

> University Development Plan (HEP) of the University of Münster

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living.knowledge

living.knowledge

> How the WWU views itself

"living.knowledge", the motto of the University of Münster (WWU), succinctly expresses the University's multi-layered view of itself as an institution.

"living.knowledge" characterises the WWU as an urban university without ivory towers, where academia takes place in the midst of everyday life in the city of Münster. For the University, the whole town is its campus, and through its many students, the WWU contributes greatly to the town's appearance and vibe. As an integral part of societal life, the WWU is a decisive factor of both image and development of town and region: it provides academic training for its approx. 44,000 students and employs ca. 6,850 academic and non-academic members of staff. The ca. 240 university buildings are distributed all over town, making their mark on Münster's urban landscape. The University thus enriches the city and region on an architectural, cultural-artistic, economic and academic level. Through its museums and its numerous academic and cultural events that are open to the general public, the University brings town and gown together in a highly enriching manner.

"living.knowledge" indicates that scholarship is something to be experienced. The WWU strives to impart to its students an understanding of how to think and work as academics. Learning through research is a particular focus as this is how the work of an academic manifests itself most clearly. Methodological procedures, reflection and critical analysis are the tools for the professionals of tomorrow, be it in business, teaching or academia. To be able to offer high-quality, research-oriented teaching is one of the WWU's central aims in order to provide its students with the best education possible.

The concept of **experiencing scholarship** is also to apply to all interested persons outside of academia. Informing the public about how research is done, what research is done and what relevance the results have for society is as much part of experiencing scholarly work as are the numerous non-school settings which introduce pupils to scientific issues and show them how research works.

"living.knowledge" implicitly also refers to the possibility of earning a living from one's knowledge. The WWU aims to be seen as an attractive employer. The University wants to attract top-level academics from all over the world as well as excellent non-academic staff on the basis of more than its academic reputation. A career-spanning personnel development strategy as well as individual career planning in which mutual expectations are clearly formulated and transparency and reliability are achieved are considered as key elements to achieve this aim. Thus, the WWU can fully meet the particular requirements of academia as a field of work – also from the point of view of gender equality.

In addition, "living.knowledge" emphasises the interplay between academia and public life. Research findings and results are relevant to society as a whole as well as at a personal level. In this sense, "living.knowledge" means that academia is also obligated to society. In line with its statutory role, the WWU Münster assumes responsibility for society by undertaking fundamental research for technological development and helping shape societal change. As a university with the full contingent of subjects, the WWU covers a very broad spectrum of academic disciplines and sees its task as one of making important contributions towards addressing large societal challenges in particular. In the field of teaching, the WWU takes on responsibility for society by training future professionals for future vocational tasks. This is especially true for the area of teacher training as the WWU Münster is one of the largest and most successful teacher training universities in Germany.

"living.knowledge" also refers to the life-long acquisition of knowledge. The knowledge of today may already be outdated tomorrow. With its variegated portfolio of educational and further training programmes, the WWU addresses high school students, professionals and senior citizens in order to offer opportunities for life-long learning.

"living.knowledge", of course, also means upholding academic and scientific standards. The WWU is committed to ensuring good academic practice and has implemented binding rules for its members in close cooperation with the decisions of the German Research Foundation (DFG). In addition, the WWU actively addresses research-related ethical and legal issues.

"living.knowledge" in all its different forms is not restricted by national borders. The WWU is continually striving to become a fully international university. Internationalisation is seen as the active expression of open-mindedness and global responsibility. At the same time, internationalisation is considered an important component of the excellence and competitiveness of teaching and research as well as for the attractiveness of the University as a place to study and work academically. Internationalisation concerns virtually all facets of university life and is thus an overarching topic in all chapters of this strategy paper.

Above all, "living.knowledge" means putting academic and scientific principles into practice. It is not the institution that carries out teaching and research but the human beings that act within it. The WWU constitutes the academic structure in which scientific work is carried out. Through creating the best possible organisational framework, it thus contributes to an optimal realisation of academic and scientific work. Academic practice at the WWU is realised through the interaction of its members. It is their motivation, enthusiasm and professional competence that form the basis for the positive development of the WWU. Thus, the University continually strives to safeguard and promote these essential fundamentals.

This complex view that the University has of itself is based on a value orientation which clearly focuses on ensuring and supporting the intrinsic motivation of academic and scientific activity and for which supportive institutional structures have to be in place. Mutual respect across the academic traditions of the various disciplines and respect toward the individual personality of the researcher, instructor and student form an essential basis of all academic, scientific and university-related activity. Scientific activity in the three areas of research, teaching and study must strive, in accordance with the University's view of itself, to create the prerequisites for effective communication and raise awareness of the rules of mutual respect and tolerance both within the University and in society as a whole. Such a transfer into society can best be achieved through WWU alumni, whose personalities are also formed in their studies at the WWU through experiencing and being able to apply these values. This, too, is what "living.knowledge" stands for.

developmental priorities the University intends to set in the coming five years.

With the university

the WWU Münster

documents which

development plan HEP,

> Framework and challenges of university development planning

Due to its position **in the midst of society,** the University values and supports all persons it interacts with equally and irrespective of their ethnicity, religious or sexual orientation, age, gender or social background. The WWU is a place of mutual respect for all students, teachers and researchers. A proactive diversity policy accompanies and supports this.

Motivation and enthusiasm of all members of a university form the foundation of positive development and, in the view of the WWU, these are best promoted by extensive possibilities for cooperation. Thus, cooperation and participation are key characteristics of decision-making processes within the WWU and are embodied in its organisational structure comprised of steering committees within a rectorate-based constitution. The possibility to actively participate in key decisions is given through the work in committees instituted by the University Senate in order to prepare its decisions. All groups of WWU members are represented in these committees, and their members are elected by the Senate. In addition, the Rectorate appoints advisory committees made up of experienced academics which make recommendations to the Rectorate in matters concerning teaching and research in particular.

The faculties are also of **central importance** for all university-wide decision-making processes as it is they who, next to the Senate, are responsible for the areas of teaching and research. The deans, i.e. the heads of the faculties, are responsible for ensuring the provision of instruction and participate in the decisions concerning the financial and personnel resources of new professors. Through regular consultations with the heads of faculties, as well as with the deans of students and the deans of finance, the Rectorate seeks to further the exchange of information and opinion with the University. Thus, the dean's offices are involved in decisions that concern the whole University from an early stage onwards. The same applies to the Faculty of Medicine which, though it has budgetary independence and the separate operational field of patient care, also collaborates in many projects concerning research and instruction, in particular with the faculties of the natural sciences, and is closely involved in the overall development plan.

In the state of North Rhine-Westphalia (NRW), the universities are independent state bodies, having received wide-reaching autonomy through the Higher Education Autonomy Act (Hochschulfreiheitsgesetz). Thus, they can largely implement their organisational and academic development independently - though, of course, always within the remit of fulfilling their statutory responsibilities as a public institution of education. This autonomy has set many processes in motion which have a bearing upon development and steering processes. Through becoming more responsible for their actions and also being tasked with creating their own profile, universities are having to focus more on strategic development and university planning. At the WWU, strategies and strategic planning are playing an increasingly important role in all areas and on all levels. In the last years, strategy papers concerning internationalisation, a gender concept, patents and IT have already been developed in which the strategic goals and the planned measures to achieve these goals have been formulated for these specific areas. Economic and financial planning, capacity and resource planning as well as structural planning occurs at the WWU at both central and faculty levels; a strategic plan for further developing Münster as a university location is currently being implemented. In this University Development Plan (Hochschulentwicklungsplan, HEP), these ancillary strategies and individual strategic planning activities are now, for the first time, being brought together in an integrated overall concept. In order to address changing framework conditions and enable integration in overall strategic goals, the strategies are continuously updated, in particular the internationalisation strategy. This allows the WWU to improve its chances of success in important competitive grant applications such as the Excellence Strategy or the Bund-Länder-Programm for the support of junior researchers, in which overall concepts and strategy papers are included in the consideration of the grant proposals.

When competing for limited public funding, this increased transfer of responsibility must translate, now more so than ever, into the added value that scientific research provides society compared with other political fields of action. In times of "fake news", the legitimacy of scientific research is more frequently being called into question. The WWU considers an increased transfer of knowledge and expansion of science communication measures as a suitable response to the justified expectation of the general public to learn why and in which forms scientific knowledge is relevant for society.

Their widespread autonomy notwithstanding, universities are nevertheless greatly dependent on the political and legal settings of their federal state. The introduction and abolition of study fees, continually re-occurring reforms of the academic education of teachers and the expansion of universities of applied sciences are just some examples of decisions made by the federal state which shape the development and the scope for change of individual universities. Through the State University Development Plan (LHEP), which entered into force at the end of 2016 as a statutory instrument initiated by an NRW ministry, the federal state has furthermore issued a regulatory framework which is binding for all universities. At the same time, the economic, technological and societal framework conditions are continually changing. Thus, a form of university development planning is required which can react dynamically to all of these changes.

The funding of universities is an essential framework condition. It has to be pointed out, however, that the state of North Rhine-Westphalia increasingly does not fulfil the universities' requests for sufficient basic financing of their core tasks of research and teaching. As a result, universities have been forced to find alternative sources of financing, which not only results in additional work but can also partly influence the direction that research may take.

A further structural framework condition of the universities in NRW is the fact that – with the exception of certain pilot universities – they do not own their own buildings but are tenants of the state-owned Bau- und Liegenschaftsbetrieb. This means that an additional body has to be consulted whenever any building work is planned. Nevertheless, it is primarily the task of the university to ensure that the interests of its own users are observed. Logically, this transfer of responsibility should also entail a larger used by the university.

In addition to these structural conditions, university development is also shaped by increasing competition between universities for students, staff and funding.

In recent years, the University has coped with enormous organisational challenges due to the transition to modular degree programmes as part of the Bologna Process as well as the need to create additional study capacity as a consequence of the reduction of school years and the ending of compulsory national service. Future challenges are already apparent: the prognoses of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder of the Federal Republic of Germany (KMK) make it clear that student numbers will remain at the current high level until the middle of the next decade. However, the composition of the student body will change. Heterogeneity will increase, for example, as access to university becomes more diverse and the number of school leavers acquiring a university entrance qualification increases. In future, there will be more alternatives to the classical full-time studies so that university studies can be combined more easily with differing life situations. It is also expected that the number of students with a migrant background will increase further. The WWU's development plan must consider these expected trends adequately in order to maintain its high degree of attractiveness as a place to study. To this end, it is absolutely essential to ensure that sufficient and affordable student accommodation exists. The WWU intends to take action and demand an improvement of the housing situation for students in Münster from the political bodies.

Attracting and retaining the best academics poses a particular challenge as this is an objective shared by all universities. Thus, they find themselves in direct competition with each other and - due to the international nature of academia today - on a worldwide scale. In many fields, they face additional competition from the private sector, whose financial incentives can usually not be met by German universities despite the performance-related pay scales. Therefore, promoting young researchers is of great degree of autonomy concerning the management of the facilities importance. It is both a self-imposed task and an obligation of universities to select the best junior researchers in keeping with fundamental academic principles. Universities are likewise obliged to make them aware of alternative career possibilities from an early stage on. Developmental planning is a joint task and responsibility of both central and faculty-level institutions of the University.

