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University of Vienna 2020 Development Plan

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Development Plan

Upon the Proposal of the Rectorate
Following Consent by the Senate of the University of Vienna on 22 January 2015
Unanimously Approved by the University Board of the University of Vienna on 23 January 2015

Contents

1. Preamble

In today's knowledge societies, universities are vital for the country's social, economic and cultural development. This applies in particular to the University of Vienna: it is, after all, by far the largest university in Austria, providing the widest range of subject areas. The University makes its contribution by qualifying future academics for all spheres of society and by conducting internationally oriented and visible research activities. However, in its capacity as Austria's largest teacher education institution, the University of Vienna also exerts substantial influence on the secondary education of future generations.

Owing to the autonomy it was granted by the 2002 Universities Act, the University of Vienna has been able to undergo many positive developments in recent years. The University has substantially increased the number and impact of its published research findings and also the amount of third-party funding it has attracted and the research awards it has won. The number of enrolled students and also graduates has grown considerably in many degree programmes. Despite these successes, the University is confronted with a shortfall in the financial resources necessary to adequately cope with the demands resulting from the increasing number of students. This has led to an unsatisfactory situation regarding the student-teacher ratio in some degree programmes, but it has also affected the capacity to acquire new equipment and infrastructure, especially for research, and also increasingly in the area of buildings. This *Development Plan* will illustrate this problem by comparing the financial situation of the University of Vienna with that of other universities abroad which have similar duties and responsibilities. Additional investments and funding above the rate of inflation are required so that Austria and the University of Vienna in particular can compete with those countries which are increasingly investing in the areas of research and tertiary education. As the basis of the performance agreement, this *Development Plan* explains how the University of Vienna will face the upcoming challenges.

This *Development Plan* sets out the guiding principles for further development and lists the basic measures which need to be taken. As the *Development Plan* has been approved by all of the governing bodies of the University, it forms an important basis for the work of the University's decision-makers. With regard to research, the *Development Plan* defines a dynamically evolving profile and emphasises basic research that is open to application, expansion into new areas of research and also interdisciplinarity as unique features of the University of Vienna. Thanks to the particularly wide range of subjects available at the University of Vienna, it is in a good starting position to take advantage of the opportunities provided by the EU research programme Horizon 2020. Following the principle of combining teaching and research, these features need to be primarily translated into interdisciplinary master's programmes. The Bologna framework will be used to ensure greater vertical and horizontal mobility. At the same time, the University will continue to improve the quality of its doctoral programmes. For bachelor's and diploma programmes, framework conditions need to be established that enable more satisfactory student-teacher ratios.

With its research, the University of Vienna seeks to have an impact on society. In the field of research, this will be done in particular by educating innovative young people for the economy and society, by dealing with socially relevant issues, by

presenting research findings to the general public and also by means of increased knowledge transfer activities and cooperation projects with the economy.

The University of Vienna has committed itself to quality assurance in all of its fields of activity. Competition plays a major role in this context. However, the University also aims to strike the right balance between competition and cooperation, both within the University and in its relationship with other educational and research institutions.

The success of the University is built on the loyalty and the commitment of all its members. It is in this context that the University endorses a policy of equal opportunities and opposes any form of direct or indirect discrimination.

To reach the objectives presented in the *Development Plan* it is necessary to maintain the legally guaranteed autonomy and continue the trusted and smooth cooperation between the different governing bodies and organisational levels of the University. Additionally, all members of the University need to be appropriately integrated into the decision-making process by making use of their expert knowledge. Above all, to achieve its objectives, the University needs sufficient and sustainable funding with the aim in the foreseeable future of at least coming closer to teaching capacity-based funding and also covering the full costs of the University's research activities.

This *Development Plan* is based on the *Development Plan* 'University of Vienna 2015'. Many of the topics, basic assumptions and stances it contains remain relevant and are therefore included in this *Development Plan*. Objectives need to be adapted to changing framework conditions and developments in the university environment while taking the experiences gained in recent years into consideration.

The *Development Plan* specifies basic lines of action for the specific activities of the University's bodies and therefore, in particular, creates the framework for the performance agreement for the years 2016 to 2018. Specific measures within this framework depend on the framework conditions at the particular point in time. With regard to the set priorities in particular, these depend on the available funding and infrastructure in the next performance agreement period.

2. The Tasks and Role of the University of Vienna

The University is the place where knowledge for the present and the future is developed, passed on and critically reflected upon while guaranteeing the principle of freedom of research and teaching. In its research activities, the University contributes to the acquisition and development of knowledge and consequently to the answering of questions of societal relevance. In its teaching activities, it develops the students' ability to absorb academic knowledge, to apply scientific methods to identify and solve problems, and to make discoveries and inventions beyond the current level of knowledge.

Universities are an integral part of the basic institutional structure of modern knowledge societies, and they need to be provided with the means to fulfil their role. Political decisions about the funding and organisational framework conditions of universities are influenced by public opinion. Accordingly, communication about university-related topics with the non-university public is of particular importance in the difficult economic and political environment of our time. The history of the University of Vienna contains a wealth of examples of the significance of university-based research for a country's social, cultural and economic development. To raise interest in recent research and current degree programmes, and to deepen the understanding for the importance of universities, communication with the broader public is of vital importance. In this respect, the 650th Anniversary of the University of Vienna will mark a special occasion.

The University of Vienna

- is committed to the principle of social responsibility in teaching and research and sets itself the goal of imparting academic, intellectual and profession-oriented qualifications to students so that they are able to make a contribution to the further development of society; in research, this is achieved by conducting high-level basic research open to application, and which also helps enhance the country's economic competitiveness through cooperation projects with business and society;
- is committed to contributing to the preservation of cultural heritage;
- is committed to intensive communication with the general public;
- is committed to the highest international quality standards in all of its activities;
- is committed to the principle of optimising its in-house organisational structures and allocation mechanisms to ensure the responsible use of resources supplied by the state.

2.1 Research at the University of Vienna

The University of Vienna is a research university with a high international profile. It is conscious of its roots – in particular local traditions – and at the same time understands research as a challenge that goes well beyond its location. In this regard, and as the largest institution of the tertiary sector in the German-speaking countries, it strives to maintain its historically grown tradition where it has proved successful and, at the same time, to venture into new and innovative research fields.

The University of Vienna is committed to basic research open to application and, through its research activities, to the necessity of contributing to the acquisition of academic knowledge and to the solution of major societal challenges. Another goal is to attach appropriate importance to

application-oriented and applied research in line with the possibilities of the subject area. In this way, the University of Vienna aims to play a more active role in the innovation process and, in this context, sees as one of its tasks the training of young people for business and society who have the key innovation competence to identify and analyse problems properly and to contribute to solving them. In research-led courses, students are taught cutting-edge research and open-mindedness to future issues.

The innovation spectrum from basic research to utilisation of research results is not a linear process with clearly defined 'responsibilities'. Interaction with practice triggers important questions and provides stimuli for the further development of knowledge, and new issues for basic research can emerge from the application of research findings. Application-oriented research also plays a role in teaching and preparing graduates for their professional career. Only if University and society embark on a process of open dialogue will solutions to the major challenges of our time be found. This will create the required innovative drive to enable participation in the next development step of the industrial revolution, 'Industry 4.0', for instance.

The University of Vienna is committed to addressing the challenges of the current EU Framework Programme Horizon 2020, which aims to impact on society even more than previous framework programmes and which – in particular in the Societal Challenges pillar – requires the solving of complex current problems by the adoption of research approaches from different perspectives. The historically developed wide range of subject areas is a particular strength of the University of Vienna, which – combined with openness to application and the willingness to cooperate – guarantees its position as an attractive partner in international research projects.

To give the University a distinctive profile is an important precondition for attracting talented students, committed and excellent employees, as well as sufficient financial resources. As part of defining its profile, the University is therefore obliged to reflect critically on its strengths and weaknesses in order to enhance its competitive capability at the international level. At the University of Vienna, the research profile is developed on the basis of the research performance of individuals and smaller groups of academics in a competitive process and by the integration of external view-points. Through dialogue with the international academic community, with business and society, a major impetus is channelled into the development of the research profile. Major aspects of this profile are interdisciplinary cooperation based on highly qualified disciplinary research, the requirement of tackling the urgent problems of our times, and the objective of pushing forward into research fields that have not yet been universally recognised.

Currently, the University of Vienna is merging its fields of strength in over one hundred key research areas in the faculties and is additionally boosting them by setting up interfaculty research platforms and research networks together with faculty research centres. The *Development Plan* still does not specify key research areas for the entire University, but – from the University's perspective – competitively acquired third-party funding, renowned research awards and international research cooperation are an expression of strengths which can increasingly be considered in the formation of special focuses in future research.

The University of Vienna

- is committed to its historically developed diversity and regards this as a resource for top-quality research and teaching;
- is also committed – alongside its obligation of acquiring academic knowledge – to contributing to the solution of the major societal challenges through its research activities;
- is aware of the necessity to encourage the resolute observation of ethical principles and to oblige its members to commit to the principles of good academic practice;
- is committed in its research activities to increasingly entering into dialogue with business and society as well as taking on an active role in the exploitation of research findings;
- is committed to critically analysing its strengths and weaknesses as a prerequisite for quality in research, teaching and study;
- regards the development of its profile as an inherent process of renewal and adaptation to changing conditions which help make the University's identity recognisable both internally and in the world outside.

2.2 Studying at the University of Vienna

It is one of the core tasks of a university to pass on knowledge to its students and to act as a place of learning. In more than 180 degree programmes, the University of Vienna provides an opportunity for its students to acquire knowledge and methodological core competences as well as to process what they have learnt in the course of their studies and in the form of academic work under the guidance of academics.

In this connection, the University is a place of diversity in terms of disciplines and their research and teaching methods. Students and teachers are partners in a joint process of learning and teaching on the basis of research-led teaching. Studying at the University of Vienna is marked by individuals of different origins, of varied cultural and social backgrounds and experiences meeting each other and working together. The diversity of students and teachers is an important asset for the further development of research and teaching. The variety of research areas and academic doctrines should be reflected in the range of courses.

The University of Vienna supports its students on their way towards graduation so that they are prepared – as well-qualified, methodologically adept graduates who are able to think independently – for the requirements of the world of work in general and for the academic labour market.

A university-based study requires a high degree of self-organisation and perseverance from students. It aims to demand and encourage students' personal development. The University seeks to guarantee that full-time students complete their studies within the standard duration of the degree programme; reconciliation of work and care obligations while studying part-time is, as far as possible, supported by providing flexible teaching formats.

In addition, students should have the possibility to select special emphases during their studies. This requires the available teaching resources to be used carefully because sufficient funds and personnel need to be ensured for compulsory subjects before elective courses are set up. In the current funding situation, it is not possible to guarantee ideal study conditions in all degree programmes. In some areas, capacities – in terms of standard international student-teacher ratios – have been exceeded.

From the beginning and throughout their studies, students are supported with information and advice, the services should be geared to the needs of the students – administrative processes need to be improved continuously.

The University of Vienna

- is committed to the principle of research-led teaching as a part of its profile;
- sees high value in the diversity of subjects provided as part of its degree programmes, and aims to develop new programmes that are attractive to prospective Austrian and international students by interlinking academic disciplines and forming special focuses;
- offers courses which are continually subjected to quality control;
- expects its students to work intensely on the subjects provided. It takes into account the external framework conditions of studies (employment, home care obligations) as far as possible;
- strives continuously to improve the study conditions in order to intensify cooperation between teachers and learners;
- considers capacity-oriented funding the necessary basis for improving the student-teacher ratio;
- will adjust its administrative processes and support services even more than before to the requirements of teaching and the members of the University.

2.3 The University of Vienna in Business and Society

Society not only expects universities to carry out their tasks in research and teaching but also increasingly to intensify their 'social commitment' (the Third Mission). An open, democratic society and its power of innovation depend to a considerable extent on the educational attainments of its population; highly qualified university graduates are essential for the competitiveness of a particular location.

Also because of the added value created by the University of Vienna – some € 1.1 billion a year – and in its capacity as one of the largest employers in Vienna, the University of Vienna plays a major role in our city and has a decisive impact on the quality of this location. In this respect, the University of Vienna sees itself as an international university which aims to be visible worldwide with its research achievements and attractive far beyond the Vienna area with its range of courses. Thanks to this profile, the University of Vienna is an important driver of innovation for the region, for Vienna and Central Europe.

The University of Vienna

- is an interesting and attractive cooperation partner for business and society owing to high-quality basic research;
- regards the transfer of knowledge to business and society as an important task which complements its core tasks of research and teaching;
- aims to foster continuing academic education and training in the sense of lifelong learning;
- will continue to demonstrate, through its communications, the importance of academic knowledge for all spheres of life and work as well as for economic and social developments.

2.4 The Internationality of the University

Research leads to insights with a validity that is not limited to individual regions or states. Knowledge is international. From the tradition and self-image of the University of Vienna there comes the objective of being an internationally visible and attractive university which can hold its own in the international competition for staff, students and research funds and is seen as a stable, attractive partner in cooperation projects. Here internationalisation is not an end in itself for the University of Vienna but rather an instrument of comprehensively conceived quality assurance and for increasing the quality of research and teaching.

The University of Vienna is committed to its local roots as well as its international orientation. Accordingly, its academics publish in languages appropriate to their respective academic fields in the international context in order to guarantee international visibility. The international orientation is propagated by its employees and students, and manifests itself through their participation in the international competition for resources. The composition of its staff and student body is also highly international. But it also participates successfully in international research programmes and boosts its students' international orientation. Finally, publications in internationally recognised journals and books as well as the impact of research achievements published by scholars at the University of Vienna, which is also expressed in particular in citations, demonstrate that the University has gained in international visibility in recent years while enhancing its quality and reputation, which is an ongoing process.

The University of Vienna

- regards its international orientation as a major resource for cooperation and competition;
- actively strives to establish new cooperation schemes with internationally attractive academic institutions based on existing cooperative relationships between particular areas or individuals;
- is committed to further increasing the international visibility of its achievements in research and teaching;
- regards the successful application for international third-party funds, particularly those from competitive EU research funding programmes, as an expression of its competitiveness;
- continues to promote internationalisation in terms of personnel and students;
- is committed to linguistic diversity in academic communication as an expression of its open attitude towards the globalisation of science and education.

2.5 Autonomy, Competition and Cooperation as the University's Principles of Configuration

University autonomy, which was created by the 2002 Universities Act and is also far-reaching in comparison with other European countries, has opened up new room for manoeuvre for universities and – in the opinion of the Austrian Science Council – has also contributed to a marked improvement in performance. Of key importance here is the autonomous specification of the research profile, degree programmes and study contents. The organisational autonomy makes it possible to design the internal structure based on academic aspects and also to respond flexibly to new societal and political challenges. The financial autonomy, in turn, enables the University itself, within a three-year global budget that is negotiated as part of the performance agreement with the Federal Government, to define its own ways of meeting general objectives that have been defined jointly with the Federal Government. Staff autonomy, particularly regarding appointments to professorships and tenure track positions, is also decisive for the University's international competitiveness.

Autonomy is a term which – in addition to being applied to the relationship between the University and the Federal Government – also implies that it is passed on appropriately within the University itself as part of a culture of reconcilability. And autonomy implies responsibility and accountability towards society.

In a similar way to the question of the balance between university autonomy and the safeguarding of the state's interests, there is also the question of the relationship between competition and cooperation within and between universities.

The emergence of the European Education Area as well as globalisation in education and research have increased the mobility of students as well as academics. Universities are therefore competing more than ever for the best students and excellent academic and administrative personnel at all levels.

Even though the high number of prospective students and the available capacity do not at present correspond in some areas of the University of Vienna, it is one of the University's major concerns to attract students with a high level of motivation and commitment, especially for its master's programmes (also as a link to doctoral studies) and for its doctoral programmes. This means that the University of Vienna is competing for prospective students and aims to be attractive in their competition for study places. Simultaneously, the University of

Vienna is strengthening its efforts to attract motivated bachelor's and diploma students by implementing an introductory and orientation period during the first semester of each bachelor's programme, with the aim of enhancing opportunities to complete the programme successfully within an appropriate period of time. At the same time, the University of Vienna is highly interested in further developing national and international forms of cooperation in teaching that are beneficial to all partners and clearly improve the quality of the range of available degree programmes.

The University of Vienna is seeking to offer its academic staff a sound academic environment, appropriate working conditions as well as the necessary resources, albeit supplemented by third-party funds. This and appropriate remuneration are important for attracting and retaining academic employees. The University of Vienna competes with the business sphere and the administration for committed administrative staff equipped with the competences required by an autonomous university in a difficult economic environment. In order to be able to meet this challenge, good working conditions and better chances of career advancement within the University are provided by the University.

In the future, research will depend on additional external funding even more than in the past. Due to the international peer review associated with this process, applying for external research funding also constitutes an element of quality assurance. The University of Vienna is already very successful in the competition for resources provided by the Austrian Science Fund (FWF); more resources for the FWF, which is still underfunded in comparison with Switzerland and Germany for example, are also necessary for competition under fair conditions. A gradual transition to full cost funding of its projects would constitute an additional objective. Based on the high research output of the University of Vienna's academics and aided by the support structures that have been established and now need to be developed further, it can be expected that the series of successes in the acquisition of ERC grants can be continued. In the area of EU funding, new challenges arise due to the Horizon 2020 programme.

Owing to the wide range of degree programmes and research topics in the university sector it is vital to strike the right balance between competition and cooperation. Therefore the University of Vienna cooperates in research and teaching with universities and non-university research institutions in the Vienna metropolitan area and beyond.

Cooperation schemes with businesses and other external partners need to be expanded for the benefit of both sides.

Within the University, the allocation of funds based on performance and success criteria has proved its worth. Another complementary criterion could be cooperation with external partners and its expected impact.

The University of Vienna

- regards the maintenance and further development of university autonomy as a major prerequisite for reaching its objectives;
- strives to further improve its competitive position in the national and international comparison of research universities; it calls on policy-makers to support the University in this process and gradually reach the objective of providing 2 % of the GDP for tertiary education by 2020 – an objective which has been set out several times but also postponed repeatedly by the political sector in the past;
- promotes the acquisition of competitive third-party funds as a necessary element of financial resources provided by the state but also as a stimulus to improve research: in this vein it will further develop in-house support structures to plan, attract, manage and bring third-party-funded projects to account;
- is committed to competition within the University as an instrument to adequately allocate its resources;
- cooperates with international and national educational institutions in the field of teaching with the objective of further improving the quality of its degree programmes;
- is willing to cooperate in the field of research with universities in Austria and abroad but also with non-university institutions, in particular with the Austrian Academy of Sciences (ÖAW).
- strives to improve cooperation with industrial and services enterprises as well as intensify knowledge transfer.

2.6 The University Members and their Contribution to the Joint Shaping of the University's Future

The University sees itself as a community of academic and general staff as well as students. The fulfilment of the University's tasks in research and teaching is ensured by the best possible joint efforts of these groups.

This community is of vital importance for the University's success in research and teaching. The commitment and performance of its members represent decisive prerequisites for an attractive and competitive university, which is why their satisfaction with their immediate and institutional working environment is of major importance. Without the extraordinary commitment of its employees, the University would not be able to fulfil its tasks under the current financial conditions. Their loyalty to 'their' University and 'their' academic discipline represents an indispensable success factor which cannot be valued highly enough. This identification with the University and its tasks is the basis for a participation which is aimed at jointly shaping the future of the University and which is characterised by dialogue as well as joint problem-solving. Mechanisms of in-house communication create ways for the expert knowledge of the University's members to be integrated and considered in decision-making processes while striking the right balance between broad participation in the preparatory phase and efficiency in the final stage of decision-making processes. The focus is on taking informed and sound decisions rather than adhering to formal procedures; in this connection the role of faculty, centre and studies conferences has now been strengthened in the latest *Organisation Plan* of the University of Vienna, following a comprehensive evaluation of the organisational structure.

The University is also a place of lifelong learning for its staff. It creates the framework conditions to enable advantage to be taken of the associated opportunities and make the University, in this respect too, a forward-looking place of work.

The University is an expert organisation. This implies that many of its staff are experts in solving internal problems as researchers in their specific fields. It also implies that the principles to be applied in the academic world should also be the guiding principles in the running of the University. This is what makes the University an extraordinary place of work.

The students play an equally central role for the University. It is one of the core tasks of the University to pass on knowledge to students and to act as a place of learning. At the same time, research and teaching benefit from the contributions and ideas of the students. The degree programmes of the University of Vienna are currently in great demand, and this underlines their attractiveness. However, because of excessive student enrolment it is not possible to provide ideal study conditions in all fields of study. In some areas, the available fundable capacities have been greatly exceeded. It is one goal of the University of Vienna to further enhance the study conditions in teaching and the administration of studies. Here, the University of Vienna, with 30 % of all the students in Austria, but only 15 % of the overall government budget for this sector, is faced with a daunting task. In order to achieve sustainable improvements in teaching and supervision, the University needs considerably more funding.

The University of Vienna continually monitors the employability of its graduates. In teaching, the University's key objectives are to allow students to pursue their studies without delay and provide high-quality content. Furthermore the University seeks to position its graduates successfully on the national and international labour markets. Graduates who remain in contact with the University as alumni/alumnae are a good indicator of the successful implementation of these principles.

The University of Vienna

- regards as a major objective the improvement of working conditions which plays a key role in enhancing the satisfaction of employees;
- seeks, through constant improvement in its teaching and study conditions, to raise the level of satisfaction among the students and increase the chances of success in their studies. At the same time students are expected to be aware of their own responsibilities and to use the available resources efficiently;
- benefits from the knowledge and commitment of its staff and regards the participation of its members in evidence-based consultation processes as necessary and welcome support for the decision-making by its governing bodies;
- is committed to the principle of lifelong learning for all the University's members and creates the prerequisites for its implementation;
- considers the establishment of an enduring relationship with its students and graduates as important for the University's further development;
- regards itself as an expert organisation striving to use scientific reasoning also as a means to solve problems not directly connected to science.

2.7 Equal Opportunities for all Members of the University

Students and employees of the University of Vienna form a community of individuals of different age and gender, as well as divergent social and geographic backgrounds, and people with disabilities. They are characterised by different life situations, experiences, views and competences. This diversity is seen as an advantage and guarantee for teaching to be attractive and research competitive. But the diversity also needs to be cultivated and taken into consideration as far as the distribution of opportunities within the University is concerned. The principle of equality of opportunity in all areas of the University needs to be applied here. This also refers to the application of teaching and examination methods which take into account the individual possibilities of students with disabilities. Various information and training formats aim to inform teachers about these possibilities.

University members treat one another with mutual respect and understanding of each other's differences. They avoid any behaviour which runs counter to this principle.

In recent years, women have increasingly participated in many areas of research and teaching at the University. Nevertheless the objective of raising the participation and the share of women in many areas as well as ensuring a gender-sensitive approach in research, teaching and administration continues to be among the University's most important principles of configuration. Creating appropriate framework conditions so that professional careers or studies can be better reconciled with family-related tasks is an objective from which women and men can and should benefit equally.

The University of Vienna

- regards the diversity of staff and students as an opportunity and potential for the development of the University;
- is committed to the principle of equal opportunities;
- strives to guarantee a climate of respect for differences and diversity among all members of the University;
- strives to eliminate any objective disadvantages and to reduce subjective prejudices, while taking active measures against any direct or indirect forms of discrimination;
- undertakes target group-oriented measures to improve the equality of opportunity for staff and students who belong to disadvantaged minorities;
- emphasises the importance of gender equality and the necessity to increase, wherever necessary and possible, the number of women and their

participation in all spheres of the University;
- improves the opportunities of female academics to successfully pursue an academic career, particularly in the postdoctoral phase until their appointment as professors;
- is committed to the urgent task of creating proper working conditions for employees with home-care obligations.

2.8 Quality Assurance

The highest quality in research and research-led teaching is the primary objective of the University of Vienna. Quality assurance is an inherent task of all university members, irrespective of whether or not special instruments are available for the specific purpose. The reflection and agreement on what constitutes quality in research and teaching and administration, self-assessment of their own performance, and continuous striving for improvement are established practice at the University of Vienna.

The processes applied at the University of Vienna in research, teaching and administration are oriented towards international quality standards. It is in this vein that the quality assurance system of the University implements a number of evaluation procedures, such as: the periodic evaluations of all faculties, centres and service units in the form of a comprehensive evaluation, feedback mechanisms for students, continuous improvement of the assessment of research and publication achievements, and also quality assurance in the process of hiring new staff, especially with regard to the recruitment and appointment of professors and tenure track academic staff. The University of Vienna sees the compulsory audit of its in-house quality assurance system (quality audit) and related results as an opportunity for development and improvement.

The University of Vienna

- understands quality assurance as a task and concern of all the University's members;
- continuously develops its quality assurance system and the related processes, taking into account experiences with existing instruments, recommendations from the quality audit and international developments in the field of quality assurance;
- regards the findings of quality assurance as the basis of its decision-making and allocation processes;
- will continue to use specific quality indicators that have been developed for the administrative sector to achieve continuous improvement in all processes.

3. Starting Point

3.1 Research at the University of Vienna

The University of Vienna is a highly visible university with a strong research profile, and it has to cope with the special challenge of delivering top research achievements under enormous budgetary constraints. The comparison with other internationally renowned universities makes this sufficiently clear. On top of that, the University also has to face the fact that in some disciplines it is a 'mass' university with all the consequences for its research and teaching that result from this situation.

The improvement in research performance is evidenced not only but especially by the steadily increasing number of renowned research awards conferred on scholars of the University of Vienna. As many as 29 of the distinguished ERC grants, for example, which have been conferred since 2007 by the European Research Council in a highly competitive procedure, were acquired by academics of the University of Vienna. In comparison, at the beginning of the previous development planning process in 2011 they had been awarded 17 further ERC grants. As well as the reputation associated with the awards, which leads to significant international visibility for the award winners and their institutions, the projects – each of which has a budget of up to € 2.5 million – make a considerable contribution to the third-party funding of the University of Vienna. The 29 ERC grants, for example, have a total approved project volume of approximately € 42.3 million. The ERC grants have been conferred on academics who are active in many different subject areas ranging from life sciences and quantum physics to mathematics and the humanities. The University of Vienna is confident that it can continue to exploit its potential in the field of ERC accordingly.

But the University of Vienna has also been very successful at the national level. Since 2005, 19 START Prizes have been awarded by the Austrian Science Fund (FWF) to academics of the University of Vienna, and as many as five of these in the development planning period 2012–2015. These prizes, each of which is worth up to € 1.5 million, are awarded to top young researchers of all disciplines with the goal of setting up a working group. Together with the 76 Elise Richter and Hertha Firnberg positions that have been funded since 2005, these national funds make an essential contribution to the career development of young academics with excellent qualifications at the University of Vienna.

Academic prizes and grants for young scholars

ERC grants	29
START Prizes	19
Wittgenstein Awards	3
Elise Richter Programme	41
Hertha Firnberg Programme	35

Table 1: Number of academic prizes conferred on academics of the University of Vienna and highly competitive grants for young scholars acquired between 2005 and 2014. ERC grants are a programme category that was newly introduced under the 7th EU Framework Programme and continued in Horizon 2020 with the objective of promoting outstanding and pioneering basic research. Due to their selection procedure and high funding volume, ERC grants are considered the most distinguished academic prizes of the EU. The Wittgenstein Award is Austria's highest science award. With the START Programme, the FWF helps top young researchers of all disciplines set up a working group. The Elise Richter and Hertha Firnberg Programmes are career development programmes for female academics with excellent qualifications.

The number and budget of third-party funds acquired in competition with other Austrian and foreign universities and research institutions testify to the success and competitiveness of the University. In the field of third-party funds, research funding competitively acquired in FWF and EU programmes in particular was further increased in comparison with the previous development-planning period (FWF) or stabilised at a high level (EU). Successfully acquired EU projects in which up to 30 international partner institutions are involved also constitute good benchmarks for the integration of the University of Vienna's researchers into networks in the European Research Area. In the future, not only because of the clear underfunding of the FWF in comparison with international sources of funding, the EU's third-party funded projects will become increasingly important.

Development of third-party funding in € m

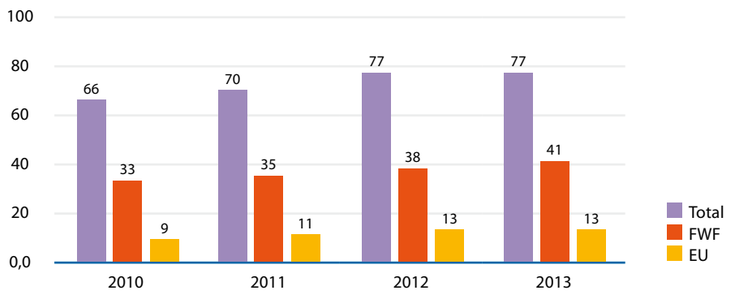


Diagram 1: Development of third-party funding according to the *Wissensbilanz* (intellectual capital report) in € million.

The visibility of a research university is manifest not only in its participation in international projects but also particularly in the cooperation schemes it enters into with other renowned national and international research institutions. As shown by a graphic presentation of cooperation projects in Diagram 3, there are strong links to the universities in the Vienna area (especially to the Medical University of Vienna, the Vienna University of Technology, and the University of Natural Resources and Life Sciences, Vienna). In addition, the academics cooperate and publish jointly with colleagues from distinguished international establishments such as Duke University, the Johns Hopkins University and the Institut National de la Santé et de la Recherche Médicale (INSERM) in France, all of which are cited very often, which further underlines the academic reputation of researchers at the University of Vienna (see Diagram 2).

Cooperation projects ranked by citations per publication 2008-2013

(top 20 institutions with at least 30 joint publications)

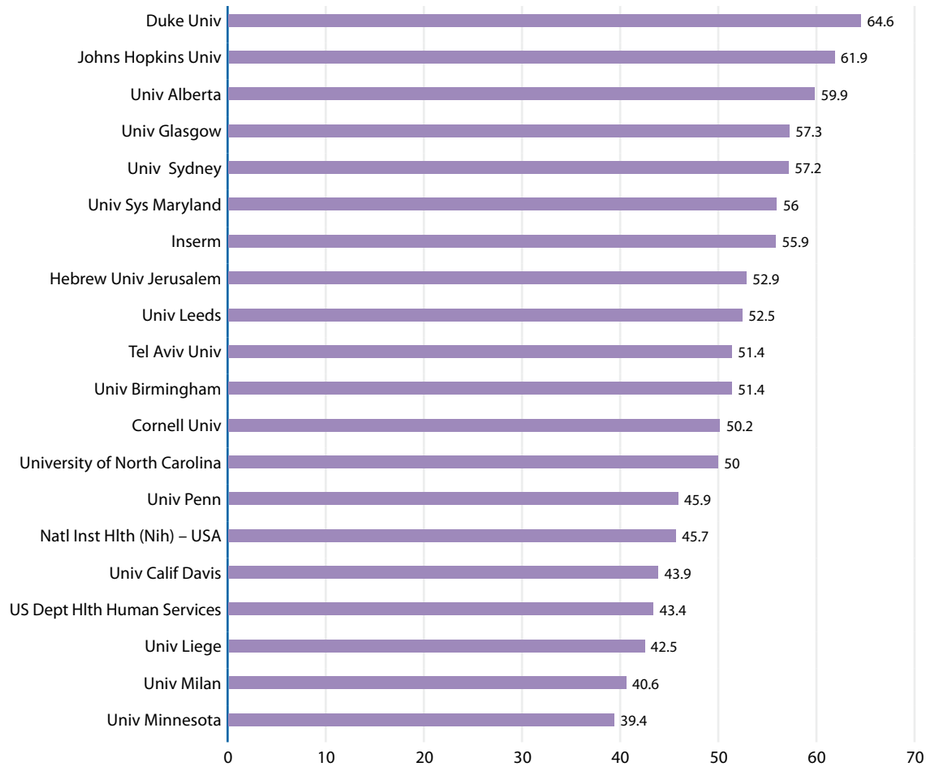


Diagram 2: Cooperation projects of the University of Vienna with other institutions ranked by the average number of citations of joint publications ('average cites per document') in the Web of Science for the period 2008 to 2013. Institutions with at least 30 joint publications were ranked. Source: Web of Science, as of September 2014.

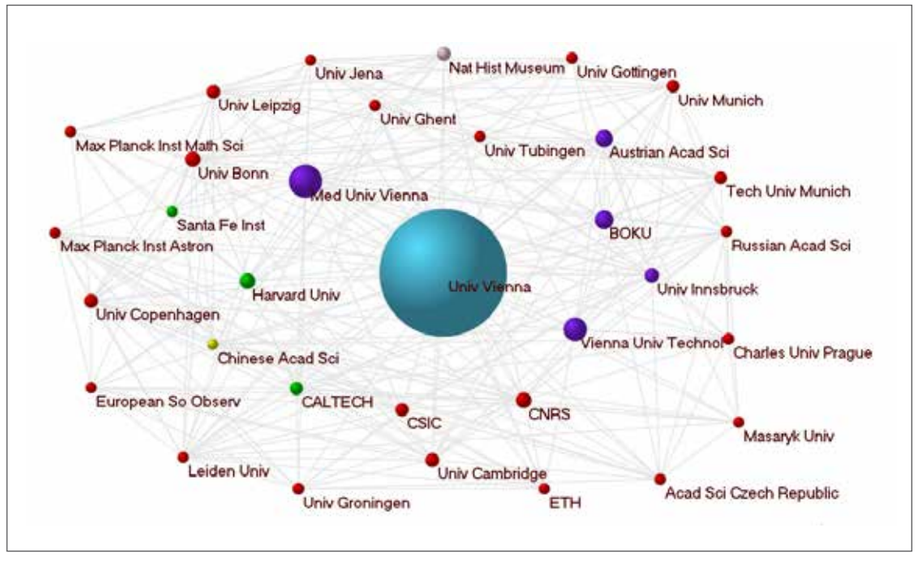


Diagram 3: Graphic presentation of cooperation projects entered into by the University of Vienna for the year 2013, based on the documents listed in the Web of Science with affiliation to the University of Vienna and other national and international institutions. The bigger the dot, the more joint publications were listed in 2013 in the Web of Science. National cooperation schemes are violet, European ones red, cooperation projects with China yellow, and cooperation schemes with the USA green. Source: Web of Science, as of September 2014.

Based on the number of publications it is possible, at any rate, to deduce the extent of academic activity, even though the numbers do not reflect the quality dimension. The Web of Science shows for the last few years that the publication activities of academics at the University of Vienna are still on a very high level (cf. Diagram 4).

In this context it needs to be considered that – although the Web of Science covers a high share of articles published in the sciences (including mathematics, statistics and computer science), medicine, psychology, parts of the social sciences, business and economics –, it covers only incompletely areas where publication in renowned publishing houses and series can often be used as a quality label for book publications, and contributions to edited volumes as a sign of international cooperation. Consequently these figures reflect only a part of the research performance of the University of Vienna. Scientometric analyses can never provide more than an indication as to the standing of a university or a discipline.

Publications in the Web of Science

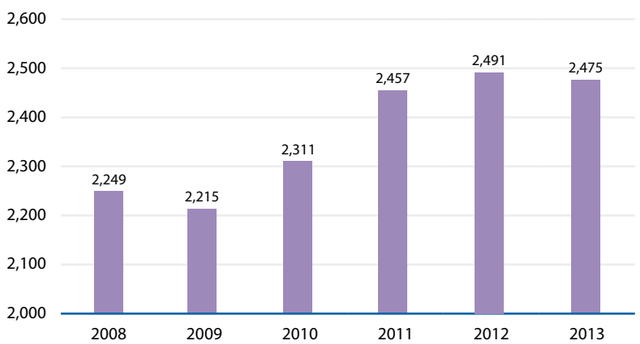
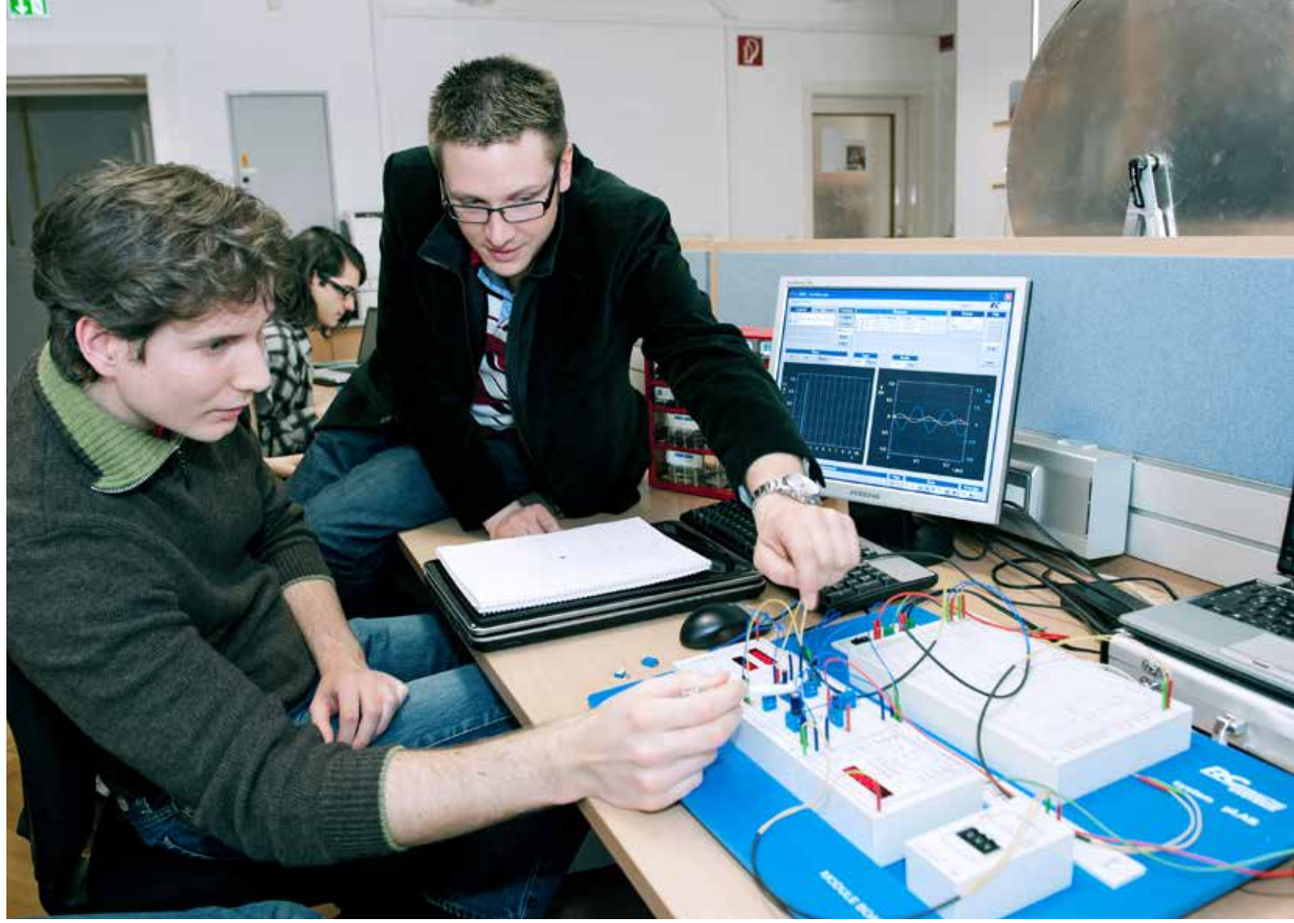


Diagram 4: Number of publications in the Web of Science with affiliation to the University of Vienna. Source: Web of Science (Thomson Reuters), data as of September 2014.

The research output of the University's academics also has an impact on its position in international rankings designed for institutions of higher education. The University of Vienna is the only Austrian university which is among the top 200 universities in the world in internationally visible rankings such as the ranking of the 'best' universities worldwide which is published by the British magazine Times Higher Education Supplement on a yearly basis (THES World University Rankings) and the Academic Ranking of World Universities published by the Shanghai Jiao Tong University. It is therefore perceived as an institution well beyond the borders of Austria. In the latest THES rankings for the period 2014–2015, the University of Vienna holds 182nd place; in the latest Shanghai ranking, the University is among the best 151-200. With the exception of the top ranks, the positioning in rankings is very unstable and reacts sensitively to the slightest variations in the indicators used; this means that, at most, a university's position in a larger group rather than its precise position in this group therefore plays a role. For this and other reasons, all rankings which attempt to reduce universities – or entire ranges of subjects – to sheer numbers should be questioned critically. This does not do justice to a university which boasts a wide range of subjects, and it creates a distorted picture in the public. Nevertheless, in some of its areas of strength the University of Vienna is among the best 50 in the world in subject-specific rankings, but this hardly plays a role in public discussions. Multidimensional rankings such as U-Multirank, which is funded by the European Commission, paint a more realistic picture based on a wide spectrum of factors. However, the results of the first ranking which appeared in 2014 also show clearly the difficult situation of Austrian universities in the fields of studies and teaching and reveal the investment required.

