various cross-sectional topics can be systematically and deliberately integrated into the various agreements and formats.

# Commitment: To give due consideration to all members of FAU

The FAU Career Tracks offer the potential to integrate the traditionally very different groups of academic staff, support staff and students. Our motto, "Moving Knowledge," must be reflected in all offerings and activities designed to develop, support and meet the needs of everyone at FAU. The following commitments will help us achieve our goals:

- Expand and professionalize all three FAU career paths for all members of FAU: students, scholars and staff.
- Gradually adapt, professionalize, and individualize the formats in individual units or across the university, building blocks for each stage of members' careers.
- Proactively involve FAU members in the design of the formats to be offered

# Education

At FAU, education means guiding students to take a critical stance and apply their newly-acquired skills independently, responsibly and for the benefit of society.

# Core Content: Establish FAU as the place-to-be for curious, open-minded, and ambitious individuals

FAU is the place-to-be for curious, open-minded and ambitious individuals from our region and around the world. In order to enable students to develop and unfold their potential to the best of their ability, we are strengthening our competence profile in terms of content, methods and quality assurance:

Content

FAU offers a wide range of options for diverse interests and goals, covering essential skills for participation in society and the world of work in the future. Our focus is on expanding the range of English-taught programs, promoting interdisciplinary programs, and increasingly incorporating topics of great relevance to society.

Methods

FAU strongly supports the **development of innovative teaching methods.** We understand the term in a broad sense, which is certainly not limited to digital education, but also includes other measures of university teaching that focus on the student as a learner and strive not only to impart specialized knowledge and research skills, but also to promote cognitive activation, self-regulated learning, and personal development.

**Quality assurance** In the context of teaching and learning, we believe in democratic, participatory, dialog-based quality management that aims to promote and develop disciplinary diversity at FAU. Together with all stakeholders, we strive for common guidelines for quality management at FAU and for quality standards. However, in accordance with the principle of subsidiarity, the individual faculties are then responsible for deciding how best to implement the guidelines according to their individual circumstances. In this way, FAU represents a platform for freedom where participation is not only possible, but actively encouraged and even required. In this way, we are able to ensure FAU's established high standards of quality.

With our focus on support and challenge as both an aspiration and a promise, we offer FAU stu-dents and faculty the opportunity to achieve the best possible teaching and learning outcomes while enabling the development of new talent.

## **Interactions**

FAU's attractiveness as a university for ambitious, curious, and open-minded individuals from around the world is enhanced by its culture, especially its international openness, commitment to equal opportunity, and interest in sustainability. The content, methods, and quality assurance aspects of the FAU's course portfolio are geared to the needs of students and current develop-ments. We design our programs in accordance with our research strengths and market needs in order to further refine FAU's profile.

#### PERO:

In considering the quartet of strategic priorities, special consideration must be given to how this area relates to **PEOPLE** priority (in terms of expectations of prospective students and career opportunities in the job market) and the RESEARCH priority (in terms of fields and topics in which we are particularly strong in research and those that help shape the specific profile of our FAU, as well as research-based teaching and learning).

#### **Cross-Sectional Topics:**

In the interaction with the Cross-Sectional Topics, strategic interactions can be identified and highlighted. The further development of innovative teaching methods can support students with their heterogeneous learning needs and can take into account the needs and diversity of future students. For example, issues related to climate and sustainability debates are becoming increasingly relevant. This controversial topic requires interdisciplinary expertise and will be more strongly anchored in our portfolio of degree programs and courses.

#### **Sources of Funding:**

All of these desiderata are highly eligible for support from funding programs. In addition to state funding from the German Federal Ministry of Education and Research (BMBF) and European funding (in particular through Horizon Europe), a number of other foundations also focus on these aspects and offer funds for which FAU can apply to secure additional financial resources.

# Commitment: Focus on encouraging and expecting results

FAU is committed to an educational approach that encourages and expects results, while empowering students to develop a critical and questioning mindset. As a campus-based university, FAU will leverage its strengths in innovative digital approaches to teaching and learning. We are committed to:

- Introducing new profile degree programs based on FAU's particular strengths in research with a global societal impact and tailored to the job market.
- Developing new teaching and learning concepts adapted to the different learning needs of students (increased opportunities for individualization and support tailored to students' needs) that allow students to participate in research and critically reflect on knowledge, while also providing skills relevant to the job market.
- Establishing an incentive and recognition system to improve the quality of teaching, transparency and comparability in the degree and examination system.



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# Core content: Expand our strength in research and develop our own individual profile within and across faculties

Research is one of our key strengths. As a full-spectrum university, we offer a wide range of subjects and an academic environment that opens up new opportunities for collaboration. In order to further enhance FAU's innovative strength, it is necessary to have the courage to explore topics in depth and to build a culture of interdisciplinary collaboration with the right balance of individual and collaborative research. This process is accompanied by the establishment and expansion of regional, national and international networks and the provision of professional research support structures. At FAU, we pursue the following three strategic concepts to sustainably expand the research area (see also Appendix 1):

Adopting an interdisciplinary approach to drive innovation

The willingness to engage in interdisciplinary discourse and scholarly collaboration across disciplinary boundaries and organizational structures is ingrained in our culture as a university that offers the full spectrum of academic disciplines. By making a name for themselves through their individual research, FAU researchers create the necessary conditions for collaborative interdisciplinary projects, paving the way for new and innovative fields. To support this process organizationally, competence centers, research centers and profile centers have been established.

# **?** Research as a magnet

To be successful in research over the long term, we need curious, open-minded people who are passionate about research. FAU focuses on introducing students to research early in their undergraduate careers and provides clear structures to support talent from the start. As a leading research university with a broad range of research areas, FAU offers numerous opportunities for individuals to enter research and become established researchers in their field. FAU is proud to offer a broad portfolio of development opportunities in academia, research and industry through our extensive network of national and international partnerships.

Providing the ideal environment for research
In order to provide the best possible support for science and research, FAU
relies on effective structures and an experienced research support system. We
offer FAU researchers professional services and support both research
proposals and the establishment and expansion of international networks,
from universities to companies. In this way, FAU creates the framework for
excellence in research, exchanging ideas with other academics, establishing
partnerships and paving the way for new areas of research.

Our research strength and innovative power are regularly assessed in quantitative and qualitative evaluations and taken into account in national and international rankings. We focus our research strategy on developing both individual and collaborative research.

## **Interactions**

#### PERO

As one of FAU's strategic priorities **RESEARCH** is closely linked to the other PERO aspects. FAU's strength in research depends to a large extent on the quality and motivation of our students, researchers and research support staff. We want to be a highly attractive university and employer, offering opportunities for personal development. Research and teaching are inextricably linked and our understanding of our responsibility as an educational institution is largely based on our strength in research. Finally, research is one of the most important contributors to the OUTREACH priority as it provides the content to create impact in society.