> HEP and HEP process

Nowadays, research takes place within third-party funded projects to a considerable extent. The large funding providers such as the German Research Foundation (DFG), the Federal Ministry of Education and Research (BMBF) and the European Union (EU)/the European Research Council (ERC), which finance fundamental research, in particular, base their funding decisions on competitive, content-driven procedures. Consequently, the grants awarded by these funding providers contribute particularly strongly to the standing of the grantee institution. Through the DFG, funding lines are basically open to all academic disciplines. With DFG-funding of joint projects such as collaborative research centres/transregional projects or clusters of excellence, the research profiles of individual universities can achieve national and international recognition. Thus, particular attention is paid to attracting funding for such large-scale projects. In addition, foundations as well as other public and private institutions provide funding for research projects to which strict academic selection criteria are not necessarily applied. It is in this context that the problematic trend of influence being exerted on research content via funding is particularly prevalent. On the other hand, these funding sources contribute greatly to the financing of research projects at universities. The extent of third-party funding is considered as a benchmark of successful research activities of a university and is rewarded by the federal state in resource distribution models. Additionally, third-party funding is used as a criterion to judge a university's research achievements in the context of university rankings. These framework conditions have to be considered in the context of research-related strategic university development.

This description of the framework conditions and the challenges concerning university development planning is by no means exhaustive but does demonstrate the complexity and dynamics that underlie all strategic decision-making. Thus, it is a necessary task of university development planning to regularly review the premises the planning is based on.

With the university development plan HEP, the WWU Münster documents which developmental priorities the University intends to set in the coming five years in order to reach its long-term strategic goals. Considering the multitude of processes of change which it must continuously consider due to the changing demands of society and politics, defining priorities and a strategic focus is necessary to prevent the organisation from being overtaxed. The planning frame of five years provides ample time to assess the effect of specific measures delineated in the HEP.

It is the first time that the WWU presents a HEP which formulates an overall strategy. The University is convinced that the HEP will therefore serve as an important instrument for the future development of the University which will influence action both within and without the WWU.

Initiated by the current Rectorate, which took office in October 2016, a first draft of the HEP was developed between December 2016 and September 2017. Beforehand, the Rectorate had presented seven strategic principles, which the Senate had approved in its session of 14 December 2016. These strategic principles reflect the strategic goals in the most important areas of responsibility of the University, namely:

- 1. The WWU aims to support and promote excellent **research** in all its forms in the various academic disciplines.
- 2. With regard to **teaching**, the WWU is committed to the approach of "learning through research". In the various disciplines, the University actively encourages the transfer of current research results into the teaching curricula and applies this transfer focus in the conception of degree programmes. The WWU aims to thus prepare students for a successful career in the best way possible.
- 3. The WWU understands that it has a responsibility to the members of the University to promote **personnel development** and individual career planning.
- 4. The WWU acknowledges the potential of **digitalisation** and the opportunities it affords in all key areas as an important resource for modern forms of teaching and as a basis and requirement for excellent research.
- 5. The creation of knowledge and its transfer into society is an important aspect of public cultural heritage. The WWU considers this a responsibility and goal with respect to society as a whole.
- 6. In matters of **internationalisation**, the WWU intends to increase its international competitiveness with regard to both research and teaching.
- 7. The WWU aims to acquire new as well as extend existing research collaborations, in particular with non-university research institutions.

It is on the basis of these planning guidelines that the Rectorate has developed its strategic aims for the coming five years. In a broad cooperative process, specific measures were discussed and proposed for implementation by six working groups, each moderated by a member of the Rectorate. The resulting first draft of the HEP was presented to all deans, the Senate and the Board of Governors for commenting. These comments were incorporated into the final version of the HEP, which came into force on 1 January 2018 and will be valid until 31 December 2022. Halfway through this period, the Rectorate will report to the various committees to what extent the HEP has been implemented and what effects it has had. The HEP is to be extended in a timely fashion before the end of its period of validity.

living.knowledge.research

living.knowledge.research

The standing of a university is predominantly measured on the basis of its research achievements. However, it is not the university itself that carries out this research but the scholars who work at the university. Thus, the WWU considers it a key task to strengthen the creative potential of its academic staff further as well as to develop the systematic search for new knowledge in such a way that it leads to new research results.

The establishment of innovative research networks as catalysts for new research areas is a model for future programmes at the interface between and within different disciplines and shall be developed further as part of the WWU's future research programme.

It is an explicit goal and strategic principle of the WWU to encourage and support excellent research in all its forms in the various academic fields. This concerns both large interdisciplinary cooperative projects as well as individual research and the many so-called "small disciplines" ("kleine Fächer").

Large-scale interdisciplinarity is the focus of strategic planning at the WWU. Searching for new knowledge and insights in cross-faculty cooperation reflects a development inherent in the current nature of research: solutions to the major challenges facing society – be it societal conflict, the improvement of diagnostic and therapeutic measures in medicine, or the future of mobility – cannot fully be addressed by individual disciplines on their own.

In order to achieve interdisciplinarity on a large scale, it is first of all necessary to conduct excellent research in the individual subjects. Also, research collaborations are, depending on the research goal in question, not always the most efficient way to conduct research. Therefore, improving the **conditions for excellent research** in the individual subjects is also a central aim of this HEP.

An important aspect and connecting factor for interdisciplinarity are the many "small disciplines" at the WWU, which play a special role in research and enrich the University's variety of subjects, be it archaeology or Westphalian history. The organisational connection of the small disciplines, including their academic orientation, should be considered and ensured on a continual basis both within the University as a whole and within the various faculties.

> Further development of "large-scale interdisciplinarity"

In order to expand its high level of research further, the WWU aims to increase research collaborations strategically, in particular with **non-university research institutions**.

In addition to the strategic support for the entire research spectrum, it is a fundamental task of the University to provide a good **research infrastructure** for its researchers. This infrastructure not only consists of appropriate building measures, which have to be coordinated with the state of NRW, but also of the digital infrastructure and large research equipment.

The major challenges of society¹ can only be successfully addressed through an innovative contribution of academic research and knowledge by universities which provides answers to the global challenges of climate change, mobility and energy, health, demographic development and security.

Co-operation between different disciplines, in particular across the two large academic cultures of the sciences and humanities, and joint research on interdisciplinary problems, i.e. large-scale interdisciplinarity, thus form the consequent strategic further development of a research culture, a development which is also expected and promoted by the large third-party funding providers.

The fundamental innovative research required often originates at the interface between disciplines. In order to develop new research concepts, the potentials of interfaces thus have to be specifically identified and the communication between the individual disciplines must be encouraged and supported. A successful example of this approach is the creation of the Interdisciplinary Research Center for Cooperative Functional Systems (FOKUS) at the WWU. Through the FOKUS-Initiative, interdisciplinary interface professorships between the disciplines biology, chemistry and pharmacy, medicine and physics were identified and created for the first time.

With this HEP, we pursue the goal of strengthening large-scale interdisciplinarity at the WWU through developing existing cross-faculty collaborations further and promoting additional large-scale projects (e.g. clusters of excellence, collaborative research centres, transregional projects).

¹ http://www.horizont2020.de/einstieg-gesellschaftliche-herausforderungen.htm (in German only)

> Interdisciplinary collaborative research at the WWU

In the research field **Religion and Politics**, funded as a centre of excellence by the German Research Foundation (DFG) since 2007, some 200 scholars from more than 20 subjects from the humanities and social sciences and from 14 nations are researching the relationship between religion and politics — in varying power constellations and conflict situations and from the polytheism of antiquity to the monotheistic world religions of Judaism, Christianity and Islam. This interdisciplinary collaboration, which has made possible an overreaching view on societal, religious and political issues, is founded on a long tradition of collaborative research centres in the various individual disciplines.

On the basis of this approach from the past into the future, the WWU intends to consistently expand this area of research. The construction of a "Campus of the Religions", which has been approved by the Rectorate, underscores this commitment and explicitly stresses the long-term structural effect of the excellence initiative for the University of Münster. It is the aim of this infrastructural measure to concentrate all the theological and religion-oriented disciplines in one location in order to encourage interdisciplinary cooperation and discourse between the religions. In addition, the Centre for Islamic Theology, which was created at the WWU in 2012 and which will also be located on the Campus, will be converted into Germany's first faculty of Islamic theology. Furthermore, potential international collaborations and partnerships with universities who are also attempting to deal with similar societal challenges by introducing structural measures in teaching and research are to be identified and developed.

Through events such as the "Conference of World Religions" in Münster (March 2016), the WWU has set a clear signal that it will continue to provide a venue for a peaceful dialogue between the religions in future, too.

In the research area of **cell dynamics and imaging,** researchers from more than 90 work groups are studying the development of illnesses from the individual cell right up to the patient. Innovative forms of imaging are key to success in this field. Since 2012, this collaborative research area has been funded as the "Cells in Motion" (CiM) cluster of excellence by the German Research Foundation.

Researchers from the fields of medicine, biology, chemistry, mathematics, information sciences and physics are aiming to make specific cell behaviour within the whole organism visible so that it can be understood better. In an interdisciplinary manner, the cluster combines fundamental biomedical research with clinical application in diagnostics and therapy with the aim of transferring scientific research results into clinical medicine.

In approving the establishment of the Multiscale Imaging Centre (MIC), the German Council of Science and Humanities, too, has endorsed the quality and the sustainability of this research project. The new MIC research building with a size of ca. 5,700 m² will be located directly next to the Max Planck Institute for Molecular Biomedicine. This will enable synergies between the more than 250 MIC researchers and the experts from the disciplines involved in the cluster once it is opened in 2019 (planned).

With its research programme on **molecules and interfaces**, the WWU intends to bring together and develop further the excellent research activities and infrastructures in the areas of functional and adaptive nanostructures. By researching the links between molecule design and functionality, the researchers aim to address the challenges of synthesising functional materials for biological or medical application and energy storage.

In this interdisciplinary research collaboration, chemists and physicists from the WWU conduct research together with scientists at the Institute for Nanotechnology of the University of Twente (MESA+) and the Helmholtz Institute Münster (HI MS) in joint projects and labs. This collaboration builds upon the above-mentioned FOKUS-Initiative, the DFG Transregio 61 "Multilevel Molecular Assemblies: Structure, Dynamics and Function" as well as on the Center for Nanotechnology (CeNTech), which was instituted as a public-private partnership. Through the recent appointment of new professors specifically in this field, the research programme has consistently been consolidated.

The fact that the German Council of Science and Humanities approved funding for the research building Center for Soft Nanoscience (SoN) underlines the relevance and quality of this research programme. This new building will provide the scientists of the various disciplines a jointly operated, ultramodern infrastructure, which includes special lab rooms, including a clean lab, as well as new large equipment for synthetisation and analysis of the materials.

> Research at the interfaces

The structure-forming effect of the previous excellence initiative also applies to new interdisciplinary research networks, even if these were not successful in receiving funding then. In particular, **evolution research** as a research focus deserves mention. This research focus is the first of its kind in Germany and invites scholars from the humanities, the life sciences, medicine and the classical natural sciences to collaboratively research on the topic of evolution. It has since served as a catalyst for a new transdisciplinary research focus at the WWU. In addition to the establishment of the Münster Graduate School of Evolution (MGSE), an interdisciplinary research training group (RTG2220 EvoPAD) in the adaptation and origin of illnesses in collaboration with academics in the areas of philosophy, biology and medicine. In addition, a transregional collaborative research centre is being set up together with the University of Bielefeld. In a statement by the National Academy of Sciences Leopoldina of April 2017, the WWU Münster was named as one of the most important locations of evolution research. Thus, the efforts of the WWU to position itself as one of the leading institutions in transdisciplinary evolution research have already garnered recognition.

The establishment of innovative research networks as catalysts for new research areas is a model for future programmes at the interface between and within different disciplines and shall be developed further as part of the WWU's future research programme.

