# Table of contents

Foreword by the Supervisory Board
Preface: President of the Board of the University

1. Mission and vision
   1.1 Values
   1.2 Activities
   1.3 Integrity
   1.4 Ambitions

2. Positioning
   2.1 Branch campus Yantai
   2.2 Campus Fryslân
   2.3 Other alliances and cooperation
   2.4 Alumni relations and fundraising
   2.5 World Shops
   2.6 Value chain

3. Research
   3.1 Basis for fundamental research
   3.2 Societal themes
   3.3 Research environment
   3.4 Quality assurance
   3.5 Results

4. Education
   4.1 Active learning
   4.2 Social inclusion
   4.3 Research-driven education
   4.4 Internationalization
   4.5 Preparation for the labour market
   4.6 Pre-investments for the Student Loan Act
   4.7 Quality assurance

5. Societal impact
   5.1 Entrepreneurship
   5.2 Infrastructure
   5.3 Societal themes
   5.4 Interaction and cooperation
   5.5 Results
   5.6 Contract research and teaching projects

6. Talent development
   6.1 Strategic HR policy
   6.2 Staffing
   6.3 Health and vitality

7. Facilities
   7.1 Student facilities
   7.2 Operational management and sustainability
   7.3 Procurement
   7.4 Accommodation
   7.5 Information technology
   7.6 University Library

8. Funding
   8.1 Treasury
   8.2 Corporate Governance
   8.3 Transparency document
   8.4 Top incomes and remuneration

9. Continuity section
   9.1 Explanatory notes on student numbers and staffing
   9.2 Explanatory notes on operating and balance-sheet figures
   9.3 Internal risk management and control system
   9.4 Risks and uncertainties
   9.5 Reporting by the supervisory body

Condensed financial statements

Strategic key figures

Appendices
1. Overview of central organizations
2. Background of the board members
3. Other positions
4. Composition of central bodies
5. Partnerships

Colophon / Reading guide
5 October 2016: The news is announced that Feringa has won the Nobel Prize.

Foto: Elmer Sterken
The University of Groningen had several faces in 2016. At the beginning of the year, the academic community was shocked when the Public Prosecution Service (OM) and the Fiscal Information and Investigation Service (FIOD) announced that they had started an investigation into possible fraud by employees from the Maintenance Department. The Board of the University immediately pledged its full cooperation to this external investigation, informed us (the Supervisory Board) as well as the Education Inspectorate and the Ministry of Education, Culture and Science (OCW), started its own investigation, and instigated measures to prevent further damage. Throughout the year, the Board has continually kept us abreast of any findings from these investigations. In addition, we thoroughly discussed the various actions that had been implemented. These actions were aimed both at the internal procedures and at the organizational culture in order to prevent fraud in the future. In the course of the year, the administrative emphasis shifted from dealing with the fraud case to the development and implementation of an integrity programme for the entire organization.

Also in 2016, the Board of the University, in conjunction with the municipality of Groningen and Hanze University of Applied Sciences, had to take measures to prevent future excesses at student associations during the introduction period for new student members. Arrangements aimed at a change in culture have been agreed with the student associations. As part of these arrangements, an accreditation system for student associations has been introduced as an instrument to monitor the changes and to agree supplemental arrangements wherever necessary.

We as the Supervisory Board have established that the Board of the University has adequately reacted to the incidents mentioned above, and that the appropriate measures have been taken to prevent such incidents from reoccurring in the future.

In 2016, the University was able to enjoy a number of remarkable successes. The undisputed highlight in this regard was the Nobel Prize in Chemistry for Prof. Ben Feringa, in addition to a number of other honours, such as two Spinoza Prizes and the first position in the Keuzegids Hoger Onderwijs [Higher Education Guide] as a broad traditional university. It can be concluded that the quality of our University is increasingly being recognized and acknowledged. The University of Groningen is climbing in the most important ranking lists, and the number of students that enrol is also growing. The rise in the number of new students is mainly due to foreign students, a target group that can choose from many universities.

The success of an organization in the areas of teaching, research and societal impact (valorization) is determined by its academics: by their talent and their joint commitment. They are facilitated by the various boards who create the appropriate conditions and make choices that offer perspective. In 2015, a Strategic Plan for 2015-2020 was prepared. In 2016, the faculties and service units translated this Strategic Plan for the organization as a whole into their own plans. In this context, they formulated and quantified (insofar as possible) their own ambitions as well. The Strategic Plan is now in its implementation phase. In the administrative meetings between the faculties, the service units and the Board of the University, the implementation is monitored and adjusted wherever necessary. This process, in which the budget and accountability are key milestones, is always on the agenda of discussions between the Supervisory Board and the Board of the University.
One of the major decisions in the Strategic Plan was to found a branch campus in Yantai, China. This plan was elaborated in more detail in 2016. Sufficient support and involvement from the academic community are essential for the plan to succeed. The Faculty Boards concerned, the consultative participation bodies and the Supervisory Board – each in their own capacity – are emphatically involved in the process. In exchanges with the University Council, the Supervisory Board has devoted attention to the worries that some have. In addition, the provision and dissemination of information – both within the University and to the general public – is crucial. That the initiative has support on the work floor was evidenced by the many employees who registered their interest.

In 2016, the Supervisory Board convened seven times in total. On 1 December 2016, Ms Heleen van Balen was appointed to the Supervisory Board as a member with the particular confidence of the University Council.

The University of Groningen is ambitious and successful, whether in teaching, research or social involvement, and has proven in 2016 that it can adequately react to extraordinary circumstances. This is due to the qualities and merits of many individuals, each in their own capacity. The UG is in good health.

T.H.J. Joustra
Chairman of the Supervisory Board
Preface
President of the Board of the University

For the University of Groningen, the year 2016 will undoubtedly go down in history as the year in which Prof. Ben Feringa was awarded the Nobel Prize in Chemistry for his pioneering work on the development of molecular machines. I am extremely proud that a member of our academic community has been given this tremendous honour, and of course I am also pleased that some of that honour brings credit to our university as well. I feel no hesitation in saying that the work of Ben Feringa demonstrates that the UG is a hotbed of creative and entrepreneurial minds where they can thrive and feel at home. What also pleases me is that, because of the Nobel Prize, the rest of the Netherlands has also got to know Ben Feringa. What a joy it was to see and hear him appear in the various news and science items on television and in other media. The academic community could not have wished for a better ambassador for science. In an era in which contempt for science-based knowledge sometimes takes on frightening proportions, the importance of articulate ambassadors for science cannot be underestimated. Also in this regard, Ben Feringa has more than deserved his praise.

Against this background, we should not forget that in 2016 two University of Groningen professors were awarded the Spinoza Prize: Lodi Nauta, Professor in the History of Philosophy – the first philosopher in the Netherlands to receive this honour – and Bart van Wees, Professor of Applied Physics and a staff member of the Zernike Institute for Advanced Materials. Please allow me to point out that in the past three years, no fewer than four University of Groningen professors have been awarded the Spinoza Prize. In addition to last year’s laureates, Cisca Wijmenga won the Spinoza Prize in 2015 and Prof. Theunis Piersma in 2014. Naturally these feats must be primarily attributed to the researchers themselves, but I’ll be so bold as to state that the environment in which they work – the Groningen academic community – is apparently an excellent breeding ground where creativity and revolutionary thinking can flourish. It is the task of the University of Groningen’s Board and management to ensure that these conditions continue to develop as favourably as they have done over the past few years.

Of course, national and international awards and prizes are not the only indication of the fact that the University of Groningen is an excellent research university. University of Groningen researchers from all faculties are publishing results that draw international attention and appear in top magazines. It is nigh-impossible to highlight all our successes in this brief preface, but allow me to make a random selection.

Evidence of the international recognition of the quality of University of Groningen research includes the many grants and subsidies that our researchers are attracting for their projects. Dr. Karina Caputi, associate professor at the Kapteyn Astronomical Institute, received an ERC Consolidator Grant of EUR 1.9 million for her research into the development of galaxies in the earliest history of the universe. With her research, Dr. Caputi will also play a part in the launch – scheduled for 2018 – of the largest space telescope so far, the James Webb Space Telescope.

But in many other areas as well, University of Groningen researchers are making a significant contribution to international science projects. As a case in point, the University – together with the University Medical Center Groningen (UMCG) – is increasingly recognized as an important knowledge centre for research into new antibiotics. The resistance of bacterial pathogens to existing antibiotics is a source of concern in terms of public health. Researchers from the UG and the UMCG are
at the forefront in the search for new antibiotics. As a result of the recognition of the quality and significance of their research, resources have been made available to appoint no fewer than 34 PhD students. With the newly founded CeSAM (Centre for Sustainable Antimicrobials), the University of Groningen and the UMCG will be an important partner in the National Antibiotic Development Platform (NDAP).

In 2016, we celebrated the fifth anniversary of Sustainable Society, one of our focus areas. To highlight this occasion, the Sustainable Society Impact Award was presented for the first time. During the kick-off of the academic year, this award was presented to young researchers whose research is bolstering societal impact. The discipline of Social Sciences and Humanities (SSH) is at the heart of this research. The value of SSH has become more visible at a European level, where in many EU grant schemes SSH disciplines are considered an important factor in boosting innovation. In this light, the Sustainable Society project team was given the task of coordinating the three-year Horizon 2020 project ACCOMPLISSH, in which the UG cooperates with 13 other European universities. The Sustainable Society network has also established the cross-disciplinary Knowledge Centre for Earthquakes and Sustainable Development (KADO), in which virtually all faculties will cooperate on resolving problems in the North of the Netherlands related to the extraction of gas.

As I said before, it is impossible to list all the successes of our researchers here. But I can conclude that thanks to their efforts the University of Groningen has gained an excellent international reputation when it comes to research. Among other things, this is evidenced by our position in various international ranking lists. We are currently in 72nd position on the leading Shanghai Ranking List, the second highest Dutch university. The Zernike Institute for Advanced Materials (ZIAM) is one of the two best research schools in the Netherlands. And the UG is a partner in the Netherlands Research School for Astronomy (NOVA), the other top research institute. We have also seen the European Research Institute for the Biology of Ageing (ERIBA), the Centre for Synthetic Biology (CSB) and the Willem Barentsz Polar Institute (WBPI) evolve into research groups that are highly respected internationally. And that is without even mentioning all the ERC laureates the University has produced, with over 25 Starting Grants, 9 Advanced Grants and 4 Proof of Concept Grants since 2007. From a European perspective, this makes the University of Groningen a top university.

On 1 January 2016, the Stichting University Campus Fryslân (Stichting UCF) was dissolved and the new UG/Campus Fryslân faculty became its legal successor. The transfer agreement between Stichting UCF, the Province of Fryslân and the University of Groningen was signed on 12 February 2016. At the same time, a tripartite agreement between the Province of Fryslân, the municipality of Leeuwarden and the University of Groningen was signed, formally affirming the plans for the establishment of a university campus in the Frisian capital.

In 2015, the University decided to found, together with China Agricultural University Beijing, a branch campus in Yantai. This marked a significant step for the University of Groningen. We do not just want to be an international university in the sense that we closely cooperate with several foreign universities and research institutes; we also want to be a global player: a university with a worldwide presence. This decision gave rise to a lot of debate, not just within the University itself but also at the national level. The UG was asked some important questions, such as: Will Dutch education funds be flowing abroad if this goes through? Is there a risk that the Chinese government will interfere with the curriculum? Can academic freedom be guaranteed in China? And will the students on the campus in China be granted unrestricted access to the internet?

As a result of this debate – and the answers that the University was able to provide to a lot of these questions – a significant majority of the Dutch House of Representatives approved the fact that, in principle, Dutch universities are allowed to set up branch campuses abroad. To this end, the Higher Education and Research Act (WHW, Wet op het hoger onderwijs en wetenschappelijk onderzoek) had to be amended in several places. The Board of the University is very pleased with the outcome of this debate. It has created clarity about the requirements an application to set up a branch campus will have to meet and about the procedure to deal with the
application. At the moment, we are working hard on drafting the application, and we are confident it will be approved by the UG’s consultative participation bodies and by the Minister.

Unfortunately the University of Groningen was also in the news for negative reasons in 2016, when it was discovered that a UG unit was involved in a major fraud case. It goes without saying that we immediately took action, not only to resolve the fraud case, but also to ensure that such incidents never reoccur. In the period between January and June last year, together with our auditor we examined all relevant administrative procedures. Wherever necessary, we have improved and tightened these. At the end of this period, the auditor expressed satisfaction with the results of our efforts. The Education Inspectorate has also voiced its appreciation.

With that, 2016 became the year of integrity. We not only tackled the ‘hard’ side of the problem (the checks and administrative procedures), but also what can be called the ‘soft’ side. Fraud can be made very difficult with proper and effective procedures, but it can only be fully excluded if there is a culture of integrity. For me, the most pressing issue was that apparently this culture had been all but eroded at the unit in question. To make it absolutely clear: most employees who work (and worked) for the unit are not to blame. But it is a fact that those employees who suspected something did not feel safe enough to report the matter. We have done everything in our power to make sure that the organizational culture has been overturned in this regard. People must feel absolutely safe in the environment they work in. No one should be afraid to voice any concerns to a confidential advisor, whether anonymous or not. I find it important to emphatically state here that whistleblowers will not have to fear any repercussions at the UG.

The University of Groningen has a leading position, not only as a research university but also as an educational institute. Currently, 75 percent of the students in our Bachelor’s degree programmes graduate within four years. As a result we amply meet the performance target agreed with the Minister in 2012. In my view, the pass rate was way too low in 2012. Therefore I am pleased that the effort all of us have put into improving the pass rate has had such an effect. This is especially important as we are attracting large numbers of Bachelor’s students. At the moment, we are the university with the highest influx of Bachelor’s students in the Netherlands. Enrolment in our Master’s programmes, on the other hand, leaves something to be desired, so we have work to do in this regard.

As for the total number of students studying in Groningen, we are currently the second largest university in the country, with only the University of Amsterdam being larger. The improvements that we have implemented in our teaching programmes have been a key factor in this regard. In that sense, we can say that the approach of agreeing performance targets has worked well for us. I am, however, not in favour of agreeing new performance targets with the Ministry. The downside of such agreements is that they apply to the entire higher education sector, and that they are experienced on the work floor as top-down policy. In my opinion, it would be better to make agreements at a local level and to discuss these with the Minister. This would also be more appropriate in terms of consultative participation as this has developed in recent years.

The experiment with PhD scholarship students that began last year has turned out to be very successful at the UG. Currently the University of Groningen boasts 150 PhD scholarship students, from both the Netherlands and abroad. I am convinced that the evaluation of the experiment by the Minister in a few years’ time will be positive, and that all criticism of the idea will turn out to be refuted in practice.

Science is no longer conducted in an ivory tower. The UG is consciously working on helping to resolve crucial challenges that are facing our society. In this context, we have formulated three key priority areas for research: Energy, Healthy Ageing and Sustainable Society. In all three of these areas, not only is fundamental research being conducted at a leading global level, we are also striving for intensive collaboration with partners in the region: with businesses, public-sector bodies, start-ups and active citizens.
Naturally, the UG also wants to make a contribution to the transition to a more sustainable society in its own operations. The Green University task force has drawn up a plan to ensure the UG will be vital, healthy and CO2-neutral by the year 2020. The new Energy Academy building is already completely CO2-neutral. This will also be the case for the planned Feringa Building that will replace the current Nijenborgh 4 building. But in order to achieve the target of making the entire University CO2-neutral, a lot more effort is required. Energy will have to be used more efficiently and will have to be generated from renewable resources to a larger extent; the consumption of water and the production of waste will have to be reduced; and – last but not least – all employees and students must become aware that in their activities they can and must also contribute to the target we have set for ourselves.

This may be the hardest part of the project because inadvertently everyone of us – myself included – is likely to think that our individual contribution will as good as negligible. But being familiar with the mindset at the UG, I am fully confident that by 2020 we will have successfully mastered this ambitious task, and that the University of Groningen will also be a leading university in this regard.

Sibrand Poppema
President of the Board of the University
10 October 2016: Press conference in the Academy Building at the University of Groningen.
Foto: Elmer Spaargaren
1. Mission and vision

The University of Groningen (UG) is an ambitious international research university with strong, thriving roots in the north of the Netherlands. The University creates and disseminates knowledge through outstanding research, teaching and academic practice. With an academic tradition dating back to 1614 and a rich heritage, the UG is a unique academic community with a strong sense of belonging to and involvement with society, and with a culture of innovative teaching and research.

1.1 Values

The core values of the University of Groningen guide how decisions are reached and how staff, students and stakeholders work together.

**Academic freedom**
Teaching and research take place in a climate of freedom of opinion and expression: the University of Groningen defends
the academic freedom of its staff and students as defined by UNESCO in 1997. In the spirit of academic freedom for staff and students, the UG adheres to the Magna Charta Universitatum (1988), to which it is a co-signatory, and to the codes of practice of the Royal Netherlands Academy of Arts and Sciences (KNAW) and the Netherlands Organisation for Scientific Research (NWO).

**Integrity**
Integrity is at the heart of the UG’s activities. Integrity translates into honesty, openness and transparency in our methods and reporting, and is the foundation of our research and teaching. Integrity and academic freedom go hand in hand.

**Diversity and social inclusion**
Diversity is an important aspect of academic success, and we embrace it by valuing and respecting the perspectives and contributions of all UG staff and students, and by stimulating a sense of involvement in an inclusive academic community. By continuous interaction between staff and students and their participation in governance, university-wide commitment to UG strategies and policies is realized.

**Innovation and openness**
The University of Groningen continually strives to improve in everything it does. We are receptive to new ideas and seek to increase our knowledge of unfamiliar fields. We operate internationally to expose ourselves to different views and approaches, and are keen to make new contacts and build new relationships. Open Access, Open Research and Open Data are important strategies for realizing these goals. They help us achieve excellence in research, teaching and societal impact.

**Accountability**
Our credibility is built on our values with regard to innovation, inclusion and integrity, and the way we operate to find answers to today’s social challenges. This is reinforced by our commitment as a public organization to be accountable for and transparent about all our actions.

**Sustainability**
Sustainability and social responsibility are consistently integrated in our teaching, research and governance. We believe that, through cooperation with our students, staff and other leading partners, we can make a difference in this regard by jointly helping to create a circular economy and a sustainable society.

### 1.2 Activities
The UG’s core activities centre around research, teaching, societal impact and talent development. Research and teaching are driven by curiosity and tie in with the needs of the global community. Research at the UG is based on powerful core disciplines. More extensive information can be found in the individual chapters.

**Research**
UG research is based on vital core disciplines with a critical mass of researchers. Sufficient numbers of researchers lead to a creative, critical environment in which new ideas can be realized and fresh talent can prosper. Strong core disciplines are also indispensable for interdisciplinary research. This is not only required to obtain fundamental insights, but also to find innovative solutions for today's social challenges. The UG has a responsibility to contribute accordingly, which is why we devote particular attention to fundamental questions that are typical of the Northern Netherlands, such as a shrinking and ageing population, but also the problems associated with gas extraction. The UG wants to create an environment that encourages fundamental disciplinary as well as cross-disciplinary research and that supports researchers. In this regard, three aspects are essential: an eclectic and international setting, an up-to-date IT infrastructure and an entrepreneurial mindset.
Teaching
The goal of education is to teach students the values, skills and knowledge that they need to develop into the next worldwide generation of independent, responsible leaders, innovators, academics and professionals that is able to think critically. To that end, students are educated in a stimulating environment that is tailored to personal development and ambition, to creativity and an entrepreneurial mindset, and to a mutual pursuit of excellent results. Such an environment is inspired by leading, current research, highly motivated teachers and relevant social issues in a national and international context. In order to enable students to attain the required competences, employability on the labour market and business skills are permanent fixtures of the UG's Bachelor's and Master's programmes. Moreover, our career services are in the process of being optimized so as to enable students to plan their career and find a suitable job.

Societal impact
The UG is collaborating with public-sector bodies, businesses and society at large to mutually share knowledge and to generate new investments in research. As we consider it essential to support the region that houses us and to help it develop, this collaboration has a regional focus. It takes place in the form of consultancy and partnerships between the public and the private sectors. We are also involved in a broad range of contracts and activities that enable the generation of knowledge, the sharing of results and the registration of patents and licenses (societal impact). The UG supports these activities with a local, national and international infrastructure for knowledge transfer and technology. Three research areas have been prioritized: Energy (the transition to a sustainable, green society), Healthy Ageing (prevention, care and treatment), and Sustainable Society (creating and maintaining a balanced society).

Talent development
Talent development is essential to achieve excellent results in teaching and research. The UG will not be able to continue to achieve excellent results if it does not attract talented staff and support their development. This is why the UG is committed to maintaining an environment in which talent is recognized and fostered. Staff, PhD candidates and other students are given every opportunity to train and develop specific talents. Learning to work in an international environment and learning to work with others are essential elements of this training, along with acquiring a socially responsible attitude and an entrepreneurial mindset. This way, the UG is able to offer society a competent and well-informed workforce that can make a significant contribution to resolving the problems we face.

1.3 Integrity
The Strategic Plan 2015-2020 sets out the mission, vision and core values of the UG. Integrity is one of our six core values and underpins all the UG’s actions. Integrity here translates into honesty, openness and transparency in our methods and reporting. In this context, integrity and academic freedom go hand in hand.

The Management Report for 2015 that was published mid-2016 already reported the occurrence of two integrity violations (fraud cases) in the operational domain that came to the UG’s attention at the start of 2016. The current Management Report provides an update on how these cases have been handled both internally and externally. The first case was limited in scope and was reported to the Confidential Advisor by an internal whistleblower. Following this, appropriate measures were immediately instigated. This case was fully wrapped up in 2016.

The UG became aware of a second case with a wider, more serious impact when, on 25 January 2016, the Fiscal Intelligence and Investigation Service (FIOD) arrested a UG staff member on suspicion of fraud, official corruption and money laundering. To a significant extent, this case was also resolved in 2016. The measures in terms of employment relations as taken by the UG have been effectuated. The case is still pending legal settlement. In the spring of 2017, the fraud case was brought before the three-judge panel of the Almelo Court for substantive hearing. As the aggrieved party,
the UG joined the criminal proceedings and submitted a request for compensation. For that part of the damages that may not be awarded by the criminal court, the UG will initiate civil proceedings against those involved if necessary.

In the course of both cases, the UG extensively informed both its internal and external stakeholders of the cases’ progress, the measures taken and the actions initiated. At the end of 2016 the UG informed the Education Inspectorate in writing of the way it had handled both cases. It was concluded that there were no grounds for the Inspectorate to conduct its own investigation.

The University has drawn up a Plan of Action in order to prevent similar cases from occurring in the future and to further substantiate its core value of integrity. In the Plan, two broad lines can be distinguished: to tighten up the 'hard' controls wherever necessary, while simultaneously devoting more attention to 'soft' controls and their development. Hard controls include for instance the rules, procedures, regulations and systems that together constitute the UG’s Administrative Organization and Internal Control (AO/IB). Soft controls relate to measures that affect the way employees function individually, involving aspects like motivation, loyalty, integrity, inspiration and norms and values. Soft controls are associated with matters such as exemplary behaviour, involvement, feasibility, accountability and enforcement.

In 2016, several internal projects were initiated to tighten up our AO/IB procedures wherever necessary. To this end, a programme structure was created to monitor the cohesion and progress of these projects. Also, with external support a data analysis is in the process of being performed aimed at the UG's outgoing cash flows over the 2014-2016 period. The objective of this analysis is to get a better picture of the risks involved in the procurement and payment process. The next phase planned is to make data analysis a structural element of the UG's Finance & Control organization.

The University-wide Integrity Programme also devotes attention to soft controls. An important objective of the programme is to encourage acting in a morally responsible way and promote integrity awareness among employees, and to protect employees against missteps by removing unnecessary risks and temptations. But reinforcement of employee trust is also an objective.

A broad-based project organization has been set up in order to flesh out the programme. It consists of a steering group, a programme team and a feedback group, representing administrators, academics and support staff from several different faculties and departments.

The implementation of the Integrity Programme began at the end of November 2016 in the form of an executive seminar, in which members of the Board of the University, the directors of the service units and deans and treasurers of the Faculty Boards participated. Together, they had a fruitful discussion about leadership and operational management, drawing on the values that are also leading in the Netherlands Code of Conduct for Scientific Practice (NGW). This way, they made a start on defining these values from an operational perspective.

On the one hand, the programme organization is tasked with providing more clarity in terms of norms and values. This is done by specifying these values and by aggregating – and, wherever necessary, supplementing – existing regulations in an Integrity Code and a digital portal. The Code and the internet portal are scheduled for completion in the course of 2017. On the other hand, the programme organization is tasked with training University employees with a focus on behaviour in order to promote integrity awareness and to encourage acting in a morally responsible way. Managers will play an important part in this regard as they must lead by example and they are responsible for creating the appropriate conditions and playing a supervisory role. In order to develop a training programme that suits the organization, four pilot projects were developed and implemented in early 2017.
1.4 Ambitions

The University of Groningen is an international academic community in which intradisciplinary and cross-disciplinary research leads to scientific breakthroughs and societal innovation, and in which talented students are trained as innovators who will contribute to a sustainable society. Its research and teaching are driven by intrinsic curiosity as well as interaction with global society.

Research at the UG, which is of the highest standing, is based on strong core disciplines and a critical mass of researchers. These strong core disciplines are the foundation of our cross-disciplinary research. Our research in these core disciplines and our cross-disciplinary research help us to both deepen our fundamental understanding and knowledge of the world and find innovative answers to today’s social challenges. Understanding the world and putting this knowledge to use are two key responsibilities.

For this reason, the UG actively engages in the dissemination of knowledge and converting this knowledge into economic and societal value. We do so with an emphasis on our three research priorities – Healthy Ageing, Energy and Sustainable Society – and with a specific focus on the needs of the Northern Netherlands. We want our students to become active, independent and responsible citizens who can think critically and help solve today’s scientific and societal challenges and become the entrepreneurs of tomorrow. To achieve this goal, we place a high priority on small-scale teaching.

Exceptional teaching and research are only feasible from diverse perspectives and with an academic community that comprises different talents and nationalities. Talented staff and students from all over the world are attracted by the career prospects and challenging degree programmes we offer. The UG has developed a knowledgeable workforce that can make a significant contribution to a deeper understanding of the world and solving the challenges it faces. Finally, we believe that it is important to keep in touch with our alumni around the globe and to enable them to contribute to the UG’s mission.

These six ambitions for 2020 derive from the Strategic Plan 2015-2020.
1. The University of Groningen aims to consolidate its position as an international academic community with strong local roots. One of the ways in which we want to achieve this is to establish national and international branch campuses.
2. We will help our researchers work on new – sometimes high-risk – ideas by fostering an innovative and entrepreneurial attitude. Fundamental disciplinary and cross-disciplinary research with strong international partners, together with innovative interaction with society, will be central to the research-driven education that we provide.
3. We expect our students to be committed and responsible participants in the teaching and learning processes. Our educational strategy therefore focuses on enabling our students to be active learners.
4. Putting knowledge to practical use is a key responsibility of the UG. Disseminating knowledge and converting it into sustainable economic and societal processes, services and business activities are cornerstones of our strategy.
5. We acknowledge a shared responsibility for UG strategy, management and operations. Accountability and transparency with regard to quality and funding are fundamental in this respect.
6. Our alumni form an important link to society, and we welcome their involvement in our teaching and research through their contributions in alumni networks and various other activities.
23 November 2016: Feringa is promoted to Commander in the Order of the Lion of the Netherlands by Minister Jet Bussemaker in the Mauritshuis in The Hague.
2. Positioning

On the basis of Article 1.8 of the Dutch Higher Education and Research Act (WHW – Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek), the University of Groningen is an independent administrative body under public law. In 2016, 29,301 students were enrolled, and staffing levels averaged 5,846.6 FTE. The UG had eleven faculties in 2016, including the Graduate Schools. There were five other units: the Office of the University, the University Services Department, the Center for Information Technology (CIT), the University Library and the Center for Advanced Radiation Technology (KVI-CART). In Leeuwarden, the new UG/Campus Fryslân faculty is being developed. Annex 1 contains an organogram of the UG.

Outside the Netherlands, the University of Groningen is present and active in many different countries. In Germany for instance, we have set up a University of Groningen North West Germany (UGNWG) branch in Papenburg in order to promote cooperation in the Northern Germany border region. In addition, there are

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Table of contents
Foreword
Preface
1. Mission and vision
2. Positioning
3. Research
4. Education
5. Societal impact
6. Talent development
7. Facilities
8. Funding
9. Continuity section
Condensed financial statements
Strategic key figures
Appendices

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STRATEGIC PARTNERS
- University Uppsala (S)
- University Göttingen (D)
- University Gent (B)
- Fudan University (CN)
- Tsinghua University (CN)
- Peking University (CN)
- Osaka University (JP)
- ITB (ID)
- Universitas Indonesia (ID)
- Universitas Gadjah Mada (ID)
- UNAM (MX)

BRANCH CAMPUSES
- Yantai, China: UGY (work in progress)
- Leeuwarden: Campus Fryslân

NUMBER OF ALUMNI
120,000
advanced plans to establish a branch campus in Yantai, China, in cooperation with China Agricultural University Beijing. The University is also involved in several research centres in various countries, such as the Royal Netherlands Institutes (NWIB – Nederlandse Wetenschappelijke Instituten in het Buitenland) in Saint Petersburg, Athens, Cairo, Florence and Rome. The University of Groningen is the coordinator for the Royal Netherlands Institute in Rome (KNIR). An overview can be found in Annex 1.

2.1 Branch campus Yantai

The University of Groningen wants to be the first continental European university to open a branch campus in China. In collaboration with Beijing’s China Agricultural University (CAU), the UG plans to establish a presence on a campus in the city of Yantai. A large part of the campus has already been developed. The initiative is comparable to other branch campuses, for example those set up by the University of Nottingham and New York University in Ningbo and Shanghai respectively. Opening a branch campus is an opportunity for the University of Groningen to expand its status as a global university. This will attract top students as well as top scientists and enhance research collaboration, which will eventually also secure funding.

Chinese and other international students can study for Bachelor’s and Master’s degrees that have already been successfully developed in Groningen. In addition, the branch campus is oriented towards international students who are eligible to be selected for exchange programmes with the University of Groningen. In turn, UG students can take advantage of the safe, attractive environment of the branch campus as exchange students, where they will be able to take course units of assured quality with guaranteed ECTS credit points. This will make the University of Groningen more attractive for Dutch and European students seeking experience in Asia. The branch campus will provide excellent opportunities to deploy initiatives such as the International Classroom, Electronic Learning and Learning Communities right from the onset.

This branch campus will allow the University of Groningen to develop into a global university. The fact that the UG is seeking to make the branch campus research-intensive will make it attractive to academics who wish to continue their career in Asia within the research environment of a European university. This will create attractive placement opportunities for students, possibilities for UG postdocs, and Tenure Track positions for young academics. In addition, Yantai will provide an opportunity for existing UG staff to gain temporary work experience in another setting. Finally, the research facilities might spark closer collaboration with Dutch and international companies in China who want to perform their research and product development together with University of Groningen Yantai (UGY), as the campus will be known.