As shown in chapter 4.2.1 'The Further Development of the University's Research Profile', the establishment of research platforms represents an important measure to support interdisciplinary research cooperation within the University of Vienna and thus for the development of its research profile. At the time this *Development Plan* was approved, the following research platforms have been set up (ranked by the date they were established):



Research platforms:

- **Ethics and Law in Medicine** (Faculty of Protestant Theology; Faculty of Catholic Theology; Faculty of Law; in cooperation with the Medical University of Vienna)
- **Gödel Research Center** (Faculty of Mathematics)
- **Life-Science-Governance** (Faculty of Social Sciences; Centre for Molecular Biology)
- **Computational Science Center** (Faculty of Mathematics; Faculty of Computer Science)
- **Translational Cancer Therapy Research** (Faculty of Chemistry; in cooperation with the Medical University of Vienna)
- **Decoding mRNA Decay in Inflammation** (Centre for Molecular Biology; Faculty of Chemistry)
- **Alternative Solvents as a Basis for Life Supporting Zones in (Exo)Planetary Systems** (Faculty of Earth Sciences, Geography and Astronomy; Faculty of Physics)
- **Characterisation of Drug Involved Mechanisms** (Faculty of Life Sciences; Faculty of Chemistry)
- **Vienna Eastern Europe Forum** (Faculty of Historical and Cultural Studies; Faculty of Catholic Theology; Faculty of Law; Faculty of Philological and Cultural Studies; Faculty of Social Sciences; Faculty of Earth Sciences, Geography and Astronomy)
- **Religion and Transformation in Contemporary European Society** (Faculty of Catholic Theology; Faculty of Protestant Theology; Faculty of Law; Faculty of Philological and Cultural Studies; Faculty of Philosophy and Education; Faculty of Social Sciences)
- **Cognitive Science** (Faculty of Philosophy and Education; Faculty of Historical and Cultural Studies; Faculty of Psychology; Faculty of Life Sciences; Centre for Translation Studies)
- **Active Ageing** (Faculty of Life Sciences; Centre for Sport Science and University Sports)
- **Erwin Schrödinger International Institute for Mathematical Physics** (Faculty of Mathematics; Faculty of Physics)
- **European Integration Research** (Faculty of Social Sciences; Faculty of Law; Faculty of Business, Economics and Statistics; Faculty of Historical and Cultural Studies)
- **Mobile Cultures and Societies** (Faculty of Philological and Cultural Studies; Faculty of Social Sciences)

- **Elfriede Jelinek: Texts – Contexts – Reception** (Faculty of Philological and Cultural Studies; Faculty of Historical and Cultural Studies; Faculty of Social Sciences)
- **Quantum Phenomena and Nanoscale Biological Systems** (Centre for Molecular Biology; Faculty of Physics)
- **Marine Rhythms of Life** (Centre for Molecular Biology; Faculty of Chemistry; Faculty of Life Sciences)
- **Global African Diaspora Studies Platform** (Faculty of Philological and Cultural Studies; Faculty of Historical and Cultural Studies)
- **Responsible Research and Innovation in Academic Practice** (Faculty of Social Sciences; Faculty of Life Sciences)
- **Metabolomics School University of Vienna** (working title; Faculty of Life Sciences; Faculty of Chemistry; Faculty of Earth Sciences, Geography and Astronomy)
- **Nano-Norms-Nature** (Faculty of Philosophy and Education; Faculty of Earth Sciences, Geography and Astronomy)

In addition, continuing especially successful research platforms, the following research centres (cf. chapter 4.2.1 'The Further Development of the University's Research Profile') have been set up:

- **Human Rights:** Continuing the previous research platform 'Human Rights in the European Context' (Faculty of Law; Faculty of Business, Economics and Statistics; Faculty of Philological and Cultural Studies; Faculty of Psychology; Faculty of Social Sciences), set up as a sub-unit of the Faculty of Law.
- **CIRDIS – Center for Interdisciplinary Research and Documentation of Inner and South Asian Cultural History:** Continuing the previous research platform with the same name (Faculty of Philological and Cultural Studies; Faculty of Historical and Cultural Studies; Faculty of Earth Sciences, Geography and Astronomy), set up as a sub-unit of the Faculty of Philological and Cultural Studies.

Interdisciplinarity is also encouraged by research networks that are set up by way of agreements between faculties and of which the following are active at present:

- **Environmental Sciences** (Faculty of Earth Sciences, Geography and Astronomy; Faculty of Chemistry; Faculty of Physics; Faculty of Life Sciences)
- **Gender and Agency** (Faculty of Social Sciences; Faculty of Law; Faculty of Historical and Cultural Studies; Faculty of Philological and Cultural Studies; Faculty of Philosophy and Education; Faculty of Life Sciences)
- **Chemistry meets Microbiology** (Faculty of Life Sciences; Faculty of Chemistry)

It can be said that in spite of difficult framework conditions the University of Vienna has been able at least to maintain and sometimes even improve its position in the international research landscape. To be able to further maintain its position in the international competition, the University of Vienna does require funding that stands up to international comparison (cf. Table 3 – comparison with Uppsala et al.). Only in this way will the University be able, in the future, to attract excellent researchers and unfold its full potential in research.

3.2 Study and Teaching at the University of Vienna

In the winter semester of 2013/14 some 92,000 students were admitted to degree and non-degree programmes at the University of Vienna. This makes it the largest educational establishment not only in Austria, but in all German-speaking countries: At the largest German university, the LMU Munich, some 52,000 students are enrolled; at the largest Swiss university, the University of Zurich, some 26,000.

The higher education forecast issued by the Federal Ministry of Science, Research and Economy (BMWFW) clearly reveals that, despite some deficits due to incomplete data, student figures can be expected to continue to increase in Austria and therefore certainly also at the University of Vienna. This growth is the result of a long-term increase in the number of foreign students and an increase per year group in the proportion of qualified school-leavers from upper secondary schools. This is in sharp contrast to the sometimes expressed expectation that student figures will decrease in the foreseeable future owing to demographic developments and the long-term decline in birth rates.

With 54 bachelor's, 116 master's, 3 diploma and 13 doctoral programmes, the University of Vienna offers the most comprehensive range of studies in Austria in terms of numbers and subjects. In addition, the University of Vienna offers teacher education programmes in 27 secondary school subjects.

[1] Frank Landler (2010): *Tertiäres Bildungssystem – quo vadis? Studierende, belegte Studien und Absolventen – Quantitative Entwicklungstendenzen der österreichischen Universitäten und Fachhochschulen 1973–2030.* Vienna: Austrian Academy of Sciences Press.

In the winter semester of 2013/14 some 14,700 new students were admitted to the University of Vienna, 65 % of whom were beginners. Measured by the total number of students (92,041), the share of women was 63 %. In the academic year 2012/13, 71 % of the approximately 12,600 degrees were obtained by women.

The University of Vienna enjoys international demand and is part of a greater network: in the winter semester of 2013/14, students at the University of Vienna came from 138 countries; the share of foreign students was 27.8 %, which is an extremely high value, again by international comparison. In the academic year 2013/14, the University acted as a sending institution for more than 1,100 students in the ERASMUS programme and was the host institution for around 1,000 students who completed an exchange semester. Furthermore, the University has entered into 60, mostly bilateral individual agreements with universities outside the EU, as part of which a total of about 210 incoming and 140 outgoing mobility stays of students are held every year.

The number of degree programme students has risen sharply in recent years. Whereas in the winter semester of 2006/07 a total of 67,371 students were admitted, this number increased to 87,880 in the winter semester of 2013/14. This amounts to an increase of 30.4 %. When comparing the number of enrolled degree programmes at the level of degree programme groups, very distinct increases can be found in certain cases (cf. Table 2). Particular mention must be made of the rise in enrolled teacher education programmes by 173 %. The University of Vienna is by far the largest Austrian establishment for teacher education.

Number of enrolled degree programmes by degree programme group in the respective semester	Winter semester 2013/14	Winter semester 2006/07	Change in per cent
Theology	1,040	1,045	−0.5 %
Law	13,159	9,982	+31.8 %
Engineering Sciences (Computer Science)	1,172	686	+70.8 %
Social Sciences, Business and Economics	9,187	6,193	+48.3 %
Arts and Humanities	50,798	47,427	+7.1 %
Natural Sciences	21,467	19,566	+9.7 %
Teacher Education	13,245	4,849	+173.1 %

Table 2: Number of enrolled degree programmes by degree programme groups, data reporting of universities based on the University Studies Evidence Act *(UniStEV)*.

Still almost 71 % of students are concentrated in only ten study programmes: Law; History; German Studies; Biology; Business, Economics and Statistics; Philosophy; English and American Studies; Mass Media and Communication Science; Psychology; and Romance Studies.[2]

Particularly in these programmes, this leads to student-teacher ratios which cannot bear comparison with leading universities in Europe in terms of acceptability. The legal regulation of access to some bachelor's or diploma programmes (such as Medicine, Psychology) also leads to shifts and increases the influx into other programmes.

The increase in the number of natural science programmes and enrolled subjects in teacher education programmes, which is partly the result of efforts to make studies in the natural and life sciences more visible, has meanwhile also made itself felt in the field of laboratories, which are designed for considerably smaller student numbers.

In the performance agreement concluded with the Federal Government for the period 2013–2015, the University of Vienna has agreed it will at least maintain existing student-teacher ratios, on the condition, however, that the number of students admitted to degree programmes who have taken a certain number of examinations will not rise further. In the draft for this performance agreement concluded with the Federal Government the University of Vienna has identified an additional requirement of some € 100 million per year to make a lasting improvement in student-teacher ratios, based on the first stage of teaching capacity-based funding (see chapter 3.3 'The Financial Situation of the University of Vienna').

[2] Number of students by directorate of studies (including teacher education programmes) in the winter semester of 2013/14.

In recent years, the number of graduations has seen strong growth in all areas (cf. Diagram 5). This can be explained, on the one hand, by the Bologna framework coming into full effect, with a shorter standard duration of bachelor's programmes and the option of obtaining a second degree at master's degree level; on the other hand, many students have taken the opportunity to acquire a degree in diploma programmes, which will soon cease to exist.

The University of Vienna has actively supported this goal by taking temporary measures such as setting up additional visiting professorships and offering additional teaching and coaching programmes. Under these conditions, the quality of graduations could and can only be guaranteed with the extraordinary commitment of the academic staff. The number of degrees acquired in the master's programmes will increase further in coming years.

First and second degrees

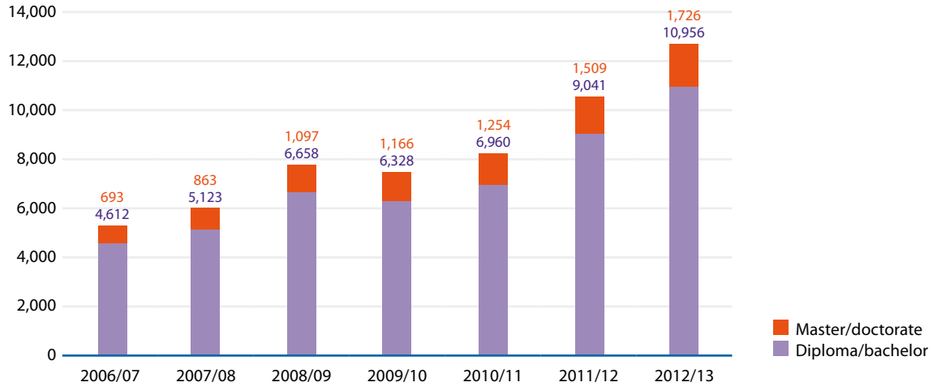


Diagram 5: Degrees of regular students.

3.3 The Financial Situation of the University of Vienna

Income from federal sources (including reimbursement of costs for the loss of tuition fees) accounted for some 80 % of the total revenues of the University of Vienna. The basic economic conditions of the University of Vienna are therefore decisively influenced by the performance agreements that are concluded with the Federal Ministry of Science, Research and Economy: Sufficient federal funding is a basic prerequisite for creating appropriate study and teaching conditions and providing an efficient research infrastructure.

The situation at the University of Vienna is especially challenging. Some 30 % of Austrian students are enrolled at the University of Vienna, but its budget share by comparison is only around 15 %. To achieve its objectives, the University of Vienna needs to substantially increase its budget on a permanent basis to be able to employ additional staff and set up related infrastructure, with the goals of reaching – over the whole University – the quantitative student-teacher ratios which are common in the field of teaching at comparable foreign universities, improving study conditions as well as providing competitive framework conditions in research for internationally visible leading-edge research.

The funding of teaching is particularly dependent on the provision of sufficient budget funds by the Federal Government. Although federal funding has risen continually in recent years based on absolute figures, recently its growth has not been able to keep pace with the increase in the number of students admitted to degree programmes who have taken a certain number of examinations, and so the funding contribution per active student admitted to a degree programme and taking a certain number of examinations has declined considerably over the last few years:

Development of students admitted to degree programmes and taking a certain number of examinations and global budget

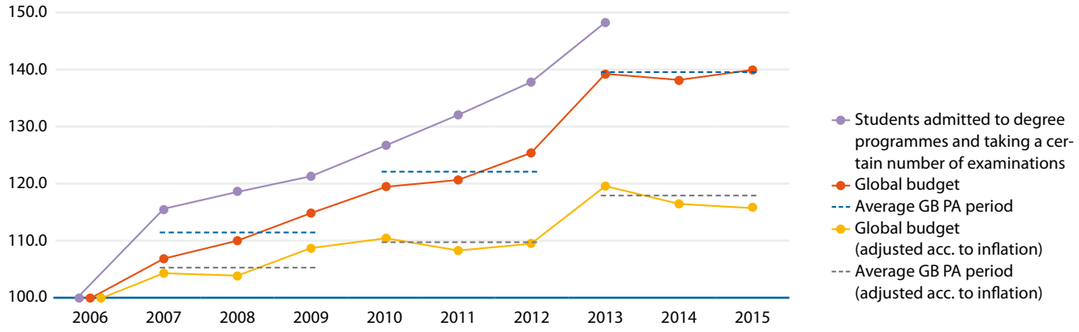


Diagram 6: Change in the number of students admitted to degree programmes and taking a certain number of examinations, and change in the global budget from federal funds excluding cost reimbursement for the loss of tuition fees (2006 = 100, 2014 and 2015: budget values); legend: GB = global budget; PA = performance agreement.

The budget of the University of Vienna has risen both in nominal and in real terms in the past three performance agreement periods. This contrasts with a stronger growth in the number of students admitted to degree programmes who have taken a certain number of examinations, however. For the period 2016–2018 it is necessary to increase the budget considerably in order to keep the funding contribution per student admitted to a degree programme and taking a certain number of examinations at least at a constant level in real terms or, ideally, to increase it if possible to ensure that the quantitative student-teacher ratios are improved on a lasting basis.

A similar discrepancy can be observed in the field of third party-funded research: by 2013, revenues from third-party funds successfully applied for by researchers of the University had increased by 65 % in comparison to the year 2007. However, the global budget provided by the Federal Government only increased by some 27 % over the same period. This development is gratifying but, at the same time, also problematic in that the basic equipment in research definitely has to be funded out of the global budget – these costs are usually not reimbursed fully by third-party sponsors because a major part of third-party funding is acquired through competitively acquired projects in research funding where third-party sponsors finance only marginal costs. Although contributions towards overheads are increasingly financed in such projects, these funds cover only a part of the overheads and are also used to cover funding gaps, which arise to a considerable extent in some European programmes such as Marie Skłodowska-Curie (and other ITNs).

Development of third-party funding and global budget

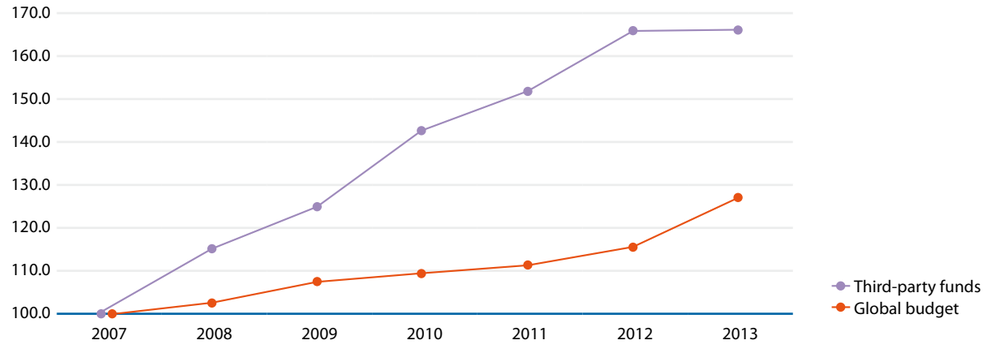


Diagram 7: Change in third-party funding according to the *Wissensbilanz* (intellectual capital report) and change in the global budget from federal funds excluding cost reimbursement for tuition fees (2007 = 100).

Despite these difficult framework conditions, the University of Vienna has considerably expanded its activities in teaching and research in recent years. The above-mentioned increase in federal revenues has been used particularly for increasing the number of full professorships and tenure track positions and for enhancing the investment capacity of the University. However, new bottlenecks in the fields of equipment, laboratories and rooms have emerged in recent years – such as in Chemistry, Physics and Pharmacy, partly intensified also by successful efforts of the University of Vienna to increase the new students' interest in natural and life science programmes.

With regard to the financing of the University of Vienna the objective must be to create sustainable financial framework conditions to guarantee the quality of teaching and research. With the current financial resources, the University of Vienna is able to pay its ongoing operating expenses but it cannot adequately cover major financial burdens in the future, such as the existing maintenance backlog. The University of Vienna requires sufficient federal funding for investments that need to be made in the performance agreement period 2016–2018 for equipment, buildings and infrastructure to keep up with expected requirements. This is essential in particular in order to maintain investment activities and be able, for example, to meet obligations in the field of occupational health and safety.

In terms of its size, the University of Vienna cannot be compared to other institutions at the national level. The University aims to be one of Europe's top research universities. Therefore its financial framework conditions can only be analysed by comparing it to institutions abroad of similar standing and size, such as the Ludwig-Maximilians-Universität München (LMU Munich), Uppsala University in Sweden, and the University of Zurich. In a comparison of budgets and student figures, these universities boast clearly higher budgets and considerably fewer students.[3] Uppsala University with 41,000 students has a budget of € 682 million, the University of Zurich with 26,000 students over one billion euros, and the LMU with 52,000 students € 571 million. The University of Vienna, however, with its 92,000 students, has € 572 million available for all its tasks in research and teaching. There are also significant differences in terms of student-teacher ratios between the analysed universities:

University	Budget	Students	Graduates	Professorships
Munich University	€ 571m	52,000	9,000	750
Uppsala University	€ 682m	41,000	5,500	670
Zurich University	€ 1,074m	26,000	5,600	560
University of Vienna	€ 572m	92,000	12,600	420

Table 3: Comparison of the universities in Munich, Uppsala, Zurich and Vienna.

At the present time, the University of Vienna has distinctly unfavourable quantitative student-teacher ratios in some, mainly social science programmes. Under the current framework conditions, the University of Vienna can, at best, maintain the quantitative student-teacher ratios – which are not in line with international standards – at a constant level, in some programmes even this represents a major challenge as long as the framework conditions do not change and the influx of students continues. Although appropriate student-teacher ratios can already be observed in some disciplines in the field of natural sciences, these subjects also require substantial funding for investment-related resources (such as laboratory capacity) and associated staff resources. In some areas of the life sciences both problems can be observed simultaneously. A gradual improvement of quantitative student-teacher ratios is needed to meet standards common at European universities that are relevant for the comparison. Therefore the University of Vienna considers it indispensable that a system be implemented which covers the full costs for the studies of all students in line with a capacity-oriented funding scheme for the global budget, as has been developed jointly by Universities Austria and the then Federal Ministry of Science and Research (BMWF) and, based on which, the real costs of teaching should be financed. The introduction of a new teaching capacity-based funding scheme should not imply, however, that the quantitative improvement in student-teacher ratios in some particularly problematic fields will cause deterioration in other subjects. In view of the scarcity of public resources it therefore seems reasonable to combine the system of teaching capacity-based funding with the possibility of student access regulations. Otherwise it would be impossible to achieve a sustainable improvement in student-teacher ratios in subjects with high or increasing student figures. In this connection it will be important to pay attention to the outcomes of the evaluation of the introductory and orientation period because this might be developed further into a fair instrument of possible access regulation.

In research, the funding of the universities' basic research and research infrastructure should be based on several pillars in the future: on the one hand, in view of the principle of research-led teaching, a smaller part of the funding will have to be derived from the new study place-based scheme, and on the other hand quality indicators such as competitively acquired third-party funds, doctoral degrees, and so on, should be the basis of defining research funding for universities. The ultimate goal is to strike an appropriate balance between core funding, indicator-based funding and strategic funding.

At the University of Vienna, the research sector urgently needs to modernise its equipment infrastructure. It would additionally be necessary to provide the FWF – which is also still underfunded compared with Switzerland, for example – with more resources, and gradually to switch over to full cost funding of its projects. Finally there is currently no – or insufficient – funding available for major construction measures such as the new building of the biology centre, which is listed in the infrastructure road map with top priority, as well as investments for occupational health and safety, fire safety and accessibility.

It can be expected that the introduction of a capacity-oriented funding system – in the form of a teaching capacity-based funding and full cost funding – in research cannot be launched, for financial reasons, before the next but one performance agreement period from 2019 onwards. Even though 30 % of Austrian students are enrolled at the University of Vienna with a share of 15 % of the funds made available by the Federal Government for universities, the change in the funding scheme for universities is a nationwide project. In order simply to be able to maintain the quantitative student-teacher ratios – which have meanwhile become unsatisfactory in a large number of areas – in the performance agreement period 2016–2018, while making the required considerable investments in the infrastructure, it will be necessary to further increase financial resources. After all, only additional funds can guarantee coming close to the target which is also laid down again in the current government programme: to make 2 % of the gross domestic product available for the higher education sector by 2020.

[3] This comparison is based on the figures published by the universities in Uppsala, Munich and Zurich. It is true that when comparing them directly with each other and with the University of Vienna, it must be borne in mind that each of the compared universities has medical faculties which may – or may not – be taken into account in the budgets in different ways. However, the disparities regarding financial resources in relation to student figures and therefore regarding student-teacher ratios between these universities and the University of Vienna are so pronounced that the comparison is instructive despite this lack of clarity.

4. Implementation of Core Tasks

The core tasks of the University of Vienna are research and teaching. The combination of these two areas is the major characteristic of a university. It is vital, therefore, to promote and develop both research and teaching equally. In addition to profile development and the formation of special focuses, which are indispensable, it is necessary to ensure that top-level research is also conducted in all subject areas which are offered in the various degree programmes.

4.1 Implementation of the Core Task of Teaching

Converting the degree programmes to the Bologna framework, with bachelor's and master's programmes and also the newly designed doctoral programmes, has led to extensive changes in the degree programmes in the European Education Area. These changes are both structural and also concern the number of available study options. The University of Vienna is in competition with other educational institutions: prospective students can choose from a wide range of bachelor's and master's programmes at educational institutions in Austria and abroad and also increasingly compare degree programmes in terms of the contents and compare the associated opportunities for graduates in the fields of research and education and on the labour market, but also in terms of the framework conditions of studying.

4.1.1 Continuous Improvement in the Quality of Degree Programmes

After completing the implementation of the Bologna framework and the first experiences gained with the new structure, the University of Vienna sees it as necessary to conduct regular checks on the contents and requirements of the degree programmes as a whole and the individual programmes in detail.

This strategic further development of the degree programmes is carried out by taking into account the results and in accordance with the established instruments of quality assurance (see chapter 4.5 'Quality Assurance').

Enhancing the Qualification Profiles and Learning Outcomes

For prospective students, qualification profiles and learning outcomes need to describe a high-quality and attractive offer from the University in terms of subject-specific and personal development. Degree programmes must relate to research at the University of Vienna in terms of research-led teaching and enable current issues from ongoing research activities to be incorporated into teaching.

Degree programmes are required to produce graduates who are familiar with the methods of the academic sphere and able to solve problems autonomously. In teaching, the University's key tasks are to allow students to pursue their studies without delay and provide high-quality content. Furthermore the University seeks to position its graduates successfully on the national and international labour markets. The content requirements of curricula are regularly analysed to see whether they help achieve the learning outcomes. In addition to the compulsory subjects, the degree programmes also need to create room for the individual interests of the students as part of their studies. When further developing curricula there must be regular checks to determine whether these basic objectives can be achieved – if necessary the curricula will have to be brought into line with these targets. In accordance

with this the feedback from graduates about their experiences and the requirements of the labour market must be taken into consideration in the further development.

Study Feasibility

The degree programmes at the University of Vienna must be regularly examined to see if the specified learning outcomes are or can be achieved with appropriate learning input and effort. Examinations and courses with continuous assessment covered by the curriculum must be arranged in terms of number, type, order and interconnection so that they do not impair study feasibility. They need to make a verifiable contribution to the guaranteeing of success in studies and should give students extensive feedback on their study progress. Any tendencies to reduce degree programmes to school-like learning need to be counteracted. Changes at the curricular level by modifying the learning outcomes or ECTS credits or the contents of lectures and examinations might be necessary. To analyse the required changes, the directorates of studies systematically incorporate the feedback given by students and teachers from the quality assurance processes.

The connection of learning outcomes, teaching contents and examinations requires the creation and further development of structured cooperation between teachers. In the coming years, one objective will be to extend the coordination of the contents and organisation of the teaching programmes between teachers in order to remove redundant contents and offer a wide range of courses. Another objective is for subject representatives to discuss the corresponding requirements for examinations and academic work in their respective subject and to make these transparent for students.

In recognising examinations, the focus is on the subject-specific and methodological competences of the students; detailed comparisons of the content and assessment method should not be envisaged. Use needs to be made of the scope for assessing equivalence as provided by the Universities Act.

When developing curricula, there should be an increased awareness that many employed students complete degree programmes on a part-time basis. The organisation of teaching should take into account the students' different life situations insofar as this is achievable in terms of costs and staffing.

As well as ensuring high-quality content and the organisational implementation of the curricula, the establishment of excellent student-teacher ratios and study conditions is another important aspect. The limited budget of the University of Vienna is reflected very clearly here. It will be clarified in advance – both for new degree programmes and also for changes in curricula – whether plans are being realised for new studies or changes in the degree programmes, and under what financial, staff-related and infrastructure-related framework conditions.

4.1.2 Focuses in the Area of Bachelor's Programmes

The bachelor's programmes of the University of Vienna aim to provide students with academic core and basic competences as well as with the competence to solve problems by applying academic methods. Another objective of bachelor's programmes is to familiarise students with the basic content and methods of a subject. Research-led teaching already needs to be integrated in these programmes in an appropriate form for the specific subject.

Bachelor's programmes provide pre-professional and professional qualifications. In the development of curricula, it is therefore necessary to deal intensively with the labour market and its requirements for future graduates. Graduates should also be able to deepen their subject-specific knowledge and skills in specialist or interdisciplinary master's programmes, both at the University of Vienna and at other educational institutions. When designing bachelor's programmes it is therefore necessary to consider the possibility of connecting to research-led master's programmes or professionally oriented continuing education and training programmes. Accordingly, when establishing or modifying programmes, these aspects need to be taken into consideration in the formulation of the qualification profiles.

The bachelor's programmes are further developed on the basis of the outcomes of the quality assurance processes, and in this particular attention also needs to be paid to ensuring study feasibility as described above. With the expiry of the diploma programmes there is the potential to re-design courses in the next few years which previously had to be offered in different curricula.

So that students can be enrolled in a number of specific bachelor's programmes, there are now different types of selection procedures and aptitude tests with various legal bases. For the University of Vienna, the priority, when supporting prospective students in their choice of studies and when arranging their introductory period, is to improve online information about programmes and to develop activities such as open days or student information fairs where prospective students can have direct contact with subject representatives, graduates and fellow students. Initiatives that have started, such as online self-assessments, need to be further developed, extended to additional programmes and integrated into the admission procedure so that university applicants can be offered guidance about the essential contents of the programme in question. Existing admission procedures and aptitude tests are being further developed on the basis of legal provisions and evaluations.

Arranging the introductory and orientation period in the bachelor's programmes has the important role of providing students with their first orientation and introduction to the subject. In this regard the teachers need to coordinate the presented contents and the associated examinations. In the first stage of their studies, students become familiar with the University's teaching and learning culture, which is very different from what happens at school. The University supports first-year students in particular in subjects with a high number of beginners by providing tutors and mentors who are in more advanced semesters. These pass on knowledge and experiences to the beginners and, in this way, themselves learn how to communicate important contents of their subject.

The introductory and orientation period has to be regularly examined and further developed in terms of these functions. Beginning a degree programme, which might also be connected with capacity considerations, via a well-designed introductory and orientation period, should be preferred to procedures before admission which require selective tests. Admission procedures and aptitude tests before admission should be restricted to those areas in which it cannot be guaranteed that the introductory and orientation periods are of high quality on account of the student-teacher ratios and the available resources for the entire studies.

The extension curricula established at the University of Vienna aim to enable students to expand their subject-specific competences in terms of promoting interdisciplinarity and improving preparation for future employment. In addition, extension curricula aim to enhance vertical mobility and provide students with the fundamentals of master's programmes which are not directly connected in terms of subject. When designing extension curricula the differences in background between students from different disciplines need to be considered. With this in mind, the existing extension curricula need to be enhanced – including consideration of the regular evaluation of the available courses.

4.1.3 Focuses in the Area of Master's Programmes

One particular focus of the development work in the coming years will be on the master's programmes which, in addition to their role for the labour market, also have a key function with regard to identifying young academics as preparation for a doctoral programme. Here, with the Bologna framework, educational institutions will in future be competing intensively for the best bachelor's programme graduates from all over the world.

Master's programmes need to correspond with the University's research profile and already actively incorporate students in ongoing research. Depending on the requirements of the subject as well as the expected programme outcomes, they can either have a more in-depth disciplinary or also an interdisciplinary design. Based on its profile and the quality of its content and structure, a master's programme also aims to be attractive particularly to international students.

Bachelor's programme students need to be able to make informed decisions about the master's programmes they will choose. In this respect, the information about the contents of the programmes and the requirements of the subject and the methodology has to be made more transparent. When assessing the equivalence of degrees, there should not be a detailed comparison of the curriculum of the foundation course with the bachelor's programme. Instead it needs to be asked whether the required previous knowledge and methodological competences exist for beginning the master's programme and whether successful study progress can be expected. Incorporating quality-related admission requirements into the curricula of the master's programmes has proved its worth as a testing framework for the question of equivalence.

In the coming years, for the transparency and comprehensibility of admission decisions, a permeability map needs to be created so that students and graduates of bachelor's programmes can be shown further study options in master's programmes at the University of Vienna. Academic subject-related prerequisites that can already be provided during the bachelor's programme by means of extension curricula are mentioned explicitly. After displaying the connections within the degree programmes at the University of Vienna, this information also needs to be drawn up for programmes at other educational institutions.

The University of Vienna aims to take advantage here of the opportunities of the Bologna framework by promoting topic-centred master's programmes

with an interdisciplinary orientation. This permits studying where students who come from different disciplines (if necessary, supported by extension curricula) are familiarised with a range of themes in a multidisciplinary way and acquire more in-depth knowledge with expert representatives from different disciplines. When designing the introductory period it is necessary to link heterogeneous competences and create a subject-related basis for the further study progress and also the interdisciplinary cooperation of students and teachers. Under some circumstances, this access cannot be realised with multiple use of existing courses in consecutively oriented master's programmes. Even in a financially difficult situation, the University of Vienna intends to enable new programmes, above all interdisciplinary master's programmes to be created, which if necessary can also lead to changes in the available degree programmes.

The expansion of those master's programmes which are offered mainly in a foreign language, or which can also be completed entirely in a foreign language, will continue in the coming years to provide an attractive range of programmes for international students. At the master's level, cooperation in the form of joint curricula with partner universities is a possible option for designing the degree programmes.

4.1.4 Focuses in the Area of Teacher Education Programmes

Society needs teachers who, thanks to their subject-specific academic, subject-specific didactic and educational competence, are able to teach curricula to children and young people and also arouse their curiosity. The basis for this is provided by intensive training for the subject so that future teachers do not only learn the already established knowledge and reproduce this at school, but also understand developments in the subject and can include these appropriately in the classroom.

The cornerstones of modern and profession-oriented teacher training are subject-specific academic knowledge, subject-specific didactics and education. All of these pillars are offered in research and teaching at the University of Vienna. By already integrating practical work at a school during the teacher education programme, there is a guarantee that experience can be acquired in the subsequent professional field and that this can be reflected on academically during the studies.

To link together these four pillars in terms of content and organisation, in 2013 the University of Vienna established the Centre for Teacher Education (ZLB). The cooperation between subjects, the various subject-specific didactics and the educational foundations was thus strengthened and will be further intensified in the future. Linking together academic knowledge and practical work experience is a key concern at the University of Vienna for the further development of the teacher education programmes. To improve the organisation of the practical parts and for the joint exchange of theory and practice, the University of Vienna brings together the different stakeholders involved in teacher education in its region and internationally by creating a network of cooperation projects. At the regional level it also does this by working together with the cooperating schools.

The cooperation of academics who represent the pillars of teacher education in research and teaching has proved its worth with the implementation of the new bachelor's programme curricula for the teacher education programmes in the winter semester of 2014/15. The new master's programme curricula for the 27 subjects that can be studied at the University of Vienna as the biggest teacher education institution will start in the academic year 2015/16. This means that all teacher education programmes at the University of Vienna are offered within the Bologna framework. To enhance permeability, graduates oriented towards academic subject-specific knowledge will be given the option to qualify for teacher education programmes by acquiring qualifications in subject-specific didactics and gaining educational and practical experiences through teaching at school.

The University is both willing and interested in cooperating – or continuing cooperation – in teacher education with other educational institutions, in particular university colleges of teacher education, if the objective of improving the quality of initial and continuing education and training can be achieved. The University firmly believes that educating teachers for lower secondary level also has to meet university-based requirements. Internationally the teaching activity at all age levels in a subject-specific academic, subject-specific didactic and educational respect is based on research-led education at university level. For this reason education for the particular subject should, in any case, be provided by the university. In view of the increasing number of students and the currently unsatisfactory student-teacher ratios, however, additional funding is required in order to ensure the University provides specialised training for the entire secondary level. Here it must also be noted that student-teacher ratios also need to be improved in many areas beyond the teacher education programmes.

To fulfil their tasks, teachers need continuing training in all pillars of teacher education to be able to participate at the current level of research in a subject-specific academic, subject-specific didactic and educational respect. Teachers also need modern additions to their methodological repertoire, tailored to the needs of classroom use and based on linking together academic knowledge and practical work experience. From the University's perspective, high-quality continuing education and training requires competition among the providing educational institutions, and access to such programmes and their funding therefore need to be subject to the same standards at all institutions.

4.1.5 Focus on the Administration of Degree Programmes and Services

Administrative processes and services provide support for students and teachers throughout the entire study period. While services are generally positively perceived and used, administrative processes connected with studies and teaching are sometimes criticised as being complicated, slow and not very user-friendly. It therefore remains an important ongoing project at the University of Vienna to achieve continuing improvements in the existing administrative processes in the area of studies and teaching, in order to make them more transparent and more comprehensible for participants. The efficient distribution of management tasks and operative responsibility for implementation between persons responsible for teaching and administrative staff in the studies service centers and service units is also the focus here.

Central information and communication platforms aim to ensure that students and teachers have access to all the information of relevance for their studies and teaching in a timely and reliable manner and at any time and place. Administrative processes – prioritised according to the number of affected people and their importance for completing studies – are being scrutinised in terms of their necessity and appropriate design. Services in the areas of studies, teaching and examinations are regularly assessed and further developed with regard to available IT support. From the very beginning, the affected people need to be integrated in the design and further development of processes and services.

The use of digital teaching and learning materials and e-learning platforms is now part of the

standard teaching repertoire. The University of Vienna uses the experience it has gained in recent years for the design, implementation and further development of new forms of teaching, examinations and learning. Based on feedback from teachers and students, e-learning tools, which are currently mainly used as repositories for teaching materials, need to be further developed with the aim of creating high-quality teaching and learning environments for students and prospective students alike. Teachers should therefore have the opportunity to use activating teaching methods such as flipped classrooms. For the quality assurance of examinations, multiple-choice support has to be expanded. For the detection of plagiarism in written work, teachers need to be able to use integrated tools in the learning platform. For communication between students and teachers, tools need to be offered in coordination with the planned service portals to promote cooperation. By connecting the learning platform to the administrative systems, the aim is to simplify the administrative steps required for registration and grading. Cooperation with other educational institutions is being extended for the development of these instruments.

In the last few years, the concept of massive open online courses (MOOCs) as a new education tool has originated from US universities. With this concept, all interested people have teaching and learning content available at any time and any place based on short video sequences with self- and peer assessment and support from tutors. As things stand, the didactic and structural effects which this phenomenon will have on universities and the quality of teaching are not foreseeable. For the University of Vienna this development is a reason to start pilot projects, possibly by linking together introductory teaching/learning units with the information on degree programmes or by presenting current topics from academics which are then reflected in the degree programmes. However, this particular aspect of the development of new forms of teaching and learning has a lower priority than the other development requirements which concern the basic principles of everyday work.

4.2 Implementation of the Core Task of Research

4.2.1 The Further Development of the University's Research Profile

The University of Vienna will focus on the following issues in defining the future development of its research activities: promoting research cooperation in the University on the basis of strong disciplinary research and identifying cross-sectional topics that can be worked on beyond the boundaries of disciplines and faculties. Innovation frequently emerges at the boundaries of existing research fields where methods and theories overlap and issues need to be treated from different angles. The goal is that research areas will emerge from these cooperation projects while taking external views into consideration, from which a distinctive research profile will develop for the University. Key research areas of the faculties that have already proved their competitiveness with competitively acquired third-party funds, prestigious awards and international research cooperation projects play a particular role in this regard. The Scientific Advisory Boards, which are filled with renowned international scientists, provide valuable suggestions for further developments in research both at the university level and at the level of the faculties. External influences from the economy and society also need to be incorporated more in the development of research. Pan-European aspects, based on the major societal challenges defined in the EU Framework Programme Horizon 2020, need to be taken into consideration too.

To support the launch of innovative interdisciplinary cooperation projects within the University, the research platform tool has proved its worth and – with the addition of the possibility of consolidating successful research platforms in particular cases as part of faculty research centres largely financed by third-party funds – should continue to be used and adapted flexibly to the requirements of research.

The ever more quickly changing complex developments and connections in the academic world require the emergence of rapidly changing research areas and subject areas that cannot always be represented in the existing organisational structures, as shown in particular by the description of the currently existing research platforms, centres and networks in Chapter 3.1 'Research at the University of Vienna'. In justified cases, new, and even temporary forms of academic organisation are required which need to be checked as part of any later *Organisation Plan* discussions.

The advancement of research at the University builds on its ability to identify existing strengths and to enhance these by taking appropriate measures. In this respect, the required analysis of international research developments and the corresponding consequences for the University of Vienna will also be carried out in consultation with the Scientific Advisory Board of the University of Vienna. It needs to be emphasised, in any case, that appointment to professorships and tenure track positions is of key importance for the research profile and research-led teaching.

4.2.2 Promotion of Young Scholars

Doctoral and postdoctoral students are a group of young researchers who are of vital importance for the development of research at the University of Vienna. Outstanding young scholars require framework conditions that help them make essential contributions to the academic world.

First of all, the Center for Doctoral Studies provides programmes to help doctoral students prove themselves as young academics in the international arena and to put their competences in research and, in part, also in teaching to the test. They should also acquire a series of key competences which are beneficial for their further professional career, whether inside or outside of universities.

With the three-year structured doctoral programmes introduced in 2009, the University of Vienna focused even more on educating young scholars through intensive cooperation between doctoral students and supervisors in the doctoral projects. The focus of doctoral degrees is on the doctoral project with independent academic research and also on developing doctoral students into young scholars. In this regard, joint decisions are taken by doctoral students and supervisors about cooperation and supervision. There is emphasis on the role played by doctoral students in finding topics and, via a public presentation at the faculty, colleagues are integrated more extensively in quality assurance. Mutual commitment is ensured by the doctoral thesis agreement as a planning instrument which is based on this. Together with the supervisors, work is done to ensure tailor-made teaching and courses to support the students. With arranged participation in national and international conferences and also with relevant publications of partial results, it is ensured that doctoral students are integrated in the specialist academic community. Ongoing quality assurance in doctoral programmes is ensured by measures such as the public presentation at the faculty, the annual progress reports and the completion of the doctoral thesis with the public defence. Another element of quality assurance is the external review of the doctoral thesis. Further improving the quality of the degree programmes and further developing the introduced instruments will be a key task for everyone involved.