The centre of collaborative research activities in the field of energy storage research is the battery research centre MEET (Münster Electrochemical Energy Technology). It aims to improve batteries for use in electric cars and stationary energy storage systems – and that at the lowest possible cost. In this way, MEET wants to help increase the competitiveness of its partners in battery research, particularly in the field of lithium ion technology, both on a regional level and further afield. MEET therefore considers itself an important link between fundamental scientific research and industrial application.

recently received funding to focus on evolutionary processes in the adaptation and origin of illnesses in collaboration with academics in the areas of philosophy, biology and medicine. In addition, a transregional collaborative research centre is being set up together with the University of Bielefeld. In a statement by the National Academy of Sciences Leopoldina of April 2017, the WWU Münster was named as one of the most important locations

An international team consisting of around 150 scientists works at MEET. Additionally, there are numerous intra-University interdisciplinary collaborations with information sciences, physics, chemistry and biology. Beyond the WWU, MEET also collaborates with many partners in Germany, Europe and the rest of the world. Since June 2014, the Helmholtz Institute "Ionics in Energy Storage" (HI MS) can also be found in direct proximity to MEET.

Mathematics is a key discipline for academic and economic progress. New mathematical insights cannot be considered knowledge for knowledge's sake only as they often enable unforeseen breakthroughs in other disciplines and stimulate diverse opportunities for intra- and interdisciplinary research projects. The proposal outline **Dynamics – Geometry – Structure** by theoretical and applied mathematicians, which was assessed positively in the current round of the Excellence Strategy, concentrates on fundamental mathematical research. The focus lies on two areas, namely the geometrical consideration of structures and an analysis of the relevant dynamics of group and semigroup actions.

Both areas have a long tradition and their relevance for mathematics is steadily growing. It is in acknowledgement of this significance, and also from the perspective of equality, that faculty and university management have decisively supported this research programme by appointing new professors with these research areas and by implementing a programme to recruit so-called "high-potential candidates" for post-doc positions (Juniorprofessuren) in recent years. In the coming years, too, the performance capabilities and the innovatory potential of mathematics are to be sustainably consolidated. It is hoped that funding for a new research building can be acquired to provide further research infrastructure akin to the SoN und MIC research facilities.

> Improving conditions for excellent individual research

The WWU aims to continuously improve the conditions for excellent individual research as these are a prerequisite for interdisciplinary collaborative research and for research into fundamental questions of the individual disciplines. In order to achieve this aim, the WWU has decided upon the following measures:

The **professionalisation of application procedures** is intended to increase the success rate of grant proposals on a continual basis. To this end, the WWU is instituting a dedicated central application workshop, which is supplemented by specific application coaching for junior researchers. In this way, the WWU is working to promote the participation of WWU researchers in international funding programmes such as EU Horizon 2020 and the funding lines of the European Research Council (ERC) and heighten the international visibility of the WWU as a research location. The ERC funding is especially suited for improving the conditions of excellent individual research as it is granted ad personam.

Providing academics with greater professional scope via a structurally implemented competition of ideas shall serve to potentially open up new fields of research. The aim is to free up time for researchers preparing grant proposals in renowned funding formats such as ERC grants or collaborative research centres and research training groups by co-financing teaching substitutes or coordination positions for a limited period of time. The financing of workshops will serve to bring together researchers who aim to jointly access and open up new fields of research. This is supplemented by possibilities of both intra- and interdisciplinary idea mining, which in turn boosts networking and thus supports both individual and collaborative research already during the orientation phase.

Through the implementation of **start-up workshops**, the WWU aims to support research projects and research findings considered to be of significance for society. This measure, which is primarily targeted at junior researchers, will ideally achieve two goals simultaneously, namely to increase the economic potential of the WWU and to open up additional, non-university career paths to researchers.

These measures are supplemented through the establishment of a process to support and recruit "high potential candidates". This process is in turn decisively supported through suitable personnel development measures (see "living.knowledge. support"). In the medium to long term, the plan is to successively increase the number of DFG-funded Emmy Noether groups and Heisenberg scholarships as well as Alexander von Humboldt scholarships and ERC Starting Grants at the WWU. Further, personnel and research marketing aims to sustainably improve the reputation of the WWU as an excellent employer.

> Networking for "small disciplines"

The WWU is home to numerous so-called "small disciplines" 2 – from archaeology to Westphalian history, for example. The importance of these subjects for the University's research achievements can be exemplified through the "Religion and Politics" cluster of

To encourage networking across academic disciplines, the WWU maintains an open culture of centres. In order to work on common questions, researchers can join forces across disciplines and faculties in self-organised centres, draw up their own statutes and also organise their own funding (e.g. through faculty funding or third-party funding). Small disciplines often do not have the necessary critical mass for large-scale collaborative research projects. Consequently, they can profit from participating in these (interdisciplinary) centres, which can often be a springboard for such grant applications.

Where inter-university collaborations are clearly beneficial, the WWU supports cooperation with other universities, e.g. the cooperation of the WWU Institute of Planetology with researchers at both the Technical and the Free University of Berlin in the form of a Transregio grant (SFB/TRR 170).

For the duration of this HEP, the WWU has decided upon the following measures concerning the "small disciplines": The WWU will continue its culture of centres and will continue to support researchers in such collaborations. In order to gain an excellence, in which many of these small disciplines participate. overview of the numerous different centres and to sustainably ensure their quality, the University is developing a criterionbased register of centres, which will also identify best-practice examples.

> In order to promote the small disciplines further, the WWU is implementing a Small Disciplines Planning Committee at the behest of the Rectorate, which is tasked with developing an overall strategy for the small disciplines. Of particular significance in this context is the development planning of the faculties. Incorporating the faculties will ensure the subject-related connectedness of the small disciplines within the WWU as a whole and within their individual faculties. From the viewpoint of the WWU, it would also be beneficial to establish state-wide networking of the small disciplines in North Rhine-Westphalia.

² Source: https://www.kleinefaecher.de/nordrhein-westfalen/ (in German only): last mapping from 2011 (date: 1 Oct 2011). Currently, the Arbeitsstelle "Kleine Fächer" at the University of Mainz is carrying out a Germany-wide new mapping of the small disciplines. Also the definition of "small disciplines" has been adapted.

> Expansion of research collaborations

The co-operation with non-university research institutions, affiliated institutes and other universities enables the WWU to further intensify and expand its research activities in the various faculties. The focus is to lie on collaborations with institutions which are of a high national importance from a thematic point of view. Thus, the aspect of sustainability is to be taken into consideration as the WWU concentrates on topics which will remain of (societal and scientific) importance in the long term. In addition, it is clear to the WWU that research collaborations are a means to access financial resources via German *Bund-Länder* programmes and also to profit from the high standing of the institutions.

Initiating and expanding such research collaborations, in particular with **non-university institutions**, is thus an important strategic perspective for the WWU. Currently, the WWU maintains collaborations with the Max-Planck-Gesellschaft (Max Planck Institute for Molecular Biomedicine, MPI), the Fraunhofer-Gesellschaft (Fraunhofer Institute for Molecular Biology and Applied Ecology, IME) and the Helmholtz-Gemeinschaft (Helmholtz Institute Münster, HI MS). These are supplemented by numerous affiliated institutes of the WWU, which form a link between academia and application.³

Via the existing structures and networks of the WWU (e.g. WWU Centre for Europe), potential co-operation partners are to be approached directly and the networking with non-university research partners is to be intensified.

Across national borders, the WWU is seeking closer **co-operation** with the University of Twente, in particular in the fields of battery research, medical technology and nanotechnology. With its focus on technology and engineering and its extensive know-how, the University of Twente ideally supplements the research activities of the WWU Münster und is a perfect co-operation partner.

In order to increase its **international visibility** and reputation as well as attractiveness for excellent researchers, the WWU aims to **expand its international research marketing activities**. Currently, the WWU is building up its alumni researcher strategy as an instrument of international research marketing, incorporating existing structures such as the WWU Brazil Center and the WWU offices in São Paulo and Recife. Thus, all Brazil-related activities of the University are collected and coordinated and all WWU institutions can receive advice on any Brazilian activities, be it regarding research, research transfer, teaching or studying. The Brazil Center provides consultation, establishes contacts and advises on the organisational and administrative aspects of projects. The activities of the Brazil Center are to be maintained and gradually expanded to cover the whole of Latin America.

The WWU has identified the building of a **conference centre** large enough to host international conferences with up to 1,500 participants as a prerequisite for a successful **international orientation**. Thus, the international visibility of the WWU will be increased long-term

> Research infrastructure

Building infrastructure measures greatly support the academics at the WWU in both research and teaching. The provision of large equipment is of outstanding importance for excellent research especially in the natural sciences.

In addition to the permanent planning of building measures per se (i.e. university location development planning, see also "living.knowledge.design") and the ongoing modernisation and expansion of the University's large equipment facilities, the expansion and further development of **digital infrastructures** is of particular importance.

The WWU has set itself the aim to support excellent research by increasingly providing **eScience** infrastructures along with corresponding service and advisory support. The term eScience covers, amongst other things, the organisational framework conditions for sustainable research data management as well as the development of new service and infrastructure provision, also for the digital humanities. To ensure that existing and potentially expandable eScience infrastructures and services can be optimally used by its academics, the WWU intends to establish an eScience competence and service centre at the University Library (ULB).

Through the creation of the competence centre **Center for Digital Humanities**, the WWU is expanding its research profile by combining humanities and cultural sciences with the data-processing measures of information sciences. ⁴ The digital humanities provide innovative possibilities and offer an enormous range of new methods and research strategies for a systematic search for new insights. These include the analysis of big data, text mining, methods of digital editing or innovative data visualisation. Beyond the humanities and cultural sciences, this service offer is aimed at all academics of the University. In addition, access and provision of large amounts of text can be considered an important transfer product as academic knowledge and important sources can thus be made accessible to a non-university audience much more easily.

4 http://www.kerndatensatz-forschung.de/ (in German only)

With the implementation of its own research information system CRIS@WWU (Current Research Information System) in 2010, the WWU has assumed a pioneering role in the NRW-wide management of research data. In addition, the WWU plays a leading role in the development and implementation of the core research data set's (Kerndatensatz Forschung), which the German Council of Science and Humanities has recommended. The aim of this core research data set is to standardise research data reporting so that all universities, universities of applied sciences, non-university research institutions and other research institutes have access to comparable research data. The central advice and coordination centre for universities in NRW for the implementation of the core research data set (CRIS.NRW) is located in Münster and is currently being funded as a state-wide programme for initially three years by the NRW Ministry of Culture and Science.

Furthermore, the **WWU Research Council** supports researchers at the WWU in the grant application phase.⁶ It is tasked by the Rectorate to advise the university management in the initiation, coordination and support of research projects and collaborations and to assist in the quality management of applications for third-party funding. The Research Council members all have extensive experience both in applying for grants for and in heading large interdisciplinary and international research projects. They cover a large span of disciplines at the WWU and always encourage the (potentially) interdisciplinary focus of the research projects they advise on. Thus, the Rectorate only endorses research grant applications if the Research Council has been consulted first.

³ https://www.uni-muenster.de/news/view.php?cmdid=8993

⁵ https://www.uni-muenster.de/Rektorat/forschungsbeirat/ (in German only)

⁶ https://www.uni-muenster.de/Rektorat/en/forschungsbeirat/index.html

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The WWU has a responsibility to society to offer its ca. 44,000 students high-quality academic programmes and to prepare them for a successful career in a national or international context in the best possible way. Furthering key skills such as social competence, a sense of responsibility, flexibility and an awareness for the bigger picture is characteristic for the educational concept of the WWU Münster.

The academic programme at the WWU aims to turn out highly educated and critically thinking individuals who learn during their studies how to think and work like researchers and who possess a high degree of action-taking and problem-solving competence. Using the skills acquired during their studies, they are ideally qualified to address the challenges of a pluralistic, internationally oriented and dynamic society. As professionals of tomorrow, WWU graduates are well prepared for a continually changing labour market, both within and outside of academia, in Germany or abroad, and in the position to transfer current research results into society.