#### Querschnittsthemen:

**RESEARCH** is closely linked to the Cross-Sectional Topics. The importance of diversity and variety, internationalization and equal opportunities for encouraging creativity and ensuring top performance in research should not be underestimated. Digitalization plays a key role not only in facilitating scientific collaboration and accelerating the exchange of ideas, but is also essential for computer-assisted experiments and analyses, as well as for archiving and making research data available worldwide. Sustainability is a major commitment of our research. We contribute to the transition to renewable energy sources, thereby safeguarding human health, the Earth's climate and the future of the planet for generations to come.

# Commitment: Driving innovation through research

FAU is a leading research university that can leverage its breadth of academic disciplines and its uniqueness in collaboration through targeted strategic actions. The following commitments help us achieve our goals:

- Developing our own individual profile and focusing on innovative research has a decisive influence on FAU's research strength and competitiveness. Strategic appointments should be made at the interfaces of disciplines as a prerequisite for in-depth exploration of topics in our focus areas as well as in new, cross-disciplinary fields of research.
- Interdisciplinary research beyond the boundaries of individual disciplines and established structures, as well as international networking, should become second nature to us. Each researcher should be committed to contributing to FAU's position at the forefront of research.
- We strive for and are committed to the further **professionalization of structures that support research**, such as competence units, support for young researchers and quality assurance.

# Outreach At FAU, outreach promotes engaged scholarship for the benefit of business, society, and policymaking by driving visibility, encouraging responsible action, and leveraging innovation and impact. 32 FAU Strategy: Core of Future Development June 2022

# Core content: Increase FAU's visibility, accountability and impact

Each member of FAU contributes individually to the University's outreach on a daily basis – through publications and lectures, by assuming various roles in society, as an advisor, as a partner in policy, or as an intermediary between different parts of our innovation system. However, in order to ensure that the awareness, accountability and impact of our FAU as a whole can become more than just the sum of these individual contributions, individuals and the organizational units of FAU are also invited to set common priorities, to strengthen each other and to use the opportunities that FAU offers.

Strategic outreach takes place over five priority pathways:

- Outreach via individuals

  FAU's impact on the economy, society and politics is greatly influenced by the people who leave the university and enter the workforce. FAU Alumni Management aims to retain these people as loyal alumni integrated into our innovation system. The FAU Community online platform is an important starting point for central support.
- Outreach via continued education & lifelong learning

  FAU members can have an impact on society by providing opportunities for continuing education in their areas of specialization, thereby supporting lifelong learning. Professional Development Management and the FAU Academy are responsible for focusing efforts to mobilize and connect such offerings across the FAU.
- Outreach via partnerships and co-creation
  Strong partnerships and joint collaborations between the faculties and society, politics and industry to create knowledge underline FAU's strength in innovation. The Knowledge and Technology Transfer Office is responsible for initiating and arranging collaborations as well as maintaining FAU's network of partners. FAU also offers students, researchers and research support staff platforms for innovation and co-creation, such as an open innovation lab in Nuremberg, which is run in partnership with Fraunhofer.
- Outreach via patents and licenses
  Ideas, inventions and innovations from all areas of FAU that make our university a leading innovator. The Patent Counseling Office is available to assist in the patenting of FAU innovations. The Patent Management Team provides advice patent portfolio and license management issues. Together with Fraunhofer, FAU operates a platform for strategic technology commercialization and transfers knowledge into teaching.

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#### **Outreach via start-ups**

Outstanding start-ups from all areas of our FAU are a hallmark of the Nuremberg Metropolitan Region. Our Start-up Consulting Service raises awareness for and promotes entrepreneurial activities within the university community. The ZOLLHOF TechIncubator, which the FAU has established together with partners, acts as a motor and hub for entrepreneurial initiatives.

From a strategic point of view, all FAU members are called to pursue their own particular focus on the spectrum of the five outreach pathways. From the perspective of the organization as a whole, we intend to continue to professionalize our support services, set performance targets, and to communicate results in a visible and understandable way.

## **Interactions**

FAU's strength in innovation is based on effective collaboration with internal and external partners. To further strengthen our position, we want to improve the interaction between our strategic fields of action and the Cross-Sectional Topics.

#### PERO:

The PERO-diamond is a guide to the future: the key is to consistently institutionalize the impact cycle. Outreach must be taken into account from the outset when deciding on research projects and designing educational services. This is the only way to tap into untapped potential and increase feedback in research, teaching and talent development.

#### **Cross-Sectional Topics:**

There is still room to make the most of strategic interactions when it comes to our cross-sectional topics. FAU is known for startups that are particularly focused on sustainability, but our startup teams are still lacking in diversity. FAU has an excellent reputation for education in the region, but has not yet made a name for itself internationally. It is strong in the area of 'digital' patents, but still relatively weak in digitizing its patent portfolio and patent management.

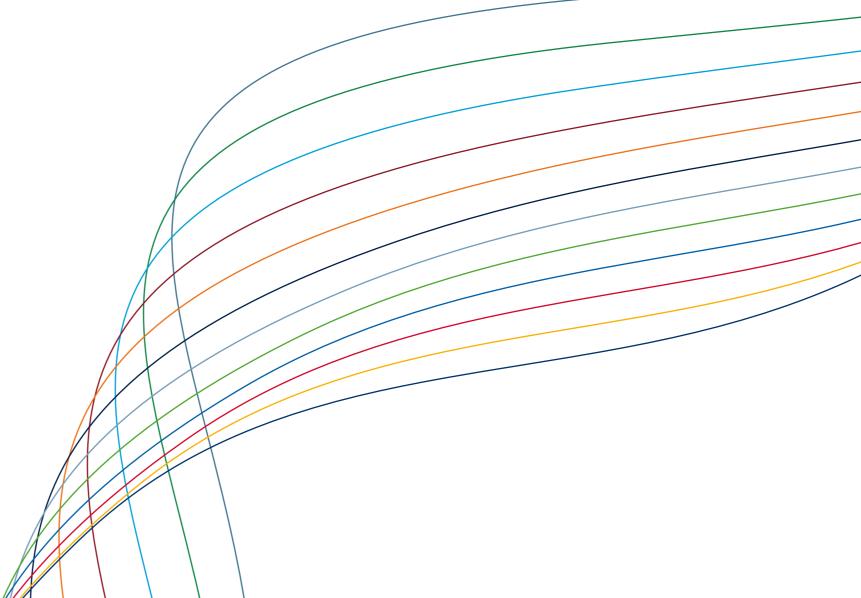
#### **Resource Sources:**

These interactions are one way of attracting funding from sources focused on innovation and transfer. In addition, the potential of venture capital for startups should be exploited.