In addition to the funding of individual projects, thematic doctoral programmes still have an important role for setting focuses; they also underline the importance of networking for doctoral students and focusing jointly on a topic under the guidance of several supervisors. The financial framework conditions of the Austrian Science Fund (FWF) might lead to a gap in the funding of thematic doctoral programmes in Austria in the coming years. From the perspective of the University, doctoral studies require a combination of thematic doctoral programmes and individual doctoral education (for example, FWF-funded thematic doctoral programmes on the one hand and competitive programmes such as uni:docs on the other) because only a wide range of funding options can also appropriately reflect the cultural diversity of different research areas at the University of Vienna. The University of Vienna endeavours to assume its institutional responsibility for doctoral programmes by the additional creation of appropriate support structures for doctoral students.

After completing doctoral programmes, factors such as the lack of support often lead to highly talented young scholars moving abroad permanently. Gaining international experience is important for a successful academic career. For 'brain circulation', however, the exchange should be in both directions in this phase. Attractive postdoctoral positions can also serve this purpose, in particular for scholars returning from an externally funded programme.

Ultimately the University of Vienna is looking for better compatibility between professional life and doctoral programmes. In particular dedicated and motivated teachers active at schools need to be given the opportunity to complete, on a part-time basis, a doctoral programme related to their professional activity. To achieve this it is necessary to reach an agreement with the school authorities so that the teachers can have leave of absence during the particularly intensive period when the doctoral thesis is being written.

4.2.3 Innovation and Third Party-Funded Research

The University of Vienna regards the successful acquisition of third-party funds as a sign of its competitiveness. Third-party funds are important to facilitate further research projects and as a means of promoting young scholars. Third party-funded projects also permit joint research projects to be carried out with the business world and with

non-university establishments. In this context, the University of Vienna mainly attempts to obtain competitively acquired national and international third-party funds. Without continuous basic financing of university-based research, however, third-party funds cannot be raised successfully because third party-funded projects also lead to additional expenses for the basic budget of the University of Vienna. In terms of full-cost accounting – beyond the marginal costs – a contribution needs to be made to the University's operating costs out of the received overheads. Here it would be particularly significant if the FWF could again provide overheads in the future for all of its funding lines.

The large number of approved individual FWF projects and, in particular, the funded EU projects and ERC grants testify to the successful acquisition of third-party funds that the University of Vienna has been able to achieve in recent years. The European Research Area is of vital importance for the University of Vienna. Researchers at the University are already involved in, or have initiated, many EU programmes. In the future, it will be even more important to raise international third-party funds, not least because success in this field will boost the reputation of the researchers involved and of the University of Vienna. In addition, it helps to improve the visibility of research conducted at the University of Vienna.

As part of Horizon 2020, the University of Vienna plans to continue the successful focuses established in the excellence and mobility programmes which are running in this area and also to maintain the high level of participation in cooperation projects. With the wide range of subjects represented, the University of Vienna already has a competitive edge over its competitors when it is a matter of meeting the requirements of the new programme in terms of high interdisciplinary willingness to cooperate. This potential also needs to be made increasingly visible internally. As well as the tried and trusted research platforms, more use also needs to be made of the research network as an instrument. This is necessary in order to create internal visibility and critical mass at the University of Vienna, in particular in subject areas that are relevant for society, which can be the starting point for applications in specific calls for proposals as part of Horizon 2020.

Since Horizon 2020 intends to cover the entire innovation chain from basic research to the marketing of the end products, it will be additionally necessary for the University of Vienna to position itself as a pillar of university-based research with even closer cooperation projects with the business world and industry and with greater emphasis on innovation.

In association with the endeavour to further intensify cooperation with the world of business, greater use needs to be made of programmes such as knowledge transfer centres, projects of the Austrian Research Promotion Agency (FFG), participation in COMET centres and Christian Doppler Laboratories.

To face the societal challenges in our age, the development towards 'Industry 4.0', which includes merging state-of-the-art information and communication technologies with production and logistics processes ('smart factories'), requires an innovation strategy that is also adapted to these developments. In its innovation strategy, the University is committed to basic research open to application on the one hand but, on the other hand, it also seeks to create the prerequisites for application-oriented and applied research to be further developed too. The University of Vienna wants to position itself as a reliable partner for cooperation projects with partners from the business world and society at large and to consolidate cooperation where it has proved its worth, including in the form of longer-term strategic partnerships.

From the outset, a joint understanding of the respective expectations and obligations needs to be developed; the cornerstones of inter-sectoral cooperation (e.g. definition of services, reimbursement of costs, IPR, non-disclosure) therefore need to be made transparent in corresponding contractual agreements between the University and the cooperating partner(s).

Establishing new companies represents an important form of knowledge transfer and this is supported by the University of Vienna as part of appropriate external training and funding programmes, in particular with the incubator INiTS set up together with the Vienna University of Technology and the City of Vienna. The University of Vienna not only wants to encourage the foundation of companies whose business concept is based directly on academic findings or know-how discovered at the University, but it also seeks to support graduates who want to use their knowledge to achieve professional independence.

The University owns the rights to inventions of its employees and is entitled to exploit these rights in the best possible way. At the same time it strives to take the inventors' interests into account and to create a climate that is conducive to the recognition of invention achievements as a special form of scientific excellence.

Patents are not an end in themselves. They are, however, very much an indicator of the role the University of Vienna plays in the innovation process. Alongside the exploitation of patents, intellectual property generated at the University should be used for follow-up projects in the researcher groups, with or without external partners. The transformation of academic findings into practice deserves recognition and the findings also deserve to be reproduced.

4.3 International and National Cooperation

From the tradition and self-conception of the University of Vienna comes the objective of being an internationally visible and attractive university which can succeed in the international competition for staff, students and research projects and which is seen as a stable and attractive partner in research and teaching cooperation projects. Here the internationalisation of research and teaching is not an end in itself but a component in a comprehensively conceived quality strategy: teaching and research cooperation projects with the best suited partners in order to pool resources and keep pace with the latest international research.

It is the task of the university leadership to support personal interactions between researchers and teachers which transcend national borders, exist in large numbers and are based on initiatives by the university members, to put these interactions into an institutional framework and to secure them in the longer term.

Cooperation ventures should also be promoted in the national and in particular the regional context to make better use of infrastructures and to prevent overlaps in research and teaching – which have been identified or can be anticipated – by entering into cooperation schemes or to achieve an improvement in quality. Here it is again the task of the university leadership to secure existing cooperation ventures at the level of researchers and teachers by putting them into an institutional framework, but also to open up new cooperation projects.

One particular category of cooperation projects with selected universities outside the European Research Area is being expanded into strategic partnerships. In this regard they experience an intensification of cooperation in research and teaching, for example with joint workshops or the exchange of teachers. Strategic partnerships are selected based on overarching principles, and in the final expansion will comprise no more than seven to ten universities.

4.3.1 International Cooperation in Research

In recent years, the University of Vienna has entered into cooperation agreements which apply to the entire University with a large number of renowned universities. At present, around 60 university-wide partnerships are in place and are secured on a contractual basis. Furthermore, there are other partnerships of varying intensity between faculties and centres.

The following special measures are planned in the field of research cooperation in the coming development planning period:

- Further development of the University of Vienna's internationalisation strategy with particular focus on the areas of research and strategic partnerships: The goal is to increase the number and intensity of university-wide cooperation ventures with leading research universities in Europe and beyond. This requires focusing the used resources on those cooperation projects that are classified as strategically important partnerships. These strategic partnerships will have to be defined more closely in respect of the particular subject-related significance of the partner universities or the geographical coverage. The aim here is to achieve a greater international network in the area of research in order also to increase the possibilities of successful project participation as part of Horizon 2020 and other EU-funded research projects.
- Provision of services: the aim is to further expand services for academics who come to the University of Vienna within the framework of cooperation schemes but also for guest researchers outside of cooperation agreements.
- Greater transparency in the area of international cooperation projects: the central database that has been developed to document international cooperation projects and is available for all employees of the University of Vienna needs to be continuously added to and further developed.

4.3.2 Promotion of Student and Teacher Mobility

One major objective is to increase the proportion of students who have completed a part of their studies at a university abroad to complement their studies, improve their command of languages and gain experience of other social and cultural environments.

In terms of internationalisation in teaching, the following special measures are planned:

- Make the most of the potential of ERASMUS+: ERASMUS+ is the new EU programme for education, training, youth and sport for the period 2014–2020. It covers all areas of education and training and replaces several existing EU programmes. With ERASMUS+, considerably more EU funds are also provided to support cooperation and mobility projects, with goals including an increase in employment opportunities on a converging European labour market. The University of Vienna will make the most of the potential of ERASMUS+, e.g. in the area of internships, it will continue to provide the best possible institutional support for outgoing and incoming students, and will further develop the portfolio of partnership agreements with a focus on quality. It will also ensure that the possibilities of staying at a foreign university are improved in the curricular design of degree programmes (mobility windows).
- The Non-EU Teaching Mobility programme: to intensify existing cooperation projects but also to extend courses held in foreign languages, smaller visiting professorships are being advertised as part of the Non-EU Teaching Mobility programme. Members of partner universities who develop appropriate courses with the directorates of studies and who are invited to the University of Vienna after a competitive selection process are entitled to participate here. This programme will be further developed in the coming development planning period and publicised more within the University.
- Quality assurance in the area of summer schools: between 20 and 30 summer and winter schools are offered each year by members of the University of Vienna. To ensure the internal organisation, financial security and joint marketing in the long term, a corresponding process has been launched which checks the available summer and winter schools according to quality criteria, supports them and awards them a quality label. This important area for the University will therefore be rearranged, in part to make the University more attractive, particularly for students from overseas.

4.3.3 National Cooperation

Despite the traditionally good relations at the personal level, autonomous universities are in institutional competition with other universities and non-university research institutions. On account of scarce resources but also to enhance potential synergies, there is an increasing need to enter into national cooperation ventures for strategic and financial reasons and to establish them at the institutional level. For structural reasons there are excellent prerequisites for greater cooperation – in the environment of the University of Vienna there are several universities, universities of applied sciences, university colleges of teacher education and also prestigious non-university research institutions.

The following specific activities need to be intensified:

- Further development of existing cooperation: existing cooperation schemes need to be further developed, particularly in fields such as bioinformatics or computational science, high-performance computing, quantum physics and selected fields of the humanities and social sciences. These also need to be secured on a contractual basis to strengthen the mutual obligations as part of the cooperation. Existing examples include the WasserCluster Lunz, the Diplomatic Academy of Vienna, membership in the Climate Change Centre Austria (CCCA), and the Vienna Center for Quantum Science and Technology (VCQ) as well as the planned participation in CESSDA (Consortium of European Social Science Data Archives).
- Cooperation schemes with the Austrian Academy of Sciences (ÖAW): the existing cooperation schemes with the ÖAW, which already arise because many heads of research institutions are, at the same time, professors or associate professors at the University of Vienna, are being continued. With the combination of university-based and non-university-based basic research there are not only resource-oriented synergies but also further developments of contents. In addition there is the connection between research and teaching which is beneficial for both institutions. In the coming years, in particular in the field of digital humanities, the cooperation with the ÖAW and with the University of Graz will be intensified, the tried and tested cooperation in the area of quantum physics is going to be strengthened and institutionalised by establishing an Erwin Schrödinger Center for Quantum Science and Technology together with the ÖAW, the Vienna University of Technology and the University of Innsbruck.
- Cooperation with the Medical University of Vienna: the tried and tested cooperation with the Medical University of Vienna as part of the jointly run Max F. Perutz Laboratories is being continued; the financial framework and the essential contents have been specified in an agreement which is initially valid until 2020. The Max F. Perutz Laboratories will continue to carry out internationally visible basic research in the field of molecular biology and, in this regard, will also enhance the link to clinically relevant subjects.
- Cooperation with the Vienna University of Technology: the existing agreement in particular in the areas of physics and chemistry will be continued. New subjects for increased cooperation are now presenting themselves, based on FWF-funded joint projects, in mathematics (in particular in the fields of partial differential equations and discrete mathematics) and, in the future, also in computer science.

The programme of jointly funded research clusters based on the model of research platforms with the Medical University of Vienna will be continued and extended to other universities and possibly also non-university research institutions in the Vienna area.

The expertise developed in recent years in the field of cognitive sciences in cooperation with several faculties (including the humanities) at the University of Vienna, the Medical University of Vienna and the University of Veterinary Medicine, Vienna, can form the backbone for the expansion of these activities towards neurosciences; in this internationally highly competitive field, the establishment of competitive research, and research-led doctoral and master's programmes can succeed only in a carefully selected partial area while including strong non-university partners such as the Research Institute of Molecular Pathology (IMP) and the relevant institutes of the ÖAW.

Cooperation schemes with university colleges of teacher education are covered in section 4.1.4 'Focuses in the Area of Teacher Education Programmes'; based on existing institutional connections, the cooperation regarding contents in the area of universities of applied sciences will be extended with FH Campus Wien initially. Generally, attention needs to be paid to cooperation schemes with universities of applied sciences; the basis for this is the legally enshrined varying mission statement of universities and universities of applied sciences which characterises the differentiated higher education sector. The long-standing cooperation with the Diplomatic Academy of Vienna will be strengthened by the initially temporary establishment of a joint professorship and cooperation in the doctoral programmes.

4.4 Impact of the University on Society

Universities contribute in many different ways to the development of society, also and especially in the region: in the narrower sense, via their core tasks by generating new knowledge (research) and by teaching this ((continuing) education and training) and with the jobs and study places at the university created in this connection as well as the value added; in the broader sense, as the university takes on the role of a store of knowledge, for example through its libraries, ensures widespread availability of this knowledge and transfers knowledge discovered at the university to society and business. In any case, a university's impact also comprises active interaction and communication with the economy, society, the public and policy-makers. To meet its strategic goals as a university, the University of Vienna will use its anniversary year to show the University's impact. 2015 is an occasion to give the public an insight into the work of the University and to show the social and economic effect and the influence of this work. All events have one thing in common: communicating the relevance of research and teaching for the further development of society and the education of future generations.

Cooperation with the non-university sector again leads to stimuli for basic research, the findings of which are essential for creating innovation. The University of Vienna wishes to extend its economic and social commitment initially by participating more intensively in existing programmes. Greater commitment with regard to knowledge transfer requires corresponding appreciation, both inside and outside the University. In addition, new support programmes and an additional focus on knowledge transfer to existing programmes represent an important basis for being able to perceive social commitment as a responsibility.

4.4.1 Knowledge Transfer and Innovation together with the Economy

Excellent basic research makes the University an attractive cooperation partner for commercial enterprises. Innovation always emerges from the findings of high-quality basic research. Based on this, the University of Vienna wishes to create increased networks with the (regional) economy but also with other universities, universities of applied sciences and non-university research institutions.

On account of its wide range of subjects, which is unique in the region, its many experts in specific subjects and also its expertise, the University of Vienna is an attractive partner for cooperation schemes with the business community, and in particular also for interdisciplinary and intersectoral research projects.

In its Societal Challenges pillar, in particular, the European Framework Programme Horizon 2020 offers many possibilities of participation for academics from all areas in the University of Vienna on issues of high relevance to society. In addition, the Framework Programme also aims to cover the entire innovation chain from basic research up to the marketing of the products. To be successful as part of Horizon 2020, it is necessary (with adaptations for the respective academic discipline) to work together more with regional, national and international cooperation partners from the business community and society.

To ensure there is an innovative climate at the University of Vienna, it is important that the transfer from basic research to the economy and society has an appropriate level of prestige.

Regional knowledge transfer centres aim to continue to improve the cooperation of universities with each other and with other research institutions and companies, to strengthen strategic patent promotion and, by promoting prototypes, to facilitate the transfer of academic findings to business practice. The University of Vienna has a leading role in the Life Science transfer centre, where resources and competences of research in Austria are pooled together in this area with the involvement of companies.

Based on disciplinary research and also on interdisciplinary cooperation within the University of Vienna and in cooperation with other universities and non-university research institutions, high-level results are being produced in basic research. With this as a basis, the University of Vienna also seeks to play an active role in the exploitation of results. Research results obtained within the University or with other research institutions and, if appropriate, employee inventions can be utilised in different ways: on the one hand in cooperation with leading businesses or SMEs, on the other hand as part of intersectoral projects, such as those supported by the FFG (COMET centres) and the Christian Doppler Research Association in the Framework Programme Horizon 2020 by establishing joint laboratories, and finally with new companies founded by academics from the University. Spin-offs are a particular innovation driver for the regional economy. The cooperation with the non-university sector means important new stimuli revert to the University and contribute to the further development of basic research there. New contacts are also being established which can lead to additional interdisciplinary and intersectoral projects and strategic

partnerships with companies. In this way, existing linear models of an innovation chain are being abolished and merged in an innovation cycle.

4.4.2 Knowledge Transfer and Innovation for Society

In knowledge-based societies, knowledge is increasingly becoming the competitive factor of the future and the sole permanent source of competitive advantages. For economic growth and social development it is important to develop innovative ideas and also to implement these. In this respect, a university education irrespective of the degree programme is good training because in addition to subject-specific content it also teaches general competences such as analytical ability, joined-up thinking and linguistic competences. In the study stage, the University already wants to enhance the social and practical relevance and become involved in initiatives that provide education via a thought-out link of academic knowledge with practical commitment (service learning). In teaching at the University, academic learning therefore needs to be connected with social commitment.

Enthusiasm for academic knowledge and its contribution to solving the major societal issues must be generated before studies begin. Here the focus of the University's measures is on children. The format 'Children's University of Vienna', which has taken place for over 10 years, is well established and integrated in the best sense. The University also cooperates directly with schools and uses programme elements such as Sparkling Science to work directly with teachers and pupils. In these projects, academics work side by side with young people on research issues.

As a contribution to enhancing diversity and greater social inclusion, the University of Vienna focuses particularly on developing programmes for children and young people with a migration background or who may be from an environment that tends to be educationally disadvantaged. Easily accessible offers for children in the public sphere are already being successfully implemented. With these programmes the University aims to work towards ensuring that the student population represents a greater cross-section of the population in the future. This goal also has to be pursued in schools by effectively encouraging children and by providing individual learning programmes. Teacher education programmes are also an important key for removing the still strong connection between origin and education by strengthening teachers' abilities to recognise and encourage the potential of pupils. For this purpose, the University of Vienna will make a contribution via the Centre for Teacher Education. In addition, pupils with a migration background need to be attracted more to teacher education programmes to give a particular dynamic to the

development via a more diverse teaching staff. Increasing the number of students with a migration background represents one objective overall. This can be achieved only by increasing the number of holders of the upper secondary school-leaving certificate who have a migration background. With a mentoring programme which supports pupils from school until they reach university level, the University seeks to motivate pupils with a migration background to study. This also requires resources from other areas, however.

Cooperation schemes with schools, with companies, public institutions and interest groups help promote knowledge transfer and lifelong learning in society. Through its graduates, the University has a broad network which extends to the many different branches of trade and areas of society. In the future the University wishes to provide its alumni/alumnae with even more possibilities so that they remain part of the University's network after they finish their studies. The University of Vienna also sees a strong alumni/alumnae network as an important component in the medium term in order to implement projects with third parties and also find new sources of funding for the University. Students who, at the University, have already experienced the added value which is created through cooperation between the University, on the one hand and the economy and society on the other, can, as alumni/alumnae, encourage cooperation schemes with all the more persuasion and conviction with their alma mater at a later point in time.

A university needs to have the pool of knowledge and methodology at hand and should also continue to develop this in order to look for answers to new questions. Its social responsibility is also found here. The University of Vienna also demands this of itself with its broad range of subjects. If there are changes in social issues, there will also be new tasks and questions for the University. One current example of this is the responsibility of policy-makers and society to set up an academic bachelor's programme in Islamic Theology; there is already a government bill to create the legislative basis. In the disciplines philology, law, philosophy and different theologies, the University of Vienna has experts who can provide academic support for this difficult task. With the help of funding which is provided specifically for this purpose, and under consideration of the legal regulations and high quality requirements, the University of Vienna will strive to take on this social responsibility, recruit suitable academic staff and set up a bachelor's programme in Islamic Theology. Access to this programme, however, has to be possible irrespective of religious affiliation and gender.

4.4.3 Lifelong Learning, Continuing Education and Training

Lifelong learning is becoming increasingly important for employees and employers in a dynamic labour market with constantly increasing requirements in the areas of education and specialisation. As the biggest higher education establishment in Austria, the University of Vienna sees a strong role for itself in the area of tertiary education. The University of Vienna is a carrier of research-led and state-of-the-art knowledge and constitutes an interface between theory and practice. The continuing education and training programmes reflect the broad range of subjects. The diversity of courses can also be seen in the wide range of different degrees (including MA, MSc, LL.M., MES) which students can obtain in continuing education and training programmes. In addition, the portfolio also contains corporate programmes, certificate courses, summer schools and interdisciplinary series of events to go alongside lifelong learning.

The more real this knowledge society becomes, the more branches of trade are knowledge-driven in their development and the more important it is to have ongoing further and new qualifications of employees for their respective employers. By studying at the University of Vienna, students acquire the basic competences that make it possible constantly to adapt to new requirements of the labour market. With its continuing education and training courses, the University of Vienna supports this lifelong learning and qualification process in a special way. The core target group of the continuing education and training courses is employed academics who want to complete a continuing education or training programme alongside their professional activity. In addition, there also needs to be greater focus on two further target groups in the future: students holding a bachelor's degree who are interested in enhancing their career prospects with a master's programme that continues their education, and also international students.

Demographic developments bring another dimension to lifelong learning, i.e. dealing with the connections between ageing, learning and education. Lifelong learning is important beyond the employment stage of life. The University of Vienna will take this development into consideration for the further development of its programmes.

The University of Vienna builds on its strengths in designing the range of programmes for the field of continuing education and training. The focus of future offers is on improved further development of research-based programmes with relevance to the labour market, the increase of interdisciplinarity in the available courses, and making teaching methods more flexible. The further development is geared towards the market and increasingly towards practical applications. In this context, greater use needs to be made of existing cooperation schemes and synergies with the area of knowledge transfer in research.

When designing and implementing its continuing education and training programmes, the University of Vienna is oriented towards the objectives of the European Universities' Charter on Lifelong Learning as well as the lines of action of the Austrian national strategy for lifelong learning (*Strategie zum lebensbegleitenden Lernen in Österreich*). It understands lifelong learning as an extensive concept that relates to all types of knowledge transfer. It is committed to the principles of lifelong learning and uses targeted measures to promote lifelong learning processes as part of its educational and socio-political responsibility and within the possibilities permitted by the budget.

4.4.4 Public Awareness, Public Relations Work

Society's expectations for the University also include more active communication by the University on issues related to the future.

With formats that permit an insight into how research questions and projects emerge, how these are implemented and how the academic sphere acts as part of an international network in relation to this, the University wants to show how important the academic world is for the different areas of life and work. By communicating the latest research findings in teaching and also via events aimed at an interested general public, current knowledge is passed on directly. In this way the University also fulfils its role as an initiator of innovation by transferring knowledge and information.

The University has the opportunity and the obligation to show its contribution to solving the great questions of the future by presenting work done in research and teaching in a comprehensible way and broadcasting this to the general public. The University's goal is extensively to communicate its range of services to the public through these measures and to make these services publically visible, so that the University can assume its social responsibility and make an important contribution for the future of society and the economy. This is done as part of a coordinated communication strategy which, by taking a holistic look at all communication activities aimed internally and externally, will communicate to the public a clearly structured picture of the University in line with its diversity. The range of activities extends from public awareness measures to classic media relations and a broad and target group-oriented online presence.

4.5 Quality Assurance

Quality assurance at the University of Vienna pursues the objective of making its continual orientation towards quality and international standards a practical reality. In a more comprehensive sense, quality assurance elements are integrated or need to be integrated into many areas: into the appraisal of research achievements, personnel-related decisions, particularly into appointment procedures, into curriculum development processes, into control mechanisms such as target agreements and into the continuous improvement of service quality.

4.5.1 Comprehensive Evaluation as a Principle

In recent years, extensive experience has been gathered with evaluations that led to the further development of the process, and in particular to the improvement of the ratio between expenses and income.

All organisational units are regularly evaluated every seven years. According to the principle of comprehensive evaluation, all services are subjected to a peer review process together here. The evaluations are designed as a procedure with several levels (self-evaluation of the unit, peer review with site visit, follow-up). With large and heterogeneous faculties, before the site visit by the peers, there is also a written appraisal of the curricula and the research achievements at the level of academic disciplines. Here the comprehensive approach of the evaluations is not contradictory to unit-specific/occasion-based focuses: it is possible to focus on specific themes/issues which are determined together in advance by the Rectorate and the head(s) of the unit which is being evaluated.

On the basis of the evaluation report of the reviewers and the opinion of the evaluated institution there is an implementation discussion between the Rector and the head(s) of the organisational unit where the results of the evaluation are discussed and specific measures are agreed. The agreed implementation measures and the achievement of objectives are monitored as part of the target agreements between the Rectorate and the faculty/centre or service unit.

4.5.2 Appointment and Recruitment Procedures for Professorships and Tenure Track Positions

The performance of a university is based especially on motivated and qualified staff at all levels, in particular at the level of professors and associated professors. Therefore the organisation of appointment procedures is of utmost importance. The focus is not only on transparent, efficient and quality-controlled procedures but also on the potential of the University of Vienna to recruit the best academics in international competition with other institutions.

The active search for candidates is therefore a major component of appointment procedures. Either the appointment committee, which is appointed by the Senate, can search actively for candidates who have not submitted any application and request them to apply, or the committee can be supported by recruitment officials who must be appointed by the Rector in consultation with the respective dean.

The university-level didactic qualification of the candidates needs to be taken into consideration to a greater extent in the future as part of the appointment procedure. While in the appointment presentation the focus is on the academic activity of the candidates, in the context of a lecture given as a test for the candidates a general theme needs to be presented which is related to the sphere of action of the professorship that is to be filled.

The appointment committee is obliged to draw up a justified appointment proposal based on expert opinions and taking into account the assessment of the various candidates' lectures, the subsequent talks, the lecture given as a test for the candidates and the opinions submitted. The decision-making process of the appointment committee needs to be transparent and well-documented.

The Rector decides which candidate is selected based on the appointment proposal or can reject the appointment proposal if it does not contain the most suitable candidates. The Rector's decision is based on a comparative analysis of the candidates with regard to the advertised criteria and on an assessment according to international quality standards which are typically used for the subject, if necessary also involving additional external expert opinions.

The University of Vienna has also specified a quality-oriented process for filling tenure track positions. Tenure track positions are usually advertised internationally. The appointment proposal submitted to the member of the Rectorate who is responsible for personnel issues is prepared by a panel chaired by the member of the Rectorate who is responsible for research and comprises the (vice-) dean as well as professors from related subjects (including associate and associated professors). The appointment proposal is based on a comparative international appraisal.

The decision on whether to provide a qualification agreement comes two years after commencement of duties at the latest. After four years it is generally checked whether the qualification targets have been met. This is done on the basis of international expert opinions by an analogous panel, and includes giving a lecture to a panel of experts. If the qualification targets have been met, a permanent employment contract as an associated professor will be concluded with the candidate.

4.5.3 Quality Development in the Area of Studies and Teaching

Quality development in the area of studies and teaching is a joint task in which students, teachers and decision-makers cooperate in their different fields and which focuses on various levels.

In addition to the comprehensive evaluation, other quality assurance elements are established such as regular course evaluations, graduation surveys, graduate tracking, as well as specific surveys on individual services to further develop the available degree programmes and the curricula, to improve both the available programmes taught and individual courses as well as the organisation of teaching.

4.5.4 Quality Management and Target Agreements

In line with the concept of the quality culture, the responsibility for quality is distributed over various levels and a series of bodies, boards and stakeholders. Assuming responsibility at each of these levels, and the constructive cooperation of everyone involved, are essential for the system of quality assurance.

The shared responsibility for quality means it is possible to pay attention to the specific requirements of the different disciplines and subjects and puts this responsibility into the hands of competent people. Accordingly, procedures and instruments of quality assurance are designed so that specific conditions and requirements of different subjects are taken into consideration.

At the central level, the Rectorate in particular is responsible for quality assurance, it fulfils this responsibility in central governance processes, in particular by taking into consideration the results of the evaluations and other specific measures of quality assurance in development planning and in the target agreements. As part of curricular development, the Senate and its Curriculum Committee in particular are responsible for quality assurance tasks.

The periodic target agreements between the Rectorate and organisational units play an important role in assuring quality. These serve as a steering mechanism for implementing the objectives of the *Development Plan* and the performance agreement at the level of organisational units and, at the same time, integrate the results of quality assurance instruments in a structured form.

To include the views of outsiders, a Scientific Advisory Board has been established at the University of Vienna which advises the University on questions of the long-term strategic focus in particular. The Scientific Advisory Board, which, according to the *Organisation Plan*, includes two members with evaluation experience/management experience, also advises the Unit for Quality Assurance in strategic quality assurance matters.

4.6 Staff Structure and Human Resources Development

The University of Vienna depends on the talents, qualifications and commitment of all those involved in the institution, the teachers and researchers, and also the general university staff and students equally. All of them are jointly responsible for its functioning and further development, considering the necessary differentiation of functions which is the result of a system of division of labour.

The recruitment of new staff, the higher and further qualification of existing staff, the workload- and performance-oriented distribution of staff positions within the University and enabling professional careers for the academic as well as the general university staff in the interaction between mobility and institutional affiliation, are key human resources policy measures which are of major importance for a strong university. The University of Vienna employs 9,700 people or 5,300 calculated as full-time equivalents. The University of Vienna is therefore one of the biggest employers in the city and makes an essential contribution to the creation of value in the location of Vienna, not least through its employees. If only on account of this size, human resources policy measures always need to be generally applicable and examined carefully for their financial effects, in view of the number of people concerned.

4.6.1 Strategic Human Resources Planning

Strategic human resources planning constitutes a central element in the further development of the University of Vienna over the next few years. Strategic human resources planning includes the anticipatory, needs-oriented conception that serves research and teaching objectives and concerns the filling of staff posts at all levels that have become vacant or are newly created. The employee categories enshrined in the Collective Bargaining Agreement for University Staff, their function profiles and tasks form the basis of human resources planning. Since the beginning of the University's autonomy, professorial posts have been discussed in detail and much attention has been paid to them in the course of development planning within the University. Strategic human resources planning of all the other positions of the academic and general university staff has also been clearly intensified and this needs to remain the case. The autonomy of universities and the introduction of the Collective Bargaining Agreement for University Staff formed the basis for strengthening human resources planning, staff selection and human resources development within the University. Here the University is required to realise a staff structure which is efficient and cost-effective, suitable for different generations and sustainable in the long term and which also offers a fair chance of being employed in the academic university staff for future generations.

Specific target staff appointment plans are discussed jointly with the academic and administrative organisational units and agreements are concluded with the Rectorate about medium- and short-term strategic human resources planning. Selected aspects that are of relevance in this strategic human resources planning include the following:

- Expansion of tenure track positions: The goal is to create tenure track positions where existing staff positions become vacant, particularly in organisational units (faculties and centres) which reveal particular research potential. Tenure track positions will be filled gradually to avoid a cohort effect, which would bring about the result that the majority of tenure track positions of an organisational unit will not become available for reappointment for several decades. At the same time, fixed-term predoctoral and postdoctoral positions aim to ensure that flexibility in human resources policy is maintained or established.
- Greater focus on postdoctoral positions: in areas where the share of postdoctoral positions is currently low, possibilities of increasing this share need to be checked. In addition, a competitive programme needs to be set up at the University of Vienna within its budget and in which there are postdoctoral positions offered in all subjects which are competed for by applicants. In any case this programme should also be made visible and attractive for applicants from abroad. The University of Vienna seeks to provide holders of postdoctoral positions with institutional aid for their development, in particular the development of their academic career.
- Task-oriented employment in particular of the general university staff: the Collective Bargaining Agreement has created a number of task-specific profiles for the general university staff (administrative staff by category). The implementation of the Collective Bargaining Agreement needs to be steadily continued in this field, while the planning of employment of the general university staff is to become more task-oriented and traditional organisation principles (linking with individual people) need to continue to be gradually abolished if appropriate for the subject. In this connection, clear structures in work organisation, in particular in the case of cross-sectional subjects, need to be taken into consideration as a basic requirement for productive cooperation. The corresponding work contents are clearly defined by the superior under consideration of the contractually agreed use. The future challenges of the work content also need to be taken into account (specialist equipment, increased use of IT, new forms of work organisation).
- Strategic planning of lecturers and senior lecturers: lecturers and senior lecturers need to be employed in line with the required functions on the basis of strategic considerations and under consideration of the existing framework conditions.

4.6.2 Human Resources Development and Personnel Management

Human resources development comprises all measures to raise the staff's potential and enhance their qualifications. Owing to the continually changing tasks in jobs, work organisation and work equipment, this requires a continuous renewal process for skills and knowledge. The target group-oriented and topic-specific seminar programme of university-based human resources development with around 400 events and a coverage of some 3,000 employees per year will also be used for this.

The pronounced legal and functional differentiation of the University's staff structure and also the challenges coming from employing staff from abroad require qualified and service-oriented administrative support. The University will continue to provide an appropriate support structure.

In the coming years, special activities are expected in the following areas:

- Further and higher qualification of the general and academic university staff: the University supports the employees of the University of Vienna by organising initial and continuing education and training as part of a comprehensive human resources development policy that is geared towards current demands. The objective is to renew work- and workplace-specific qualifications with lasting effect and therefore to broaden prospects and usability for staff. In recent years particular activities have been carried out, for example in the development and implementation of support programmes for young scholars, further qualification of teachers, enhancement of foreign language competence and in the form of accompanying measures for holders of tenure track positions. Such activities need to be continued. All doctoral students employed at the University of Vienna – and not only those financed out of the global budget – also need to be given the opportunity to make a contribution to teaching at the University, which not only represents a valuable addition to the available courses but also permits further qualification of the doctoral students.
- Welcome seminars for newly appointed professors: executive staff take on major responsibility for the development of their organisational units, but also for the individual employees. The goal is to prepare them for their task in a targeted manner. It is planned to further develop events for newly appointed professors, successful completion of which is expected by the governing bodies of the University. In the form of modules, such events aim to inform about research funding in Austria or about labour law, study law and important procedures and work flows within the University.
- Preventive measures in the area of health care and conflict management: the existing services of the University of Vienna in this area need to be further developed in a target- and task-oriented manner starting from the existing structures.

4.6.3 Equality and Diversity

Based on the foundations for diversity management that have already been established for many years at the University of Vienna, it is now necessary to work on its further development and expansion. To implement the principle of equal opportunities, the University of Vienna supports framework conditions that encourage the many different students and employees to cooperate. As one of the core dimensions of diversity, gender equality is given particular importance. At the University of Vienna, gender equality is not merely a statutory obligation but also a key component of the profile of the University's culture. For the University of Vienna, the promotion of gender equality between women and men is therefore a key concern. Objectives include a balanced ratio between women and men at all levels; lasting integration of gender equality as a guiding principle of the University's culture; and equal starting conditions and access opportunities for women and men. The objective of gender equality is integrated in all of the University's activities and enshrined as a universal guiding principle.

Special planned measures include the following:

- The University of Vienna wishes to continue to take measures to bridge potential career breaks. The Berta Karlik Programme to improve the appointment opportunities of highly qualified female academics needs to be evaluated in particular with regard to its relevance for closing the gap in career paths and, if necessary, replaced or complemented by other measures to bridge potential career breaks and pave the way for appointability (e.g. via Berta Karlik habilitation positions).
- Awareness-raising: the existing instrument of gender pay gap monitoring is being continued and further enhanced by the addition of gender-specific analyses of the use of resources within the University. The University continues to focus on dealing with and providing support in cases of discrimination, bullying and also sexual harassment.
- In the area of diversity management, targeted measures are being developed and implemented with reference to the key results of the student survey on diversity. In any case, when students are admitted to degree programmes, one basic measure will be to collect the information that is necessary for recording diversity and therefore also the social and migration-related background. Only then is it possible to address the target group and monitor the corresponding measures.

4.7 Infrastructure

The University of Vienna endeavours to provide its scholars and students with the best possible infrastructure while taking into account dynamically changing work and study conditions at the University. The aim here in particular is to take the necessary precautions in good time so that research and studies at the University of Vienna can also be at an internationally competitive level in the future. As part of its location concept, the University of Vienna has set clear priorities for the required investments.

In view of the necessary investments, additional resources will, in any case, be required in the next few years. Clear priorities and a targeted search for possibilities of further increasing efficiency, e.g. by standardising systems and processes, continue to be necessary. In this regard it is a challenge to find the right balance between flexibility and orientation towards the needs of the users with the necessary uniform standards. The planning process is being adapted so that the specific needs and expertise of the users can be taken into consideration as early as possible.

The infrastructure-related measures concern occupational health and safety, environmental protection and sustainability, and depend on additional funds in the next performance agreement period from 2016–2018.

4.7.1 Research Instruments and IT Infrastructure

In the field of large academic IT infrastructure, the key project is the high-performance computer of the Vienna Scientific Cluster (VSC), which is operated jointly with the Vienna University of Technology with the participation of the University of Natural Resources and Life Sciences, Vienna. In the meantime, other Austrian universities have also started to participate in this. To remain competitive in the area of supercomputing at the academic level and to continue to be able to provide the academics of the University of Vienna with the required computing capacities, it will be necessary to make regular investments.

As part of structural funds for the higher education area of the Federal Ministry of Science, Research and Economy (BMWFW), there is cooperation and joint use of large research instruments beyond institutional borders. In view of the high need for reinvestment for large research instruments, the University of Vienna will also continue this pooling with greater emphasis within the University, e.g. as part of joint labs/core facilities, and it will also test the possibilities of amalgamation in workshops. As part of any further calls regarding the structural funds for the higher education area by the Ministry, the University of Vienna will make applications for jointly operated research instruments.

The objectives for the IT infrastructure, ensuring the best-possible support for scholars, students and administrative staff, further standardisation of processes and systems, particularly in the administrative area and continuous improvement of the user-friendliness of the systems, remain applicable.

As well as necessary reinvestments in the basic IT infrastructure (e.g. cables, servers, network), there must continue to be a particular focus on the area of IT security. For the structured long-term planning and prioritisation, an 'IT master plan' is being developed for the University of Vienna with the involvement of the IT Advisory Board. In the area of IT services for studies and teaching, the priority is the implementation of the studies service portal. In addition, the available e-learning courses need to be constantly improved.

In the area of research/research support, existing services need to be further developed for all service units (e.g. digital preservation) or new services need to be introduced: this concerns, for instance, the area of digital humanities, which is being developed as part of the emerging Austrian Centre for Digital Humanities together with the Austrian Academy of Sciences (ÖAW) and the University of Graz and is being given academic support at the Faculty of Historical and Cultural Studies with the establishment of a professorship.

4.7.2 Area and Locations

The objectives of the location concept are, in particular, the consistent further consolidation of the locations of the University of Vienna, which defines itself as an urban university with locations mainly in the inner districts, an increase in the functional use value for the members of the University, and also an increase in the efficiency of the space used. Here the strategic location concept, which provides a basis for medium- to longer-term location decisions, is based on a systematic portfolio analysis. The location concept enables long-term planning with regard to expected investment costs, e.g. for necessary building restorations and also for new building projects/new rentals.

With the implementation of the new building projects Sensengasse, Währinger Strasse 29 and at Oskar-Morgenstern-Platz 1 (Uni Wien Rossau), it was possible to take important steps towards the consolidation of locations. At the same time, the basis for cross-disciplinary cooperation was established at these locations by merging several academic disciplines. The challenges in the coming years concern the necessary building renovations which arise on the one hand from repair backlogs on account of budget restrictions, and on the other hand from the implementation of legal obligations concerning occupational health and safety, fire safety and accessibility. This concerns the location UZA II, for example (renovation of building equipment and appliances).

Overall, sustainable solutions are required which need corresponding decisions to be made by the Federal Government: this is particularly relevant for the planned replacement building for the current UZA I (Faculty of Life Sciences) in Vienna's third district (Vienna Biocenter). By locating this in the Vienna Biocenter it might also be possible to strengthen the links in terms of content with MFPL, ÖAW institutes and the Research Institute of Molecular Pathology (IMP) so that the implementation of this building project would decisively strengthen the Vienna location in this area. The University of Vienna already has been engaged in this very important infrastructure project for a substantial period of time. Should the general renovation of the existing location be required on account of a further delay in reaching a political decision on the financial feasibility of the new building, this would not only lead to an extensive disruption in research and teaching but also to considerable additional costs.