The WWU thus sees it as its duty to qualify its students for the labour market. Since 2012 the WWU has been developing specific concepts with which to meet the demand for employability in its study programmes in a university-specific way. Practising the transfer of theoretical fundamentals and academic qualifications into various fields of application provides graduates with considemphasise student-oriented, erable content-related flexibility and great innovative potential, enabling them to position themselves professionally in the best

The guiding principles that teaching and learning at the WWII should embrace the approach of "learning through research" and activating instruction possible way. remain imperative for all digitally-enhanced teaching and learning formats.

A special characteristic of the WWU's profile are its many teaching degrees. Approximately one quarter of all students aim to become teachers. Thus, the WWU Münster is one of the largest institutions in Germany specialised in teacher education – 13 of 15 faculties participate in offering teaching degrees. Due to its consistent focus on school-based teaching careers, the WWU offers practice-based professional teaching degrees. Educating future teachers is seen as one of the most important future tasks by the WWU as teachers are essential for imparting the values of society. The WWU is therefore committed to producing future teachers with an academic education, diagnostic competence, didactic-methodological training and the capability to self-reflect. As prospective teachers, they see themselves as the initiators and moderators of pupil-centred teaching and education processes. They are aware of their social responsibility and are intrinsically obligated to life-long learning.

Both in teaching and non-teaching degree programmes, research-based teaching and research-oriented learning are considered essential for developing an academically-founded power of judgment, which in turn provides the basis for action and problem-solving competence. For this reason, the WWU pursues the approach of "learning through research"; research and teaching are not considered separately but are combined in the curriculum at an early stage. By having students actively participate in research activities as soon as they commence their studies, they are systematically supported in acquiring sagacity, independence, a sense of responsibility and the ability to take action in order to receive an optimal foundation for their future employability.

It is an aim of the university development planning programme to expand the already existing approaches towards "learning through research" in the coming years and to specifically encourage the transfer of current research findings into the teaching curricula in the various disciplines. Part of this is the ability to understand how research findings come about, which in turn requires a thorough study of the applicable research methods. In order for this to be successful, all actors at the WWU have to work together and jointly develop measures which promote learning through research. In addition to a willingness by all participants to consider teaching in a new way, this process will require resources on a university-wide basis.

The WWU intends to create a greater appreciation of members who demonstrate exceptional commitment to teaching. In this way, it aims to encourage both the expansion of innovative teaching formats, e.g. regarding learning through research, digital teaching and possible joint projects with international partners, and the development of the individual instructors' own teaching competence. Currently, these aspects are already considered in the conferral of the WWU Teaching Prize. Additional measures in the future might include specific support measures and incentives for developing new teaching formats, e.g. by offering a temporary reduction of teaching commitments.

As a study location, the WWU Münster enjoys an excellent reputation and feels obliged to ensure the quality of its degree programmes. Both with regard to length of studies and also successful completion of studies, the WWU stands out positively in comparison to other universities. With respect to the number of graduates per year, the University of Münster regularly holds one of the top positions in Germany. The attractiveness of Münster as a study location can be seen in the high numbers of applicants interested in studying here. To guarantee good study conditions, it is necessary to limit the number of students who can be accepted to many degree programmes. In addition, the University employs a number of measures of quality control and **development.** During the duration of this HEP, the WWU intends to develop the existing quality control into a comprehensive quality management system.

> Learning through research

pillar of the current teaching profile of the WWU, and many study features of "learning through research" are already fixed concepts of degree programmes in the various disciplines. In the practice learning through research is intensively employed, too.

Through an in-depth study of "learning through research" and its integration in processes of quality control, the entire range of academic programmes can be developed across the board, which makes it possible to interweave research and learning more closely and expand innovative teaching formats. Teaching and learning scenarios are to be designed in such a way that students can participate in academia, knowledge transfer and the research process. A broad understanding of "learning through research" in the sense of research-based learning ranges from the critical analysis of current research results to the supervised but independent execution of the entire research process. At the WWU, "learning through research" is considered a fundamental, action-determining principle which demands and encourages the development of a fundamental research-oriented attitude.

An overarching developmental aim within the time frame of this HEP will be to expand the existing approaches to "learning through research" across the board and to support studentcentred, activating teaching with a focus on "learning through research".

In order to strengthen its entire teaching profile, the WWU intends to initiate a university-wide debate concerning the aims, types and modes of implementation of "learning through research", for example, through specific events such as the university-wide "Teaching Day" with discussions, workshops and publications. This debate will take place across faculties and disciplines, as well as within individual disciplines. The culture of dialogue with respect to "learning through research", innovative teaching formats and a stronger emphasis on teaching at the WWU is to be encouraged in the existing committees, for example, in the study advisory councils of the faculty bodies, but also in the Rectorate's Teaching Council.

It is hoped that **subject-specific best-practice examples** will encourage an increased interaction between research and teaching and will motivate instructors to realise the learning-through-research approach in their own teaching activities.

> Development of study programmes

The concept of "learning through research" already forms one The WWU decided to implement the Bologna Process early on and converted its study programmes into bachelor's and master's programmes. As a result of the structural study reform, the number of degree programmes increased greatly. Also, indisemester, which forms part of the teaching degree programmes, vidual disciplines took the opportunity to expand their study programmes, building on the bachelor's degrees and offering possibilities of specialisation and content differentiation. In addition, many cooperative degree programmes were instituted, some of them with international partners. As a result, the 15 faculties with their more than 120 subjects now offer over 280 degree courses in the humanities and social sciences, the natural and life sciences, business, economics and law. Many of these have been classified as excellent or very good in the CHE rankings, which further bolsters the traditionally outstanding reputation of Münster as a place to study.

> In future, when study programmes are created or developed further at the WWU, the concept of "learning through research" is to play a more central role than before. Students should be given the opportunity to learn through research starting at an early stage in their studies, i.e. already during their bachelor's studies. One measure to expand "learning through research" in the WWU's study programmes is to consistently use this concept as a leading category in the curricular development of qualification profiles and aims of degree programmes, in the planning of modules and courses and in the context of competence-based examination formats. From the degree-programme level down to the individual modules, courses and examinations, those responsible for the further development of the curriculum are to consider "learning through research" and incorporate it within the respective curricula.

> As a further measure, the WWU wants to **support and challenge** its students in a more differentiated manner, and thus take into account the diversity of its student body. **Special programmes** for exceptionally talented students will be introduced so that students with great potential for research can be supported individually, for example, by being allowed to complete their studies faster than usual. At the same time, the issue of giftedness is to be addressed scientifically at the International Centre for the Study of Giftedness (ICBF), a joint institute of the universities of Münster, Nijmegen and Osnabrück.

When dealing with diversity in the student body, the WWU feels an obligation to counsel students with children or relatives in need of care and students with physical disabilities with respect

to their individual needs. By making places in childcare facilities available for student parents and by offering disabled students compensation for disadvantages or alternative examination requirements, the WWU strives to support students in the best possible way on their personal academic career path. Over the duration of the HEP, these possibilities are to be expanded, for example through the newly created "Service Office for Students

with Disabilities".

As part of its internationalisation strategy, the WWU is committed to the important strategic goal of supporting the internationalisation of teaching and studies. The WWU sees it as its duty to enable students, already from their bachelor's studies onwards, to gain experience in an international context and to acquire key areas of competence. The WWU is making it easier for students to study abroad by providing more structural flexibility in teaching programmes (e.g. by means of mobility windows, summer schools or joint programmes).

In order to increase both the international visibility and the attractiveness of the WWU for international students, it is essential to expand the number of English-language study programmes. To this end, the WWU will focus on non-teaching master's **programmes.** Furthermore, internationalisation at home is to be encouraged as an inherent part of instruction, e.g. through establishing international study programmes, the curricular implementation of international contexts in learning outcomes, and culturally-sensitive teaching practice. The faculties are being asked to orient their degree courses accordingly and to develop and implement specific programmes suitable for the individual subjects. At the same time, such programmes and services are to be identified and developed which match the strategic aims of the WWU concerning research (e.g. in the field of religion and politics).

> Digital teaching

Digitalisation characterises our world and will do so to an even greater degree in future. As an educational institution for the professionals of tomorrow, the WWU sees its responsibility towards society as one of preparing students for a confident, competent and critical use of these new technologies.

In the coming years, the WWU intends to expand the use of digital teaching as an addition to classroom-based teaching. It aims to make digitalisation a fixed and ubiquitous part of the teaching and learning culture, and to expand its scope in cooperation with international partners. Teaching modules which can be accessed anywhere at any time, and thus enable individualised learning, account for the fact that students are individuals with different learning and studying behaviours. They also help students combine studying with having a family. The guiding principles, namely that teaching and learning at the WWU should embrace the approach of "learning through research" and emphasise student-oriented, activating instruction, remain imperative for all digitally-enhanced teaching and learning formats.

The services for digital teaching formats currently in place are to be developed further and expanded over the course of the duration of the HEP. These include the main learning platform (Learnweb) through which instructors can communicate with their students outside of the classroom sessions, interact with them and give them personal feedback. The Learnweb team is also establishing a video-recording service to allow students to view lectures online. Electronic examinations are being offered for some subjects and can lead to a more efficient examination organisation, especially for very large course formats.

The WWU relies on tailored support and advice services in order to expand the usage of these digital services. The newly established ZHLdigital office will play a central role in this regard under the supervision of the Centre for Teaching in Higher Education (ZHL). Here, a multi-disciplinary team will work on both didactic and technological requirements and will coordinate the WWU's main activities with regard to digital teaching. The main objectives of ZHLdigital are to register the digital teaching initiatives that already exist at the WWU and make best-practice examples known within the University. Also, future developments in the field of digital teaching are to be identified at an early stage and made accessible for teaching at the WWU. Another core task of ZHLdigital is to help network all participants involved in these activities.

> Building individual teaching competence

The WWU believes **digitalisation** possesses large potential for innovation, especially with regard to teaching, and seeks to encourage its instructors to utilise its potential and develop new teaching formats and content themselves. Many of the new forms engendered by digitalisation represent a terra incognita, and not every course will lend itself to digitalisation in equal measure. Also, the University acknowledges that the initial effort required to develop digital teaching concepts or even simply individual teaching components is often quite high. In addition to the advice and support services, ZHLdigital shall therefore provide the necessary legal framework conditions, offer incentives for developing new, innovative teaching concepts and recognise the achievements of individual instructors in the field of digital teaching. This may apply to the adaptation of study regulations or the calculation of the workload involved in digital teaching, but will require the expansion of the further education and qualification offers in this field. Legal aspects, e.g. how digital teaching formats count towards capacity issues, should be decided upon in collaboration with the ministry in question.

The individual development of teaching competence with regard to student-centred, activating teaching is the central aim of further education measures for university instructors. At the same time, such student-centred instruction serves as the basis for implementing the various forms of "learning through research". Applying "learning through research" as a teaching method helps instructors reflect on their own role as teachers and their self-image as both a researcher and instructor with regard to how the two activities of research and teaching can be more strongly connected.

The WWU wants to promote the motivation and willingness of the individual instructors to explore the notion of "learning through research" and its (practical) implementation in university teaching. The various WWU bodies that offer measures of further education for instructors, e.g. the Centre for Teaching in Higher Education (ZHL) and the University Centre for Teacher Education (ZfL), will strive to foster a culture of joint exchange of ideas on "learning through research". The ZHL, which was created as a central academic institution to provide further qualification for instructors as part of the Quality Pact for Teaching, will offer **networking services and advice** on "learning through research" as well as specialised courses on the content-specific development, implementation and assessment of "learning through research". The courses will address different groups and bodies within the teaching staff and consider specific issues and requirements of the participants. "Learning through research" shall be integrated more than before in qualification measures concerning university teaching methodology.

