Let’s define the future: this slogan sums up the essence of the University of Antwerp perfectly. Our study programmes offer just that little bit more, our research goes just that little bit further. Everyone studying or working at our university is focusing on one thing: how can I do my bit to contribute to a better future?

But once a year we also allow ourselves time to reflect on the previous twelve months. Pouring 365 days into just one document is no easy task but the Annual Report 2015 has made a very good attempt, if you ask me.

I invite you to explore our most important projects and achievements of 2015. If we know and understand the past, we can learn from it and apply this knowledge to what is still to come. Only in this way can UAntwerp define the future.

Happy reading!

Alain Verschoren
Rector, University of Antwerp

Annual Report 2015
Rector’s foreword
2015 at a glance

25.02
Talent Forum
1800 students and alumni met with 97 leading companies, all potential employers in search of talented young professionals.

08.03
Children’s University
Almost a thousand children dived into the world of science during the 11th Children’s University.

16-17.04
International conference
Around 400 rectors and representatives from the European higher education sector took part in the annual conference of the European University Association (EUA).

19.03
University beer
UAntwerp launched its own beer, Cum Laude, brewed by twin brothers and former students Benny and Erwin Van Aerschot.

16-20.03
Calamartes
The 7th annual Calamartes culture festival impressed its audience with a range of events, including stand-up comedy by alumnus William Boeva.

15.06
New buildings
Rector Alain Verschoren and Mayor Bart De Wever officially opened the brand new buildings I and D at Campus Middelheim.

29.10
Honorary degree for Anselm Kiefer
Following the recognition of five international scholars and artist Marlene Dumas in early April, it was artist and researcher Anselm Kiefer’s turn to receive an honorary degree.

02.09
Royal visit
Queen Mathilde met European vaccine experts at the WHO conference on vaccination, held at UAntwerp.

22.11
Science Day
Young and old came together at a number of locations to learn more about all aspects of science and technology.

12.11 & 19.11
Alumni drinks
We raised a glass to our new alumni with two alumni drinks events at the Stadscampus and Campus Drie Eiken.
UAntwerp launched an online image library in 2015, containing thousands of photos depicting various aspects of everyday life in and around the university. A selection of these photos are visible to the public. Employees have access to all of the images.

‘Operation Outer Campuses’ entered its second phase in 2015. Building Z, which is now taking shape at Campus Groenenborger, will contain modern laboratories and research spaces and eventually become home to the new Faculty of Applied Engineering.

The University Library has around 1350 prints and other objects related to Antwerp and dating back to the 15th century. A major digitalisation project was completed in 2015, meaning that this unique collection is now publicly accessible.

During academic year 2014-2015, a total of 805 lectures were recorded and made available online. Visitors can also take a look inside the university’s conference facilities and the University Club using Google Tour.

UAntwerp is investing in thorough professionalisation, at all levels and in all areas. In 2015, Lean Management classes were introduced to help employees work faster and more efficiently.

The university once again won the Bike to Work Winter Trophy in the category of XL organisations. With the contest, the Flemish Cyclists’ Association aims to encourage commuting by bike.

In 2015 marked the launch of the brand new Pintra environment for personnel. This portal, managed for and by UAntwerp employees, gathers work-related information, news, announcements tailored to users and a host of new features.

More and more people are including the university in their wills. In 2015 we organised a very successful information event, the largest so far in Flanders, with a programme that included legal advice, cultural activities and presentations on selected research projects.
The microscopes of the future will enable us to observe the movements of atoms from one picosecond to another.

In 2017, we plan to start testing a new oral polio vaccine which has no dangerous side effects. By 2018, the world should be polio-free.

In the next ten years, we will be able to use our ecosystems to address climate change and other environmental problems even more effectively.

Our investments in cancer research will bring significant breakthroughs for cancer patients. We are closer than ever to beating this disease.

Defining the future together
Many people think that bacteria are 'bad' and must be avoided, especially in what we eat. But that's not true. The majority of bacteria are neutral. There are even quite a few bacteria that have a positive effect on health. Lactic acid bacteria, for example, are good for our immune systems: they protect us against intestinal infections and may even slow down the growth of cancer cells. Bioengineers at the University of Antwerp are working on unravelling the mechanisms behind the beneficial properties of lactic acid bacteria. They are also examining the relationship between air pollution and bacteria in the air, and how this affects our health.

At the University of Antwerp, you don’t study just to get a degree. Our scientists and students play a role in defining the future, the world of tomorrow. That was never more clearly illustrated than in our 2015 recruitment campaign, which shone the spotlight on five of our most burningly relevant research domains.

