

Annual report 2016

WAGENINGEN
UNIVERSITY & RESEARCH

Table of Contents

	Supervisory Board	3
	Executive Board	4
	Profile and core activities of Wageningen University & Research	5
	Letter from the Executive Board	6
1	Introduction	8
2	Wageningen University & Research Executive Report	9
2.1	Supervisory Board	9
2.1.1	Report of the Supervisory Board	9
2.1.2	Report of the Audit Committee	10
2.1.3	Report of the Appointments Committee	11
2.1.4	Report of the Education and Research Committee	11
2.1.5	Independence and compliance	11
2.1.6	Background of the Supervisory Board members	12
2.2	Key figures	13
2.2.1	Wageningen University & Research	13
2.2.2	Wageningen University	15
2.2.3	Wageningen Research	15
2.3	Mission, vision and strategy	16
2.3.1	Mission and ambition	16
2.3.2	Domain	16
2.3.3	Strategic Plan	16
2.3.4	Attention for Corporate Social Responsibility	17
2.3.5	In dialogue with the world	19
2.4	Education	22
2.4.1	Profile and policy	22
2.4.2	Highlights	23
2.4.3	Results and success rate	24
2.4.4	Quality assurance	25
2.4.5	Funding	25
2.4.6	Students	27
2.4.7	Alumni	31
2.4.8	Outlook	32
2.5	Research	33
2.5.1	Policy and organisation	33
2.5.2	Internationalisation	34
2.5.3	Results	35
2.5.4	Quality assurance	36
2.5.5	PhD candidates	36
2.5.6	Funding	36
2.5.7	Outlook	37
2.6	Value creation	38
2.6.1	Value chains	38
2.6.2	Social and economic value creation	39
2.6.3	Professionals with added value	39
2.6.4	Societal knowledge needs	41
2.6.5	Government policy and legislation	43
2.6.6	Co-creation and innovative capacity	43
2.6.7	Access to our knowledge and research facilities	45

	2.6.8	Knowledge valorisation indicators	45
	2.6.9	Outlook	46
2.7		Employees	46
	2.7.1	One Wageningen	46
	2.7.2	Inclusiveness	47
	2.7.3	Corporate Social Responsibility	49
	2.7.4	Complaints and appeals	52
2.8		Operational management	52
	2.8.1	Personal Data Protection Act	52
	2.8.2	Application roll-out and process optimisation	53
	2.8.3	Open access	53
	2.8.4	IT security	54
	2.8.5	Campus development	54
	2.8.6	Safety and environment	55
	2.8.7	Procurement policy and supply chain responsibility	59
2.9		Compliance	59
	2.9.1	Governance	59
	2.9.2	Risk management and internal control	60
2.10		Economic performance indicators	63
	2.10.1	Direct economic value	63
2.11		Wageningen University & Research Continuity Section	64
2.12		Report criteria and scope	68
	2.12.1	Consolidated report	68
	2.12.2	Report criteria	68
	2.12.3	Scope	68
3		Abridged Wageningen University & Research Annual Financial Report	69
	3.1	Wageningen University	69
	3.1.1	Abridged Wageningen University Annual Financial Report	69
	3.1.2	Auditor's report by the independent auditor	79
	3.1.3	Appendices to the Abridged WU Annual Financial Report	81
	3.2	Wageningen Research	83
	3.2.1	Abridged Wageningen Research Annual Financial Report	83
	3.2.2	Auditor's report by the independent auditor	93
	3.2.3	Appendices to the abridged WR Annual Financial Report	95
	3.3	Remuneration	98
		Appendix 1 Education at Wageningen University	102
		Appendix 2 Side activities – Supervisory Board	107
		Appendix 3 Side Activities – Executive Board	109
		Appendix 4 Knowledge valorisation indicators	111
		Appendix 5 Glossary	118

Supervisory Board

At the end of 2016, the members of Wageningen University & Research's Supervisory Board were as follows:

Prof. M.J. Cohen (Chair)
L.C. Bruggeman (Vice Chair)
B.J. Marttin MBA
R.P. Smith R.A.
Prof. S. Korver
H.E. Waalkens

The members of the Supervisory Board for both institutions (Wageningen University and Wageningen Research) are the same.