> Improvement of study conditions

High-quality teaching can only be effective if the general study conditions are also good. Therefore, it is an important goal of the WWU to continually strive to improve study conditions. In achieving this, the WWU will be able to reduce the number of programme dropouts further and increase the number of students who graduate within the standard period of study.

The funding which the WWU has been allocated through the *Bund-Länder* programmes for better study conditions and more quality in teaching (Quality Pact for Teaching) until 2020 is being used to achieve effective impulses for sustainably good teaching at the WWU. Through a teaching-focused personnel structure and optimal staffing levels, the WWU has succeeded in improving both the instructor-student ratio and also the general study conditions. Since an extension of funding for the Centre for Teaching in Higher Education (ZHL) was achieved, the WWU will use this chance to advance further the development of teaching and emphasise sustainability and planning certainty. To this end, the Rectorate has already pledged a continuation of the work of the ZHL beyond the funding period for the Quality Pact for Teaching.

During the duration of the HEP, it will have to be determined to what extent the WWU should react to the differing educational backgrounds of first-year students through even more differentiated programmes at the beginning of their studies.

In addition to merely improving teaching staff levels in terms of quantity and further enhancing the quality of instruction, a further aim is to **optimise the infrastructure of study conditions** in order to improve the quality of studies across the board. In addition to new positions in the faculties that were created in the areas of academic organisation, counselling and supervision, the WWU will introduce a new, integrated campus management system (CMS) in the near future. Up to now, the WWU has used different computer programmes for the various functionalities of the student life cycle (e.g. time-table planning, examination registration, inputting of grades, student admissions and facility management). Through a standardised, integrated database, the WWU will employ a system that supports the University and its members by optimally providing services for all user groups. The aim is to increase efficiency and effectivity as well as improve the quality of services. Other study-linked processes, too, are to be provided in digital and/or interactive form, based on the user expectations of all students and academic staff.

The WWU already offers specialised support and advisory services covering the entire student life cycle. These help prospective students decide what to study, support current students so that they may complete their studies successfully. and assist graduates with gaining entry to the labour market. It is a trademark feature of the WWU that its main advisory services (Student Advice and Counselling Centre (ZSB), Careers Service) offer professional, personalised advice which is flexible, voluntary and confidential. The staff of the Student Advice and Counselling Centre regularly offer advanced training seminars on student counselling, peer-based consulting between academic staff, as well as other formats designed to further increase the professionalism of counselling services at the University. One example of this close cooperation are the "Student Counselling Guidelines for Providing Good Subject-Related Advice". The WWU strives to offer all students excellent counselling in every phase, be it prior to their studies, during their programmes or in their transition to the labour market, which takes into account the individual challenges of students in the respective situation. Considering the increased heterogeneity of the student body, the counselling and support services currently on offer may require further expansion.

With the **House of Student Services**, the WWU aims to gather all the main student services, such as the Student Admissions Office, the Student Advice and Counselling Centre, the Careers Service, the International Office and the International Centre "Die Brücke", in a central location that students can easily reach. The goal is to concentrate all of the University's main advisory services under one roof, which will significantly optimise its student services.

> Strengthening teacher education

the attractiveness of the University for international students even further. In order to improve the **support structures for international students** before they begin studying in Münster, it should be possible for these students to inform themselves about the University ahead of time and apply for admission through a straightforward admissions process. For this reason, in addition to the main University websites, for which there already is a complete English version, the entire online presence of the University is eventually to be provided in English in order to increase the international visibility of the University and offer foreign undergraduate students, doctoral candidates and academics easier access to information about the WWU. Furthermore, the application and admission processes for international students will be adapted and optimised further, taking into account increased requirements.

The WWU intends to increase the **international visibility and** The WWU Münster is one of the largest institutions for the education of future teachers in Germany and offers teaching degrees for all types of schools (with the exception of special needs schools). With 25 teaching subjects on offer, the WWU provides a broad spectrum of subjects and numerous subject combinations so that not only the established teaching subjects but also "smaller" subjects such as Dutch or Italian can be studied here. As of the winter term 2012/13, students also have the option to study Islamic Religious Studies for all types of schools.

> For years now the WWU has acted successfully to support and pioneer the establishment of Islamic theology in Germany. Since 2004 the WWU has educated teachers of Islamic religious education at public schools in Germany. Following a recommendation by the German Council of Science and Humanities in October 2011, the Centre for Islamic Theology (CIT) was founded as a university institution of confession-oriented Islamic theology at the WWU Münster. Thus, the CIT Münster is the only academic institution of Islamic theology in NRW, the most populated German federal state, and, at the same time, the largest such institution in Germany. With respect to its plans to create a campus of religions, the WWU intends to make the CIT the first ever faculty of Islamic theology at a German university.

> The great significance of teaching degrees at the WWU is reflected in the high numbers of graduates in these programmes. The Centre for Higher Education (CHE) has confirmed the excellent study conditions at the WWU in a Germany-wide comparative study. However, an index compiled from individual evaluations, the CHE and a WWU graduate questionnaire show that there is room for improvement, in particular regarding the relationship between theory and practice, as well as practice-oriented instruction.

Offensive (QLB) is being specifically used to expand the various teaching practice elements in the education of teachers quantitatively and to improve the quality of how these elements are integrated into academic study through suitable structural measures. The aim is to strengthen the connection to teaching practice in the first phase of teacher education. The focus of the QLB lies in equipping prospective teachers from the very start with the necessary skills to be able to deal with an increasingly heterogeneous body of pupils. To this end, the QLB aims to provide students with reflected practical experience in schools. The WWU sees the QLB as an opportunity to place greater emphasis on

Through the measures of the QLB, the students are to be prepared to deal with diversity in all its forms in a constructive and profes-Inclusion is now considered as a cross-sectional task both within the individual phases of teaching degrees and also within the elements of educational sciences, teaching methodology and subject-related content.

dealing with pupil heterogeneity in a constructive manner.

The cooperation with everyone involved in preparing students for teaching and teacher training (the second and third phase of teacher qualification) is to be expanded further – also with regard to the continuing education of teachers themselves.

> Quality control and quality development

The funding acquired through the **Teacher Education Quality** For several years already, the WWU has employed various evaluative instruments for the purposes of quality control and quality development, e.g. student course evaluations, student questionnaires in the context of re-accreditation procedures as well as comprehensive graduate surveys. The results of all these evaluation procedures are used to improve the quality of teaching. In order to incorporate and develop the "learning through research" approach long-term in the degree programmes, the processes and instruments of quality control are now also to be developed in line with the objectives of "learning through research". The evaluative instruments, student course evaluations and other student questionnaires are to be adapted accordingly in order to achieve valid feedback on the effectiveness of the implementation of "learning through research". Teaching staff questionnaires also have this aim.

sional manner in all teaching degree programmes at the WWU. In addition to the evaluation measures already mentioned, the critical examination of student workload and the avoidance of scheduling conflicts are important criteria of re-accreditation procedures. Considerations of studyability are taken into account with respect to all issues of degree programme development. In addition, a monitoring system is to be established for the development of degree programmes on the basis of ECTS data, which will help the faculties identify issues that hinder the completion of the degree programmes.

> The fundamental development of existing quality control measures toward a comprehensive quality management system serves the long-term goal of achieving certification as a system-accredited university.

> The dialogue between the various instructors in the faculties is to be supported in this regard, for example in existing bodies such as the Study Advisory Council or "teaching conferences" within the individual faculties. This will help promote discourse about ways to implement "learning through research" in accordance with faculty-based and subject-specific objectives.

> As a central steering body, the Teaching Council supports the Rectorate in all fundamental questions regarding studies and teaching.

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An organisation is only as good as the people who work for it. The aims of the WWU with regard to excellent research and teaching can only be achieved through a personnel policy oriented to sustainability, predictability, further development, individual requirements and transparency. The main focus of this HEP is to instil these guidelines with life in order to improve career paths in academia and in academic university management. With the introduction of the **Vice-Rectorship for Career Development**, this focus area was anchored into the University's administrative structure.

Personnel development concerns all aspects of university employment and connects the requirements and objectives of the University with professional training, career development and staff recruitment measures and services. The basis for personnel development is the overall **personnel development strategy**, which has to be continually optimised. As part of this strategy, all of the WWU's existing measures, processes and structures concerning personnel development are to be channelled, organised more efficiently and expanded as needed. Furthermore, the strategy integrates the overarching aspects of diversity, equal opportunity and internationalisation, though equal opportunity is already anchored in the University's infrastructure at both central and faculty level.

To achieve excellent results in research and teaching, it is necessary to promote efficient and motivated working processes in a partly hierarchically structured environment. This in turn requires that the University recognise the individual achievements of its staff and provide them with space and incentive for personal and career-related development. For this, an open, reliable and accommodating **leadership culture** is an essential prerequisite.

In order to maintain and expand the WWU's high level in research and teaching, it is imperative that **staff recruitment** take place with the University's requirements in mind. This means that for all areas of work, and in particular in research and teaching, highly qualified members of staff have to be recruited who will contribute actively to the development and the excellence of the University.

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> Personnel development strategy

Target group-oriented professional **qualification** is an important building block of personnel development. It is essential to expand the scope of activity of members of staff through targeted professional training and qualification seminars tailored to the existing qualifications and specific field of employment. Through such qualification measures, the WWU will enable members of staff to independently access new fields of work.

The **career development** measures at the WWU comprise all services and programmes which serve to advance staff members' individual career paths in a future-oriented manner. The WWU recognises that career opportunities are directly related to one's life phase, career phase and professional field.

Personnel development at the WWU is implemented by various members of staff at various levels. The Rectorate, administrative departments, various service institutions (e.g. Centre for Teaching in Higher Education (ZHL), WWU Graduate Centre) and University bodies (Rectorate Committee for Junior Researchers (RWN)) offer personnel development support to persons in leadership positions through a broad range of measures. The central service offices offer a variety of instruments and measures for specific target groups which are accessible via various information channels but may not always be known to the potential recipients.

Establishing good employment conditions, aggregating support measures and building an efficient network of all the different actors is a university development planning task which concerns the entire field of personnel development. The previous measures, which have proven successful individually, are to be applied in so far as possible to the different career-related and personal life phases of members of staff. In particular, the aspect of "leadership" is to be considered to a larger extent, both in a structural and a content-related manner.

In order to improve academic career opportunities, the WWU wishes to focus more strongly on the framework conditions. To this end, personnel development at the WWU considers the overarching topics of compatibility of family and career, diversity, equal opportunity, health management and internationalisation in a university-wide and holistic manner. These issues comprise the foundation of a life phase-based personnel development scheme which takes into account all career stages and strategic considerations.

A further important milestone is the creation of a **strategic concept concerning permanent positions** which, supplementary to personnel development, identifies which employee groups from both central institutions and the faculties have tasks of a permanent nature and whether these, also in light of financing, should be carried out on a permanent or a fixed-term basis.

minded attitude, be it concerning the requirements of persons with psychological and physical impairments, the compatibility of family and career or religious diversity. The issue of diversity has been assigned to the Vice-Rectorate for Career Development, the possibilities of international mobility or a range of targeted underscoring its high degree of relevance for the WWU.

Diversity-related measures are nearly always structurally anchored and where they are not yet so, the personnel devel- In summary, personnel development at the WWU is an allopment strategy aims to ensure their sustainability. A newly formed diversity working group, headed by the Vice-Rector for Career Development, is now addressing this comprehensive task. Specifically, the working group aims to subsume all the individual measures into one overall diversity policy. The WWU aims to develop such a policy with as much staff cooperation as possible within the duration of the HEP. Having received the "TOTAL E-Quality Prädikat" in 2017, the WWU has already successfully carried out (as stipulated in the NRW Higher Education Agreement) the implementation of a diversity certification programme.