Discover our top research on food bacteria

In the 21st century, women and men are viewed and treated in the same way. Or at least that’s what we’d like to think. But is it really the case? The Faculty of Social Sciences is investigating equality and inequality in a society characterised by diversity. We do this from political, social and broad human sciences perspectives, going deeper into specific problem areas. How do people combine work and family life? Why is it that there are more women studying than men, but fewer female professors? Is there a link between gender equality and societal violence? Stereotyping is also a key focus.
Discover our top research on Internet law and privacy

Everyone leaves traces on the Internet, and the Internet does not forget. Companies and governments alike want to get to know us better by analysing these traces. However, strict legislation specifies the conditions under which personal data may be processed. One of the consequences is that more and more people are now turning to the courts to enforce their right to privacy. In the University of Antwerp’s Faculty of Law, we are examining what can and should be allowed by law. Can the tax office screen your profiles on Facebook, Instagram and Twitter? Are marketers allowed to share your data for advertising purposes? And how can you wipe away your digital footprints? We working to find out.

Discover our top research on innovative asphalt

Every year, frosty winter weather makes our roads slippery and unsafe. Using salt on the roads not only costs a lot of time and money, but also damages the road surface and is not environmentally friendly. Is there no other way to keep the roads free of snow and ice? In the University of Antwerp’s Faculty of Applied Engineering we are working on an asphalt solar collector system, a new type of road surface that can store heat and automatically defrost. We are also investigating how old roofing can be recycled and turned into asphalt, and trying to reduce traffic-related noise pollution in collaboration with the City of Antwerp. In 2015, we experimented with test strips of ‘quiet’ asphalt in Kleine Doornstraat in Wilrijk and Zandvlietse Dorpstraat.

Discover our top research on bioenergy plantations

Renewable energy sources – such as trees – can slow down global warming. The University of Antwerp’s Department of Biology manages the POPFULL plantation in Lochristi, the largest bioenergy plantation in the Benelux. We use fast-growing poplars and willows to generate energy in the form of electricity and heat. We also monitor how the plantation reduces CO2 emissions and investigate how profitable it is to generate green electricity and heat from wood chips. The results are very positive, across the board. Economically speaking, the POPFULL project is currently breaking even with the plantation producing more energy than is invested in it while also slowing down the greenhouse effect.
Quality and innovation
Education is a stable factor, quality study programmes continue to be provided, but things are also being updated regularly on the education front.

The brand new Centre for Maritime and Air Transport Management was launched. C-MAT offers two new English-language Master and Advanced Master programmes in maritime and air transport economics. In this way, UAntwerp is building further on its expertise by offering both scientific research and practical experience from the industry, meeting the needs of a dynamic business environment and demanding labour market.

The Teacher Training programme includes a project internship which is unique in Flanders. In addition to a didactic teaching internship, our students also help their chosen school out with the implementation of a specific project or idea. In doing so, they get to see for themselves that the teaching profession involves a lot more than just teaching. It is clear that UAntwerp is leading the way – the Minister of Education is considering a similar kind of civic service period for all teachers in training.

Quality is always rewarded. The Faculty of Applied Economics became the proud recipient of prestigious five-year EPAS and AACSB accreditations. UAntwerp is the only Flemish university to receive both of these accreditations.

Collaboration
The strength of the University of Antwerp is due in part to its cooperation with partners and leading universities around the world. This also applies to the field of education.

Our cooperation agreement with Chongqing University was signed many years ago, but it wasn’t until 2015 that the first Flemish students went to China. Ten promising students from the Faculty of Applied Economics were given the opportunity to study the city’s logistics chain up close. In return, Chinese students also came to visit our city.

Celebrations at the university
2015 was an important year for several study programmes and projects. They celebrated special anniversaries.

The Master programme in Nursing and Midwifery turned ten years old. To celebrate this festive occasion, UAntwerp organised the international congress Care4, together with partners Karel de Grote, Artesis Plantijn and HZ University Colleges.

The Tutoaraat project also celebrated the 10th anniversary of its founding. The project sees UAntwerp students provide tutoring to students from disadvantaged groups. Students volunteer for this project to make a social commitment and simultaneously gain experience in guiding young people through their involvement. It is also a wonderful opportunity for the students being tutored.

And yet another reason to celebrate: the first Safety Sciences graduates crossed the finish line in early September. The two-year study programme, unique in Flanders, is interdisciplinary, cross-border and integrated: all aspects of safety are covered in the programme.