CAU is what is known as a ‘985 university’ in China. The 39 best research universities in China belong to this category. Only these universities are permitted to recruit the best Chinese students. CAU is also known as one of the best agricultural universities in the world. This makes it particularly interesting for the University of Groningen, because agrifood is a relevant research area for us. CAU has two campuses in Beijing and acquired a 110-hectare campus in Yantai in 2003. Conversely, the Chinese see the University of Groningen as an interesting partner: it is a fast-growing international top-100 university with a large number of English-taught Bachelor’s degree programmes. CAU wanted a partner fitting this profile to help develop the campus in Yantai.

Decision-making and funding

The Declaration of Intent for the foundation of University of Groningen Yantai (UGY) has been set out in a tripartite agreement, signed by the University of Groningen, China Agricultural University and the city of Yantai on 25 March 2015. Dutch Prime Minister Mark Rutte attended the event. A couple of months later, the UG reached agreement with CAU and the city of Yantai on the funding of its branch campus in Yantai. This agreement lays the financial foundation for the campus. The city of Yantai will cover the costs of the construction of and equipment for the campus’s teaching and research facilities, as well as any budget deficits in the start-up phase. The agreement
was signed on 26 October 2015 in the presence of King Willem-Alexander of the Netherlands and the Chinese President Xi Jinping.

Decision-making regarding the establishment of a branch campus in Yantai is a careful process with multiple steps. The University of Groningen and CAU have submitted a joint application to the Chinese Ministry of Education for the establishment of the University of Groningen Yantai (UGY). This application is currently under review. The Dutch Minister of Education, Culture and Science (OCW) has prepared a legislative amendment that will create more opportunities for Dutch institutions of higher education to provide education abroad. On 23 February 2017, a significant majority of the Dutch House of Representatives voted in favour of this amendment. On 6 June 2017, the amendment was also passed by the Dutch Senate after being discussed without being put to the vote.

The Minister of Education, Culture and Science (OCW) will now draw up an Order in Council (Algemene Maatregel van Bestuur – AMvB) that will regulate implementation of the Act. The Order is expected to be discussed by the House of Representatives in the summer of 2017. After approval of the Order in Council, and after the consultative participation councils and the Supervisory Board have exercised their rights of consent, the Board of the University will make a definitive decision about founding a branch campus in Yantai. After the University Council has voiced its approval, the Board will submit an application to the Minister of Education, Culture and Science (OCW).

Until the city of Yantai funding starts, the preparation costs will be at the expense of the University of Groningen pending the definitive decisions in the Netherlands and China to establish the branch campus. In 2016, these costs amounted to EUR 859,000 in total, including EUR 588,000 for staffing expenses (on the basis of an integral cost price) and EUR 271,000 for other expenses. The latter amount mainly consists of travel expenses and the costs of hiring external expertise and additional capacity. The preparation costs have been fully paid from the UG’s private revenues. The private revenues in 2016 originated from UOCG Market BV (payout of dividend) and the Foundation for Academic Training Groningen (Stichting AOG, gift). In 2015, the preparation costs amounted to EUR 756,000. These costs were fully covered by private revenues as well.

### Teaching and research

The University of Groningen Yantai (UGY) will be a Chinese legal entity with the official legal status of an Independent International Joint University. Although this is called a branch campus in Europe, it is in fact a separate legal entity. This means that no public funds from either the UG or Dutch taxpayers will be involved in its financing.
go to China. The branch campus will be funded by the city of Yantai and the students who register for UGY education in China. The research will partly be funded by Dutch companies that wish to cooperate with the UG in China, and partly by the city of Yantai.

In Yantai, the University plans to offer Bachelor’s, Master's and PhD programmes that incorporate significant research activities and collaboration with the business sector. After a preparatory year, Chinese and other international students will begin a UG degree programme in Yantai, and successful students will be awarded a University of Groningen degree. The branch campus will also enable students and staff from Groningen to gain experience abroad, and will give researchers the chance to conduct ground-breaking research in China.

The first six degree programmes will start with a preparatory year in September 2018. The academic degree programmes will start in 2019 with four BSc programmes and two MSc programmes. The aim is to attract 125 students to each Bachelor's programme and 65 to each Master's programme. Every year, additional degree programmes will be added from different faculties until a total of 20 Bachelor's programmes and 10 Master's programmes is reached. This will enable the development of a broad research university.

Quality
The guiding principle for the University of Groningen is that the degree programmes in Yantai must have the same quality guarantees as the degree programmes in Groningen. At the same time, we wish to avoid incidents at one campus having consequences for accreditation at the other. The Dutch Ministry of Education, Culture and Science (OCW) has submitted a proposal for a legislative amendment to the Higher Education and Research Act (WHW), which has been approved by a significant majority of the Dutch House of Representatives. The WHW and its relevant regulations will make it possible to create a ‘firewall’ between the UG degree programmes in Groningen and those in Yantai. Both the UG and the Ministry have the same goal: assuring educational quality and creating an effective governance structure for international education without endangering the accreditation of the degree programmes in the Netherlands.

Chinese legislation states that the government may not interfere with the content of programmes taught at foreign institutes. The Vice Chancellor of the Board of the University of Yantai will be responsible for the curricula. It has been stipulated in the agreements with the Chinese government that this official will be nominated by the University of Groningen. The University of Groningen has always considered academic freedom a non-negotiable condition for founding the University of Groningen Yantai (UGY). The agreements about academic freedom, unrestricted access to the internet and the governance structure have been set out in a Memorandum of Understanding.

2.2 Campus Fryslân
‘Building up’ and ‘developing’ were the keywords for 2016. In terms of education, a number of important developments were set in motion. The Minister of Education, Culture and Science (OCW) gave permission to start relocating the Master’s programme in Cultural Geography and the specialization in Tourism Geography & Planning to Leeuwarden. Applications for other Master’s programmes, such as Governance & Law in Digital Society and Sustainable Entrepreneurship, as well as for the Bachelor’s programme in Global Responsibility & Leadership, were submitted to the Higher Education Efficiency Committee (CDHO – Commissie Doelmatigheid Hoger Onderwijs) at the end of 2016.

Last summer, 13 knowledge institutions and two government bodies signed the Fryslân Higher Education Agreement (HOAF) in Leeuwarden. By signing this agreement, the signatories have affirmed that they will collaborate to create more Master’s programmes and PhD research projects in Leeuwarden. The 15 organizations involved will jointly make up the Advisory Board for Campus Fryslân. During the meeting, it was also announced that Campus Fryslân will be accommodated in the historic stock exchange building in Leeuwarden. As of September 2018, it will become the heart of the City Campus.
In 2016, the first PhD thesis from the University Campus Fryslân period (UCF; the predecessor to UG/Campus Fryslân) was defended. The Graduate School has shown steady growth. Seven ‘new’ PhD students have been added to the 35 UCF PhD students, three of whom started at the end of 2016. Research in the Graduate School is organized around four main research themes: Culture, Language, & Technology; Governance & Sustainable Economy; Food & Health; and High Technology Systems & Materials. Last year, the Graduate School organized a Summer School as well as an Autumn School.

In 2016, Studium Generale Leeuwarden was enhanced with a programme committee that organized six successful lectures. In addition, Campus Fryslân organized its own series of lectures, including the popular Science Café. In the context of the Academic Climate Programme, the Campus Fryslân Academic Prize was established, a new award for promising young academics. And finally, together with the Faculty of Arts (FdL), Campus Fryslân participated in the development of a MOOC (Massive Open Online Course) in Multilingualism that will start in 2017.

2.3 Other alliances and cooperation

University processes lead to a continuous throughput of people and knowledge. In this regard, the University of Groningen works together with an abundance of partners and is involved in major networks. The UG maintains close relationships with institutions in pre-university education (VWO) and higher vocational education (HBO) for instance, from which many students proceed to university. In this context, the University also has many contacts with partner universities within and outside the Netherlands.

In its academic research, the UG collaborates in many diverse partnerships with other knowledge institutions, public sector bodies, and businesses. In addition to UG/Campus Fryslân and University Groningen Yantai (UGY), the strategic alliances U4 and The Guild play an important role in enhancing research across the UG. The faculties themselves also invest heavily in extending and reinforcing their national and international networks to consolidate their profiles and research bases. In this regard, new academic as well as industrial partners and the exchanging of staff are being considered.

U4 Network

The U4 Network is a very active alliance in which the universities of Uppsala, Ghent, Göttingen and Groningen have been participating for nine years. The increasing number of joint publications, especially in the field of Medical Sciences, attests to the growing success of this partnership.

Within the U4 Network, the joint training of PhD students is a priority. In 2016, over 25 PhD students were working on a Double or Joint Degree PhD. Joint teaching took place in several workshops and Summer and Winter Schools. The various sources of funding for the partnership, such as those for Erasmus Mundus Action 2 projects and a DAAD grant from the German government, are running out however. For that reason, the U4 universities have created the necessary provisions in order to continue their successful collaboration in 2017.

The Guild

In November 2016, The Guild of European Research-Intensive Universities was founded, with the University of Groningen as one of the founding members. The Guild is a network of 18 European universities from 12 countries. It unites universities across Europe that demonstrate excellent achievements in teaching, research and policymaking. Together, they work on innovative solutions for some of the most elusive challenges to science and society. The Guild takes a novel, fresh approach to involvement and capacity-building across Europe. The Guild wants to work closely together with the European Commission, European and national MPs, civil servants and other parties to develop strategic and practical solutions for the many communities that constitute Europe. Research within the EU as well as EU research policy are priorities in this regard.

UMCG

The University Medical Center Groningen (UMCG) is the affiliation established on 13 January 2005 between the former Academic Hospital Groningen (AZG) and the Faculty
of Medical Sciences (FMW) of the University of Groningen. It was established according to the principle that the UG would be responsible for research and educational policy, while the academic hospital would be responsible for patient care, providing employment and specialist medical training. These tasks are inextricably linked. Within the framework of the UMCG, an integrated policy is followed for teaching, research, patient care and specialist training. The AZG-RUG plan document for 2016 was approved by the Joint Policy Body (GBO) on 2 December 2015, in accordance with Article 12.21 of the Higher Education and Research Act (WHW). This document sets out the coordination required between the teaching and research activities and the related patient care and training tasks.

The Board of Directors of the UMCG approved the teaching programme for academic year 2016-2017, taking account of the staffing and logistical implications for the hospital section of the UMCG, which – subject to conditions – provides the facilities required for clinical instruction, thus enabling the programme to be organized in such a way as to comply with the learning outcomes set out in the Training of Physicians Decree (Besluit Opleidingseisen Arts) pursuant to the Dutch Individual Health Care Professions Act (BIG – Wet op de Beroepen in de Individuele Gezondheidszorg).

Alumni relations and fundraising

The Alumni Relations & Fundraising (A&F) department supports and organizes activities and services for alumni. The Ubbo Emmius Fund (UEF) was set up in 1996 with the aim of bringing ‘town and gown’ closer together and raising funds for teaching and research projects. The UEF is managed by an independent, unpaid Board comprising alumni and other members who are committed to helping to support the UG. The Board is chaired by Paul Polman, the CEO of Uniliver. The UEF is the UG’s main fundraising organization and has the status of a Public Benefit Organization (PBO), which means that gifts or inheritances are not subject to taxation and are allocated in full to the purpose for which they were intended.

Alumni relations

The University of Groningen was one of the first universities in the Netherlands to introduce an active alumni and fundraising policy. For over 30 years, Dutch-speaking alumni and UG contacts have been receiving the free magazine ‘Broerstraat 5’, which contains news from and about the UG and its alumni (circulation: 87,000). In addition to this, the Worldwide Newsletter (in English) was introduced in 2009 for the growing group of international alumni and contacts. Since 2009, Master’s and PhD students also receive an Album Amicorum when they graduate, a graduation gift on behalf of the UG and the UEF. In 2016, the Young Alumni Network kicked off, providing young alumni up to the age of 35 with an opportunity to get in touch with others who are in the same phase of their career.

Many alumni – young and not-so-young – play an active role in supporting the UG. They give guest lectures, allow access to their networks and expertise, or make donations to one of the many UEF projects. In that context, 2016 saw 18 more international students (from 15 countries) being trained as new UG ambassadors. These International Alumni Ambassadors help as volunteers in activities such as recruiting prospective students in their home countries.

There are active Alumni Chapters both within and outside the Netherlands, giving financial support to UG research projects.
The number of chapters has grown considerably in recent years. In 2016, six chapters were active in the Netherlands and ten abroad. There is also a Theme Chapter dedicated to researching the Dead Sea Scrolls. In the Netherlands, there were twelve gatherings, including the first meeting of the Twente Alumni Chapter, a spin-off from the original East Netherlands Alumni Chapter. Abroad, there were no fewer than 16 alumni gatherings. In the foreign chapters, the initial emphasis is more on ‘friendraising’, which may eventually lead to fundraising. A special event took place in Stockholm, where ten alumni were given the opportunity to have lunch with Ben Feringa prior to the Nobel Prizegiving ceremony. The visit President of the Board Sibrand Poppema made to Asia in October and November last year provided a good opportunity to organize gatherings in Singapore and Yogyakarta.

Awards and professorial chairs
The UEF offers donors the possibility to set up a named fund under its auspices. This provides donors with an opportunity to contribute to research and teaching programmes in a personal and substantial way. In 2016, the UEF was involved in the establishment of nine named funds.

In addition to alumni, UG employees and contacts feel involved in the quality of the UG’s education as well. The number of incentive awards that has been established owing to their support attests to this. Often, these awards are linked to a UEF-related named fund. In 2016, awards included the UG Lecturer of the Year award (made available by the COWOG Fund), the Aart Bosman Student Excellence Award for the best student of the year, and the Wierenga-Rengerink PhD Award for the best PhD student. Philosopher, writer, columnist and expert on Europe Luuk van Middelaar was awarded the title of Alumnus of the Year.

On 22 November 2016, Ronald Holzhacker presented his inaugural lecture as UEF professor by special appointment in Comparative Multi-Level Governance & Regional Structure at the Faculty of Spatial Sciences (FRW). His professorial chair – the second UEF chair by special appointment – is sponsored by Unilever Indonesia and Shell Indonesia. The first UEF chair is held by Tjalling Halbertsma, UEF professor by special appointment in East Asian Studies with a focus on modern-day Mongolia at the Faculty of Arts (FdL), which is enabled by ING Bank, the Mongolia Opportunities Fund, the Riverbed Foundation and the Jack Weatherford Foundation.

Campaigns
In 2016, the UEF launched several fundraising campaigns, which combined various methods, such as telephone campaigns (the Alumni Desk), crowdfunding (www.rugsteunt.nl) and writing to funding bodies. In this way funds were raised for the Eric Bleumink Fund (scholarships for talented students from developing countries), the Junior Scientific Masterclass (scholarships for medical students who want to conduct additional research during their training) and the Groningen delegation to iGEM (an international student competition), to name but a few.

Although such fundraising among larger groups generally results in smaller amounts, researchers can use these funds to lay the foundation for future success. ‘Broad’ fundraising thus functions as a catalyst for larger grants and gifts. A good example is Romana Schirhagl’s research, ‘Nanospies in Cancer Cells’. With her research team, she wants to insert tiny diamonds in living cancer cells to investigate the role of free radicals. In 2015, the UEF organized a crowdfunding campaign for this project. In September 2016, Dr Schirhagl received a ECR Starting Grant of EUR 1.5 million, partly because she had demonstrated that her research attracted public interest and support.

Fundraising
In 2016, fundraising by the UEF amounted to EUR 426,919 in total, including EUR 135,325 of new commitments. This does not include two major bequests, as these were not yet fully finalized when this report was printed. The UEF is estimated to have received approx. EUR 1,300,000 from the estate of UG alumna Ms J.E.M. van der Vegt and approx. EUR 280,000 from the estate of Ms J.F. Nater-de Jong. The total does not include a large gift from an alumnus who wishes to remain anonymous. As the nature of the gift is rather complicated, its exact amount cannot yet be determined. The destination of the gift has been extensively discussed with the donor: a named fund will be established that...
will support fundamental scientific research, particularly in the field of Exascale Technology (i.e. big data). Thanks to this gift, the European Research Center for Exascale Technology (ERCET) – a partnership between the University of Groningen and IBM, UMCG, and Astron – will be given an enormous boost.

In 2016, often thanks to the involvement of alumni, the UEF once again received generous contributions from a number of family trusts and equity funds, which were used to fund research projects including research requiring starting capital or additional funding to move to the next level. Over 3,200 unique donors (alumni, employees, businesses, organizations and foundations) made one or more donations to the UEF in 2016. Almost 1,100 donors did so through a perennial or ongoing gift.

Developments

In 2016, the UEF set up a Marketing Advisory Council, consisting of members of the UEF Board. The Council advises the UEF Board and Office on positioning the UEF brand and on generating publicity. The objective is to come to a comprehensive model for fundraising and relationship management with a view to significantly increasing the number of donors. In 2017, the Council’s advice will be elaborated on in more detail. In addition, in the years to come the A&F department and the UEF will concern themselves with strengthening the alumni networks both in the Netherlands and abroad. In this regard, specific attention will be devoted to deploying new social and other media and targeting younger UG alumni.

2.5 Science Shops

The five Science Shops of the University of Groningen carry out society-oriented research for a range of non-profit organizations. They also mediate in research and teaching projects within their network, on the basis of the questions they are asked to research. The Science Shops are based in various faculties, which means they can offer expertise on a wide range of social issues and can contribute to solving them. Each of the Science Shops has its own way of working.

On average, they receive 140 requests per year to provide free knowledge support. Their target groups are various societal organizations and businesses, such as residents’ groups, ministries, asylum seekers’ centres, the Wadden Society (Waddenvereniging), Stichting Downsyndroom (SDS), the Fries Verzetsmuseum (Frisian Resistance Museum), and political parties. The Science Shops collaborate with each other and are therefore able to carry out cross-disciplinary research. In recent years they have worked on various multidisciplinary projects on themes including the economics of low-priced medicines in developing countries, sustainable business parks, and the environmental and economic impact of magnesium production in the Ems estuary.

2.6 Value chain

In all its core processes (research, teaching, societal impact, talent development), the University of Groningen is a link in a chain that adds value to knowledge or to people, both individually and collectively. After their primary education, prospective students follow secondary education, with pre-university education (VWO in the Netherlands or a similar qualification abroad) directly preparing for university. Other students at the UG come from higher vocational education institutes (HBO in the Netherlands or a similar qualification abroad) or other universities. If individuals can demonstrate a sufficient level of knowledge, they are allowed to enrol without such a background. When their university training is completed, most graduates will enter the labour market, while some will continue to be active in the academic world as researchers. Preparing students for their future role in society is one of the aspects of the education that the UG provides. The contribution that they can make as self-employed workers, employees, employers, entrepreneurs or professionals (physician, accountant, translator, legal expert, etc.) will benefit all of society.

The UG offers talented and ambitious individuals an additional Talent Development track that may already commence during secondary education in the shape of the Pre-University Academy. The Pre-University Academy organizes activities for highly
motivated school pupils in order to ease the transition from school to university. During their degree, students may opt to broaden or deepen their curriculum via the Honours College or University College Groningen if they so desire. Special tracks are also available, such as the Top Master and Research Master programmes in the final stages of university training. Some of the most talented students – including those from other universities – will be eligible for a PhD position and may then continue their career in the academic world, in Groningen or elsewhere. The UG also boasts Talent Development tracks for individual researchers and professionals in a later stage of their academic career, such as Talent Travel and the Tenure Track system (including the Rosalind Franklin Fellowships). In each instance, the objective is to fully develop an individual’s potential, for their own sake as well as that of the UG and society as a whole.

Knowledge is another product the UG delivers. In this light, the processes of teaching, research and societal impact may be considered as the transfer, development and dissemination of knowledge respectively. The UG keeps and monitors knowledge that is laid down in books and in other information carriers, both in libraries and in the heads of its lecturers and researchers. In the research process, existing knowledge is continually being developed and expanded, partly with a view to contributing to resolving the major global challenges facing humanity. In the education process, lecturers transfer knowledge to students, colleagues and other interested parties. The value that students acquire during the course of their studies at the UG in the form of knowledge, skills and understanding will afterwards benefit society as a whole.

The knowledge present within the UG is made available to society outside the immediate academic community in many ways. UG employees contribute to social debates (both within and outside the UG), via publications or public performances. During Studium Generale lectures and countless other events, the public is given the chance to familiarize itself with academic as well as non-academic information on various topics. The UG thus transfers knowledge in many ways, making it useful and practicable for society at large so everyone may directly or indirectly benefit from it.

Our impact on society is even greater as the result of the UG’s various partnerships with many different parties. Especially in the field of research, the UG is a partner in numerous businesses centres and consortia, other universities and public sector bodies that bring together the knowledge and expertise of the various participating organizations. By contributing knowledge, the UG drives innovation and economic activity, both in our own region and beyond.

Scope and delineation
A Management Report like this one has a limited scope. Usually, university processes need some time to come to fruition. The direct results of teaching can be measured by, for instance, pass rates and the number of degrees awarded, but the contribution that graduates will make to society in the long term is more difficult to assess.

This also applies to research, in particular fundamental scientific research. Short-term results can be seen in the number of PhDs awarded and the number of publications, prizes and citations in specialist journals. Here, too, social relevance only becomes evident after some delay. In terms of valorization, our output may to a certain extent be directly demonstrated using financial and economic data (such as turnover and profit), but the impact on the economy can generally only be measured and assessed in the long term. This makes it relatively difficult to give a full account of the UG’s activities and achievements in financial terms for the isolated period of one year.

And finally, the UG does not address one or more specific sectors, but rather society at large. This means that the UG’s effects are not restricted to a clearly delineated field but rather spread out diffusely.
### Model for Value Creation

<table>
<thead>
<tr>
<th>INPUT</th>
<th>ACTIVITY</th>
<th>PERSONS INVOLVED</th>
<th>OUTPUT</th>
<th>OUTCOME</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investing time, money, knowledge, labour</td>
<td>Research</td>
<td>Researchers PhD students PhD scholarship students</td>
<td>531 PhDs 6,500 publications Awards and grants Conferences, symposia Findings/insights Expert advice</td>
<td>Boosting of regional economy Flywheel effect in science Emanate knowledge to society</td>
<td>Healthy Ageing Energy Sustainable Society Contribute to wellbeing Contribute to prosperity Problem-solving</td>
</tr>
<tr>
<td>5,847 FTE staff €660,025.6 million €398.4 million wage costs €15.3 million hired</td>
<td>Teaching (regular) 52 Bachelor’s degree programmes 110 Master’s degree programmes Honours programmes 11 faculties</td>
<td>28,756 students Guest students</td>
<td>Degree certificates 1.5 million ECTS credit points Theses/assignments</td>
<td>Influx of trained professionals to the labour market Increase in socioeconomic productivity Informed citizens Responsible citizens</td>
<td>Contribute to wellbeing Contribute to prosperity Economic growth</td>
</tr>
<tr>
<td>Other exchange of knowledge Winter and summer schools Kinderuniversiteit Studium Generale Schools’ Academy Wetenschapsknooppunt</td>
<td>Students Pupils Interested persons Primary school children Aspirant students Alumni</td>
<td>Lectures, web classes, Massive Open Online Courses (MOOCs), films, publications, film nights, debates, newsletters, magazines</td>
<td>Knowledge accumulation Informed citizens Responsible citizens Contribute to culture</td>
<td></td>
<td>Healthy Ageing Energy Sustainable Society Contribute to wellbeing Contribute to prosperity Problem-solving</td>
</tr>
<tr>
<td>Valorization UGCE ZAP Innolab Chemie BERNN Science Shops Fundraising Contract teaching</td>
<td>Alumni Business world Partners Consortia Dean of industry relations Freia/AOG</td>
<td>22 patents 9 start-ups €163.4 million contract research 140 WeWi studies Funds €6.1 million contract teaching</td>
<td>Boosting entrepreneurship Boosting innovation Employment Economic investments</td>
<td></td>
<td>Healthy Ageing Energy Sustainable Society Contribute to wellbeing Contribute to prosperity Problem-solving</td>
</tr>
<tr>
<td>8,500 staff</td>
<td>HR policy Talent development Health policy Social policy</td>
<td>Staff Aspirant staff Former staff</td>
<td>Appointment for 21 RFFs +1% more female Associate Professors (UHD) 267 regular health checks</td>
<td>Equal rights Employment Contribute to Participation Act Reducing sick leave</td>
<td>Gender equality Contribute to wellbeing Contribute to prosperity</td>
</tr>
<tr>
<td>438,820 m2 buildings and terrains</td>
<td>Building policy Construction companies, skilled workers, suppliers</td>
<td>Accommodation Quality improvement of Research &amp; Teaching</td>
<td></td>
<td></td>
<td>Contribute to prosperity Embellishment of living environment Business climate</td>
</tr>
<tr>
<td>613,303.6 gigajoule 167,365 m3, water</td>
<td>Environmental policy Energy saving Preservation</td>
<td>Staff and students Visitors</td>
<td>15% renewable energy GreenMetric ranking Decrease of 0.1 percent</td>
<td>Green awareness 40% sustainable course units Reduction in animal testing Reduction in CO2, litter, water consumption</td>
<td>Energy transition Reduce burden on environment</td>
</tr>
</tbody>
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30 November 2016: The procession makes its way to the Martinikerk in Groningen, where Feringa will present his Nobel Lecture.

Foto: Elmer Spaargaren
3. Research

The University of Groningen is among the top European research universities. This success is due to the innovative application of fundamental research in order to resolve societal as well as interest-driven issues. To this end, the UG participates in many national and international research programmes. Groningen-based researchers collaborate with colleagues all over the world on a daily basis. This approach reflects the UG’s research mission, which is to stimulate and carry out good and excellent research, and thus to contribute to:

> The functioning and wellbeing of society at local, national and international levels, by generating insights, breakthroughs and innovations in science and by focusing on current social issues
The best training for students, by bringing them into contact with the latest and most innovative research in their discipline.

At the end of 2015, the UG’s new Strategic Plan for the period 2015-2020 was adopted. The Plan is the basis for the UG’s current policy and objectives. In terms of research, it focuses on:

1. Strengthening our ground-breaking fundamental research base
2. Continuing to invest in fundamental research related to our research priorities of Healthy Ageing, Energy and Sustainable Society
3. Creating a transparent and well-facilitated research environment
4. Stimulating emerging areas of research across the boundaries of disciplines

Together with the faculties, last year we made a start with formulating and initiating concrete activities aimed at these objectives and with attaching quantitative parameters to them. One of these activities was the implementation of the Investment Agenda, specifically in anticipation of the Strategic Plan.

3.1 Basis for fundamental research

Investment Agenda

In 2014, the Board of the University decided to draw up an Investment Agenda in order to reinforce our teaching and research, with the emphasis on research. The sum of EUR 35 million was reserved for implementing the Investment Agenda, and 28 Faculty Plans have been elaborated. In September 2015, implementation of these plans commenced.

The plans have the following general goals:

- The realization of clear and attractive faculty research profiles for researchers, students and external parties by more effectively identifying relevant themes for long-term faculty research and by appointing additional staff
- Collaboration with other faculties and/or disciplines and the strengthening of fundamental research into the UG’s society-oriented themes
- Strengthening the profile of the Master’s programmes by more closely aligning the portfolio with the envisaged research profile and research strengths, and by increasing teaching capacity to facilitate modern and contact-intensive teaching in line with the UG’s vision on education
First results of the Investment Agenda

Almost all plans have been set in motion, although in many cases with some delay. The biggest delaying factor was – and still is – the hiring of academic staff. So far, 27 of the anticipated 49 permanent staff positions have been filled. All Master’s tracks have either started or will start in the academic year to come. The brand new Master’s programme in Politics, Philosophy & Economics has been accredited and approved by the Higher Education Efficiency Committee (CDHO) and will kick off in September 2017.
The new Master's programmes in Engineering and Health Economics are still under development. With over EUR 9 million in external resources, the Investment Agenda is already delivering its first results in terms of strengthening the research base. In particular, the FSE’s Adaptive Life programme is a great success.

**Talent policy**

In the context of the reinforcement of its research, the UG devotes particular attention to talent management, from the Research Master's stage to professorship. This is done at University as well as faculty level. Key aspects of this policy include the Tenure Track programme, the Rosalind Franklin Fellowship programme, the new PhD Scholarship Programme in the Graduate Schools, Young Academy Groningen (YAG), and the Dean of Talent Development.

**PhD Scholarship Programme**

The Graduate Schools were specifically founded to train and develop talent in the Research Master's and PhD stages. In 2016, the University of Groningen – in the context of the PhD Scholarship Programme Experiment of the Ministry of Education, Culture and Science (OCW) – was granted permission to start, as of 1 September 2016, a programme for a total of 850 PhD scholarship students who will be entering the programme over the course of five years.

Since the Ministry gave the go-ahead on 29 April 2016, we have worked intensively on designing the programme. The details of the scholarship payments for these PhD scholarship students were arranged in consultation with the Dutch Tax and Customs Administration. It was explicitly decided to pay the scholarship in a way that not only provides the PhD scholarship students with ample funds, but that also guarantees proper integration in the Dutch social system. In addition to full scholarships, the UG also provides additional grants to international PhD scholarship students who arrive with a competitive scholarship from their own government. In the period from September to December 2016, a total of 158 PhD scholarship students joined the Programme.

Key characteristics of the PhD Scholarship Programme are that PhD scholarship students can choose their own research topic and that they are offered a customized teaching programme. To this end the Career Perspectives Series was established, a training programme that coaches the PhD scholarship students and prepares them for a career after graduation, both within and outside the academic world.

**Young Academy Groningen**

In July 2016, Young Academy Groningen (YAG) officially started with 17 members. It was founded to offer a platform for young top researchers in an interdisciplinary setting, aimed at the development of leadership. YAG’s explicit objectives include reinforcing interdisciplinary research, actively contributing to the development of academia and academic policy, and reaching out to students, staff and the public to promote the passion for academia from an academic background. For the Board of the University, YAG is an important sounding board for discussing internal and external developments in teaching and research. In 2016, YAG was primarily concerned with setting up its organization and establishing an Activity Plan.

**Dean of Talent Development**

In order to support talent, from recent PhD graduate to senior researcher, a ‘Dean of Talent Development’ was appointed in 2011. Together with a support team, the Dean plays a role in applications for NWO and ERC grants, nominations for election to The Young Academy (DJA) and membership of KNAW, and nominations for awards such as the NWO Spinoza Prize. In 2016, the policy developed to this end was by and large continued and fine-tuned wherever necessary.

**3.2 Societal themes**

In cross-disciplinary research, the boundaries between classical disciplines are torn down. This is not only essential to obtain fundamental insights, but also to find innovative solutions for today's societal challenges. That is why the UG, in the years to come, will invest more in the realization of this type of research, also to increase the impact of our three focus areas.
Therefore, in 2016 various faculty initiatives were initiated, which included formulating interdisciplinary ‘signature areas’ at the Faculty of Economics & Business, financing cross-disciplinary PhD and postdoc positions at the Faculty of Behavioural & Social Sciences, and the start of an interdisciplinary research track and Master’s programme in Philosophy, Politics & Economics at the Faculty of Philosophy. Furthermore, a number of UG-wide initiatives were launched, including the financing of three annual interdisciplinary PhD positions for the Young Academy Groningen (YAG).