Increasing numbers of students, in part because of the success of the STEM initiatives which were carried out, and successful acquisitions of third-party funds, which also lead to increased space requirements, make long-term solutions necessary in the areas of chemistry and physics, for example. It is still a priority for the University of Vienna to implement the joint book depository with other universities as a requirement for the extensive adaptation of the Main Building. To consolidate locations, the possibility of merging social sciences at one location is now being examined.

In all building projects and building renovations, particular attention is paid to modern, multifunctional service and communication areas for students. The University of Vienna is consistently pursuing its Student Space project: the key objective of this project is jointly to shape the University as a living space with the involvement of students, to create and further improve the places of learning where students can communicate with each other and with teachers without being obliged to eat or drink anything.

In view of the shortage of resources, work is continuing on the more efficient use of space, for example by ensuring that it is utilised appropriately. In periods when there are no courses, the allocation of rooms by the Conference and Event Management

contributes to this and, at the same time, also enables important academic conferences to come to the University of Vienna, with the costs fully covered.

4.7.3 University Library

The University Library provides the members of the University and also interested members of the public with media relevant for research, teaching and studies, and is also a host of other services. In the area of core tasks, the existing possibilities continue to be further developed with orientation towards demand and the needs of the users. This includes, for example, the programmes for teaching information literacy.

The consistent consolidation of locations, the reduction of locations by merging them into larger library units is being continued to make it possible to offer more services to academics and students (for example, by extending the opening hours).

In addition, the other services to support researchers (e.g. in the area of digital preservation) and teachers (e.g. plagiarism assessment) and the service-style tasks for the entire University (e.g. bibliometrics and scientometrics) are being consistently further developed in consultation with the users.

The implementation of the open access policy at the University of Vienna is supported by the University Library, in particular by advice for researchers. According to this policy, publications of researchers employed at the University of Vienna have to be stored in the institutional repository u:scholar and publications also have to be published to a greater extent in open access journals. The conversion of journals published at the University of Vienna to open access also needs to be continued.

5. Key Research Areas of the Faculties and Subject Dedication of Professorships

5.1 Faculty of Catholic Theology

5.1.1 Objectives

The pluralistic societies of the present day are characterised by a diversity of religious orientations and world-views. The pressing question we are facing is what the Christian faith can contribute to the development of new perspectives of purpose and meaning, as well as to cohesion in modern society.

In its teaching and research, the Faculty of Catholic Theology approaches the corresponding issues in two ways: on the one hand, it examines Christian approaches to meaning and, in a critical dialogue, tests their plausibility in view of the diversity of social developments. By elaborating the concept of human dignity, it examines fundamental principles for human self-perception from a theological perspective, and for orientation in the ethical and cultural challenges of our time, and thus contributes to the academic discourse on a humane organisation of society. This undertaking has a firm philosophical and historical basis, characterised by a lively exchange with related disciplines and recourse to a wide range of methodologies.

On the other hand, the Faculty of Catholic Theology applies methods used in religious studies, the humanities, as well as cultural studies and social sciences, to preserve an essential part of the cultural memory of European societies with regard to its relevance for the present day. Looking back on the cultural and historical outlines of Christianity and the great religious traditions enables us to reaffirm and define our own tradition from a scholarly angle, and understand key European concepts and ideas, which stem – either directly or in a fragmented form – from Christianity and other religious traditions and cannot be grasped in full without a Christian basis.

Within the University of Vienna, the Faculty of Catholic Theology closely cooperates with the Faculty of Protestant Theology, which is reflected in a jointly issued series of publications. The area of gender studies has been structurally integrated into a network across both faculties. Here, the category of gender is part of the individual subjects, as a general research perspective, to support the process of transformation towards greater gender equality in society and Church. The Faculty's ecumenical goals are also pursued in a broad cooperation particularly with Eastern Churches: in this context, the location of the University, situated between Western, Eastern and South-Eastern Europe, plays a special role with regard to research and teaching.

The interdisciplinary orientation of the Faculty is reflected in its cooperation with other research areas of the University of Vienna, as well as in its participation in research platforms. Within the theological degree programmes, the teaching activities of the Faculty combine the expertise of several disciplines involved in religious research. In cooperation with numerous faculties, it pays specific attention to the interaction of religions and social transformation, and pursues an explicit open access policy with regard to the resulting publications. The goal of these endeavours is to intensify sustainably this cooperation through the co-location of

institutions involved in religious research and the contribution of expertise in the area of religious sociology. In this way, synergies can develop, and the religious research at the University of Vienna can be made more visible at the international level. An additional focus of the Faculty is on the interdisciplinary and international research into values, and commitment to human rights issues.

Between conflicting tendencies towards identity on the one hand, and diversity on the other, the social and academic contribution of the Faculty of Catholic Theology is particularly apparent in the following areas: the relevance of the existence of God and of religions in the public sphere, as well as of the associated processes of transformation in the 21st century; ethical forms of reasoning in multicultural, multireligious and secular contexts; reflection on spiritual experience in modern societies and its relationship to biblical and mystic source texts; ecclesiastical structures in the Middle Ages and paradigms of medieval theology in the context of theological history, as a heritage that continues to be felt in today's society and contributes to the analysis and patterns of interpretation of recent conflicts.

5.1.2 Thematic Areas and Key Research Areas

In its research, the Faculty of Catholic Theology covers five thematic areas which, in line with the traditional structure of the degree programme, relate to the basis of theology in the humanities, cultural, social and religious studies, as well as to knowledge on religions in the world on the one hand, and to genuine theological research on the other.

The first thematic area, i.e. philosophy, social ethics and study of religion, examines fundamental philosophical questions, as well as philosophical approaches to the question of God and of human self-understanding, as a prerequisite for theological discourse. In addition, questions of coexistence on a basis of peace and justice, social cohesion and human rights, the humane orientation of one's personal life, as well as justice in political and social institutions, are treated from a perspective of philosophy and social ethics, as well as in the context of interreligious dialogue, particularly with representatives of Islamic philosophy and theology.

Furthermore, this thematic area includes the representation and systematic comparison of religions and other systems that strive for purpose and meaning, as cultural phenomena, with regard to their history and their anthropological and socio-cultural contexts. The examination, across different disciplines, of the category of gender is particularly taken into account in the collection, interpretation and presentation of academic data.

Biblical studies, the second thematic area, examines the texts of the Old and New Testaments, with special emphasis on their origins and specific cultural contexts, including the history of interpretation and reception of these texts. The disciplines of both Old and New Testament studies maintain an exchange with the diverse movements of Judaism, where the majority of texts of the so-called Old Testament are also regarded as holy scripture.

The third thematic area, i.e. historical theology and Eastern Church ecumenism, studies texts, church life, liturgical practice, as well as historically grown church structures, which are indispensable for understanding the religious and cultural situation of the present day. Apart from traditional questions of church history, questions in the areas of spirituality and history of theology are examined. Finally, a specific focal area is Eastern Christianity and its specific traditions, as well as Eastern and Oriental liturgies.

The fourth thematic area is systematic theology, which examines Christian faith with regard to questions and problem areas that arise in the society and culture of the present day. In an exchange with philosophy, the relevance for human beings of the existence of God is elucidated. Here, actual religious pluralism is approached as a particular challenge for theology. Ethical questions in all societal areas are examined from a philosophical perspective, oriented towards Christian beliefs and their interpretation in the past and present, with respect for human dignity, from ecclesiastical, social, intercultural and global view-points.

The fifth thematic area, practical theology, is oriented towards a vision of life and learning in cultural and religious diversity. This challenge is met in the pedagogical context of the teaching of religion, where questions of an education that is sensitive towards religion, as well as subject-specific didactics are examined. Researching the question of values and religion in Europe provides important input to comparative approaches in social and cultural studies as well as the humanities. With regard to up-to-date church life, the themes of sermons, parish and sacramental pastoral work are addressed. The practical field of theology also includes matters of ecclesiastical law and government-enacted law of religion.

The key research areas of the Faculty include:

Religion and transformation

In the key research area of religion and transformation, members of the Faculty of Catholic Theology, closely cooperating with academics of other faculties, examine the conditions of current social and religious processes of transformation and their interactions. Here the focus is on the criticism of religion, the question of God, religion in processes of inclusion and exclusion, the reception and hermeneutics of religious texts, as well as religion and law.

During the period of the current *Development Plan*, the focus will be widened to include the non-European world in order to enable the study of the relationship between culture and religion in the context of global change as well. A question of particular interest is the extent to which religions have shaped, and still influence, the narrative and symbolic orders of global culture, not least in the emancipatory developments in non-European cultures. Another area of research focuses on the way in which religions respond to global challenges of our time (the ecological crisis, the dialectic of enlightenment processes, secularisation, pluralisation, urbanisation and technological progress).

The Faculty plans to enhance its activities to support the manifold research activities within the University of Vienna that are related to religion, and thus to intensify the structural links between different perspectives (of theology, study of religions, philosophy, law, cultural studies, social sciences and the humanities). Of particular importance is the dialogue between religions at the level of theological and religious philosophical reflection. The main aim of these endeavours is to increase awareness at the international level of religious research at the University of Vienna, and to increase international cooperation.

Ethics in religious and secular contexts

The strong political role that religious groups play in different world religions, as well as secular societies, requires new reflection on the relationship between ethics and religion. In view of this situation, the question arises as to how religious horizons of meaning and reason can be combined with ethical approaches. As far as concrete fields of action are concerned, the relationship between religious and secular contexts in education (e.g. teaching of ethics v. religion), business, medicine and society (e.g. family matters), as well as research and health policies, is of particular relevance. The objective of this key research area is to advance the discussion of fundamental questions in ethics in the context of pluralistic views of the world and to increase skills in ethical discourse. The Faculty plays an active role in interdisciplinary research into matters of socio-political relevance, such as the implementation of human rights, and is among the organisations that run the Department for Ethics and Law in Medicine.

At a location such as Vienna, this discourse is not limited to local contexts but also includes exchange with Central European partners and is integrated in an interreligious and ecumenical, as well as global and intercultural discourse – especially with the Philippines, Latin America and the Middle East.

Scripture and mysticism

A central objective of this key research area relates to the interdisciplinary and interfaith study of the interactions between the scriptures of different religious traditions and spiritual practices. This is in response to the shifts in religious approaches of modern societies, from institution-based to experience-related religiousness. The opportunities and ambivalence of this development are reflected theologically in an exchange with the mystical traditions of different religions. This research focuses primarily on the Bible, in particular the Old Testament, and the question of how to recover a spiritual understanding of scripture according to religious tradition in a reflective way. From a practical theological view, exegetic findings open up opportunities to investigate a specific thematic area concerning possibilities of a contemporary transformation of Christian spiritual practice in church contexts. The study of religion provides a perspective that permits a wider focus on this key research area to include non-Christian religious traditions as well, and thus to gain insight into the manifold ways of perceiving, identifying and academically reflecting on the relationship between scripture and mysticism.

Theological medieval studies

The key research area of theological medieval studies aims to examine theological texts, ideas and figures from the Middle Ages, defined as the epoch extending from late antiquity to the early modern period. This research area addresses the fact that the Middle Ages developed new questions that shaped not only theological thinking but also wide areas of today's culture. The theory and practice of medieval councils, for instance, has influenced the development of modern parliamentary systems and the constitution of the Church with a number of highly controversial issues right up to the present day.

The efforts that medieval theologians have made to find strategies for conflict resolution and for creating a world order may also contribute to the modern discourse on power, violence and tolerance. In-depth study of the history of medieval theology

may therefore play both an inspirational and a critical role for modern theology and culture. Medieval studies have been a model of successful interdisciplinary research within the humanities for years. Theological medieval studies as a key research area are a unique feature of the Faculty of Catholic Theology, which makes it different from other theological faculties in the German-speaking countries, where the history of theology tends to be focused on early Christianity (patristics) or the modern and contemporary periods.

5.1.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Biblical Studies (New Testament)
- Biblical Studies (Old Testament)
- Canon and Ecclesiastical Law
- Christian Philosophy
- Church History
- Dogmatics
- Ethics and Christian Social Teaching
- Fundamental Theology
- Liturgical Studies and Sacramental Theology
- Moral Theology
- Pastoral Theology
- Patrology and Studies of Eastern Churches
- Theology of Spirituality

5.1.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Religious Education and Catechetics
- Study of Religions

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Ecclesiastical Law
Time of appointment: following vacancy of the Professorship of Canon and Ecclesiastical Law (not before 1 October 2017)

Subject dedication of professorship:
Eastern Christian Studies
Time of appointment: following vacancy of the Professorship of Patrology and Studies of Eastern Churches (not before 1 October 2018)

Subject dedication of professorship:
Christian Philosophy
Time of appointment: following vacancy of the Professorship of Christian Philosophy (not before 1 October 2018)

5.2 Faculty of Protestant Theology

5.2.1 Objectives

The Faculty of Protestant Theology of the University of Vienna is Austria's only research institution that focuses on Protestant theology at the university level. It is integrated in academic networks in the region of Vienna, in Austria as well as at an international level, and has continuously intensified academic cooperation. The Faculty makes a fundamental contribution to social discourse on religious and ethical orientation from a Protestant perspective. The Faculty plays a leading role in its research areas. Its research strategies are aimed at:

- continuing a clearly focused research profile in which the Faculty's resources and structures are allocated to existing research areas in the best possible way;
- performing high-quality research to enhance the international standing and attractiveness of the Faculty;
- maintaining the Protestant academic tradition in Austria, with a view to its public impact;
- intensifying cooperation with the Faculty of Catholic Theology (so that the University of Vienna may become an internationally attractive location for investigating the ecumenical dimension of theology).

An improved co-location of the institutions involved in religious research, as well as the enhancement of expertise in religious sociology can create additional synergy, further intensify interreligious dialogue and make religious research at the University of Vienna more visible at the international level.

5.2.2 Thematic Areas and Key Research Areas

The Faculty's objectives are focused on two thematic areas: the sources of Christianity on the one hand, and religion and theology in a pluralistic society on the other. These two areas comprise six key research areas of equal importance.

The study of the sources of Christianity includes research on, and interpretation of, the sources of Christianity from the perspectives of exegesis and church history, as well as reconstructing the history of the influence and reception of the Bible as a fundamental element of how European culture understands itself and underpins its identity.

The thematic area of religion and theology in a pluralistic society relates to the perception and analysis of religion at the interface of internal and external perspectives in modern society. The goal of this area of research is to make available the expertise of Protestant theology in the analysis and study of religion for modern society and the critical reflection on its self-conception.

Interpretation of the sources of Christianity in the context of antiquity (sources of Christianity)

The Bible is the main source of Christianity and one of the central documents of Western culture and intellectual history. Therefore the historical-critical and literary study of the Old and New Testaments, as well as the conditions of their origins and hermeneutics, are of great significance for Protestant theology. For this purpose, the Faculty cooperates with other academic disciplines within theology and the University.

Effects and reception of the sources of Christianity (sources of Christianity)

In Protestant theology the disciplines of biblical studies and church history have critical recourse to the sources of Christianity, the history of whose reception and influence has been researched from its beginnings to modernity. This takes place in the context of an interdisciplinary exchange with disciplines that focus on historical and cultural studies such as archaeology and Egyptology.

Differentiation and unity of theology (religion and theology in a pluralistic society)

In theology, as in many areas of contemporary society, a process of increasing differentiation and specialisation is apparent. This gives rise to the following questions: In what way do theological subdisciplines relate to disciplines outside theology? What is the theological and social relevance of these non-theological sources? In what way are the theological sub-disciplines informed by each other and do they enter into dialogue? In the Faculty these theological questions, which are of fundamental importance for Protestant theology, are studied in an interdisciplinary reflection.

Perception and communication of religion in a pluralistic society (religion and theology in a pluralistic society)

In the present day, the complex phenomenon of religion can only be appropriately studied and analysed by combining different methodological approaches that reflect the contrast between the internal (theological) perspective and external perspectives (study of religion, psychology of religion, sociology of religion).

This results in two challenges:

From the internal perspective, the processes of communicating the Gospel as well as contemporary religious cultures are analysed, critiqued and shaped on the basis of Protestant theology.

From the non-theological perspective, religions and their encounters are presented descriptively and empirically, analysed and critiqued in the context of modern civilisation.

To this end, the current cooperation with the Faculty of Catholic Theology and other faculties of the University of Vienna will be continued in order to make the full range of religious study options at the University of Vienna more visible and to intensify research cooperation.

Protestantism in Europe as well as in interdenominational and interfaith dialogue (religion and theology in a pluralistic society)

The examination of Protestantism in South-Eastern Europe, its history, development and importance is a specific focus of the Faculty in Vienna. Furthermore, the social aspect of interdenominational and interfaith dialogue and study is becoming increasingly important in Europe and the Middle East.

The potential for research in this field is enhanced by close cooperation between the Faculties of Protestant Theology and Catholic Theology as well as Education, including Islamic Religious Education.

Theology and ethics in academic discourse (religion and theology in a pluralistic society)

Our world of modern pluralism sees a continuously increasing need for ethical dimensions in decision-making. The Faculty has therefore continued its cooperation, as equal partners, with the Faculty of Catholic Theology, the Faculty of Law and the Medical University of Vienna in the areas of ethics and law in medicine. The focus here lies on questions of anthropology, interfaith medical and nursing ethics as well as the study of ecclesiastical charity.

5.2.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. For information purposes, the research areas that are currently covered are provided in square brackets. The names outside the square brackets give the official designations. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Church History [Regional Church History]
- New Testament Studies, section 99, para. 3 of the Universities Act (temporary: for six years)
- Practical Theology
- Reformed Theology [Systematic Theology: Reformed Confession]
- Religious Education
- Study of Religions
- Systematic Theology: Lutheran Confession

5.2.4 Subject Dedication of Future Professorships and Status of Implementation

The dedication of professorships at the Faculty of Protestant Theology by the University of Vienna is subject to section 38, para. 2 of the 2002 Universities Act.

Professorships dedicated as of 1 October 2014

- Church History
- Old Testament Studies

Further professorships subject to availability of funds

Establishing the following professorship is a goal for the next performance agreement period.

Subject dedication of professorship:
New Testament Theology

5.3 Faculty of Law

5.3.1 Objectives

With regard to the number of students, the Faculty of Law of the University of Vienna is the largest law faculty in the German-speaking countries. It regards itself as the leading faculty of law in Austria and is highly visible at the international level. Its position is not only reflected in the wide range of subjects taught, but is also regarded as conferring a certain responsibility on the Faculty to conduct excellent academic research in a broad variety of subjects. In accordance with the Faculty's obligation towards society, it places a focus of its teaching on students' academic preparation for future employment and training in the traditional law professions. The Faculty therefore aims to preserve comprehensive expertise in all subjects, which means pursuing a research strategy that covers a wide range of areas. All subjects listed in the key research areas require close collaboration between different fields of legal expertise. The Faculty of Law generally aims to intensify its exchange with practitioners in the field of law to contribute to applied research at the national, European and international levels. At the same time, the Faculty is committed to an orientation towards basic research in all areas. The Faculty also aims to enhance its predominant position with regard to the output of law publications in Austria. In addition, endeavours are being made to orient research in the field of law towards the requirements of European and global structures, and in this way to further consolidate the Faculty's position in the international competition in legal matters as well. This, not least, is of benefit to the teaching process, which must therefore be research-led in the best sense of the word, and be able to prepare graduates for the professional life of tomorrow and beyond, as well as to contribute to the support of early-stage researchers.

5.3.2 Thematic Areas and Key Research Areas

For the above reasons, the key research areas of the Faculty of Law of the University of Vienna have to be seen in the context of the need to preserve and advance the broad approach to university-based research and teaching.

The existing areas of law that are currently covered by research at the Faculty have to be in line with the requirements of the existing legal order. This essentially determines the areas on which research is concentrated. Here, basic research and application-oriented research are equally relevant and closely linked to each other.

A faculty of the size of the Faculty of Law at the University of Vienna also has to maintain a comprehensive broad approach in the area of research. In its key research areas, the Faculty of Law intensively investigates questions of European and international concern. In the individual areas of research, matters of international relevance play an important role. When researching questions of a cross-border nature the Faculty has increasingly often cooperated with other institutions.

Apart from continuing and intensifying its research activities across the entire field of law, the Faculty has defined the following key research areas and intends to build or use both interdisciplinary and intradisciplinary networks in this context.

Health and medical law, bioethics and biotechnology law

The problem of the provision of comprehensive health care is not restricted to Austria, but is an issue in all countries of the European Union, and international developments should also be taken into account. Research in this area is therefore a particularly good example of international and interdisciplinary cooperation. This also includes discussing questions of legal ethics combined with demographic change in society. The Medical University of Vienna is one of the Faculty's partners in this field.

Codes of private law

This key research area deals with the advancement of private law in response to changes in the socio-political and economic framework, as well as the influence of European Union regulations. A great need for revision and amendment is particularly felt with regard to the Austrian Civil Code (ABGB), which has been in force for over 200 years. This code has also influenced a number of codes on special private law matters which has fragmented the existing framework of regulations, and the relations between the Austrian Civil Code and specific private law codes should therefore be reviewed. It has been a long-standing tradition of the Faculty of Law of the University of Vienna to provide expert consultancy services to the legislator when comprehensive reform projects are embarked upon. Amending the Austrian Civil Code cannot be an isolated project, but requires a comparative analysis of law and law history, also taking into account the legislation of the European Union. The corresponding key research area will therefore be pursued on an interdisciplinary basis by experts from the fields of civil law, comparative law, European law, history of law and labour law.

Today, the development of private law reflects European or even global influences and cannot

adequately be understood if this perspective is neglected. At the same time, the profile of what is termed private law is not as clearly defined as in the past, and traditional delimitations have been questioned. This key research area therefore studies both the interactions between European Union legislation and Austria's national law as well as relationships between Austrian law and the private law codes of other European countries, and also developments in private law at the European level. The corresponding research will profit from international networks in the form of numerous contacts with institutions in other countries, as well as cooperation with the European Law Institute (ELI).

Europeanisation of commercial law and business law

The developments of law in Europe have brought about a considerable need for adaptation in particular regarding commercial law, in several main areas of activity: company law, capital market law and competition law, intellectual property law, e-commerce law including the entire field of IT law and laws concerning technology-related IP rights, taking into account recent technological developments.

The dynamics of national and international law enforcement and settlement of disputes

Globalisation has brought about an increasing number of proceedings that include cross-border and other international aspects. As a response, this key research area focuses on the international dimension of proceedings, the Europeanisation of procedural law, comparative procedural law as well as the links between international private law and international law of civil procedure. Particular importance is to be attached to mechanisms of out-of-court resolution of conflicts with international aspects. This key research area also integrates the historical development of conflict resolution mechanisms.

However, in the changing society of the present, the traditional mechanisms of law enforcement (proceedings by authorities followed by a decision and enforcement of this decision) have increasingly often turned out to be insufficient – and not only in international contexts. On the one hand, resolution of conflicts by public authorities, whether rightly or wrongly, is often regarded as an expression of the current political power relations and therefore as not oriented towards the concrete situation of the people concerned, and consequently not just. On the other hand, in all but a few areas of society, decisions issued from above, by authorities, have increasingly often been deemed unsatisfactory and of limited constructive value with regard to future cases. This is one of the reasons why almost all areas of law, in addition to traditional instruments of law enforcement, have established new conflict resolution procedures as well (e.g. diversion in criminal proceedings, alternative dispute resolution in general).

These developments have had far-reaching effects on the entire fields of civil, administrative and criminal proceedings. There is evidently a need to find new strategies of law enforcement so that compromise found in this way will also be accepted by society as a legally binding solution. Analysing the changes of recent years, identifying the risks and opportunities presented by new forms of conflict resolution and monitoring these developments on a critical academic basis is one of the major challenges that the Faculty of Law will be tackling in the near future.

The historical and philosophical basis of European legal culture

This key research area relates to fundamental subjects (philosophy of law, law of religion and culture, legal and constitutional history, Roman law and the history of the law of classical antiquity) and aims at gaining further insight into European perspectives of legal development. Particular importance is attributed to aspects that can be understood as specific features of European legal culture in the context of European integration. This requires enhanced reflection and research on dimensions of legal culture in a wider European context. The instruments to meet this end primarily include longitudinal (historical) and cross-sectional (comparative law) comparison and the analysis of modern regulations and institutions on the one hand, and of the specific historical conditions and developments in which they are rooted and from which they have evolved on the other. In this way common basic structures of European legal systems can be identified. This involves all fundamental subjects of law.

The fact that international contexts have increased in importance and that the interaction of European regulations and national law has grown also poses a great challenge for methodology. Law at the University of Vienna has always been particularly oriented towards methodology, with a wide range of methodological approaches: for instance, in the field of constitutional and administrative law, the 'Vienna School' of critical legal positivism has always played an important role. In this plurality, the methodological tradition of the Faculty will be continued – taking into account new challenges –, critically assessed and further developed.

Law in multicultural and intercultural contexts; law of migration and integration

This key research area investigates special challenges to the legal system that arise from the intensified interactions between different societies and cultures, which includes both the regulation of intercultural communication as well as the management of resulting intercultural conflicts. Recent issues regarding the laws of migration and integration further illustrate the significance of this area.

Anti-discrimination law and legal gender studies

Discrimination on the basis of gender is a central question in legal gender studies. Moreover, there are two EU directives that actually go beyond the prohibition of discrimination on grounds of gender: the directive on equal treatment irrespective of racial or ethnic origin, and the directive on equal treatment in employment and occupation irrespective of religion or belief, disability, age or sexual orientation. Analysing these different kinds of discrimination from a legal perspective is an ambitious task that requires basic research but also promises to yield application-oriented results.

Protection of fundamental rights and human rights by national and international courts

The subject of fundamental rights and human rights is of great relevance at the present time and particularly involves practical challenges that relate to both the national and European or international levels. This subject matter is of a cross-disciplinary and interdisciplinary character and it is therefore obvious that, here, academic research should be interdisciplinary in nature.

5.3.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Austrian and European Legal History
- Civil Law
- Civil Law
- Civil Law
- Civil Procedure
- Civil Procedure
- Commercial Law with Special Emphasis on Links with General Civil Law
- Company Law and Capital Market Law with Special Emphasis on Europeanisation
- Comparative Law in the European Area; in Particular in the Member States of the European Union with Regard to Substantive Civil Law and Private Business Law
- Comparative Private Law and International Private Law
- Constitutional Law and Administrative Law
- Constitutional Law and Administrative Law, section 99, para. 3 of the Universities Act (temporary: for six years)
- Criminal Law and Law of Criminal Procedure
- Criminal Law and Law of Criminal Procedure II
- Criminal Law and Law of Criminal Procedure III
- Criminal Law, Law of Criminal Procedure and Criminology
- Criminology and Criminalistics, section 99, para. 3 of the Universities Act (temporary: for six years)
- Financial Law
- General Private Law
- General Private Law
- General Private Law, section 99, para. 3 of the Universities Act (temporary: for six years)
- History of Law
- International Law
- International Law
- International Law, section 99, para. 3 of the Universities Act (temporary: for six years)
- International Tax Law
- Labour Law and Law of Social Security
- Labour Law and Law of Social Security
- Labour Law and Law of Social Security II
- Law of Commerce and Securities Law II
- Law of State and Constitution, and Administrative Law
- Legal Philosophy and Legal Gender Studies, section 99, para. 3 of the Universities Act (temporary: for six years)
- Medical Law
- Public Law
- Public Law with Special Emphasis on Economic Administrative Law
- Roman Law
- Roman Law (with Special Emphasis on Comparison of the Development of Private Law)
- Roman Law and History of Law in Classical Antiquity

5.3.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Civil Procedure
- European Law
- Law of State and Constitution, and Administrative Law
- Legal Philosophy and Methodology of Legal Studies

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Technology Law and Intellectual Property Law
Time of appointment: following vacancy of the Professorship of Roman Law and History of Law in Classical Antiquity (not before 1 March 2015)

Subject dedication of professorship: International Law
Time of appointment: following vacancy of the Professorship of International Law (not before 1 August 2016)

Subject dedication of professorship:
Public Law Including Economic Administrative Law
Time of appointment: following vacancy of the Professorship of Public Law with Special Emphasis on Economic Administrative Law (not before 1 October 2016)

Subject dedication of professorship:
Business Law
Time of appointment: following vacancy of the Professorship of Law of Commerce and Securities Law II (not before 1 October 2016)

Subject dedication of professorship:
International Business Law
Time of appointment: following vacancy of the Professorship of Criminal Law and Law of Criminal Procedure II (not before 1 October 2017)

Subject dedication of professorship:
Private Law, Private International Law and Comparative Law
Time of appointment: following vacancy of the Professorship of Comparative Law in the European Area; in Particular in the Member States of the European Union with Regard to Substantive Civil Law and Private Business Law (not before 1 October 2018)

Subject dedication of professorship:
International Labour Law and Social Security Law
Time of appointment: following vacancy of the Professorship of Labour Law and Law of Social Security (not before 1 October 2019)

Subject dedication of professorship:
Roman Law
Time of appointment: following vacancy of the Professorship of Roman Law (not before 1 October 2019)

Further professorships subject to availability of funds

Establishing the following professorships is a goal for the next performance agreement period.

Subject dedication of professorship:
Comparative Law

5.4 Faculty of Business, Economics and Statistics

5.4.1 Objectives

Research at the Faculty of Business, Economics and Statistics covers the areas of business administration, finance and economics, as well as statistics, in a comprehensive way. In addition, it extends into related disciplines from the areas of law and sociology, which are also pursued in cooperation and co-optation with the relevant faculties of the University. It is thus oriented towards a heterogeneous spectrum of themes, while following a consistent analytical and quantitative approach. Its research is based on the conviction that a productive exchange between theoretical and empirical approaches will bring about new insights. On the one hand, theory has to be systematically tested against reality, while on the other hand, the results of empirical tests have to be integrated into the development of theories. This characteristic orientation of the Faculty of Business, Economics and Statistics of the University of Vienna has met with positive feedback at the international level.

The new laboratory of behavioural economic research has added a further and internationally recognised field of expertise in experimental economics. Following the appointment of the WWTF Science Chair in Mathematics and Finance, a data centre for trading prices on securities markets will be established. The Faculty's research reputation is the result of successful publications in renowned international journals, which have reached a consistent high level throughout the Faculty. The Faculty's standing is also reflected in its regular excellent positions in research rankings. Furthermore, the strength of the Faculty's research is apparent in PhD programmes of outstanding quality and thus supports the career development of early-stage researchers. These programmes will continue to be among the focuses of the Faculty's activities. In this context, third-party funds play a significant role for establishing project posts and scholarships. Approximately half of these funds are accounted for by the Austrian Science Fund (FWF), particularly in the form of thematic doctoral programmes. At present, the Faculty, in cooperation with external partners, takes part in three thematic doctoral programmes funded by the Austrian Science Fund.

The goal of the Faculty is to preserve, and whenever possible, to expand, its outstanding role in economic research at the national and international levels. This includes emphasising the precepts of research-oriented teaching. It thus maintains high-quality degree programmes that permit its graduates to enter quality higher degree programmes and specialised programmes worldwide, and that, at the same time, are open to scholars joining from such programmes.

5.4.2 Thematic Areas and Key Research Areas

The clearly defined methodological basis of research at the Faculty allows to work on a variety of themes and questions. In the prior *Development Plan*, the Faculty listed the following twelve key research areas, half of which are methodological and the other half, subject-oriented:

- computational and stochastic optimisation
- empirical analysis of macroeconomic data
- decision-making under uncertainty and risk management
- experimental economics
- statistical inference and model selection
- game theory
- incentive mechanisms
- labour markets
- financial markets, financial institutions and corporate finance
- industrial economics
- consumer behaviour
- logistics and operations management.

In the prior planning period, active research was conducted in all research areas. However, it has become apparent that the communication of the Faculty's research activities with both the general public and within the University must be improved, by grouping the relevant subject areas. In the course of the ensuing discussion, new methodological and

subject-integrating key research areas have been developed. The resulting five areas, in line with the objectives outlined above, correspond to the image of a comprehensive economics faculty, while combining clearly defined areas of social relevance. Even though the descriptions focus on economic aspects, the Faculty obviously and sincerely wishes to invite other university faculties and centres to cooperate with the Faculty in these subject areas.

Human behaviour and the economy

This key research area focuses on human behaviour in economic decision-making. While models of business administration and economics have to be based on assumptions about human behaviour to enable forecasts, the task of experimental economics is to test these assumptions and models. Such a combination of theoretical and experimental approaches permits realistic modelling of human decision-making behaviour. Today, the results of this research provide the basis for application in almost all disciplines at the Faculty: they extend from analyses of economic and regulation policies to behavioural finance and questions of business administration, for instance in the areas of marketing, strategy, organisation and personnel, as well as to economic sociology.

Changing markets and institutions

Transaction costs – i.e. the costs incurred in the exchange of goods and services in economic systems – are no less important than the costs incurred in the production of these goods and services. The efficient coordination of transactions in markets and enterprises through institutional design continues to be a challenge for both states and businesses at times in which global competition becomes ever more intensive. Economic analyses and applications study the efficiency effects of imperfect competition and its control by governance structures with regard to property rights, and contractual incentive systems.

Corporate strategies and processes

In modern enterprises, the traditional separation of developing strategies by market and environmental analysis on the one hand, and organisational development with regard to the design of internal corporate processes on the other, is about to disappear. It is replaced by strategic management, which is a process itself, and coordinates corporate organisation and value-added activities, and orients them towards environmental conditions that are changing increasingly fast. Apart from strategic management itself, this is particularly relevant for technology and innovation management, as well as for supply chain and operations management. However, input obviously comes from all other disciplines of business administration and several disciplines of economics as well, for instance industrial organisation and labour market economics.

Management of resources

Resources – natural, human, financial and informational resources – are the corner stones of economic activity. Growth and development depend on the availability or scarcity of resources. Their asymmetric distribution and the possibility of their privatisation by economic actors induce strategic behaviour. The management of resources aims at the efficient use of resources in economic systems, at both the social and corporate levels. Economic analyses and contributions study the growth and development of regions, sustainable environmental and energy policies and management, production and logistics in the value chain, the design of education and training systems, as well as efficient information systems and their management.

Statistics and risk analysis

At times where big data are available from almost all social areas, and are becoming increasingly complex (high-dimensional data), it is more urgent and more important than ever to develop appropriate statistical methods to transform data into information. Together, big data and high-dimensional data pose new challenges for the development of methods of estimation and inference. This particularly applies to econometric applications, for instance in the field of high-frequency financial transaction data or portfolio selection. The terms 'risk analysis' and 'risk management' comprise a large group of statistical and stochastic optimisation methods for modelling and controlling uncertainty and risk. Their application plays a key role in the analysis of currency, securities and energy markets, banks and insurance funds, as well as other financial institutions, corporate finance, and also logistics and operations management.

5.4.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. For information purposes, the research areas that are currently covered are provided in square brackets. The names outside the square brackets give the official designations. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Applied Mathematics and Computer Science, section 99, para. 3 of the Universities Act (temporary: for six years)
- Applied Mathematics and Statistics
- Applied Statistics
- Business Administration – Finance [Corporate Finance]
- Business Administration – Personnel Management [International Personnel Management]
- Business Administration – Production and Logistics with International Focus
- Business Administration – Strategic Management
- Business Administration I [Financial Accounting]
- Business Administration III [Service Management/Financial Services]
- Business Administration V [Marketing]
- Business Administration VI [Innovation and Technology Management]
- Business Administration IX [Industry, Energy and Environment]
- Business Administration XI [Organisation and Planning]
- Business Administration XII [Production and Operations Management]
- Business Administration XV [Management Control]
- Civil Law with Special Emphasis on Business Law [Civil Law and Business Law]
- Computer Processes [Statistics]
- Development Economics [Economics – Development Economics]
- Economic Sociology
- Economics – Applied Economics in the Area of Macroeconomics (Applied Macroeconomics) [Economics – Applied Macroeconomics]
- Economics – Applied Economics in the Area of Microeconomics (Applied Microeconomics) [Economics – Applied Microeconomics]
- Economics – Public Finance
- Economics (Industrial Economics, International Economics)
- Economics [Economics – Macroeconomic Theory]
- Economics II [Economics – Empirical Macroeconomics]
- Economics with a Microeconomic Orientation [Economics – Microeconomic Theory]
- Finance [Business Administration – Financial Markets]
- Finance and Mathematics
- Financial and Tax Law
- Marketing, Business Administration XIV [International Marketing]
- Microeconomic Theory; Methods and Application to Specific Problems (e.g. Auctions, Foreign Trade, Governance, Regulation, Labour Market) [Economics – Microeconomic Methods and Applications]
- Statistics I

5.4.4 Subject Dedication of Future Professorships and Status of Implementation

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Economics – Economic Policy
Time of appointment: funding via a vacant professorship at the Faculty (not before 2015)

Subject dedication of professorship:
Business Administration – Financial Accounting
Time of appointment: following vacancy of the Professorship Business Administration I (not before 1 October 2017), possibly initially financed through faculty resources

Subject dedication of professorship:
Business Administration – Industry, Energy and Environment
Time of appointment: following vacancy of the Professorship of Business Administration IX (not before 1 October 2017)

Subject dedication of professorship:
Statistics and Stochastic Optimisation
Time of appointment: funding via vacant academic positions at the Faculty (not before 1 October 2018)

Subject dedication of professorship:
Statistics with Applications
Time of appointment: following vacancy of the Professorship of Computer Processes (not before 1 October 2019)

Subject dedication of professorship:
Business Administration – Technology and Innovation Management
Time of appointment: following vacancy of the Professorship of Business Administration VI (not before 1 October 2019)

Subject dedication of professorship:
Business Administration – Service Management/Financial Services
Time of appointment: following vacancy of the Professorship of Business Administration III (not before 1 October 2019)

Further professorships subject to availability of funds

Establishing the following professorship is a goal for the next performance agreement period.

Subject dedication of professorship:
Business Administration – Operations Management

5.5 Faculty of Computer Science

5.5.1 Objectives

The Faculty of Computer Science covers diverse subjects in the core areas of computer science, including their application, in particular with regard to the wide range of subjects offered at the University of Vienna.

Through the interaction with different disciplines, the Faculty of Computer Science has been able to develop a unique profile of expertise. For instance, in the field of business informatics, interdisciplinary links have been established with business, economics and statistics; and in the area of media informatics, with communication, as well as theatre, film and media studies. In the area of scientific computing, links exist to several disciplines that contribute to computational science and bioinformatics, in particular mathematics, chemistry and biology. In the field of medical informatics, a cooperation has been established with medical researchers at the Medical University of Vienna. Further cooperation includes links with law (legal informatics), nursing science, psychology and the Centre for Teacher Education. In addition, the Faculty of Computer Science will also contribute to the Digital Humanities area that is being established both at the University of Vienna and at the national level.

The research activities of the Faculty include national and international cooperation with other universities and research institutions. There is a balance between basic research and applied research. Technology transfer activities contribute to a sustainable research environment.

5.5.2 Thematic Areas and Key Research Areas

The Faculty's strategic research areas are focused on three themes that have become core areas of great importance.

Computing: The principles, methods and technologies of computer science are applied in conjunction with those of information and communication technology (ICT) to resolve problems in other academic disciplines. High-performance computer systems are used for modelling, simulating and optimising complex processes that are apparent in nature, industry and in scientific experiments, as well as for managing and analysing large dynamic data volumes. This represents a considerable contribution to solving application-related problems that involve large quantities of data and thus significant computational capacities. This approach can best be described as the interaction of ICT systems with the physical world.

Knowledge: The area of knowledge comprises all structures and processes of computer science that make it possible to collect, organise, process, analyse, make available and distribute knowledge in all its shapes and forms, and also permits the generation of new knowledge through processes of learning and cooperation. This is especially relevant regarding all applications of computer science in business and economics, administration and education, always focusing on the development of goal-oriented ICT solutions through aspects of informatics-oriented processing and the use of institutional knowledge.

Systems: In computer science, the term 'system' refers to the integrated interconnection of objects or processes that depend on each other, interact or interlink. At the Faculty of Computer Science, the focus is on distributed, multimedia, and business-oriented systems. These form the technological basis for a wide range of IT applications, primarily oriented towards the coordinated use, design and analysis of heterogeneous systems architectures with partly autonomous components.

Within these three thematic areas, the Faculty of Computer Science has established the following key research areas:

Distributed and multimedia systems

Information and communication technology form an integral part of everyday life. Ubiquity has increasingly become a key characteristic of information processing systems, and the resulting new challenges, for instance increasingly complex systems, and the handling of large quantities of data (including multimedia data), have to be met. For this reason, aspects of quality, architectures, data models, visualisation and security of distributed and multimedia systems have been gaining importance in both IT research and in application. The convergence of media and networking technology is expected to increase further, and consequently, a comprehensive, system-oriented view with an interdisciplinary orientation will become even more important. Aspects of human-machine interaction and media perception will be particularly relevant in this context.

The Faculty will meet all these challenges in its key research area of distributed and multimedia systems. On the one hand, technology-oriented questions are studied, for instance the Internet of the future, service-oriented systems, cloud computing, cooperative systems, long-term data storage, entertainment and digital library systems; on the other hand, there are great research opportunities in the application of these systems and their economic effects.