Dissertations in the spotlights
UAntwerp encourages its students to take the initiative. Lending their support to innovative projects is valued particularly highly. In 2015, we once again saw many fine examples of such projects.

Electromechanics students designed ASLAN, a robotic arm that can form all of the numbers and letters of Flemish sign language. The robotic arm can be created with a 3D printer and is relatively affordable, which makes the project feasible for developing countries. ASLAN was nominated for the Agoria and Flemish dissertation prizes.

Four students from the Physics and Applied Engineering programmes travelled to Lapland (Sweden). There, they sent their HACORD detector 30 km up into the air in a stratospheric balloon to measure cosmic radiation. The quartet was the first Flemish team selected for the REXUS/BEXUS programme co-organised by the European Space Agency.

Jonathan De Clercq (Product Development) designed NAVU, an ingenious racing bike handlebar with a smartphone application equipped with an intelligent navigation system. His design won him the Verhaert and GBO User Experience Design Award, which recognises the Master dissertation with the best integrated focus on the user and his/her user experience.

Tibo Grandry (Product Development) designed an innovative transport system for vaccines in collaboration with Voxdale and Novosanis. FLINK can store vaccines for up to 30 hours at a temperature of between 2 °C and 8 °C using a central ice pack with a water buffer. Grandry won the prestigious James Dyson Award for this project.
Research

Art and culture

The University has a special relationship with art and culture. In 2015, the Antwerp Research Institute for the Arts (ARIA) was founded in order to promote sustained cooperation with the three Antwerp Schools of Arts.

Besides the many study programmes that overlap in the domains of the arts and sciences, Antwerp has three Schools of Arts: the Royal Academy of Fine Arts, the Royal Conservatory and St. Lucas. ARIA aims to build a permanent bridge between the university and these partners.

Besides supporting artistic research, the institute also attempts to combine all of the arts-related expertise within the university. A lot of research takes place in Antwerp, both in the arts and about the arts, for example on joint problems amongst violinists or the movements of dancers. This type of research, too, has a place within ARIA.

In order to ensure the success of ARIA, cultural sociologist Pascal Gielen was recruited from Groningen. Together with Professor Henk De Smaele, he will focus on the ever-present area of tension between academic research and art.

Citizen science

UAntwerp is a pioneer in the field of citizen science projects. Following the success of AIRbezen, the bioengineers are once again involving the public in their research.

AIRbezen, the project that mapped air quality, now has an artistic-scientific sequel in Ghent. As part of the Urban Action Clinic, and using the Vooruit Art Centre as a basis, artist Maria Lucia Cruz Corneia put out a call for the collection of ivy leaves. As many as 235 people in Ghent responded to her call. Using a magnetic method, the amount of magnetisable particles on the leaves was measured, allowing researchers to map mainly traffic-related pollution in Ghent.

During the Ferme Pekes project, 40 participants from Antwerp were invited to ferment carrots in their kitchens. This involved preserving carrot juice in an air-tight jar, which allowed the fermentation process to be kick-started by micro-organisms. Ultimately, the process produces a low-calorie juice with a uniquely fresh and slightly acidic flavour, plus a longer shelf life. The researchers are particularly interested in the microbiology of the juice: the types and number of micro-organisms present in the carrot juice after a given period of time.

Digital world

Digitalisation and modern technology have their advantages and disadvantages. Advantage: you can make a city ‘smart’. Disadvantage: social media runs the risk of getting out of hand. In terms of research, the University of Antwerp is on top of both issues.

Researchers at UAntwerp are not just watching the evolution of bullying in today’s digital society from the sidelines. They are actively working on the issue, including through artificial intelligence, and have found that bullying at school often continues online, that cyber bullies believe that bullying through the Internet and mobile phones is acceptable, and that almost half of all reports of bullying on social media are ignored. Focussing on prevention and intervention therefore remains crucial.

On the other hand, using innovative technologies in the right way offers many advantages. Managing a city in a more fun and efficient way, for example. Scientists from various faculties at UAntwerp are tackling this topic – through the prestigious City of Things project, for example. In collaboration with iMinds, a network of research groups from different universities, the project aims to make Antwerp a smart city.

Spin-offs

Big data is big business. UAntwerp is heading the field with top research and fruitful collaborations, leading to nice results and successful spin-offs.