3.3 Research environment

Proper facilities for researchers and an open setting to work in are key preconditions for the performance of research. As the UG attaches great importance to sharing knowledge and ensuring such knowledge is gained in an ethical way, it is committed to Open Access, Research Data Management, and Academic Integrity. In that light, we actively support our researchers by creating the infrastructure required for this, such as PURE (the UG’s research information system) and the Research Data Office. Faculties will facilitate researchers by appointing Faculty Funding Officers and by providing electronic facilities such as Datalab, e-Lab, and Workspace.

Open Access
In 2016, the University of Groningen devised a Green Open Access policy, which was implemented on 1 January 2017. Researchers are requested to submit a full text of all their peer-reviewed articles to PURE; the University Library will then ensure these are properly processed and disclosed.

PURE
The PURE research information system, which was introduced in 2014, now provides most faculties with the research data they need for their SEP and annual reporting. In 2016, we worked on improving the system and further relieving academic staff, for instance by adding more sources (Scopus, Espacenet, Mendeley) as well as an SEP reporting module, and by better defining and recording data to substantiate our valorization indicators and societal impact. Last year, PURE already was the primary source system for most external assessments and Mid-Term Reviews. And finally, since 2016 PURE is being harvested by WorldCat, strongly improving the worldwide online and full-text visibility and traceability of UG publications. With new licences for Scopus and Scival, the possibilities for custom benchmarking have been significantly simplified and expanded.

Research Data Management
In 2016, work on the further implementation of Research Data Management at all faculties involved continued in accordance with the policy adopted in 2015. We have also drawn up a Project Plan for handling and storing data from research involving human subjects, starting in 2017. The project provides for the realization of an accessible, high-quality service infrastructure for this type of data. The intention is to subsequently expand this service infrastructure to include all research data.

3.4 Quality assurance

Method
The research of the University of Groningen has an excellent international reputation. In order to maintain this level, our research is assessed every six years by a Peer Review Committee (PRC; a committee of external experts), in addition to interim self-evaluations known as Mid-Term Reviews (MTR). During these evaluations, the 28 research institutes primary responsible for UG research are assessed in terms of quality, societal relevance, viability, management and leadership. These assessments are entirely in accordance with the national Standard Evaluation Protocol (SEP).

Evaluations in 2016

MID-TERM REVIEWS
During the year under review, the University Science Committee (UCW) issued its advice on the Mid-Term Reviews of the Faculty of Theology & Religious Studies (GGW) and the Faculty of Philosophy (FWB). Both advisory reports were positive and contained a number of recommendations that will be
implemented by the respective Faculty Boards. As a result of a change in the Faculty Board of the Faculty of Behavioural & Social Sciences (BSS), the Mid-Term Review of the Nieuwenhuis Institute was only submitted at the end of November last year. The procedure will be finalized in 2017, as will be the MTR procedures for BSS’s Department of Sociology (ICS Groningen) and the FRW’s Urban & Regional Studies Institute (URSI) that started in 2016.

EXTERNAL RESEARCH ASSESSMENTS

In the year under review, the organization formulated responses to the external assessments issued in 2015/16 of research at the Faculty of Economics & Business (FEB/SOM; national visitation), UMCG research (all five SEP institutes plus FSE’s GRIP pharmaceutical institute; local visitation), and the Mathematics and Computer Science research at the Faculty of Science & Engineering (FSE, previously the Faculty of Mathematics & Natural Sciences; national visitation), the latter conducted by the Johann Bernoulli Institute (JBI) and the ALICE (Artificial Intelligence & Cognitive Engineering) institute.

With an ‘Excellent’ rating (1) for the Relevance criterion and a ‘Very Good’ rating (2) for Quality and Viability, the SOM research institute was assessed as one of the best in the country. The JBI’s mathematical research was also assessed as ‘Very Good’ (2) for Quality and Relevance, and as ‘Good’ to ‘Very Good’ (2-3) for Viability. The viability of both Computer Science groups was deemed unsatisfactory by the Peer Review Committee (PRC), which is why it advised merging the two groups. The PRC had far fewer comments on the quality of this research (2), and its relevance was assessed as satisfactory (3). The Board of the University consulted with FSE on the viability of Computer Science. This led to the decision to merge the two Computer Science groups, in accordance with the PRC’s advice.

In 2016, additional external research assessments were performed of all three SEP institutes of the Faculty of Arts (ICOG, CLCG, and GIA; local visitation), the national Medieval Studies research school, the Faculty of Law (GCL; local visitation), and the FSE’s Kapteyn Astronomy Institute (national visitation). And finally, in 2016 the external assessment of the Energy & Sustainability Research Institute Groningen (ESRIG; local visitation) founded in 2010 was also issued, as well as the organization’s response to it. This concerned an assessment performed in 2014 on the period from 2010 to 2013 that was set up as an extended Mid-Term Review, i.e. with an external Peer Review Committee and in accordance with the (previous) Standard Evaluation Protocol.

3.5 Results

Graduate Schools

In 2016, 666 PhD candidates were admitted to a PhD programme (2015: 591). Almost 50% of the admitted candidates came from abroad. In 2016, a total of 535 PhDs were awarded, of which 21 ‘Cum Laude’ (2015: 27). After the threshold of 500 was crossed in 2015 (with 501 candidates graduating), the number has continued to grow. Nationally, our market share rose to above 11%. The newly initiated PhD Scholarship Programme is expected to raise the number of successful PhDs even further in the future.

The UG has made special arrangements with universities of applied sciences (UAS) in the north of the Netherlands to facilitate PhD programmes for their lecturers. At the end of 2016, 53 UAS lecturers were studying for a PhD under such an arrangement (versus 54 at the end of 2015). Last year, 18 new candidates started and 19 graduated. In 2016, a similar PhD arrangement was also agreed with the Van Hall Larenstein University of Applied Sciences. This year, six lecturers subject to this arrangement defended their PhD thesis: four from Hanze UAS, one from Stenden UAS and one from NHL UAS. This means the arrangements with NHL and Stenden that started in 2012 have yielded the first successful candidates. Given the current number of candidates under these arrangements, the number of PhDs awarded to UAS lecturers is expected to increase to 10 per year.
Prizes and individual grants

National

NWO SPINOZA PRIZE
In 2016, the Netherlands Organisation for Scientific Research (NWO) awarded a total of four Spinoza Prizes to excellent researchers. Two of the laureates work at the University of Groningen: Prof. B.J. van Wees, Professor of Applied Physics, and Prof. L.W. Nauta, Professor in the History of Philosophy.

Royal Netherlands Academy of Arts and Sciences (KNAW) Prof. P. Hendriks was appointed member of the Royal Netherlands Academy of Arts and Sciences (KNAW). Three UG researchers were admitted to The Young Academy (DJA): Prof. L.H. Franke, Dr M.C.J. Keijzer, and Dr E.K. Wilson.

DISTINGUISHED LORENTZ FELLOWSHIP
In 2016, the Distinguished Lorentz Fellowship for 2017/18 was awarded to Prof. F.J. Weissing.

INDIVIDUAL GRANTS
In NWO’s Innovational Research Incentives Scheme, the University of Groningen was awarded 9 Veni grants, 9 Vidi grants and 2 Vici grants (6%, 10% and 6%, respectively, of the total number of awards). Given the targeted national market share of 10%, our performance in Veni and Vici grants was reasonable, and our performance in Vidi grants was good.

International

THE NOBEL PRIZE
Our biggest success in 2016 was Prof. Ben Feringa receiving the Nobel Prize in Chemistry, together with Prof. Jean-Pierre Sauvage and Prof. Sir James Fraser Stoddart.

INDIVIDUAL EU GRANTS
In the year under review, the University of Groningen was awarded four Starting Grants (14%), one Consolidator Grant (3.5%) and two Advanced Grants (9.5%) in the various ERC rounds, making the UG’s performance good to reasonably good in this regard.

EU PROJECTS WITHIN HORIZON2020
In 2016, 26 new H2020 projects were launched. In total, UG and UMCG researchers were involved in 56 projects within the Seventh Framework Programme and in 83 projects within the Horizon2020 programme. Of these, 62 were Pillar-1 projects, including European Research Council (ERC), Future and Emerging Technologies (FET) and Marie Skłodowska Curie actions. The UG or the UMCG acted as coordinator for 13 consortium projects within Horizon2020.

Reputation
For several years, the University of Groningen has been placed among the top 100 universities in the most influential global ranking lists. The upward trend of recent years has continued in the most influential ranking list of all, the Academic Ranking of World Universities (ARWU, also known as the ‘Shanghai Ranking’), as we moved from 75th to 72nd position. In the Times Higher Education (THE) ranking list, however, we fell from 74 to 81, and in the QS World University Ranking we went from 100 to 113.
30 November 2016: Interior of the Martinikerk, where Feringa will give his Nobel Lecture.

Foto: Elmer Spaargaren
4. Education

For the teaching-related themes, the Strategic Plan for 2015-2020 is guiding. Progress is discussed once a year in the Administrative Meetings between the Board of the University and the Faculty Boards, using performance indicators among other things. The five teaching-related themes are:

1. Active learning
2. Social inclusion
3. Research-driven education
4. Internationalization
5. Preparation for the labour market

This chapter also contains a section on the quality assurance system and its results in 2016. In previous years, performance agreements were set between the universities and the Ministry of Education, Culture and Science (OCW). In 2016, the University of Groningen received a positive reaction from the Higher Education and Research Review Committee (RCHO), which reviewed achievement of the performance targets.
4.1 Active learning

The Strategic Plan emphasizes the usefulness of innovation, and encourages staff and students to use innovative modes of instruction and techniques for active learning. Both at university and at faculty level, 2016 saw many initiatives to make lectures more interesting, more engaging and more effective. Student participation in their education is encouraged by more intensive use of methods and tools such as e-learning, formative assessment and the ‘flipped classroom’ concept.

**e-Learning**

Within various faculty projects for e-learning, tools and techniques that can also be used elsewhere in the UG were successfully developed. A summarized overview of different initiatives is available.¹ Students use Perusall – an online platform for collaboration – to prepare for lectures by reviewing the literature together. During their lectures, more and more lecturers engage in live interaction with their students. There are already 326 lecturers who use the Mentimeter app that allows students to vote on statements via their smartphone. In order to aggregate experiences and prevent proliferation of tools, the faculty e-Learning Coordinators regularly meet.

In 2016, four new MOOCs were offered, and the five MOOCs that were already available were continued. Since September 2014, the UG MOOCs have reached an audience of over 250,000. In addition, MOOCs are increasingly being used in our own on-campus teaching.

**Professionalization of lecturers**

The University of Groningen contributes to the permanent professionalization of its lecturers through the University Teaching Qualification (UTQ), Senior Teaching Qualification (STQ) and Educational Leadership (EL) programmes. The percentage of academic staff with a UTQ certificate rose to nearly 85% in 2016. The professionalization portfolio for senior educational staff has been expanded with the Educational Leadership training programme, a joint initiative with the University of Twente. In September 2016, six UG Educational Leaders completed the programme. The same month, 13 senior lecturers and education administrators received a certificate for completing the STQ programme from our Rector Magnificus.

**Testing, feedback, and study progress**

The UG Assessment Policy and Assessment (2014) underpins the quality of testing at the UG. As a result of the change in the position of the Boards of Examiners pursuant to the Enhanced Governance Powers (Educational Institutions) Act (WVB), four peer feedback sessions for members of these Boards were organized. On average, there were 40 attendees at these meetings. Furthermore, an instructional course for 60 – often new – members of Boards of Examiners was organized for the second time. On the basis of the favourable assessment, the Board of the University decided to structurally fund this course.

In 2016, the capacity for digital testing in the Aletta Jacobshal was extended from 300 to 600 workstations. Within the new Digital Testing 2020 project, pilot projects were carried out for anonymous testing and marking, formative digital assessment, more authentic ways of testing and making completed exams available digitally. The faculties are striving to improve the quality of non-digital testing by conducting pilots involving formative assessment, with the emphasis being on feedback on the student’s learning process.

The Study Advice System (BSA) Manual has been updated, and the Early Warning Signals (EWS) project was launched. Within this project, student data from the Progress.net study progress system are combined with data from the Nestor digital learning environment in order to obtain timely insight into the study progress of our students. These data are made available to students as well as to lecturers and study advisors.


4.2 Social inclusion

Learning Communities and International Classrooms

The UG wants to be a close-knit academic community where staff and students feel involved and where they continuously learn from each other. Diversity in disciplinary, social and cultural backgrounds is conducive to this. By acquainting themselves with diverse perspectives, staff and students get to develop and make the most of their talents.

In 2016, we made a start with the broader implementation of activating teaching concepts such as Learning Communities and International Classrooms. These concepts are important tools for realizing a more active and inclusive study environment at the University of Groningen. All faculties submitted applications for projects involving Learning Communities and International Classrooms. In a number of academic seminars, knowledge about best practices in these projects was shared, expertise was exchanged, and the first results of a study into the effect and effectiveness of Learning Communities was presented.

As a matter of fact, it turned out that Learning Communities benefit when the students’ social and academic backgrounds and performances are taken into account when groups are composed.

Match between student and degree programme

In recent years, the UG has invested in improving the match between secondary and tertiary education. In addition, there is a successful, versatile programme to bring primary school children into contact with academic study in an open, relaxed manner. The primary school activities are organized by the Northern Netherlands Academic Hub (WKNN), while the programmes for secondary school pupils are organized by the Pre-University Academy. Science LinX is responsible for content specifically related to natural sciences.

The ‘children’s universities’ of the WKNN attracted over 1,000 participants. Together with talented young academicians, an online course was created, in which over 10,000 participants from primary schools across the Netherlands and Belgium enrolled.

The Pre-University Academy’s junior MOOC ‘Wetenschapper in de Klas’ [‘The Classroom Scientist’] reached some 10,000 pupils and 450 teachers. For secondary school pupils, the Pre-University Academy – in close collaboration with the University Museum – offered ‘start-up’ days for their profile assignment. Lectures and symposia for school pupils were also attended very well. And once again, the Junior Honours College was organized for talented pre-university students, a challenging programme that offers excellent junior students the opportunity to get to know the UG and to acquire essential academic skills. A special chess lecture by popular Dutch singer Nick Schilder in cooperation with our neuroscientists was attended by 600 school pupils. A Jeugdjournaal [Children’s News] item on a lecture on bullying attracted over 300,000 viewers.

Web classes, matching and decentralized selection

Prospective students from around the world were given the opportunity to get to know the University of Groningen online via web classes. The number of participants from abroad showed significant growth to about 300. In a pilot at the Faculty of Medical Sciences (for Human Movement Sciences) and the Faculty of Arts (for Linguistics), web classes played a key role in matching process for prospective students. Various higher education institutes came to Groningen to learn more about the successful deployment of online programmes for matching purposes. The following faculties have a decentralized selection procedure: the Faculty of Medical Sciences (FMW), the Faculty of Economics & Business (FEB), the Faculty of Arts (FdL), and University College Groningen (UCG).

Language and Culture Policy

In the spring of 2016, all faculties and service units submitted plans for projects involving language and culture, for staff as well as students. In the autumn, the faculties and service units made a start on implementing these plans. We are also working on a system for staff members that stipulates who – depending on their role – should have what language level (Dutch, English, or other language) for what tasks. We have also created a terminology database that will include teaching/research-related UG terminology, initially in Dutch and English.
Differentiation / excellence

The University of Groningen believes that it is important for students to be able to develop their abilities to the full in the academic community. After the relatively broad-based Bachelor's programmes, students may choose to pursue a regular Master's, a Research Master, or a teacher-training Master's. The majority of the degree programmes are in English. In 2016, 8% of UG students were allowed to enter an Excellence track, mainly the Honours College or an Honours Master's programme.

In its third year, University College Groningen attracted significantly more students to its programmes than in previous years. Healthy Ageing, Energy and Sustainable Society are the focus areas in its small-scale teaching programme.

In 2016, nine GUF-100 prizes were again awarded to the best students at each faculty, and the Aart Bosman Student Excellence Award was presented to the UG's top talent. Furthermore, the Wierenga-Rengerink PhD Prize for the best UG PhD thesis was awarded for the second time in 2016. And on Education Day, the UG Lecturer of the Year was elected for the ninth year in succession.

In order to facilitate permanent education, research into higher education and the formation of interdisciplinary communities of excellent lecturers, the UG Teaching Academy was established. Through a scholarship programme, the Teaching Academy encourages and rewards involvement with and innovation of teaching methods.

Studying with a functional impairment

The University has a cohesive policy in place to enable students with a functional impairment to study with as few obstacles as possible. The implementation of this policy is supervised by an Advisory Committee for Students with a Functional Impairment (ACF). In the National Student Survey (NSE) for 2016, the appreciation for this support rose compared to 2015. In 2016, 130 students received financial support from the Graduation Fund (Profielingsfonds) for study delays as a result of personal circumstances such as a functional impairment.

4.3 Research-driven education

In 2016 too, the intertwining of teaching and research in all phases was the basis for all academic teaching at the UG. In addition to the focus areas Healthy Ageing, Energy and Sustainability, we tried to tie in to current societal issues as far as possible. After we started intensifying research-driven education in the Master's programmes in 2015, the policy to enhance the profile of the Master's programmes was continued in 2016.

In this context, the UG encouraged the use of tracks in the Master's phase. Master's tracks are increasingly being used as specific routes that students can choose to specialize within a Master's programme. In terms of content, Master's tracks are better suited to the UG's characteristic research expertise. Master's tracks are also being used to offer a targeted focus on current research topics and societal issues, thus creating a better match with the labour market.

4.4 Internationalization

In 2016, the UG offered 52 Bachelor's programmes, 31 of which are English-taught. Furthermore, 110 Master's programmes were offered, 86 of which are English-taught. The number of graduate students with non-Dutch nationality significantly increased, from 4,039 in September 2015 to 4,839 in September 2016. Of all students enrolled in September 2016, 17.0% had a foreign nationality and a 'different' previous education. The student population is becoming ever more diverse, and the UG's programmes are becoming ever more international in character.

Exchanges and networks

Via the UG's Marco Polo Fund and the EU Erasmus+ programme, in 2015-16 1,334 mobility grants were awarded to outgoing exchange students, a slight decline compared to 2014-15 (when 1,351 grants were awarded). Students who fund their stay abroad themselves or whose stay is paid for by a company or a foreign government are not registered. The actual number of students
going abroad is therefore slightly higher. Outgoing exchange students went to 67 different countries. The United Kingdom beat Germany as the most popular destination in Europe, followed by Sweden and Spain in third and fourth positions.

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<tr>
<th>DESTINATION</th>
<th>NUMBER OF UG STUDENTS</th>
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<th>NUMBER OF UG STUDENTS</th>
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<td>United Kingdom</td>
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<td>Asia</td>
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<td>Germany</td>
<td>102</td>
<td>North America</td>
<td>168</td>
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<tr>
<td>Sweden</td>
<td>81</td>
<td>Central America / South America</td>
<td>55</td>
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<tr>
<td>Spain</td>
<td>75</td>
<td>Australia / New Zealand</td>
<td>46</td>
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<tr>
<td>Other countries in Europe</td>
<td>429</td>
<td>Africa</td>
<td>29</td>
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Within the Erasmus+ programme, EU/EEA agreements with 349 different organizations were in place for the exchange of staff and students. As a result of the new Erasmus+ ICM scheme for non-EU/EEA countries, new agreements were concluded with universities in Brazil, Colombia, Mexico, Chile, Georgia, Russia, Ukraine, Vietnam and Japan. Via this scheme, 160 scholarships were made available to staff and students from outside the EU/EEA, and it enabled UG students and lecturers to visit partner universities. The English-taught curriculum at our partner universities is expanding, thus improving the match with UG programmes.

Mobility in the context of Double Degree programmes is also on the rise. New Double Degree agreements were concluded with universities in Lund (Economics & Business), Cologne (Spatial Sciences), and Osaka (Arts).

The number of incoming exchange students rose to 1,377, partly due to the large number of Erasmus Mundus Action 2 projects that the UG is involved in and the scholarships acquired through the Erasmus+ ICM scheme. Forty-two staff members and lecturers benefited from an Erasmus+ or Marco Polo mobility.
grant. The application for the EQUiiP project (an Erasmus+ Strategic Partnership project) was approved in 2016. Within this project, the UG collaborates with six other European universities. The project offers educational developers and teacher trainers an integrated programme with Continuing Professional Development modules. Through the Tuning Academy, the UG is involved in the IEWEXHE Erasmus+ Knowledge Alliance.

Summer and Winter Schools
The University of Groningen offers its own students and PhD students and those of other universities within and outside the Netherlands the opportunity to broaden or deepen their knowledge at a Summer or Winter School. In 2016, the UG organized 42 Summer or Winter Schools, in Groningen as well as abroad (2015: 26). These attracted participants from 95 countries (2015: 71), who once again assessed them very favourably. For the UG, Summer and Winter Schools are an excellent way to present its research and teaching programmes to an international audience. They also enable UG researchers to work intensively with international partners and other stakeholders, and to delve into important issues together with students, PhD students and other participants.

4.5 Preparation for the labour market
The UG offers a special service to provide optimum development opportunities to students to prepare them for their career and their employability on the labour market. In order to increase awareness of this service, its name has been changed from ‘NEXT’ to ‘Career Services’. The Career Services programme helped many more students make study and career choices in 2016. Over 2,000 students participated in Career Services workshops and seminars. Four-hundred-and-sixty students had their CVs checked, and 137 individual coaching meetings took place. The number of log-ins (40,132) to Career ConNEXT tripled, and 558 career activities and 1,495 vacancies were posted. The faculties devoted increasing attention to employability by appointing their own Career Officers and by setting up faculty career services in addition to the UG career service.

The faculties have devoted a great deal of attention to integrating, enhancing and highlighting employability in the curricula. To this end, a number of faculties have set up employability working groups in order to identify and share good practices, keep abreast of developments and suggest improvements wherever necessary. Other initiatives include the setting up of a Career Perspective Series for PhD students, as well as various projects to map the professional careers of alumni, in order to be able to provide better advice to current students and prospective students on their career options.

In the Global Employability University Ranking 2016, the University of Groningen ranked 112th of the top 150 international universities – fifth of the Dutch universities in the ranking list. In 2015, we ranked 114th.

4.6 Pre-investments for the Student Loan Act
In the context of the Dutch Higher Education Student Loan Act (Wet Studievoorschot Hoger Onderwijs), as of 2018 additional government funding for higher education will become available for quality improvement, to offset the abolished basic study grant for students. For the period between 2015 and 2017, the umbrella organizations of the Dutch higher education institutions have voluntarily committed an amount of EUR 200 million per year as a pre-investment. This pre-investment may involve matters such as additional teaching capacity, additional education-driven research, additional facilities for students, or other measures aimed at improving the quality of education.

The UG’s pre-investments consist of the education-related research and education part of the so-called UG Investment Agenda on the one hand, and of the expansion and upgrade of the study facilities in the University Library on the other. In total, the UG’s pre-investments under the Act are budgeted at EUR 18 million for the 2015-2017 period.
The pre-investment in the context of the UG’s Investment Agenda primarily concerns the development of attractive degree programmes and enhancing the match with the labour market. Plans for this have been drawn up by the faculties. In the period 2015-2017 the UG has invested EUR 36.3 million in its Investment Agenda. This is expected to lead to a structural increase in academic staff of 80 FTE.

The UG will invest approx. EUR 17 million in the renovation of the University Library. The original number of 1,782 study places will be expanded to 2,400. Furthermore, the building’s climate control will be improved considerably. When implementing the plans, we managed to complete the renovation ahead of schedule, not in 2018 but in the spring of 2017.

Financial accountability for the pre-investments under the Act is shown in the table below. The table makes clear that implementation of the Investment Agenda was delayed. We expect to make up this delay in the course of 2017. The expansion and upgrading of the study facilities, on the other hand, is ahead of schedule.

### Quality assurance

#### Accreditation

In 2019, the University will be subject to an institutional audit (ITK – instellingstoets kwaliteitszorg). A Project Plan to this end was adopted in 2016, which includes the roles of various committees and the University Council in the preparations. In 2016, preparations for the mid-term audit for the institutional audit started as well. The Mid-Term Audit Committee will also be requested to assess the status of the UG’s internationalization efforts against the CeQuInt criteria (Certificate for Quality of Internationalisation). All degree programmes audited in 2016 were accredited for the full six years. There were no conditional degree programme assessments.
Degree programme accreditations
The Master’s programmes in the Biology cluster have been re-accredited for six years. This concerns the MSc programmes Ecology & Evolution, Marine Biology, Medical Pharmaceutical Sciences, Molecular Biology & Biotechnology, Biology and Biomedical Sciences. The Joint Degree Master’s programme in International Relations was accredited in accordance with the MULTRA agreement. On the basis of this agreement, NVAO – the accreditation organization responsible for safeguarding the quality of higher education in the Netherlands and Flanders – adopts accreditation decisions from foreign accreditation institutions, provided an assessment of actual final qualifications has been performed. NVAO has established that this audit was carried out by the German accreditation organization AQAS, and has unconditionally extended the programme’s accreditation for six years. The Research Master’s programme in Functionality of Law was also accredited for six years; in the context of the visitation, a new name was requested (Legal Research), as this better suits the programme’s content.

Quality assurance system
Quality assurance for teaching at the University of Groningen is based on the PDCA cycle (Plan, Do, Check, Act), and the processes are set out in the UG Quality Assurance Protocol. The aim of the PDCA cycle is to safeguard as well as improve quality in an ongoing cyclical process. In 2016, procedures for assuring the quality of Master’s tracks were drawn up. These will be incorporated in the UG’s Quality Assurance Protocol.

Internal quality assurance
In preparation for the Administrative Meeting(s), the faculties completed an Education Monitor. The methodology of the Education Monitors was evaluated and improved in 2016. In 2016, the system of internal assessments was adapted. Instead of annual thematic audits at all faculties, mid-term audits will be conducted further to specific signals. In addition to the regular tools in the quality assurance cycle, an ‘Education Chart’ has been developed that provides a comprehensible, single overview of the signals from various assessments and studies.

International Student Barometer
In the International Student Barometer (ISB), the University of Groningen was qualified as follows: ‘The University of Groningen performed quite well in all five themes of the survey: decision making, arrival and orientation, living satisfaction, learning satisfaction and support satisfaction, all of which received a score above 3 in a scale from 1 to 4 (low to high).’
30 November 2016: Mayor Peter den Oudsten makes Feringa an honorary citizen of Groningen.

Foto: Elmer Spaargaren
5. Societal impact

Societal impact is one of the UG's essential responsibilities. This is why the UG works together with the public sector, businesses and society at large to share knowledge and to generate new investments in research. As we consider it essential to support the region that houses us and to help it develop, this collaboration also has a regional focus.

The resolution of key social issues plays an ever greater role in academic top research. For this reason, the UG has formulated three research priorities: Energy, Healthy Ageing and Sustainable Society. In doing so, the UG makes an active and substantial contribution to the resolution of societal issues – in particular those in the North of the Netherlands – on the basis of our academic teaching and research.
In terms of societal impact, in the years to come the University of Groningen – in accordance with its Strategic Plan for 2015-2020 – will specifically focus on:

1. Improving the entrepreneurial mindset and skills of its staff and students as well as their drive to serve society
2. Optimizing the infrastructure for knowledge transfer and the economic valorization of knowledge
3. Increasing our contribution to society by reinforcing the impact of our research priorities (Energy, Healthy Ageing and Sustainable Society)
4. Intensifying collaboration and interaction with businesses, NGOs and local as well as national public sector bodies

5.1 Entrepreneurship

Dean of Industry Relations
On 1 September 2016, Prof. Iris Vis was appointed Dean of Industry Relations at the UG. In doing so, the UG wants to reinforce and intensify the existing collaboration with industry. The Dean will act as a ‘matchmaker’ between industry and the UG, and thus contribute to structural and long-term relations where teaching and research are concerned. Ties with non-profit organizations will also be reinforced. Collaboration may come about in different ways. Researchers may for instance seek an industrial application for the results of fundamental research. Or, the other way around, a question from the business sector may spark off a study by UG researchers. It is all about creating synergy between the business sector and the UG and developing innovations together. And as far as education is concerned, the possibilities are also numerous; think of professionalization programmes for instance.

Dean of Entrepreneurship
At the end of 2013, Prof. Aard Groen was appointed Dean of Entrepreneurship. The Dean’s key task is to offer valorization programmes and lessons in entrepreneurship across the UG. In the course of last year, the desired expansion of academic staff at the University of Groningen Centre of Entrepreneurship (UGCE) was realized. The year under review also saw the further development of programmes at the Faculty of Science & Engineering (FSE), the Faculty of Behavioural & Social Sciences (BSS), the Faculty of Arts (FdL), and University College Groningen (UCG). Where valorization is concerned, a collaboration (VentureLab) with the UMCG was set up in the context of the European Institute of Innovation & Technology’s EIT Health initiative. Within the Startup Fast Track project, we collaborated with the Energy Academy Europe (EAE), Hanze UAS and energy supplier Engie on business development. Furthermore, we engaged in an international partnership with Thapar University (North India) for a five-year period to train lecturers.

5.2 Infrastructure

In collaboration with the Consortium for Valorisation and Entrepreneurship (CVO; with Hanze UAS, the UMCG and regional partners), the UG expanded its valorization programme in 2016. Among other things, the emphasis here was on embedding the programme within the organization and on developing a vision for the future. The CVO advisory committee – as linked to the Netherlands Enterprise Agency (RVO) – positively assessed the programme in 2016, both in terms of progress in embedding it and performance at the level of activities. In its advisory report, the committee states:

‘Lessons in entrepreneurship are successfully offered in a blend of activities. Ambitions are high, and the results are satisfactory. The targets for 2017 – the year the programme will terminate – have already been largely achieved during the programme’s term. The committee reiterates its advice from previous years to make the targets more ambitious if they are achieved too easily, so they will better reflect reality and the ambitions the Consortium aspires to.’

The vision for continued collaboration was extensively discussed in 2016. This resulted in a detailed plan for a CVO2 to follow CVO(1) when it ends in 2017.
5.3 Societal themes

Healthy Ageing

In 2016, we actively worked on the further development of our focus area Healthy Ageing, both within and outside the UG. More than once, the wide range of research in this field within the UG turned out to be of great added value.

During the Dutch presidency of the European Union (in the first half of 2016), the international conference ‘Building the Future of Health’ was organized in Groningen. The conference was opened by Dutch Prime Minister Mark Rutte, and was attended by a large number of participants from all over the world. It put Groningen on the map as a ‘healthy city’, and the University of Groningen as an important knowledge partner in ambitions in this regard.

In 2016, the news was announced that the Northern Netherlands had once again achieved the highest score as European reference region for ‘Active and Healthy Ageing’. The European Commission thus rewarded the innovative ecosystem for Healthy Ageing that is in place in the North of the Netherlands.

In applying for this status, the Research & Valorisation (R&V) department closely collaborated with the Northern Netherlands Healthy Ageing Network (HANNN) that coordinated the application.

Shortly after the summer of 2016, the UG was accepted as an associate partner in EIT Health, a major European network aimed at entrepreneurship and innovation in the field of Healthy Living and Active Ageing. In co-operation with the UMC – that was already an associate partner – the UG landed projects for the maximum amount allowed. The UG’s participation in EIT Health is coordinated by the R&V department.