Algorithms, software and computing technologies

The modelling, analysing, visualising, simulating and optimising of complex processes, data structures and dynamic data streams that occur in nature, science and technology, as well as industrial processes, continually require new technologies. In order to develop and apply those technologies, the Faculty's key research area of algorithms, software and computing technologies focuses on basic algorithm and software technologies in computer science, as well as in the areas where computer science overlaps with other university-based research activities in the areas of computational science and data science. The corresponding research focuses on the following mutually complementary subareas:

There is a focus on programming principles for various computer architectures, including parallel computers and super computers, as well as heterogeneous distributed systems and cloud infrastructures. In the area of methodology and algorithms, the development and adaptation of new algorithmic structures in both numerical and combinatorial areas are of key relevance. As far as the processing of complex data structures and dynamic data streams in bioinformatics, business informatics and (social) science are concerned, new methods in the area of data integration, data mining and machine learning, as well as visual data analysis and human-centred design are of particular interest.

Special fields of application of this key research area include, in particular, the processing of very large data quantities, simulation and computer-aided verification of hardware and software, as well as manifold Internet applications.

Knowledge-based process management

In the context of a comprehensive approach to engineering, this key research area is characterised by the concepts of knowledge and processes. Here the term 'knowledge' refers to the semantic aspects of information processing, while the concept of 'processes' represents the formalisation and structured division of tasks. The focus of this area is on planning and controlling processes in business and administrative contexts, as well as on optimisation with regard to targets such as cost, time, compliance and governance.

In this context, innovative approaches to semantic systems of information, particularly metadata and ontologies (knowledge engineering) play an important role, as do process technologies that aim to ensure smooth automated work flows, especially with regard to composing and orchestrating software components in service-oriented or event-driven architectures. Research in business intelligence uses aspects of learning processes, coordination, cooperation and communication for knowledge-based process management.

Specific fields of application of this key research area are the advancement of strategies and technologies of meta-modelling in order to realise computer-aided modelling methods, ensure adequate support of users by process-oriented systems of information, the development of flexible cloud-based process technologies, as well as the advancement, implementation and research of design patterns for human-centred, technology-enhanced learning.

5.5.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- (Scientific) Visualisation
- Applied Computer Science, section 99, para. 3 of the Universities Act (temporary: for six years)
- Biochemical Modelling (joint appointment: 50 %; 50 % at the Faculty of Chemistry)
- Bioinformatics (20 %; 80 % at the Max F. Perutz Laboratories)
- Business Informatics I
- Business Informatics II
- Computational Science – Algorithmics and Information and Communication Technology
- Computational Science – Mathematical Modelling and Algorithmics, with Applications (joint appointment: 50 %; 50 % at the Faculty of Mathematics)
- Computer Science
- Computer Science (Cooperative Systems)
- Computer Science (Work Flow Systems)
- Scientific Computing – Parallel and Distributed Systems, section 99, para. 3 of the Universities Act (temporary: for six years)
- Software Architectures

5.5.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Data Mining

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Communication Technologies
Time of appointment: funding via a vacant professorship at the Faculty (not before 2015)

Future professorships subject to availability of funds

Establishing the following professorships is a goal for the next performance agreement period.

Subject dedication of professorship:
Privacy and Security

Subject dedication of professorship:
Neuroinformatics
(in the context of a general strategy to be drawn up for the establishment of neurosciences; see chapter 4.3.3: 'National Cooperation')

Subject dedication of professorship:
Distributed Systems

Subject dedication of professorship:
Didactics of Computer Science
(joint appointment with the Centre for Teacher Education)

5.6 Faculty of Historical and Cultural Studies

5.6.1 Objectives

The Faculty of Historical and Cultural Studies is that part of the University of Vienna that is concerned with research into, and critical analysis of, social memory. This forms the basis for a more sophisticated understanding of the past and the present, as well as for creative actions in both social and individual contexts. The Faculty makes its work accessible to the public, and thus brings its expertise (education, orientation) into society: this takes place through schools, museums (e.g. in the context of exhibitions), libraries, archives, monument preservation and other cultural institutions, as well as

publications (printed media, web, radio and TV information).

The Faculty of Historical and Cultural Studies is among the largest and most diverse of its type, much as one would expect of a large university in a capital city. Its research and teaching covers all periods of human history, and geographically, its activities extend to Europe, the Mediterranean region, Asia – and, in the context of global history, even beyond. In sum, the Faculty's unique profile corresponds both to the position of the University of Vienna in the Danube region – with its special place in the past, present and future of Europe and the world – and also to current approaches in historical cultural studies. These seek to view the world as a complex whole, which cannot be understood by reference to European culture and history alone – however important the consideration of Europe's particular role may be.

5.6.2 Thematic Areas and Key Research Areas

The Faculty offers a wide range of subjects for study and paths to knowledge: texts, material culture and visual media from all periods, as well as audio sources and media from the recent past, form the basis for the research into actions and ideas with regard to the processes of history.

Places and regions

Places and regions are in fact complex structures, and as a focus of interest they specifically relate to Vienna as a historical pivot and a location of academic study. The places and regions that are the subjects of the corresponding research are seen as interrelated and as interacting in a historical and dynamic sense. The focus is placed on Austria's position against the geopolitical background of the former Habsburg monarchy as well as the history of Europe in its geographical, political, cultural and other transformations. The Mediterranean region is of special importance as well, as Vienna has extraordinary resources for research in this area, and the region of Vienna, in contrast to other Central European regions, has always maintained close links with Mediterranean regions. Pursuing global approaches is a necessity for a modern university in a capital city, and the research focus on Asia (based on numerous projects in regional cultural studies and area studies) permits the investigation of historical ties on the one hand, and opens up new perspectives on the other. Specific key research areas

have therefore been defined to permit the analysis of cultures of the Euro-Mediterranean region and antiquity studies, and historical and cultural European studies. The research area of global history focuses on global historical perspectives. Finally, Austria and its environments are also studied.

Society

This thematic area investigates the social construction of reality, focusing on four key areas: approaches to community, identities and political integration; dictatorship, violence and genocide; economy and society; and women's and gender history. It examines the basis from which collective identities develop: collective identities are primarily seen as constructions that have been actively built up as religious, political or other collective structures. It includes study of the rise and the establishment of violent regimes, as well as the continuing effects that the experience of war and mass murder have had on society even after the end of the regime and the subsequent post-dictatorial processes of change and coming to terms with the past. Specific attention is paid to the 20th century as the 'epoch of violence'. In the area of economy and society from a perspective of history and cultural studies, approaches of social science are used to study phenomena of economy and society, particularly as social and economic systems, structures and processes, at the macro, meso and micro levels. The related cultural studies are oriented towards symbolism, cultural conflicts and cultural contact, collective and individual identities, and human beings as an *'animal symbolicum'* which continuously constructs itself autobiographically and expresses the sense and meaning of human beings and their social world through artefacts of handicraft, industry, art and popular culture. The fourth focus, women's and gender history, examines the concept of women and gender, which, rather than being a universal biological and socio-cultural category, is a construct whose definition – and social operationalisation – may differ markedly, depending on time and place. Specific importance is attributed to self-perception, remembrance and to making women visible.

Knowledge

The emergence and transformation of knowledge societies and knowledge cultures is a central aspect of historical and theoretical approaches. The history of science, studied from the angle of general history, is one of the fields of expertise that characterise the Faculty. Knowledge is understood as a paradigm in political, social and cultural constellations. Different forms of knowledge (such as informal knowledge, tacit knowledge or formal knowledge) and their social status as well as cultural meaning are examined in this context. This thematic area, which comprises three fields, studies the way in which knowledge is formed, where it gains influence, how it is used and what forms of knowledge are given priority. Each research focus analyses different dimensions of reference and relevance of knowledge: History of science – knowledge cultures – knowledge societies, teacher education and subject-specific didactics (in close cooperation with the Centre for Teacher Education), as well as digital humanities. In this way, it is possible to track the generation of knowledge, its stabilisation and the process of development from uncertain to academic knowledge, to analyse different forms of knowledge as didactics and teaching and to reflect upon, and prepare the transfer of knowledge, to new media. The area of digital humanities examines new methods and interpretation strategies of cultural and historical studies, often in cooperation with other faculties and the Austrian Academy of Sciences.

Media

One of the genuine tasks of the Faculty is to study media as sources of tradition and of communicative function, and as expressions and phenomena of cultural history. The types and origins of these sources are indeed diverse – some of them (still) remain in the landscape or underground, and others are preserved in the Faculty's collections and museums, in archives and libraries. Their systematic examination and interpretation requires special theories and methods that have to be tested in an interdisciplinary discourse. Work in the field of media is essential as it forms the basis of any research in the fields of cultural studies and/or history.

In a number of cases, material is obtained that permits a critical, alternative or complementary view of the grand narratives about history and culture. In other cases, research focuses on cultural phenomena as such ('art'). These phenomena can, and must, be integrated into the discourse on history. They may thus convey meaning and, when viewed against the background of history, may be understood in more detail. In the present day, the cultural history of communication, illustrated by its material evidence, is a subject of immediate relevance. This thematic area is studied particularly in the areas of material culture, and history of visual culture: cultures and media of the visual; and research is also conducted in the area of text and edition.

5.6.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Ancient History and Papyrology
- Austrian History
- Austrian History – History of the Habsburg Monarchy since the 16th Century
- Austrian History of the 19th and 20th Centuries
- Baroque Art and Architecture
- Byzantine Art History
- Byzantine Studies
- Byzantine Studies – Ancillary Disciplines for Byzantine and Modern Greek Studies
- Classical Archaeology
- Classical Archaeology
- Contemporary History
- Contemporary History
- Contemporary History – Dictatorships – Violence – Genocides
- Early Christian Archaeology
- Economic and Social History
- Economic and Social History with a Focus on the History of the World Economy in the 19th and 20th Centuries
- Economic and Social History, section 99, para. 3 of the Universities Act (temporary: for six years)
- Egyptology (with a Focus on Archaeology)
- Etruscology and Italian Antiquity
- European Ethnology
- Greek History, Antiquity Studies and Epigraphics
- Historical Ancillary Disciplines with a Focus on the Middle Ages
- History and Philosophy of Science (History, Philosophy and Theory of Science) (joint appointment: 50 %; 50 % at the Faculty of Philosophy and Education)
- History and Theory of Media Cultures (18th to 20th Centuries)
- History of East Central Europe/'Nation-Building'
- History of South-Eastern Europe
- History of the High and Late Middle Ages
- Human Prehistory
- International Economic History with a Focus on Global History
- Islamic Art History
- Jewish History, Religion and Literature in Rabbinic Times (70–1000 AD)
- Jewish Studies
- Jewish Studies, section 99, para. 3 of the Universities Act (temporary: for six years)
- Medieval and Early Modern Art History
- Medieval Art History
- Medieval Economic and Social History
- Medieval History and Ancillary Disciplines
- Modern Greek Studies
- Modern History – Women's and Gender History
- Modern History II
- Modern History III
- Modern History with a Focus on the Early Modern Period
- Numismatics and the History of Money
- Prehistoric and Protohistoric Archaeology
- Prehistoric and Protohistoric Archaeology, and Landscape and Environmental Archaeology
- Roman History, Antiquity Studies and Epigraphics
- Societies and Cultures of Memory in Eastern Europe

5.6.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Asian Art History
- Didactics of History
- Modern Art History

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Digital Humanities
(cooperation with the Faculty of Philological and Cultural Studies and the Faculty of Computer Science with regard to advertising and recruitment)
Time of appointment: funding via a vacant professorship at the Faculty (not before 2015)

Subject dedication of professorship:
Russian History
Time of appointment: funding via a vacant professorship at the Faculty (not before 2015)

Subject dedication of professorship:
Modern Economic and Social History
Time of appointment: following vacancy of the Professorship of Economic and Social History (not before 1 October 2015)

Subject dedication of professorship:
Everyday Cultures in their Historical Contexts
Time of appointment: funding via vacant academic positions at the Faculty (not before 1 March 2016)

Subject dedication of professorship:
Cultural History – History of Knowledge and Gender History
Time of appointment: following vacancy of the Professorship of Contemporary History (not before 1 October 2016)

Subject dedication of professorship:
Modern History: History of Science
Time of appointment: following vacancy of the Professorship of Modern History III
(not before 1 October 2016)

Subject dedication of professorship:
Late Antique and Early Christian Archaeology
Time of appointment: following vacancy of the Professorship of Early Christian Archaeology
(not before 1 October 2016)

Subject dedication of professorship:
Global Economic and Social History
Time of appointment: following vacancy of the Professorship of International Economic History with a Focus on Global History
(not before 1 November 2018)

Further professorships subject to availability of funds

Establishing the following professorship is a goal for the next performance agreement period.

Subject dedication of professorship:
Yiddish Studies
(joint appointment with the Faculty of Philological and Cultural Studies)

5.7 Faculty of Philological and Cultural Studies

5.7.1 Objectives

The disciplines of the Faculty analyse dimensions of anthropological and social questions. An approach – based on methodological and historical reflection – that addresses language, literature, music, as well as artefacts and media of every type, ensures the competent, creative examination of the cultural heritage, and provides the expertise that enables a comprehensive interpretation of present-day processes. The relevance of research in the context of the humanities is its diversification, as well as the scope it has for the uses of its insights, different from reductionist global statements and perspectives that have to serve economic growth. The humanities generate knowledge that also provides orientation and self-reflection for medicine and science as well as engineering. The results of research in the humanities provide the foundations on which many disciplines and areas of expertise are based. In a social environment in which the discourse on questions of the humanities sometimes seems arbitrary, the corresponding disciplines also endeavour to contribute their findings to the discussion of those pressing problems that tend to be understood as pertaining to scientific and technological innovation.

The orientation towards national aspects that was predominant in the past has been replaced by studies of a globalised world, linking all disciplines of philology and cultural studies, which thus define the Faculty's specific profile and programme.
As part of the humanities, the disciplines of the Faculty investigate the world's cultures in their linguistic and historical dimensions, their interregional and global connections, as well as their specific linguistic, literary, regional, national, ethnic, economic, social, denominational and gender-related characteristics. Research and teaching at the Faculty of Philological and Cultural Studies cover a wide range of subjects, and its basic research contributes to the understanding of cultures and identities, and thus supplies expertise with regard to the establishment of cultural, economic and political relationships.

The range and methodological orientation of the subjects at the Faculty of Philological and Cultural Studies is unique in Austria and constitutes a wealth of cooperation opportunities in research and teaching. All disciplines take historical dimensions into account, and use methods of literature studies and linguistics, theatre, film and media studies as well as musicology, cultural studies, area studies, and in addition, examine the socio-economic developments in Africa and Asia.

The Faculty of Philological and Cultural Studies maintains close links with the Faculty of Historical and Cultural Studies, and is open for cooperation with all other departments at the University of Vienna, particularly in the areas of philosophy, education, religious and social studies, translation studies and cognitive sciences. Its large number of bachelor- and master-level degree programmes, as well as a broad PhD programme, contribute to the comprehensive educational programme of the University.

In addition, the Faculty plays an active role in the restructuring of the curricula of the teacher education programmes.

5.7.2 Thematic Areas and Key Research Areas

The activities of the Faculty of Philological and Cultural Studies are grouped into four thematic areas.

European cultures and identities: The theme of culture and identity in Europe plays an important role in all European philologies as well as in musicology, theatre, film and media studies, and in linguistics. The large number of disciplines that focus on the cultures, languages and literatures of the smaller European countries is an outstanding feature of the Faculty, and rarely found in other European universities. The language profile of Slavonic studies and Romance studies is indeed highly diversified. Musicology investigates complex questions relating to music, the history of music as well as the perception and effects of music, from the perspectives of history, philology, cultural anthropology, cultural studies, sociology, science and psychology. All of the above disciplines promote the process of reflection on European identities and cultures. Moreover, they respond to the process of global cultural diversification by integrating into their teaching and research the worldwide influence of European culture and the way it is represented outside Europe. Methodologically, the orientation beyond existing subject-defined borders is reflected in an intensified cooperation oriented towards cultural studies.

Global cultures and identities: With regard to the range and orientation of disciplines that examine cultures and identities in global contexts, the Faculty is among the central locations in Europe. East Asia is investigated with a focus on present-day China, Japan and Korea. South Asia is studied both from a historical view-point and with regard to contemporary aspects of cultural and social anthropology; and in the context of Buddhist studies, the corresponding world-views and history of the reception of those views are examined. In Vienna, the discipline of African studies has a long tradition in terms of linguistics, and has met the challenge of understanding Africa from a 'global' perspective, including developments in the African diaspora. In view of increasing globalisation and the resulting new questions and new societal challenges, the above disciplines will play a key role in the future as well. Owing to their engagement with various aspects of non-European societies, they have the potential to respond to changing requirements, and to arrive at a new approach to what is perceived as 'foreign', and thus to contribute to social issues in a constructive way. One has to bear in mind in this context that the disciplines whose focus used to be almost exclusively on Europe have, to an increasing extent, started to discuss non-European questions.

This applies particularly to English and American studies, as well as Canadian studies, Romance studies, for instance with regard to the reception of the colonial heritage in Asia, Africa and Latin America, Dutch studies, musicology, comparative literature, German studies, as well as theatre, film and media studies.

Communication: systemic and functional dimensions: Linguistic themes are treated both in the context of individual philologies and across different languages. Here, general linguistics and the linguistic areas of other disciplines, particularly English and American studies, Finno-Ugric studies, German studies and Romance studies are linked within the Faculty. The methodology used in all disciplines is based on socio-historical, systemic-functional and applied studies of language. Multilingualism is one of the main research areas at the Faculty, and also linked with the Faculty of Philosophy and Education, as well as the Faculty of Social Sciences and the Centre for Teacher Education. Beyond the Faculty, the systemic-functional area of linguistic research is linked with psychology, cognitive science and neurosciences.

Communication: aesthetic and media-related dimensions: Aesthetic communication is an integral part of all disciplines at the Faculty. Within the traditional philologies, this applies especially to literature studies. In this field the Faculty provides an opportunity of investigating the aesthetic communication of different channels (music, theatre, literature, film, new media) as well as of diverse forms of cultural and linguistic expression, also looking at them from the perspectives of philology, literature studies, cultural studies and comparative literature. Especially in the (sub-)disciplines with a historical orientation, the analysis and (digital) preparation of manuscripts – in the sense of material philology – plays an important role. On the one hand, additional areas of emphasis are defined by the specific situation of Vienna and Austria (with regard to both the availability of ample material and its special position of geographical contact), and on the other, the Faculty regards itself as a pioneer in the discourse on literature, media and cultural theories, also beyond the Austrian context.

In order to further research those areas that have already been successful, the Faculty has defined contemporary Asia, aesthetic communication of the modern period, as well as language acquisition, language development and language contact, as key research and development areas that respond to strong societal demands on the one hand, and reflect current developments in research on the other. In addition, one must take into account the fact that the Faculty has increasingly focused on international contexts, while still preserving the special characteristics that Vienna possesses as a location.

Within the key research areas, specific development focuses are promoted by the Faculty. They enhance the Faculty's profile insofar as the Faculty's expansion plans are aimed in this direction, and will be implemented by acquiring third-party funds, reallocating the budget of the Faculty and by using funds that are available through target agreements.

Contemporary Asia

Research on contemporary Asia is one of the Faculty's key research areas, into which South and East Asia will be integrated as key areas in the next few years, followed by Turkish studies as an area of particular interest. The established focus on Ottoman studies, which takes into account Vienna's specific historical situation and the sources that have thus been available, will be expanded to include research on the transitional period from the Ottoman Empire to modern Turkey and its development. Turkish studies will therefore be enhanced thanks to the possibility of establishing links with Arabic studies and ancient Near Eastern languages. The expansion of this key research area will complement the Faculty's research profile with regard to research on modern Asia.

Aesthetic communication of the modern period

In the context of the key research area of aesthetic communication of the modern period, which has already been covered for several years, the area of theatre, film and media studies will continue to be promoted. This research area has developed very positively in recent years, and in spite of a large teaching workload, has been able to enhance its research profile. Consequently, it is now entering a second stage of development, in which the research profile in this area is rounded off with studies of the cultural history of cinema, which enables close links with the areas of theatre, media and literature studies.

Hungarian literature will be another focus in the area of aesthetic communication of the modern period. Finno-Ugric studies play a prominent role at the University of Vienna, and in the area of Hungarian studies, the corresponding literature studies will be further enhanced, with regard to the cooperation with general literature studies as well. This is in line with the recent development of this area in the context of research and teaching, and contributes to the promotion of literature-related research outside Hungary.

Language acquisition, language development and language contact

At present, English and American studies represent the largest discipline in teacher education in Austria. With regard to providing an attractive offer which can compete with university colleges of teacher education in the future, the main advantage of universities is that they enhance research-led teaching. It is therefore particularly necessary for English and American studies, in addition to the existing expertise, to intensify the research area of English language acquisition and teacher education. With regard to teaching practice, the aim here is to enhance the linguistic and didactic areas, in addition to the existing expertise in the cultural and literature-related aspects of English language didactics.

In the next developmental stage, the key research area of language acquisition, language development and language contact will also be intensified through the establishment and consolidation of a new area of psycholinguistics in the context of linguistics. This represents a meaningful addition to the existing linguistic competences at the Faculty, which will also be advantageous for the research in the areas of cognitive science and neuroscience at the University of Vienna.

All three key research areas would profit from the establishment of an inter-faculty key research area of Yiddish studies, which was already envisaged in the previous *Development Plan*.

5.7.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- African Languages and Literature
- American Studies
- Ancient Semitic Philology and Oriental Archaeology
- Arabic Studies
- Assyriology (Focus on Akkadian Studies)
- Chinese Studies (80 %; 20 % at the Centre for Translation Studies)
- Chinese Studies with Emphasis on Social Studies
- Classical Philology (Greek)
- Classical Philology (Latin)
- Classical Philology (Latin) and Medieval Latin, section 99, para. 3 of the Universities Act (temporary: for six years)
- Comparative Indo-European Linguistics
- Comparative Literature
- Comparative Literature, section 99, para. 3 of the Universities Act (temporary: for six years)
- Comparative Musicology
- Cultural and Intellectual History of Modern South Asia
- Dutch Studies
- East Asian Economy and Society
- Eastern Slavic Literature
- English and American Language and Literature
- English and American Language and Literature
- English and American Language and Literature (Linguistics)
- English and American Language and Literature with Special Emphasis on Literature Studies
- English Linguistics: Variation and Cognition
- English Linguistics; section 99, para. 3 of the Universities Act (temporary: for six years) (joint appointment with the Centre for Teacher Education)
- Film Theory
- Finno-Ugric Studies
- French and Spanish Literature Studies with Special Emphasis on Francophonia in French Studies
- General Linguistics
- German as a Foreign Language
- German as a Second Language
- German Linguistics (Contemporary German)
- German Linguistics (History of German Language and Linguistics of Varieties)
- Historical Linguistics of English
- History and Society of Africa
- Ibero-Romance Studies
- Indology
- Intermediality
- Islamic Studies
- Japanese Studies with Emphasis on Cultural Studies
- Japanese Studies with Emphasis on Social Studies
- Korean Studies
- Late and Medieval Latin Philology
- Medieval and Early German Language and Literature
- Medieval and Early German Literature with Special Emphasis on the Late Middle Ages and Including the Early Modern Period
- Modern German Literature
- Modern German Literature
- Modern German Literature
- Modern German Literature (Theory of Literature)
- Modern German Literature with Special Emphasis on Austrian Literature
- Modern Historical Musicology

- Modern Latin Philology and Classical Latin Studies
- Musicology with Special Emphasis on Medieval Historical Musicology
- Romance Linguistics and Communication Science
- Romance Philology II
- Romance Philology III (with Special Emphasis on Hispanic Studies)
- Romance Studies (Linguistics)
- Russian Philology and Eastern Slavic Linguistics
- Scandinavian Studies
- Slavic Literature
- Slavic Philology
- Subject-Specific Didactics (Language Teaching and Language Learning Research) (joint appointment with the Centre for Teacher Education)
- Systematic Musicology
- Theatre and Media Cultures of the Modern Period
- Theatre Studies and Cultural Studies
- Tibetan Studies and Buddhist Studies
- Turkish Studies and Islamic Studies
- Western Slavic Linguistics

5.7.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Applied Linguistics
- English and Anglophone Literatures
- Modern German Literature and its Didactics (cooperation with the Centre for Teacher Education with regard to advertising and recruitment)

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Romance Linguistics: Interculturality and Multilingualism
Time of appointment: funding via a vacant professorship at the Faculty (not before 2016)

Subject dedication of professorship:
Comparative Musicology
(Ethnomusicology)
Time of appointment: following vacancy of the Professorship of Comparative Musicology (not before 1 October 2015)

Subject dedication of professorship:
British Literature
Time of appointment: following vacancy of the Professorship of English and American Language and Literature with Special Emphasis on Literature Studies (not before 1 October 2015)

Subject dedication of professorship:
Cultural History of Audio-Visual Media
Time of appointment: funding via vacant academic positions at the Faculty (not before 2016)

Subject dedication of professorship:
English Cultural and Literary Studies
Time of appointment: following vacancy of the Professorship of English and American Language and Literature (not before 1 August 2017)

Subject dedication of professorship:
South Slavic Literatures and Philology
Time of appointment: following vacancy of the Professorship of Slavic Philology (not before 1 April 2017)

Subject dedication of professorship:
Turkish Studies
Time of appointment: following vacancy of the Professorship of Turkish Studies and Islamic Studies (not before 1 October 2017)

Subject dedication of professorship:
Modern German Literature with a Focus on Literary and Media Theory
Time of appointment: following vacancy of the Professorship of Modern German Literature (Theory of Literature) (not before 1 September 2018)

Subject dedication of professorship:
Dutch Studies
Time of appointment: following vacancy of the Professorship of Dutch Studies (not before 1 September 2019)

Subject dedication of professorship:
West Slavonic Literature and Philology
Time of appointment: following vacancy of the Professorship of Slavic Literature (not before 1 January 2020)

Subject dedication of professorship:
Hungarian Studies
(Literature in a European Context)
Time of appointment: funding via vacant academic positions at the Faculty

Future professorships subject to availability of funds

Establishing the following professorships is a goal for the next performance agreement period.

Subject dedication of professorship:
English Language Education
(joint appointment with the Centre for Teacher Education)

Subject dedication of professorship:
Historical Slavic Philology and South Slavic Linguistics

Subject dedication of professorship:
Psycholinguistics

Subject dedication of professorship:
Yiddish Studies
(joint appointment with the Faculty of Historical and Cultural Studies)

5.8 Faculty of Philosophy and Education

5.8.1 Objectives

Philosophy and education have been closely linked throughout the history of Western civilisation. Their respective self-conceptions have been based on their interaction. More precisely, the question of our position in the world, our ability to acquire knowledge and the meaning of, and reasons for, our actions are interrelated with questions concerning the conditions, possibilities and objectives of education.

At this Faculty, research and teaching of the disciplines of philosophy and education are positioned in the complex landscape of 21st-century knowledge. On the one hand, the two disciplines, despite maintaining a critical point of view, are rooted in the traditions that have characterised Vienna over many decades. On the other, they are oriented towards international developments, including theoretical approaches that have mostly been marginalised in Vienna during the 'short 20th century'.

The Faculty regards itself as a place where traditional and recent philosophical and educational conceptions are critically advanced and addressed in a critical dialogue at the highest international level.

Philosophy and education are particularly committed to the goal of universities being places of critical intellectual encounter in a globally connected society. The Faculty sees itself as a forum where burning questions of a globally linked society are being addressed in a public discourse and reflected on, and examined, from a philosophical and educational perspective. The education of teachers for a wide range of subjects is an important task at the Faculty. In this area the Faculty closely cooperates with the Centre for Teacher Education.

Its development plan is oriented towards preserving the necessary core areas and supporting specialisation as well as cooperation in research and teaching at all levels.

5.8.2 Thematic Areas and Key Research Areas

Philosophy of language, logic, epistemology and philosophy of mind

Research in this thematic area focuses on the relationship between thinking, knowledge and language (in natural and formal languages). It comprises the philosophy of language, epistemology, as well as logic, formal methods and models. Philosophy of mind/cognitive science is an interdisciplinary research area that studies questions of (individual, social and extended) cognition, perception and action, knowledge and the generation of knowledge.

Philosophy of science, philosophy of media and technology, and social ontology

This thematic area comprises the general philosophy of the natural and social sciences, as well as cultural studies, including methodological reflection on the history and sociology of science, as well as scientific policy; the philosophy of Wittgenstein and the Vienna Circle, as well as its context and its reception and interpretation over time; philosophy of media and technology; social ontology and philosophy of social science, and its interrelation with action theory and philosophy of mind.

Political philosophy, ethics and applied ethics, and intercultural philosophy

This thematic area includes political philosophy and philosophy of law, in cooperation with the Faculty of Law, and particularly fundamental reflection on forms of political organisation and philosophical critique of the theory of institutions; ethics and applied ethics, systematic questions of new forms of ethics, especially in conjunction with themes of environmental ethics, animal and medical ethics; intercultural philosophy, philosophies from outside Europe, connections between ways of thinking, and social and cultural life-worlds with regard to global challenges.

Phenomenology, post-structuralism and gender theory

The research activities and projects in this thematic area focus on central questions of contemporary philosophy: phenomenology and its links with logic, epistemology, ethics, metaphysics and social philosophy; the diverse forms of post-structuralism, deconstruction and gender theories; and also dimensions of the critique of religion, psychoanalysis and ethical policy in the problematic areas of violence, embodiment and mediality.

Aesthetics, philosophy of education, European philosophy

The focus in this thematic area is on aesthetics, philosophy of art, arts-based philosophy; philosophy and the public; philosophy in the continental tradition; and ancient philosophy. The questions studied include the significance of philosophy and ethics for political, cultural and social discourse, as well as forms, methods and contents of the teaching of philosophy and ethics at upper secondary schools. The continental tradition provides the foundation for this discourse, using the theoretical approaches of metaphysics, ontology and epistemology.

Education and the constitutional problem

In this thematic area, fundamental questions of the discipline are discussed. A critically reflecting approach to educational questions becomes apparent especially in the discussion of the effects that social transformation has had on the self-conception of the discipline of education, the discussion of the relationship between educational research and educational theory, as well as the examination of empirical questions, against the background of a systematic view of the problem horizon, including latent and unconscious processes.

Education and institutions

The goal of this thematic area is to establish research on school and education as a discipline that is firmly grounded in educational theory and based on historical and comparative knowledge, and which places the focus on the consequences that the resulting transformation will have for actors, while being aware that this research is determined by such a transformation. This requires both basic research (for instance, on historical, social and media-related forms of change) and new empirical studies in which global, national and subnational processes are taken into account.

Education, learning and biography

The main question studied in this thematic area is how processes of education, socialisation and learning are conceived and analysed in the course of life, depending on social situation, their construction through culture and media, as well as subjective attitudes and approaches, and what relevance these different perspectives have for the discipline of education. Following international discourse, basic theoretical approaches are linked with empirical research, for instance with regard to problems of professional educational and counselling practices, biographical transitions and the relevance of social difference and social category.

Education and inclusion

In this thematic area, approaches to education and development are studied that focus on the rights of vulnerable and marginalised persons, in particular individuals with special needs. The practical aim of this research is to support them in countering social inclusion in all spheres of life and to bring about structural changes in regular institutions in order to take into account the diverse situations and needs of all the users of these institutions. This takes place with recourse to different theoretical traditions, for instance disability studies and psychoanalysis.

Education and profession

The thematic area of education and profession cooperates with the Centre for Teacher Education to study questions of schooling and teacher education, as well as the professionalisation of education, and it ensures the academic educational preparation of future teachers, particularly secondary school teachers. In addition, professionalisation research focuses on developments in further professional areas (adult education, social work, media education, elementary education, psychotherapy and counselling), and contributes to academic further education in the context of the continuing professionalisation of teachers.

Justification and critique of norms in ethics, law and politics

Research in this key area focuses on the justification and critique of moral, legal and political norms. This is challenging both theoretically and socially. The main research subject is the justification of decisions concerning what is good, just and correct, in the philosophical discourse within and outside Europe. The generation of theories is based on classical theories and their continuation in present-day ethics, political philosophy and philosophy of law. The goal here is the advancement of the theoretical basis of ethics with special emphasis on action theory and decision theory, as well as the advancement of basic research into the theory of democracy and ethics of institutions. In the field of applied ethics, the focus is on medical ethics, the ethics of ageing, animal ethics and nature ethics.

Theories of knowledge, of science and of the social world

This key research area studies epistemology and philosophy of science (including philosophy of mathematics and logic) from a historical and systematic perspective. The historical perspective extends from ancient philosophy to Kant and the subsequent history of the reception of those ideas up to the 21st century. In this context, the tradition of the philosophy of science is closely linked with the Vienna Circle and logical empiricism, as well as related approaches. A number of research projects aim at analysing the various forms of knowledge, particularly with regard to their historical, (inter-) cultural, educational, social and technological character. This takes place in the context of history and philosophy of science, the philosophy of Wittgenstein, as well as social epistemology. This key research area also includes studies of social ontology and the phenomenology of social worlds.

Art – bodies – culture

In this key research area, fundamental questions of aesthetics, the philosophy of culture, the philosophy of embodiment and of violence are studied from a historical and systematic perspective. These themes are connected with the classical themes of epistemology and metaphysics in many respects. The focus is also on problems of subjectivity, intersubjectivity and alterity, conceptions of space and time, languages of the body and of violence, as well as conceptual patterns in the theory of difference, particularly with regard to their political orientation. Again, the historical perspective goes back to antiquity. In this context Kant, German idealism and its reception, as well as a number of traditions of the 20th century and recent research approaches, play a significant role: phenomenology, philosophy of media and technology, philosophy of language, hermeneutics, critical theory, post-structuralism, deconstruction and intercultural philosophy, always complemented by the discourse of post-colonialism, cultural theory and cultural philosophy.

Philosophy and education in a global world

This key research area discusses the fundamental questions and developmental perspectives that have arisen in view of the new challenges of globalisation, as well as social and cultural change. Its theoretical and empirical research, conducted from a systematic and historical perspective, is reflected in international, inter- and transcultural, as well as interdisciplinary networks and cooperation with other universities in Europe, Asia, Africa, America and Australia. Specific attention is paid to the non-European philosophical traditions.

The focus is on questions and problems of democracy, the public, human rights, social diversity,

multiculturalism, the media, migration and mobility, as well as justice in a global context. The interaction between philosophy and education critically reflects on the social mainstreams, and specifically studies traditions of thinking within and outside Europe in order to outline ethical and humanitarian issues under the conditions of a global world. The framework for this key research area consists of forward-looking approaches that connect different cultures, disciplines and life-worlds and that can, at the same time, contribute to their preservation.

Educational spaces

In this key research area, the focus is on the social and cultural contexts of educational processes and their structures with regard to institutions and life-worlds. Educational spaces are established within formal regulations and institutional limits, as well as through everyday routines and informal rules. They are characterised by norms and belief systems which both professional and everyday-life actors, more or less uncritically, accept as 'social facts', and which influence practical education. In this sense, educational spaces are studied in specific constellations defined by historical and social, institutional, life-world-related, as well as (trans-)national and regional aspects. Research in this area concentrates on a (comparative) analysis of the concrete material, social, conceptual and media structures of educational spaces. In addition to describing and analysing educational spaces in contemporary societies, the research activities in this area extend to the origins and historical development of educational spaces (e.g. teaching or school structures in different social situations), and also the relationships between educational spaces (e.g. processes of coordination in the context of a federalist system of education, the transfer of educational approaches and professional practice between educational spaces).

Educational trajectories and transitions

This key research area examines processes of education over time, and addresses individual and collective educational processes in the context of different social situations that can, in turn, generate difference (social background, gender, immigration, disabilities, etc.). Research in this area relates to educational processes during individual stages of life (childhood, youth and adulthood), as well as institution-defined curricula, with special emphasis on transitions between different educational institutions and stages of education (crèche, kindergarten, school, university, working life, (further) training). Here, educational paths are analysed from the perspective of institutional (time) structures and conditions of transition, as well as from the perspective of subjective experience and individual patterns of action. The empirical research activities in this area are based on theoretical analyses studying the conceptualisation of educational trajectories and its inherent norms, expectations and structures of opportunities (social participation and exclusion). Finally, questions relating to the political framework (e.g. lifelong learning, permeability) and professional input by educational experts with regard to individual educational careers (in the context of early support, pre-school education, school, university, (further) training and counselling) are also discussed.

Horizons of education

In this key research area, the fundamental theoretical implications of social change on the discipline's constitution are discussed, and its horizon is therefore explored.

The goal here is to make apparent the possibilities and limits of education. In particular, those limits and possibilities are studied that are linked with social and socio-economic prerequisites for formal education, as well as with questions of religion, world-views and cultures. A further goal of this key research area is to transcend existing horizons. To this end, endeavours are made to establish links between the systematic and methodological advancement of the discipline and research in specific fields of application such as teacher education, school and curriculum research (in this context, in close cooperation with the Centre for Teacher Education), adult education, further education and training and education using new media. Here, cross-sectional subjects that can help merge existing horizons, and thus open up new horizons, play an important role.

5.8.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Applied Philosophy of Science and Epistemology
- Education in the Life Course
- Education with Special Emphasis on Psychoanalytical Education, Special Needs and Inclusive Education as well as Social Education; section 99, para. 3 of the Universities Act (temporary: for six years)
- Education/Philosophy of Education

- Empirical Educational Research and Theory of Education
- Ethics with Special Emphasis on Applied Ethics
- European Philosophy and Continental Philosophy
- Historical and Comparative Research on Education and Schooling
- History and Philosophy of Science (History, Philosophy and Theory of Science) (joint appointment: 50 %; 50 % at the Faculty of Historical and Cultural Studies)
- Islamic Religious Education (joint appointment with the Centre for Teacher Education)
- Media Education with Special Emphasis on New Media
- Methods of Teaching Philosophy and Ethics
- Philosophy in a Global World
- Political Philosophy and Social Philosophy
- Research on Schooling and Teacher Education; section 99, para. 3 of the Universities Act (temporary: for six years) (joint appointment with the Centre for Teacher Education)
- Research on Schooling with Special Emphasis on Upper Secondary Education (joint appointment with the Centre for Teacher Education)
- Special Needs and Inclusive Education

5.8.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Analytical Philosophy with Special Emphasis on Philosophy of Language
- Education/Philosophy of Education
- Empirical Educational Research
- Philosophy of Media and Technology
- Theoretical Philosophy

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Philosophy of Science
Time of appointment: following vacancy of the Professorship of History and Philosophy of Science (History, Philosophy and Theory of Science)
(not before 1 October 2016)

Subject dedication of professorship:
Education and Inequality
(cooperation with the Faculty of Social Sciences with regard to advertising and recruitment)
Time of appointment: funding via vacant academic positions at the Faculty
(not before 1 October 2017)

Subject dedication of professorship:
Methods of Teaching Philosophy and Ethics
(cooperation with the Centre for Teacher Education with regard to advertising and recruitment)
Time of appointment: following vacancy of the Professorship of Methods of Teaching Philosophy and Ethics (not before 1 October 2018)

Subject dedication of professorship:
Comparative Research on Education and Schooling
(cooperation with the Centre for Teacher Education with regard to advertising and recruitment)
Time of appointment: following vacancy of the Professorship of Historical and Comparative Research on Education and Schooling
(not before 1 November 2019)

Future professorships subject to availability of funds

Establishing the following professorships is a goal for the next performance agreement period.

Subject dedication of professorship:
Early Education

Subject dedication of professorship:
History of Philosophy

Subject dedication of professorship:
School Pedagogy with Particular Emphasis on Social, Cultural and Linguistic Diversity
(cooperation with the Centre for Teacher Education)

Subject dedication of professorship:
Inclusive Education
(joint appointment with the Centre for Teacher Education)

5.9 Faculty of Psychology

5.9.1 Objectives

Research and teaching at the Faculty of Psychology focus on the psychological basis of human experience and behaviour on the one hand, and on the transfer of the resulting insights in various fields of application on the other. The goal is to provide evidence that has a firm theoretical basis and can be tested empirically. In this context, central areas of psychology are represented, from the bio- and neuroscientific basis to an orientation towards application, from a holistic, integrative perspective. Apart from research on genuine psychological questions, another goal is to investigate relevant areas of research in cooperation with related disciplines.

The current research activities at the Faculty of Psychology concentrate on three thematic areas: 1) mind and brain: cognition, emotion and methods of research; 2) applied psychology: work, education and economy; 3) resilience: prevention and mental health promotion. In these thematic areas, either key research areas have already been developed and confirmed by the results of the evaluation of this research, or research perspectives are listed from which evaluation-based key research areas will be derived in the future.

