

VU AMSTERDAM AT A GLANCE

Helping to create a better world – one in which justice, compassion, and responsibility are central elements – that is the inspiration for Vrije Universiteit Amsterdam (VU Amsterdam). We seek to enable our students to develop their talents and to learn how to use them for the benefit of our society and our planet. Their academic education takes place in a diverse and international environment. Our research covers the entire academic spectrum, from the arts to science, including social, life and medical sciences. This rich palette enables ground-breaking interdisciplinary research and the creation of innovative applications for society.



GOING FOR GOLD

Medicine student Ilse Paulis (l.) and Maaike Head share more than a passion for the medical field: they also row together. It has proved to be a golden combination. They were crowned lightweight double sculls champions at the Olympic Games in Rio de Janeiro. It was not exactly a surprise. In June of that year, in the run-up to winning gold, they had broken a world record during the World Rowing Cup in Poland. It is clear that not only VU Amsterdam and the VU University Medical Center (VUmc) are proud of ilse and Maaike: during the NOC*NSF (Dutch Olympic Committee and Dutch Sports Federation) Sports Gala, they were voted Dutch Sports Team of the Year. They also went on to be declared Amsterdam Sports Team of 2016.

48,408 T

22,359 VU STUDENTS

7,560 DIPLOMAS

€ 502 MILLION

INCOM

44%OPEN ACCESS

16
COMMUNITY SERVICE

PROJECTS

SPIN-OFFS

3,363

23,265

4,463

PEOPLE IN FURTHER TRAINING OR REFRESHER COURSES

#97

WORLDWIDE LEIDEN RANKING

431
PHD CONFERRALS

21

ERC GRANTS AND NWO VERNIEUWINGSIMPULS GRANTS



VARIA AMERICANA

In 1898 VU Amsterdam founder Abraham Kuyper travelled the United States. His journey inspired VU Amsterdam professor and historian, George Harinck. In the IKON 'Varia Americana' series of documentaries, Harinck retraced Kuyper's footsteps, asking himself how Kuyper's image relates to the present day US.

SPIN-OFF LUMICKS WINS YOUNG START UP AWARD

From a spin-off to a successful business – based on many years' scientific research, Lumicks develops devices for biomolecules at VU Amsterdam.



2 VU AMSTERDAM - PUBLIC REPORT 2016 VU - AT A GLANCE

PREFACE

LOOKING BACK WITH PRIDE

Vrije Universiteit Amsterdam
(VU Amsterdam) is among the
best universities in the world,
while at the same time remaining
accessible. That is something
we are very proud of. Equal
opportunities for a university
education are very important to
us. We are convinced that diversity
benefits our academic excellence.

Based on our Education Agenda, VU Amsterdam has invested in teaching and in improving study success rates. This process begins before students even get to the university, with information being provided to secondaryschool pupils to enable them to make well-informed choices regarding their future studies. Student supervision has also been improved. In 2016, VU Amsterdam received institutional quality accreditation and met all its performance targets. The percentage of students who obtained a Bachelor's degree within four years rose from 54% in 2008 to 76% in 2016 – a fine result.

To an increasing degree, VU
Amsterdam is becoming an international university. In 2016, we played a leading role in the founding of Aurora, an international network of excellent universities.
Nonetheless, geographical proximity remains very important. In that regard, VU Amsterdam is situated in a rich ecosystem. For



example, Amsterdam was voted the innovation capital of Europe by the European Commission in 2016.

Societal orientation is at the core of our Gross Academic Value, together with shaping academic character and embracing diversity. Through our Gross Academic Value, we want to show that there is more to a university than an organization that teaches as many students as possible and produces as many publications as possible.

A good example of groundbreaking research from last year is the development by Guszti Eiben of the first robots capable of procreating. There was also the discovery of genes that explain how non-identical twins occur, by a group of international researchers under the leadership of Hamdi Mbarek and Dorret Boomsma of VU Amsterdam and Nils Lambalk of VUmc. The admission of two of our researchers, Kristine Steenbergh (literary studies) and Jeroen de Ridder (philosophy) to the Young Academy of the Royal Netherlands Academy of Arts and Sciences last year is another source of pride to us.