Within the UG, the existing lines of research in the field of Healthy Ageing were reinforced. The Healthwise Expertise Centre, for instance, has today earned a reputation in the Netherlands as well as abroad in areas including Health Economics and Healthcare Management. In addition, both the Netherlands Interdisciplinary Demographic Institute (NIDI) and the Faculty of Spatial Sciences (FRW) benefited from closer collaboration and further profiling in the field of Healthy Ageing.

And last but not least, the link with the focus area of Healthy Ageing was further reinforced within the Faculty of Science & Engineering (FSE), for instance by closer collaboration with the UMC in the field of antimicrobial resistance.

Energy

An important step in 2016 in terms of our focus area Energy was the completion of the Energy Academy, the most sustainable education building in the Netherlands. In this international centre of expertise, the University of Groningen works together with stakeholders on almost all aspects of sustainable energy. The year under review also saw the foundation of ESTRAC (the Energy Systems Transition Centre), a partnership centred around energy transition with parties including the Energy Research Centre of the Netherlands (ECN), the Netherlands Organisation for Applied Scientific Research (TNO), and several companies.

The UG continued to build upon its strong position in the development of technology for sustainable energy with a growing number of interdisciplinary projects involving the societal aspects of ‘green energy’. As a case in point, environmental psychologists, political scientists and philosophers are represented in the ‘Verantwoorde Besluitvorming over Aardgas’ [Natural Gas – Responsible Decision-making] project, and the Informatics & Computer Science, Environmental Psychology and Engineering & Technology research groups are involved in a project on Smart Grids set up by the EU’s ERA-NET network.

In 2016, steps were taken in the further development of the Platform for Energy Research in the Socioeconomic Nexus (PERSON). This European platform, led by the University of Groningen, aims to connect and unify energy-related research in the area of Social Sciences & Humanities (SSH). The European Commission is highly supportive of this initiative. With the assistance of the Sustainable Society project team and the R&V department, the consortium was expanded, an application for Horizon2020 funding was submitted, and a start was made with the sustainable and future-proof design of the platform.
Sustainable Society

In 2016, we celebrated the fifth anniversary of Sustainable Society, one of our focus areas. To highlight this occasion, the Sustainable Society Impact Award was presented for the first time. During the kick-off of the academic year, this award was presented to young researchers who are bolstering societal impact with their research.

After the successful official launch of the Horizon2020 project ACCOMPLISSH in Rome, the Sustainable Society network is working on new concepts for co-creation and impact in a coordinating capacity. The ACCOMPLISSH project functions as a flagship project for the EU in the domain of impact within SSH research. The project will run for three years, from March 2016 to March 2019.

Furthermore, in 2016 the research group Migration Matters was established, in which we collaborate with the municipality of Groningen at the national level and with partners from Sweden (academia as well as municipalities) at the international level. The Sustainable Society team also acts as coordinator for the European Platform for Energy Research in the Socioeconomic Nexus (PERSON) and for the Knowledge Centre for Earthquakes and Sustainable Development (KADO).

And last but not least, in 2016 the Sustainable Society initiative supported individual researchers and research groups within the SSH domain in expanding their non-academic network. The initiative encourages collaboration between the academic world and the field.

5.4 Interaction and cooperation

The University of Groningen has an extensive network for collaborating with regional, national and international parties, including the Northern Netherlands Provinces Alliance (SNN), the Groningen Agreement, the Northern Netherlands Development Agency (NOM), Energy Academy Europe, the Northern Netherlands Healthy Ageing Network (HANNN), provincial authorities, ministries, the European Commission, and businesses within and outside the Netherlands. The organization is also involved in partnerships between knowledge institutions, market parties and the public sector, such as the Comprehensive Cancer Center (CCC), BioBrug, LifeLines and the SPRINT programme. The UG uses this network to optimally function in an ecostructure of collaboration on research, teaching and valorization.

Regional level

The University of Groningen works with regional partners in the implementation of the Northern Innovation Agenda (NIA), based on the Regional Innovation Strategy (RIS): a joint policy for the Northern Netherlands for utilizing teaching and research. The UG successfully participated in the development of the top-sector roadmap for HTSM-NN (High-Tech Systems and Materials – Northern Netherlands), incorporating an academic agenda for Smart Industries. In the context of developing a regional ecostructure for innovation, the UG is a partner in the development together with all parties in the quadruple helix. Embedding the Consortium for Valorisation and Entrepreneurship (CVO) within the region for the long term is one of the objectives in this regard.

National level

The University of Groningen participates in Top Sector activities in which academics and businesses jointly set up and fund projects. The government’s Top Sector policy focuses on fostering collaboration between researchers, businesses and the public sector within nine sectors. The UG is especially successful in the following Top Sectors: Logistics, Life Sciences & Health, Chemical Industry, Agriculture & Food and Creative Industry. Via the CVO, the UG – together with the UMCG and Hanze UAS
-- is implementing the national valorization programme that is supported by the Netherlands Enterprise Agency (RVO).

**International level**

**COLLABORATIVE EU PROJECTS**

In 2016, UG and UMCG researchers were involved in 56 projects within the Seventh Framework Programme and in 83 projects within the Horizon2020 programme. Sixty-two of these were Pillar-1 projects (including ERC, Marie Skłodowska Curie Actions and FET). Either the UG or the UMCG acted as coordinator for 13 consortium projects within Horizon2020. In 2016, 26 new H2020 projects were launched. In total, the UG received EUR 31.7 million from Europe for new and existing projects in 2016.

With regard to EIT projects: the UG is an associate partner in the InnoEnergy Knowledge & Innovation Community (KIC), as well as in KIC Health, mainly to build collaboration in the context of the UG’s focus areas. This has resulted in new initiatives in the medical sciences, social sciences and engineering. The UG wishes to reinforce its role in the KICs by focusing on research and development in the field of energy transition and on prevention in the field of health.

**DEVELOPMENT COOPERATION**

In 2016, the University of Groningen took part in a number of NICHE (Netherlands Initiative for Capacity development in Higher Education) projects that the Ministry of Foreign Affairs (BZ) is funding in developing countries. In 2016, the UG acted as the coordinator for three NICHE projects in Mozambique and Kenya. The UG was also in the process of finishing a number of older projects (in Tanzania, South Africa and Ghana). In the context of the various projects, 15 PhD students are conducting research at the UG. Via the individual Netherlands Fellowship Programme (NFP), more scholarships were granted to students, with the PhD round being particularly successful. The UG also acted as the coordinator of a successful Erasmus+ exchange programme with South Africa, and participated in the Erasmus+ ICM scheme for Africa for the first time. And last but not least, various faculties are working with African and Asian partners in research projects funded from other sources.

**5.5 Results**

At the University of Groningen, research, teaching and valorization are strongly interwoven. This brings the UG into close contact with the business world and social organizations, and leads to partnerships and new business activities geared to creating value from existing specialist knowledge. Such knowledge valorization results in many new products and services that contribute to the development of the knowledge economy. The University of Groningen contributes to this development through patent licences and by supporting startups and promoting entrepreneurship.

**Valorization indicators**

In 2015, the set of UG valorization indicators was used in an internal evaluation in order to assess their feasibility and measurability, and to identify any teething problems. Following the evaluation, some of the indicators were redefined. We are able to report the following results for 2016, based on the new set of indicators (see table). On the basis of the results of the pilot and the new Strategic Plan, the UG has examined whether the chosen set of indicators is useful, and has linked quantitative UG-wide and faculty objectives to the various indicators as necessary.
As the table above reveals, considerably more new licence agreements were concluded last year, and a significantly greater number of new spinouts and spinoffs were launched. In addition, more PhD graduates opted to start their career in the business sector. As it is as yet early days and the differences are small, it is too soon to draw any conclusions from the slight decline for Indicators 2, 3, 4, 5, and 11.

**Patents**

In 2016, 56 potential inventions were reported by UG/UMCG researchers. Twenty-one of these were approved for internal evaluation; in ten cases it was decided that the patent application would be partly or fully funded from the UG/UMCG Patent Fund. In 2016, a total of 22 new patent applications were filed: twelve in the name of the UG as full or joint applicant, nine in the name of RUG+AZG (UMCG) as full or joint applicant, and one in the name of a company on the basis of an existing contract. With that, we have amply fulfilled our ambitions for 2016.

Ten of the 22 patent applications in 2016 involve joint ownership with an external party, either another university or a company; the other twelve involve full UG/UMCG ownership. Most patent applications are funded either partly or fully from the UG/UMCG Patent Fund. Five joint applications were funded entirely by the company concerned.

In 2016, SBGG (Stichting Business Generator Groningen) and the R&V department concluded 13 licence and sales contracts. In order to ensure effective monitoring of Intellectual Property deals, an appropriate monitoring system has been invested in.
Startups and commercialization
In 2016, the plan for the second stage of the ZAP (Zernike Advanced Processing) facility was completed. This facility provides a link in the chain from milligram-level development in the university lab to ton-level bulk production in industry, and is a collaboration between universities, higher vocational education institutes, and institutions providing senior secondary vocational education. At the start of 2017, a significant grant for the plan was approved, meaning construction can now commence.

Innolab Chemistry Groningen (Innolab in short) makes chemical laboratories available for startups and product development projects. In 2016, all facilities were rented out. We also started development of a second Innolab aimed at the Agro-Food sector, once again for projects from regional businesses. Innolab is a collaborative venture between the UG, the UMCG and Syncom b.v.

In 2016, the UG spoke extensively to starch manufacturer Avebe about our intensive collaboration on various research topics. In September 2016, a Declaration of Intent was signed stating that in 2018 Avebe's entire R&D department will be relocated to the Zernike Campus, which already houses the Faculty of Science & Engineering (FSE) and the Faculty of Economics & Business (FEB). We are in the process of working out a number of joint projects in various areas (i.e. Marketing, Enzymatic Processes, Polymer Chemistry and Health) scheduled to start in 2017.

In 2016, a partnership between various universities of applied sciences in the North of the Netherlands and the University of Groningen in the field of the Bio-Based Economy saw the light. The partnership will operate under the name BERNN (Bio-Economy Region Northern Netherlands). Various requests for research have already been received both from within and outside the Netherlands. Recently, the BERNN consortium announced it would work together with several other bio-based regions and knowledge hubs within Europe.

In 2016, the UG and the UMCG launched nine new startups, one of which is SMIO Pharma BV. SMIO strives to develop new compounds (‘small molecules’) against cancer (immunotherapy) on the basis of patented UG knowhow.

5.6 Contract research and teaching projects
The turnover on contract activities in 2016 amounted to EUR 162.2 million, of which EUR 155.2 million related to contract research and EUR 7.0 million to contract teaching. Annual turnover from contract activities in 2016 dropped by EUR 14.1 million relative to 2015. Compared to the past five years, 2016 showed a decline in percentage terms. This may partially be explained by the transition from FP7 to H2020 and by changes in the accounting method for funds received.

DEVELOPMENT OF REVENUES FROM CONTRACT RESEARCH AND TEACHING PROJECTS (2012 – 2016)
Effect of the transition from FP7 to H2020
Horizon2020 has been the EU programme for boosting research and innovation since 1 January 2014, succeeding the Seventh Framework Programme (FP7) that ran from 2007 to 2013. As a result of this transition, the number of EU projects granted in 2014 dropped. This affected funds received in subsequent years. The effect is clearly visible for instance at the Faculty Science & Engineering, where EU contributions dropped by EUR 3.2 million in 2016.

Effect of funds received for coordination activities
In its capacity as project coordinator, the UG receives funds to forward to project partners. In order to prevent these funds from affecting our own revenues, the budget guidelines for 2015 stipulate that such funds fall outside our own operations and should be settled via the balance. For 2015, such funds earmarked for project partners were still incorporated in the revenue figures for contract research and contract teaching. As a result of the amended budget guidelines, as of 2015 these figures only reflect the revenues for the UG itself.

Effect of changes in the accounting method; incidental effects
At the Faculty of Economics & Business (FEB), revenues fell by €1.7 million. This can partially be explained by the fact that in 2015 the revenues of the research centres were accounted for as ‘Other income’, whereas in 2016 they are included under ‘Operational activities’. In addition, the decline in this regard may also be attributed to the movement of work in progress. In 2015, funds received from the government lagged behind actual costs, whereas in 2016 it was the other way around.

Furthermore, two incidental effects related to the UMCG’s Research & Teaching sector are worth mentioning that to a large extent contributed to the drop of EUR 6.8 million in revenues compared to 2015. Funds received from the EU decreased by EUR 8.4 million. Relative to 2016, one EU project received a large non-recurring substantial amount of EUR 6.0 million in 2015. Secondly, in 2015 there was a large incidental release of resources in connection with contract teaching for Saudi students, which explains the drop in revenues for contract teaching in 2016.

Revenue trend per funding source
The decline in revenue can to a large extent be explained by the above incidental effects on the funding sources ‘EU’, ‘Contract teaching’, and ‘Government’. Other revenues have increased by EUR 7.2 million (thanks to the UMCG’s Research & Teaching sector), which can be explained mainly by changes in the accounting method vis-à-vis 2015. Revenue for the funding source ‘Indirect government funding (incl. KNAW funding)’ has remained stable relative to 2015 however. The funding sources ‘Companies’ and ‘Foundations’ showed a slight increase of EUR 1.7 million and EUR 2.2 million, respectively.

PROJECT-BASED REVENUES ACCORDING TO FUNDING SOURCES (REVENUES + WORK IN PROGRESS) 2016 – AMOUNTS X €1 MILLION

<table>
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<tr>
<th>Funding Source</th>
<th>Amount (€1 million)</th>
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<tr>
<td>Contract teaching:</td>
<td>6.1</td>
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<td>Other:</td>
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<td>Businesses:</td>
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<td>C.U.:</td>
<td>31.7</td>
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<tr>
<td>Government:</td>
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<tr>
<td>Indirect government funding:</td>
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<tr>
<td>KNAW:</td>
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<tr>
<td>Foundations:</td>
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Contract teaching
In addition to the revenue from contract teaching, for several years the UG has been in a partnership with Freia/AOG, which is also responsible for providing some of the contract teaching. This partnership is formalized at executive and management level through the AOG Foundation.

PROJECT-BASED REVENUES ACCORDING TO FUNDING SOURCES (REVENUES + WORK IN PROGRESS)

<table>
<thead>
<tr>
<th></th>
<th>COMPANIES</th>
<th>FOUNDATIONS</th>
<th>GOVERNMENT</th>
<th>EUROPEAN UNION (EU)</th>
<th>INDIRECT GOVERNMENT FUNDING</th>
<th>ROYAL NETHERLANDS ACADEMY OF ARTS AND SCIENCES (KNAW)</th>
<th>CONTRACT TEACHING</th>
<th>OTHER</th>
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<td>18,751.4</td>
<td>31,110.5</td>
<td>25,802.9</td>
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<td>25,624.9</td>
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30 November 2016: Dinner in the Auditorium at the University of Groningen after Feringa's Nobel Lecture.

Foto: Elmer Spaargaren
6. Talent development

6.1 Strategic HR policy

The University of Groningen’s HR policy is linked to its strategic ambitions. The UG will not be able to achieve excellent results if it does not attract talented staff and support their development. That is why the UG is committed to maintaining an environment in which talent is recognized and fostered. Staff, PhD candidates and other students are given every opportunity to develop specific talents. Learning to work in an international context and learning to work with others are essential elements in this regard, along with acquiring a socially responsible attitude and an entrepreneurial mindset.

Talent development for academics

Investment in the Talent Development (TD) programme in the past five years has focused on an extensive support and training programme for academic staff. At any stage in their career, researchers are entitled to support in the context of the TD programme in the acquisition of individual career grants. The UG has also invested in setting up and instructing a network
of Faculty Funding Officers, who serve as intermediaries and contact persons between the individual researchers in the faculties and the TD team. As a result of the increasing demand for support in the field of grant writing, external parties were also consulted more frequently in the past year.

In consultation with the Faculty Funding Officers, support for obtaining nominations and academic awards has been professionalized in the TD programme since 2015. Furthermore, the 15 founding members of Young Academy Groningen (YAG) were selected, who began by organizing events for young early-career researchers. For PhD candidates, the Career Perspectives Series was initiated, a career programme that supports them in making a well-informed choice for a future either in or outside academia. Many faculties organize internal ‘fleet reviews’ to support the process of obtaining grants and nominations. In 2017, all faculties will do so.

**Talent development for support staff**

The regular HR development offer is aimed at reinforcing the sustainable employability of UG support staff. Employees are themselves responsible for their employability. Together with their manager, they can determine the most appropriate activity to this end: new tasks within their given role, a brief placement, or an appropriate course. In order to increase awareness, we also offer project-based activities targeted at, for instance, employees in lower salary scales and their superiors. Project activities are also organized for secretaries. In 2016, a large number of activities relating to the sustainable employability of staff were incorporated into the Roadmap to Sustainable Employability.

In the spring of 2016, the Young UG Network for young professionals (under 35) working in staff or policy functions was launched. By encouraging professional development, providing networking opportunities and offering inspiring workshops, this network aims to keep, commit and develop young talent. This is in line with the strategic Talent Development objective of the Strategic Plan 2015-2020. It will reinforce our corporate identity and foster pride in the organization, making it a key link between young staff members and HR policy and UG management.

In 2016, the Board of the University approved the plan for the Corporate Academy, a web platform offering both academic and support staff – at the click of a mouse button – an overview of training and development opportunities offered by the various UG centres of expertise. By jointly publishing available training programmes, the opportunities for staff members are visible at a glance.

**Performance management**

Since 2015, the annual Results & Development (R&D) interviews have been incorporated in the normal duties of HR departments, managers, board members and staff. These interviews are about the goals and results of the work, as are an individual’s desired development and support from the organization. Quantity-driven management of the interviews remains important.

The percentage of interviews held UG-wide between July 2014 and the end of 2015 was 57%, whereas the target is 90% per year. It has been agreed to annually report the number of interviews held from 2016, and to discuss these during the Administrative Meeting between the Board of the University and the Faculty Boards and departmental boards in the spring. At the end of 2016, the interview percentage was 58%.

**Leadership development**

Various activities were also organized for UG executive staff. An executive seminar was organized for members of both the College of Deans (CvD) and the Management Council. Together with the Board of the University, the College of Deans discussed the quality of talent-scouting and performance improvement in terms of individual grants and nominations for awards. In a joint seminar, the Board and the College of Deans also made a start with the UG-wide integrity initiative. The Management Council of the collective Treasurers and Directors is currently following a joint leadership programme. All new board members and directors at the UG are also offered an individual development assessment, to provide them with a basis for working on their own professionalization.

In addition, there is a growing demand for support from administrators and managers in terms of organizational and...
development issues for their units. Such issues may include optimizing cooperation between departments and management teams, revitalizing teams after conflicts, and providing advice on organizational issues.

**Gender equality**
The UG aims for the share of female professors in its workforce to be 25% by 2020. For this reason, a Gender Equality Plan is being drawn up under supervision of the two Deans acting as Chief Diversity Officers. Monitoring and analysis is possible via ‘dashboards’ showing the percentage of women per category of academic position. Following this, it should be possible to pursue an active policy to achieve our targets by encouraging the careers of women and by attracting female talent from elsewhere. Awareness of ‘unconscious bias’ on the part of managers, board members and HR staff when hiring and assessing female talent may remove potential obstructions. By carefully wording vacancies and by properly instructing members of selection committees, we aim to attract more women, so men and women will be equally represented in shortlists of available candidates.

**Rosalind Franklin Fellows**
The 21 Rosalind Franklin Fellows who were newly appointed in 2015 were officially inaugurated in 2016. After an extensive selection procedure, talented women are offered a tenure track position that offers perspectives on a professorship. This round was co-funded by the European Commission, who made sure the programme was properly implemented. At the end of 2016, 13 new positions (Marie Curie Fellowships) were made available. In the longer term, the success of this policy should be reflected in the number of female professors and associate professors. The percentage of female professors for the UG and UMCG combined is 20% and 35%, respectively.

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*Including the UMCG professors: funded through research & teaching resources – 35 women and 126 men; funded through care resources – 9 women and 38 men*
6.2 Staffing

At the end of 2016, the staffing level was 4,043.1 FTE (excluding the Medical Faculty staff employed by the UMCG). This means that staffing at the UG (excluding the UMCG’s Research & Teaching sector) has increased by approx. 42 FTE since the end of 2015 (when the staffing rate was 4,001 FTE). This slight increase is in line with the trend in previous years. Of these FTE, 41% concerns a temporary contract. This relative proportion dropped slightly compared to the previous year. 37% of academic staff have an international background (support staff: 4%). The figure below shows the distribution across the job categories for academic staff:

Salary expenses in 2016 amounted to EUR 398.4 million (including the UMCG’s Teaching & Research sector). In 2016, the value of work performed by third parties (including staff hired on secondment) was over EUR 15.3 million.
Safeguarding of legal rights

COMPLAINTS AND OBJECTIONS

The UG has adopted the statutorily prescribed rules and procedures for the handling of any appeals, objections and complaints – not just official complaints and appeals under the General Administrative Law Act (AWB) but also other types of complaint. If there are grounds to do so – for instance as the result of legal changes – the rules prevailing at the UG are amended. Students who wish to make a complaint or who consider their rights to have been violated can discuss the matter informally with their study advisor or a student counsellor. In the event of collective complaints, students can also raise the matter with their Faculty Council or the University Council.

A formal procedure is instigated when an official complaint, objection or appeal is submitted to the Central Portal for the Legal Protection of Student Rights (CLRS) via its website. This may concern various matters, ranging from inappropriate behaviour by a UG staff member to a lecturer’s failure to mark a thesis in good time. In 2016, the Board of Appeal for Examinations (CBE) received 228 appeals, and 99 objections were lodged with the Disputes Committee (by comparison: in 2015, students lodged 229 appeals and 105 objections).

Complaints relating to the suspected violation of academic integrity can be submitted – either through the Board of the University or other channels – to the Academic Integrity Committee (CWI), who will investigate the complaint. On the basis of its investigation, the CWI advises the Board of the University as to the validity of the complaint and any measures that should be taken accordingly. No complaints were submitted to the CWI in 2016.

OFFICE OF THE CONFIDENTIAL ADVISOR

UG Staff and students can consult the Confidential Advisor if they encounter harassment (sexual or otherwise), aggression,
violence, discrimination or other inappropriate behaviour (including stalking), or if they experience unfair treatment. Staff can also contact the Confidential Advisor if they are faced with conflicts at work. The Confidential Advisor is an independent counsellor with access to all necessary information.

PROCEDURE FOR WHISTLEBLOWERS
In 2011, the Board of the University established a procedure for whistleblowers. Staff, students or anyone working at the UG – temporary or otherwise – can report suspected or actual malpractices. This can be done within the direct management line (e.g. informing an immediate superior) or, initially, in confidence by consulting the Confidential Advisor. The legal position of the whistleblower will be protected. In 2016, legislation in this field changed. These changes will be implemented in the UG’s whistleblower procedure in 2017.

In the year under review, the Confidential Advisor received four reports from whistleblowers that could either directly or indirectly be related to a serious breach of integrity at the University Services Department. After consulting with the people who made the reports, the Confidential Advisor notified the UG’s competent authority (the Board of the University). Partly as a result of these reports, an investigation was initiated.

POLICY FOR SETTLEMENTS AFTER TERMINATION OF EMPLOYMENT
With regard to settlement in cases of dismissal, the University of Groningen follows the regulations as established under the collective labour agreement, the Netherlands Universities Enhanced Unemployment Scheme (BWNU – Bovennettoewijze Uitkering Nederlandse Universiteiten), and the Illness and Disability Scheme for Dutch Universities (ZANU – Ziekte- en Arbeidsongeschiktheidsregeling Nederlandse Universiteiten), as well as the guidelines pursuant to the Early Retirement Scheme (RVU – Regeling voor Vervoegd Uittreden) and the Executives’ Pay (Standards) Act (WNT – Wet Normering Topinkomens). Specifically with regard to the BWNU scheme, the UG sets a maximum settlement sum of 30%, whereas the maximum allowed is 50%. In 2016, a settlement was agreed with ten employees whose employment was terminated.

6.3 Health and vitality
In addition to return-to-work interventions, our occupational healthcare services are specifically geared towards preventing health problems and towards reducing work-related stress and psychosocial strain by promoting employee empowerment. The guiding principles in this regard are individual responsibility and self-direction. Sick leave in 2016 was 3.1%, a slight increase on 2015. The number of return-to-work interventions also rose. The rate was 1.8% among academic staff and 4.9% among support staff. In 2016, 267 preventive health checks and 121 follow-ups were carried out.

Within the BALANS preventive health programme, various training courses and workshops for staff were organized last year aimed at vitality, health, relaxation and improved employability. In November, the UG took part in the ‘Check Your Work Stress’ week, a national programme of activities on the theme of work-life balance. In total, over 1,170 employees participated in these activities.

In 2016, the Staff Welfare (BMW) team conducted many preventive consultations, including 111 new applicants. In addition to a growing number of individual programmes, the BMW team has seen a marked increase in issues regarding career, functioning, conflicts and collaboration with colleagues and superiors. The team not only helps and supports employees, it also tries to get a clear picture of the problem by talking to the HR department and managers, and come to a satisfactory solution for everyone. Such individual programmes are often complex, intensive and time-consuming. The BMW team’s contribution is generally positively assessed, with an average score of 8.3 on a scale of one to ten.

PhD students are a specific target group. Their counselling programme is mainly aimed at strengthening planning and communication skills, or at return-to-work interventions after illness. Such programmes require a lot of time but it is clear there is a demand. And last but not least, the BMW team, together with the HR department and the Student Service Centre (SSC), organizes workshops for managers on
discussing prevention and absenteeism – especially in the case of psychological problems – as well as training courses for PhD students.

Reintegration of ex-employees who are out of work or have an illness is the joint responsibility of the HR department and the Health, Safety and Sustainability (AMD) department. In 2016, we continued professionalizing the support from case managers in helping employees or ex-employees who are unemployed or faced with unemployment, who have a long-term illness or who were on sick leave when their employment contract ended to find another position, either within or outside the UG. This reflects the UG’s commitment to being a good employer and to controlling expenses relating to employment benefit obligations under the Unemployment Insurance Act (WW) and the Netherlands Universities Enhanced Unemployment Scheme (BWNU).

**Participation Act**

The University of Groningen must implement the agreements made with the Association of Government Sector Workers (VSO – Verbond Sectorwerkgvers Overheid) in the context of the Participation Act (PW) regarding the number of jobs to be created per year. The aim is to improve employment opportunities for people with poor job prospects. In 2015, the UG was supposed to have created a total of 124 jobs. The relevant project manager is responsible for the execution of the plans for implementing the Act. These plans are in line with our ambition to promote inclusiveness, as part of the action item from the Green University 2015-2020 Roadmap to make the University of Groningen healthy and dynamic by 2020.

**Safety**

In 2016, we continued to address ‘comprehensive safety’ within our organization, through continued cooperation between the University Services Department, the Center for Information Technology (CIT), and the AMD department, among other stakeholders. We also participated in external projects organized by the Ministry of Education, Culture and Science (OCW), such as the ‘Zorgwekkend Gedrag’ [‘Worrisome behaviour’] project.

**In-house emergency services**

In 2016, virtually all units received a working visit in the context of in-house emergency response. From these visits, it was concluded that the UG’s in-house emergency services are properly organized. All Emergency Response Officers are adequately trained and knowledgeable. In 2016, after a tender procedure, a new In-House Emergency Services trainer was selected that will start operating in 2017.

**Crisis Team**

The UG Crisis Team received several call-outs and notifications in 2016, through channels including the WhatsApp group. The first working week of 2016 will go down in history as the week ‘black ice’ gripped the country. The UG Crisis Team convened several times that week to take decisions on whether to close UG units either partly or fully, or to decide whether it was responsible to continue operations.

**Laser safety**

In 2016, there were no notifiable incidents involving lasers. As the result of the departure of the Laser Safety Manager in 2016, an organizational change was implemented. The activities of the Laser Safety Manager are now performed by an external party, while the AMD department is responsible for coordination. Work was also carried out on designing and fitting out laser laboratories in the planned Feringa Building.
Radiation safety
Last year, the collective occupational exposure dose was again negligible. In the year under review, there were no notifiable incidents within the meaning of the Radiological Protection Decree (BS – Besluit Stralingsbescherming). The Calamity Response Plan for radiological incidents was updated. As commissioned by the Authority for Nuclear Safety and Radiation Protection (ANVS), the Radiation Protection Unit (BSE) carried out a project to determine end terms for the training of Supervising Experts on Dispersible Radioactive Substances (TDVRS).

Biological safety
The Biological Safety organization is coordinated by the UG’s AMD department. In 2016, the Biological Safety unit was subject to a reorganization. A new central Biological Safety Officer was appointed at the Faculty of Science & Engineering, and within the AMD department a new Biological Safety Coordinator was designated. There were no incidents in the year under review.
8 December 2016: Feringa gives his Nobel Lecture in the Aula Magna at Stockholm University.

Foto: Peter van der Sijde
7. Facilities

7.1 Student facilities

Sports
ACLO is the sports association for UG and Hanze UAS students and staff, and is run by students. The ACLO Station near the main train station has done well in its first operational year, with an average occupancy exceeding 90%. With the elaboration of the range of options for the renovation and construction of sports facilities at Blauwborgje 16 on the Zernike Campus, the business case was taken to the next stage. At the end of 2016, SPR (the sports club for UG and Hanze UAS staff) commissioned the Sports Centre to start assisting ACLO with the exploitation as of 2017.

SPORTS CENTRE
17,000 students participating in sports
1,800 staff members participating in sports
50 student sports clubs
100 sports activities

SUSTAINABILITY PERFORMANCE (INTERNATIONAL)
Green Metric Ranking:
2016: 15
2015: 12
2014: 48

SUSTAINABILITY PERFORMANCE (NATIONAL)
SustainaBul
2016: 6
2015: 4
2014: 8
Culture
The Usva cultural student centre has a student board comprising six members, and has over 50 student committee members. In 2016, Usva organized 150 courses, and the number of participants grew to over 1,750. Last year, the Usva theatre attracted approx. 9,500 visitors with 135 public events. These included plays, films and course presentations, as well as events organized by Usva such as the clothing exchange O-Swap, the international short film festival Flicks and the monthly Quiz Night. Usva also provided total funding of approx. EUR 13,000 to over 20 different cultural student initiatives.

7.2 Operational management and sustainability
In the Roadmap 2015-2020 as established by the Board of the University, ambitions with regard to People, Planet and Performance have been formulated for 2020. The current report provides an overview of the current state of affairs with regard to the realization of these ambitions and the projects that have been carried out accordingly.

People
The HR and AMD departments are working together on issues such as sustainable employability, talent management, inclusiveness and mobility. The AMD department focuses on promoting a healthy working environment with due attention to achieving a satisfactory work-life balance and maintaining physical and mental health. In 2016, both departments continued successful existing activities such as the Talent Development, Talent Travel and BALANS programmes. In addition, new projects were developed in the field of employability, vitality and health, based on increasing employee involvement in and awareness of their own employability, health and vitality. The organization will continue to be responsible for providing an inspiring and healthy working environment.