# Commitment: Professionalize pathways and institutionalize impact cycle

The five outreach pathways aim to strengthen FAU's innovation system over the long term. The following commitments will help us achieve our goals:

- Professionalize support for FAU members in all five pathways.
- Es sind attraktive Anreizsysteme zu etablieren und zu nutzen, die Beiträge in diesen Pfaden mobilisieren und kommunizieren.
- Establish interactions that make our successes in innovation scalable and measurable.
- Develop our FAU Innovation Ecosystem according to international standards



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# 3.2 Cross-Sectional Topics

Equal Opportunities, Internationalization, Sustainability and Digitalization are cross-sectional topics that drive innovation and excellence in all areas of our FAU. They embody our values in a special way and should continue to be reflected in our daily actions as a matter of course. To achieve this, they must be clearly articulated in core content, interactions and commitments. In particular, they must become an integral part of teaching and research in the faculties and a matter of course in the strategic fields of action of the FAU.

#### 3.2.1 Equal Opportunities

At FAU, Equal Opportunities as a cross-sectional topic aims to foster a respectful and non-discriminatory working environment that promotes the diverse perspectives, experiences and academic cultures of the stakeholders as a valuable source of creative and innovative development for FAU.

# Core content: Creating a culture based on respect for diversity

FAU's fundamental attitude of treating others with respect and without discrimination is reflected in particular in our active promotion of equal opportunities with the three central pillars of equality, compatibility and diversity management.

- **Equality: A natural attitude and lived culture** Gender equality should become a natural attitude and lived culture for all members of the University and an integral part of our culture. We stand for a culture based on respectful treatment of others, where each individual is valued and discrimination is not tolerated. We will continue to take greater account of gender mainstreaming in our management decisions and will make greater efforts to integrate equal opportunities at all levels of the University.
- Compatibility: Flexibility leads to creativity A truly family-friendly university culture can only succeed if the measures available to promote the compatibility of studies, career and family are continuously reviewed and improved, and if the needs of families are always taken into account. This includes expanding the current range of services and tailoring them flexibly to the individual needs and expectations of FAU members at different stages of their lives.
- Diversity management: Diversity as an integral part of learning, research, teaching and collaboration Diversity strengthens the innovative potential of our university. The goal of

diversity management is to raise awareness among all members of FAU of the importance of remaining sensitive to gender issues. Changing structures at the university will ensure that diversity mainstreaming is systematically integrated into our central processes and structures now and in the future. Our policy will focus on anti-discrimination and inclusion, gender and sexual orientation diversity, and educational equity.

By embedding equal opportunity as an integral part of life at our FAU, we will create a culture of mutual respect and a foundation for the successful development of our University environment.

### Interactions

Equal opportunities are tailored to people. This results in a natural commitment for the strategic field of action PEOPLE, but also requires participation in all fields of action of FAU's future development.

By making equal opportunities an integral part of university life, we create an open and attentive culture where respect and non-discrimination prevail at all levels: in the integration of academic and support staff, in the design of teaching that encourages and expects results, in our strength in innovation based on the diversity of our research, and in the promotion of equal opportunities in our University and in the community as a whole.

# Commitment: Create an open and attentive culture

When everyone at the university treats others with respect and is sensitive to gender and diversity, it promotes equal opportunity, helps us work better with others, and improves the quality of our performance. For this reason, FAU has made the following ambitious commitments:

- Equal opportunity will be established in all areas of FAU and will be considered in all decisions.
- Gender and diversity will be actively considered in the design of research questions and formats, as well as in university teaching. n.
  - Appropriate criteria for success will be identified in order to enable critical reflection and to discuss the need for further action.

#### 3.2.2 Internationalization

Internationalization at the FAU means taking an increasingly international approach both internally and externally, and an increase in the international diversity of people at the FAU, while at the same time increasing the attractiveness of the FAU for this target group. In addition, we focus on the quantitative and qualitative expansion of international partnerships and networks as well as achieving a measurable increase in our international visibility and reputation.

# Core content: Strengthen internationality

At FAU, Internationalization has evolved from its former departmental character into a cross-sectional topic that is to be systematically anchored in all strategic fields of action. At FAU, we want to meet the following challenges in this regard:

- Go global: Extend networking activities on a global and sustainable scale FAU is not just a Bavarian university with important international partnerships rather, it is a global player. As a leader in innovation, FAU benefits from a strong international network and plays a pioneering role in building partnerships around the world and promoting and facilitating collaboration in different regions of the world.
- Go European: Make the most of the opportunities and resources available at the European level

FAU has great potential to expand its European network. The affiliation with the European University EELISA, with its focus on the promotion of engineering, research, innovation and entrepreneurship in Europe should be used as a springboard for building a strong profile in Europe.

- The Office of International Affairs at FAU us the coordination center for all international issues related to study, teaching, and mobility. Topics related to internationalization in the faculties and international marketing are handled decentrally. Within the framework of a strategic internationalization plan, all central and decentralized activities of the International Affairs should be harmonized and focused on a common goal.
- Promote a welcoming culture for international students, faculty, and staff
  We achieve a positive international reputation by making a conscious effort to
  involve and integrate our international stakeholders. Our priority is to create a
  welcoming atmosphere while maintaining our high quality standards, and our
  goal is to gain an international reputation as a place to be. This can only be
  achieved by offering a tailored portfolio of support services (e.g. expansion of
  mentoring, buddy programs, etc.).
- Increase international visibility and strategically communicate FAU's unique attributes

To become and remain a leader in research, education and innovation in the years ahead, FAU must have a global geographic reach and be internationally recognized as distinctive – not because of its broad range of disciplines, but because of a unique narrative.

## **Interactions**

All of the priorities outlined above will be systematically integrated into the PERO structure. We need clear implementation plans for specific initiatives related to these priorities.

The financing of such internationalization initiatives can very well be initiated through European funding. Funding opportunities are available for all PERO areas in the new framework program Horizon Europe for the period 2021-2027. We should therefore make a concentrated effort to pursue all interactions with Horizon Europe funding opportunities.

# Commitment: Encourage an increased international focus internally and externally

As a member of the European University EELISA, the FAU is in a good position to initiate many necessary measures to promote a stronger international orientation, both internally and externally. Of course, there are also good opportunities in standard funds as well as in Bavarian and German funding sources. In concrete terms, this means:

- The faculties and the Executive Board will work together to develop plans to enable the above initiatives, always keeping in mind our goal of becoming more attractive internationally.
- If FAU is to become more international, the organization and communication of activities within FAU must become more professional. This in turn requires us to rethink our status quo and to increase our digital visibility.
- In addition to closely involving the International Affairs Office in the development of our FAU culture, we must also work to design and establish a robust FAU narrative.