2016 was a particularly successful year in the world of sport for VU Amsterdam. Medicine student Ilse Paulis won gold together with Maaike Head at the Olympic Games in Rio de Janeiro. During the European Athletics Championships, various conferences on sport and health were organized on our campus. The newly-renovated VU-Uilenstede Sports Centre has been opened. The new cinema in our Main Building is another great addition to our campus, and further enables students to develop themselves.

We are very grateful to our employees, students, and partners, whose commitment has made these results possible.

Jaap Winter

President of the Executive Board

Vinod Subramaniam Rector magnificus

Marjolein Jansen

Vice-President of the Executive Board

STRATEGIC PLAN 2015 - 2020

VU AMSTERDAM ON THE ROAD TO THE FUTURE

VU Amsterdam developed a new Strategic Plan for 2015-2020 in 2014 with a view to the future. The plan has four important themes that are linked to urgent societal issues:

- Governance for Society
- Human Health & Life Sciences
- Connected World
- Science for Sustainability



Examples of research, teaching, valorization and impact within these themes can be found throughout this Public Report.

VU Amsterdam is also committed to three priority areas – diversity, talent, and internationalization.

The fact that the world around us is undergoing major changes is nothing new, but how we at VU Amsterdam deal with that is. How does VU Amsterdam engage diversity? How are people given the opportunity to develop their talents? What is VU Amsterdam's international role?

Diversity provides perspective

At VU Amsterdam, we are convinced that the quality of teaching and research benefits from a wide range of opinions, convictions, backgrounds, and belief systems. Different insights, viewing things from an unconventional angle – it all helps to broaden our academic horizons. Therefore, as a university, we embrace diversity with confidence and appreciation. It is our aim to train students to be able to accommodate different opinions and cultures during their working lives. Experiments involving diversity training for academic staff were held in 2016 and a diversity scan has been developed in order to assess curricula in terms of their attention to cultural specificity of knowledge and relevant intercultural competen-

Allowing talent to flourish

We challenge our students and employees to develop their talents as far as they can and to extend their horizons. Our talent policy does not focus solely on the small group of students who are extremely motivated and perform exceptionally well: we challenge all students to perform to the very best of their ability. In order to encourage talent, VU Amsterdam has a number of top-talent programmes – the University Research Chair (URC), University

Research Fellows (URF) and the appointment of professors with a teaching profile. The University Research Chair was created for our researchers who are regarded as prospective leaders in their discipline. The University Research Fellow programme is intended for a select group of internationally renowned researchers at VU Amsterdam, who can reward students with a University Research Fellowship that bears their own name. Additionally, more and more students - over 400 in 2016 – are taking part in honours programmes.

Focus on internationalization

To an increasing degree, VU Amsterdam is becoming an international university. The campus is a meeting place for people of many different nationalities and backgrounds. Having an international environment improves the quality of teaching and research. In 2016, the number of international students at VU Amsterdam rose by 25 per cent. Two Englishlanguage Bachelor's programmes - Philosophy, Politics and Economics, and Literature and Society – were launched in that same year. VU Amsterdam has also taken the lead in setting up Aurora, an international network of outstanding research universities.

"ONE OF THE MOST IMPORTANT SOLUTIONS IS EDUCATION AND THE OPPORTUNITY FOR PERSONAL DEVELOPMENT."



EDUCATION

FROM YOUNG PEOPLE TO CRITICAL ACADEMICS

VU Amsterdam is keen to train young people to be critical academics – people who are able to assume important positions in society and in the international and intercultural world of the future on account of their societal engagement. It is from this perspective that VU Amsterdam seeks answers to scientific and societal questions. Obviously, we cannot do that alone. That is why we collaborate with government bodies and the private sector, for example.