Mobility
In collaboration with the Groningen Bereikbaar ['Accessible Groningen'] initiative, the UG is taking measures to assure the accessibility of both the city and the UG itself. The UG encourages its staff to travel by bicycle, e-bike or public transport as much as possible, and to refrain from using cars. To this end, in 2016 the UG – in conjunction with the Groningen Bereikbaar initiative – set up the cycling incentive programme Rij2op5 for its employees. Employees were given the opportunity to try out an e-bike for two weeks, for free. Last year, 50 employees took the opportunity to try an e-bike or a speed pedelec, and a number of them have subsequently purchased an e-bike.

At P+R facility Haren, charging stations for e-cars were installed to encourage the use of electric vehicles, and a number of additional direct bus services to the Zernike Campus were introduced.5

Planet
The table below shows the UG’s Environmental Performance Indicators (EPIs):

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5 A full project overview can be found at: http://www.rug.nl/about-us/who-are-we/sustainability/practices/mobiliteit
The primary energy consumption (Process Energy Requirement – PER) is the energy needed for the production of energy by Dutch power generators. Power plants in the Netherlands have an efficiency rate of between 38 and 46%. Our calculations are based on an efficiency rate of 44%.

In 2015, the University of Groningen switched to another waste disposal company. Waste which had previously been classified as ‘manure/bedding’ is now recognized as ‘special hospital waste (animals)’. Based on the previous situation, hazardous waste amounts to 0.18 kg/m² GFA, and non-hazardous waste to 2.29 kg/m² GFA.
In the table above, the number of registered students is the starting point. Some of these students are enrolled in multiple programmes, however.

The results show that, relative to 2005, both the number of students and the Gross Floor Area have increased. More students also means more energy consumption, as additional facilities such as auditoriums need to be heated and lit. Apart from this, University opening hours have been extended due to a shortage of facilities, and more PC stations have been installed.

By dividing the total energy consumption by the number of staff and students, energy consumption per student / staff member has been determined. The graphs below reveal a downward trend for the ‘Energy’ and ‘Waste’ categories. Water consumption in the period from 2006 to 2013 shows an upward trend however. In 2013, water consumption dropped and has remained stable since. This is the result of a significant water reduction in the water supply for the animal shelters at Linnaeusborg. Furthermore, in various buildings water-efficient toilets and taps have been installed.

In 2017, on the instructions of the Netherlands Enterprise Agency (RVO) the UG implemented an Energy Efficiency Plan (EEP) for the period 2017-2020, in accordance with the MJA3 long-term agreements. Listing the sustainability measures, the EEP provides an overview of the energy-saving actions as planned by the UG for the period 2017-2020. The EEP will be presented to the Netherlands Enterprise Agency for assessment. The Competent Authority will then determine whether the UG’s duty to save energy pursuant to the Dutch Environmental Management Act (WMB – Wet Milieubeheer) is sufficiently met by the EEP. In total, intended energy savings of 9.4% for the entire period are presumed.

Sustainable energy
In 2016, the University of Groningen switched to a new energy supplier for both gas and electricity. The energy we buy is ‘greened’ by purchasing Guarantees of Origin (GOs) for our electricity consumption and emission-reduction certificates for our gas consumption. The GOs are proof that the electricity used has been sustainably generated (at hydroelectric power plants in Europe), and the emission-reduction certificates guarantee that the CO2 emissions resulting from the use of natural gas are offset (via sustainable projects abroad).

A procedure has been agreed for the acquisition of GOs in order to further ‘green’ the purchasing process of our electricity. Every year, 25% of the GOs acquired for electricity purchased abroad is converted to GOs for electricity purchased in the Netherlands. By doing so, the UG is directly promoting the production of renewable energy in the Netherlands. In 2016, approx. 15% of the UG’s energy needs was generated using our own renewable sources, including underground energy storage, solar panels and a wind turbine. As a result, last year the UG met 60% of its ambition of 25% self-generated renewable energy as agreed in the Roadmap. And last but not least, in 2016 preparations commenced for the construction of a solar farm comprising 1,650 solar panels at the Zernike Campus, which will generate 365 MW a year.

Waste
The UG’s waste can be subdivided into the categories ‘hazardous’ and ‘non-hazardous’. The UG has 30 waste flows in total: 16 hazardous waste flows and 14 non-hazardous waste flows. It is the UG’s ambition to separate out at least 70% of its non-hazardous waste by 2020. This can be achieved by better differentiation of plastic waste. Therefore, last year a business case was prepared for separating out plastic waste as well. This plan will be elaborated in 2017.

Water
At the initiative of the Green University task force and in conjunction with stakeholders including Waterbedrijf Groningen, the Green Office and the University Services Department, in 2016 work began on a project to install drinking-water points in all UG buildings. This will reduce the waste flow of plastic bottles and contribute directly to the wellbeing of UG staff and students, and hence to fulfilling the UG’s green ambitions.
Table of contents
Foreword
Preface
1. Mission and vision
2. Positioning
3. Research
4. Education
5. Societal impact
6. Talent development
7. Facilities
8. Funding
9. Continuity section
Condensed financial statements
Strategic key figures
Appendices
Energy Academy Building
At Zernike Campus Groningen, the most sustainable education-related building in Europe can be found: the Energy Academy Building. It accommodates the Energy & Sustainability Research Institute Groningen (ESRIG), the Energy Academy Europe (EAE), the Energy Delta Institute (EDI), and Energy Valley, as well as staff and students from Hanze UAS. In October 2016, the Energy Academy Building earned a BREEAM ‘Outstanding’ rating (the highest level) for its sustainable performance. The Building, with a total floor area of approx. 15,000 m², boasts a unique design in which natural elements such as earth, water, air and light are exploited to the full, and sunlight is used as the primary source of energy. It sets an example in a time when the use of fossil fuels and other polluting and inefficient solutions need to be phased out.

The Building makes optimal use of materials already in plentiful supply: the elements earth, water, air and sunlight. Energy will be supplied by solar panels, a ‘solar chimney’ will facilitate natural ventilation, and a winter garden and the use of geothermal heating and cooling will create an attractive interior climate. And finally, rainwater is collected for flushing the toilets and watering the plants. At the same time, the Energy Academy is the first major new earthquake-proof building in Groningen. Should natural resources temporarily not suffice, back-up provisions have been installed for heating, air-conditioning and lighting.

The Energy Academy Building is extremely energy-efficient and will even produce energy overall, particularly thanks to its 150% ‘energy roof’ of approx. 4,000 m². It has an optimal orientation towards the South and is fitted with 2,000 tilted solar panels. One half of the roof generates electricity using the solar panels, while the other half allows daylight to pass through. The energy-efficient LED lighting system is only used as a back-up if it gets too dark.

Ecological management
In 2016, the first ‘fauna tower’ was erected at the Zernike site in order to foster fauna and flora. It will accommodate bats, birds and insects.

Performance

Ranking
UI GREENMETRIC WORLD UNIVERSITY RANKING 2016
Last year, the University of Groningen was placed 15th on the GreenMetric World University Ranking list and is therefore – according to this list – the second most sustainable university in the Netherlands. Although we dropped two positions compared to 2015, our total score has improved. This global ranking assesses universities on their commitment to implement sustainable on-campus measures, environmentally-friendly management and sustainability in teaching and research. In 2016, 516 universities from 74 countries were assessed.

SUSTAINABUL 2016
In 2016, the University of Groningen was placed sixth of the 20 Dutch universities and polytechnics that participated in the SustainaBul ranking. Again, our score was slightly lower than in 2015. SustainaBul is the main sustainability ranking list for Dutch higher education institutions. It is an initiative of the Studenten voor Morgen [‘Students for Tomorrow’] network. The SustainaBul awards are presented annually, in the spring. The institutions are assessed on the sustainability of their teaching, research and business processes. An analysis of the score in both ranking lists revealed that the UG mainly lost points for its operational processes relating to waste separation and energy consumption.

Green Mind Award
The University of Groningen Green Mind Award is an initiative of the Green University task force, whereby UG staff and students can present their ideas for boosting the sustainable performance of buildings or operations. In the words of the SustainaBul report: ‘Competition is another way of promoting unique, innovative research. Every year, the University of Groningen
organizes the Green Mind Awards, for which staff and students can submit ideas for boosting the sustainable performance of campus operations. Each year, the best idea is awarded a cash sum so it can be implemented. In previous years, spectacular ideas were put forward, such as the plan for a ‘green’ University Library, a proposal for a smart heating system, and ways of drastically reducing the consumption of water and energy. And the impact of winning a Green Mind Award is not restricted to the UG campus. Two previous winners have decided to further develop their ideas by founding the Sustainable Buildings startup, offering and developing tools to reduce energy and water consumption in existing buildings.’

Sustainability in education
On the instructions of the Green University task force, the number of sustainability-related course units at the UG has been analyzed. This was done using a method developed by the State University of Arizona that was fine-tuned by the researchers. The study revealed that 40% of the entire curriculum could be linked to sustainability in some way.

International collaboration
In 2017, the University of Groningen, together with the other U4 universities (Göttingen, Uppsala and Ghent), started a project dealing with sustainability. The project must result in all universities striving for an equivalent level of sustainability. This can be achieved by benefiting from each other’s best practices.

Green Office
The Green Office initiates and is involved in various projects to give sustainability a more central role within the UG. These projects can generally be subdivided into the following categories: campaigns promoting sustainability; integrating sustainability in UG policy and operations; and providing education and information on sustainability. In 2016, the Green Office provided advice on matters involving tendering and procurement. It was also involved in making the cafeterias more sustainable, and in the installation of drinking-water points in all UG buildings and canteens. An important duty of the Green Office at the UG is providing education and information.

Animal experiments
At the University of Groningen, animal experiments are carried out for teaching and research purposes when there are no feasible alternatives. In accordance with the Animal Experiments Act (WOD – Wet op de Dierproeven), the local Animal Welfare Body (IVD) must be notified of all experiments. The UG also employs laboratory animal experts. These staff members advise researchers on the best way to set up animal research and supervise the treatment of the animals. The University of Groningen strongly believes in professional academic practices and ethically sound teaching and research. The members of the UG’s Animal Ethics Committee (DEC-RUG) are experts in animal testing and its alternatives, in ethical assessment, and in laboratory animals and their protection. They also abide by generally applicable viewpoints from the Code of Practice on various subjects. Every year, the DEC-RUG publishes an annual report on its website. The report is in Dutch.

7.3 Procurement
In 2016, 28 tendering procedures were still in progress, 21 of which concerned European tenders and 7 concerned single and multiple private tenders. Under the new 2016 policy, private tenders require more guidance and advice from the Procurement (IM) department. With effect from 2016, all purchases exceeding EUR 50,000 must be made via the Procurement department.

Socially responsible procurement
The University of Groningen as a socially responsible institution has set itself the goal of promoting sustainable development in all UG-related aspects. This also applies to socially responsible procurement. The selection and award criteria for all purchasing procedures must reflect the policy as stipulated by the Board of the University.

Sustainability
Before each tendering procedure is initiated, the project/purchasing team carries out a product and market analysis to find out whether any sustainable solutions are available on the
market in question. The aim is to achieve the highest possible standards based on the following criteria: Budget, Quality, Competition, Feasibility and Added Value. If this proves not to be feasible, the sustainability criteria as formulated by the Netherlands Enterprise Agency will suffice. Sustainability aspects are taken into consideration in all stages of the purchasing process. The Contract Management team of the University Services Department and/or the contract owner will monitor the sustainable solutions on offer.

Social return

‘Social return’ is an approach aimed at creating more employment for people with poor chances on the labour market. This way, the purchasing departments of public-sector organizations can encourage or require suppliers to involve vulnerable groups within the labour market when fulfilling a contract. In the product and market analysis that is carried out internally as well as externally before each tendering procedure, the project team assesses the extent to which this principle can be incorporated. Innovative solutions, assuring the quality of the services and doing the right thing for people involved in a social return process are the criteria in this regard. If possible, contractors in all sectors are also asked to indicate in their tenders how many placements they can provide for UG students.

SME / regional businesses

In the product and market analysis that is carried out before each tendering procedure, the project/purchasing team assesses how SME and businesses in the region can be given a realistic opportunity to compete for contracts.

7.4 Accommodation

The UG’s accommodation policy has long been based on three principles: it is a strategic instrument, it stands for quality improvement, and it is geared towards spatial concentration in a number of locations. In 2011, further to the Strategic Plan, work began on concretizing the topic of operational efficiency as applied to accommodation in particular. In addition, the focus areas Healthy Ageing, Sustainable Society and Energy are reflected not only in new construction projects but also in the commitment to sustainable design and execution.

In 2014, it became clear that the city of Groningen is also part of the area that is affected by earthquakes caused by gas extraction. This has consequences not only for the UG’s construction plans but also for its existing buildings. In 2014, the designs for the current major construction projects were assessed in terms of earthquake resistance, and were modified where necessary. This had substantial implications for both the duration and cost of the projects. In 2015, in close consultation with NAM (the Dutch national exploration company responsible for gas drilling), agreements were made with regard to inspections and procedures for the approval and reimbursement of additional costs that the UG will incur as a result of having to make its buildings earthquake-proof. Because the parameters and contours of the earthquake zone continue to shift, the issue of earthquakes will continue to require the UG’s attention. The designs for the new construction projects Energy Academy and Feringa Building have been assessed by NAM. As a result, in 2016 an agreement was reached with NAM on the reimbursement of the additional costs the UG will have to incur in order to assure the new Energy Academy is earthquake-proof. This agreement was officially laid down in 2017. Furthermore, NAM approved the design for the Feringa Building.

In 2016, the High-Risk Building Elements (HRBE) for each UG building were identified. The mitigation of these HRBE is currently considered part of the city of Groningen’s task to reinforce buildings, which is the responsibility of the National Coordinator Groningen (NCG). For this reason, in 2016 the UG began consulting with the NCG on mitigating these HRBE. Issues associated with earthquakes will continue to be an integral part of the UG’s accommodation policy and construction projects in the years to come.
Construction projects

The UG’s accommodation and building activities are concentrated in three areas:

1. City Centre Campus
The Accommodation Plan sets projects for the next ten years, the aims of which include mitigating the problem of faculties and service units having scattered locations in different buildings, and reducing the UG’s total footprint in the city centre.

In 2016, the Faculty of Law began work on developing a vision on its organization and accommodation, and hence on identifying its accommodation needs. This is a first step towards the relocation of the Faculty (or a part thereof) to the Public Library building that was purchased to this end in 2014 and that will become available in 2018.

The renovation of the second, third and fourth floors of the University Library was completed in 2016. The work went smoothly, and users experienced less nuisance than anticipated. This means that renovation work on the other floors can be carried out more quickly, and that the project may be completed in 2017.

2. Healthy Ageing Campus
In 2015, the partners in the Healthy Ageing Campus prepared the Schedules of Requirements for the facilities they require. In 2016, these SoR were developed into an urban planning survey and a master plan, which was approved by the UG and UMCG boards. The various subplans are currently being developed as separate but related projects.

3. Zernike Campus
In 2016, the Energy Academy Building on the Zernike Campus was completed. It is a zero-emissions building in which teaching, research and knowledge-sharing in the field of energy (including sustainable energy) will take place. This ambitious building is set to be the most sustainable education building in the Netherlands. The extremely stringent requirements with regard to sustainability have earned the new building a BREEAM ‘Outstanding’ rating. Perhaps more importantly, the Energy Academy is designed to serve as a ‘hub’ for efforts being undertaken in the Northern Netherlands to spearhead energy transition in the Netherlands. The building is designed to facilitate collaboration, knowledge-sharing, innovative research and practical initiatives.

In 2016, the planned Zernikeborg building was renamed the Feringa Building. It is being developed to replace the FSE building at Nijenborgh 4, which has been written off. The design of the Feringa Building was completed last year, and the prolonged tendering procedure has been set in motion. Construction will start after the summer of 2017. The Feringa Building will be a key centre for high-level fundamental and applied research. It will accommodate various prestigious institutes. The new building replaces the outdated FSE building at Nijenborgh 4 and, with its vibration-proof laboratories and advanced air-conditioning system, will be one of the best-equipped research buildings in Europe. It will also be one of the most energy-efficient buildings of its type. It accommodates 900 m² of solar panels and is connected to two heat and cold storage systems. The building will be realized in two stages so as to be fully functional by 2022.

In 2016, a decision was taken on the expansion of the Examination Hall, which will be extended with additional auditoriums and exam facilities. The project is scheduled for completion in 2019.

At the Zernike Campus, a long-term plan for the Sports Centre is being implemented, a vision document on the accommodation of the Faculty of Spatial Sciences (FRW) and the Center for Information Technology (CIT) is being developed, and the initial preparations for a plan for the new University Services Department building are underway. The Property & Investment Projects (VGI) department is working with the partners in the Groningen Agreement on plans to improve the quality of the Campus. This concerns projects relating to infrastructure and fitting-out, as well as improvements to facilities and the realization of an attractive business climate.
7.5 Information technology

IT innovation and support are key to the UG's goal of excellence in research, teaching, societal impact and talent development, with IT in the role of enabler. Digital services and facilities for teaching and research must be state-of-the-art, but they must also be safe, reliable and robust in order to ensure efficient business operations. The UG takes a leading position by providing the most up-to-date knowledge and cutting-edge IT tools and support, in an international collaborative environment.

The UG must remain vigilant if it is to retain its top-level position. This applies not only to research and teaching but also to the underlying IT support. With this objective in mind, the UG’s strategy has been translated into IT innovation targets as formulated in the Long-Term IT Plan for 2016-2020. This Plan includes a number of investments targeted at research, teaching, organization, infrastructure and academic information provision.

The table below shows the allocation of the investments (in percentages) for the period from 2016 to 2020:

<table>
<thead>
<tr>
<th>Investments</th>
<th>X EUR 1,000</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>10,575</td>
<td>32%</td>
</tr>
<tr>
<td>Teaching</td>
<td>6,440</td>
<td>20%</td>
</tr>
<tr>
<td>Academic information provision</td>
<td>3,560</td>
<td>11%</td>
</tr>
<tr>
<td>Organization</td>
<td>6,825</td>
<td>20%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>5,550</td>
<td>17%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32,750</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

In the past five years, the UG has implemented extensive educational innovations through the use of technology. Examples include the introduction of digital testing. When the project started in 2011, 1,475 candidates were able to take 15 digital exams. In 2016, the number had risen to 650 digital exams for 50,000 candidates in all. These numbers will increase even further in the coming years. Apart from this, new forms of e-learning were facilitated, including the development of MOOCs. And furthermore, video recording of lectures was set up last year, and standard facilitation was realized in a number of auditoriums across the UG.

Research is increasingly ‘metadata-driven’ and being digitized. This trend is exemplified by concepts such as data science, e-science, big data and data-centric science. Research involving human subjects at both the UG and the UMCG is also forging ahead, and is increasingly relying on IT. Collaboration between the University of Groningen, the UMCG and the Netherlands Institute for Radio Astronomy (ASTRON) has led to a strong shared research and knowledge infrastructure.

A growing number of researchers are concentrating their research around large datasets and need specialized facilities such as e-scientists, research workstations and High-Performance Computing and Visualization. Joint investments and research-grant projects between the Center for Information Technology (CIT), the UMCG, ASTRON and other researchers have led to a large number of research grants (such as Veni, Vidi, and the NWO infrastructure roadmap) and an increasing number of publications. By continuing and intensifying its activities in the field of IT support for research in the years to come, the UG will be able to maintain and strengthen its leading position in this regard.
7.6 University Library

The University Library is an important research and information centre for UG staff and students. It operates in a dynamic environment, with fast-paced innovations in academic teaching, research and information provision. With its swift and up-to-date servicing, the Library once again played a key role in 2016 in facilitating students and researchers. In 2016, the renovation of the City Centre branch of the University Library had reached the halfway point.

**Green Open Access**

‘Open access’ is one of the UG’s and the UMCG’s strategic focus areas. It is essential that the results of research (especially publicly funded research) is freely available to the public. This is why the University of Groningen has been encouraging open access publishing for a number of years.

Now that ‘open access’ is increasingly becoming a familiar phenomenon, we are directing our focus to the steps that everyone can take in order to attain openness in research. An important step in this regard is submitting peer-reviewed articles to the Pure research database, making them freely accessible on the profile pages of UG researchers. This is called ‘green open access’. For this reason, all UG and UMCG researchers are requested to submit a full text of all their peer-reviewed articles. The University Library and the Central Medical Library (CMB) will make sure the articles are entered into the Pure database, and will take care of all further required actions and support for the researchers.

**Research data management**

The University Library and the CIT are jointly responsible for supporting research data management as well as for the relevant infrastructure. The Research Data Office (RDO) facilitates the UG’s and the UMCG’s researchers and institutes in collecting, storing and presenting research data. Recently, the UG and the UMCG launched the Human Subject Research Programme that strives for a state-of-the-art infrastructure and advanced tools for storing and editing sensitive and confidential research data from research involving human subjects.

**Research analytics**

The University Library has expanded its expertise and services to researchers to include research analytics. As of 2016, a Research Impact Specialist has been appointed who is concerned with the qualitative and quantitative analysis of scientific output, and with the impact of research on the benchmarking of the UG’s academic productivity. The Research Impact Specialist supports researchers in improving the academic and social impact of their work.

Foto: Peter van der Sijde
8. Funding

The UG must safeguard the balance between the deployment of its staff and resources and realizing the objectives that derive from its vision and strategy. To this end, a comprehensive Plan-Do-Check-Act (PDCA) cycle has been developed, linking the financial process of planning, budgeting and accountability with the goals and ambitions related to the UG’s primary process.

In 2013, the UG made positioning and performance agreements with the Ministry of Education, Culture and Science (OCW). Within the UG, these agreements have been translated into ambitions and concrete objectives for the faculties and units, which have initiated a large number of activities designed to realize these objectives. The planning, implementation and results of these activities have been monitored very closely for several years. In addition to other arrangements and ambitions...
that have been agreed within the UG and that are discussed at the Administrative Meetings between the Board of the University, the Faculty Boards and the management of the service units, this is part of the PDCA cycle. At the end of 2016, the Minister of Education, Culture and Science (OCW) on the basis of the recommendations from the Higher Education and Research Review Committee (RCHO) established that the University of Groningen had met the performance agreements to a sufficient degree. As a result, the UG will retain the resources associated with these agreements.

At the end of 2015, the UG presented its Strategic Plan for the period from 2015 to 2020. In 2016, the faculties and service units translated the organization’s vision with regard to teaching, research, talent development and societal impact and the strategic goals derived from these into their own policies. The faculties and service units have a mandate to adapt – within a pre-defined scope – the UG’s strategy and policy to their own specific disciplines and situation. This way, the units can, to a certain extent, determine their own strategic agendas, with additional internal policy resources being made available for their realization with effect from 2017.

8.1 Treasury

In 2016, the Ministry of Education, Culture and Science (OCW) prepared a new investments, loans and derivatives scheme for teaching and research institutes (Regeling beleggen, lenen en derivaten OCW 2016). This Order in Council (AMvB) came into force on 1 July 2016. The new scheme covers treasury aspects such as the required minimum rating for investments (single A), the way governance of the distribution of powers (tasks, decision-making, and supervision) is laid down, and elements with regard to the administrative organization and internal control.

In September 2016, the UG has updated its existing Treasury Rules that were based on the old investments and loans scheme (Regeling beleggen en belenen door instellingen voor onderwijs en onderzoek 2010) that applied up to 1 July 2016. The new Treasury Rules were established by the Board of the University in July 2016 and were approved by the Supervisory Board in September 2016.

The Treasury Rules set out the treasury management guidelines and the financing policy for the Board of the University, based on the UG’s strategic planning for teaching and research as well as the future investments in property, so as to facilitate the process of managing, controlling and monitoring current and future funding streams. The aim is to achieve an optimum return on investments within the given limits of the risk policy as specified in the Treasury Rules. Incidentally, the UG has so far not been faced with interest charges. The UG sets out its policy and principles in the Treasury Rules in the form of standard guidelines for investment policy, financing policy, possible participations in legal entities and loans to legal entities affiliated to the University of Groningen. N.B. Such loans are only allowed in the context of the legal duty of knowledge valorization Dutch universities are tasked with, and which is a parameter in the government funding of higher education institutes.

At the end of 2016, the University of Groningen owned EUR 261.1 million in liquid assets: EUR 236.0 million as a transaction account held with the State of the Netherlands, and EUR 25 million in the form of a deposit that will be released in November 2017. This latter amount was designated as liquid assets at the end of 2016 as it would mature within twelve months. Furthermore, as of February 2016 the UG has had a deposit of EUR 5 million with a five-year maturity at its disposal (i.e. it matures in February 2021).

In 2015, the UG owned EUR 236.6 million in liquid assets: EUR 236.5 million as a transaction account held with the State of the Netherlands, plus the EUR 25 million deposit mentioned above that will be released in November 2016. At the end of 2016, the UG did not have any loans or derivatives.
8.2 Corporate Governance

The rules, guidelines and agreements for a straightforward and transparent management and reporting philosophy are set out in the UG’s Administrative Regulations and elsewhere. These are detailed regulations, complementing the statutory regulations, on aspects such as the official position of the Supervisory Board, the Board of the University and the Faculty Boards as regards administrative matters. The members of both the Supervisory Board and the Board of the University are guided by the Code of Good Governance for Universities drawn up by the VSNU (Association of Universities in the Netherlands). This principle-based Code is applied by the University of Groningen. The way the Code is applied is explained under the various themes in this report. The Supervisory Board and the Board of the University fulfil the statutory roles in the planning and control cycle assigned to them. The effects of policy implementation are reflected through the duties as assigned in the budget and through accountability in the annual financial statements. The faculties and service units are responsible for their results and can operate autonomously within the frameworks and guidelines set out by the Board of the University.

Management and control

The UG follows a transparent central planning and control cycle in which the UG budget is monitored periodically throughout the reporting year by means of precise updates and defined periods: the first half-year on the basis of quarterly financial reports, and the second half-year on the basis of monthly and quarterly financial reports at corporate level. This enables the Board of the University to make timely adjustments when necessary. With the same regularity, risks (as well as potential measures) are identified that are not yet reflected in the actual figures.

The UG’s liquidity position is continuously monitored by means of detailed liquidity planning that is updated every week. In principle, the UG continues to fund investments in new buildings and IT from its own resources, in order not to incur external interest charges. As a result, the full amount of government funding can be used for teaching and research. In recent years, this has resulted in long-term equilibrium and a prudent financial policy. Positive annual results are used to save for investments in accommodation, IT and any other policy intensifications the Board of the University deems necessary.

For the UG, stable funding by the Ministry and a gradual growth in the numbers of students are essential. A structural reduction in government funding received will have far-reaching consequences for the UG’s business operations. Aspects such as reviews, ambitions, positioning and focus play an important role, in addition to the possible continuation of a type of performance funding. Apart from this, the UG is becoming increasingly dependent on indirect government funding and income from contract research. In order to minimize the related risks for the continuity of business operations, universities need to maintain reserves.

Right of consent of consultative participation bodies

A section of the Student Loan Act (Wet Studievoorschot) relates to the right of consent of consultative participation bodies with regard to the outline of the institutional budget. The budget for 2016 was the first that was subject to this right of consent. Together with the University Council, the UG has determined how the right of consent will be incorporated, in terms of content and planning, in the regulations for consultative participation.

At the University of Groningen, the Financial Framework is the first step in the budget process. Because evidently it is possible for major financial decisions to be taken after the adoption of the Financial Framework in April, it has been agreed to include an ‘outline’ section in both the Financial Framework and the Institutional Budget. The right of consent applies to new allocations included in that section that exceed the limit value. The limit value for Teaching, Research and IT allocations has been set at EUR 0.5 million, and at EUR 5.0 million for investments in real estate. Throughout the year, new allocations and investments exceeding the limit value are presented to the University Council for approval.

The right of consent only applies to the allocation of general income, which is the component the Board of the University controls. It does not apply to indirect government funding or
income from contract research, due to the nature of these allocations. The right of consent, in outline, applies at university level, not at faculty level. The agreements regarding the use of the right of consent were evaluated at the beginning of 2016. On the basis of this evaluation, it was decided to uphold the existing agreements.

**Analysis of the annual results for 2016**

The financial result for 2016 (EUR 17.2 million) was EUR 22.6 million higher than budgeted. EUR 10.1 million of this result can be attributed to changes in the principles underlying the appreciation and definition of research-grant or contract-research projects and facilities. This is related to amended accountability guidelines and a difference of opinion between the UG’s previous external auditor and the new one. Apart from this, the revenues received were higher than budgeted, which – despite the higher expenses – has led to an improvement in the actual result vis-à-vis the budgeted result for 2016 of minus EUR 5.4 million.

Last year, government funding was expected to drop by EUR 4.4 million compared to 2015, but it was actually EUR 19.4 million higher than the 2015 figure. This increase was mainly generated by the student number-related funds allocated at the end of 2016, salary and price adjustments, and the funding allocated under the NWO’s ‘Encouraging European Research’ scheme. Since these were largely unforeseen revenues received at the end of the year, there were no (additional) expenses. As this has occurred for a number of years running now, the budget for 2017 will assume an increase in government funding. The expected reduction in tuition fee revenue compared to 2015 did not materialize, and the budgeted revenue was even exceeded by EUR 1.2 million. The increase in student numbers and tuition fees was greater than anticipated, and the reimbursement of tuition fees in 2015 was lower than in 2014. Where external revenues were expected to fall by EUR 23.7 million, the actual decrease was slightly lower: EUR 13.2 million compared to 2015. This mainly concerned external revenues from research-grant and contract-research projects. However, expenses were incurred in order to make these revenues possible, and the additional external revenues vis-à-vis the budget therefore had a neutral effect on the financial result. With regard to ‘Other revenues’, a decrease of EUR 12.7 million on 2015 was anticipated, but the final figure for 2016 showed an actual increase of EUR 11.7 million. In this case too, the increase was partly offset by additional expenses incurred to make the revenues possible, for instance in the case of operational income. Furthermore, there was a higher number of transactions and settlements between the UMCG’s Research & Teaching sector and third parties or contract partners (including the Care sector). Under ‘Affiliated entities’, further unforeseen expenses were received, but these were offset by unbudgeted other expenses. These revenues and expenses have been included in the budget for 2017.

Staffing expenses in 2016 were expected to fall by EUR 6.0 million compared to 2015, but the actual figure was over EUR 29 million higher than budgeted. As mentioned above, these additional expenses were offset by additional external revenues from research-grant and contract-research projects. In 2016, the UG continued to invest in additional teaching staff, following the national agreements on the introduction of the student loan system. Depreciations were EUR 1.4 million below the budgeted figure. This was mainly the result of a 2015 impairment of the systems in the University Library due to the renovation work. Accommodation costs were EUR 1.6 million lower than budgeted. Compared to 2015, the accommodation costs were slightly higher in 2016. Other expenses were expected to decrease by EUR 12.9 million, but in the end an increase of EUR 6.2 million was realized. As mentioned above, these additional other expenses are related to the increase in external revenues and the increase in other revenues.

**Letter of Representation**

On 30 June 2017, the Board of the University submitted a Letter of Representation to the University Auditor. It represents a control tool for the external auditor and is therefore documented in the auditor’s audit files.