#### 3.2.3 Sustainability

For FAU, sustainability means moving and living knowledge and triggering sustainable transformation. As a place of learning, research, action and social interaction, we are motivated by the belief that it is our responsibility to contribute to sustainable development.

# Core content: Sustainability as an anchor of our thoughts and actions

Since 2019, we have placed a much stronger focus on advancing sustainability efforts at FAU, for example with the holistic sustainability concept introduced by our student representatives. However, the necessary major sustainability transformation – across all fields of action – can only be achieved through a fundamental rethinking of the organization of value creation. A change towards more sustainability therefore requires an organizational change.

### Strategic structuring

In order to have a more structured approach to sustainability activities and to better coordinate and prioritize them in the coming years, sustainability projects must be closely linked to FAU's strategic fields of action. We strive for a holistic approach to sustainability, guided by the Sustainable Development Goals (SDG) and focusing in particular on the three dimensions of economy, ecology and society.

## An integral part in the organization

With the establishment of our Green Office in 2020, we have created a central coordination unit to complement our individual sustainability projects. In order to promote closer links between the cross-sectional topics of sustainability and the individual PERO strategic fields of action, and to contribute to efficient decision-making and implementation processes, we now intend to create a central Sustainability Steering Committee from which topic-specific working groups can be formed.

# **7** Operational implementation

Through our properties, buildings and operations, responsible stewardship of nature and resources is important to us. If we are to meet the long-term targets for reducing our environmental footprint, we must systematically integrate sustainability considerations into our site development planning from the outset. Green real estate management should become the norm, and any deviation from that norm should be justified, not the other way around. As we are based in several different locations, the issue of sustainable mobility (including business travel) is particularly important.

If we want to make a lasting contribution to the progress of society, we must consider sustainable development as a basic requirement, not an optional extra.

# **Interactions**

Reflecting this holistic approach, our goal is to establish sustainability as a concern for all areas of the FAU. The extent of its interaction with all strategic fields of action should not be underestimated. In order to do justice to this interaction, we are creating a viable governance structure for sustainability at our university and designing our organizational structures and processes accordingly.

As one of our strengths is our innovation system, we have a practical impact. We participate in shaping society. We create new knowledge, apply it and teach it. Together with various partners from academia, society, politics and industry, we are able to test, refine, question and, if necessary, revise academic theories, models and methods in the context of putting sustainability into practice. In return, we receive impulses ranging from exciting research questions to ideas for innovative links between disciplines.

# Commitment: Join forces to strengthen sustainability internally and externally

Specifically, this means:

- The cross-sectional topic of Sustainability will be integrated into all strategic fields of action and become an integral part of our everyday thinking and actions.
- 2 FAU will establish a central steering committee for sustainability in order to strategically structure/prioritize the numerous individual decentralized activities and to make the associated decision-making and implementation processes more efficient.
- Criteria for holistic sustainability reporting are to be developed and established to improve strategic and operational management of the issue.
- We plan to introduce comprehensive environmental management tools (e.g. EMAS/ISO 14001) in order to achieve consistent environmental improvements based on established structures and processes.

#### 3.2.4 Digitalization

At FAU, digitalization means actively shaping the changes in our living and working environments brought about by digitalization with people and for people at FAU, and using the resulting potential for learning, research and work for the benefit of all members of FAU.

# Core content: Digital-physical FAU campus as vision for the future

The FAU campus is the place where members can meet, interact, and develop their activities, both physically and virtually. The physical campus and the digital campus will merge seamlessly. Its main features are:

- Flexible teaching hybrid, adaptable and didactically innovative FAU seamlessly integrates digital and hybrid teaching with on-campus teaching to provide the greatest flexibility of location and time. In this way, heterogeneous levels of prior learning and individual student needs can be better accommodated. Digital teaching at FAU is based on the premise that learning is a social process and therefore provides space for discourse and networking to encourage social interaction. Appropriate learning platforms offer opportunities to develop new teaching formats in which knowledge can be conveyed in combination with interactive phases and discursive elements.
- Research networks with easily accessible resources FAU's research platforms promote the formation of international, inter- and transdisciplinary collaborations in academic and industrial environments. A Research Information System (FIS) enables transparency and coordination of activities worldwide and increases the visibility of our own research. Digital resources at FAU will be easily accessible and made available through transparent processes based on user needs. Staff with the necessary expertise will be available to provide support.
- Efficient, service-oriented and user-centered administration FAU provides its members with a portfolio of digital administrative and operational services for the respective user groups to support them in their daily tasks. These services are based on efficient, seamless and continuous business processes for the operation and management of the university as an organization. FAU is particularly aware of its responsibility with regard to cyber security, data protection, and bias-free and sustainable processes.
- Professionalization of IT management and governance FAU strives to establish lean, professional IT processes with a focus on user needs, efficiency and innovation. We develop effective IT management processes and appropriate governance structures. A top-level architecture serves as the basis for application and data integration and ensures our ability to thrive in the future.

### Interactions

Digitalization is the backbone for many of the goals in the FAU Strategic Framework. Expanding it is therefore an important success factor, which in turn affects a number of other areas. Examples include:

#### PERO

The strategic fields of action are based on digital literacy, including participation of all FAU members (P); hybrid and innovative teaching formats (E); research networks and data sharing (R); and global visibility and impact (O).

#### **Cross-Sectional Topics:**

Examples of how Digitalization affects the cross-sectional topics include accessible, non-biased and non-discriminatory processes (Equal Opportunities); optimized use of resources, avoiding paper and unnecessary travel (Sustainability); and European and global co-creation projects (Internationalization).

# Commitment: Close the gap to international best practice in digitalization

Specifically, this includes:

- Bring FAU's level of digitalization up to international standards. Our goal is to reach established best practice standards.
- FAU will establish appropriate IT management processes and create the necessary organizational parameters and human resource structures.
- FAU will take a strategic approach to the development of the necessary IT capabilities and implementation measures, as well as to the investment in the provision and operation of the necessary applications and infrastructure.

In order to keep costs under control, FAU's own IT real net output ratio (sourcing strategy) and the possibility of forming a network with other institutions should be reviewed on a regular basis.

# 3.3 Sources of Funding: Bavaria - Germany - Europe

The future development of our FAU with ambitious goals for innovation and excellence requires resources. We have the opportunity to receive generous public funding at the regional, national and European levels. This funding offers great opportunities, and it is the responsibility of each and every one of us to use it wisely. The FAU Strategic Framework will describe the three main sources of funding below and set out our priorities for implementing our strategy.