The implementation of gender equality is carried out according to defined criteria and objectives on all levels of decision-making and concerning all status groups of the University. The WWU aims to achieve actual equality of women and men in all member groups of the University, to remove structural disadvantages, and to utilise existing skills and talents equally. The advancement of women and equality of opportunities are important criteria of university development at the WWU. The elected Equal Opportunity Committee of the University Senate is involved in drafting, implementing and continuing this central equal opportunity strategy.

The WWU strives to attract international researchers and academic staff, and to establish an active welcome culture through target group-oriented information services, counselling and support for all international target groups. In this regard, central institutions such as the International Office, the WWU Graduate Centre and the Human Resources Department cooperate closely with the faculties.

At the WWU, diversity is practiced with an international and open- As part of its efforts to strengthen the campus as an intercultural meeting place and vibrant venue of internationalisation, the WWU supports staff members who wish to further develop their international and intercultural competence, be it through intercultural and foreign-language programmes as part of the "Internationalisation at Home" programme and "Erasmus+".

> encompassing strategy with numerous career-oriented measures and services. To what extent this covers all needs is continually checked for all target groups. Whenever new requirements are identified, these are addressed by developing suitable new

> Leadership culture

The WWU stands for an open, reliable and accommodating leadership culture and also expects this from all members in leadership positions.

As an issue that affects multiple aspects of personnel develand stay – at the University. opment, particular focus lies on personnel management. The WWU believes that persons in leadership positions are the primary addressees of personnel development when it comes to assessing the need for further qualification, career planning and, in particular, career potential. Within its scope of responsibilities, the WWU intends to **support and encourage** staff in leadership positions in a more differentiated way in future.

An important step will be to **establish a standardised training** programme for persons in leadership positions, e.g. through workshops and/or individual support for professors and other to establish a common leadership culture in the medium to long term, amongst other measures through self-reflection, to which all persons concerned are equally committed.

> Personnel recruitment and retainment

Strategic recruitment of staff in academic, technical and administrative areas is an important area of focus. On the basis of a continued assessment of current personnel requirements, the WWU is committed to attracting the brightest minds to work -

The appointment of professors is a highly important aspect of personnel acquisition at universities. In this regard, the WWU employs an active recruitment policy, in particular with regard to equal opportunity issues, which - as is formulated in the Appointment Regulations – include approaching suitable candidates directly. A primary task of the Rectorate involves accompanying the professorial appointment procedure. The WWU sees the tenure track option as an important career path, which has to be structurally developed further. The objective is to support junior researchers in a clear and reliable manner. This is achieved persons in leadership positions in the faculties. The objective is by professionalising the evaluation processes and offering a concurrent range of further education and support measures.

> As a supporting measure in this regard, the WWU is striving to gain the certification "Fair and Transparent Professorial **Appointments"** by the German Association of University Professors and Lecturers during the HEP time frame.

> To ensure that the University continues to appoint the most suitable candidates, the Rectorate encourages the faculties as part of the university-wide development planning process to analyse the requirements and intended direction of research and teaching that the professorship is to cover and substantiate these reasons to the university management. Also the Rectorate is explicitly committed to ensuring that the basic amount of resources placed at their disposal is the same for all professorships across all faculties of the University.

While the strengths of the WWU with regard to active professorial recruitment are apparent, it is equally clear that the University must do more to promote recruitment and staff loyalty among academic personnel in university management. To this end, the Rectorate has decided upon the following measures:

In keeping with its self-image, the WWU wishes to increase its attractiveness for **excellent junior researchers** both nationally and internationally in a targeted manner. The Emmy Noether and Heisenberg funding programmes, the Sofja Kovalevskaja awards and the NRW Returner Programme play a major role in attracting these high-potential researchers to the WWU – and keeping them here. The WWU intends to guarantee follow-up funding for programmes of high repute. Additionally, the WWU plans to acquire follow-up funding for post-docs as part of structured graduate programmes to a larger extent than before.

In order to facilitate an optimal start at the WWU for first-time and new professors, the WWU is developing a broad introductory "Onboarding" programme. It consists of central measures such as the programme "Management Skills for New Professors", the Dual Career Service and faculty-level measures. In particular the latter aim to support first-time professors in finding doctoral students, establishing a team and getting to know the structural processes at the WWU.

University staff face special challenges if they wish to combine For teaching staff, the available qualification measures will be family and career. School holidays often coincide with lecture periods and conferences take place outside of the opening hours of childcare facilities. The WWU supports its employees through the Family Service Office, the objective of which is to improve framework conditions and help successfully combine family and career by means of various measures. One of these consists of providing staff with information on how to optimally combine family and career. This service is to be expanded in future.

> Qualification

The WWU has introduced a variety of promising, targeted qualification measures. The qualification programmes of the WWU are based both on the goal-related requirements of the University as well as on the personal and subject-related requirements of the employees. In particular, focus should be placed on tenured members of staff with academic positions so that they can receive a long-term development perspective. The University wishes to raise awareness of this specific group and how tenured positions are defined. A particular challenge lies in their position between those of professors and the so-called "Mittelbau", or the non-professorial academic staff, and also between research and administration.

The HEP proposes to expand the range of needs-based qualification measures in the areas of academic self-administration, university management and subject-specific tasks.

In particular, the WWU wishes to introduce a specific programme for non-professorial academic staff in order to qualify them further and increase their job satisfaction. In this area, the specific need for further training and education is to be ascertained more specifically and existing programmes have to be communicated more actively. Specific topics that have already been identified are the areas of (occupational) safety, animal protection and legal issues.

expanded. In the medium term, participants are to be trained to become teaching mentors. In addition, incentives are to be created for tenured staff who are involved or wish to be involved in developing new or innovative teaching concepts.

Examples of successful measures that have already been implemented at the WWU are "Women in University Management", the further education programme for University staff and the guidelines for regular employee-supervisor meetings.

The courses offered by the Centre for Teaching in Higher Education (ZHL) are largely independent of individual career development and aim to expand the participants' field of work through developing teaching competence further.

> Career development

At the WWU, career opportunities are viewed with respect to the employee's specific life and career phase and occupational field regardless of which status group he or she belongs to. In this area, the WWU has already implemented many successful measures such as the mentoring programme *Erstklassig!* and the further education programme Volltreffer. Erstklassig! is an 18-month scholarship programme directed at excellent postgraduates (post-docs, researchers doing their Habilitation, researchers who have completed their *Habilitation* and associate professors (Juniorprofessoren) in all faculties of the WWU and offers them targeted support on their way to a professorship.8 Volltreffer is aimed at all female members of staff at the WWU, in particular in technical and administrative positions. The objective of this further education programme, which was offered for the 11th time in 2017, is to actively and individually support the personal and professional skills of the participants. The WWU Graduate Centre also offers a range of services to doctoral students and post-docs in the form of workshops and counselling opportunities. A particular challenge for career development in academia arises from the fact that a university – from students to post-docs to associate professors – is primarily responsible for providing academic qualifications; the number of tenured academic positions is limited in comparison with fixed-term positions. It is therefore the task of academics in leadership positions to give their members of staff - in line with fostering a culture of candid feedback – a competent assessment of their status, possibilities and prospects of career development at an early date.

However, successful career development must always focus on the individual and what they need to advance their careers further at the WWU. The aim is to continually compare these individual needs with the requirements and development potentials of the University as a whole. The WWU gathers and communicates information about its employees' career development needs through various methods. In the administrative departments, for example, employee-supervisor meetings are regularly scheduled, during which the requirements on different levels are discussed in connection to their personal further development.

8 https://www.uni-muenster.de/Gleichstellung/mentoring.html (in German only)

9 https://www.uni-muenster.de/Gleichstellung/Volltreffer.html (in German only)

Amongst the academic staff, the doctoral candidates form the largest group. Even though a majority of these positions can only be offered on a fixed-term basis, the WWU considers the doctoral phase as the first and important phase in an academic career. The supervision agreement ensures that certain fundamental standards, such as regular feedback discussions, are adhered to.

In addition to individual doctorates, the WWU also supports junior researchers through numerous structured doctoral programmes and several central institutions, such as the WWU Graduate Centre, which also cater to post-docs. 10 The objective is to expand the **programme for post-docs** specific to this target group and their needs. This includes the communication and presentation of alternative career possibilities outside of the university. These central programmes are supplemented by decentralised offers, for example in the faculties.

Also the collaborative research centres, clusters of excellence, graduate schools and research training groups at the various faculties implement many measures of individual career development, though these are limited to the employees at or associated with these institutions. The planned convergence of genderbased funding could create synergetic effects for the University's gender equality measures.

The comparison of the various programmes offered at central and faculty level concerning life and career phases has the aim to identify possible synergies and is an ongoing measure of the HEP. Moreover, the WWU intends to develop university-wide minimum standards. Efforts should be increased to make scholarship holders a focus of career development measures. In order to help this heterogeneous group with their diverse questions and issues, be it regarding the further qualification measures offered by the WWU or issues like health insurance, a central service point is to be established.

10 https://www.uni-muenster.de/GraduateCentre/en/GraduateCentre/index.html

⁷ https://www.uni-muenster.de/Gleichstellung/FmH.html (in German only)

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In the coming years we will have to focus on supporting infrastructural measures. These include developing integrative IT services and meeting the ever-increasing strategic challenges of university expansion and construction projects. Efforts to further strengthen decentralised management activities in the area of planning and development will be key to achieving this goal.

In order to ensure the successful development of the WWU, good underlying support structures are essential. These include procedural, organisational and governance structures which provide reliable and transparent possibilities for creative participation in order to boost the motivation and engagement of all members of the University. Further types of infrastructure support the skills and potential of each individual as well as of work groups in the areas of research, teaching and administration.

Digitalisation is seen as an important tool for the further development of the University. It makes it possible to establish and expand both technical and organisational infrastructures as well as the subsequent process-related changes in order to achieve optimisation. Equally important for strengthening the competitiveness of the WWU is forward-thinking building project planning as building projects require substantial investment decisions and have long-term consequences for the University. The WWU is meeting this challenge through its University Location Development Planning Programme (HSEP). The University also aims to use adapted governance structures to establish framework conditions which maintain and support the ability of the WWU and its institutions to develop and act creatively.

Creating and safeguarding good structural conditions requires resources – indeed a considerable level of investment – which the current basic funding of the WWU does not cover. Therefore, priorities will have to be set in line with the University's strategic objectives should it not be possible to raise additional funding for the planned investment measures.

Digitalisation as a chance and challenge

Nowadays **digitalisation** already permeates virtually all sections of a university. Exploiting its full potential, especially in the core areas of research and teaching, is one of the WWU's development objectives for the next years. To this end, the University aims to improve digital information infrastructures and expand the formats and content of digital teaching and learning, potentially together with international cooperation partners. Establishing structures for support and advice is considered an important centralised task in order to achieve this desired development. In the administrative field, digitalisation has the potential to modernise administrative processes and make them more resource-efficient.

A needs-based infrastructure for communication and information technology is an important prerequisite in order to achieve digitalisation development targets. Especially for a non-campus university like the WWU, which is spread across an entire city, creating and providing such infrastructure measures poses specific challenges. At the same time, digital infrastructures also make it possible to reduce the disadvantages of the spatial diffusion and to create a virtual campus which reduces distances and facilitates interdisciplinary working. For operational aspects, such as family-friendliness or mobility, the flexible use of workplace systems both inside and outside the office plays an increasingly important role. A good digital infrastructure can also give a university the edge when competing against other universities for the best students.