Refer to Appendix 2 for an overview of the side activities of the members of the Supervisory Board.

Executive Board

At the end of 2016, the members of Wageningen University & Research's Executive Board were as follows:

Prof. L.O. Fresco (President)

Prof. A.P.J. Mol (Vice President and Rector Magnificus of Wageningen University)

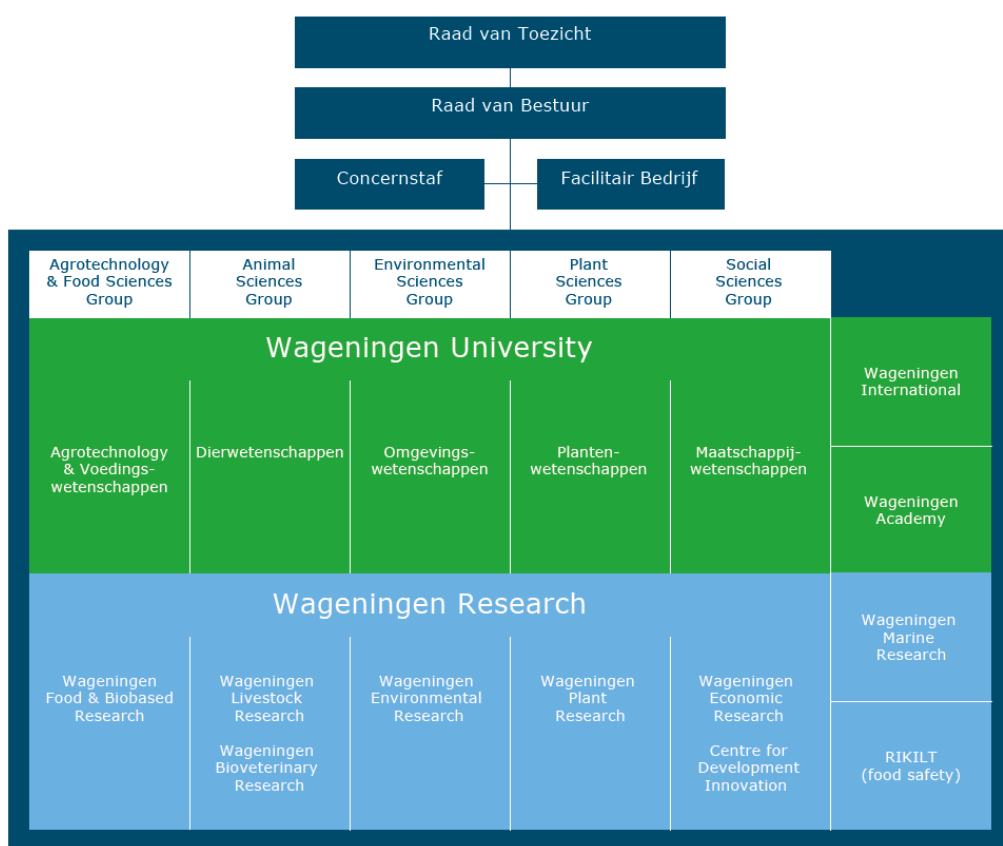
Dr IJ.J.H. Breukink

The members of the Executive Board are the same for both institutions (Wageningen University and Wageningen Research).

Refer to Appendix 3 for an overview of the side activities of the members of the Executive Board.

Profile and core activities of Wageningen University & Research

Wageningen University & Research is a partnership between Wageningen University and Wageningen Research, formerly the DLO Foundation. The association is organised into five sciences groups. These sciences groups are the organisational, functional and administrative tool which, through combining forces, help achieve greater effectiveness and quality of research and education. Each sciences group consists of a Wageningen University department that is organisationally integrated with one or more application-oriented Wageningen Research institutes. However, the organisations are separate administrative and legal entities. The matrix of the sciences groups together with the educational institute, the research institutes and the programme directors that operate across Wageningen University & Research, ensure that interdisciplinarity and demand management are achieved.