**Unusual events**

At the start of 2016, a fraud case was discovered. In response to the investigation instigated by the Fiscal Information and Investigation Service (FIOD), the Board of the University, in
consultation with the Supervisory Board, adopted immediate measures to prevent further damage. The UG immediately intensified its internal procedures for making payments, and introduced a range of measures to restrict access to systems and tighten up administrative processes. For the longer term, various actions were instigated in 2016 that have resulted in a UG-wide integrity programme.

**SODOLA**
The University of Groningen is the coordinator of three national research schools, namely Mediaeval Studies, Behavioural and Cognitive Neurosciences (BCN), and the Inter-university Center for Social Science Theory and Methodology (ICS), to which the VSNU-SODOLA Guidelines for the Funding of Research Schools apply. In the case of Mediaeval Studies, sufficient funding was arranged through the DLG-LOGOS agreement. At the end of 2014, the parties involved concluded that current funding of the other two research schools (ICS and BCN) satisfied the Guidelines for the Funding of Research Schools. This matter has not changed in 2016.

**Code of Good Governance**
The Association of Universities in the Netherlands (VSNU) has introduced a Code of Good Governance, the principles of which are endorsed by the Supervisory Board. The Supervisory Board reinforced its own organization with the appointment of an Audit Committee. In 2013, the Supervisory Board drew up a set of regulations on reimbursements for members of the Board of the University, thereby formalizing the expenses policy that applies to the members.

### 8.3 Transparency document

The University of Groningen complies with the government policy document on transparent funding of higher education (Notitie ‘Helderheid in de bekostiging van het hoger onderwijs’), the purpose of which is to provide the higher education institutes that are funded with clear information on the interpretation and application of current rules for the calculation of funding parameters.

**Theme 1 Outsourcing of teaching programmes**
The University of Groningen does not outsource to private organizations any teaching in programmes registered with the Central Accreditation Council (CROHO).

**Theme 2 Investment of public funding in private sector activities**
The UG does not spend any government funding on private-sector activities, other than those relating to knowledge transfer and knowledge valorization.

**Theme 3 Granting of exemptions**
Exemptions from parts of examinations are granted by the Boards of Examiners. Clearly, the reason for granting an exemption must be that the candidate has already acquired the relevant knowledge and experience, either at the UG or elsewhere. As far as possible, the Boards of Examiners set out their exemptions policy in advance. It is not possible to obtain exemption from a whole degree programme.

**Theme 4 Funding of foreign students**
In the context of internationalization, the University of Groningen participates in exchange programmes with various universities in Europe. In the education it provides to Dutch as well as foreign students, the UG complies fully with the principles of the funding rules.

In 2016, the UG awarded funding from the Graduation Fund to one non-EEA student as a result of special circumstances within the meaning of Article 7.51 of the Higher Education and Scientific Research Act (WHW). The UG provided financial support from the Graduation Fund to two non-EEA students because of committee grants. In total, EUR 3,700 was disbursed to non-EEA students.
PAYMENTS FROM THE GRADUATION FUND IN 2016

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>NUMBER</th>
<th>BENEFITS</th>
<th>AVERAGE</th>
<th>AVG. DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students in a situation of force majeure</td>
<td>198</td>
<td>€405,015</td>
<td>€2,046</td>
<td>once</td>
</tr>
<tr>
<td>Board members</td>
<td>474</td>
<td>€977,277</td>
<td>€2,062</td>
<td>3 months</td>
</tr>
<tr>
<td>Other grants</td>
<td>22</td>
<td>€46,493</td>
<td>€2,113</td>
<td>1 year</td>
</tr>
<tr>
<td>Total</td>
<td>694</td>
<td>€1,428,785</td>
<td>€2,059</td>
<td></td>
</tr>
</tbody>
</table>

**Theme 5 Tuition fees not paid by the student**

Students must pay tuition fees to demonstrate that they have the intention to follow the education programme. In a number of cases, students did not pay their own tuition fees. There may be various reasons for this, for instance because the student is in a dire financial position. Legislation allows the possibility that, in some cases, the tuition fees are consequently paid by the educational institute via a special fund or emergency fund. In 2016, the University of Groningen disbursed EUR 15,900 in total from its Emergency Fund. The maximum allowance in the form of a gift or a loan is EUR 1,250 per student.

**Theme 6 Students following course units**

The UG does not offer course units in the form of pre-structured learning routes with separate certificates as part of a CROHO-accredited degree programme.

**Theme 7 The student is following a degree programme other than the one for which he/she is registered**

The policy of the University of Groningen is to ensure that students are able to find the degree programme that is right for them as soon as possible. With the exception of electives, it is not possible for students to sit examinations that are part of degree programmes for which they are not registered.

**Theme 8 Funding of customized programmes**

At the request of the Saudi Ministry of Higher Education, the University of Groningen and the UMCG offer students from Saudi Arabia a special training programme for medical care in that country. The programme includes a preparatory year. In the 2016/2017 academic year, some 41 students participated in the preparatory year. This programme is not registered with the Central Accreditation Council (CROHO). After the preparatory year, the participating students will begin the regular CROHO-accredited programme to qualify as physicians or dentists. In the 2016/2017 academic year, some 112 students participated in a customized programme. As these concern non-EU students, their training is not eligible for funding by the Dutch government. In order to finance these programmes, the participants pay annual University tuition fees established by the UG, which are EUR 32,000. For the preparatory year, students pay EUR 16,000. The students in question receive King Abdullah Scholarships from the Saudi government. The UG does not offer any other customized programmes for companies or organizations.

### 8.4 Top incomes and remuneration

The Netherlands Association of Universities (VSNU) negotiates with employer organizations on the conditions of employment for university staff. Apart from that, the members of the Board of the University are subject to assessment under the Dutch Senior Officials in the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT – Wet Normering bezoldiging Topfunctionarissen publieke en semipublieke sector). Conditions of employment relate to matters such as salary, holidays/leave, pensions and social security. The working conditions agreed...
with employer organizations are set out in the Collective Labour Agreement for Dutch Universities (CAO-NU).

In relation to the WNT Act, the UG has the following to report. For the Scientific Education sector, the WNT-2 Act has come into effect for all senior officials appointed since 1 January 2016. As such, it was introduced in the Scientific Education sector a year later than in the other education sectors. In the year under review, the maximum reference salary for senior and non-senior officials employed by the government, independent governing bodies, other public bodies and semi-public institutions was EUR 179,000. In 2016, a transitional arrangement applied to all senior officials appointed or reappointed under the WNT-1 Act: for a period not exceeding four reporting years, the ‘old’ maximum reference salary of EUR 230,474 will apply, after which it will be scaled down within three years. During the year under review, the UG had no senior officials whose salary exceeded this sum.

For senior officials with supervisory duties (i.e. members of the Supervisory Board), there is no transitional arrangement, but a maximum salary threshold of 10% of the maximum WNT-2 reference salary for 2016 of EUR 179,000 applies for members of the Supervisory Board (15% for the Chair). During the year under review, the UG had no senior officials with supervisory duties whose salary exceeded this sum.

In 2016, the UG had five staff members (non-senior officials) whose remuneration exceeded the WNT-2 threshold (EUR 179,000). One case involved an incidental exceeding of the maximum due to the inclusion of royalties in the salary payment made to a non-executive employee (a professor). The other four cases involved exceedances for non-executive employees due to the commutation of leave hours or to a higher gross salary in connection with compensation for the capping of the maximum pensionable salary.

In 2016, there were a number of former UG employees for whom the UG set up a one-off reserve following termination of their employment contract. The statutory maximum severance payment was not exceeded in any of these cases, however.

The table with the 2015 and 2016 remuneration of the members of the Board of the University and the Supervisory Board can be found in the Financial Statements appended to this Management Report.

**Remuneration of board members**

On 20 October 2014, the Supervisory Board of the University of Groningen approved new regulations on reimbursements for members of the Board of the University. The expense claims below are in accordance with these regulations:

<table>
<thead>
<tr>
<th>EXPENSE CLAIMS BY BOARD MEMBERS IN 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>POPPEMA</strong></td>
</tr>
<tr>
<td>Representation costs</td>
</tr>
<tr>
<td>Domestic travel costs</td>
</tr>
<tr>
<td>NS travel pass, 1st class</td>
</tr>
<tr>
<td>Foreign travel costs</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Foto: Peter van der Sijde
9. Continuity section

With effect from report year 2013, the Minister of Education, Culture and Science (OCW) introduced a compulsory continuity section to be included in the management report. The purpose of the continuity section is to provide the Minister with additional information on the intended policy of the governing body of the institution concerned, and on the expected implications of that policy for the institution's financial position. The new continuity section has in the meantime been evaluated by the Dutch Inspectorate of Education.

For the Minister, the increased emphasis on future-oriented thinking, reflected in the new continuity section, is an important element of the planning and control cycle. In the view of the Minister, the new continuity section provides the Board with valuable insights into the institution's future plans and strategies.
of the University with a valuable additional instrument for business operations that can help guide a discussion within the organization about the expected effects of external developments in combination with chosen policy in the years to come. The continuity section consists of the following elements:

Data set A

A1. Explanatory notes on student numbers and staffing (FTE)
A2. Explanatory notes on operating and balance-sheet figures

Other reporting B

B1. Internal risk management and control system
B2. Risks and uncertainties
B3. Reporting by the supervisory body

9.1 Explanatory notes on student numbers and staffing (A1)

Student numbers and staffing for 2016 and 2017 are based on actual and budgeted figures, respectively. The long-term projection is based on the UG’s Strategic Plan for 2016-2020 and the estimates submitted by the faculties. The expectation is that, as of 2018, the number of Dutch students will drop slightly as a result of demographic trends. In order to continue offering a high-quality and feasible curriculum and first-class facilities, it is important to maintain the number of registered students. Therefore, the University of Groningen has opted for further internationalization, so the number of students from outside the Netherlands will grow and eventually compensate for the smaller number of Dutch students. The trend of increasing internationalization in higher education is also reflected in the OCW reference projection for 2016, which shows an expected overall annual growth in student numbers of approx. 2% for the Scientific Education sector in the long term. In the UG’s opinion, internationalization is also important for both teaching and research in order to address modern-day issues and challenges from a wide range of perspectives and approaches. The increase in student numbers requires an increase in staffing.

The UG is also aiming to increase the acquisition of external research funding by 4% per year, in response to the increase in available resources from indirect government funding and funding from contract research. In this case too, additional staffing is required in order to facilitate the growth. The projected increase in staffing is based on 75% of the extra tuition fee revenue and external revenues obtained, expressed as an average cost per FTE. Staffing is stated as the FTE average in the report year and divided into two categories: academic staff (‘WP’) and support/administrative staff (‘OBP’). The OBP category is subdivided into ‘Management/boards’, ‘Teaching/research support’, and ‘Other’.

9.2 Explanatory notes on operating and balance-sheet figures (A2)

The operating figures for 2016 and 2017 are based on the consolidated actual and budgeted figures, respectively. The expected increase in the funding variables (e.g. student numbers) is not expected to lead to an increase in market share and hence to a higher government grant. Since the performance agreements have been met, it is assumed that the related funding will continue. Continuation of the selective budget is also assumed. In previous years, the University of Groningen has seen an increase in government funding that was not always (fully) offset by expenses incurred, such as salary and price adjustments. In the long-term projection, this increase has been taken into account, and it will be incorporated in the Financial Framework for 2018 for the first time. As a result, the additional funds will become available for faculties in order to invest in additional academic staffing. Furthermore, it has been assumed that in 2018 the government grant will be supplemented with funding under the Student Loan Act. The total income of the UG will increase as tuition fee revenue increases in line with the growth in the number of international students, and as a result of additional external income (see the previous section A1 – Explanatory notes on student numbers and staffing (FTE))
Staffing expenses started to go up in 2016 already as the UG intensifies its teaching and research policy. For research, this means strengthening the profile of interdisciplinary and other research programmes and encouraging the research institutes to become more entrepreneurial. In terms of teaching, the UG is investing in reinforcing the connections between staff and students and supporting students to play an active role in their learning process. Additional academic staff will be appointed in order to realize these aims, along with the required support and administrative staff. These investments prior to the allocation of resources in 2018 are in line with the agreements made at national level on the introduction of the Student Loan Act.

Staffing expenses will also increase in order to accommodate the expected growth in the number of international students and to facilitate the acquisition of additional external funding. The increase is estimated at 75% of the additional tuition fee revenue and the external revenues.

Accommodation costs are expected to remain unchanged during the planning period. Depreciation costs will increase as a result of investments in accommodation and IT infrastructure. The UG's existing IT facilities are of a high standard. This is essential if we are to achieve our ambitions to excel in research, teaching and valorization. The coming years will see ongoing investment in order to implement new IT developments and to assure the high quality of IT services. Naturally, staff and students will be supported to acquire the skills to be able to work with the new tools and systems.
In the years to come, the UG will also invest in sustainable and future-proof accommodation in order to ensure an optimum work and study environment. A long-term Accommodation Plan (LTHP 2014-2024) was drawn up for this purpose in 2014, along with related investment and liquidity plans. This document is updated every year. The financial implications of the Accommodation Plan are incorporated in the long-term projection. The main accommodation projects are the completion of the Energy Academy Building and the Feringa Building. The Energy Academy is a new top institute where lecturers, researchers and businesses join forces to develop knowledge and innovations in the field of energy – one of the UG’s three focus areas and an important issue for society. The Feringa Building will replace the Nijenborgh 4 facility that is over 50 years old and no longer meets current standards. With the new Feringa Building, the Faculty of Science & Engineering (FSE) will once again be able to provide its staff and students with sustainable, high-tech facilities.

The total investment of the Accommodation Plan for 2016-2024 is approx. EUR 400 million. Most of this investment will take place between 2016 and 2020 (see the table below). As of 2024, no concrete projects have been planned as yet. For the purpose of a liquidity projection, it has been estimated that new post-LTHP investments will drop to a level of EUR 22 million for 2025 and 2026. Calculations also show that the rate of depreciation after 2023 will remain level at approx. EUR 26 million per year. Investment estimates are based on the expected price level for the year in question. The UG expects to be able to fund all the investments from its own resources.

Other expenses will increase in order to facilitate the expected growth in the number of international students and the acquisition of additional external revenues. The increase is estimated at 25% of the additional tuition fee revenue and the external revenues. The growth in student numbers and external revenues has a neutral effect on the operating result.

Investment in the quality of teaching and research will result in a negative consolidated operating result for the UG in 2017. When, in 2018, the government grant is supplemented with funding under the Student Loan Act, a positive operating result will be realized again.

**UG LIQUIDITY PROGNOSIS BASED ON LTHP* ESTIMATED INVESTMENTS (AMOUNTS IN M€)**

<table>
<thead>
<tr>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening balance on liquidity</td>
<td>264</td>
<td>245</td>
<td>182</td>
<td>140</td>
<td>119</td>
<td>65</td>
<td>19</td>
<td>22</td>
<td>24</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>(+) funds added due to debits</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquidity balance 31.12</td>
<td>264</td>
<td>245</td>
<td>182</td>
<td>140</td>
<td>119</td>
<td>65</td>
<td>19</td>
<td>22</td>
<td>24</td>
<td>28</td>
<td>32</td>
</tr>
</tbody>
</table>

UG liquidity = liquid assets + savings accounts + deposits *Long-term accommodation plan
**Balance sheet**
The balance sheet figures for 2016 and 2017 are also based on the consolidated actual and budgeted figures, respectively. In this context, within the established totals per section a redistribution has occurred for each category on the basis of the results of the annual accounts process for 2016. The long-term projection for the development of fixed assets is based on the aforementioned Accommodation Plan. The policy of the UG is that, in principle, investment in tangible fixed assets is financed from internal resources, and that short-term capital borrowing is acceptable for this purpose. In the long term, the investment in tangible assets is therefore expected to lead to a reduction in liquid assets. In the long-term projection, operating results are added to the general reserve. The ‘Special purpose reserve (public)’ provision has been created because the UG participates in an experiment with PhD students. The students who

<table>
<thead>
<tr>
<th>INCOME</th>
<th>ACTUAL FIGURES 2016</th>
<th>BUDGET 2017</th>
<th>MULTI-YEAR PROJECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government funding</td>
<td>364,729</td>
<td>369,296</td>
<td>386,775</td>
</tr>
<tr>
<td>Other funding</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tuition fees</td>
<td>61,605</td>
<td>59,300</td>
<td>53,900</td>
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<tr>
<td>Contract assignments</td>
<td>163,030</td>
<td>140,554</td>
<td>146,176</td>
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<tr>
<td>Other income</td>
<td>71,768</td>
<td>66,658</td>
<td>66,658</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td><strong>661,131</strong></td>
<td><strong>635,808</strong></td>
<td><strong>653,509</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXPENDITURES</th>
<th>ACTUAL FIGURES 2016</th>
<th>BUDGET 2017</th>
<th>MULTI-YEAR PROJECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>439,726</td>
<td>434,791</td>
<td>444,407</td>
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<tr>
<td>Accommodation</td>
<td>40,220</td>
<td>43,328</td>
<td>43,328</td>
</tr>
<tr>
<td>Depreciation/amortization</td>
<td>32,898</td>
<td>33,937</td>
<td>34,437</td>
</tr>
<tr>
<td>Other</td>
<td>131,988</td>
<td>131,883</td>
<td>131,938</td>
</tr>
<tr>
<td><strong>Total Expenditures</strong></td>
<td><strong>644,831</strong></td>
<td><strong>643,939</strong></td>
<td><strong>654,111</strong></td>
</tr>
<tr>
<td>Balance of income and expenditures</td>
<td>16,300</td>
<td>-8,131</td>
<td>-602</td>
</tr>
<tr>
<td>Balance of business operations</td>
<td>915</td>
<td>600</td>
<td>700</td>
</tr>
<tr>
<td><strong>RESULT</strong></td>
<td><strong>17,215</strong></td>
<td><strong>-7,531</strong></td>
<td>98</td>
</tr>
<tr>
<td>of which incidental costs</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Assets</td>
<td>Actual Figures</td>
<td>Budget</td>
<td>Multi-Year Projections</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------</td>
<td>--------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Fixed assets</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Intangible assets</td>
<td>452,119</td>
<td>473,800</td>
<td>536,363</td>
</tr>
<tr>
<td>- Tangible assets</td>
<td>15,498</td>
<td>36,000</td>
<td>36,000</td>
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<tr>
<td>Financial assets</td>
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<tr>
<td>- Current assets</td>
<td>975</td>
<td>1,000</td>
<td>1,000</td>
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<tr>
<td>- Stocks</td>
<td>174,136</td>
<td>74,000</td>
<td>74,000</td>
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<tr>
<td>- Receivables</td>
<td>261,060</td>
<td>240,000</td>
<td>182,400</td>
</tr>
<tr>
<td>- Liquid assets</td>
<td>903,788</td>
<td>824,800</td>
<td>829,763</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liabilities</th>
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<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- General reserves</td>
<td>551,791</td>
<td>556,830</td>
<td>549,239</td>
<td>559,237</td>
<td>567,804</td>
<td>576,386</td>
</tr>
<tr>
<td>- Special purpose reserve (public)</td>
<td>5,568</td>
<td>16,970</td>
<td>24,659</td>
<td>14,848</td>
<td>7,424</td>
<td>1,856</td>
</tr>
<tr>
<td>- Special purpose reserve (private)</td>
<td>166</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>- Special purpose fund (public)</td>
<td>1,185</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>- Special purpose fund (private)</td>
<td>4,873</td>
<td>4,500</td>
<td>4,500</td>
<td>4,500</td>
<td>4,500</td>
<td>4,500</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- provisions</td>
<td>48,290</td>
<td>45,000</td>
<td>45,000</td>
<td>45,000</td>
<td>45,000</td>
<td>45,000</td>
</tr>
<tr>
<td>Debts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Long-term debts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Short-term debts</td>
<td>291,915</td>
<td>199,350</td>
<td>204,215</td>
<td>203,790</td>
<td>201,611</td>
<td>195,760</td>
</tr>
<tr>
<td>Total</td>
<td>903,788</td>
<td>824,800</td>
<td>829,763</td>
<td>829,526</td>
<td>828,289</td>
<td>825,652</td>
</tr>
</tbody>
</table>
participate are guaranteed that – should the experiment end prematurely – they will be employed by the UG for the remainder of their PhD programme. Special purpose funds, provisions and debts are expected to remain at more or less the same level overall.

For the purpose of clarity, the balance sheet stocks of the research grant and contract research projects from the UMCG’s Research & Teaching sector are shown in the Financial Statements for 2016 without being offset. In the past, the netted balance sheet stocks were shown. This choice was made after the UG budget for 2017 had been established, and explains why the ‘Receivables’ and ‘Short-term debts’ provisions deviate considerably.

9.3 Internal risk management and control system (B1)

Risk appetite
The University of Groningen has an ambitious Strategic Plan, investing significantly in the quality of teaching and research and in creating the appropriate conditions. The latter means investing in staff, accommodation and business operations systems, among other things. This is unavoidable in a competitive environment, but it also entails new risks. The UG, however, is risk-averse. The main building blocks of the UG’s internal risk management and control system are the governance structure, the Strategic Plan for 2015-2020, and the annual planning and control cycle in combination with the financial Strategic Key Figures as established by the Supervisory Board (see Section 9.5). The governance structure is described in detail in the Administrative Regulations. The UG relies on a governance model of decentralized comprehensive management. The Faculty Boards are mandated with duties and powers relating to teaching, research and operations. The UG’s strategic course is laid down in its Strategic Plan for 2015-2020. In order to ensure that the strategic goals are achieved a central fact sheet has been prepared in consultation with the Faculty Boards, supplemented with faculty-specific Quality Indicators (QIs). The QIs that have been formulated are derived as directly as possible from the UG’s strategic course, and their development is discussed twice a year between the Board of the University and the Faculty Boards.

The UG links its strategy and activities in research, teaching and societal impact to the deployment of resources by means of a planning and control cycle. On an annual basis, the Board determines the financial planning and control cycle, which is part of the UG’s entire PDCA cycle. This way, the strategy and activities in the domains of research, teaching and societal impact are linked to the deployment of resources. The planning and control cycle specifies how – and according to which principles, frameworks and formats – the budget will be drawn up and adopted in a long-term perspective.

The organization has also laid down how and in what format the faculties and service units need to provide quarterly information to the Board of the University on results and (adjusted) projections. This information includes notable developments that may have occurred, the risks they foresee, and any related measures or activities that have been planned or implemented. These reports are discussed twice a year (or more often if necessary) by the Board of the University, the Faculty Boards and the management of the service units, in the context of fulfilling the agreements and realizing the ambitions with regard to research, teaching and societal impact.

In managing the risks, the University of Groningen relies on a chain of four organizational links. Operational line management is the first link. The second link is formed by central as well as decentral controllers setting up and monitoring internal controls. The third link relates to the – independent – internal audit department, which assesses the role of the first and the second link. The fourth and final link is formed by the external auditor. In addition to governance and the planning and control cycle, the UG has rules and procedures in place aimed at identifying and mitigating the risks, and at achieving its strategic goals – naturally with due observance of the applicable laws and regulations. Structured spend analyses for the purpose of legitimate procurement are an example of such a procedure. The UG has an Audit Charter as well as Treasury Rules that comply
In 2016, a programme was prepared in order to improve the business operations systems in the HR, Finances and Facilities domains (‘Optimale Bedrijfsvoering 2020’ [Optimum Operations – 2020]). The crux of this programme is the rationalization and further development of the application landscape of business operations systems. Its aim is for the UG to support the business operations systems and the information facilities related to them with integrated applications by 2020. This should tie in with the UG principles and the frameworks for operations and social and technological trends and developments.

Integrity Programme
Risk management goes beyond complying with regulations and implementing hard controls. The behaviour of people is crucial for effective risk management. Therefore, the University of Groningen wants to foster a culture in which integrity underlies all actions, mistakes are admitted and discussed, and employees hold one another accountable. To this end, last year the UG started an integrity programme that is targeted at all academic and support staff, board members and managers.

The internal risk management and control framework described above is shown in the diagram below, which distinguishes between hard and soft controls, and between ex-ante and ex-post controls.
9.4 Risks and uncertainties (B2)

The most important issues the University of Groningen devotes attention to because of potential risks are shown below, including the measures to mitigate these risks. If possible, the implications have been quantified.

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>UNCERTAINTY</th>
<th>RISKS AND MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earthquakes</td>
<td>Seismological activity in the Groningen region entails several risks. The first aspect is the safety of staff and students in the UG's buildings. The second aspect is the financial implications of alterations that might have to be made to existing buildings, and of the additional investments required for new buildings as a result of stricter construction standards. If earthquakes become a structural problem in the city as well as the province of Groningen, the continuity of operations is at risk, and the image of the UG could suffer as well.</td>
<td>The UG has appointed a project manager to coordinate the various matters relating to earthquake risk. These efforts are geared towards limiting the risk to an acceptable level. So far, the first projects have been completed successfully, with NAM reimbursing a proportion of the costs. There is currently no impact on continuity. The government has adopted a new gas production plan which contains measures to structurally reduce the seismic threat.</td>
</tr>
<tr>
<td>Integrity</td>
<td>Integrity is essential for confidence in the UG and its scholarship. Integrity violations entail a risk of financial damage and of long-term reputational damage.</td>
<td>In 2016, the UG – under the supervision of a steering group and a programme team – began an integrity programme aimed at both academic and support staff. The programme devotes attention to cultural aspects as well as to procedures and the way the organization is set up. It contains interactive elements, such as workshops and training sessions.</td>
</tr>
<tr>
<td>Finance &amp; Control</td>
<td>As a result of trends in society, the frequency and thoroughness of financial accountability are being intensified. In order to improve quality and reduce vulnerability, in 2015 the UG’s administrative processes were combined and aligned in a Financial Shared Service Centre (FSSC). Improving quality is a gradual process, and reorganization comes with a risk that knowledge and experience may be (temporarily) lost, which in turn may affect the quality of information provision regarding planning and control.</td>
<td>The new organization is continuously monitored by management. Where necessary, measures are being taken in the supervision and facilitation of support staff in their new roles. Functional guidelines for work processes, supported and assured with digital tools, are being refined. Additional temporary staff are deployed as necessary.</td>
</tr>
<tr>
<td>Long-term Accommodation Plan</td>
<td>The University has drawn up an ambitious long-term Accommodation Plan (LTHP). The total estimated investment for the period up to 2024 is EUR 390.2 million. This entails risks concerning the size of the investments, the UG’s liquidity position and future operating costs.</td>
<td>The Accommodation Plan sets out the scope, also in relation to the liquidity position and the future operating expenses. Implementation of each aspect of the Plan is subject to individual scrutiny by the Board of the University. Projects are monitored in terms of their cost and lead time. The Board of the University will be informed every three months (or more often if necessary) about the progress in implementation.</td>
</tr>
</tbody>
</table>
Government policy

Government policy on academic education is changeable. These changes outpace the lead time for the measures required to realize the new ambitions, such as new performance agreements. This may frustrate the UG’s own plans. Apart from that, the UG is dependent upon the government in its capacity as legislator in a number of strategic choices. Delays in or changes to for instance laws that enable transnational education or the PhD Scholarship Programme entail risks for the UG.

Government funding

As regards government funding, the UG has identified risks in the possible cancellation of the resources for Sustainable Humanities (DGW; EUR 1.9 million) and the dropping rates in the parameter compartment (c. EUR 13 million). There is also a risk that current and future resources will be specifically earmarked so they can no longer be freely allocated.

Student numbers

The UG is – and will remain – an attractive university for students because it offers a range of high-standard, feasible degree programmes and excellent facilities. In order to continue offering these programmes and facilities, it is important to maintain the number of registered students. As a result of demographic trends, the number of first-year students in the Netherlands will decline in the years to come (decrease since 2014: 2.7%). Universities in the Randstad conurbation turn out to be attractive to students in their Master’s phase, mainly because of assumptions regarding career prospects in that region.

Research funding

Uncertainties with regard to research funding include incidental (i.e. ad hoc) cutbacks by the government, but also a shift in the allocation of research funding in favour of the Top Sectors, the development in EU research funding, and the number of organizations that can apply for this. These factors have an impact on higher education and academic research. The UG’s reduced ability to attract contract research activities also poses a risk. The impact of all these factors could mean that the projected annual growth of 4% (c. EUR 7 million) in external revenues (teaching/research for third parties) will not be realized.

Branch campuses

At the moment, the UG is building branch campuses in Friesland and in China. The risks associated with the campus in China predominantly lie with the separate Chinese legal entity. The period Campus Fryslân is eligible for subsidy will end in 2024. If the anticipated inflow of students (around 1,000) in the period from 2025 to 2030 lags behind, the UG will run a financial risk of approx. EUR 8 million on the expected annual operating costs.

Against the background of continuously shifting government policy, the UG – and with it the faculties – has laid down its own ambitions in the Strategic Plan for 2015-2020. In close consultation with consultative participation bodies, a new balance will be sought between the pluralism desired and the required positioning of the UG as a whole. Information regarding issues whose developments in legislation are relevant to the UG is regularly exchanged with the government.

If developments are identified promptly, timely measures can be taken. Insidious cutbacks, the increasing cost of meeting statutory obligations, and the fact that wage and price developments are only partly compensated (or not at all) are being offset by more efficient and effective organization of the activities that support the primary process in particular. The UG is sufficiently resilient to temporarily accommodate any financial setbacks.

As well as investing in stronger positioning of its Master’s programmes, the UG is seeking to become a global university. In order to achieve this aim, the UG is focusing on actively attracting students from abroad, and – since spring 2015 – on the development of an international branch campus in Yantai, China. This will also provide opportunities for UG students in Groningen to prepare themselves for careers in a globalized world.

The developments in external revenues and the contract portfolio are monitored and reported to the Board every quarter, or as often as necessary. The financial risk in the short term is limited, as lower research revenues are proportionally offset by lower research expenses. The long-term risks are greater because this could affect the position of the UG, nationally as well as internationally. If developments are identified promptly, timely measures can be taken.

By investing in a strong curriculum and profile for Campus Fryslân, the UG is making it more attractive to students. In addition, the front end of the registration process will be properly monitored, enabling timely detection and adjustment of any setbacks.
The degree to which control measures have been taken is based on a risk assessment analyzing the likelihood a risk will occur and the impact any consequences will have. The outcome of this risk assessment is represented visually in the diagram below.
9.5 Reporting by the supervisory body (B3)

The report by the Supervisory Board is included as a foreword by the Chairman of the Supervisory Board to this Management Report.

Continuity section
In order to increase administrative efficiency in the education sector, the Minister for Education, Culture and Science (OCW) has stipulated that annual reports must now include a new continuity section. The added value of this measure is that it anchors a management process in the organization whereby major developments can be quickly identified and their implications for the UG’s results and capital situation can be clearly assessed. The discussions on these matters the Supervisory Board has with the Board of the University are an important part of this process.

Strategic Key Figures
In 2014, the Audit Committee of the Supervisory Board requested the main financial Strategic Key Figures. These key figures are part of the monitoring, analysis and decision-making processes. In this regard, it is important that developments in the target values are considered over an extended period and are compared to the average figures for Dutch universities.

1. SOLVABILITY
The UG’s solvability (equity / total equity) is relatively high. Short-term capital borrowing will be necessary for a limited period (2020-2022) for the implementation of the long-term Accommodation Plan. This will result in a small reduction in the solvability ratio. The minimum ratio is based on the current average for the Academic Education sector.