As a result of ever-increasing digitalisation, the WWU faces the challenge of protecting its systems against outages and cyberattacks. Anchoring the issue of IT security in the University's organisational culture is an essential aspect of security architecture. Additionally, technological progress will in future increasingly shorten the renewal cycles of digital infrastructures, which has to be considered when implementing a sustainable digitalisation strategy.

With regard to digitalisation within research, establishing sustainable research data management on the basis of existing high-performance resources for scientific calculations and for data-intensive applications will be a main focus over the next years. All academic disciplines at the WWU will be taken into consideration in this regard, and a differentiated system of infrastructure, services and advice will be put in place for the researchers who work in them. On the basis of preliminary operational experiences and incorporating existing digitalisation measures, the WWU is currently establishing a university-wide infrastructure to create, process, present and archive research data. Combining different functions of research data management will provide a clear benefit for researchers. To enable researchers to make the best possible use of the eScience infrastructures and services, an eScience competence and service centre will be created at the University Library (ULB). It will initially serve as an information and advice point and eventually become a contact point for all questions concerning research data management and digital humanities. If required, external research infrastructures in the fields of the humanities and social sciences shall also be incorporated into this service centre in order to achieve an even greater national and international degree of networking.

With regard to services, the WWU pursues a concept in which the digital services are customised for the specific requirements of the different status groups. The two-layered system of information processing with a centralised and several decentralised IT service providers already in place provides the necessary infrastructural prerequisites. As digitalisation also leads to new challenges, the cooperation between centralised and decentralised IT support in the various disciplines is to be expanded and optimised further.

Concerning infrastructure requirements of study and teaching, considerable efforts have been undertaken in the past years to expand and update the transmission, presentation and recording technology in lecture halls and seminar rooms and to provide the necessary server and memory capacity as well as the required Internet access. The WWU intends to further develop services in the future according to demand and user requirements and will at the very least safeguard the progress already achieved. These measures are specifically aimed at removing access barriers; teaching modules that are accessible at any time and from any place facilitate individual learning, take into account the increasing diversity of the student body and encourage inclusion.

In addition to the technical prerequisites, a focus in the next few years will lie on further developing existing support services for digital teaching, e.g. the central learning platform (Learnweb) or the service of recording and transmitting lectures which is currently being established. The aim is to increase the use and reach of these services. In order to achieve this, the WWU will develop specific support and advice services, in particular for the teaching staff. The Centre for Teaching in Higher Education (ZHL) will be offering an expanded programme of qualification measures on the use of modern information and communication technologies, for example. The newly established ZHLdigital office is tasked with coordinating the centralised activities of the WWU concerning digital teaching. Here, a multidisciplinary team will work on both didactic and technological requirements.

For the administrative field, the introduction in 2014 of an integrated enterprise resource planning system (ERP system) for the areas of purchasing, finance and personnel management has proved an important first step in creating digital processes throughout. The introduction of digital workflows has considerably reduced processing times and thus led to an improved service for all members of staff. Further administrative processes which can be similarly improved by technical support have now been identified. The aim is to reduce media incompatibility and redundancies in existing processes or avoid them completely if new processes are implemented. As resource planning processes are becoming increasingly important, further improvements to this information system are deemed particularly necessary and will therefore be pursued as a matter of priority over the coming years. The introduction of a new campus management system, which began in March 2017 and will be completed within the HEP time frame, is an essential part of this process. These measures form part of the modernisation of the university administration and aim to optimise processes and provide new, state-of-the-art services for students.

In addition, digitalisation will serve to address aspects of sustainability more strongly in the coming years. The use of paper is to be reduced drastically, for example, in order to achieve a largely "paper-free office" in the long term. Establishing an electronic invoice workflow as well as introducing electronic personnel and third-party funding files are intended measures.

In the past few years, the WWU developed its own research information system, CRIS@WWU, in order to document research activities. The database allows members of the University to search for shared research topics and interests across all disciplines. In order to achieve the high degree of interdisciplinarity the WWU is aiming for and in which researchers in both related and non-related disciplines collaborate, this research database is an important tool.

As all universities have to develop strategies of how to utilise digitalisation, this field lends itself to seeking joint solutions together with other universities in many areas of teaching and research as well as for establishing infrastructures, e.g. with regard to purchasing or operating IT platforms. The University is actively engaged in identifying such possibilities for cooperation. One such example is *sciebo*, the cloud storage provider exclusively for university students and staff, in the creation of which the WWU played a decisive role. Considering the current budgetary restraints, cooperating with other universities is an important factor of a sustainable digitalisation strategy.

> University location development planning as an instrument of strategic development

New building projects, the renovation of main university buildings and the development of new, campus-like areas will be part of the tasks and aims of the University in the coming years. Assisted financially by the University Modernisation Progamme (HMoP), almost a dozen large-scale measures to renovate buildings or provide temporary alternative facilities were completed in the last few years. In addition, the WWU has initiated a number of necessary renovation projects from its own funds. Considering the total number of ca. 240 teaching, research and administrative buildings operated by the University, which are spread throughout the city, these projects merely represent a beginning, however. Numerous run-down buildings that no longer provide state-of-the-art facilities for research and teaching, in particular in the natural sciences, have to be renovated and modernised.

In addition to maintaining existing buildings, a particular challenge for strategic facility development planning lies in expediting new construction projects and area development in order to create scope for action to further develop and restructure the WWU as a whole. Large-scale building projects often require the University to invest its own funds on a large scale and thus restrict the University in the long term in how it can set priorities, in particular if these projects involve specific requirements needed for large scientific equipment, for example. At the same time, these long-term plans must be coordinated with overall developmental town planning and existing town planning regulations. To be able to address this large-scale task systematically, the WWU Münster has initiated the university location development planning programme HSEP.

In 2016/17 the University management decided to conduct a full analysis of the current condition of all University buildings together with the faculties, including an overview of space requirements, both current and anticipated up to the year 2025. This data will be used to develop an HSEP for the WWU together with the BLB Münster as owner of the buildings (as well as with the Münster University of Applied Sciences).

As part of the HSEP, a master plan for a period of ten to fifteen years is being drawn up in which all planned measures for the main University buildings concerning both the renovation of buildings and the provision of temporary alternative facilities are listed. This master plan will be used as the basis for discussions with the NRW Ministry of Culture and Science to agree on priorities with regard to new construction and renovation projects so that the necessary planning can start early. The goal is an allocation of facilities which ensures the best possible conditions for research and teaching.

For the coming years, a number of large-scale building projects which are indicative of the University's structural planning and strategic priorities are either at the planning stage or are, in fact, already being realised.

The Center for Soft Nanoscience (SoN) and the Multiscale Imaging Centre (MIC) will be completed in the next two years. These two research buildings were approved by the German Council of Science and Humanities and will considerably strengthen the collaborative fields of nanoscience and cell dynamics and visualisation, also by increasing their national and international visibility. At the interfaces of natural scientific and medical research, scientists from the fields of physics, chemistry, pharmacy, biology, mathematics, computer science and medicine will utilise these excellent research facilities, which will be organised as centralised scientific institutions in close collaboration with the faculties concerned. Both research buildings are being built as part of the WWU's natural science centre, directly adjacent to the Max Planck Institute for Molecular Biomedicine and the Center for Nanotechnology (CeNTech) and in the vicinity of the disciplines concerned.

Under the name "Campus of the Religions", the University plans to complete a construction project by 2022 which will bring together the Protestant, Catholic and Islamic theology within one central building complex. Further centres for non-denominational religious studies will complete the content-based concept of the campus. The Campus of the Religions will serve as a place of study and research for around 1,500 students and 200 researchers as well as house the Faculty of Islamic Theology, which is to be newly created. The new campus library will provide space for around 600,000 books. By locating several disciplines of religious studies in close proximity on one campus, this building project aims to both facilitate interdisciplinary collaborations and also exemplify the significance of these subjects in and for Münster. This project also demonstrates the structure-forming effect of the cluster of excellence "Religion and Politics". Structurally, the building measure will eliminate a large space-related deficit that particularly affects the disciplines of the humanities at the WWU. The over-occupancy of inner-city buildings can be resolved both through transferring sections to the new Campus of the Religions and through the ensuing restructuring of the three faculties. By bringing old and new institutional structures together spatially, the WWU not only encourages interdisciplinary collaborations, but also interreligious discourse, thereby creating an impressive example of religious plurality.

> Ensuring developmental and creative capabilities through governance

The lack of an adequate facility to hold large-scale international conferences and conventions for up to 1,500 participants has been identified as an obstacle to the WWU's efforts to increase its international visibility. Existing conference facilities are unsuitable for this purpose, mainly as they do not provide enough smaller meeting rooms in addition to the large conference halls. The idea of a **Conference and Convention Centre** purpose-built for the University is currently under consideration in connection with a potential **Music Campus.** The latter would combine the interests of the University regarding the artistic and musicpedagogical education of students with the requirements of the municipal school of music and the professional city symphony orchestra in a mutually complementary overall proposal. The aim would be to create a jointly used campus of music with concert halls and an adjoining conference and convention wing. The project is still at the exploratory stage, but it is hoped that implementation can begin within the HEP time frame. Such a project would achieve synergies with regard to the University's strategic facility management development and would also demonstrate the WWU's willingness to engage in municipal development planning for the benefit of both academic and cultural life. In the area of medicine, long-term considerations concerning building and facility management development have also already been made, and they are reflected in the location plans of the university hospital.

Due to the autonomy of higher education in Germany, universities in NRW can now shape their organisational and content-related development to large extent by themselves within the scope of the University's statutory tasks and duties. Since receiving this degree of independence, the WWU Münster has successively adapted its internal organisational and governance structures in order to meet the challenges of this new responsibility and pursue a path of sustainable development. This continuous process enables the WWU to ensure its future viability with regard to the continually changing political and societal framework conditions and challenges.

The WWU is convinced that the intrinsic motivation and engagement of all members of the University are essential for a positive development and can best be promoted through offering diverse opportunities to participate in decision-making. If individual members of the University avail themselves of such an opportunity, this means that they assume participatory responsibility and aim to help the University achieve its strategic goals and complete its duties in the best way possible. The governance approach of the WWU provides an appropriate internal framework to clarify its responsibilities and regulate the interweaving of the various levels of such a complex organisation as a university. This approach is based on the principles of decentralised planning responsibilities, the creation of planning security and the transparency and assessment of information.

The WWU is a comprehensive university with a large number of different subjects and subject-specific academic cultures and, as such, its governance is characterised by a subsidiary structure. Planning responsibility should lie with the individual or body which can best address it in the interests of the University. Therefore, a large part of the responsibility for planning, resources and outcomes lies with the faculties, who are thus given a high degree of autonomy. In close coordination with the central University decision-making bodies, planning frameworks are outlined for the faculties and the teaching and research units, incentives for the pursuit of targets are developed and the degree of individual target achievement is monitored using subjectspecific and verifiable indicators.

Creating planning security for the faculties, for example through short-fall financing guarantees by the Rectorate, is an important prerequisite for innovation and further development in research and teaching, particularly in these times of fixed-term federal and state funding programmes. Planning security enables and indeed requires those responsible for programmes to think beyond the short term.

the WWU to assess the direction and speed of its development on all levels. In view of the increasing competition in the academic system, it is necessary that strengths and weaknesses – also in comparison with other universities – are identified regularly. For this, key figures play a central role as they provide a basis for assessing the central and faculty institutions of the WWU with respect to their needs and shortfalls. In order to use them, a mutual basic understanding of these key figures is fundamental.