The quality of teaching is an important priority for VU Amsterdam. In recent years, there has been a strong commitment towards improving the quality assurance of teaching, using our university-wide Education Agenda.

Successful accreditation

VU Amsterdam has successfully and definitively been granted an institutional quality accreditation. In the 2014 audit, it received a 'positive with conditions' assessment. On Tuesday 19 April 2016, the Ritzen Committee again visited VU Amsterdam on behalf of the Accreditation Organisation of the Netherlands and Flanders (NVAO), before giving a positive assessment. The committee awarded VU Amsterdam the distinction of 'learning university' on the grounds of its revitalized culture of openness and transparency, and the sharing of good practices.

Mohammed Badran

As a refugee, Syrian student of cultural anthropology and development sociology Mohammed Badran experienced how young people can often have a long wait before being able to embark on a course of study. This prompted Mohammed to encourage the integration of his compatriots by founding the Syrian Volunteers in the Netherlands (SYVNL) network. His involvement did not go unnoticed. Mohammed was invited to address world leaders at the UN Summit for Refugees and Migrants in New York.



Performance agreements attained

In November, the Minister for Education, Culture and Science, Jet Bussemaker, accepted the positive recommendation of the Van Vught Review Committee concerning VU Amsterdam's performance targets. The committee had given a positive assessment of VU Amsterdam's results regarding its performance and profile targets in every area. The review committee concluded that the aspirations regarding Bachelor's completion rates had easily been surpassed.

VU Amsterdam welcomes refugees

There are more refugee students in regular study programmes at VU Amsterdam than at any other university in the Netherlands.
Refugees are able to learn Dutch to a high level in the VU-NT2 (Dutch as a Second Language) department, and are given the opportunity to prepare for a university degree programme in the VASVU (Foundation Year for

International Students) transitional programme. Last year, VU-NT2 taught 438 refugees. This involved an intensive year-long course that prepares the students for the State Examination. In 2016, there was a record number of 150 applications for the VASVU, especially from students with a Syrian background, with 60 being given places. Through the 'Academic Freedom' programme, and in close collaboration with the UAF and Scholars at Risk, VU Amsterdam also takes in researchers who find themselves in threatening circumstances. In 2016, VU Amsterdam hosted an archaeologist from the Middle East. Thanks to support from the VU Association, another six researchers under threat will be able to continue their academic work at VU Amsterdam.

Access to university education

As in previous years, VU Amsterdam was committed in 2016 to offering every student with sufficient qualifications equalopportunity access to a university

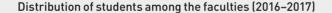
INTERNATIONAL STUDENTS

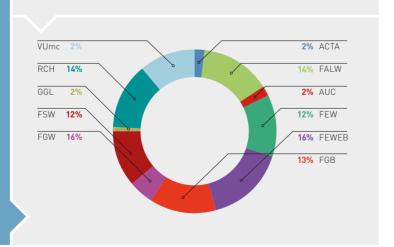
3,363

In 2016, the number of internation students at VU Amsterdam rose by

education. In addition to targeted information and matching, there is also a focus on diversity-sensitive teaching and on training lecturers on how to deal with different groups of students. VU Amsterdam also launched a pilot research project into effective supervision of different types of students. However, VU Amsterdam does not receive equal funding from the government for each student, and fears that this could adversely affect accessibility. VU Amsterdam has raised this point with national politicians. Intensive discussions on possible alternatives are currently taking place.

SUCCESS RATE OF BACHELOR'S PROGRAMMES: 760 The percentage of students who obtained a Bachelor's degree within four year rose from 54% in 2008 to 76% in 2016.