2. LIQUIDITY
The UG’s liquidity ratio (current assets / short-term capital borrowing) is also relatively high. The UG will be able to fund a substantial proportion of the activities in the aforementioned Accommodation Plan from its own resources. The lower liquidity limit is EUR 30 million (approximately equivalent to one month’s salary payments). As a result of the investments in accommodation, the liquidity ratio will drop to around 0.50 in the period 2020-2022 and then go up again. This will not be a problem, given the funding facilities available to the UG.

<table>
<thead>
<tr>
<th>Financial</th>
<th>UNIVERSITIES 2015</th>
<th>UG 2015</th>
<th>UG 2016</th>
<th>Target Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvability</td>
<td>0.49</td>
<td>0.62</td>
<td>0.62</td>
<td>&gt;0.50</td>
</tr>
<tr>
<td>Liquidity</td>
<td>0.99</td>
<td>1.40</td>
<td>1.49</td>
<td>&gt;0.50</td>
</tr>
<tr>
<td>Profitability</td>
<td>2.2%</td>
<td>3.9%</td>
<td>2.5%</td>
<td>0%&lt;&gt;3%</td>
</tr>
<tr>
<td>Resilience</td>
<td>52.8%</td>
<td>83.5%</td>
<td>85.2%</td>
<td>&gt;50%</td>
</tr>
<tr>
<td>Percentage of contract income</td>
<td>27.6%</td>
<td>26.9%</td>
<td>24.7%</td>
<td>&gt;30%</td>
</tr>
<tr>
<td>Accommodation costs</td>
<td>13.9%</td>
<td>11.7%</td>
<td>11.3%</td>
<td>&lt;14%</td>
</tr>
</tbody>
</table>
3. PROFITABILITY
Profitability is defined here as follows: results from ordinary activities / total revenues from ordinary activities * 100%.
A – small – positive operating result (between 0% and 3%) is necessary to ensure the continuity of the organization. An incidentally high operating result requires explanation and a structurally high operating surplus is undesirable from a societal point of view. With 2.5%, the operating result in 2016 was within the margins.

4. RESILIENCE
The UG’s resilience ratio (equity / total revenues * 100%) is currently relatively high. This key figure indicates that there is scope for investing in new developments. The ratio was set at 15% for the faculties and service units, based on their risk profile. The minimum ratio for the UG as a whole is 50% (the sector average).

5. CONTRACT REVENUE
The long-term budget is based on an estimated growth of 4% per year in contract revenue. On that basis, the target for contract revenue has been set at at least 30% of the UG’s total revenues. The share of contract revenue in 2016 dropped from 27% to 25%, so below the target the UG had set for itself. Attention is being paid to this.

6. ACCOMMODATION COSTS
This ratio includes accommodation costs as well as depreciation costs. The depreciation costs relate to investments in buildings, fitting-out and equipment. The UG’s accommodation costs are currently relatively low. With the implementation of the long-term Accommodation Plan, qualitative improvements will be realized, with the accommodation costs anticipated to remain below 14% (the sector average in 2012).
10 December 2016: Feringa at the award ceremony in Stockholm.
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Condensed financial statements

General

The balance sheet has been organized according to increasing degree of liquidity. In the Financial Statements, the results of five other legal entities have been incorporated: Stichting Academische Opleidingen Groningen, Stichting University Guesthouse, Applied NanoSystems BV, Universitair Opleidingscentrum Groningen Market BV, and RUG Houdstermaatschappij BV.

Statement of Revenues and Expenses

Revenues and expenses have been allocated to the financial year they pertain to. Profits have only been included insofar as they were realized at the balance-sheet date. Losses and risks whose origin predates the end of the financial year have been taken into account if they came to be known before the Financial Statements were drawn up. An analysis of the differences between actual and budgeted revenues and expenses is included in the Management Report.

The Statement of Revenues and Expenses for 2016 is as follows:

<table>
<thead>
<tr>
<th>Revenues</th>
<th>Account 2016</th>
<th>Account 2015</th>
<th>Budget 2016</th>
<th>Budget 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>General income</td>
<td>426.3</td>
<td>417.3</td>
<td>406.8</td>
<td>428.6</td>
</tr>
<tr>
<td>Income from third parties</td>
<td>235.0</td>
<td>235.4</td>
<td>199.0</td>
<td>207.2</td>
</tr>
<tr>
<td>Financial revenues</td>
<td>0.9</td>
<td>1.6</td>
<td>1.0</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td><strong>662.2</strong></td>
<td><strong>654.3</strong></td>
<td><strong>606.8</strong></td>
<td><strong>636.4</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenses</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel expenses</td>
<td>439.7</td>
<td>416.0</td>
<td>410.1</td>
<td>434.9</td>
</tr>
<tr>
<td>Other expenses</td>
<td>205.3</td>
<td>212.6</td>
<td>202.1</td>
<td>209.1</td>
</tr>
<tr>
<td></td>
<td><strong>645.0</strong></td>
<td><strong>628.8</strong></td>
<td><strong>612.2</strong></td>
<td><strong>644.0</strong></td>
</tr>
</tbody>
</table>

Balance of revenues and expenses

17.2

25.7

-5.4

-7.6

The annual account for 2016 is closed with a positive balance of EUR 17 million.
The Statement of Revenues and Expenses can be specified in terms of income and cost categories as follows:

**Overview of revenues and expenses specified by type**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General income</td>
<td></td>
<td></td>
<td>Personnel expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Government funding</td>
<td>364.7</td>
<td>356.9</td>
<td>- Wages and salaries</td>
<td>325.3</td>
<td>302.9</td>
</tr>
<tr>
<td>- Other contributions</td>
<td></td>
<td></td>
<td>- Social security contributions</td>
<td>35.8</td>
<td>32.0</td>
</tr>
<tr>
<td>- Tuition fees</td>
<td>61.6</td>
<td>60.4</td>
<td>- Pension contributions</td>
<td>38.6</td>
<td>37.9</td>
</tr>
<tr>
<td>Total General income</td>
<td>426.3</td>
<td>417.3</td>
<td>- Redundancy payments</td>
<td>4.2</td>
<td>4.1</td>
</tr>
<tr>
<td>Income from third parties</td>
<td></td>
<td></td>
<td>- Other staffing expenses</td>
<td>35.8</td>
<td>39.1</td>
</tr>
<tr>
<td>- Contract teaching</td>
<td>7.0</td>
<td>10.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Contract research</td>
<td>156.2</td>
<td>165.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Other revenues</td>
<td>71.8</td>
<td>59.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Income from third parties</td>
<td>235.0</td>
<td>235.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Depreciation</td>
<td></td>
<td></td>
<td></td>
<td>32.9</td>
<td>34.8</td>
</tr>
<tr>
<td>- Accommodation costs</td>
<td></td>
<td></td>
<td></td>
<td>40.4</td>
<td>39.0</td>
</tr>
<tr>
<td>- Other organizational expenses</td>
<td></td>
<td></td>
<td></td>
<td>132.0</td>
<td>138.8</td>
</tr>
<tr>
<td>Total Financial revenues</td>
<td>0.9</td>
<td>1.6</td>
<td></td>
<td>205.3</td>
<td>212.6</td>
</tr>
<tr>
<td>Revenues – total</td>
<td>662.2</td>
<td>654.3</td>
<td>Financial expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenses – total</td>
<td></td>
<td></td>
<td></td>
<td>845.0</td>
<td>828.8</td>
</tr>
</tbody>
</table>

The 2016 financial year is closed with a positive result of EUR 17 million, which has been added to the special-purpose reserve and the special-purpose fund.

The allocation of the result in terms of main cost centres is specified below:

**Allocation of the result**

<table>
<thead>
<tr>
<th>Faculties</th>
<th>Result</th>
<th>18.9</th>
<th>General reserve 18.9</th>
<th>Special-purpose reserve</th>
<th>Special-purpose fund -0.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other cost centres:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Management and administration</td>
<td>0.1</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Service units</td>
<td>1.3</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Other units</td>
<td>-3.6</td>
<td>-3.0</td>
<td></td>
<td>-0.6</td>
<td></td>
</tr>
<tr>
<td>- Affiliated entities</td>
<td>0.5</td>
<td>0.5</td>
<td></td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17.2</td>
<td>17.3</td>
<td>0.0</td>
<td>-0.1</td>
<td></td>
</tr>
</tbody>
</table>
Cash flow

In 2016, the amount for short-term liquidities increased by EUR 25 million. EUR 17 million from the cash flow from operational activities pertains to the result, EUR 42 million to depreciation/amortization and to movements with regard to provisions, and EUR -01 million to movements with regard to the working capital.

The cash flow from investment activities pertains to investments in tangible assets and tangible non-current assets for EUR -53 million, and to financial non-current assets for EUR 19 million.

Cash flow statement (amounts x EUR 1 million)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flow from operational activities</td>
<td>58.4</td>
<td>71.3</td>
<td>77.8</td>
</tr>
<tr>
<td>Cash flow from investment activities</td>
<td>-34.0</td>
<td>-46.3</td>
<td>-36.9</td>
</tr>
<tr>
<td>Cash flow from financing activities</td>
<td>0.1</td>
<td>0.0</td>
<td>-0.5</td>
</tr>
<tr>
<td>Movement with regard to liquid assets</td>
<td>24.5</td>
<td>25.0</td>
<td>40.4</td>
</tr>
</tbody>
</table>

Senior Officials in the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT)
(amounts x EUR 1,000)

<table>
<thead>
<tr>
<th></th>
<th>2016 1/1 - 31/12</th>
<th>2015 1/1 - 31/12</th>
<th>2016 1/1 - 31/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remuneration</td>
<td>212.3</td>
<td>178.7</td>
<td>178.7</td>
</tr>
<tr>
<td>Provision for remuneration payable at a future date</td>
<td>17.3</td>
<td>16.1</td>
<td>16.1</td>
</tr>
<tr>
<td>Total remuneration</td>
<td>229.8</td>
<td>194.8</td>
<td>194.8</td>
</tr>
</tbody>
</table>

## Remuneration or severance payments for non-senior officials (amounts x EUR 1)

<table>
<thead>
<tr>
<th></th>
<th>Dean 2016 1/1 - 31/12</th>
<th>Dean 2015 1/1 - 31/12</th>
<th>Professor 2016 1/1 - 31/12</th>
<th>Professor 2015 1/1 - 31/12</th>
<th>Researcher 2016 1/1 - 31/12</th>
<th>Researcher 2015 1/1 - 31/12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Remuneration</strong></td>
<td>174,482.0</td>
<td>162,998.0</td>
<td>215,227.0</td>
<td>231,120.0</td>
<td>222,520.0</td>
<td>6,827.0</td>
</tr>
<tr>
<td><strong>Provision for remuneration payable at a future date</strong></td>
<td>15,817.0</td>
<td>16,473.0</td>
<td>14,309.0</td>
<td>14,739.0</td>
<td>6,827.0</td>
<td>6,827.0</td>
</tr>
<tr>
<td><strong>Total remuneration</strong></td>
<td>190,299.0</td>
<td>179,471.0</td>
<td>229,536.0</td>
<td>245,859.0</td>
<td>229,347.0</td>
<td>6,827.0</td>
</tr>
<tr>
<td><strong>Professor 2016 1/1 - 31/12</strong></td>
<td>72,322.0</td>
<td>161,347.0</td>
<td>169,925.0</td>
<td>101,374.0</td>
<td>167,064.0</td>
<td>155,064.0</td>
</tr>
<tr>
<td><strong>Provision for remuneration payable at a future date</strong></td>
<td>15,767.0</td>
<td>16,416.0</td>
<td>15,767.0</td>
<td>10,828.0</td>
<td>13,756.0</td>
<td>1,6231.0</td>
</tr>
<tr>
<td><strong>Total remuneration</strong></td>
<td>188,089.0</td>
<td>177,763.0</td>
<td>185,692.0</td>
<td>112,202.0</td>
<td>180,820.0</td>
<td>171,295.0</td>
</tr>
<tr>
<td><strong>Professor 2015 1/1 - 31/12</strong></td>
<td>165,205.0</td>
<td>155,014.0</td>
<td>169,025.0</td>
<td>101,374.0</td>
<td>167,064.0</td>
<td>155,064.0</td>
</tr>
<tr>
<td><strong>Provision for remuneration payable at a future date</strong></td>
<td>15,606.0</td>
<td>16,231.0</td>
<td>15,606.0</td>
<td>10,828.0</td>
<td>13,756.0</td>
<td>1,6231.0</td>
</tr>
<tr>
<td><strong>Total remuneration</strong></td>
<td>180,811.0</td>
<td>171,245.0</td>
<td>180,811.0</td>
<td>112,202.0</td>
<td>180,820.0</td>
<td>171,295.0</td>
</tr>
</tbody>
</table>

### Explanatory note

In accordance with Section 6 of the (amended) policy guidelines for the application of the WNT (Beleidsregels toepassing WNT), the University of Groningen does not report on external non-senior officials.
### Balance sheet

The consolidated balance sheet as at 31 December 2016 is as follows:

#### Balance sheet as at 31 December 2016 (amounts x EUR 1 million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tangible non-current assets</td>
<td>452.0</td>
<td>431.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial non-current assets</td>
<td>15.6</td>
<td>34.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-current assets – total</strong></td>
<td><strong>467.6</strong></td>
<td><strong>466.5</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stocks</td>
<td>1.0</td>
<td>1.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receivables</td>
<td>174.1</td>
<td>173.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid assets</td>
<td>261.1</td>
<td>236.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current assets – total</strong></td>
<td><strong>436.2</strong></td>
<td><strong>411.7</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity capital</td>
<td>563.6</td>
<td>546.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan capital</td>
<td>48.5</td>
<td>39.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provisions</td>
<td>48.5</td>
<td>39.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Loan capital – total</strong></td>
<td><strong>340.4</strong></td>
<td><strong>331.8</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balance sheet as at 31 December 2016</strong></td>
<td><strong>903.8</strong></td>
<td><strong>878.2</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Notes to the balance sheet (amounts x EUR 1 million)**

#### Tangible non-current assets

Tangible non-current assets have been valued at their acquisition price or their manufacturing cost less depreciation.

The depreciation term for real estate is based on Ministry guidelines.

The depreciation term for inventories and equipment has been determined according to their expected useful life.

#### Condensed financial statements

<table>
<thead>
<tr>
<th>Buildings and sites</th>
<th>Work in progress</th>
<th>Real estate – total</th>
<th>Inventories and equipment</th>
<th>Non-current assets – total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition price (up to 2014)</td>
<td>730.9</td>
<td>60.8</td>
<td>791.7</td>
<td>98.0</td>
</tr>
<tr>
<td>Depreciation (up to 2014)</td>
<td>-395.8</td>
<td></td>
<td>-395.8</td>
<td>-62.0</td>
</tr>
<tr>
<td>Book value at 31/12/2014</td>
<td>335.1</td>
<td>60.8</td>
<td>395.9</td>
<td>38.0</td>
</tr>
<tr>
<td>Investments in 2015</td>
<td>21.7</td>
<td></td>
<td>45.1</td>
<td>7.9</td>
</tr>
<tr>
<td>Divestments in 2015</td>
<td>-22.7</td>
<td></td>
<td>-22.7</td>
<td>-10.2</td>
</tr>
<tr>
<td>Depreciation in 2015</td>
<td>334.1</td>
<td>84.2</td>
<td>-418.3</td>
<td>33.7</td>
</tr>
</tbody>
</table>
Financial non-current assets

Participating interests in legal entities have been valued at net asset value. The other receivables (i.e. loans to legal entities) are stated at their fair value. Other securities have been valued at nominal value.

<table>
<thead>
<tr>
<th></th>
<th>Book value at 01/01/2016</th>
<th>Investments / donations in 2016</th>
<th>Loans granted / settlements in 2016</th>
<th>Repayments / settlements in 2016</th>
<th>Book value at 31/12/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating interests in legal entities</td>
<td>7.0</td>
<td></td>
<td>-0.2</td>
<td>6.8</td>
<td></td>
</tr>
<tr>
<td>Loans to legal entities</td>
<td>2.6</td>
<td>1.2</td>
<td>-25.0</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td>25.0</td>
<td>5.0</td>
<td>-25.0</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>34.6</td>
<td>5.0</td>
<td>1.2</td>
<td>-25.2</td>
<td>15.6</td>
</tr>
</tbody>
</table>

Stocks

In order to perform its main tasks, the University of Groningen owns a number of repositories. Stocks are stated at their acquisition price under application of the FIFO principle (‘First In, First Out’), or – if such is lower – at their realizable value. In determining the realizable value, the potential obsolescence of the stocks has been taken into account. On the balance sheet, the stocks have been valued at EUR 1 million (2015: EUR 1.3 million).

Receivables

Receivables are stated at fair value. A provision of EUR 0.0 million has been deducted from the receivables as a result of doubtful debts.
### Liquid assets

<table>
<thead>
<tr>
<th></th>
<th>31/12/2016</th>
<th>31/12/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash money</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Banks</td>
<td>30.6</td>
<td>39.6</td>
</tr>
<tr>
<td>Current accounts</td>
<td>87.1</td>
<td>5.6</td>
</tr>
<tr>
<td>Deposits (short-term)</td>
<td>141.0</td>
<td>189.0</td>
</tr>
<tr>
<td>Affiliated entities</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>261.1</strong></td>
<td><strong>236.6</strong></td>
</tr>
</tbody>
</table>

Liquid assets are comprised of cash money, account balances and demand deposits with a term not exceeding twelve months, and are at the organization’s free disposal.

### Equity capital

<table>
<thead>
<tr>
<th></th>
<th>Bank balance at 01/01/2016</th>
<th>Operating balance in 2016</th>
<th>Movements in 2016</th>
<th>Bank balance at 31/12/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>General reserves</td>
<td>432.0</td>
<td>17.3</td>
<td>102.6</td>
<td>551.9</td>
</tr>
<tr>
<td>Special-purpose reserve (public)</td>
<td>108.2</td>
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<td>5.6</td>
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<tr>
<td>Special-purpose reserve (private)</td>
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<tr>
<td>Special-purpose fund (public)</td>
<td>1.8</td>
<td>-0.6</td>
<td>1.2</td>
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<tr>
<td>Special-purpose fund (private)</td>
<td>4.3</td>
<td>0.5</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>546.4</strong></td>
<td><strong>17.2</strong></td>
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## Provisions

<table>
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<tr>
<th>Provision</th>
<th>01/01/2016</th>
<th>Additions in 2016</th>
<th>Withdrawals / releases in 2016</th>
<th>Reclassification in 2016</th>
<th>31/12/2016</th>
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<td>Reorganization</td>
<td>5.4</td>
<td>0.2</td>
<td>-0.2</td>
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<td>Unemployment benefit contributions</td>
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<td>5.2</td>
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<td>Long-term illnesses</td>
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<td>Other staff provisions</td>
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<td>-0.6</td>
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<td><strong>Total</strong></td>
<td><strong>39.0</strong></td>
<td><strong>17.9</strong></td>
<td><strong>-8.0</strong></td>
<td><strong>-0.4</strong></td>
<td><strong>48.5</strong></td>
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</table>

### Explanatory note

Provisions are created when the organization has, on the balance-sheet date, a legal or constructive obligation as a result of past events, when it is more likely than not that an outflow of resources will be required to settle the obligation, and when the amount can be reliably estimated. The provisions are stated at the best estimate of the amounts required to settle the obligations as at the balance-sheet date. The provisions are stated at the nominal value of the expenditure that is expected to be required to settle the obligations, unless stated otherwise.

For the purpose of current unemployment payment commitments, a provision of EUR 2 million has been included as of the end of 2015. This provision was created on the basis of a calculation of the commitments in respect of the old unemployment payments and of the annual expenses for the new unemployment payments.

The ‘Reorganization’ provision was created to cover the costs that are directly associated with reorganizations. This provision will be used if, at the balance-sheet date, a formalized reorganization plan is at hand, and the expectation is that the reorganization will go ahead.

Until and including 2004, the University labour conditions stipulated that employees were allowed to save up their reduced working hours (‘ADV’) so as to use them in the form of early retirement. During this period, their remuneration will continue, and replacement of the employees concerned will have to be organized by the department in question. The Financial Statements include a provision for leave saving in order to accommodate the financial commitments resulting from this.
The ‘Own risk’ provision was created for the obligations resulting from the fact that the University is the own-risk bearer under the Return to Work Scheme for the Partially Disabled (WGA), which falls under the Work and Income (Capacity for Work) Act (WIA).

As of 1 January 2015, the University has also become the own-risk bearer for the flexible premium under the Sickness Benefits Act (ZW). As a result, the University will itself bear the associated expenses for new entrants. In the Financial Statements for 2015, a provision was created for this. The amount of the provision has been determined on the basis of the information from the individual subscribers for the term the University runs the risk of having to bear the expenses for any payouts. Subscriber information and risk are derived from UWV decisions.

The University has created a provision for obligations existing on the balance-sheet date for future payments to employees that – at the balance-sheet date – are expected to be completely or partially unable to perform work as a result of illness or invalidity. Contributions from other parties have not been taken into account.

The anniversary provision was created for the obligations resulting from future long-service bonus payouts for current employees. This provision is stated at present value. In 2015, a discounting rate of 1.7% was taken into account.

The general staff provision is comprised of the provision ‘50+ holiday saving scheme’, the provision ‘Long-term savings model’, and the provision ‘UMCG O&O – social policy’.

The ‘Graduation Fund’ provision has been calculated on the basis of the obligations the University has as a result of this scheme as at the balance-sheet date.

The ‘Environmental risk’ provision was created for the obligations resulting from the current legal duty to remove environmental pollutants (i.e. asbestos) present in buildings. The amount of the provision has been determined on the basis of decision-making with regard to environmental remediation and of the nominal value of current historical data.
### Short-term debts

<table>
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<th>31/12/2015</th>
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</thead>
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<tr>
<td>Instalments invoiced and received in advance (PiP)</td>
<td>21.7</td>
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<td>Accounts payable</td>
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<td>Taxation and social security contributions</td>
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<td>14.7</td>
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<td>Debts resulting from pension commitments</td>
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<td>3.1</td>
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<tr>
<td>Other short-term debts</td>
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<tr>
<td>Accrued liabilities</td>
<td>216.8</td>
<td>224.2</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>291.9</strong></td>
<td><strong>292.8</strong></td>
</tr>
</tbody>
</table>

### Explanatory notes

PiP (Projects in Progress) pertains to projects executed on behalf of third parties that were not completed on the balance-sheet date. The amount for projects in progress has been valued at the directly allocated costs for labour and materials, with a surcharge for indirect personnel costs. Instalments already claimed and/or advances already received have been deducted. The profit share from projects financed by third parties has been determined in accordance with the principle of ‘Percentage of Completion’ (PoC method). Anticipated losses have been included in the Statement of Revenues and Expenses.
10 December 2016: Nobel laureates at the award ceremony in Stockholm.

© Nobel Media AB 2016. Foto: Alexander Mahmoud
## Strategic key figures

<table>
<thead>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>28,244</td>
<td>28,324</td>
<td>27,488</td>
<td>27,338</td>
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<td>10.8%</td>
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<td>11.3%</td>
<td>11.3%</td>
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<td>Of which with foreign nationality</td>
<td>4,900</td>
<td>4,104</td>
<td>3,642</td>
<td>3,244</td>
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<td>Percentage of foreign nationalities at UG</td>
<td>17.0%</td>
<td>14.5%</td>
<td>12.9%</td>
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<td>10.7%</td>
<td>9.6%</td>
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<td>26,790</td>
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<td>491</td>
<td>591</td>
<td>656</td>
<td>701</td>
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<td>45</td>
<td>40</td>
<td>42</td>
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<td>37</td>
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<td>7,745</td>
<td>7,447</td>
<td>7,921</td>
<td>7,945</td>
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<td>8,751</td>
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<td>5,429</td>
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<td>874</td>
<td>818</td>
<td>832</td>
<td>712</td>
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<td>580</td>
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<td>Total</td>
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<td>Propaedeutic phase</td>
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<td>4,444</td>
<td>4,344</td>
<td>4,458</td>
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<td>4,186</td>
<td>4,093</td>
<td>3,976</td>
<td>4,720</td>
<td>3,699</td>
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<td>11.5%</td>
<td>11.7%</td>
<td>12.2%</td>
<td>11.7%</td>
<td>12.9%</td>
<td>11.8%</td>
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<tr>
<td>Master's students</td>
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<td>3,889</td>
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<td>4,020</td>
<td>3,702</td>
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<td>10.2%</td>
<td>10.6%</td>
<td>10.0%</td>
<td>10.8%</td>
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### Calendar year

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<td>1,864</td>
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<td>NWO grants</td>
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<td>10.32%</td>
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### University of Groningen employees (excl. UMCG; FTE)

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<td>Academic staff</td>
<td>2,301</td>
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<td>9.17%</td>
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<td>66</td>
<td>50</td>
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<td>Professors</td>
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<td>810</td>
<td>801</td>
<td>738</td>
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<td>UG market share</td>
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<td>9.94%</td>
<td>9.82%</td>
<td>9.06%</td>
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<td>Non-Dutch nationals</td>
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<td>395</td>
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<td>343</td>
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<td>Other academic staff</td>
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<td>575</td>
<td>564</td>
<td>551</td>
<td>562</td>
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<td>20</td>
<td>22</td>
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<td>UG market share</td>
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<td>34.00%</td>
<td>33.81%</td>
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### UMCG employees (FTE)

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</thead>
<tbody>
<tr>
<td><strong>Academic staff</strong></td>
<td>1,051</td>
<td>1,025</td>
<td>1,015</td>
<td>988</td>
<td>915</td>
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<td><strong>Non-Dutch nationals</strong></td>
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<td>201</td>
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<td><strong>Admin/support staff</strong></td>
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<td>557</td>
<td>550</td>
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<td>416</td>
<td>422</td>
<td>395</td>
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<tr>
<td><strong>Met Non-Dutch nationals</strong></td>
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<td>125</td>
<td>121</td>
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### Other PhD students

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<th>2014</th>
<th>2013</th>
<th>2012</th>
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<td><strong>Contract PhD students</strong></td>
<td>597</td>
<td>565</td>
<td>578</td>
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<td>594</td>
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<td><strong>External PhD students</strong></td>
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<td>305</td>
<td>320</td>
<td>361</td>
<td>347</td>
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<tr>
<td><strong>Status unknown</strong></td>
<td>8</td>
<td>8</td>
<td>11</td>
<td>16</td>
<td>36</td>
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<tr>
<td><strong>NWO-funded staff (FTE)</strong></td>
<td>not yet known</td>
<td>not yet known</td>
<td>not yet known</td>
<td>not yet known</td>
<td>458.2</td>
</tr>
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<td><strong>NWO-funded WP +OBP (FTE)</strong></td>
<td>not yet known</td>
<td>not yet known</td>
<td>not yet known</td>
<td>10.00%</td>
<td>9.52%</td>
</tr>
</tbody>
</table>
14 December 2016: Feringa and his entourage are received at the Netherlands Embassy in Stockholm.
APPENDIX 1
Overview of central organizations
I. Governance

Board of the University
The Board of the University is the highest administrative body of the University of Groningen. The three members, including the Rector Magnificus, are appointed by the Supervisory Board in consultation with the University Council. The Board of the University reports to the Supervisory Board.

Supervisory Board
The Supervisory Board is a statutory body that monitors the management of the University. The Board’s tasks include the assessment and approval of the institutional plan, the annual report and the budget and the management regulations. Its members are appointed by the Minister for Education, Culture and Science. One of the members has the particular confidence of the University Council. The Supervisory Board is accountable to the Minister.

II. Consultative participation

Based on the Higher Education and Research Act (WHW) and the Electoral Regulations, the University’s staff and students are eligible to vote and be voted for in elections for the University Council or a Faculty Council or Service Unit Council. This right also applies to staff of the Netherlands Organisation for Scientific Research (NWO) and similar organizations who are working at the University.

University Council, Faculty Councils and Service Councils
Half of the members of the University Council and the Faculty Councils are university staff; the other half are students. They are elected from among and by the group they represent: staff and students of the University of Groningen. Staff members are elected for two years and students for one year. Four of the University’s service units have a Service Unit Council: the Office of the University, the Library, the University Services Department and the Center for Information Technology. The councils consist exclusively of staff members elected from and by the employees of the relevant unit.

Local Consultative Committee
The Local Consultative Committee (LO) is where the Board of the University and the four member employee organizations (AbvA, FNV, CNV Publieke Zaal, CMHF and AC/FBZ) discuss important matters with regard to the legal position of employees, as well as the rules for personnel policy at the University of Groningen that may affect this legal position. The LO has an important voice in matters relating to staff planning and reorganizations when the Social Plan has to be approved.

III. Advice

The Executive Board receives advice from the following bodies and committees:

Committee of Deans
The Committee of Deans (CvD) has an advisory role. It comprises the chairs of the Faculty Boards, also known as Deans. It is chaired by the Rector Magnificus who, by virtue of his position, is a member of the Board of the University. The Committee of Deans is also responsible for the awarding of doctorates and honorary doctorates.

Management Council
The Management Council has an advisory role in the fields of personnel, finance and facilities such as IT. The Council is composed of the Treasurers of the nine Faculty Boards and the directors of the Office of the University Office, the Center for Information Technology (CIT) and the University Library (UB).

University Committee for Academic Practice
The University Committee for Academic Practice (UCW) is an independent advisory committee of the Board of the University.

University Committee for Education
The University Committee for Education (UCO) advises the Board of the University on matters concerning education at the University of Groningen, both on request and independently. A subcommittee of the UCO is the Advisory Committee for Students with a Performance Disability (ACF).
APPENDIX 2

Backgrounds of the board members

I. Members of the Board of the University

Prof. S. Poppema (President)
Sibrand Poppema (1949) studied medicine at the University of Groningen, where he also trained as an anatomical pathologist and gained his PhD. His experience abroad includes a period spent as a research fellow in Kiel (Germany) and Boston, Massachusetts. In 1985, he was appointed Professor of Immunopathology at the University of Groningen. He spent the period between 1987 and 1995 in Canada, as Professor of Pathology and Oncology at the University of Alberta and as Director of various departments of the Cross Cancer Institute in Edmonton. In 1995, he became Professor of General and Surgical Pathology at the University of Groningen. From 1999 to 2005 he was Dean of the Faculty of Medical Sciences, and he became Vice President of the University Medical Center Groningen (UMCG) after its establishment in 2005. In 2008, he was appointed President of the Board of the University of Groningen.

Prof. E. Sterken (Rector Magnificus)
Elmer Sterken (1961) studied Econometrics at the University of Groningen, and graduated cum laude (with honours). In 1990, he was awarded a PhD in Groningen for a thesis entitled DUFIS. An econometric model of the Dutch financial system. He subsequently pursued a career at the University of Groningen and was appointed professor-director of the National Network for Business Economics (UMCG). From 1999 to 2005 he was Director of the Faculty of Medical Sciences, and he became Vice President of the University Medical Center Groningen (UMCG) after its establishment in 2005. In 2008, he was appointed President of the Board of the University of Groningen.