Textgain, a project by the CLiPS research group, was created in 2015. Technology allows for the automatic extraction of facts, opinions and demographic information from social media data, newspaper articles, emails and so on in a wide range of languages, which is useful in e-marketing, trend analysis, business intelligence and big data. Textgain was able to predict in advance who the new members of girl band K3 would be.

Another newcomer is Predicube, the start-up that makes targeted online advertising possible using advanced big data technology – while respecting the privacy of consumers. Predicube is ready to go head to head with Facebook and Google in the battle for online advertising budgets. Current customers include Batibouw, Touring and Volvo.

Besides the new spin-offs, the well-established icoMetrix is also doing well. It received the coveted CE label for MSmetrix software, which allows doctors to measure brain volume and brain lesions in patients with multiple sclerosis (MS).
**Services**

**Fight against cigarettes**
Professor Filip Lardon’s interactive anti-smoking package aims to keep young people away from cigarettes.

The University of Antwerp takes responsibility, and that doesn’t stop at offering quality education and conducting relevant scientific research. Our staff go above and beyond their duties and do their bit to contribute to a better society.

One such person is Professor Filip Lardon, who launched an inspiring interactive anti-smoking package for school-aged young people in May 2015. Een teer onderwerp ... voor nicotieners (A burning issue ... for nicoteenagers) is a ready-to-use package that has been made available to all secondary schools. This package was developed with the support of the Flemish government and the Agency for Health and is endorsed by Minister Jo Vandeurzen.

The package was essential, according to Lardon. “Among 15- to 18-year-olds, the number of smokers has barely decreased. On the contrary, the number of girls who smoke has been increasing steadily. In Belgium, we still see 50 smoking-related deaths every day.”

All information and materials are available for free at www.teeronderwerp.be. The package also includes a detailed and interactive PowerPoint presentation for teachers.

**Poverty must be banned**
On 14 October, the University Foundation for Poverty Alleviation (USAB) brought together researchers, students, civil society and policy makers.

For decades now, UAntwerp has been a forerunner in the field of scientific research on all aspects of poverty. Well-known examples of our strength in this field are the Herman Deleeck Centre for Social Policy and the yearbook Armoede en Sociale Uitsluiting (Poverty and Social Exclusion).

Yet, the University of Antwerp wants to do more. Poverty is a recurrent theme current affairs, after all. There is a lot of talk, but little or no change. Poverty is tough, even structural. And this is also the case in Antwerp.

That is why USAB decided to organise a research day on this theme. The event brought together scientists, students, civil society and policy makers. Health, housing and social innovation were the key topics. The initiative clearly addressed a need: about 150 people from very different backgrounds attended the event at the Stadscampus.

USAB and the university intend to continue their work in this area. A second networking event was organised in February 2016, this time centring on poverty and education.

**International dimension**
UAntwerp becomes more international each year. More than a third of our new professors are now from other countries.

“Internationalisation is not the end goal”, says Vice-Rector Johan Meeusen. “But it is a necessary tool for improving the quality of our academic core tasks. In recent years, our university has become more international: we see growing student mobility and more international research projects; we have signed numerous partnership agreements, for example with China, India and Brazil; and every summer we organise the Antwerp Summer University.”

An analysis of new recruits speaks for itself: of 33 newly recruited professors, 14 are of foreign nationality. This increased international involvement is not a result of the introduction of a quota, but because we value international knowledge gained in a global context. At the end of 2015, there were 949 international staff members at the University of Antwerp. Together, they represent 89 different nationalities. The Dutch, Germans and Chinese are best represented on UAntwerp’s campuses, but all of them can count on the university’s assistance and individual support.

Many other UAntwerp academics also try to make time for the general public in addition to their busy teaching and research activities. For example, Rudi Penne and Paul Levrie regularly share their passion for mathematics and Angelique Ombergen writes about her adventures in Sterrenstad.

www.uantwerpen.be/blogs
The University of Antwerp ended 2015 with a positive result of 12.9 million euros. This positive result is the combined consequence of both structural and specific factors.

**Composition of revenues**
Total revenues for 2015 amounted to approximately 281 million euros, around 74% of which came from governmental funds and 26% from other sources. Core financing represented around 49% of the university’s total revenues. Approximately 25% of the research revenues were provided by government research funding, while another 5% was provided by contract research and scientific service provision.

**Composition of expenditures**
Total expenditures in 2015 amounted to approximately 268 million euros. These expenditures were primarily operating expenses, with staff costs accounting for 68%. The remaining expenditures relate mainly to the university’s normal running costs.

Our staff go above and beyond their duties for a better society.