Faster together



VU AMSTERDAM – PUBLIC REPORT 2016

EDUCATION – FROM YOUNG PEOPLE TO CRITICAL ACADEMICS

"THE DISCOVERY OF THE MOST **IMPORTANT GENES BEHIND** THE MYSTERY OF **SPONTANEOUS** NON-INDENTICAL TWINS." VU AMSTERDAM - PUBLIC REPORT 2016

RESEARCH EAGER TO FIND SOLUTIONS

VU Amsterdam is among the best universities in the world. VU Amsterdam seeks to find answers to scientific and societal questions. This is not a solo mission, but one that crosses the boundaries of scientific disciplines and is done in collaboration with partners in society.

> Our research is both fundamental and applied, and covers the entire scientific spectrum, from the arts to science, to social, life and medical sciences. This rich academic environment makes possible ground-breaking interdisciplinary research and numerous societal applications. Because VU Amsterdam is a campus university, these disciplines are located in each other's immediate proximity.

Interdisciplinary research institutes

Research at VU Amsterdam covers subjects that often cross disciplinary boundaries.

To promote this interdisciplinary research, VU Amsterdam has set up interdisciplinary research institutes. Researchers meet here, share their knowledge and join forces to secure external funding.

There are sixteen interdisciplinary research institutes at VU Amsterdam.

- 1. AGCI Amsterdam Global Change Institute
- 2. AIMMS Amsterdam Institute for Molecules, Medicines and Systems
- 3. A-LAB Amsterdam Law and Behavior Institute

A better understanding of female fertility

An international group of researchers under the leadership of Hamdi Mbarek and Dorret Boomsma of VU Amsterdam, and Nils Lambalk of VUmc have, for the first time, identified a number of genetic variants among women that increase the likelihood of non-identical twins. The findings represent a step forward in our understanding of female fertility and infertility.



NUMBER OF PHD CONFERRALS

431

PhD students make an important contribution to research at VU Amsterdam. To equip them well, VU Amsterdam offers its PhD students a high-quality programme, aimed at academic knowledge and at skills that are important both inside and outside the university.

- 4. **VUmc CCA** Cancer Center Amsterdam/VUmc Institute for Cancer and Immunology
- 5. **CLUE** Research Institute for the heritage and history of the cultural landscape and urban environment
- 6. **EMGO+** Institute for Health and Care Research
- 7. **IBBA** Institute for Brain and Behavior Amsterdam
- 8. **ICaR-VU** Institute for Cardiovascular Research of the VU
- 9. **ISR** Institute for Societal Resilience
- 10. Kooijmans Institute for Law and Governance

- 11. **LaserLab** Institute for Lasers, Life and Biophotonics
- 12. **LEARN!** Institute for learning, teaching, upbringing and development in societal context
- 13. **MOVE** Institute for the understanding of human movement
- 14. **NCA** Neuroscience Campus Amsterdam
- 15. Network Institute
- 16. **Talma Institute** for the Study of Work, Care and Welfare

Rankings

In the most prominent rankings, VU Amsterdam is among the world's best universities. In the Leiden ranking, VU Amsterdam is number 97 in the world, number 24 in Europe, and number 4 in the Netherlands. This score is based on the top 10% publications. VU Amsterdam occupies the highest position in rankings that attach great value to quantitative indicators like research output, as is the case with the ARWU and Leiden rankings.

EIDEN RANKING

#97

Every year, Leiden University's Centre for Science and Technology Studies (CWTS) carries out assessments of universities all over the world on the basis of bibliometric indicators. In 2016, VU Amsterdam was ranked 97th.

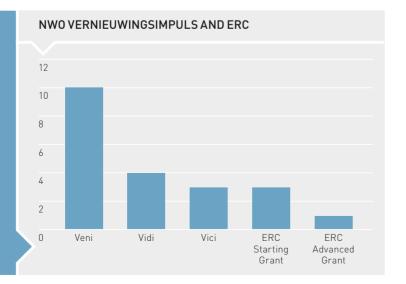
ERC ADVANCED GRANT

The European Research Council (ERC) has awarded VU Amsterdam physicist Kield Eikema a prestigious Advanced Grant worth 2.5 million euros for his proposal entitled 'The Proton Size Puzzle: Testing QED at Extreme Wavelengths'. His idea is to apply a new test to one of the most successful theories in physics, quantum electrodynamics (QED), using helium+ ions. This is important because previous QED tests have recently led to remarkable conclusions about the size of the proton. QED is an important part of what physicists refer to as the standard model, which describes all elementary particles and their interactions.