#### 3.3.1 Opportunities offered by Hightech Agenda Bavaria

The funding available to FAU from the Free State of Bavaria provides sustainable impetus and opens up new strategic options: from new people who can be a source of inspiration in their field of expertise, to advances in performance, capacity and quality, to increased innovation at the universities. This funding is based on the Hightech Agenda Bavaria (HTA), which was published by the Bavarian state government in October 2019 and expanded into the Hightech Agenda Plus in spring 2020. With a financial volume of 3.5 billion euros, the Free State of Bavaria is creating the opportunity for a technology offensive that is unique in Germany and for extraordinary innovation impulses in various dimensions, which are intended to give Bavaria a leading international position as a science location in the long term.

# Core Contents: Hightech Agenda Bavaria

HTA funds are available to institutions throughout Bavaria and are primarily intended to

- Support cutting-edge research
- Create new seats for hightech degree programs
- Promote institutional innovation at universities

The goals of the HTA focus on strengthening research, teaching and science.

At FAU, we reliably implement the goals defined by the state with a clear focus on sustainable development. Within the framework of the HTA, new structures and strategic appointments give us the unique opportunity to further sharpen the profile of our FAU and to attract excellent people to our team who will strengthen selected research areas in the long term. We are prepared to step out of our comfort zone when necessary to make the necessary decisions and participate in the necessary regular evaluations of the extent to which we have achieved our goals.

# Interactions

Together with the goals of the Innovationsbündnis Bayern (Bavarian Innovation Alliance), the HTA forms the foundation and sets the context for university development in Bavaria. The FAU Strategic Framework is part of these developments. It deliberately regards the HTA as one of several sources of funding, which together give us a wide range of options that we can shape according to our purposes. Each individual and each unit of the FAU is able to set own ambitious goals and pursue them within the frame of the FAU Strategic Framework and the priority areas defined therein. The FAU Strategic Framework thus provides the playing field.

# Commitment: University-level innovation & excellence

HTA funds will always be allocated on the basis of innovation criteria and will be used, for example, to establish new focus areas, new structures, innovative governance models, or digital transformation. Funds and positions are not allocated simply to meet needs, and certainly not in a uniform manner. This applies to all areas, whether in research or in research support. HTA funding will be used to

- 1 Establish three new departments that will serve as prototypes for exploring and shaping innovation at the university-level at FAU. They will serve as a pilots for breaking away from traditional chair structures and provide a testing ground for agile teams or new work, teaching and office concepts.
- Implement new professorships that will strengthen us strategically, but also challenge us to break habits we have developed over time. We will work together to shape future developments and meet the challenges that may arise.
- Challenge structures and processes and implement the goals of the FAU Strategic Framework. We are aware that, despite the generous resources provided by the HTA, we will face bottlenecks in funding, especially for research support services. This will inspire us to break new ground and explore new approaches to solutions. The HTA must not disadvantage any group of stakeholders at our FAU. It will, however, be a challenge for us all.

#### 3.3.2 Opportunities from the DFG Excellence Strategy

Funding within the framework of the Excellence Strategy of the German federal and state governments is particularly important for FAU's strategic future development. The goal of the Excellence Strategy is to strengthen Germany as a location for cutting-edge research and to increase its international competitiveness now and in the future.

The federal and state governments have commissioned the German Research Foundation (DFG) and the German Council of Science and Humanities (WR) to fund top-level research at universities on a competitive basis through two funding lines: Clusters of Excellence (EXC) and Universities of Excellence (EXU). Currently, the Clusters of Excellence funding line has an annual budget of approximately 385 million euros and the Universities of Excellence funding line has an annual budget of 148 million euros, with funding available for a period of 7 years. The call for the next round of the Excellence Strategy is expected to be launched at the end of 2022, with the new funding period starting in 2026.

# Core content: Excellence Strategy

Both funding lines of the Excellence Strategy have the following objectives:

- The Clusters of Excellence funding line focuses on strengthening and increasing the visibility of internationally competitive research fields at German universities or university alliances through project-related funding.
- The **Universities of Excellence** funding line aims to strengthen universities or university alliances and to consolidate their leading position in research on the basis of Clusters of Excellence.

FAU has already used funding from the predecessor of the Excellence Strategy, the Excellence Initiative (2007-2017), to establish a variety of research structures and focus areas that will have a lasting impact on research and innovation at FAU. Two examples are the pioneering research areas that have emerged from the former Excellence Cluster "Engineering of Advanced Materials" (EAM) and the fact that the "Erlangen Graduate School in Advanced Optical Technologies" (SAOT) has now become a permanent institution.

Overall, FAU has significantly increased its international visibility and research and innovation capacity across all faculties in recent years through the funding of individual projects and research clusters. As proof of our success, FAU is listed among the top 10 research universities in Germany in the DFG Funding Atlas (2021) and is recognized as a national and European leader in innovation (Germany: first place, Europe: second place; Reuters TOP 100, 2019). In the QS World University Ranking, FAU is not only the national leader in the category "citations per researcher", but also one of the 20 best universities in the world (QS Ranking 2022). Based on these outstanding research and

innovation achievements, FAU's declared goal is to once again be included in the Cluster of Excellence funding line of the German federal and state governments and thus have the opportunity to apply for funding as a University of Excellence. Each and every one of us is called upon to make a contribution and to support the FAU in its application, for example by participating in a DFG project, by using the DFG Funding Atlas as a guide for research, and by appreciating and supporting the efforts of others.

## Interactions

Within the framework of the Excellence Strategy, the FAU and its research areas benefit from the existing offers, resources and development measures in all strategic fields of action and cross-sectional topics. At the same time, the Excellence Strategy promotes the strategic development process of our fields of action by setting goals for an excellent research, learning, teaching and working culture.

# Commitment: Using the Excellence Strategy to shape our profile and drive development

- The preparations for the next, highly competitive call of the Excellence Strategy represent an important impulse for the further development of our FAU in terms of research and international visibility. All measures taken to prepare FAU for participation in the Excellence Strategy are congruent or go hand in hand with the strategic measures described in the FAU Strategic Framework. They benefit all groups at our FAU: students, staff, faculty and researchers alike. We want to use our internal FAU quality assurance processes to identify and strengthen internationally competitive research fields in the long term. This will enable us to prepare promising EXC initiatives and strategically develop areas that have potential for future collaborative research, and we will support these areas in shaping their individual profiles.
- Promoting FAU's research and innovation potential as a university offering the full range of academic disciplines by fostering effective interdisciplinary networks.
- Understanding the Excellence Competition as an incentive to visibly shape the profile of the FAU, resulting in the development and consolidation of excellent (structural) parameters for all strategic fields of action and cross-sectional topics.