J. de Jeu, MA, MSc (Vice President)
Jan de Jeu (1955) graduated in Philosophy (1981) and Educational Sciences (1983) at the University of Groningen. In 1988/89, he followed an Executive Development Programme at Erasmus University Rotterdam (Business Administration), and in 1998 he completed the Senior Executive Programme at the London Business School. De Jeu began his career in management positions at PTT Nederland and PTT Post (1984-1993). He then worked as Sector Manager of Facilities and Services at the Martini Hospital in Groningen (1993-2000). In 2000, he became a managing partner of Twynstra Gudde Consultants & Managers in Amersfoort. In 2008, he was appointed Director of Twynstra Gudde Holding. In January 2012 he joined the Board of the University of Groningen. He is responsible for finance, technology transfer, public-private partnerships, commercial activities, IT and accommodation and real estate.

II. Members of the Supervisory Board

T.H.J. Joustra LLM (Chair)
Tjibbe Joustra (1951) studied Dutch law at the University of Groningen from 1970 to 1975. He began his career at the Ministry of Agriculture and Fisheries, where he was appointed Secretary-General in 1987. From 2000 to 2004, he was Chairman of the Executive Board of the Institute for Employee Benefit Schemes (UWV). After this, he was the Dutch National Antiterrorism Coordinator for five years. From 2009 to 2011, he was Chairman of the Horticulture Board (Productschap Tuinbouw) and other organizations. On 1 February 2011, he was appointed Chairman of the Dutch Safety Board (Onderzoeksraad voor Veiligheid).
H. D. Post
Harm D. Post (1953) began his career in 1976 at the South Holland provincial authorities, where he worked on traffic and transport policy in South Holland. From 1978 onwards, he held various management positions at Hanze Vervoer- en Techniekgroep in Groningen: he was Director of GADO (the Groningen bus company), GADO Touring (the Groningen coach company), and the taxi company GadoTax. He also worked in the Ukraine for the owner of these companies. Harm Post then became Director of NoordNed Personenvervoer BV, a new bus and train operator owned by the UK-based transport multinational Arriva. In June 1999, under Post's leadership, NoordNed won the first public tender for railway lines in the province of Groningen. Since 2001, Post has been Director of Groningen Seaports, the company that manages two seaports, two inland ports and a railport. On 1 October 2017, he will resign from that position. Meanwhile, he has joined a Steering Committee that is tasked with promoting business activities around Groningen Airport Eelde. He has always engaged in many administrative activities in addition to his work. For example, he is currently Chairman of Commerciele Club Groningen (CCG), Honorary Consul for Norway, member of the Supervisory Board of the Noord Nederlands Toneel (NNT) theatre company, and Chairman of the ‘Friends of the Beatrix Children's Hospital’.

A. S. Roeters
Annette Roeters (1954) was appointed General Director of the Child Care and Protection Agency (RvdK) on 1 February 2015. Before this, she was Senior Chief Inspector of the Netherlands Inspectorate of Education, part of the Ministry of Education, Culture and Science (2008-2015). Previously, she was also a member of the Executive Board of VU University Amsterdam and Executive Board member and then Vice President of Windesheim University of Applied Sciences. Annette Roeters studied Dutch Language and Literature at the University of Groningen, and graduated with a doctoral degree in 1982.

H. J. E. van Balen LLM
Heleen van Balen (1964) studied Law at the University of Groningen. She specializes in strategic legal management, higher education management and development, Governance, Risk Management and Compliance (GRC). Heleen van Balen is the owner of Commutatio Group BV and is a lecturer in Leadership & Governance at Hanze University of Applied Sciences. She has extensive experience in governance and management. Ms van Balen is the Chair of the Giraffa network and Vice Chair of Commerciele Club Groningen (CCG). She is also a member of the Board of Het Behouden Huys. In the Supervisory Board, she is the member with the particular trust of the University Council.
## III. Terms of office

### Board of the University

<table>
<thead>
<tr>
<th>Administrator</th>
<th>Position</th>
<th>Start of appointment</th>
<th>End of appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. Poppema</td>
<td>President</td>
<td>1 September 2008</td>
<td>1 October 2018</td>
</tr>
<tr>
<td>J. de Jeu</td>
<td>Vice President</td>
<td>1 January 2012</td>
<td>1 January 2020</td>
</tr>
<tr>
<td>E. Sterken</td>
<td>Rector Magnificus</td>
<td>1 March 2011</td>
<td>1 March 2019</td>
</tr>
</tbody>
</table>

### Supervisory Board

<table>
<thead>
<tr>
<th>Administrator</th>
<th>Position</th>
<th>Start of appointment</th>
<th>End of appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.H.J. Joustra</td>
<td>Chair</td>
<td>1 September 2012</td>
<td>1 September 2016</td>
</tr>
<tr>
<td>H.D. Post</td>
<td>Member</td>
<td>1 March 2013</td>
<td>1 March 2017</td>
</tr>
<tr>
<td>W. Reehoorn</td>
<td>Member</td>
<td>1 January 2014</td>
<td>1 January 2018</td>
</tr>
<tr>
<td>A.S. Roeters</td>
<td>Member</td>
<td>1 November 2015</td>
<td>1 November 2019</td>
</tr>
<tr>
<td>H.J.E. van Balen</td>
<td>Member</td>
<td>1 December 2016</td>
<td>1 December 2020</td>
</tr>
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</table>
## APPENDIX 3

### Other positions

#### I. Board of the University

<table>
<thead>
<tr>
<th>Position</th>
<th>Organization</th>
<th>Remuneration</th>
</tr>
</thead>
<tbody>
<tr>
<td>President of the Board of the University</td>
<td>Stichting Academische Opleidingen Groningen (AOG)</td>
<td>No</td>
</tr>
<tr>
<td>Chair of the Board of Directors</td>
<td>Groningen University Fund (GUF)</td>
<td>No</td>
</tr>
<tr>
<td>Chair of the Supervisory Board</td>
<td>Stichting Behoud Groene Hortus (SBGH)</td>
<td>No</td>
</tr>
<tr>
<td>Chair of the Foundation Board</td>
<td>RUG Houdstermaatschappij BV</td>
<td>No</td>
</tr>
<tr>
<td>Member of the Supervisory Board</td>
<td>Energy Academy Europe (EAE)</td>
<td>No</td>
</tr>
<tr>
<td>Member of the Supervisory Board</td>
<td>Stichting Energy Valley</td>
<td>No</td>
</tr>
<tr>
<td>Member of the Strategic Board</td>
<td>Stichting Ubbo Emmius Fonds (UEF)</td>
<td>No</td>
</tr>
<tr>
<td>Chair of the Executive Committee</td>
<td>The Groningen Agreement</td>
<td>No</td>
</tr>
<tr>
<td>Vice Chair of the Board of Directors</td>
<td>Groningen Confucius Institute (GCI)</td>
<td>No</td>
</tr>
<tr>
<td>Member of the Steering Committee</td>
<td>Confucius Institute Headquarters</td>
<td>No</td>
</tr>
<tr>
<td>Member of the Board</td>
<td>Netherlands-Caribbean Foundation for Clinical Higher Education (NASHKO)</td>
<td>No</td>
</tr>
<tr>
<td>Member of the Council</td>
<td>VSNU (Association of Universities in the Netherlands)</td>
<td>No</td>
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<tr>
<td>Vice Chair</td>
<td>Medical General Board, VSNU</td>
<td>No</td>
</tr>
<tr>
<td>Member of the Board of Directors</td>
<td>Steering Committee on Governance &amp; Finance, VSNU</td>
<td>No</td>
</tr>
<tr>
<td>Chair</td>
<td>Capaciteitsorgaan</td>
<td>Yes (UG)</td>
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<tr>
<td>Member of the Plenary Body</td>
<td>Dutch Academic Institutions Abroad (NWIB)</td>
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<tr>
<td>Member of the Board</td>
<td>HTSM Northern Netherlands</td>
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<tr>
<td>Member of the Taskforce</td>
<td>Treant Zorggroep</td>
<td>Yes (UG)</td>
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<tr>
<td>Member of the Supervisory Board</td>
<td>Treant Zorggroep</td>
<td>Yes (UG)</td>
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<tr>
<td>Chair of the Quality &amp; Safety Audit Committee</td>
<td>Energy Delta Institute (EDI)</td>
<td>No</td>
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<tr>
<td>Member of the International Supervisory Board</td>
<td>Netherlands Energy Research Alliance (NERA)</td>
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<tr>
<td>Member of the Board</td>
<td>Association of Arab and European Universities (AEUA)</td>
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<tr>
<td>Member of the Board</td>
<td>European Medical School Oldenburg-Groningen (EMS)</td>
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<tr>
<td>Member of the Board of Participants</td>
<td>Materials Innovation Institute (M2i)</td>
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<td>Member</td>
<td>Netherlands Academy of Technology and Innovation (AcTI)</td>
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<tr>
<td>Honorary Consul-General</td>
<td>Republic of Korea</td>
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<td>Organization</td>
<td>Remuneration</td>
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<tr>
<td>Member of the Advisory Board</td>
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<tr>
<td>Member of the Scientific Advisory Board</td>
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<tr>
<td>Member of the Academic Advisory Group</td>
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<tr>
<td>Member of the Supervisory Board</td>
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<tr>
<td>Member of the Advisory Board</td>
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<tr>
<td>Institute for Cultural Diplomacy (ICD), Studies section</td>
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<tr>
<td>Berlin Institute of Health (BIH)</td>
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<tr>
<td>Manipal Global Education Services (MaGE)</td>
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<tr>
<td>Alliance for Healthy Ageing (with Mayo Clinics)</td>
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<tr>
<td>Stichting International Trade &amp; Investment Center (ITIC)</td>
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<tr>
<td>Vice President of the Board of the University</td>
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<tr>
<td>Member of the Supervisory Board</td>
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<tr>
<td>Chair of the Supervisory Board</td>
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<tr>
<td>Vice Chair of the Board</td>
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<tr>
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<tr>
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<tr>
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<td>Stichting LOFAR</td>
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<td>Consortium for Valorisation and Entrepreneurship (CVO)</td>
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<td>Stichting Het Fonds Ondernemend Groningen</td>
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<td>Northern Innovation Board (NIB)</td>
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<td>Stichting Academische Opleidingen Groningen (AOG)</td>
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<td>Steering Committee on Human Capital, VSNU</td>
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<tr>
<td>Stichting Studielink</td>
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<td>Dutch Techcenter for Life Sciences (DTL)</td>
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<td>Stichting DTL Projects</td>
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<td>SURF U.A. Cooperative</td>
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<td>Stichting Netherlands eScience Center (NLeSC)</td>
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<td>European Research Center for Exascale Technology (ERCET)</td>
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<td>EPi-kenniscentrum</td>
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<td>Carduso Capital</td>
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<td>Stichting Studiekeuze 123</td>
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<tr>
<td>Chair of the Supervisory Board</td>
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<tr>
<td>Chair of the Steering Committee</td>
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<tr>
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<tr>
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<tr>
<td>Member of the Steering Committee</td>
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<tr>
<td>Member of the Supervisory Board</td>
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<tr>
<td>Member of the Investors Board</td>
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<tr>
<td>Member</td>
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<tr>
<td>Chair of the Board</td>
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<tr>
<td>Chair of the Investment Advisory Committee</td>
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<tr>
<td>Stichting Marketing Groningen</td>
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<td>Martini Hospital</td>
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<tr>
<td>Rector Magnificus</td>
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<tr>
<td>Member of the Supervisory Board</td>
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<tr>
<td>Secretary-Treasurer to the Board</td>
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<tr>
<td>Member</td>
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<tr>
<td>Chair of the Board</td>
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<tr>
<td>Member of the Supervisory Board</td>
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<tr>
<td>Chair of the Investment Advisory Committee</td>
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<tr>
<td>Groningen University Fund (GUF)</td>
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<tr>
<td>Stichting Nicolaas Mulerius Fonds</td>
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<td>Energy Delta Institute (EDI)</td>
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<tr>
<td>Eric Bleumink Fund (EBF)</td>
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<tr>
<td>Steering Committee on Research &amp; Valorization, VSNU</td>
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<tr>
<td>Steering Committee on Education, VSNU</td>
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<tr>
<td>Stichting Ubbo Emmius Fonds (UEF)</td>
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<td>RUG Houdstermaatschappij BV</td>
<td>No</td>
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<tr>
<td>TKP Investments</td>
<td>Yes</td>
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</table>
II. Supervisory Board

T.H.J. Joustra
Chair
Chair of the Board of Governors
Member of the Board
Chair
Chair of the Advisory Board
Chair of the Supervisory Board
Member of the Advisory Board
Member of the Incompatibilities Committee
Member of the Board

Dutch Safety Board
National Library of the Netherlands (KB)
National Fund for Rural Areas (NGF)
Dutch Milk Foundation
G4S Group
Floriade Almere 2022 BV
Dutch Data Protection Authority (DPA)
Huis voor Klokkenluiders
Stichting Maatschappij en Veiligheid (SMV)

H.D. Post
Director
Director
Chair
Chair
Chair of the Executive Committee
Chair of the Board of Directors
Chair of the Supervisory Board

Port of Lauwersoog (EHL B.V.)
Groningen Railport
Commerciele Club Groningen (CCP)
UMCG Beatrix Children’s Hospital Foundation
Stichting Delfsail 2016
Stichting Delfsail 2016
Bijzondere Locaties Groningen (BLG)
(part of Stichting Oude Groninger Kerken – SOGK)
Stichting Kinderboekenhuis Winsum
Vrienden van Opmaat Bedum
Stichting Energy Valley
Noord Nederlands Toneel (NNT)
Poldermolen De Goliath
‘Nothing tops Groningen’ promotional campaign
Noord Nederlands Orkest (NNO)
for Norway in the Northern Netherlands

W. Reehoorn
Member of the Board
Member of the Supervisory Board
Member of the Supervisory Board
Member of the Supervisory Board

Ir. Abe Bonnema Stichting
Amsterdam Institute of Finance (AIF)
Topsport Community@
Frans Hals Museum
A.S. Roeters
General Director (main occupation)
Member of the Board
Chair
Child Care and Protection Board (RvdK)
Stichting Weduwenfonds (Zwolle)
Council for the Dutch Language and Literature (advisory council to the Dutch Language Union)

H.J.E. van Balen
Chair
Vice Chair
Member of the Board
Stichting Assagioli
Stichting Vrienden van het Behouden Huys
Giraffa Netwerk, ZorgpleinNoord
Commerciele Club Groningen (CCP)

Table of contents
Foreword
Preface
1. Mission and vision
2. Positioning
3. Research
4. Education
5. Societal impact
6. Talent development
7. Facilities
8. Funding
9. Continuity section
Condensed financial statements
Strategic key figures
Appendices
APPENDIX 4

Composition of central bodies

**Supervisory Board**
- T.H.J. Joustra (Chair)
- H.J.E. van Balen
- H.D. Post
- W. Reehoorn
- A.S. Roeters

**Board of the University**
- S. Poppema (President)
- J. de Jeu (Vice President)
- E. Sterken (Rector Magnificus)

**Student assessor**
- M. de Jager

**Committee of Deans**
- E. Sterken (Chair), Rector Magnificus
- C.W.A.M. Aarts, Faculty of Behavioural & Social Sciences (BSS)
- O. Couwenberg, Faculty of Spatial Sciences (FRW)
- H.J. de Jong, Faculty of Economics & Business (FEB)
- H. van Ees, University College Groningen (UCG)
- M. Joëls, Faculty of Medical Sciences (FMW)
- J. Knoester, Faculty of Science & Engineering (FSE)
- L.W. Nauta, Faculty of Philosophy (FWB)
- C.K.M. von Stuckrad, Faculty of Theology & Religious Studies (FGG)
- M. de Jager, Campus Fryslân
- G.C. Wakker, Faculty of Arts (FdL)
- J.B. Wezeman, Faculty of Law (LAW)

**Management Council**
- J. de Jeu (Chair), Board of the University
- A.M. van den Berg, Center for Advanced Radiation Technology (KVI-CART)
- P. Bouma, Campus Fryslân
- M.C. Buigel-de Witte, Faculty of Law (LAW)
- E.C.W. Dietrich, Faculty of Arts (FdL)
- S.E.A. van Galen, Office of the University
- G. Groen, Faculty of Spatial Sciences (FRW)
- J.P. de Groot, Faculty of Economics & Business (FEB)
- W. Heinen, Faculty of Theology & Religious Studies (FGG)
- M. Hids, Faculty of Philosophy (FWB)
- T.W.H.J. Hobma, Center for Information Technology (CIT) (until 1 May)
- F.S.M. Hoogma, Office of the University
- R.J. Landeweerd, Faculty of Behavioural & Social Sciences (BSS)
- M. Nieboer, University Library
- R.J. van Ouwerkerk, University College Groningen (UCG)
- B. Schoenmaker, Faculty of Medical Sciences (FMW)
- M.T.J. Stolp, Office of the University
- H.D. Veldhuis, Faculty of Science & Engineering (FSE)
- H.H.J. Wind, Center for Information Technology (CIT) (deputizing as of 1 May)
- T.J. de Witt Hamer, University Services Department
University Council

PRESIDIUM
M.C. Huiskes (Chair)
B.A.A. Beijer
M.H. Paapst

THE PERSONNEL SECTION
R. Aprianto
C. J. Albers
A.H.M. de Baets
B.A.A. Beijer
G.J. Bokdam
D.M.E. Bouwman
N. de Deugd
M.H.J. Ruiters
O. Scholten

PERSONNEL SECTION FOR SCHOLARSHIP
L.W. Gormley
M.H. Paapst
N. Petkov

SOG (STUDENT ORGANIZATION GRONINGEN)
E.K.A. Clark
A.I. Esser
I.W. Hanemaaijer
M. de Vries
B.C. Zandt
M. Zuidema

LIJST CALIMERO
H. Berretz
D. van Dijk
H.H.E. Oelen
T. van de Werve
N. de Winter

LIJST STERK
P.L. Polhuis
APPENDIX 5

Partnerships

The table below shows an indicative overview of partnerships at institutional level. Partnerships at faculty and other levels are not listed.

<table>
<thead>
<tr>
<th>NAME</th>
<th>PARTNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional level</strong></td>
<td></td>
</tr>
<tr>
<td>The Groningen Agreement</td>
<td>Municipality of Groningen, UMCG and Hanze University of Applied Sciences</td>
</tr>
<tr>
<td>EPI-kenniscentrum (practical knowledge centre in the field of safe and earthquake-proof building)</td>
<td>Alfa-college, Hanze University of Applied Sciences and other regional partners</td>
</tr>
<tr>
<td>HBO-Noord</td>
<td>Hanze University of Applied Sciences, Stenden University of Applied Sciences, NHL University of Applied Sciences and VHL University of Applied Sciences</td>
</tr>
<tr>
<td>Noorderlink</td>
<td>The largest employers in the provinces of Groningen and Drenthe</td>
</tr>
<tr>
<td>Groningen Convention Bureau (GCB)</td>
<td>Municipality of Groningen, Province of Groningen and regional businesses</td>
</tr>
<tr>
<td>Consortium for Valorisation and Entrepreneurship (CVO)</td>
<td>Regional entrepreneurs</td>
</tr>
<tr>
<td>Groningen Confucius Institute</td>
<td>Hanze University of Applied Sciences, Municipality of Groningen and the Communication University of China</td>
</tr>
<tr>
<td><strong>National level</strong></td>
<td></td>
</tr>
<tr>
<td>VSNU (Association of Universities in the Netherlands)</td>
<td>Dutch universities</td>
</tr>
<tr>
<td>NVAO (the Accreditation Organisation of the Netherlands and Flanders)</td>
<td>Universities in the Netherlands and Flanders</td>
</tr>
<tr>
<td>Samenwerking Universiteiten Noord- en Oost-Nederland</td>
<td>Collaboration with the universities of Twente, Nijmegen and Wageningen</td>
</tr>
<tr>
<td><strong>International level</strong></td>
<td></td>
</tr>
<tr>
<td>U4 Network</td>
<td>Collaboration with the universities of Uppsala, Göttingen and Ghent</td>
</tr>
<tr>
<td>Coimbra Group</td>
<td>39 traditional European universities</td>
</tr>
<tr>
<td>The Guild</td>
<td>19 European research-intensive universities</td>
</tr>
<tr>
<td>REGION</td>
<td>PARTNERS</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Europe</td>
<td>European Platform of Universities Engaged in Energy Research (EPUE)</td>
</tr>
<tr>
<td>Europe</td>
<td>EURAXESS</td>
</tr>
<tr>
<td>Europe</td>
<td>Erasmus+</td>
</tr>
<tr>
<td>Europe</td>
<td>European University Association (EUA)</td>
</tr>
<tr>
<td>Europe</td>
<td>Multi-Faculty Exchange (MFE)</td>
</tr>
<tr>
<td>Europe</td>
<td>European Energy Research Alliance (EERA)</td>
</tr>
<tr>
<td>China</td>
<td>China Agricultural University (CAU); Tsinghua University; Fudan University</td>
</tr>
<tr>
<td>Japan</td>
<td>Osaka University</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Bandung Institute of Technology (ITB); Gadja Madah University</td>
</tr>
<tr>
<td>Latin America</td>
<td>University of São Paulo (USP); National Autonomous University of Mexico (UNAM)</td>
</tr>
<tr>
<td>North America</td>
<td>University of British Columbia (UBC); University of Maryland (UMD)</td>
</tr>
<tr>
<td>Tanzania, Zambia, Saudi-Arabia, and Mozambique</td>
<td>Netherlands Initiative for Capacity development in Higher Education (NICHE)</td>
</tr>
<tr>
<td>Various developing countries</td>
<td>Netherlands Fellowship Programme (NFP)</td>
</tr>
</tbody>
</table>
Reading guide

The University of Groningen Annual Report 2016 accounts for the University's activities in the 2016 calendar year. The first two chapters focus on aspects that have a strong impact on the University's identity and profile, such as our mission and our strategy and plans for branch campuses in Yantai (China) and Leeuwarden.

This is followed by key facts, results and developments relating to teaching, research, societal impact (valorization), talent development, facilities and financial matters. This format is determined by the themes contained in the University of Groningen Strategic Plan 2015-2020.

Lastly, the report devotes considerable attention to themes that underpin the University’s continuity. These are addressed at length in Chapter 9. Every chapter begins with statistical information that highlights important facts and trends.

The highpoint of 2016 was without a doubt the awarding of the Nobel Prize for Chemistry to Professor Ben Feringa. A series of photographic impressions – from the moment the prize was announced until it was presented by the Swedish king in Stockholm – form a connecting thread throughout the report.

This report is aimed at various groups such as administrators, regulators and assessors, as well as other stakeholders such as students, alumni, journalists and other interested parties. Readers are invited to make comments, report deficiencies or suggest additions. We also welcome your questions.
Independent Auditor’s Report

To: the Board and the Supervisory Board of the University of Groningen

Report on the audit of the Financial Statements included in the 2016 annual report

Our opinion

We have audited the 2016 Financial Statements of the University of Groningen based in Groningen.

In our opinion:
- the Financial Statements included in the annual report give a true and fair view of the financial position of the University of Groningen as at 31 December 2016 and of its results for 2016 in accordance with the Regulations on annual reporting in education
- these being the revenues and expenses in the Financial Statements, as well as the balance sheet transactions for 2016 in all materially relevant aspects lawfully established in accordance with the provisions laid down in the relevant legislation and regulations, as stated in section 2.3.1 of the Frame of Reference for the Education Audit Protocol OCW/EZ 2016.

The Financial Statements comprise:
- the consolidated and unconsolidated balance sheet as at 31 December 2016
- the consolidated and unconsolidated statement of income and expenditure for 2016
- the notes comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing and the Education Audit Protocol OCW/EZ 2016.

Our responsibilities under those standards are further described in ‘Our responsibilities for the audit of the Financial Statements’ section of our report.

We are independent of the University of Groningen, in accordance with the Code of Ethics for Professional Accountants (VIO) (a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore we have complied with the Dutch Code of Ethics (VGBA) for accountants.

We believe that the audit evidence we have acquired is sufficient and appropriate to provide a basis for our audit opinion.
Materiality
Based on our professional judgement, we determined the materiality for the Financial Statements as a whole at EUR 9.9 million. The materiality is based on 1.5% of the total income. Materiality for financial integrity was set at EUR 12.8 million. This materiality is based on 3% of the total public funds as laid down in section 2.1.3 of the Materiality Table of the Education Audit Protocol OCW/EZ 2016. This section of the audit protocol also includes a number of specific auditing and reporting tolerances, which we have applied.

We have also taken into account misstatements or possible misstatements that in our opinion are material for the users of the Financial Statements for qualitative reasons. For the audit of the information related to Senior Officials in the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT) included in the Financial Statements, we applied the materiality requirements as laid down in the WNT Audit Protocol Regulation 2016.

We agreed with the Supervisory Board that misstatements in excess of EUR 0.5 million identified during the audit would be reported to them, as well as smaller misstatements that, in our view, must be reported on qualitative or WNT grounds.

Scope of the group audit
The University of Groningen is at the head of a group of legal entities. The financial information of this group is included in the Financial Statements of the University of Groningen.

Our group audit mainly focused on the significant entity of the University of Groningen. This entity is significant in terms of the scale of its activities, comprising research and teaching activities and the financial transactions arising therefrom. The scope of consolidation of the University of Groningen consists of Applied NanoSystems B.V., RUG Houdstermaatschappij B.V., UOCG Market B.V., Stichting Academische Opleidingen Groningen and Stichting University Guesthouse Groningen. These group entities were included in the consolidation but were not considered to be significant.

We performed audit procedures ourselves at the University of Groningen as well as using the work of other accountants to audit the Teaching and Research funding (UMCG O&O funds). We used the work of the other accountant for the balance sheet which shows the revenues and expenses for the UMCG O&O funds, with the exception of the project revenues, expenses and projects in progress at the balance-sheet date. We performed independent audit procedures on these items. We carried out analytical reviews for the other group entities included in the consolidation, based on their scale in relation to the significant entity.

The above procedures performed on the group entities, together with additional procedures at group level, provided us with sufficient and appropriate audit evidence about the group’s financial information to enable us to issue an opinion about the Financial Statements.

Our key audit matters
Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the Financial Statements. We have communicated the key audit matters to the Supervisory Board, but they do not provide a complete reflection of all the matters discussed.
These key audit matters were addressed in the context of our audit of the Financial Statements as a whole. Our opinion on these individual key audit matters should be viewed in that context and not as a separate opinion on these key audit matters.

**Description of key audit matters**

**Valuation of tangible fixed assets**

The explanatory notes concerning the tangible fixed assets are included on pages 5, 9 and 21 of the Financial Statements for the University of Groningen.

Tangible fixed assets are stated at acquisition or replacement price less accumulated depreciation based on the expected life of the assets concerned. The University of Groningen evaluates on an annual basis whether there are indications of impairment which would make it necessary to carry out an impairment test. Given also the degree of subjectivity in identifying indications of impairment and the use of estimates in an impairment test, the stated value of the tangible fixed assets was a key point in our audit.

**Valuation of provisions**

The explanatory notes concerning the provisions and the principles applied are included on pages 6, 7, 11 and 23 of the financial statements for the University of Groningen.

The Board of the University of Groningen largely based the amount of its provisions on estimates and assumptions. The use of estimated items and the notes in the financial statements concerning the principles and assumptions used constituted a key matter in the audit.

**Our audit approach**

The item tangible fixed assets at EUR 452.1 million, or 50% of the balance sheet total at the end of 2016, is a substantial item.

Our audit activities also focused on the correct and complete estimation of indications of impairment.

No indications of impairment were identified at the University of Groningen that have a significant impact on the Financial Statements.

We established that the explanatory notes meet the relevant reporting standards.

The provisions for redundancy payments, reorganization, leave saving, own risk under the Work and Income (Capacity for Work) Act (WIA/ERD), long-term sickness, service anniversaries, environmental risk, the general staff provision and the other provisions at the balance-sheet date, together amounted to EUR 48.3 million, or 5.3% of the balance sheet total, and are therefore significant items in the Financial Statements.

The basis for the principles and assumptions used, including the discount rate applied, the link with source data and establishing the reliability of source data, formed part of our work, as well as the consistency of the principles and assumptions applied in comparison with previous reporting periods.

We established that the explanatory notes meet the relevant reporting standards.
Valuation of projects in progress

The explanatory notes concerning the projects in progress are included on pages 6, 10, 12 and 23 of the Financial Statements for the University of Groningen.

The University of Groningen is to a large extent dependent on income earned from activities funded by research council grants or contract funding. The valuation of the projects in progress for third parties takes place at the directly allocated cost of labour and materials with a mark-up to cover overhead for personnel expenses. Instalments charged/project advances for project valuations were deducted from this balance sheet item. Allocation of the income was in proportion to the progress of a project (extent of the expenses incurred). In view of the scope, complexity and diversity of grant schemes, the valuation of the projects concerned constituted a key audit matter.

Engagement

Further to a European tendering procedure, Ernst & Young Accountants LLP was engaged by the University of Groningen on 4 November 2016 as auditors to the University of Groningen for the 2016 financial year.

Report on the other information included in the annual report

In addition to the Financial Statements and our auditor’s report on these, the annual report contains other information that consists of:

- the management report
- other data.

Based on the procedures outlined below, we conclude that the other information:

- is consistent with the Financial Statements and does not contain material misstatements
- contains all the information required under the Regulations on annual reporting in education section 2.2.3. The Management Report in the Education Audit Protocol OCW/EZ 2016.

We have read the other information and based on our knowledge and understanding obtained through our audit of the Financial Statements or otherwise, we have considered whether the other information contains material misstatements.
In performing these procedures we complied with the requirements of the Regulations on annual reporting in education, section 2.2.3 The Management Report in the Education Audit Protocol OCW/EZ 2016. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the Financial Statements.

The Board is responsible for the preparation of the other information, including the management report and other data in accordance with the Regulations on annual reporting in education, as well as the statutory and other regulations of the Ministry for Education, Culture and Science (OCW).

**Description of responsibilities regarding the financial statements**

**Responsibilities of the Board of the University and the Supervisory Board for the Financial Statements**

The Board of the University is responsible for the preparation and fair presentation of the Financial Statements in accordance with the Regulations on annual reporting in education. The Board is also responsible for the lawful presentation of the revenue and expenses accounted for in the Financial Statements, as well as the balance sheet transactions, in accordance with the provisions included in the relevant legislation and regulations.

In this context the Board is also responsible for such internal control as the Board deems necessary to be able to prepare the Financial Statements and which enable the relevant legislation and regulations to be observed without material misstatement, whether due to fraud or error.

As part of the preparation of the Financial Statements, the Board is responsible for assessing whether the education institute will be able to continue its activities as a going concern. Based on the financial reporting frameworks mentioned, the Board must prepare the Financial Statements using the going concern basis of accounting, unless the Board either intends to liquidate the education institute or to cease operations, or has no realistic alternative but to do so. The Board must disclose events and circumstances in the Financial Statements that could cast reasonable doubt on the education institute’s ability to continue its activities as a going concern.

The Supervisory Board is responsible for overseeing the financial reporting process of the education institute.

**Our responsibilities for the audit of the Financial Statements**

Our responsibility is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means that we may not have detected all material errors and fraud during our audit.

Misstatements can arise as a result of error or fraud and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Financial Statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.
A more detailed description of our responsibilities can be found in the annex to our audit opinion.

Groningen, 30 June 2017

Ernst & Young Accountants LLP
[signature]
D.E. Engwerda RA [Registered Accountant]