PERSONAL SCHOLARSHIPS

21

In 2016, seventeen VU Amsterdam researchers received Vernieuwings-impuls grants (ten Venis, four Vidis, and three Vicis), while four were rewarded ERC grants (three Starting Grants, and one Advanced Grant).





VU Amsterdam professor of artificial intelligence Guszti Eiben and his team have succeeded in creating robots that are capable of reproducing. This is a first. Thanks to this technology, robots are able to develop their brains, make their bodies evolve, and improve their behaviour. In the future, this will make them suitable for use in areas where the circumstances are not known, such as in



12 VU AMSTERDAM – PUBLIC REPORT 2016 RESEARCH – EAGER TO FIND SOLUTIONS

VALORIZATION AND IMPACT BENEFITING SOCIETY

Alongside teaching and research, valorization, the exploitation of knowledge, is one of the university's core tasks. VU Amsterdam researchers make a significant contribution to developments that benefit society. VU Amsterdam regards its teaching, both regular and post-graduate, as having an important impact on society as well.

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Education as co-creation by VU Amsterdam and society

Community Service Learning involves students deploying their academic skills for the purpose of solving a societal issue. It takes place in close

collaboration and interaction with a social partner. Interest from outside VU Amsterdam (housing corporations, healthcare institutes, and the government) illustrates the power of Community Service Learning. For example, in partnership with the Municipal Health Service students conducted a literature survey into sleep problems among children.

Postgraduate education

VU Amsterdam offers a wide range of courses for professionals and other interested parties. Sharing scientific knowledge on the one hand, and allowing professionals

0|2 Lab Building, ground-breaking

The O|2 Lab Building was opened in September 2016. It is one of the first university buildings in the Netherlands built to accommodate a specific research theme: Human Life Sciences. The infrastructure and facilities of the O|2 Lab Building make it easier to use costly research facilities efficiently and encourage the exchange of knowledge and collaboration.

Researchers from a variety of disciplines work together here,

Researchers from a variety of disciplines work together here, coming from the University of Amsterdam, VU Amsterdam and VUmc as well as market players. They create a mutually beneficial interaction between clinic and lab.



"LOOKING FOR

AS POSSIBLE

TO SOLVE THE

MYSTERY."

AS MANY CLUES

to contribute practical case studies on the other, helps postgraduate education at VU Amsterdam to contribute towards raising the professional standards of professional groups and enhancing the circulation of knowledge. Examples of successful institutes for post-graduate education are the VU Law Academy, the postgraduate programmes by the Faculty of Economics and Business Administration, Taalcentrum-VU, the VU Academy of Social Sciences, the Zijlstra Centre, VU NT2, and the University Centre for Behaviour and Movement.

Encouraging entrepreneurship

VU Amsterdam encourages entrepreneurship among its students through a range of study programmes. The Science, Business & Innovation (SBI) Bachelor's programme has received the Special Quality Distinction for 'Entrepreneurship' from the Accreditation Organisation of the Netherlands and Flanders (NVAO).

PARTICIPANTS IN FURTHER TRAINING OR REFRESHER COURSES

23,265

VU Amsterdam offers a wide range of study programmes in addition to its regular programmes, allowing people to engage in lifelong learning. This could be for the purpose of further training or simply because acquiring knowledge is an enriching experience. We share insights and learn from knowledge gained from real-life practice. By offering post-graduate teaching, VU Amsterdam helps to raise the professional standards of professional groups and enhances the circulation of knowledge.