The Faculty of Psychology pursues a comprehensive strategic process in order to define its future development perspectives.

5.9.2 Thematic Areas and Key Research Areas

Mind and brain: cognition, emotion and methods of research

In this thematic area, several research teams from the areas of general and cognitive psychology, biological psychology and methods of psychological research cooperate to conduct basic research on human mental processes, as well as their physiological and neural correlates. The teams involved employ a wide range of (mostly empirical) methods, which are complemented by qualitative methodological competences. Fully equipped laboratories are available for experimental psychological research. The research activities focus on perception and attention, with special emphasis on visual cognition, aesthetic impression and aesthetic experience, on social behaviour, particularly empathy and prosocial behaviour, as well as on general research on emotion and cognition. Another focus is on methods of research, with an emphasis on developing (further) innovative methods, and on applying certain methods, in particular research synthesis and research integration (e.g. meta-analyses and systematic reviews).

Future activities will intensify the cooperation within the teams, as well as the combination of methods. Research cooperation within and outside universities is particularly relevant to the areas of cognitive science and neurosciences. Additional impetus is expected to come from improved access to the method of functional magnetic resonance imaging, which will be available from 2015. Third-party funds are being acquired, particularly to ensure the integration and advancement of methods of cognitive science, as well as research on emotion and neuro-cognition. In this connection, areas of application such as ergonomics or clinical psychology and economic psychology are also regarded as relevant. The key research area of psychology of aesthetics is integrated into this thematic area; it studies aesthetic experience with regard to both basic research and its application.

Applied psychology: work, education, economy

This thematic area examines the psychological basis of experience and behaviour regarding work, education, and economy, as well as the application of the resulting insights. One specific goal of this thematic area is to identify processes of regulation and self-regulation in the above areas, to derive possibilities of prevention and intervention and to evaluate measures taken. The key areas studied are work and organisational psychology, educational psychology, transfer and evaluation research, economic psychology, as well as applied social psychology. This thematic area integrates two key research areas: promotion of lifelong learning in educational institutions from a psychological perspective; and the psychological basis of decisions and changes in economic contexts: work, organisation, consumption and economics. The teams in this thematic area include experts in work and organisational psychology, educational psychology and evaluation, economic psychology and applied social psychology.

Resilience: prevention and mental health promotion and empowerment

This thematic area pools the research activities of developmental psychology, psychological assessment, clinical psychology and health psychology, as well as personality psychology and differential psychology, from a perspective of furthering individual potential. In connection with the appointment procedures in this area, endeavours are being made to develop a coordinated, coherent research strategy.

The research perspectives in this area focus on the psychological resilience, as well as the vulnerability of people in all walks of life and over their whole lifespans. Models of cognitive, motivational and emotional responses of the human being will be examined within a complex, rapidly changing environment. The main research tasks concern approaches to developmental psychology, clinical/health psychology and psychological assessment. They will be complemented by research into personality psychology, evolutionary biology and ecosystem-related issues. From this research perspective, the research methodology used, which is primarily based on behavioural science, is accompanied by biopsychological and neuroscientific methods.

These research perspectives contribute to the basic understanding of psychological adaptation processes, risks and resources with respect to prevention and support or intervention. The use of evidence-based knowledge and action structures will ensure that this research perspective will contribute to successful development over the whole lifespan of the individual. Current specific priority issues include social cognitive and affective skills, for instance, in transpersonal and bonding theory contexts, and in the context of self theories and stress theories, taking into account social diversity and psychological regulation processes in the case of impairments.

With regard to the aforementioned research strategy in this area, after defining the required framework for such an undertaking, the Faculty aims to establish a university outpatient clinic in the areas of clinical psychology and health psychology, in cooperation with a qualified external partner organisation.

Psychology of aesthetics

This key research area conducts a research programme in empirical aesthetics and its grounding in human perception, cognition and emotion. Its conceptual and theoretical framework is defined by a model of aesthetic experience, as well as by approaches taken in general psychology, evolutionary and cultural psychology. The aim here is to study the specific nature and meaning of aesthetic experience, its consequences for behaviour and its physiological correlates. Aesthetic processes are examined in order to contribute to a fundamental understanding of human experience, in particular regarding the interaction between cognition and emotion; this is done with a special emphasis on the visual domain. In addition, aspects of social behaviour and particularly social perception are integrated into the models. The questions addressed include the conditions of aesthetic experience, human consciousness, visual preferences, media-related and social determinants of aesthetic experience, the presumed biological basis of beauty and attractiveness, the role of empathy in aesthetic perception, as well as impression formation in various fields (art,

images, patterns, music, architecture, design, film, bodies, individuals and social groups), as well as fields of application (design impression, attractiveness of faces; and museum studies). This key research area is characterised by a pronounced orientation towards cognitive science.

Promotion of lifelong learning in educational institutions from a psychological perspective

This key research area has two main goals: one goal is to contribute to the theoretical and empirical understanding of the concept of lifelong learning – which originates in the socio-political sphere – at the psychological and educational levels. Different results in, and heterogeneous approaches to, the area of LLL (for instance, with regard to motivation and self-regulation) will be combined and put into a consistent framework of educational psychology. The other goal is to promote LLL in educational institutions. Theory-driven training programmes are developed for this field, implemented and scientifically evaluated with regard to their effectiveness. This includes the examination and advancement of the theoretical basis of training programmes, their consolidation in the framework that needs to be defined, as well as the implementation of preparatory analyses in the laboratory and in the context of field work. The theoretical advancement of the concept of LLL is thus combined with subsequent basic and application-oriented research, with the aim of contributing to the transfer of academic findings to politics and practice.

The psychological basis of decisions and changes in economic contexts: work, organisation, consumption and economics

The objective of this key research area is to analyse and describe from the perspective of social psychology decisions and change at work, in organisations, markets and economics. The present focus of research has been placed on decisions regarding work processes and the way in which workers and employers experience work, on economic decisions by consumers in consumer markets and on the patterns of behaviour of tax payers. The research methods applied include primarily quantitative, cross-sectional and longitudinal surveys, observation and lab experiments but also qualitative approaches such as interviews, focus groups and association techniques.

5.9.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. For information purposes, the research areas that are currently covered are provided in square brackets. The names outside the square brackets give the official designations. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Applied Developmental Psychology with Special Emphasis on Learning [Developmental Psychology]
- Applied Social Psychology with Special Emphasis on Decision Research and/or Intergroup Research (Cultural Comparison) [Social Psychology and Research on Consumer Behaviour]
- Biological Psychology
- General Psychology [Cognitive Psychology]
- General Psychology [Psychological Aesthetics]
- Psychology [Economic Psychology]
- Psychology [Educational Psychology]
- Psychology [Psychological Research on Education and Transfer], section 99, para. 3 of the Universities Act (temporary: for six years)
- Work Psychology [Work and Organisational Psychology]

5.9.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Clinical Psychology of Adulthood
- Clinical Psychology of Childhood and Youth
- Methods of Psychology
- Psychological Assessment

Dedication of professorships in line with research profiles and with the need to teach fundamental subject

Subject dedication of professorship:
Developmental Psychology
Time of appointment: following vacancy of the Professorship of Applied Developmental Psychology with Special Emphasis on Learning
(not before 1 December 2016)

Subject dedication of professorship:
Educational Psychology
Time of appointment: following vacancy of the Professorship of Psychology
(not before 1 October 2017)

Future professorships subject to availability of funds

Establishing the following professorships is a goal for the next performance agreement period.

Subject dedication of professorship:
Health Psychology

Subject dedication of professorship:
Neuropsychology
(in the context of a general strategy to be drawn up for the establishment of neurosciences; see chapter 4.3.3: 'National Cooperation')

Subject dedication of professorship:
Differential and Personality Psychology

Subject dedication of professorship:
Psychology of Human-Animal Interaction
(joint professorship of the University of Vienna and the University of Veterinary Medicine, Vienna)

5.10 Faculty of Social Sciences

5.10.1 Objectives

The Faculty of Social Sciences regards it as a key task to offer a critical scientifically sound analysis of societal challenges and processes of change at global, national and local levels. The focus is on theory-driven empirical research, directed towards both basic and application-oriented knowledge production, with the aim of contributing to various fields of action. The latter is the Faculty's active contribution to the social responsibility of university-based research.

In this context, the Faculty of Social Sciences attaches particular importance to the further development of its disciplinary and interdisciplinary research in accordance with international standards. As research into societal change increasingly tends to cut across the boundaries of traditional

disciplines, the Faculty of Social Sciences aims at closer integration of and cooperation between different disciplines, the expansion of interdisciplinary collaboration with other faculties of the University, as well as cooperation with institutions outside the university structure, and the internationalisation of research and teaching. This development of the Faculty is proactively fostered through incentives and support structures, particularly for early-stage researchers, as well as through advancing the internationalisation of both academic staff and students.

5.10.2 Thematic Areas and Key Research Areas

With regard to research, the Faculty of Social Sciences focuses on the one hand on its interdisciplinary key research areas, and on the other hand supports the broad spectrum of research activities in the respective subject areas. In order to capture the diversity of the research activities, we will, in what follows, first describe the manifold thematic areas along disciplinary lines, and then cover the interdisciplinary key research areas of the Faculty.

Social and cultural anthropology uses a comparative approach to study the processes connected with colonialism, post-colonialism, globalisation and the socio-cultural dynamics of the present day. The focus of the related research is on the world outside Europe, on international comparisons and transnational areas of research. Methodological aspects of historical anthropology are also taken into account. New theoretical and methodological approaches are pursued to analyse the relevant research questions from multiple perspectives that go beyond Europe and North America. In addition, social and cultural diversity, as well as its organisational actors, is studied from a global perspective.

In nursing science, the focus is on questions of nursing as a field of action that covers the whole lifespan of human beings and includes different levels (from individuals to policies) and the entire chain of care services. In addition to basic research, applied research, as well as the transfer of academic insights to the practical sphere, are of key importance. The key research areas of nursing science are family-related, oncological and gerontological nursing. Family-related nursing is oriented towards responses to diseases at the family level, with regard to acute care and care at home; oncological nursing focuses on disease-related and treatment-related experience as well as the corresponding assessments and interventions; and in gerontological nursing, aspects of long-term care needs, as well as people suffering from dementia, are of particular interest.

Political and government science focus both empirically and theoretically on topics such as the politics and government of states, governance, the state and democracy and development, and change in different regions of the world. The main foci are on the analyses of globalisation and Europeanisation, the comparison of (both established and young) democracies, the study of public opinion and elections, coalitions and representation, migration from the perspective of social inclusion and exclusion, the transformation of gender relationships, sustainability, environment and resources, as well as visual studies. The corresponding research and teaching activities are characterised by problem-oriented perspectives, a plurality of approaches to research, and interdisciplinary cooperation.

Research in the area of communication investigates processes of private and public communication through media and technology, as well as its infrastructural conditions. The analyses in this field focus on the changes in media content and technology, as well as the resulting effects on individuals, society and politics.

The main working areas of sociology follow the traditions of the Viennese School of Sociology (such as for instance, logical empiricism of the Vienna Circle and social phenomenology of Alfred Schütz), aiming simultaneously at current social challenges in Austria and Europe. Research focuses on societal problems, it is empirically oriented and of high practical relevance. At the same time, sociological research also represents those theoretical approaches that are important for the discipline. Current working priorities lie in the areas of (1) work, organisation, gender relations; (2) family, generations, life course; (3) migration, ethnicity, social inequality and (4) culture, knowledge and visual worlds.

Science and technology studies aim at investigating the increasingly closer links between change in science and technology on the one hand, and social change on the other. This is essential, as innovation in science and technology is increasingly often regarded as a key means of responding to great societal challenges. Research in this field focuses on (1) the dynamics of the science system, (2) the interactions between technoscience and publics, as well as (3) the relationship between scientific and technological developments and democratic practice. Across the individual areas, questions of values and valuation, as well as responsibility in research and innovation, are of key importance. Recourse to a comparative perspective between different subject areas, national and institutional contexts, as well as to methodological innovation with regard to qualitative social research, also plays an important role in the corresponding research.

As a cross-sectional focus, the manifold approaches to methodology in the social sciences are thoroughly examined: ranging from the selection of methods for testing research hypotheses to highlighting their interaction with the formation of theories. Furthermore, theoretical and methodological discussions across different disciplines and epistemological boundaries are initiated and encouraged. The collaboration of researchers from different disciplines promotes innovation and progress with regard to both theory formation and methods applied. The present focus is on ethnography, survey research and text analysis. This, again, particularly influences current research in the areas of communication, political science and social anthropology.

The Faculty will focus on seven key research areas to enhance its profile. The goal here is to promote joint research activities across different disciplines and departments, and thus investigate important social and societal challenges that combine the view-points of different disciplines. The Faculty's strong points and established research traditions can thus be continued and enhanced, and innovative future-oriented research areas can be intensified.

Families, generations and health prevention

In the key research area of families, generations and health prevention, problems of social and socio-political relevance are studied theoretically and empirically, using an interdisciplinary approach. The focus is on social topics such as demographic challenges, socio-demographic developments, dynamics and changes in the course of life, as well as family life, the effects of current social processes on the life course, families and family life, health and health promotion, nursing and care services in the context of increasing life expectancy, and the analysis of welfare state interventions.

Both national analyses and comparisons at the European level are carried out, using qualitative and quantitative methods of empirical analysis.

With regard to subject areas, this key research area is oriented towards the new structures of generational relationships, processes of transformation in the course of life, well-being at work and in the family, and particularly questions of age-related health problems. The course of life is linked with the institutional framework that defines the available options, expectations and restrictions at individual stages of life. The questions studied are changes in the family-oriented and old-age stages of life, in terms of accessibility, employment history, social security, individual life expectancy and ways of life.

Gender and transformation

This research area aims to provide gender-sensitive theories and analyses concerning the contemporary transformation of societies, economies, politics, media and culture. Gender is regarded as intrinsically intersecting with other structural categories of society, such as class, ethnicity, 'race', sexuality, religion and disability.

In view of the current financial and economic crises, this research perspective has become increasingly important, as both the social causes of these crises and the political, cultural, social and media-related coping strategies applied are, in fact, gendered. The main questions studied relate to Europe in a changing world (see Horizon 2020 research programme), where gender and social inequalities, as well as exclusion, for instance, produced through visual and body technologies are key dimensions. Additional analyses study gender politics, which is considered crucial for the development of democracy, and new forms of political participation and of (non-)belonging. These changes across Europe are regarded as embedded in global processes of transformation, and are therefore examined from a comparative and transnational perspective.

Governance, democracy, solidarity

This key research area investigates the change of governance in different policy fields, geographical regions and political spaces, as well as the corresponding shift in the form and function of social order, statehood and democracy. In this context, national states are regarded as communities based on mutual solidarity, in which solidarity has been institutionalised, for instance, in the form of social security systems, and in which moral obligations towards mutual support exist. Under the heading of transnational solidarity – especially in the context of the European integration and in view of growing interdependence – an analysis is carried out as to what extent identities, values and norms that are shared at the supranational level in fact transcend regional, ethnic and national boundaries, or whether opposing tendencies exist, aimed at defining those values in an increasingly narrower sense. Theoretical and political questions of democracy are another commonality of this key research area, as democratic structures and processes are also changing, and can be effectively investigated from the perspectives of cultural and social anthropology, communication, sociology and political science, taking into account the interactions between these disciplines.

Knowledge societies in turbulent times: science, democracy and public space

This key research area focuses on the critical examination of how scientific and technological

innovation is interrelated with societal change. Underpinned by research in science and technology studies, social and cultural anthropology, communication, political science as well as gender studies, this area stands for a broad interdisciplinary exchange, interest in historical perspectives, and experience of collaboration with diverse disciplines of science.

The key research area addresses questions related to (1) the conditions of knowledge production and the relationships between different forms of knowledge; (2) the restructuring of the production and distribution of knowledge, knowledge infrastructures, and access to them; (3) new challenges to our democratic practices (e.g. inclusion, participation and fair distribution) resulting from technological and scientific developments.

The corresponding research primarily covers developments in biomedicine/life sciences, environmental issues and sustainability, new media, and the development of disciplines/institutions.

Migration, citizenship and belonging

This key research area links academics from all disciplines established at the Faculty of Social Sciences. Despite the diversity of focuses and disciplinary affiliations, a common interest in this area is the exploration of the forms and dynamics resulting from migration and integration processes that have changed due to increasing global interdependencies. Another commonality is the understanding that new research perspectives are needed to overcome national and disciplinary, methodological and epistemological restrictions.

A topic across different subject areas and disciplines is the discussion of new forms of mobility and migration, which is accompanied by transnational practices of social integration and constructions of identity, as well as a reconfiguration of social inequality, not least as a result of changes in the regulatory framework of migration. The research themes, studied from an interdisciplinary perspective, include the changing conditions for the building of relationships between minorities and majorities, mechanisms of social, political and cultural inclusion and exclusion, different (possibly overlapping) individual and collective identities, social and (media-related) representations and constructions, as well as political conflicts and the struggle for the distribution of resources, rights and belonging, in terms of social participation and marginalisation. Work on such research-related themes, in the context of existing and future forms of research networking, helps improve the visibility (outside the University too) of the manifold innovative research activities, while attributing specific attention to research by young academics, and it generally improves the prerequisites for cooperation in research and publishing, and support of early-stage researchers.

Political parties, elections and representation

This key research area analyses the interactions between different political actors and citizens in liberal democracies by combining perspectives of political science, communication, sociology and social psychology.

The main themes covered include political attitudes, opinions, values and decisions of citizens, mechanisms of political representation and the interactions of political parties with voters, media and other societal institutions (e.g. interest groups). This key research area examines both the effects of these processes on social developments and how economic and social change in turn influence central democratic processes. The research pays great attention to analyse how interests and attitudes have changed over time, what effects this has on the representation of citizens by political parties, what new interests and attitudes are expressed by new population groups in the political space (first-time voters, immigrants) and what social and political changes this brings about. Another important area is the role of the media – and to an increasing extent, of social media – in these processes. In terms of the geographical coverage, the studies focus on Austria in the context of European and international developments.

The interdisciplinary links between theoretical perspectives, the development of new methodological approaches, as well as the generation of new data sets can bring about important new insights in this key research area.

Visual studies in social science

In view of the outstanding role of visual culture in present-day social sciences and cultural studies against a backdrop of a supposed iconic or pictorial turn, this key research area aims at advancing theories, concepts and methods of social sciences that allow for an improved analysis of visual dimensions of social reality compared to past approaches. Research focuses on the dynamic relationship between image, knowledge and culture in two core areas: theories and analyses of visual culture, and visual methodology.

Particular importance lies on the analysis of image-related practices in global and local public spaces. Current topics of great social relevance such as press photography, electoral campaigns, art markets, fan culture or city advertising are studied in research projects. Analyses of old and new ubiquitous visual practices in private and semi-public (new) media are an additional research focus.
The empirical studies conducted, and as well as the research oriented towards basic research, aim not least at the innovative advancement of methodological approaches across different disciplines, which facilitates an appropriate understanding of the relationships between the production, distribution and reception, as well as the media-related properties, of still and moving pictures.

5.10.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Communication
- Communication
- Communication with a Focus on Advertising Research
- Communication with a Focus on Media Change and Media Innovation
- Communication with a Focus on Public Relations Research
- Democratic Governance
- Development Sociology
- Empirical Social Research Methods: Social Network Analysis with Regard to Ethnographic Methods
- Ethnology I
- International Politics
- Material Culture and Consumption Studies
- Methods of Empirical Social Science with a Focus on Text Analysis
- Methods of Social Sciences
- Nursing Science
- Political Science
- Political Science (Processes of Transformation in Central, Eastern and South-Eastern Europe)
- Political Science/Governance and Gender
- Social and Cultural Anthropology
- Social and Cultural Anthropology
- Social Stratification Research and Quantitative Methods
- Social Studies of Science
- Sociology
- Sociology
- Sociology of Knowledge and Culture
- Urban Sociology

5.10.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Intervention Research
- Journalism
- Political Theory

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Communication Science
Time of appointment: funding via a vacant professorship at the Faculty

Subject dedication of professorship:
Comparative Policy Analysis
Time of appointment: funding via a vacant professorship at the Faculty

Subject dedication of professorship:
Comparative Politics
As far as possible, this professorship will focus on matters related to political science in South-Eastern and Eastern Europe.
Time of appointment: following vacancy of the Professorship of Political Science (Processes of Transformation in Central, Eastern and South-Eastern Europe)
(not before 1 May 2017)

Subject dedication of professorship:
Sociocultural Anthropology of the Global South
Time of appointment: following vacancy of the Professorship of Ethnology I
(not before 1 October 2017)

Subject dedication of professorship:
Political Sociology
Time of appointment: following vacancy of the Professorship of Sociology
(not before 1 October 2017

Future professorships subject to availability of fund

Establishing the following professorships is a goal for the next performance agreement period.

Subject dedication of professorship:
Technosciences and Material Cultures

Subject dedication of professorship:
Interdisciplinary Gender Studies at the Interface of Social and Natural Sciences

Subject dedication of professorship:
Qualitative Methods of Empirical Social Research

Subject dedication of professorship:
Political Economy
(cooperation with the Faculty of Business, Economics and Statistics with regard to advertising and recruitment)

5.11 Faculty of Mathematics

5.11.1 Objectives

Modern mathematics in its disciplinary character is distinguished by its wide spectrum of sub-areas. It is a central science covering the analysis of complex, abstract systems and constructions that are often inspired by heuristic observations, modelling and the development of efficient algorithms for the solution of mathematical problems, as well as applications. Mathematics is a discipline in its own right as well as the foundation for all quantitative sciences. One of the foremost goals of the Faculty of Mathematics is to represent this science at the highest international level and its wide breadth in research and teaching, and at the same time, to offer extensive services in research and teaching for other scientific disciplines.

Based on the key research areas that form part of strong international networks, the Faculty of Mathematics emphasises the importance of cooperation with applied sciences. The Faculty makes all possible efforts to further intensify the existing synergies with research groups in biology, physics, astronomy and in the engineering sciences, and to provide an attractive offer for them.

The Faculty of Mathematics seeks cooperation with other faculties of the University, with departments of the Vienna University of Technology and the Austrian Academy of Sciences (ÖAW), as well as the Wolfgang Pauli Institute (WPI). Cooperation with numerous partners has already been established (for example, with the Vienna Center for Partial Differential Equations and the thematic doctoral programme in the field of nonlinear partial differential equations or the thematic doctoral programme in algorithmic and enumerative combinatorics), which utilises both synergy effects and complementary advantages. It is one of the objectives of the Faculty to intensify these cooperation agreements, and to create new ones.

The cooperation with the Faculty of Physics in the context of the Erwin Schrödinger International Institute for Mathematical Physics (ESI) is of particular importance. The ESI has acquired a high international reputation – as a separate institution until 2011, and since then, as part of the University of Vienna. The areas covered by the ESI now include theoretical, experimental and computer-supported aspects of the sciences involved; this wider scope of activities will also be reflected in its new name: Erwin Schrödinger International Institute for Mathematics and Physics. Interaction, particularly with regard to the involvement of upcoming young scientists at the two faculties, and integration into the worldwide scientific community, has resulted in a productive cooperation.

5.11.2 Thematic Areas and Key Research Areas

Starting from its traditional foci in analytic number theory, harmonic analysis, biomathematics and mathematical physics, the Faculty of Mathematics has continuously developed its profile. On the one hand, traditional research areas are adapted in view of modern developments (for example, by a more algebraic orientation of number theory, or by a more applied orientation of harmonic analysis), while on the other, new research areas (e.g. differential equations including their numerical aspects, financial mathematics, or discrete mathematics) have been created. The seven key research areas of the Faculty of Mathematics are the following:

Logic (Kurt Gödel Research Center)

Following the great tradition of one of the most important mathematicians of the 20th century, the research area of logic is concerned with the foundations of mathematics. Research here focuses on axiomatic set theory, the field of logic to which Gödel dedicated most of his time during the later years of his life. A central objective is to identify the correct axioms for the foundations of mathematics, i.e. which are sufficient for the solution of all significant mathematical problems. The main methods include large cardinal theory and forcing. Furthermore, philosophical justifications for the choice of new axioms in set theory are thoroughly explored. Research in computability theory focuses on the classification of computable structures and the complexity of computations. This work is closely connected with proof theory, model theory and theoretical computer science. Model theory examines the absoluteness of model theory properties in set theory. In addition, models of arithmetic are used to provide an axiomatic framework for computability theory.

Biomathematics and dynamical systems

This key research area comprises the analysis of dynamical systems and deterministic and stochastic modelling in biology and other fields of mathematics, natural and social sciences.

The group in biomathematics addresses issues that originate from the life sciences, in particular from evolutionary biology, ecology, and from molecular cell biology. Biomathematics research works on models from population genetics, theoretical ecology and evolutionary game theory. The theory of dynamical systems forms the basis of the mathematical description of biological processes. In addition, methods from probability theory and the theory of partial differential equations are applied.

The study of ergodic theory at the University of Vienna focuses on the statistical properties of smooth dynamical systems, in particular their mixing properties, both in the finite and infinite measure settings. This is closely linked with statistical physics and number theory.

Stochastics and financial mathematics

The theory of stochastic processes is applied in many areas of natural and social sciences. Recently, applications in the financial sector have also seen a significant increase. The University of Vienna has therefore defined a research focus that links these two areas.

With the mathematical theory of probability as a basis, basic research activities are pursued in this field, in which application has always provided a strong driving force for pure mathematical theory. Questions relating to physics are a typical case in point.

Applications of mathematics in the financial sector have often been driven by ideas that originate in physics, and in some cases, vice versa. Brownian motion is a good example of the latter case. Its mathematical modelling was developed by Louis Bachelier to respond to questions from financial mathematics, several years before Albert Einstein revealed its fundamental significance in the context of physics. Modern examples of applications in the world of finance include questions of portfolio management, as well as the pricing and hedging of derivative instruments in terms of continuous time. The no-arbitrage principle is a central basis for research in the above fields.

Analysis, geometric structures and mathematical physics

The researchers working in this wide field of research view mathematics as an inseparable entity. The subject areas represented in this focus are

strongly interconnected; for example, functional analytic methods and the theory of differential equations are applied to questions arising in differential geometry, mathematical biology, and mathematical physics. Functional analysis and differential equations are also important links to other research areas at the Faculty, in particular, to the computational sciences. Lie groups, Lie algebras and algebraic geometry naturally connect with arithmetic, algebra, and discrete mathematics. Apart from the connections with mathematical physics, many of the geometric areas represented in the focus are closely linked with general relativity.

In complex analysis, spaces of holomorphic functions of several variables are studied with functional analytic methods. Cauchy-Riemann geometry is situated at the boundary between complex analysis and differential geometry, and has strong connections with the theory of parabolic geometries, a class of geometrical structures closely related to Lie theory, which is studied intensively.

At the intersection between functional analysis and differential geometry, problems of infinite-dimensional differential geometry are studied, in which methods of functional analysis, and particularly the convenient calculus (partly developed in Vienna), are of key importance. Here connections with image processing and pattern recognition are apparent. Methods of functional analysis also play a prominent role in the non-linear theory of generalised functions, whose applications in differential geometry are a focal point of research. This helps gain new insights into the structure and propagation of singularities. The current areas of application include mathematical seismology and general relativity. Close connections with gravitational physics, particularly the study of black holes, also exist in the recently added areas of Riemannian geometry (minimal surfaces and constant mean curvature surfaces), where analytic methods and partial differential equations play a prominent role.

The central areas in the field of mathematical physics include conformal and topological quantum field theory, where categorised knot invariants as well as algebraic and topological string theory are studied on the one hand, and mathematical descriptions of quantum mechanics and of wave phenomena on the other. Particular importance is attributed to the study of the Schrödinger equation and applications to integrable wave equations (soliton equations), which are important for modelling a large number of physical phenomena, from water waves to data transmission in glass fibre cables. Apart from integrable models, which are valid in certain regimes, waves of large amplitude are of great interest. This leads to the study of free boundary value problems for the Euler equations in fluid mechanics. In addition to surface waves, currents under the surface, particularly with regard to the interaction between wave and current, are of interest.

Computational sciences

The researchers in this area are united by their interest in the formulation of mathematical models and their computational realisation. This area has a strong interdisciplinary orientation, with the explicit goal of developing and expanding the cooperation with other disciplines.

The group specialising in computer-oriented mathematics and optimisation studies mathematical modelling and modelling languages as well as optimisation (especially global optimisation), with applications in the fields of discrete geometry, statistical data analysis, robotics, and protein folding.

The group focusing on continuous optimisation, motivated by numerous applications to real-life problems, and based on new insights into non-smooth analysis, develops methods and algorithms for the solution of complicated, convex and non-convex problems. The new algorithms will open up new approaches and strategies for the solution of monotone inclusion relations and evolution equations.

The field of (partial) differential equations has developed into a strong point at the Faculty. The activities in this area comprise modelling and (asymptotic) analysis as well as numerical analysis and computer simulation of differential equations. Currently, the main applications relate to the fields of quantum physics and quantum chemistry, hydrodynamics, economy, (medical) image processing, cell biology, wave propagation, and nonlinear continuum mechanics.

Mathematical modelling and its computational implementation are also realised with regard to novel bio-medical imaging set-ups developed at the Medical University of Vienna. Another focus is on the development of algorithms for quantitative analysis of cell and molecular microscopy data.

Harmonic analysis looks back on a long tradition at the Faculty and is currently pursued in many different forms, ranging from numerical harmonic analysis, with applications in signal and image processing, to abstract harmonic analysis on locally compact groups. The current research questions particularly emphasise the connections between fundamental theoretical insights and concrete applications.

Arithmetic, algebra and discrete mathematics

This field comprises research areas which develop and apply fundamental techniques of algebra in various directions, in particular in arithmetic, algebraic geometry, commutative algebra, group theory and combinatorics.

In research on automorphic forms, arithmetical geometry, number theory and representation theory interact. Important conjectures, such as those in non-Abelian class field theory or the Langlands functoriality principle, are seminal in the investigation of arithmetical properties of automorphic forms or of the geometric structure of Shimura varieties.

In algebraic geometry, two directions are pursued: on the one hand, questions of the so-called mirror symmetry of mathematical physics, as well as the corresponding categorical interpretations and extensions; and on the other, the resolution of singularities and approximation techniques in commutative algebra.

Group theory is pursued mainly from a geometric and analytic point of view, with particular emphasis on asymptotics. Here, algebraic and probabilistic techniques are combined, for example, with methods inspired by mathematical physics.

In the area of discrete mathematics, a spectrum of combinatorial themes is investigated and developed that ranges from algebraic combinatorics to analytic combinatorics and graph theory. Consequently, there are strong interrelations with algebra, number theory, and also with statistical mechanics.

Subject-specific didactics/school mathematics

Subject-specific didactic research provides a well-founded education in subject-specific didactics for future teachers according to modern teaching concepts. The public image of mathematics is strongly determined by teaching at school. Therefore it is essential to convey an appropriate image of mathematics to the student teachers in order to be able to pass it on to their future pupils in their later professional life.

More specifically, theoretical and practical questions concerning the use of computers in mathematics education are investigated, and didactic

analyses of parts of elementary mathematics are developed. Thereby the focus often lies on mathematics education focusing on real-life applications. Empirical studies on specific topics of mathematics education are also carried out in this key research area.

The nationwide testing of the educational standard in mathematics among eighth graders, as well as the introduction of a centralised written secondary school-leaving examination in mathematics at the end of upper secondary school, based on acquiring fundamental competences, is reflected and taken into account in the teaching of subject-specific didactics. In this way, future teachers are best prepared for these reforms in the Austrian school system. Owing to joint appointments with the Centre for Teacher Education, the collaboration between the Faculty of Mathematics and the Centre for Teacher Education in matters of subject-specific didactics and teacher education has a sound basis.

5.11.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. The list below does not predetermine any future subject dedication of professorships.

- Algebra
- Algebraic Geometry/Differential Geometry
- Applied Mathematics and Modelling
- Biomathematics
- Computational Science – Mathematical Modelling and Algorithmics in Application Areas (joint appointment: 50 %; 50 % at the Faculty of Computer Science)
- Computer-Oriented Mathematics
- Differential Equations
- Discrete Mathematics with Special Emphasis on Combinatorics
- Dynamical Systems
- Financial Mathematics
- Global Analysis/Differential Geometry
- Harmonic Analysis
- Mathematical Logic with Special Emphasis on Fundamentals of Theoretical Computer Science
- Mathematics and Biology (80 %; 20 % at the Centre for Molecular Biology)
- Mathematics II – Measure Theory, C* Algebras, Banach Algebras
- Mathematics IV – Algebra, Number Theory and Automorphic Forms
- Mathematics VI – Applied Analysis, Mathematical Physics
- Mathematics with Special Emphasis on the Didactics of Mathematics and Computer Science (joint appointment with the Centre for Teacher Education)
- Mathematics, section 99, para. 3 of the Universities Act (temporary: for six years)
- Mathematics, section 99, para. 3 of the Universities Act (temporary: for six years)
- Mathematics, section 99, para. 3 of the Universities Act (temporary: for six years)
- Numerics of Partial Differential Equations
- Partial Differential Equations
- Stochastics

5.11.4 Subject Dedication of Future Professorships and Status of Implementation

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Algebra and Number Theory
Time of appointment: following vacancy of the Professorship of Mathematics IV
(not before 1 October 2017)

Subject dedication of professorship:
Mathematical Logic also Taking Account of Fundamentals of Computer Science
Time of appointment: following vacancy of the Professorship of Mathematical Logic with Special Emphasis on Fundamentals of Theoretical Computer Science (not before 1 October 2018)

Subject dedication of professorship:
Financial Mathematics
Time of appointment: following vacancy of the Professorship of Financial Mathematics
(not before 1 October 2018)

5.12 Faculty of Physics

5.12.1 Objectives

The Faculty of Physics endeavours to establish a clearly defined research profile in all its key areas through which it can be readily identified and recognised by the international scientific community. This strategy has continued to prove effective in its special research areas and in top-level research within the European Union (ERC grants).

The Faculty of Physics offers new entrants a profound, comprehensive education, which also permits them to change to other areas of science or to professional life. The Faculty encourages the early integration of students in current research. The quality of teaching in the master's and doctoral programmes also enables students to prove their worth in international research and in industry.

In addition to the research programmes that have already been evaluated as excellent, those areas that are most likely to have great potential will be developed sustainably.

Research at the Faculty of Physics focuses on its scientific basis, which has often stimulated new applications and technologies. Promising approaches in this field include industrial cooperation, the establishment of Christian Doppler Laboratories, and the spin-off of enterprises.

The cooperation with the Faculty of Mathematics in the context of the Erwin Schrödinger International Institute for Mathematical Physics (ESI) is of particular importance. The ESI has acquired a prestigious international reputation – and, since 2012, has pursued its activities as a research platform at the University of Vienna. The areas covered by the ESI meanwhile include theoretical, experimental and computer-supported aspects of the sciences involved; this wider scope of activities will also be reflected in its new name: Erwin Schrödinger International Institute for Mathematics and Physics. The interactions between mathematics and physics, particularly with regard to the involvement of upcoming young scientists at the two faculties, and integration into the worldwide scientific community, have resulted in a productive collaboration. The role of the ESI will be further enhanced through the new professorship of Mathematical Physics.

5.12.2 Thematic Areas and Key Research Areas

The key research areas provide an opportunity for structuring the Faculty's research foci as well as training within the Faculty; they are based on its members' research initiatives.

Quantum optics, quantum nanophysics and quantum information

This key research area examines the foundations of quantum physics, as well as its technological applications. The corresponding experiments focus on preparing, manipulating and detecting individual quantum objects and quantum-correlated ensembles of photons, atoms, molecules, nanoparticles and micro-oscillators. Quantum technologies such as quantum information processing and quantum-based sensors are of key relevance for novel applications. Theoretical research is concerned with the foundations of quantum physics, quantum statistics of multi-particle systems, quantum optics and quantum information. In addition to the aforementioned cooperation, international collaboration with China on the one hand, and in the context of EU programmes on the other, is also worthy of mention.

Computational physics

Computational physics primarily develops quantum-mechanical and statistical atomistic algorithms to resolve fundamental questions of materials science, solid-state physics, cluster physics and physics of soft matter. This key research area is closely related with the experimental area of complex nanoscale matter. It cooperates intensively with the Vienna University of Technology, and in addition, it is a node of the Centre Européen de Calcul Atomique et Moléculaire (CECAM). From the Faculty's viewpoint, an expansion in the area of soft matter offers promising opportunities. The Vienna Ab Initio Simulation Package (VASP), of international renown, is another example worthy of mention.

Particle physics, gravitational physics and mathematical physics

This key research area covers the structure of matter, from elementary particles to the largest structures in the universe. The area of theoretical particle physics particularly investigates aspects of quantum field theory and phenomenology in particle and astroparticle physics, with a focus on the area of strong interactions, collider physics as well as neutrino and flavour physics. Cooperation also exists in the analysis of experiments on the Large Hadron Collider (LHC). Gravitational physics studies the theory of black holes, cosmological singularities and the expansion of the universe. Mathematical and numerical studies of gravitational theory will become particularly relevant with regard to the experiments on gravitational waves that are being conducted worldwide.

Complex nanoscale matter

This key research area is primarily oriented towards basic research on the physics of condensed matter. Innovative materials include, for instance, solids of reduced dimensions (e.g. graphene, nanotubes, unconventional superconductors), as well as metallic glasses, polymer-nanocomposites, magnetoelectrics and thermoelectrics. In the future, this research area will study the complex structures of such novel, intrinsically low-dimensional, nanostructured and hybrid materials, particularly with regard to their potential for nanoelectronic and nanosensor application. Here, advanced microscopic, spectroscopic and scattering methods are used. With regard to experiments and methodology, this key research area overlaps with the area of quantum optics, quantum nanophysics and quantum

information, and shares theoretical and numerical research interests with the area of computational physics. The Faculty regards these research areas as promising for cooperation with industrial partners.

Physics and the environment

The studies in this research area focus on aspects of physics that are related to environmental questions.

The research area of aerosol physics focuses on the formation and transformation of aerosol particles and their physical as well as physicochemical properties, which are important beyond basic physics-oriented aspects, and may also be relevant with regard to health, and questions of the global climate change. In this context, atmospheric aerosols, cloud formation and processes of nucleation are studied. The focus is on the physical basis of the formation of particles as well as their structures; mass spectrometric analysis of aerosol particles, as well as the (further) development of measurement methods.

In the field of isotope research and nuclear physics, the research focus is on highly sensitive detection of radioisotopes in all areas of the environment. Here, the Vienna Environmental Research Accelerator (VERA) permits state-of-the-art accelerator mass spectrometry of international standing. VERA is used both for the investigation of processes connected with global climate change, as well as for numerous forms of transdisciplinary cooperation between physics, historical studies, earth sciences and life sciences. The development of new methods of mass spectroscopy will further enhance the international significance of the VERA centre. The new working focus on molecular and/or nuclear astrophysics will further expand the range of subjects studied.

5.12.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Aerosol and Cluster Physics
- Computational Physics
- Computational Quantum Mechanics
- Didactics of Physics (cooperation with the Centre for Teacher Education)
- Experimental Physics with Special Emphasis on Training of Future Physics Teachers
- Gravitational Physics
- Hybrid Systems and Complex Materials
- Isotope Physics
- Materials Physics, section 99, para. 3 of the Universities Act (temporary: for six years)
- Multi-Scale Computational Physics
- Particle Physics and Particle Astrophysics
- Quanta and Solids
- Quantum Foundations and Quantum Information Theory; section 99, para. 3 of the Universities Act (temporary: for six years)
- Quantum Information on the Nanoscale
- Quantum Nanophysics
- Theory of Quantum Optics and Quantum Information

5.12.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Mathematical Physics

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Low-Dimensional Transport and Nanotechnology
Time of appointment: funding via a vacant professorship at the Faculty (not before 2016)

Subject dedication of professorship:
Experimental Quantum Physics
Time of appointment: funding via a vacant professorship at the Faculty (not before 2017)

Subject dedication of professorship:
Biophysical Imaging
(cooperation with the Centre for Molecular Biology with regard to advertising and recruitment)
Time of appointment: following vacancy of the Professorship of Experimental Physics with Special Emphasis on Training of Future Physics Teachers (not before 1 October 2017)

Future professorships subject to availability of funds

Establishing the following professorships is a goal for the next performance agreement period.
Subject dedication of professorship:
Molecular Metrology (Experimental)

Subject dedication of professorship:
Quantum Information Science and Technology (Experimental)

5.13 Faculty of Chemistry

5.13.1 Objectives

Chemistry is a core science, dealing with the structure, synthesis and function of organic as well as inorganic nature, thereby reaching far into areas of life science and medicine. On this basis, it is also involved in the development of substances and materials in a broad sense. It contributes to the development of medical devices and of pharmaceutical drugs, including the development of innovative materials to ensure the availability of raw materials and energy resources for our future, based on sustainable processes. Chemistry is thus of key economic and social relevance within the University.