#### 3.3.3 Opportunities from the Horizon Europe Framework Program

European funding offers great opportunities as a source of financing for the future development of the FAU. In addition to traditional departmental research, Horizon Europe (2021 to 2027) offers funding opportunities for all strategic fields of action and all cross-cutting issues with a total budget of 95.5 billion euros. For FAU, European funding is an important source of funding with potential for growth. This is underlined by the upward trend in recent years: from 16.5 million euros in total funding acquired by FAU in 2017 to 21.5 million euros in 2020.

# Core content: Horizon Europe

Horizon Europe is structured around three pillars and a horizontal priority area:

- The "Excellent Science" pillar focuses on excellence and strengthening research in the EU. The ERC and Marie Sklodowska-Curie Actions are particularly important for FAU and have already been used very successfully.
- The pillar "Global Challenges and European Industrial Competitiveness" offers excellent funding opportunities in the area of key technologies and solutions in support of EU policies and sustainability goals.
- FAU is already involved in the "Innovative Europe" pillar, e.g. through our participation in the European Institute of Innovation & Technology. Further opportunities for FAU start-ups are also available through the European Innovation Council (EIC).
- The horizontal priority "Widening Participation and Strengthening the European Research Area" promotes the participation of Member States that have tended to be under-represented in research and innovation and encourages responsible support for them.

Each and every one of us at FAU is called to consider getting involved at the European level. It can help us achieve our goals in our areas of activity. Students and staff can get involved in European networks, young researchers can help shape the profile of FAU, experienced researchers can get involved in mentoring those applying for the first time, and faculty can get involved in exchanging ideas and exploring new opportunities. These are just some of the opportunities we have.

Strategically, FAU will pursue two main lines of acquisition and utilization of European funding:

- First, some European funding opportunities are directly related to research. This is especially the case for Pillars 1 and 3. Researchers usually already have partner networks in these areas. Their activities are part of the FAU field of action RESEARCH.
- Second, more holistic funding opportunities are increasingly geared towards impact-oriented, strongly interdisciplinary approaches. This applies in particular to Pillar 2. This area offers strategic-institutional funding opportunities that are best suited to an interfaculty approach.

## **Interactions**

The funding opportunities offered by Horizon Europe tend to prioritize interdisciplinary research, education and innovation. This naturally leads to an increased number of interactions across the FAU. In particular, these funding opportunities promote our cross-cutting themes, as internationalization is inherent to them, while sustainability, equal opportunities and digitization are consistently expected as a matter of course or are the focus of regular calls for proposals.

#### Internationalization:

While Bavarian and German funding sources expect a certain degree of internationalization and take it into account without making it a priority, the use of European funding sources helps us to pay more attention to international partnerships, exchange and competition and to integrate such international concerns into our daily life. In particular, at the institutional level, this helps to make both research and research support more flexible and to gain a better understanding of national European reference frameworks, while at the same time helping FAU to make a name for itself and to become an active player in European competition.

#### **Communication & Identity:**

Close cooperation with European partners, each of which is a major player in its own country, strengthens our competitive position within Europe, creates visibility and makes us strong. These partnerships provide important opportunities for all status groups at FAU. While many of the challenges we face are similar, learning from the diversity of responses encourages an innovative approach to external and internal challenges. "Moving knowledge" and learning from each other at the institutional level is possible in these new systems with multiple references.

# Commitment: Improving our understanding of European funding and put it to better use

As a member of the European University EELISA, FAU is well positioned to understand and utilize European funding even better than we currently do. To achieve this, we intend to:

- Provide a broader base for application and project-related activities at FAU.
- Expand and further professionalize support services for applications and project management for certain EU funding formats.
- Open the opportunities offered by the European University EELISA to all members of our FAU.

We want to initiate, communicate and provide incentives at the level of the University and individual organizational units for additional best practice pilot projects to drive development.

# FAU Structure: Serving Our Future Development

### 4.1 Governance

The goal of our governance is to ensure a balance between the conflicting priorities of autonomy, responsibility and accountability. As an innovative comprehensive university and a comprehensive networking platform, we will benefit considerably from the increased autonomy that will be granted to Bavaria's universities. We are aware of our responsibility and see ourselves as an intermediary between science, business, politics and society. We strive to establish a culture of cooperation characterized by freedom, independence and personal responsibility - both internally and externally - and to provide structures that help us achieve our goals. We encourage the individual and collective responsibility of all FAU members. To be innovative, we must have the freedom to try new and alternative ways of researching, teaching, working and studying.

Our governance helps us navigate the interactions of the university. We strive for a dialog-oriented, democratic design of our strategic processes. We work with clearly defined responsibilities in integrated, systemic processes and allocate tasks accordingly on the basis of the Bavarian Higher Education Act (Bayerisches Hochschulgesetz) and the FAU Basic Regulations.

In our academic and science support institutions, we design transparent, participatory decision-making processes with clear lines of responsibility. In addition, we support creative ideas and new impulses. We design appropriate control and reporting structures and monitor our success. Transparency and participation are important to us. Top-down and bottom-up processes are combined to enable a service-oriented approach and allow us to make quick decisions. We regularly consult with our stakeholders to ensure that tasks are allocated appropriately. We strive to promote cooperative interaction and future-oriented development of FAU.

We will create platforms to foster communication and increase interaction between centralized and decentralized institutions. We will implement feedback processes. We will promote (interdisciplinary) cooperation between schools, departments and divisions as well as with external partners. In particular, we will review existing structures wherever necessary and establish interdisciplinary structures. We will promote a culture not only of continuous improvement, but also of disruptive change.

Committees are the backbone of our core governance structures. They are designed to move FAU forward in an effective and resource-efficient manner. They serve as platforms for exchange and communication, as well as for preparing and making decisions. The formal committee structure is defined by law. Together, we want to explore the room for maneuver that exists here, and initiate appropriate regulations through our constitution that are beneficial and useful to us. We will take a close look at the scope of our committees, identify the strengths and weaknesses of their working methods, look for new opportunities, consider risks, and thus contribute to an even better solution for the distribution and handling of tasks. In particular, we encourage our students and employees to identify opportunities and become actively involved in the development of the committees. We will also promote a culture of feedback through formal and informal channels. We will implement administrative support processes for all committees. Digital committee management is a key project of the MOVE@FAU program.

We are committed to full-time officers as the preferred model where appropriate. We are pooling expertise to support efficient committee operations. This is just one of the ways we plan to make our committees more efficient. In addition to digitization, we are ensuring efficiency by forming subcommittees to prepare discussion topics or decisions in advance. This will reduce the amount of time spent on different topics during the main committee meeting and allow for en bloc voting.

# 4.2 Organizational Development

At FAU, organizational development concerns not only structures within FAU itself, but also those that reach out to the broader community, as well as processes in academia and our research support system.