Impact of alumni

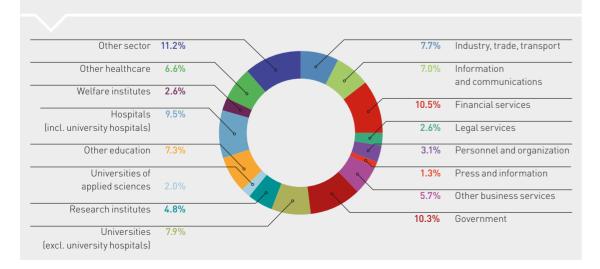
VU Amsterdam regards the teaching of students as having an important impact on society. The results from the national survey of alumni show that many VU Amsterdam alumni start with jobs in the financial sector, the public sector, or the healthcare sector.

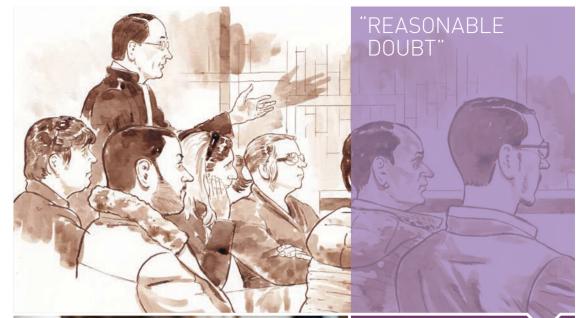
Employees and students are challenged to think about how their knowledge can contribute to entrepreneurship, and to look at how entrepreneurs can help with the development of a better healthcare system, for example. In this way, knowledge can be deployed more broadly for society in general.

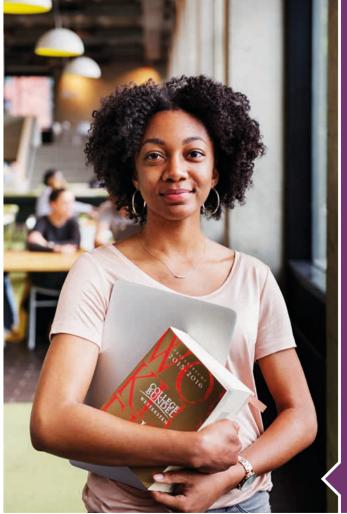
OPTICS 11 – IN SME INNOVATION TOP 10

Fibreglass technology can transport data without disruption through low or high temperatures, liquids, electric or magnetic fields, and places that are difficult to access. VU Amsterdam spin-off Optics 11 specialises in the engineering and production of optic nanosensors for biomedical research and industrial applications, based on fibreglass. Optics 11 was ranked seventh in the SME Innovation Top 100 of the Netherlands in 2016

Sectors where alumni are employed (for each cohort of successful Master's students, final degree assessment cohort/2013 survey)







Investigating miscarriages of justice

As elsewhere, the Dutch legal system suffers from miscarriages of justice. The Reasonable Doubt Project has been set up at VU Amsterdam in order to investigate alleged miscarriages of justice. A person convicted of a crime, their lawyer, or any other involved party may ask for a case to be investigated. Students will then get to work, under the supervision of university employees. If the investigation uncovers new information, a report is drawn up, often resulting in a publication. As well as highlighting miscarriages of justice, possibly resulting in cases being reviewed by the Supreme Court, the Reasonable Doubt Project also provides insights into how miscarriages of justice could be prevented during criminal investigations and the legal process. Additionally, the project gives students the opportunity to learn how to analyse complicated cases.