The Faculty is committed to providing a comprehensive and general education in chemistry. Within this education, emphasis is put on the key research areas of (i) computational chemistry and biomolecular simulation, (ii) functional and sustainable materials chemistry, (iii) food chemistry and physiological chemistry, (iv) bioanalysis and environmental analysis, (v) synthesis and catalysis and (vi) biological and medicinal chemistry. Chemistry is also a prerequisite for an in-depth understanding of all other disciplines in the natural and life sciences. In this context, the Faculty is responsible for the sound education of a large number of secondary subject students (i.e. teaching exports).

There is a basic difference between the degree programme of the University of Vienna (degree programme in Chemistry) and that of the Vienna University of Technology (degree programme in Technical Chemistry). Accordingly, the curriculum at the University of Vienna focuses on biological and molecular chemistry – experimentally as well as theoretically – whereas at the Vienna University of Technology, technological subjects take priority.

For the bachelor's programmes, it makes sense to keep the degree programmes at the University of Vienna and the Vienna University of Technology distinct, on account of the large number of students and the differences in orientation and technical equipment. During the master's programmes,

however, it is possible to use helpful synergistic effects in a joint curriculum of materials science/materials chemistry. With this arrangement, the students of the University of Vienna can benefit from the technologically orientated education at the Vienna University of Technology, while students from the latter benefit from the approaches that are promoted at the University of Vienna.

There is also cooperation in science and teaching with the University of Natural Resources and Life Sciences, Vienna. Nanobiotechnology and the technological aspects of food chemistry, as well as the intensive cooperation in the area of biomolecular simulation, serve as examples in this context. These are areas from which the University of Vienna is benefiting, and is in turn providing profound expertise in the areas of laser applications, as well as synthetic and analytical expertise. Bioactive compounds, innovative tumour therapeutics and results obtained from nanomedicine-based developments at the University of Vienna show interesting applications in medicine, and have led to cooperation with the Medical University of Vienna in the area of translational cancer therapy research, which will be further expanded in the future. The scientific alignment between the University of Vienna, the Vienna University of Technology, the University of Natural Resources and Life Sciences, Vienna and the Medical University of Vienna has provided a significant development potential.

To support cooperation both within and outside the Faculty, the Mass Spectrometry Centre, the X-Ray Structure Analysis Centre, as well as the NMR Centre (nuclear magnetic resonance spectroscopy) were established, in addition to the Faculty Center for Nanostructure Research, a service facility for the cooperation between the Faculties of Chemistry and of Physics.

The Faculty of Chemistry is already collaborating with the Faculties of Earth Sciences, Geography and Astronomy, of Physics and of Life Sciences, in the area of environmental sciences. In addition, interdisciplinary cooperation in the context of a research network between chemistry and microbiology is under preparation.

5.13.2 Thematic Areas and Key Research Areas

The Faculty of Chemistry always welcomes initiatives by its members that address forward-looking topics of research in addition to those investigated in the context of the key research areas. This flexibility, which makes it possible to introduce new research areas as a basis for future key research areas, will be maintained in the future as well.

The following key research areas have been established.

Computational chemistry and biomolecular simulation

Theoretical chemistry contributes to the characterisation of material properties in the fields of biological chemistry and materials chemistry, and also helps to gain insight into the photochemistry of organic and inorganic molecules. In order to obtain a better understanding of the structures, spectroscopic data and reactivity of molecules, quantum chemical programme packages are applied. The use of high-precision methods to calculate electron structures, and the development of new methods in the area of molecular reaction dynamics, as well as links between the two areas, are aimed at obtaining fundamental insights into chemical processes and structure-function relationships, and to be able to predict them in quantitative terms, in molecules, biological systems and materials.

Biomolecular simulation studies the structure, dynamics and energetics of biopolymers, explicitly taking into account solvation by conventional and innovative solvents, such as ionic liquids, with the goal of analysing the structure and dynamics of both individual biomolecules and their solvation, as well as of protein-ligand and protein-protein interactions.

Modelling the structures of biopolymers and their functions in cellular networks is another focus of research. In particular, predictions of secondary and tertiary structures of RNA molecules are carried out using modern high-throughput techniques. Methods for designing functional RNA molecules are developed and used in order to analyse and manipulate (bio-)chemical reaction networks. The development of new algorithms benefits from the close cooperation with the Faculty of Computer Science.

Functional and sustainable materials chemistry

Functional materials are an essential foundation of our modern industrial society, particularly in central areas such as energy, environment, mobility, information technology and medicine. Therefore the Faculty of Chemistry engages in basic and applied research on materials for new, ecologically friendly technologies, on polymers and composites as well as on metallic, semiconductor, ceramic and hybrid materials, as well as catalysts. Special importance is given to the production and characterisation of functional structures at the nano and micro levels, and to the efficient use of the starting materials for obtaining the desired functional products, while avoiding waste, minimising energy consumption and using renewable raw materials. For this purpose, multiple synthesis (bottom-up and top-down) strategies and characterisation methods are applied.

In addition to the aspect of essential research on physical properties, the intended application is a strong driver of the Faculty's research activities, which include many of the areas mentioned above, and thus range from innovative and renewable materials, to catalysis and molecular identification in diagnostics. Consequently, multiple productive interrelations with the other key research areas of the Faculty are apparent.

Food chemistry and physiological chemistry

Research in the area of food chemistry and teaching in the areas of food chemistry and physiological chemistry concentrate on identifying functional food ingredients and exploring components that correspond to molecular mechanisms, as well as their relevance with regard to food safety. In Austria, only the Faculty of Chemistry has combined expertise in food chemistry and food toxicology. In the field of food chemistry, in particular regarding food safety and toxicological evaluation, new synergies may develop – for instance with the Vienna University of Technology, the University of Natural Resources and Life Sciences, Vienna and the Medical University of Vienna. This particularly applies to the research area of food chemistry in the field of interference of food and food ingredients with chemotherapeutics, mycotoxin research as well as the topical field of nanotoxicology.

With respect to food safety, cellular mechanisms of action of various ingredients (bioactive components, contaminants, nanoparticles) in the human digestive system are investigated using a range of biochemical, molecular-biological, toxicological and analytical techniques.

Physiological chemistry focuses on the identification and characterisation of bioactive food ingredients as isolated compounds and as compounds in food matrices, giving special consideration to food processing.

Proof of bioactivity is established via studies in isolated cells and with human intervention studies using various food matrices, for which translational approaches are also used.

The applied techniques record the bioavailability of the target compounds and their bioactivities at the gene-regulatory (DNA and RNA expression) and protein-regulatory levels, and their impacts on the metabolic profile.

The research activities in the areas of food chemistry, food toxicology and physiological chemistry enable perfect cooperative links not only within the Faculty of Chemistry and the Faculty of Life Sciences (nutritional sciences, pharmacy, microbiology), the Faculties of Earth Sciences and of Physics, but consequently also enhance the cooperation with the Vienna University of Technology, the University of Natural Resources and Life Sciences, Vienna/Tulln Department of Agrobiotechnology and the Medical University of Vienna.

Bioanalysis and environmental analysis

The strictly molecular approach pursued in chemistry has increasingly been taken up by the biologically oriented sciences, and permits numerous new insights with regard to the functionality of biomolecules, their interactions both at the internal level and with their environments, as well as their synthesis. The questions to which they give rise are highly complex and require high-performance analysis. The Faculty of Chemistry has an excellent international reputation in this field, based on many decades of successful research on comprehensive and rapid analysis.

One focus is on the combination of separation procedures and ultra-high sensitivity methods of analysis for determining (increasingly often by mass spectrometry) as many different components as possible per single sample. This permits the specific screening of cell systems to explore functional relationships, and requires both the further development of the corresponding instruments and new methods of bioinformatics. This facilitates the identification and, consequently, the exact quantification of, for instance, proteins, peptides, and potential marker molecules. New methods have thus been established in bioanalysis and environmental analysis, in order to examine not only chemical processes in the environment, but also the biological impact of chemical substances. In this way, new criteria for the assessment of the environmental and biological relevance of materials can be made available. This is complemented by the development of methods of rapid analysis and sensor systems for analytical questions of a smaller scope.

Synthesis and catalysis

Chemistry is the only science that has continually created its own object of research. This specific property is used permanently, both in nature and in modern chemical industry, and is based on the deliberate combination of atoms by means of chemical synthesis.

The researchers at the Faculty of Chemistry specifically investigate the synthesis and chemical reactivity of bioactive molecules, which includes the

development of new methods, customised chemical transformations, as well as the efficient optimisation of existing chemical processes.

Specific importance is given to the synthesis, modification and structural analysis of natural products such as hydrocarbons, macrolides, peptides and proteins, which permits applications of social relevance in industry, the life sciences and medicine. As many of these compounds are chiral, stereo-selective methods of synthesis have to be developed which ensure a precise three-dimensional arrangement of the molecule's atoms. In addition, atom-efficient chemical reactions are used in these systems in order to find ecologically improved ways of synthesis. The catalysis of chemical reactions plays an important role in this context, as many chemical transformations would not be possible without the use of catalysts. New catalytic transformations can replace conventional reaction sequences over several stages, and often, the ensuing waste materials (reagents, solvents, by-products) can be reduced considerably.

Biological and medicinal chemistry

This research area comprises the synthesis of complex natural products and active agents, as well as structure/function studies on biomolecules, from small molecules to various biopolymers, whose functional properties are studied in organic, inorganic, biophysical and biological chemistry. One class of compounds is based on coordination compounds, which intervene in tumour metabolism and induce precise changes in protein biosynthesis. In this context, clinical studies on tumour patients are conducted, and promising results have already been achieved in patients for whom no further treatment options were available.

Other classes of compounds are made available via the synthesis of bioactive compounds, based on peptides and polymers, of almost any size, which, for instance, can be used as molecules that are similar to antibodies, or for the investigation of biochemical and medical questions. The combination of peptides and proteins with other polymers and materials opens up applications in the field of medicine, in the form of novel therapeutics, or for specific delivery, and in biotechnology.

Amino acid precursors and components with new isotopic labelling patterns and post-translational modifications are generated for the synthesis of proteins, for the specific modification of target proteins and to permit structure/function studies. Structure studies by means of NMR and crystallography are used to understand the functions of different proteins in atomic resolution. This also includes the examination of enzyme-analogous interactions of new model compounds.

The synthesis of bioactive hydrocarbons and of compounds interacting with DNA and RNA opens up additional areas in the fields of biological and medicinal chemistry.

5.13.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. The list below does not predetermine any future subject dedication of professorships.

- Analytical Chemistry, section 99, para. 3 of the Universities Act (temporary: for six years)
- Biochemical Modelling (joint appointment: 50 %; 50 % at the Faculty of Computer Science)
- Biofunctionality of Food
- Biological Chemistry
- Biophysical Chemistry
- Chemical Catalysis
- Chemical Molecular Dynamics
- Computational Chemistry – Theoretical Chemistry/Scientific Computing
- Computational Structural Biology, section 99, para. 3 of the Universities Act (temporary: for six years)
- Didactics of Chemistry (cooperation with the Centre for Teacher Education)
- Environmental Chemistry
- Food Chemistry
- Inorganic Chemistry I
- Inorganic Chemistry II
- Organic Chemistry
- Organic Synthesis: Natural Products, Methods
- Physical Chemistry
- Separation Processes and Bioanalytics
- Synthetic Materials Chemistry

5.13.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Inorganic Chemistry

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Physical Chemistry
Time of appointment: following vacancy of the Professorship of Physical Chemistry
(not before 1 October 2018)

5.14 Faculty of Earth Sciences, Geography and Astronomy

5.14.1 Objectives

The disciplines represented at the Faculty of Earth Sciences, Geography and Astronomy focus on elementary questions of human existence: How did the universe form? And the Earth? How could life develop on our planet, and how has it evolved? How has Earth evolved to its present state, and can its future development be predicted? These questions form the background to major societal challenges and issues of the present day: environmental change, environmental pollution, a changing climate, water resources, biodiversity, migration and population dynamics, the sustainable use of resources and the resilience of natural systems. The scientists of the Faculty research and teach these topics at an interdisciplinary level, using the well-established methods of natural and social sciences.

The disciplines at the Faculty range from those markedly based in physics, such as astrophysics, meteorology and geophysics, to geoscientific disciplines such as geochemistry, geodynamics, impact research, mineralogy, palaeontology, palaeobiology, petrology, sedimentology and environmental geoscience, as well as the disciplines of physical geography and regional, human, economic and social geography, cartography and geoinformation.

The Faculty combines expertise as well as a diversity of methods, from many different disciplines, thus enabling innovative and interdisciplinary research and innovative approaches to the description and interpretation of nature on different scales in terms of both time and space. The Faculty also integrates social processes and regards itself as a link

between natural sciences on the one hand, and social sciences and the humanities on the other.

The goal of the Faculty is to pursue research in its disciplines at the highest level, to ensure a leading position and high visibility in its disciplines at the international level, and to make its expertise available in its teaching activities. In this respect, the successful acquisition of third-party funds, as well as the high visibility of its publications, are key indicators for the Faculty. The Faculty aims to further increase its international approach, in research projects, in the recruitment of personnel and in the encouragement of mobility among its students and teachers. It is already characterised by top-level international cooperation and participation in large international programmes, for instance, in the context of the European Southern Observatory (ESO), the Copernicus European Earth Observation Programme, research on synchotron particle accelerators, and the International Continental Scientific Drilling Program (ICDP). Apart from international cooperation, the Faculty attaches great importance to cooperation within Austria, particularly in and around Vienna, and within the University of Vienna. In this way, synergies can be used to align teaching, research, and high-cost infrastructure.

In addition to research excellence, ensuring a high level of training for its students is an equally important goal at the Faculty. The Faculty places great emphasis on a form of teaching that acknowledges and integrates students in an interactive way, and that is ready to face international challenges by running joint master's programmes and offering courses in English. Furthermore, it is important to the Faculty to generate opportunities for its students and to encourage them to pursue scientific careers. Good employability of the students is regarded as a yardstick of success in this context.

Another aim of the Faculty is to provide especially attractive conditions for women and early-stage researchers. For this purpose, several innovative programmes have been developed – for instance, the new maternity leave return support programme. Here, the key criteria of success are good employability of young women scientists at the international level, and optimised career opportunities in science.

5.14.2 Thematic Areas and Key Research Areas

The Faculty has defined three thematic areas that focus on basic as well as application-oriented research, responding to current social questions and challenges. Joint initiatives with methodologies across the different thematic areas are also worth mentioning and are pursued actively as special focus facilities: high-performance and trace analysis, which may be carried out under clean room conditions, connects lithospheric research and environmental geoscience; scanning electron microscopy and X-ray diffraction link geodynamics and sedimentology, lithospheric research, mineralogy, palaeontology and environmental geoscience. Finally, the joint use of high-performance computers in the Vienna Scientific Cluster links astrophysics with meteorology.

The following three interdisciplinary thematic areas define the research activities of the entire Faculty: The dynamic cosmos: This area studies the formation and evolution of galaxies, stars and planets, and the underlying physical processes at the different cosmic scales, from large galaxy clusters to the small scale of planetary systems. In the universe, extreme forces and conditions occur, which cannot be replicated in earth-bound laboratories. Insight is obtained through mathematical models and by observing radiation at all wavelengths.

Dynamics of the geosphere: This thematic area focuses on geological processes with regard to their spatial and temporal interactions and their dynamics. These range from long-term processes that define the conditions on Earth (e.g. global geodynamic processes, weathering and sedimentation, global cycles, etc.) to short-term processes (e.g. meteorological extremes, volcanism and earthquakes). The interactions between geological and biological processes on Earth are taken into account in this thematic area.

Environment, society and risk: In this thematic area, the environment and society as well as their interactions are analysed. Processes occurring in the geosphere and anthroposphere are studied from an angle of basic research. It focuses on the investigation of the influence that societal structures and individual action have on spatial development and on systems of geoscience and environmental science. The goal here is to analyse and assess the potential risks involved in environmental change, as well as dangers and risks related to nature, the planning prerequisites, warning systems, short-term and longer-term forecasts, and plans for the sustainable preservation of the natural habitat.

In the following seven key research areas of the Faculty, specific importance is attributed to applied and basic research.

Planets, stars and galaxies as components of the universe

This key research area encompasses the combined examination of planets, stars and galaxies, as their individual components are interrelated. After surveying the cosmic components, the question of the physical and chemical processes involved in the formation and evolution of galaxies, stars and planets is of particular relevance.

The relevant physical parameters and conditions, such as the size, shape, composition, and dynamics of galaxies, stars, gas and dust, are measured and derived from the observation of light over the entire electromagnetic spectrum. For this purpose, the large telescopes of the European Southern Observatory (ESO) and high-performance ESA and NASA satellites are used, as well as UniBRITE, Austria's first satellite. The links between empirical results and modelling, and especially the chronological sequences of processes of various kinds, are studied by means of numerical simulations on high-performance computers – for instance, at the Vienna Scientific Cluster.

The combination of observation, theory, numerical data, and instrumentation forms the basis for fundamental insights into key processes in the universe including the existence of Earth and thus conditions for life.

Atmospheric and climatic processes

Ecosystems and society are, to a considerable degree, influenced by atmospheric processes: from dangerous, small-scale turbulences in nature to atmospheric processes on a global scale and their interactions with the biosphere and geosphere in the climate system. These processes are investigated by means of comprehensive in-situ high-resolution measurements of space and time, and observation based on methods of remote sensing, as well as modern, high-performance numerical modelling of various degrees of resolution, and high-performance computers – for instance, in the Vienna Scientific Cluster.

The climate has considerable influence on the circulation patterns of the oceans, as well as on erosion and sedimentation, and thus on the formation of mountains, which, in turn, has strong effects on global and regional climate developments. Climate change leads to change in the fauna and to the migration of organisms, or to extinction and sudden change in evolution. The availability of long-term meteorological data series and geohistorical archives permits precise statements on future changes of the climate and their effects on our natural environment.

This key research area provides both important insight into meteorological processes, climate reconstruction and the protection of water resources, as well as the socio-economic effects of global change on regional development, and contributes to the development of new digital forms of expression.

Evolutionary mechanisms in space and time

This area, closely cooperating with the Faculty of Life Sciences, focuses on the diversity of life as a result of change that has occurred in the course of evolution. An essential goal of evolutionary palaeobiology is analysing genetic, functional and morphological change. The major goal is to understand how evolution works. Understanding past patterns and processes is essential for predictions how life will continue in the future. Questions and methods of palaeobiology and geobiology are combined with those of evolutionary and molecular biology for understanding evolution.

The main questions of this key research area are: How does biological diversity evolve? How do mass extinctions and other extrinsic factors shape biodiversity patterns? How can the present-day extinction of species be rated? How and why do organisms adapt to different habitats? Why does the evolutionary speed of species vary? What is the genetic basis for the phenotype of organisms? When, and under what general conditions, have new metabolic pathways developed?

The ultimate goal, therefore, is to gain a better understanding of the evolutionary history of ecosystems and organisms within a hypothesis-based analytical and quantitative framework.

Reconstruction of geodynamic processes

Processes that take place in the Earth's interior and on the surface – for instance orogeny, volcanism, metamorphism, meteorite impacts and erosion – are active over geological time spans and have long-term effects on the evolution of our planet. To gain insight into the underlying processes, the present-day image of our planet and its interactions with the solar system are integrated with the geological evolution.

Research in this area, which takes place across different scales, comprises geophysical methods, remote sensing, geological mapping and visualisation, data structuring in terms of space and time, radiometric dating of rocks, characterisation of the pressure, temperature and deformation conditions of rocks, investigation of material behaviour under crustal and mantle conditions, geochemical analyses to determine deposition environment and the provenance of sedimentary and igneous rocks, as well as numerical modelling of geodynamic processes.

The goal is to obtain a better understanding of the structure and geological evolution of the Earth,

both at the global level (e.g. plate tectonic processes, formation and erosion of alpine mountains) and with regard to the assessment of specific risks, such as earthquakes and meteorite impacts. Close cooperation with the industry allows application in the field of oil deposits and fossil fuels with focus on the formation and recovery of oil and gas.

Geomaterials

The key research area deals with material-related aspects of the geosciences. Its main subjects of research include the atomic structure, chemical composition, microstructures and phase diagrams, as well as the physical and chemical properties of minerals, rocks, glasses, melts and fluids, and their behaviour in the context of geological and technological processes.

Geomaterials research supplies physical and chemical data on materials, based on experiments and theoretical expertise, for building quantitative geological models, and contributes fundamental insights into the material properties and behaviour during the technological processing of georelevant materials.

Geomaterials research is thus essential for understanding the evolution and processes of the solid Earth and other planets. It also contributes to the efficient detection, recovery and use of raw materials and to the assessment of geohazards related to earthquakes and volcanism. The application-oriented goals of this key research area include the development and design of new mineral-based materials such as construction materials, refractory products or functional ceramics.

Environmental processes and natural risks of the system of Earth

As a system, the Earth is subject to dynamic change that has influenced, and will continue to influence, the natural environment of the past, present and the future, and thus, society as well. Identifying those environmental factors that have brought about change in the past permit conclusions as to recent systems, and vice versa. It makes it possible to estimate the environmental impact of social activity, as well as to analyse and assess its potential dangers and risks.

The process-oriented approaches to research of this area are aimed at identifying the interrelationships between human beings, the biosphere and the geosphere. In order to understand these complex connections, components of the geosystem – for instance, soil, sediments, bodies of water, groundwater, glaciers, pollutants, nutrients, trace gases, fossils and climate archives – are analysed, modelled and studied with regard to their interactions. The main aspects examined are interactions with societal processes involving use of land and resources, ecosystem management, water supply, behaviour of environmental pollutants, waste management, natural dangers and risk research. The results obtained are structured in geo-databases and visualised dynamically in a user-oriented way.

The aim of this key research area is to achieve a better understanding of environmental processes in order to improve the surveying and forecasting of the dynamics of surface processes in the complex system of Earth and humans. This also includes questions of the sustainable preservation of the basis of life.

Population and society, urban and regional development

Processes of demographic and social change also involve dynamical change in the demand for space, in both rural and urban regions. Research is conducted on population development in different types of space, its determining factors such as fertility and ageing, as well as processes of mobility and integration, against the background of dimensions of social, economic and cultural change.

Agglomerations play an important role in this context, as change is particularly apparent there. The corresponding research projects focus on international immigration, processes of integration, spatial disparities, as well as connections between urban areas and their surroundings. In rural areas, the main issues are the provision of public services, opportunities and risks involved in tourism and the energy industry, as well as the mobilisation of endogenous developmental potentials.

This key research area is not limited to the theory-driven description and analysis of space-related patterns and processes as well as their graphic visualisation, but also includes the identification of problems and conflicts, as well as possibilities of their resolution through space-related planning and policies.

5.14.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Applied Geography, Spatial Research and Spatial Planning
- Astronomy, Satellite Astronomy and Experimental Astronomy
- Environmental Geosciences and Applied Sedimentary Petrology
- Galaxy Formation in the Early Universe
- General Meteorology
- Geodynamics and General Geology
- Geoecology
- Geography and Cartography
- Geophysics
- Impact Research and Planetary Geology
- Isotope Chemistry and Biogeochemistry
- Mineralogy and Crystallography
- Mineralogy and Spectroscopy
- Palaeobiology with Special Emphasis on Vertebrate Palaeontology
- Palaeoecosystems
- Palaeontology, section 99, para. 3 of the Universities Act (temporary: for six years)
- Physical Geography
- Sedimentology and Stratigraphy
- Stellar Astrophysics
- Theoretical and Experimental Petrology
- Theoretical Astronomy
- Theoretical Meteorology

5.14.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Population Geography and Demography

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Economic Geography
Time of appointment: funding via a vacant professorship at the Faculty (not before 2015)

Subject dedication of professorship:
General Meteorology
Time of appointment: funding through the Faculty (vacancy of the Professorship of General Meteorology, presumably as of 1 October 2017; initial financing through faculty resources, not before 2015)

Subject dedication of professorship:
Theoretical Extragalactic Astrophysics
Time of appointment: following vacancy of the Professorship of Theoretical Astronomy
(not before 1 October 2015)

Future professorships subject to availability of funds

Establishing the following professorships is a goal for the next performance agreement period.

Subject dedication of professorship:
Applied Geophysics

Subject dedication of professorship:
Earth Systems Modelling

Subject dedication of professorship:
Didactics of Geography and Economics
(cooperation with the Centre for Teacher Education with regard to advertising and recruitment)

5.15 Faculty of Life Sciences

5.15.1 Objectives

The Faculty of Life Sciences aims at the acquisition of a deep understanding of the principles of life and evolution. On the basis of this knowledge, the Faculty envisions addressing the multifaceted challenges of the future such as nutrition and health of an ageing human population, and the effects of climate change on biological systems.

Living organisms are embedded in complex networks with other organisms and in a continuously changing environment. Increasingly, the thorough understanding of the evolution, the diversity and maintenance of biological systems often requires approaches of systems biology, which permit the generation of big data sets, as well as their analysis. Hence, basic research provides the basis for society-driven, applied research, in order to find solutions to societal challenges and problems, based on expertise in biological systems.

The goals of the Faculty of Life Sciences are to further encourage interdisciplinary research among the individual departments of the Faculty and to enhance the use by all departments of the research equipment and instruments that are available at present, as well as those to be acquired in the future. To stimulate interdisciplinary research within the Faculty and between faculties, research platforms and research networks have been established and will be further consolidated to address current major research challenges in life sciences. The Faculty aims at intensifying its interactions with other national and international research institutions to consolidate its leading position in life sciences at the national level, as well as in the international research arena. In many departments, scientific research will be oriented towards the research challenges within the European Research Area and participation in international programmes such as Future Earth, massive sequencing programmes and systems biology projects to attract additional third-party funding from national and international research agencies.

The Faculty of Life Sciences is already cooperating with the Faculties of Earth Sciences, Geography and Astronomy and of Chemistry, as well as with the Centre for Sport Science and University Sports, the Centre for Molecular Biology and other faculties. In the performance agreement period 2016–2018, special attention will be given to possible cooperation in the context of a research network encompassing the Department of Microbiology and Ecosystem Science and the Faculty of Chemistry.

5.15.2 Thematic Areas and Key Research Areas

The research activities at the Faculty are divided into five thematic areas: biodiversity, ecology, nutrition, organismal systems biology and pharmacy.

The thematic area of biodiversity is devoted to investigating the genesis of biodiversity, the causes and consequences of its unequal distribution in space and time, and its potential change through anthropogenic processes (land use, climate change). Its research activities are closely linked with the key research area of patterns and processes in plant evolution and ecology, and ecology and biodiversity of tropical forests. The corresponding topics and methods range from molecular genetic, structural-morphological and modelling approaches to analyses of selected interaction systems, complex communities of species and landscape structures. They also include computerised reconstructions of evolutionary history and forecasts of future changes in biodiversity patterns. The Core Facility Botanical Garden, with its collection of living plants and further resources, provides key foundations of biodiversity-related research and teaching at the University of Vienna. The Botanical Garden is a competence centre for national and global strategies to preserve biodiversity. It develops and actively participates in programmes for the protection of species and the conservation of nature and thus contributes to our knowledge about and the preservation of plant diversity. With its postgraduate and advanced training activities the Botanical Garden is active beyond the university framework and plays a relevant role in society, art and politics.

The thematic area of nutritional sciences examines biological processes that result from the interrelationships between organisms and their diets. The planned focus is on molecular nutrition research in an approach taken by systems biology, using genomic, transcriptional, proteomic and metabolic strategies. This will improve our understanding of the cellular and molecular modes of action of nutrients and non-nutritive food components. It will also help developing biomarkers to predict long-term, diet-related diseases, and identify genetic variants that may contribute to the development of diet-related phenotypic expressions. The systematic analysis of the correlations between diet-related factors and numerous illnesses is a powerful tool for formulating novel research questions. Various aspects of this thematic area are reflected in the key research area of nutrition-associated molecular mechanisms of ageing.

The objective of the thematic area of ecology is to gain insight into the structures and functions of limnic, marine and terrestrial ecosystems. The focus is on microbial-ecological, ecosystemic, biogeochemical and systems biological investigations, as well as on microbial symbioses. For this purpose, the function of microorganisms in natural and technical habitats is analysed to understand the microbial control of biogeochemical cycles. In addition, the reactions of model organisms and ecosystems to changing environmental conditions are studied. In order to achieve this goal, state-of-the-art technologies from the fields of systems biology, bioanalytics, biogeochemistry, imaging and individual cell analyses are combined and advanced. Furthermore, these research approaches are of great social relevance against the background of programmes such as Future Earth and the Grand Challenge 'Global Change'. In the future, the numerical and quantitative aspects of ecology will be in the focus in order to strengthen the predictive character of ecology. The key research areas of climate change biology, symbioses and microbial ecology and ecosystems represent the main field within this thematic area.

The aim of the thematic area of organismal systems biology is to gain further insight into animal organisms as complex systems. In this context, a wide range of species, including humans, are investigated in a comparative way, from the molecular and cellular to the ecological and social levels. The main objective is to analyse the development and evolution of these organismal systems, using experimental, imaging and quantitative methods. The thematic area of organismal systems biology is characterised by the key research areas of cognition, neuroscience and behaviour and evolution of organismal complexity, as well as the field of anthropology.

The thematic area of pharmacy seeks to access and characterise new biologically active natural and synthetic products and to improve the understanding of their interactions within the human organism at the molecular level, applying *in-silico, in-vitro,* and *in-vivo* models. This is aimed at yielding new lead structures and treatment programmes and developing delivery systems for pharmaceutical substances. Several aspects of this thematic area are represented in the key research areas of drug discovery from nature, computational life sciences and nutrition-associated molecular mechanisms of ageing.

Evolution of organismal complexity

The goal of this key research area is to examine the evolutionary and developmental mechanisms whose complex interactions bring about the diversity of differentiated cell types, organs and body plans of organisms. This area combines high-end molecular, genomic, morphological and biomathematical methods, along with 3D and 4D imaging techniques. By integrating theoretical and experimental approaches to systems biology, it will be possible to gain a comprehensive understanding of the evolution of organismal complexity. A variety of approaches are used to examine, in a comparative manner, gene regulatory networks, the influence of epigenetic regulation and dynamic cellular interactions. A special focus is on neuronal networks to determine fundamental principles in the development, structure and function of nervous systems and their interaction with the environment. Interfaculty cooperation is encouraged with the key research area of evolutionary mechanisms in space and time of the Faculty of Earth Sciences, Geography and Astronomy.

Cognition, neuroscience and behaviour

The cognitive, neuronal and hormonal basis of behaviour represents the main topics of this key research area. Its strength lies in its broad comparative approach, which integrates diverse model systems and research topics at different organisational levels, ranging from the cell to social groups. Here, the focus is on the evolution of cognitive processes, the influence of environmental factors on behavioural phenotypes, as well as interactions between behavioural, genetic and physiological factors. Particularly relevant are social aspects such as the complexity of social relationships, cooperation, communication and stress management. An important goal is to strengthen the neurosciences within the Faculty and to establish more intensive networks of the groups working in this field at the University of Vienna and in the Vienna area.

Patterns and processes in plant evolution and ecology

This key research area focuses on the processes in evolution, developmental biology and ecology that have brought about the present diversity of plant life. In close cooperation with the Faculty of Earth Sciences, Geography and Astronomy, an investigation is carried out into how plant diversity has developed and changed under natural conditions. Humans have also played a considerable role in this process, which raises the question how plant diversity can be preserved in the long term. Interdisciplinary studies are used to interlink approaches of molecular genetics, phylogenetics, metabolomics, proteomics, morphology, and population biology, combined with synecology, macroecology and evolutionary ecology. The goal of this area is to consolidate these future-oriented interdisciplinarity, using state-of-the-art methodology (such as next-generation sequencing, high-resolution X-ray tomography, biogeographical modelling and genome-wide metabolism modelling). This key research area also benefits from the collections and the infrastructure of the Botanical Garden.

Symbioses

Symbiosis, or living together of dissimilar organisms, is a universal principle of life. This key research area studies the mutual interactions between prokaryotes and eukaryotes, as well as their underlying molecular mechanisms. In this context, protists, animals and plants from aquatic and terrestrial ecosystems, as well as model organisms, are investigated. The areas that will be dealt with more intensively in the future comprise (1) host and symbiont diversity, as well as the variability and function of the phenotype in an ecological context, (2) evolution experiments and empirical studies to test theoretical approaches in the theory of evolution and cooperation, as well as game theory. The current jointly run courses will be expanded to create an innovative, transdisciplinary environment for students from all biological disciplines.

Microbial ecology and ecosystems

Microorganisms play a key role in food webs and in all global biogeochemical cycles. Here, the focus of interest is on the structures and functions of microbial communities and the resulting material flows in terrestrial, aquatic and technical ecosystems.

In an interdisciplinary approach, priority is being given to those questions that help improve our understanding of functionally important microorganisms. Research on ecology and the evolution of microorganisms are a prerequisite for understanding the functions of microbes in the ecosystem in a changing environment and for optimising the use of microbial communities in technological systems. For this purpose, state-of-the-art methods of metagenomics, functional genomics, single-cell microbiology and isotope analysis are applied. New working groups have been established at the interface between this key research area and the area of symbioses, focusing on microbiome research in humans and animals. In this field, the cooperation with the Faculty of Chemistry will be intensified.

Climate change biology

Global climate change influences the structure, function and biodiversity of ecosystems. This key research area primarily studies the impact that climate change has on the evolution, physiology and ecology of biological systems, from cells to ecosystems including humans, and on feedback mechanisms between these components. The goal here is to pool the Faculty's research activities, expand them along interdisciplinary lines, and integrate them by means of mathematical modelling. This key research area represents a platform for cooperation with other faculties and helps raise the profile of the University of Vienna in the area of research on climate change.

Ecology and biodiversity of tropical forests

Tropical forest ecosystems are centres of global biodiversity. At the same time, however, they are under constant pressure because of changes in land use and climate change. The fundamental questions examined in this key research area include the significance of high biodiversity for the functionality of tropical ecosystems, the impacts that global changes have on tropical biodiversity and in which way the loss of biodiversity can be counteracted. Answering these questions requires collaboration between different natural sciences. The corresponding research activities, undertaken in close cooperation with the Faculty of Earth Sciences, Geography and Astronomy, are aimed at a comprehensive understanding of both the organisms observed and of the interrelationships within the ecosystem. The La Gamba tropical field station in Costa Rica plays an essential role in this context. For this key research area, a unique biodiversity experiment has been started in La Gamba, and an extensive observation network of forest areas in this region has been established. This permits entirely new insights into biodiversity and the ecosystem functions in tropical forests, and contributes to the international profile of Austrian tropical research.

Nutrition-associated molecular mechanisms of ageing

Nutrition is of key relevance in the molecular mechanisms behind the ageing process. This key research area studies the molecular and biochemical processes at the cellular level and in model organisms, with the focus on the modulation of nutritive factors and their effect in humans. This will help improve our understanding of ageing and of keeping people healthy as long as possible (healthy and active ageing). This also involves a consideration of the genetic and epigenetic variations in chromosomal and mitochondrial DNA. This key research area has already yielded new information on age-specific biomarkers and provides the basis for innovative, interdisciplinary cooperation both within Austria and at EU level (Horizon 2020).

Drug discovery from nature

This key research area addresses natural products that, based on their evolutionary optimisation, appear to be particularly suited for interaction with potential targets as lead structures for developing pharmaceutical substances (privileged structures). The objective of research in this area is to identify new active agents from nature (e.g. plants or microorganisms) and to understand their functional mechanisms especially at the molecular level. Studies on the interaction of natural products and anti-targets also help improve safety. The current development is directed towards metabolomics and target fishing in order to characterise polypharmacological profiles of natural products. Modern imaging techniques are used to help evaluate their effectiveness and safety in relevant disease models. This area not only permits diverse links within the Faculty, but also offers opportunities for cooperation with other faculties, universities and research institutions outside universities.

Computational life sciences

This key research area pools numerous activities with regard to the application and development of information technology in life sciences. In addition to forming topic-related clusters, the interdisciplinary establishment of new methods in the fields of pharmacoinformatics and bioinformatics, as well as in structural and systems biology, is relevant here. Particular emphasis is placed on processing high-throughput biological data, the development of mathematical methods for modelling biological and biomolecular systems, as well as on the topics of data integration and data mining. This key research area cooperates closely with other faculties, the Austrian Academy of Sciences and the Max F. Perutz Laboratories. Moreover, research-led teaching is encouraged in the fields of computational biology, pharmacy and computational science.

5.15.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. For information purposes, the research areas that are currently covered are provided in square brackets. The names outside the square brackets give the official designations. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Animal Physiology with Focus on Ornithology (cooperation of the University of Vienna with the University of Veterinary Medicine, Vienna)
- Cognitive Ethology
- Developmental Biology of Animals
- Dietetics and Food Quality, section 99, para. 3 of the Universities Act (temporary: for six years)
- Ecogenetics
- Evolutionary Cognition Biology
- In-Silico Genomics [Computational Systems Biology]
- Limnology
- Marine Biology
- Microbial Ecology
- Microbial Symbioses
- Molecular and Cellular Neurobiology
- Molecular Plant Physiology
- Morphology of Animals
- Morphometry
- Nutritional Sciences (Special Human Nutrition)
- Pharmaceutical Chemistry
- Pharmaceutical Sciences
- Pharmaceutical Technology
- Pharmacognosy
- Pharmacognosy (Pharmaceutical Biology)
- Pharmacoinformatics
- Pharmacology and Toxicology
- Physiology and Ecology of Plants, section 99, para. 3 of the Universities Act (temporary: for six years)
- Population Ecology
- Structural Botany
- Vegetation Science
- Zoology [Theoretical Biology]
- Zoology and Marine Biology, section 99, para. 3 of the Universities Act (temporary: for six years)
- Zoology with Special Consideration of Morphology, Ecology and Neurobiology, section 99, para. 3 of the Universities Act (temporary: for six years)

5.15.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Nutritional Physiology/Molecular Nutrition
- Pharmaceutical Biotechnology
- Plant Systematics and Evolutionary Research

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Anthropology
Time of appointment: funding via a vacant professorship at the Faculty (not before 2015)

Subject dedication of professorship:
Limnology
Time of appointment: following vacancy of the Professorship of Limnology
(not before 1 January 2015)

Subject dedication of professorship:
Pharmaceutical Technology and Biopharmacy
Time of appointment: following vacancy of the Professorship of Pharmaceutical Technology
(not before 1 October 2018)

Subject dedication of professorship:
Theoretical Evolutionary Biology
Time of appointment: following vacancy of the Professorship of Zoology
(not before 1 October 2018)

Subject dedication of professorship:
Pharmacology
Time of appointment: following vacancy of the Professorship of Pharmacology and Toxicology
(not before 1 October 2019)

Future professorships subject to availability of funds

Establishing the following professorships is a goal for the next performance agreement period.

Subject dedication of professorship:
Neurobiology
(in the context of a general strategy to be drawn up for the establishment of neurosciences; see chapter 4.3.3: 'National Cooperation')

Subject dedication of professorship:
Public Health Nutrition

Subject dedication of professorship:
Plant-Animal Interactions

Subject dedication of professorship:
Drug Synthesis

Subject dedication of professorship:
Didactics of Biology
(joint appointment with the Centre for Teacher Education)

5.Z1 Centre for Translation Studies

5.Z1.1 Objectives

Research at the Centre for Translation Studies pursues interdisciplinary approaches in examining mediated communication across linguistic and cultural borders at the levels of processes, products and functions. Expanded by a transcultural perspective, non-mediated communication such as multilingual and *lingua franca* communication is also investigated.

The Centre for Translation Studies pursues an integrative approach that encompasses both basic and application-oriented research. The comprehensive understanding that the Centre has of its discipline reflects both the complexity of its object, which provides links to numerous other disciplines, and the manifold components of the degree programme, and it permits the integration into research and teaching of recent developments and practical professional demands in order to provide the best possible preparation of graduates for the requirements of different translating professions. Another objective is the development of awareness of new professional profiles on the basis of theoretically founded models that are capable and flexible enough to facilitate life-long learning processes and thus an adequate adjustment to future developments in society and on the job market.

5.Z1.2 Thematic Areas and Key Research Areas

The term translation studies at the Centre for Translation Studies encompasses the thematic areas of translation studies, interpreting studies, terminology studies and culture-related research on transcultural communication. It thus comprises both long-standing and newly emerging topics of translation studies with regard to both historical and contemporary aspects. Research on transcultural communication provides the basis for the entire discipline of translation. It examines linguistic and cultural diversity as well as the historical and current processes that aim to cross borders of knowledge. This involves the use of media to transfer texts, communication and knowledge to a defined target group, as well as diversity management and project management in the transcultural area.