Areas of FAU's Organizational Development:

processes	FAU external structures and processes
Internal Organization of Science:  - Faculties/departments  - Central units  - Large and strategic projects	External Relations of Science:  - Strategic partnerships  - Alliances  - Innovation EcoSystem
Internal Organization of Science Support:  - Central and decentral units - Between central and decentralized units - In relation to science	External Relations of Science Support:  - Subsidiaries - Partner organizations - Policy and government
	Internal Organization of Science:  - Faculties/departments - Central units - Large and strategic projects  Internal Organization of Science Support:  - Central and decentral units - Between central and decentralized units

These four areas address the classic dimensions of structural, process and outcome quality. Rethinking and redesigning these areas of interaction is central to the performance of our FAU. We often find that structures are optimized while processes are not sufficiently taken into account. Another common phenomenon is that structures and processes are thought of and designed together, but their interdependencies are not adequately considered. Like many organizations, we want to realize our full potential and strengthen the effectiveness of our organization. We will bring together projects, reorganization initiatives and development steps in an integrated manner.

The reorganization of FAU from eleven to five faculties since 2007 has promoted the development of the university. FAU's faculties, all of which are larger than small and medium-sized universities, are already doing what other universities are doing or planning to do. We can be proud of this pioneering position, which has proven to bring other advantages.

With the administrative reform launched in 2019, we have already taken the first step towards bundling the support structures for our strategic fields of action. The administrative reform has also created space for strategic and pilot projects, and allowed us to break down hierarchies in some areas. FAU's new center structure of competence centers, research centers and profile centers in 2020 has opened the door to more clearly defined structures, processes and responsibilities. We now need to continue on this path and leverage the benefits of our achievements.

Since 2019, the organizational development program MOVE@FAU has been supporting the modernization and digitalization of administration at FAU. The project focuses on close cooperation between central and decentralized administrative units, and promotes direct consultation with units involved in processes before deciding on reforms.

The strategic network that FAU has established in recent years (through joint appointments, spin-offs, initiatives) will be bundled into an overarching innovation narrative. We are determined to make it more concrete, usable and understandable for external and internal stakeholders.

Innovation leadership requires the ability to collaborate effectively both internally and externally. Therefore, interfaces must always be designed and, if necessary, redesigned as part of organizational development. This applies not only to internal cooperation, but also to cooperation structures and contracts in FAU's external relationships.

# 4.3 Infrastructure Development

Infrastructure development focuses on the development of the technical infrastructure. The goal is to provide a ubiquitous, secure, and reliable system and IT infrastructure that can be operated and used as conveniently as possible by institutions, faculty, students, and external users in accordance with specified framework conditions. With the Regional Computing Center Erlangen (RRZE) and the Center for National High Performance Computing Erlangen (NHR@FAU), which will be founded in 2021, the FAU

has IT service providers on site with a high level of competence for the three central levels of the IT infrastructure (basic digital services, institution-specific and sciencespecific services) and for IT security for the entire system.

Basic digital services are as essential to FAU's operations as water and electricity. They are needed by all FAU organizational units. They must be considered as vital, functional infrastructure. We regularly review which services should be considered basic and how we can allocate the necessary resources to them.

**Institutional services** support the university administration as well as the various institutes and central facilities of the university. We distinguish between technical operations and customization, e.g. the user-oriented configuration of applications. While technical operations are basically content-independent and are usually considered basic services, customization always requires people with content knowledge to make design decisions. More than any other service, institutionspecific services are subject to competition within the FAU and offer great potential for synergy. These are often solutions that are purchased and/or leased or purchased as a service.

Academic services are found wherever information technology itself is the subject of research or where special applications are required for research. The requirements of academia are inherently more volatile and need to be regularly re-evaluated in order to meet future demands. If it becomes clear at an early stage that cross-cutting structures are required (e.g. research data management), it is important to treat these as basic services rather than establishing individual procedures. Procedures that have been the subject of academic research often become basic services once they have been established. While this means that they are then available to other institutions, it also means that there are increased requirements for reliability and availability, which in turn means that adequate resources need to be provided.

IT security covers all levels and includes measures to increase the availability and reliability of IT systems ("safety") as well as measures to increase IT security. In the future, the RRZE is to be expanded into a "Computing Center for Northern Bavaria", which will quarantee IT support in research and administration for the FAU and the region. All other technical and commercial aspects of our extensive infrastructure are handled by the University's Facility Management. The technical services of our administration use the tools of our Computer Aided Facility Management (CAFM) to ensure the smooth operation, maintenance and replacement of our extensive technical systems. The basic infrastructure is provided by the CAFM database FAMOS. This is complemented by business process analysis as part of our organizational development program MOVE@FAU. Commercial Facility Management develops and deploys appropriate tools to make operations and maintenance more economical and sustainable.

## 4.4 Campus Development

Our campus is deeply intertwined with our urban infrastructure in the region and, in a broad understanding of our campus, encompasses the entire scope of our FAU's interaction. Here, campus development will focus on building and mobility development to complement the technical infrastructure described above. We recognize that FAU is not a one campus university. We are a metropolitan university spread across several cities. Nevertheless, we believe that we can create a unified image and a close-knit community. In order to do this, we look at the current state, present our vision, and show how we can achieve the vision.

#### Where do we come from?

FAU has grown over time, but not in one constant line. Looking back, we can see several "waves of expansion," especially with the addition of the former Nuremberg College of Education, the former Nuremberg School of Commerce, and the founding of the Faculty of Engineering. This had a number of consequences for the infrastructure and especially for our facilities. We have a large number of historic buildings, as well as many buildings from the 1970s and 1980s that have been regularly renovated to keep up with the changing needs of research and teaching, and have now reached the limits of their potential. We also have leased facilities that often do not meet the needs of contemporary teaching and research. Our university is spread over several locations. By identifying buildings as FAU, we plan to increase our visibility. In addition, we will realize the full potential of the life cycle of our buildings. After decades of underfunding building maintenance, we have inevitably accumulated an investment backlog of some €1.6 billion that we need to address. We will acquire expansion properties to meet our needs for additional office and laboratory space. The condition of our buildings is a major challenge for the coming years.

#### Where are we now?

We are building growth opportunities into our portfolio. In order to do so, we will need additional funds to maintain and upgrade our existing, mostly historic buildings. Major financial commitments for renovations, new buildings and essential acquisitions have been made by the government (e.g. Himbeerpalast) or are nearing completion. Important new buildings (some of them research buildings) are being planned (e.g. Chemikum II, Technische Chemie, Lehrkräftebildung, Himbeerpalast, and RRZE) or are already under construction (Erlangen Center for Astroparticle Physics). In addition, there are new buildings of associated non-university research institutions (e.g. University Hospital Erlangen, Helmholtz Institute Erlangen-Nuremberg for Renewable Energies, Max Planck Center for Physics and Medicine, High Performance Center for Electronic Systems). The renovation of major buildings and facilities is underway (e.g. WISO, clean room). We have developed a master plan for the areas of the Faculty of Sciences and the Faculty of Engineering. Further construction measures, especially for historical buildings (Kollegienhaus, Schloss, Anatomie) are in the approval phase. For better administrative support, we have implemented a CAFM system and are gradually building it up.