On the basis of these principles, the WWU has set itself the task ment should be expanded. of employing its instruments of governance regarding the three pillars of developmental planning, resource management and quality assessment with regard to its strategic goals.

The first pillar ensures that developmental planning is coordinated on all levels and can thus achieve university-wide developmental congruency. The development plans of the individual faculties, in which they delineate both their medium-term developmental goals (between three and five years) as well as their strategic long-term objectives (over five years), play a significant role. Based on these reports, the University plans to hold developmental talks on a regular basis which will serve to better reconcile the developmental aims of the faculty and the Rectorate. Developmental aims, in particular those which support the strategic objectives of the University as a whole and/ or which will clearly lead to the exploitation of existing potentials, will be noted separately in a developmental agreement, and the degree to which these aims have been achieved will be a topic of the developmental talks.

Developmental planning is directly connected to the planning and allocation of resources, in particular with regard to the personnel, financial and infrastructural resources. As a second pillar, the internal mechanisms of resource allocation are to be developed further in such a way that they serve to achieve the developmental goals of the entire University. Competitive measures which take into account the faculties' and departments' previous successes and achievements as well as indicators Finally, transparent and evaluable information is necessary for of demand and quality have proven successful for calculating

> The third pillar shall examine the coherence between university development planning and its use of resources. Evaluations play a role as assessment tools in various contexts at the WWU, for example in course evaluations completed by students. In the past, procedures were also developed and employed that were used to generally assess the development of individual subjects. The role of such comprehensive evaluations for quality assess-

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Creating knowledge and transferring this knowledge into society is an important aspect of public culture and thus an important objective of the WWU. The University has taken the increased significance of this area into account by focusing one of the Vice-Rectorships on international affairs and knowledge transfer.

For the WWU, research and teaching are not ends unto themselves. The University sees itself as a catalyst of societal progress. This means that all persons for whom academic research is ultimately intended have to be included, and this means society as a whole.

As a comprehensive university,
the WWU produces knowledge
which provides an added value
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To transfer this knowledge in
different ways into society and
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respective addressee,
is a central objective
of this HEP.

The WWU wants to meet this responsibility in all sections of society. Thus, one of its goals, as formulated in this HEP, is to further develop its transfer activities. Underlying this objective is an understanding of knowledge transfer that goes beyond a mere economic use of knowledge and instead focuses on bearing a responsibility towards society. In addition to content-related knowledge, a particular focus lies on imparting the cultural-societal relevance of the methods of knowledge acquisition as well as of the evaluation of data and facts. Currently, a number of competing opinions and concepts such as "alternative facts" or the "postfactual" are on the rise, in part due to the digital age. On account of this development, universities are tasked with representing a collective understanding of knowledge and truth as well as promoting and indeed insisting upon the ability to form a rational opinion and to enter into an open-minded discussion, this being the foundation of a modern and pluralistic society.

As a comprehensive university, the WWU produces knowledge which provides an added value for many parts of society. To transfer this knowledge in different ways into society and economy, both understandably and appropriately for the respective addressee, is a central objective of this HEP. It also illustrates the impact the **WWU Münster has in and for the region** as well as beyond it.

> Transfer of knowledge to the surrounding region and beyond

The transfer activities of the WWU will be accompanied throughout by the functional differentiation of knowledge transfer in the area of **science communication** in a narrower sense and the traditional form of communicating academic insights through centralised **press and PR communication**. The strategical organisation of this transfer of knowledge will therefore have to focus on accompanying this current process of differentiation conceptually, make use of the functional differences sensibly, and create and utilise efficient structures and synergies through internal cooperation.

The University will conduct a survey of the various transfer activities occurring at the WWU, and these activities will have to be adapted to the new conceptual understanding of transfer. One closely related measure consists of developing the concept of the WWU **Transfer Prize** and its award criteria accordingly. This measure will be integrated in the comprehensive development of the University's overall transfer strategy so that the necessary conceptual tasks, strategic profile-building and diverse transfer activities can be coordinated.

Since its founding in 1780, the WWU has been an integral feature of the city of Münster. With over 44,000 students, it is the largest educational establishment and with ca. 6,850 academic, technical, clinical and administrative members of staff, it is one of the largest employers of the region. The University cultivates the links between gown and town (and region) and vice versa and intends to expand these links in future.

One example for an active exchange between the University and the surrounding region is the *Expedition Münsterland*, which acts as a bridge between academia and society. In the one direction, knowledge from the WWU is conveyed to the local residents, businesses and communities; in the other direction, the transfer of ideas from the surrounding region to the University is encouraged in line with the motto *Benefit from and be beneficial for the region!* Members of the general public are actively included in academic and science events, in keeping with the concept of citizen science.

For several years now, the WWU has worked together with the University of Applied Sciences and the city of Münster in the **Alliance for Science.** The objective of this strategic alliance is to promote Münster as a leading location for science, research and development. Also, the academic and scientific discourse with members of the public is to be increased, while conveying scientific findings with a practical slant.

In addition to the Botanical Garden, the WWU operates three further museums as showcases of science, namely the Archaeological Museum, the Bible Museum and the Geomuseum. With its extensive collection, the WWU's Archaeological Museum, founded in 1884, offers visitors a fascinating insight into the art and artisanal skills of antique cultures of the Mediterranean region and the Middle East. The entire collection holdings are integrated into teaching and research at the University but are also accessible for the general public and local schools. In addition, guided tours and lectures on various topics as well as events and exhibitions of a museum-pedagogical nature are offered regularly. The Bible Museum tells the story of the Bible from its hand-written origins up to today in a unique degree of depth and breadth. And the Geomuseum is guite literally a mammoth experience. More than 1,500 original exhibition pieces spanning a period of 13.8 billion years are displayed in an exhibition space measuring over 1,300 m².

In line with the concept of life-long learning, the WWU offers educational programmes for all age groups. The range of events for children and teenagers is unique in Germany and covers all school ages from primary school onwards, be it through the Children's University or study days, workshops, seminars and experimenting in **extra-curricular learning environments** such as the experimental laboratory MExLab Physics. The University hopes to get children fascinated by scientific phenomena and pique their curiosity for all things academic in the various disciplines as early as possible. **Q.UNI** provides an overview of all the events that the WWU offers children and teenagers to introduce them to research from a new, exciting and motivating perspective. The WWU also focuses on getting girls interested in STEM subjects, for example by participating in the NRW-wide Girls'Day.

The **Senior Guest Programme** is a further education programme for interested persons of working or retirement age. The participants in this programme do not study with the aim of attaining a vocational qualification but rather for reasons of personal interest and academic curiosity. Regardless of their school-leaving qualifications and without having to follow study and examination regulations, the participants can attend university courses that have been designated as suitable for this purpose as guest students.

With the current trend toward individualised academic career paths, which gained momentum through the transition to bachelor's and master's degree programmes, academic further education has gained increasing importance in our society. In addition, the current knowledge society with its differentiated objectives (e.g. continuing an academic career, expanding areas of competence, bringing knowledge up to date) requires flexible and target group-oriented further education programmes. Via the Münster University Continuing Education programme and the JurGrad gGmbH, the WWU offers a variety of further education programmes for professionals in different vocational fields, which all incorporate up-to-date research. The Münster University Continuing Education programme offers an extensive range of further education programmes for teachers in particular.

Through the Innovation Office (AFO), the WWU initiates and promotes collaborations between academia and business. It supports the transfer of research, technology and personnel from the University into practical application, advises the founders of start-up ventures, publicises the potential of achievements and research of the WWU and thus overcomes disciplinary and geographical barriers. Research transfer – in the sense of technology transfer – means making products developed by the WWU available to industry. However, our understanding of transfer goes beyond this – the technology is to be made accessible and understandable through specific methods of communication.

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The exchange between the WWU on the one hand and industry and the general public on the other is not a one-way street and should be characterised by inquisitiveness, openness and mutual respect. This in turn reduces barriers between the academic and non-academic world and bridges the divides which currently exist. In this way science and society can form a mutually beneficial relationship.

In the field of **start-up funding**, the European Research Center for Information Systems (ERCIS), which belongs to the Department of Information Systems at the WWU, established the ERCIS Launch Pad in 2008 in cooperation with the Technologieförderung Münster GmbH. It is an annual competition for persons who have founded or are planning to launch a start-up concerning interesting ideas for IT products or services. There are prizes for the best overall concept as well as the most promising business model for the region of the Münsterland (Münsterland-Mittelstandspreis). Furthermore, the WWU participates in the transregional network **Digitale Wirtschaft NRW (DWNRW)**, which is funded by the NRW Ministry for Business, Innovation, Digitalisation and Energy and whose competence centre, the **Digital Hub münsterLAND**, is located in Münster.

> Science communication

In the field of science communication, the WWU is already well positioned on account of the existing clusters of excellence. In this regard, it offers the ideal conditions for more intensive basic research within science communication.

However, science communication does not only occur within the clusters of excellence but also within other research collaborations and individual faculties. In order to stabilise and strengthen this very positive development, it is necessary to implement support measures customised to the individual faculties and their academic cultures. In order to promote science communication, the WWU aims to incorporate it more intensively in the teaching content at the doctoral student level and emphasise it as a professional field. On the one hand, it concerns teaching practical communication skills with various target groups in the public sphere, and on the other, underscoring the importance of systematic self-reflection with regard to one's research location and discipline in relation to society. Such instruction in science communication and the systematic promotion of science communication and knowledge transfer is best based on intensive fundamental research into science communication itself. An important first step in this direction will be to facilitate research into the various existing activities in this area. Such research can shed light on what potentials already exist in this area, what additional measures are necessary and how these can be put into practice at the WWU. In addition, it can provide fundamental insights which generally apply to issues outside of the WWU context and address the challenges and problems inherent in the communication between academic science and the various parts of society.

In addition to taking inventory of all current activities in the field of science communication, a further measure consists of connecting all the science communication activities that already exist. This will make participatory processes easier and enable the creation of a general infrastructure for the area of transfer. For all of these measures, the appreciation of diversity is a basic attitude that is to be encouraged at the WWU and within society as a whole. A stronger connection between science communication – in the narrow sense described above – and PR work shall demonstrate this attitude and facilitate an efficient development of existing institutional structures. Forms and forums of networking that the WWU already employs are to be harnessed and developed further to this end.

In addition, the WWU in future aims to integrate possible transfer activities into the application stage of (large) research projects already, which could be facilitated through the provision of a transfer text block for research grant applications, for example.

> Press and public relations

One measure which applies specifically to the area of press and PR work concerns increasing the intensity of the exchange. This refers in particular to the exchange within the various central and faculty structures of the WWU such as the press spokespersons.

One way to familiarise academic staff with transfer work is through media training programmes already established at the WWU. The second PR-related measure consists of professionalising this training. Building on the extended connection with traditional science communication, innovative approaches can be developed which both familiarise academics with transfer formats and encourage participatory societal processes. Transregional and international press work should also be emphasised more strongly.

> Transfer/"Third Mission"

In order to adapt its target-oriented transfer activities to a changing transfer landscape, the WWU intends to develop its **transfer strategy** further. The underlying aim is to have the WWU play a more active role in civil society both within the region and beyond. One approach is the orientation described in the chapter "living.knowledge.research" concerning large-scale interdisciplinarity, in particular the addressing of important societal challenges to which the WWU is actively contributing solutions.

This will be supported through the **re-orientation of the Transfer Prize** in accordance with the expanded meaning of transfer. Since 2002 the WWU has used this prize to recognise outstanding achievements by members of the University in the field of research transfer and academic collaborations with non-university partners. These partners include businesses, local councils, associations, trade unions, political parties and churches. Entrepreneurs from the WWU currently in the start-up phase of their new companies are also eligible to win the prize in connection with their affiliated institutes.

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