16 VU AMSTERDAM – PUBLIC REPORT 2016 VALORIZATION AND IMPACT – BENEFITING SOCIETY

FINANCIAL INCOME AND EXPENDITURE

STATEMENT OF INCOME AND EXPENDITURE

(amount rounded off to the nearest €M)

	Actual 2016	2016 budget	Actual** 2015	Difference to budget	Difference to 2015
(National) government contributions	307.2	295.6	302.6	11.6	4.6
Tuition fees, course fees and/or examination fees	46.2	44.6	47.3	1.6	-1.1
Income from third parties	90.7	84.8	85.8	5.9	4.9
Other income	57.6	54.8	57.1	2.8	0.5
Total income	501.6	479.8	492.8	21.8	8.8
Staffing expenses	322.5	317.4	333.0	5.1	-10.5
Depreciation	40.2	44.2	32.4	-4.0	7.8
Accommodation expenses	35.1	34.4	38.5	0.7	-3.4
Other expenses	93.3	75.1	88.3	18.2	5.0
Total expenses	491.2	471.1	492.2	20.1	-1.0
Financial income and expenses	-4.1	-6.7	0.0	2.6	-4.2
Regular operations result	6.3	2.0	0.6	4.3	5.6
Operations programme	-1.1	-	-3.6	-1.1	2.5
Provision for reorganization /					
non-recurring implementation costs	-0.8	-	-6.9	-0.8	6.1
Income from sale of Kaupthing bonds	-	-	2.5	-	-2.5
VU Amsterdam result to be published*	4.4	2.0	-7.4	2.4	11.7
Normalization of incidental/exceptional items	-1.0	-	8.6	-1.0	-9.6
Normalized regular result	3.4	2.0	1.2	1.4	2.2

FINANCIAL INDICATORS

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	Actual 2016	Bank's norm	Inspectorate of education threshold values	Difference (margin)
Solvency (banks' definition)	36.3%	> 30%		6.3%
Solvency (Inspectorate of Education's definition)	41.0%		> 30%	11%
Debt Service Coverage	3.7	> 1.3		2.4
Loan to Value	32.3%	< 50%		17.7%
Investments (€M)	€ 63.5	€ 121		€ 57.5
Liquidity (current ratio)	0.48		> 0.50	-0.02
Profitability	0.9%		0.0%	0.9%

*NB: The costs of the operations programme and the reorganization provisions have been included in the annual accounts and the results analysis under expenditure. They mostly concern staffing expenses. The non-recurring income from the sale of Kaupthing bonds is accounted for in the 2015 annual accounts under financial income and expenditure. The result to

be published corresponds to the result included in the VU Amsterdam annual accounts.

**The actual figures for 2015 here are the retrospectively consolidated figures and therefore differ slightly from the individual figures in the 2015 VU Amsterdam annual report.

The external auditor issued an unqualified audit opinion on these financial statements in June 2017 to Stichting Vrije Universiteit. To form a sound judgement of Stichting Vrije Universiteit's financial position and results, the above financial summary should be read in conjunction with the complete financial statements.

EXPEDITION TO SIBERIA

Climate research in the polar regions
During a research trip in late 2016,
VU Amsterdam researchers Joshua
Dean and Ove Meisel collected cores
of thermokarst permafrost sediments
from lakes in Siberia. Research into
the sediment cores is providing
insights into how the lakes, which
cover large areas of the Siberian polar
region, store carbon, and the extent
to which they affect the release of the
powerful greenhouse gas methane.





HIGH-FREQUENCY TRADING

Falling in a millisecond

The best scientists in the Netherlands give online lectures at the University of the Netherlands. VU researcher Albert Menkveld dealt with the question, "How can the stock market fall in a millisecond?" During his lecture, Albert played the part of a high-frequency trader. Using gold bars, he computerized exchanges can lose much of their value in a fraction of a second.

INTEGRITY INDEX 2016

Seeing how political parties measure up

Together with Vrij Nederland, professor of Public Administration Leo Huberts has drawn up an overview of the political scandals of 2016. From this Political Integrity Index, it turns out that political parties in the Netherlands are not untouched by scandals. Huberts regards the index as a good reason for an open dialogue between politicians, academics, and professionals from the political arena. Political parties were given the opportunity to say what we might expect in this regard.



VU AMSTERDAM – FINANCIAL PUBLIC REPORT 2016 – VU AMSTERDAM