Based on these thematic areas, the following topics will be developed further and in more depth.

Transcultural and multilingual communication: Based on networked, complex and hybrid concepts of culture and language repertoires, writing processes in multilingual communication are investigated at individual and inter-individual levels. In this context, focus is laid on the optimisation of strategies for dealing with multilingualism in translation studies education and training, and of using the research results for developing didactic concepts and approaches that aim at individual multilingual professionalisation.

Reflexive translation studies: This area examines constructions of research objects, ideas (metaphors) of social functions and the functional change of translation, the role and shape of its actors, and (technology) assessment in a critical and self-reflective manner concerning the creation and development of its own theories and methods.

Results of both areas serve the identification and clarification of the link between translation and transcultural communication, as well as a clear profiling of transcultural communication research within translation studies.

In addition to these thematic areas, the following key research areas are developed further:

Translation and multilingual cognitive and technological resources

This key research area focuses on the use of knowledge-based and language technologies and new technological media in acts of translation, such as computer-aided translation, or the preparation, use and processing of multilingual language resources and design of multilingual cognitive systems by means of terminologies and ontologies.

Of particular research interest are cognitive requirements for translators and their support by integrated systems, digital research methods and tools used for translation studies, work flows in international language industry and domain-specific communication under the perspectives of corpus linguistics and variational linguistics. Research in this key research area is highly interdisciplinary and international and is carried out in close cooperation with research departments in computer science, linguistics, cognitive science, with the Austrian Centre

for Digital Humanities and with companies of the international language industry.

Translation and reception

Research on reception in the context of translation is based on aspects of translation theory that result primarily from functional and culture-sensitive approaches, and in addition, numerous links and cross-relations can be established with many other research areas and disciplines in cultural studies and natural sciences. With regard to translation, analysis of the ideological, cultural, social and gender-related effects of texts is of special importance. This is closely related to the position of translations in the target cultures in the past and at present, and their role in cultural production. In the area of interpreting, the focus is on the immediate reception and effect of interpretations, as well as the assessment of their quality and their comprehension by recipients.

This key research area also examines the transfer of knowledge by means of translation, multilingualism and lingua franca communication. The main focus is on identifying the share of translations in, and their influence on, the transfer of knowledge from one culture to another from a transcultural perspective. In this context, the impact of translations on discursive knowledge cultures are investigated. Based on modern networking theories and cultural transfer research, an investigation is carried out as to how processes of translation shape existing bodies of knowledge. For this purpose, contextual factors in the act of translating as well as institutional aspects and aspects of translational sociology are taken into account, as is the historical and social role that has been attributed to the act of translation.

Translation – institution – society

This key research area focuses on processes of translation in different social contexts. Based on approaches of translation theory such as the change over time in standards and cultures of translation, as well as the act of translation under changing socio-cultural conditions, this research particularly addresses sociological theories, aspects of discourse analysis and methods of social sciences in order to examine the positions, roles and functions of translators and translations as well as interpreters and interpretations in specific institutional contexts and in society in general. The questions researched with regard to translating include processes of communication by means of translation in different social contexts, the conditions under which translation takes place, and processes in transcultural expert communication, as well as in literary translation. In the area of interpreting, with its direct, practical integration into institutional and situational frameworks, it is increasingly relevant to study the communicative action of interpreting in public agencies and in health-care institutions in a society that is becoming increasingly multi- and transcultural. Due to the nature of the subject, research in this area is carried out in close cooperation with the relevant disciplines such as law, sociolinguistics and medicine, as well as in the context of interdisciplinary research projects.

5.Z1.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. The list below does not predetermine any future subject dedication of professorships.

- Chinese Studies (20 %; 80 % at the Faculty of Philological and Cultural Studies)
- Interpreting Studies and Didactics of Translation, section 99, para. 3 of the Universities Act (temporary: for six years)
- Transcultural Communication
- Translational Terminology Studies and Translation Technology

5.Z1.4 Subject Dedication of Future Professorships and Status of Implementation

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Translation Studies
Time of appointment: following vacancy of the Walter Benjamin Visiting Professorship of Translation Studies (not before 1 October 2015)

Subject dedication of professorship:
Transcultural Communication
Time of appointment: following vacancy of the Professorship of Transcultural Communication (not before 1 October 2016)

5.Z2 Centre for Sport Science and University Sports

5.Z2.1 Objectives

As sport has risen in social importance in recent decades and has become increasingly diversified, sport science has played an increasingly important role, and the number of sub-disciplines in sport science has grown. This has resulted in a rise in new insights in sport science, which have often gained recognition from related academic disciplines and from which various practical fields of sport have benefited.

The Centre will attach specific importance to the joint use of existing resources and to enhanced cooperation with regard to the acquisition of third-party funding, which has already been very successful, in order to focus on interdisciplinary research on exercise and sport. In addition, cooperation within the University of Vienna and between universities, as well as international collaboration, will be expanded further.

Many research projects conducted at the Centre are interdisciplinary or multidisciplinary, and research typically covers several thematic areas simultaneously.

5.Z2.2 Thematic Areas and Key Research Areas

Sport and exercise are of great significance in modern societies, from top-level professional sport to sport and exercise among the general population, exercise-oriented health promotion, as well as integration and recreation of diverse social groups. In addition, exercise and sport are important as a means of prevention, rehabilitation and kinesitherapy. Sport is an important topic in the mass media and a key factor in business. However, the fact that sport is such a diverse topic makes it imperative to engage in academic research, assistance and consulting in order to enhance its positive effects and minimise possible negative impacts. If practised in an inappropriate way, sport and exercise may involve manifold risks and dangers. For this reason, demand has grown for coaching based on sport science, for example in sports clubs, schools, the health-care system and the sports equipment industry. Sport science encompasses several sub-disciplines that conduct research on sport and exercise, as well as on the people, organisations and institutions involved in sport. It is a discipline characterised by many different theoretical and methodological approaches that are derived from the ‘parent disciplines’ of the humanities, social sciences, behavioural science, as well as natural sciences. History of sport,

sport education and didactics, sport psychology, biomechanics, coaching and kinesiology, sport informatics, as well as sport medicine and physiology of sport enable multidisciplinary insight into exercise and sport.

Sport science in the context of natural sciences and medicine

The academic examination of the biomechanical, motor, physiological, biological and medical aspects of human movement facilitates conclusions about health-promoting, kinesitherapeutic, performance-enhancing and coaching measures, and these in turn provide the theoretical basis for advancements in computer science in sport and sports technology. The results obtained in this thematic area may be of great relevance for all areas of sport activity such as top-level professional sport, sport practised by children and young people, as well as sport and exercise for fitness, health and rehabilitation. The themes studied in the context of cooperation both within the Centre and beyond, include the effects of specific training interventions and physical inactivity on cardio-circulatory, metabolic, immunological and muscle-related parameters, and the development, assessment and application of technological systems and measures for the evaluation and promotion of individual fitness and physical capability.

Educational processes related to exercise and sport

Exercise, games and sport have been the focus of systematic studies of educational processes for a long time already, and have gained official recognition through the inclusion of the subject of Sports and Physical Education in the range of compulsory school subjects. In the disciplines of sports education and sport didactics, specific importance is attached to research on effective and efficient teaching strategies for Sports and Physical Education as a school subject, taking into account the processes of school organisation, as well as the knowledge-based communication of expertise at the university level, for the target group of future sport teachers and coaches both in and outside schools. Aspects of gender and inclusion when teaching sport and physical activity or games are also of relevance in this context. In addition, the focus of research has increasingly been directed to educational processes based on sport and exercise over the entire human lifespan. In this context, a variety of target groups are addressed, but particularly people in the second half of life, and specific importance is attached to research on adequate health-promoting exercise and exercise settings. In view of demographic developments, this aspect will become increasingly significant.

Sport science in the context of human and social sciences

Sport is a cultural and social phenomenon. The concept of sport became popular in the mid-19th century in several countries in Europe, and sport has meanwhile become established as a significant sub-system in modern societies all over the world. At the present time, numerous types of sport and exercise exist, organised in many different ways, and business, media and politics have promoted sport and used it to pursue their own goals. The situation, role and developments of sport are analysed from the perspectives of sociology of sport, sport history and sport psychology. The focus of the corresponding research projects is on the social role of sport (intercultural comparison of sport/European sports index), historical analyses of cultures of sport and exercise in the process of modernisation, as well as experience and behaviour with regard to sport and training therapy settings. In addition, the relationship between sport and business will constitute one aspect of research.

5.Z2.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 of the 2002 Universities Act) are listed here. The list below does not predetermine any future subject dedication of professorships.

- Kinesiology with Special Emphasis on Biomechanics and Sport Informatics
- Sociology of Sport
- Sport and Physical Activity
- Sport Physiology

5.Z2.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Coaching and Kinesiology (with Biological Orientation)

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Sport and Exercise Physiology
Time of appointment: following vacancy of the Professorship of Sport Physiology
(not before 1 October 2015)

Subject dedication of professorship:
Sport Sociology and Sport Economics
Time of appointment: following vacancy of the Professorship of Sociology of Sport
(not before 1 October 2018)

Subject dedication of professorship:
Sport Pedagogy
Time of appointment: following vacancy of the Professorship of Sport and Physical Activity
(not before 1 October 2019)

5.Z3 Centre for Molecular Biology

5.Z3.1 Objectives

The Centre for Molecular Biology and the Max F. Perutz Laboratories (MFPL) have set themselves the goal of creating an academic environment which demands and encourages outstanding scientific achievements. The MFPL and its partner institutions at the Campus Vienna Biocenter (VBC), building on existing structures of academic cooperation, have created a centre of excellence of international standing. The Centre's current strong points will be enhanced further through recruiting outstanding young researchers, establishing a structured doctoral programme at the VBC campus and ensuring that women are encouraged, at all levels, to pursue careers in science.

5.Z3.2 Thematic Areas and Key Research Areas

The key thematic area researched at the Centre is molecular biology, which includes the analysis of the structure, biosynthesis and function of DNA, RNA and proteins, at the molecular, cellular and organismal levels. Research at the MFPL comprises the seven areas of research described below, which the scientists involved pursue at a level that is internationally visible and competitive. Many research and education programmes in these areas encourage the cooperation of different working groups at the MFPL and related departments, at the University of Vienna and the Medical University of Vienna. The key research areas defined also contribute to providing the best possible education of doctoral students and postdoctoral candidates and preparation for a successful career in academic areas that are characterised by increasing competition. The MFPL also emphasises the links, rather than the differences, between the life sciences and other, traditionally separated, disciplines. This trend started with mathematics and now also includes physics and chemistry. Closely collaborating with the chemistry experts at the MFPL and the University of Vienna, the Centre focuses on the chemical aspects of its disciplines so as to use the entire range of new materials and chemical reagents to answer fundamental and medical questions arising in molecular biology.

Immunology and infection biology

The need to cope with the world of pathogenic microbes is still part of human life, even in the modern era of antibiotics. New pathogens – 'superbugs' that are resistant to antibiotics – and fear of viral pandemics have all raised people's awareness of the danger of infectious diseases. The working groups in the key research area of infection biology focus on pathogenic fungi, bacteria and viruses. They study molecules and molecular interactions that are relevant in the development of acute, chronic and lethal infections. Molecules that are involved in the identification of microbes, their absorption into host cells and the initiation of defence reactions are of particular interest here. In addition, the MFPL researchers study changes in the host cells' chromatin and transcriptome as a consequence of infections. Microbial genetics, patho-gene identification, proteomic studies of infected cells as well as biochemical and structural analyses of interactions between microbial molecules and those of the host cell are investigated in order to identify factors that determine the interaction between pathogenic agents and hosts which have, so far, been unknown or not fully understood.

RNA biology

The functional diversity of ribonucleic acids (RNAs) has been underestimated for decades since their discovery. In the early times of molecular biology, RNAs were primarily regarded as adaptor and informational molecules required for protein synthesis. The discovery of catalytically active RNAs has changed this view, and, in the 1980s, the concept of a primordial RNA world emerged, which regards RNA not just as a carrier of information, but as a catalyst for metabolic reactions. The past 15 years have witnessed unprecedented progress in the field of RNA biology, during which the functions of RNAs as sensors as well as regulators of genetic circuits in modern cells have been detected. RNAs have been identified as key regulators in bacteria that permit rapid adaptation to changing environmental conditions. In particular, RNA-regulated gene networks permit the survival of pathogenic bacteria in their hosts. In eukaryotes, regulatory RNAs have been involved in all relevant mechanisms of gene regulation, DNA/RNA synthesis, maturation and decay, as well as in the regulation of translation. RNAs thus play an important role in the processes of developmental biology, including the degeneration of cells. The RNA researchers at the Centre for Molecular Biology comprise

biochemists, bioinformaticians, cell biologists, geneticists, microbiologists and structural biologists. The interdisciplinary research and training programmes focus on the biogenesis, structure and the role of regulatory RNAs in cellular as well as pathological processes in different model organisms, ranging from bacterial pathogens to human cells.

Cell signalling

Cells need to interpret external signals and translate them into biological processes in order to survive, proliferate and differentiate. If signal transduction fails, even in a limited number of cells, the whole organism is at risk. The research groups in the key research area of cell signalling use advanced methods of biochemistry, molecular biology, cellular biology and genetics in order to examine signal transduction in different experimental systems (from yeasts to mice). A long-standing common point of interest is investigating the effects of post-translational protein modifications and the formation of protein complexes on the biogenesis and regulation of signal-transmitting networks, as well as the positive and negative feedback loops which control the interactions of specific signalling pathways and finally generate different biological outputs.

Integrative structural biology

This key research area aims to achieve an understanding of the structure, function and interaction of molecules that are important biologically at the atomic, molecular and ultra-molecular levels. In line with a systems-oriented perspective, it is a major challenge to understand the structure and dynamics of biomolecules in the context of macromolecular assemblies, cellular pathways, or even organisms. The goal of modern structural biologists is to establish a structural picture, in terms of time and space, of the system under investigation, and integrate it into a biological context.

Integrative structural biology combines experimental and theoretical disciplines, where a wide range of high-, medium- and low-resolution structural, functional and computational approaches are synergistically employed to generate structural information and understand its relationship with biological functions. The main experimental research foci include X-ray crystallography and NMR, which provide high-resolution structures at the atomic and molecular levels, combined with medium-resolution imaging techniques such as light microscopy and complementary physical, chemical and biochemical characterisation. The main research areas include lipid-activated signalling processes, functional imaging of cellular signalling, F-actin-based cytoskeletons, interactions between regulatory proteins and messenger RNAs, intrinsically disordered proteins in neurobiology and tumour biology, collective dynamics of biological systems, and the development of methods focusing on intrinsically disordered proteins, to address the relationships between structures and dynamics that go beyond conventional structural biology. Biological systems, from the molecular level to organisms, are hierarchically organised, strongly coupled systems. It is thus difficult to derive insight into the system's behaviour from the study of individual elements. Approaches from applied mathematics, physics and new specific microscopic methods permitting high resolution in terms of time and space over the entire population are necessary to understand the collective behaviour of the system. The goal of this research area is to develop new techniques and methodologies such as imaging tools, which, combined with mathematical and statistical tools, allow systems biology questions to be answered. This systemic approach, due to its comprehensive orientation and broad applicability in many other active research areas of the MFPL such as neurobiology, cell signalling, structural biology, infection biology, computational biophysics and bioinformatics, serves as a vehicle to strengthen the interdisciplinary profile of the MFPL and to enhance the integration of quantitative methods into biology.

Computational biology and bioinformatics

The aim of this research area is to develop and utilise different theoretical and computational approaches in order to understand the structure, function and evolution of biologically important molecules at the atomic, molecular and supra-molecular levels, in close collaboration with experimentalists. The bioinformatics research activities in this area focus on the dynamics of RNAs and proteins, protein-protein and protein-nucleic acid interactions, ligand-receptor interactions, intrinsically disordered proteins and molecules of F-actin-based cytoskeletons as well as phylogenetics. Moreover, it studies the development of new methods of processing and analysing the rapidly growing volume of data generated by genome projects and the related studies.

Computational biology and bioinformatics benefit from the close cooperation with other key research areas, including integrative structural biology at the University of Vienna and biomedical research at the Medical University of Vienna. The further intensification of collaborative links is one of the objectives set for the future – for instance, through enhanced cooperation with the interdisciplinary research platforms that have recently been established at the University of Vienna and the research clusters at the Medical University of Vienna.

Chromosome dynamics

Proteins that are involved in the formation of eukaryotic chromosome structures also control basic genetic mechanisms, such as the regulation of gene expression, DNA repair and recombination, and the correct distribution of chromatids during cell division. These connections are studied in the key research area of chromosome dynamics. A specific focus is on chromosome behaviour during meiosis, a type of cell division that is essential for sexual reproduction, in which haploid cells are generated from the soma of diploid organisms. During meiosis, a genetic exchange between paternal and maternal chromosomes takes place, a process enabling genetic variability. The study of meiotic mechanisms has revealed several essential genes and mechanisms that preserve genome integrity. They meanwhile play a crucial role in cancer research as well as research on the etiology of ageing.

The key research area of chromosome dynamics aims to expand our knowledge of chromosome structure, gene expression, recombination, chromosome pairing and segregation by using different model organisms (*S. cerevisiae, S. pombe, C. elegans, A. thaliana, M. musculus* and *Tetrahymena thermophila*) in genetic, molecular biology and cell biology studies.

Molecular mechanisms of disease

In the next development plan period, the MFPL will consolidate its medically oriented research in an emerging key research area, based on the cooperation of scientists working in cell signalling, infection and inflammation biology, chromosome dynamics, RNA biology, structural biology and bioinformatics. This will include work on preclinical models of cancer, rare diseases, immune mechanisms and immune deficiencies, as well as structural analyses of viruses, using a variety of model systems. This area will be strengthened by the dedication of a Professorship of Inflammation Biology (Medical University of Vienna) that has already been advertised and will be in line with one or several of the professorships (University of Vienna) listed that are already vacant or will become vacant in the next few years.

5.Z3.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed

here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Bioinformatics (80 %; 20 % at the Faculty of Computer Science)
- Cell Signalling
- Crystallography of Biomolecules
- Genetics, section 99, para. 3 of the Universities Act (temporary: for six years)
- Immunobiology
- Immunobiology, section 99, para. 3 of the Universities Act (temporary: for six years)
- Mathematics and Biology (20 %; 80 % at the Faculty of Mathematics)
- Microbiology
- Microbiology
- Molecular Biology
- Molecular Spectroscopy and Photochemistry
- RNA Biochemistry

5.Z3.4 Subject Dedication of Future Professorships and Status of Implementation

Dedication of professorships in line with research profiles and with the need to teach fundamental subjects

Subject dedication of professorship:
Cell and Developmental Biology
Time of appointment: funding via a vacant professorship at the Centre (not before 2016)

Subject dedication of professorship:
Biochemistry
Time of appointment: following vacancy of the Professorship of RNA Biochemistry
(not before 1 October 2018)

Subject dedication of professorship:
Cell Biology
Time of appointment: following vacancy of the Professorship of Microbiology
(not before 1 October 2018)

5.Z4 Centre for Teacher Education

5.Z4.1 Objectives

The Centre for Teacher Education was established early in 2013 in order to pool and advance the manifold initiatives aimed at improving the quality of teacher education at the University of Vienna. One of its core tasks is to promote, encourage and make available for teaching practice across different faculties the research conducted in the area of teaching and learning, and to enhance the coherence of teacher education in the context of teaching at the university level.

It is the task of the Centre as well as all the faculties and centres involved in teacher education to provide appropriate degree programmes, with subjects and structures that prepare future teachers for the changing demands of modern school and to contribute expert input for the control of this change. It is thus essential for the Centre to maintain relations with other actors in this field and to cooperate with the other faculties, departments and centres of the University, and to coordinate and align the courses that are relevant for teacher education; and furthermore, the Centre regards itself as a link to the school system.

The goal of research at the Centre is to provide an appropriate framework to promote and advance the educational and subject didactic research, as well as further areas of research related to teacher education. In addition, the Centre aims to strengthen the links between the academics in the fields mentioned and to stimulate research on the theoretical basis of teacher education, as well as to initiate and support research activities across different disciplines. In order to maintain and ensure good contact with the individual specialised disciplines, the academic university staff at the Centre for Teacher Education, whenever possible, also work for the corresponding faculties or centres. Within the University, as well as at the national and international levels, the Centre contributes to the enhancement of research by providing input through publications and at events. Since the summer semester of 2013, a teacher education colloquium with international experts has been held, for an exchange on educational questions and subject didactics. Promoting early-stage researchers in the area of subject didactics and school-related problems is one of the Centre's key tasks. The doctoral students' forum is open to all students in doctoral programmes in the areas of school and education: in June 2014, more than 70 doctoral theses in this field were under preparation. The Centre has also run regular summer schools on methods of empirical research, with the first one starting in summer 2014.

In teaching, close cooperation between the Centre and the other faculties/centres is essential. The Centre for Teacher Education devotes specific attention to the qualification targets of the degree programmes across the four main supporting pillars (subject, subject didactics, educational studies as well as practical teaching experience), and thus enhances the coherence of teacher education.

At the University of Vienna, many lecturers in the areas of educational studies and subject didactics are also employed in the school system. In order to ensure research-based teaching in the areas of education and subject didactics, these teachers are being increasingly integrated in the Centre's activities.

The Centre is affiliated with the Austrian Educational Competence Centres of Physics, Chemistry and Biology (AECC Physics, AECC Chemistry and AECC Biology). These national subject didactics centres are in charge of teaching and further education and training, as well as research, development and consultancy with regard to teaching and learning in the individual subjects. The results achieved can be used in teaching, teacher education and school development, as well as in the academic community, and as expertise for steering activities in educational administration and educational policies.

The Centre has established contact with similar institutions of teacher education in Austria and abroad, for instance, with the Center of Teacher Training and Interdisciplinary Education Research (ZLbiB) of the University of Augsburg, and the Professional School of Education (PSE) of the Humboldt-Universität zu Berlin. The aim of this type of cooperation is to use the experience of these institutions, which may go back over many years, for the further development of the Centre, as well as for enhancing the international orientation of the teacher education programmes. Further cooperative activities have been planned.

In contrast to many other degree programmes, the number of Teacher Education students who have studied abroad for a certain time continues to be too small. Until 2014, the Centre offered the Campus Europae exchange programme aimed at the promotion of foreign languages, exclusively for students of Teacher Education. This programme will be further expanded.

5.Z4.2 Thematic areas in research and development

The academics at the Centre for Teacher Education work on research projects in the fields of education and subject didactics, whose themes cover almost all disciplines, and some of which combine different subjects. They relate to the following thematic areas.

Teaching-related basic research

The focus of this area is on the theory of education and of school, as well as the history and systematics of education in the context of cultural history, based on the analysis of social criticism. It also includes research on teaching aspects that are not related to specific subjects of instruction (e.g. classroom interactions).

Teaching and learning research

Research in the field of education and subject didactics is focused not only on the school students' learning processes in specific subjects or across subjects of instruction, but also on the analysis and development of the teachers' professional expertise and actions. Teaching and learning in a situation of diversity and heterogeneity, as well as the challenge of inclusive schooling, are further areas of research.

Profession research

Here, the focus is on the continual growth of professional expertise and on drawing up sustainable programmes for the qualification and professionalisation of (future) teachers. This includes the evaluation of aptitude tests for students interested in teacher education programmes and the analysis of study progress, as well as questions of professional expertise (e.g. pedagogical content knowledge or facilitation and control of processes of learning and education, as well as school development (educational leadership).

The Centre regards it as its task to devote special attention to certain themes that are relevant across different faculties, to respond to challenges in educational policy such as the acquisition of cross-sectional expertise (e.g. social and personal skills, diagnosing, feedback and support skills, prevention of violence, and competence with regard to diversity and specific need for support (inclusive education)) and to dedicate research efforts to these fields.

Concepts for teaching practices

The Centre develops concepts for the individual stages of practice in school, in close cooperation with the Faculty of Education, as well as the subject didactics centres and working groups, and evaluates the practical courses. In planning the practical school training during the master's programme and the supervision during the early stage in the teaching profession, the international experience is taken into account, and the entire process is paralleled by academic evaluation.

For the purpose of qualifying the teachers who supervise the students during their practice in schools, the Centre started a mentoring certificate course for teachers, preparing them for their work as mentors of students. The Centre is the first point of call for both interested teachers and the school supervisory authorities, with regard to any questions concerning the certificate course.

Admission requirements and aptitude tests

In accordance with the applicable legislation, students have to meet certain admission requirements for teacher education degree programmes at the University. For the winter semester of 2014/15, the University of Vienna established a multi-stage test procedure for new entrants. This test procedure is supervised by experts, and in particular, its effects on study routines and study progress are studied in order to advance the test procedure.

Maintaining close links with the aptitude test procedures at the University of Vienna and in cooperation with the University of Salzburg, as well as the University College of Teacher Education of Christian Churches Vienna/Krems, a multistage self-assessment procedure is being developed and academically supervised at the Centre.

Cooperation

The Centre regards itself as a platform for the exchange between schools and the University, and offers opportunities for school-related activities at universities (e.g. through the initiative of teachers presenting their research, and reports on successful school projects in the academic community) and it supports contacts between researchers and schools, for instance through measures such as school cooperation.

Based on the model of cooperation schools, which has yielded good results, and the experience of cooperation partners at university level, initiatives for a more intensive cooperation with selected schools have been started. The title Kooperationsschule plus is awarded in this context. At the Centre, this programme is evaluated continually and expanded in conjunction with experts of academic disciplines and subject didactics, as well as the Faculty of Philosophy and Education.

In view of possible developments in the school organisation system and the large number of students, cooperation with other regional institutions of teacher education has become essential. The aim here is to mutually benefit from the competences and resources in the area of teacher education for secondary schools.

5.Z4.3 Professorships as of 1 October 2014

For a better overview, all professorships (including any professorships initially financed by the Federal Ministry of Science, Research and Economy) existing as of 1 October 2014 (section 98 and section 99, para. 3 of the 2002 Universities Act) are listed here. In addition to the professorships listed, the Centre for Teacher Education maintains links with numerous other professors of other faculties and centres. These professors with 'bridging functions' are not enumerated here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Didactics of Chemistry (joint appointment with the Faculty of Chemistry)
- Didactics of Physics (joint appointment with the Faculty of Physics)
- English Linguistics, section 99, para. 3 of the Universities Act (temporary: for six years) (joint appointment with the Faculty of Philological and Cultural Studies)
- Islamic Religious Education (joint appointment with the Faculty of Philosophy and Education)
- Mathematics with Special Emphasis on the Didactics of Mathematics and Computer Science (joint appointment with the Faculty of Mathematics)
- Research on Schooling and Teacher Education, section 99, para. 3 of the Universities Act (temporary: for six years) (joint appointment with the Faculty of Philosophy and Education)
- Research on Schooling with Special Emphasis on Upper Secondary Education (joint appointment with the Faculty of Philosophy and Education)
- Subject-Specific Didactics (Language Teaching and Language Learning Research) (joint appointment with the Faculty of Philological and Cultural Studies)

5.Z4.4 Subject Dedication of Future Professorships and Status of Implementation

Professorships dedicated as of 1 October 2014

- Didactics of Political Studies (cooperation with the Faculty of Social Sciences with regard to advertising and recruitment)

Future professorships subject to availability of funds

Establishing the following professorships is a goal for the next performance agreement period.

Subject dedication of professorship:
School Pedagogy with Particular Emphasis on Social, Cultural and Linguistic Diversity
(joint appointment with the Faculty of Philosophy and Education)

Subject dedication of professorship:
Inclusive Education
(joint appointment with the Faculty of Philosophy and Education)

Subject dedication of professorship:
English Language Education
(joint appointment with the Faculty of Philological and Cultural Studies)

Subject dedication of professorship:
Didactics of Computer Science
(joint appointment with the Faculty of Computer Science)

Subject dedication of professorship:
Didactics of Biology
(joint appointment with the Faculty of Life Sciences)

6. Degree programmes at the University of Vienna

The development of curricula is one of the most important tasks of a university. Curricula provide the main framework of studying and teaching, and serve as a common reference point for students and teachers. They must take into account both the developments in research (see chapter 5: 'Key Research Areas of the Faculty and Subject Dedication of Professorships') and the need to promote early-stage researchers, as well as the labour markets outside the university (see chapter 4.1: 'Implementation of the Core Task of Teaching'). The qualification profiles and programme outcomes must be transparent to prospective and current students and teachers. The regulations for teaching and examinations must be oriented towards the subject-related quality of the degree programme, study feasibility, as well as stable conditions with regard to personnel and infrastructure.

Before curricula are completely formulated, their objectives and content focuses, as well as the personnel-related and budgetary frameworks to guarantee appropriate student-teacher ratios and the capacities required are specified. This is already done at an early stage and leads to joint written specifications by the Senate and Rectorate to ensure a higher degree of planning certainty for all parties involved in the curriculum development process. The same applies to changes of curricula.

Based on the existing degree programmes of the academic year 2014/15, the following modifications are planned (new degree programmes, phasing out of existing programmes). Modifications within the existing curricula can, for instance, result from quality assurance procedures. They are not listed here.

6.1 Theology

Degree programmes as of 1 October 2014		Modifications planned
Diploma programmes		
Catholic Theology		No date for a conversion of the diploma programme in line with the Bologna framework has yet been scheduled.
Bachelor's programmes	**Master's programmes**	**Modifications planned**
Religious Education	Catholic Religious Education Advanced Theological Studies	The master's programme in Catholic Religious Education will be expanded to include Orthodox Religious Education and will then be run as a master's programme in Religious Education.
Protestant Theology	Protestant Theology	

6.2 Law

Degree programmes as of 1 October 2014	Modifications planned
Diploma programmes	
Law	No date for a conversion of the diploma programme in line with the Bologna framework has yet been scheduled.

6.3 Social Sciences, Business and Economics

Degree programmes as of 1 October 2014		Modifications planned
Bachelor's programmes	**Master's programmes**	
Mass Media and Communication Science	Mass Media and Communication Science	Modularised structure of the bachelor's programmes in Social Sciences: a system of horizontally linked modules will be drawn up to permit connections between the subject-related modules of the four bachelor's programmes, which can be combined with other bachelor's programmes, thus enhancing the permeability between different programmes. A foreign-language master's programme in Communication Science has been planned, but no date for its establishment has yet been scheduled.
Political Science	Political Science	
Social and Cultural Anthropology	Social and Cultural Anthropology Cultural Differences and Transnational Processes (CREOLE; cooperation with international educational institutions)	
Sociology	Sociology	
	Science – Technology – Society Nursing Science (teaching cooperation with FH Campus Wien)	
Business Administration	Business Administration	A master's programme in Banking and Finance has been planned, but no date for its establishment has yet been scheduled. By the academic year 2015/16, the master's programme in Quantitative Economics, Management and Finance will be phased out.
International Business Administration	International Business Administration	
Statistics	Statistics	
Economics	Economics	
	Quantitative Economics, Management and Finance	

6.4 Engineering Sciences

Degree programmes as of 1 October 2014		Modifications planned
Bachelor's programmes	**Master's programmes**	
Computer Science Business Informatics	Didactics of Computer Science (teaching cooperation with the Vienna University of Technology) Media Informatics Scientific Computing Business Informatics	By the academic year 2016/17 at the latest, the master's programme in Computer Science will be established, and by that time, the master's programmes in Didactics of Computer Science (teaching cooperation with the Vienna University of Technology) and in Scientific Computing will be phased out.

6.5 Arts and Humanities

Degree programmes as of 1 October 2014		Modifications planned
Bachelor's programmes	**Master's programmes**	
Prehistory and Historical Archaeology	Prehistory and Historical Archaeology	
Egyptology	Egyptology	
Jewish Studies	Jewish Studies	
History	History European Master in Women's and Gender History (MATILDA; cooperation with international educational institutions) Historical Research, Auxiliary Sciences of History and Archival Studies Global History and Global Studies (cooperation with international educational institutions; ERASMUS MUNDUS)	
History of Art and Architecture	History of Art and Architecture	
European Ethnology	European Ethnology	
Classical Archaeology	Classical Archaeology	
Ancient History and Studies in Classical Antiquity	Ancient History and Studies in Classical Antiquity	
Byzantine Studies and Modern Greek Studies	Byzantine Studies and Modern Greek Studies	
Classical Philology (bachelor's programme with internal specialisation: Greek, Latin)	Classical Philology (Greek) Classical Philology (Latin) Medieval and Neo-Latin Studies	By 2016/17 at the latest, the master's programmes in Classical Philology (Greek), Classical Philology (Latin) and Medieval and Neo-Latin Studies will be combined to form a master's programme in Classical Philology with internal specialisation.
German Philology	German Philology German as a Foreign and Second Language	
Dutch Studies	Dutch Studies	It is planned to introduce a joint curriculum of Dutch Language, Literature and Culture at the level of the master's programme, in cooperation with other universities, but no date for its establishment has yet been scheduled.
Romance Studies (bachelor's programme with internal specialisation: French, Italian, Spanish, Portuguese, Romanian)	Romance Studies	

Degree programmes as of 1 October 2014		Modifications planned
Bachelor's programmes	**Master's programmes**	
English and American Studies	Anglophone Literatures and Cultures English Language and Linguistics	
Scandinavian Studies	Scandinavian Studies	
Slavonic Studies (bachelor's programme with internal specialisation: Russian, Bosnian/Croatian/Serbian, Polish, Slovakian, Czech, Slovenian, Ukrainian, Bulgarian)	General Slavonic Studies Bosnian/Croatian/Serbian Bulgarian Polish Russian Slovakian Slovenian Czech Ukrainian	By the academic year 2016/17 at the latest, the master's programmes in General Slavonic Studies, Bosnian/Croatian/Serbian, Bulgarian, Polish, Russian, Slovakian, Slovenian, Czech, Ukrainian) will be combined to form a master's programme in Slavonic Studies with internal specialisation.
Hungarian Studies	Hungarian Studies	
Fennistics	Finno-Ugrian Studies	
African Studies	African Studies	
Oriental Studies	Ancient Oriental Philology and Oriental Archaeology Arabic Studies Islamic Studies Turkish Studies	By the academic year 2016/17 at the latest, the existing master's programmes in Arabic Studies and Islamic Studies will be combined to form the master's programme in Arab World Studies.
Languages and Cultures of South Asia and Tibet	Languages and Cultures of South Asia Culture and Society of Modern South Asia Tibetology and Buddhist Studies	For the further development of the master's programme in Culture and Society of Modern South Asia see chapter 6.7 below.
Japanology	Japanology	
Koreanology	Koreanology	
Sinology	Sinology	
Musicology	Musicology	
Linguistics	General Linguistics Applied Linguistics Indo-European Studies	
Comparative Literature	Comparative Literature	
Theatre, Film and Media Studies	Theatre, Film and Media History Theatre, Film and Media Theory	By 2015/16 at the latest, the master's programmes in Theatre, Film and Media History and Theatre, Film and Media Theory – owing to strong structural and subject-related overlaps, and to improve the options for combining theoretical and historical subjects – will be combined to form the master's programme in Theatre, Film and Media Studies.
Philosophy	Philosophy	
Education	Education	
	Islamic Religious Education	
Transcultural Communication	Interpreting Translation	As of the academic year 2016/17, new admissions to the existing master's programme in Interpreting and Translation will no longer be possible (phasing out of the programmes). The plans to combine the two master's programmes to form one master's programme in Translation Studies are being maintained.

6.6 Natural Sciences

Degree programmes as of 1 October 2014		Modifications planned
Bachelor's programmes	**Master's programmes**	
Mathematics	Mathematics	Master's programme in Food Chemistry (using the existing courses to the greatest possible degree; the aim is to establish it as of the winter semester of 2016/17).
Chemistry	Chemistry	
	Biological Chemistry	
	Chemistry and Materials Technology (teaching cooperation with the Vienna University of Technology)	
Physics	Physics	
		The master's programme in Physics of the Earth will be run as a foreign-language joint curriculum, in cooperation with the Bratislava Comenius University; its establishment has been scheduled for the academic year 2016/17 at the latest. The start of a bachelor's programme in Physics of the Earth has been planned; large overlaps exist (particularly with regard to the physical/mathematical basics) between the three bachelor's programmes in Astronomy, Physics of the Earth (planned) and Meteorology. The goal here is to use this synergy to make it easier for students to switch to another programme.
Meteorology	Meteorology	
Astronomy	Astronomy	
Earth Sciences	Earth Sciences (teaching cooperation with the Vienna University of Technology and the University of Natural Resources and Life Sciences, Vienna)	
Geography	Geography Cartography and Geoinformation Regional Research and Regional Planning Urban Studies (cooperation with international educational institutions)	
Biology	Anthropology Evolutionary Biology Genetics and Developmental Biology Molecular Biology Molecular Microbiology, Microbial Ecology and Immunobiology Conservation Biology and Biodiversity Management Ecology and Ecosystems Botany Behaviour, Neurobiology and Cognition Zoology	It is planned to further develop the master's programme in Evolutionary Biology, to a foreign-language master's programme in Evolutionary Systems Biology with an interdisciplinary orientation, if possible in cooperation with the University of Veterinary Medicine, Vienna.
Nutritional Sciences	Nutritional Sciences	
Psychology	Psychology	
Sport Science	Sport Science European Master in Health and Physical Activity (cooperation with international educational institutions)	

Degree programmes as of 1 October 2014	Modifications planned
Diploma programmes	
Pharmacy	The diploma programme in Pharmacy will be converted as of the academic year 2015/16, in line with the Bologna framework. A bachelor's programme in Pharmacy is planned, and at the master's level, one programme will be oriented towards the profession of pharmacist, and another one towards a career in pharmaceutical research.

6.7 Interdisciplinary Degree Programmes

Degree programmes as of 1 October 2014	Interdisciplinary master's programmes subject to availability of funds
Master's programmes	
Austrian Studies – Cultures, Literatures, Languages	Master's programme in Culture and Society of Modern South Asia, as an interdisciplinary further development of the master's programme in Culture and Society of Modern South Asia
Computational Science	Master's programme in Bioinformatics (cooperation with the Medical University of Vienna)
Environmental Sciences	Master's programme in Philosophy and Economics
Gender Studies	Master's programme in Ethics for Teachers and Professionals
Development Studies	Master's programme in Interdisciplinary Eastern European Studies
Middle European interdisciplinary master's programme in Cognitive Science (cooperation with international educational institutions)	Master's programme in Medieval Studies
Study of Religions	Master's programme in Contemporary History and Media
East Asian Economy and Society	
History and Philosophy of Science – HPS	

6.8 Teacher Education and Degree Programmes Related to Teaching

Degree programmes as of 1 October 2014	Modifications planned
Students in the bachelor's programmes that are oriented towards teaching at secondary schools (of general education) are required to combine two of the following 27 teaching subjects at the University of Vienna: Biology and Environmental Studies Bosnian/Croatian/Serbian Catholic Religion Chemistry Computer Science Czech Descriptive Geometry (teaching cooperation with the Vienna University of Technology) English French Geography and Economics German Greek History, Social and Political Studies Home Economics and Nutrition Hungarian Italian Latin Mathematics Physics Polish Protestant Religion Psychology and Philosophy Russian Slovakian Slovene Spanish Sports and Physical Education In addition, the following programmes without compulsory combination of subjects also relate to teacher education: Bachelor's programme in Religious Education and master's programme in Catholic Religious Education Master's programme in Chinese Studies with Special Emphasis on Teaching Chinese Master's programme in Islamic Religious Education	As of the academic year 2015/16, based on the bachelor's programme, a master's programme oriented towards teaching at secondary schools (of general education) will be established at the University of Vienna. The programme will comprise all subjects of instruction found in the bachelor's programme. In cooperation with the university colleges of teacher education in and around Vienna, attempts are being made to jointly develop a focal subject of Inclusive Education, which can be chosen instead of a second subject of instruction. For cooperation with other educational institutions see chapter 4.1.4: 'Focuses in the Area of Teacher Education Programmes'. The establishment of Turkish as a teaching subject will depend on the time when the corresponding syllabus-defined subject is established for all secondary schools and on the availability of the required funds.

6.9 Doctoral Programmes

Degree programmes as of 1 October 2014	Modifications planned
Regarding the doctoral programmes at the University of Vienna, the following curricula apply: • curriculum for the PhD programme in Advanced Theological Studies/Religious Education and the doctoral programme in Protestant Theology and the doctoral programme in Catholic Theology • curriculum for the doctoral programme in Law and the PhD programme in Interdisciplinary Legal Studies • curriculum for the PhD programme and the doctoral programme in Business, Economics and Statistics • curriculum for the doctoral programme in Social Sciences • curriculum for the doctoral programme in Humanities, Philosophy and Education • curriculum for the doctoral programme in Natural Sciences and Technical Sciences in the field of Natural Sciences • curriculum for the PhD programme/doctoral programme in Life Sciences	It is planned to establish interdisciplinary PhD programmes.

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