It should not be overlooked, however, that despite all that has been achieved, there is still an acute need for action. In particular, the buildings of the Faculty of Engineering and Sciences are in urgent need of renovation or replacement.

#### What do we have in mind?

Our long-term goal is to consolidate the number of buildings we own and reduce the number of buildings we lease, while focusing on creating a modern teaching and research infrastructure. We want our FAU to be an outstanding place of research and study for its members and for the general public to experience. We see the campus as a physical meeting place for students and staff. We want to provide attractive and differentiated spaces for teaching, learning, research, administration, and innovation, and to create virtual and physical places of exchange, including in the lecture halls and cafeterias. Attractive open spaces invite people to linger ("green campus"). The goal is to create a campus atmosphere of well-being. In this context, we also keep an eye on student housing, both on and off campus, and integrate it into our campus development plans. We are also strengthening the idea of a "university in the metropolitan region" and seizing the opportunities for FAU in the historic centers of Nuremberg and Erlangen. Another important desideratum will be to initiate a stronger identification for our FAU. To this end, we will use appropriate instruments such as signs, landmarks or campus icons. At the same time, we want to focus on the issue of sustainability and make a significant contribution to achieving climate neutrality.

We will design and operate new buildings in accordance with the latest sustainability findings and technological advances. Our goal is to take the life cycle of buildings into account when designing our operational concepts.

Our sustainability concept provides us with the most important guidelines. We will address the issue of mobility between the locations in the metropolitan region and develop an appropriate mobility concept that also takes into account external infrastructure projects, in particular the Stadt-Umland-Bahn (StUB) between Nuremberg and Erlangen. We understand the development of our campus as a process and want to activate and involve all partners in the region (cultural institutions, companies, municipalities and civil society), students and employees. We support this with appropriate internal and external communication tools (website, social media). We see it as our responsibility to clearly communicate construction times and phases.

We are aware that space is a limited resource. Therefore, we are sensitive to space needs and strive to maximize the use of available buildings.

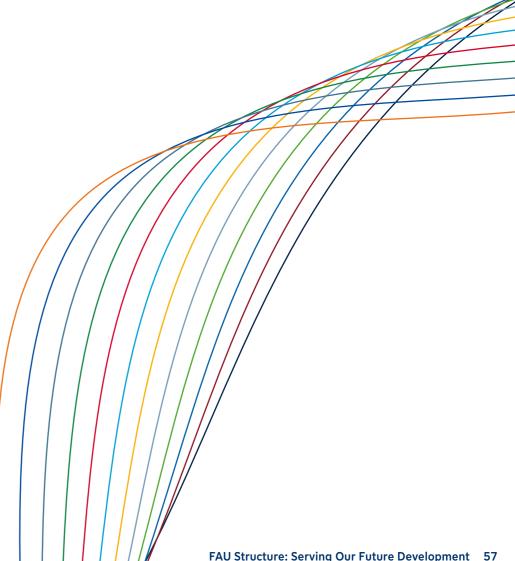
#### What internal and external impacts do we strive for?

We want to understand the relationship between organization, space, and digital infrastructure, taking into account changing parameters. We will also consider the impact of the coronavirus pan-demic on the (further) development of new ways of working in academia and on our research support system, and reflect on the lessons learned regarding student learning environments. We will consider the impact of campus development on our organization: campus development and its interventions have a direct impact on structures and processes, communication and collaboration, and culture and society.

#### What measures do we implement?

We are making our FAU more visible in the various locations. We are renaming the various areas and reducing them to a few catchy names. We will use the results of the various planning processes (Educational Sciences, Himbeerpalast, Departments AIBE/ DDS/DHSS, Chemical Center and Master Planning) for the successful implementation of necessary interventions, especially for the adaptation to modern and future-oriented teaching and research infrastructures. In doing so, we will not rule out paradigm shifts (e.g., thinking modularly about research buildings, shortening their lifespans instead of repeatedly making expensive alterations, and using the aforementioned "corona effect"). We are initiating a modern mobility concept. We will put sustainability into practice and work to establish an appropriate environmental management system. In construction and operation, we are committed to the hierarchy of objectives of CO<sub>2</sub> minimization before CO<sub>2</sub> substitution and before CO<sub>2</sub> compensation. We are expanding our contribution to renewable energy with the help of photovoltaics at suitable locations.

We take advantage of every opportunity to accelerate new construction projects and sources of financing. At the same time, we are mindful of the need to conserve land. For this reason, we practice active space management and introduce appropriate control instruments to our infrastructure facility management.



Outlook: Moving Knowledge. FAU. Our **FAU** – as a platform for freedom – offers curious, open-minded and ambitious people a place to be with ideal conditions for lifelong personal development. At FAU, we shape the future through respectful and committed collaboration among students, staff, and scholars. Together, we strengthen our awareness, responsibility and impact for the benefit of science, business, society and politics.

This FAU Strategic Framework only sets the priorities. It is now up to each individual and each unit at FAU to fill this framework with life: to clarify their own sense of identity, to define their own contribution, to specify ideas for development, and to formulate, agree upon, and pursue their own pledge. Together, we can take a responsible approach to creating and exploring the scope of our freedom of action. Between now and 2025, we will work together to develop a workable basis for improving our institutional strategy, which will then guide us from 2026 onwards.

Our goal of providing a platform for freedom requires each of us to take responsibility. At the same time, this concept of freedom allows FAU, as a leading innovator, to further open FAU's innovation networks within the university and to the broader stakeholder community. Together, we will explore ways to strategically enhance, expand and orchestrate the FAU Innovation Ecosystem for the benefit of society. Platforms and ecosystems are interdependent, as are freedom and responsibility. In this sense, the FAU Innovation Ecosystem benefits greatly from our already established partnerships in industry, society and academia, but will also open up new opportunities for cooperation.

As a platform for freedom, FAU will continue to foster engaged scholarship and take even greater responsibility for the stakeholders in its innovation ecosystem. Facilitating and orchestrating the FAU Innovation Ecosystem is therefore our overarching commitment. FAU will consistently rethink and co-create its wide range of offerings from the perspective of users and stakeholders. FAU is committed to opening up its offerings across internal and external boundaries and inviting co-creators into its shared innovation spaces, places, labs and formats. Through its institutional innovation leadership, FAU will further strengthen the innovation power of the region, its partners and stakeholders.

Wissen bewegen. FAU.

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