In addition, there are some research units which are not organisationally connected to a sciences group: Wageningen Marine Research focuses on strategic and applied marine ecological research and RIKILT conducts legal research tasks in the area of food safety. For some departments of the Corporate Staff, a repositioning is currently taking place aimed at improving support for WUR's three core activities: education, research and value creation.

Wageningen University and Wageningen Research are independent legal entities. In terms of content, the objectives and activities of these separate legal entities are aligned both at the strategic and tactical levels within the Wageningen University & Research partnership. Collaboration occurs in the operational management of some components. However, the relationship between these components is neither determined by nor dependant on policy. Individual organisational resources may not be used for any other purpose than to realise the objectives and perform the primary tasks of the individual organisation. For this reason, the separate legal entities publish a consolidated financial report for their group. Wageningen University & Research as a whole does not publish a consolidated annual report.

Letter from the Executive Board

We can look back on a good year. We have made been active and visible in many fields. This applies to our ground-breaking research on reducing malaria in Africa, to give one example. This also applies to the consistently good scores that our students give regarding our education. But it goes even further.

With the opening of Helix on Wageningen Campus in 2016, the ambitious Strategic Construction Plan was officially and successfully completed. All university chair groups now have a pied-à-terre on-campus, which will further foster synergy – the One Wageningen concept.

The activities during the past year at Wageningen University & Research ensured that it was once again full of life. A very nice activity was the F&A-next, during which numerous international and Wageningen startups and investors in the field of agrifood were able to present themselves. The commitment of the State Secretary, Van Dam, to creating a special fund to encourage innovative startups was a welcome support to our policy. In 2016, the Value Creation department decided to further strengthen the efforts of our organisation in this area in order to further enhance the impact of our work.

In 2016, the Executive Board decided to focus on creating a more coherent and intensive programme of Summer Schools, so that a stimulating and interactive academic programme is also available during the summer months.

In October, it was announced that Unilever will base its research activities in the field of food in Wageningen. This represents a massive strengthening of the campus ecosystem. The fact that the incubator Plus Ultra is fully booked within one year of completion indicates that we are on the right track with our triple-helix concept.

Of course, there is also good news regarding the continuing growth in student numbers. The fact that we remain first place in the Keuzegids undoubtedly plays a role in this, in addition to the importance of and interest in our domain of healthy food and living environment. Additionally, the consistent first place in the international ranking for knowledge institutions in the domain of agrifood and the high ranking for our efforts in the area of environmental sciences also contribute to a stable growth of international students.

We would like to note that unfortunately student growth is not coupled with a proportional growth in government funding for our university. Through a focused relations policy in The Hague, we are continuing to work on removing this constricting cap on government funding. This does not take away from the fact that, in 2016, measures were taken to continue to meet the growing demand for educational spaces. These measures involve curricular adjustments, the continued use of buildings on De Dreijen (the old university grounds), and online educational support.

Wageningen University & Research is not the only research institute in the Netherlands dealing with lagging funding. This is one of the reasons why cooperation was sought with the technical universities and the TO2 institutes. The importance of technical and applied education and research for the economy and for finding solutions to important issues is beyond dispute.

Cooperation within 4TU involves more than the common objective to improve government funding. Both in the field of education and in research there are numerous interfaces and opportunities for synergy. The boundaries between the traditional domains are blurring when it comes to finding solutions to major societal issues. This cooperation is well under way.

The financial results of our organisation were more or less stable. Wageningen Research close the year with a small return of €2.7 million from a €299 million turnover, while Wageningen University had a

negative result of -€2.5 million from a turnover of €331 million. The turnover of Wageningen Research is showing a downward trend, which is bad news for a number of divisions.

Finally, 2016 was also a year in which our knowledge and vision took a central place in social dialogue. What we do here matters and leads to debate in society. And we should not shy away from this debate, because scientific advancements and innovation are vital to tackling the major societal questions. We will therefore continue to focus on the Wageningen Dialogues: our way of maintaining the dialogue with society on possible innovative solutions to the major issues such as sustainability, food security and the biobased economy.

Prof. L.O. Fresco (President of the Executive Board)

Prof. A.P.J. Mol (Vice President of the Executive Board)

Dr I.J.J.H. Breukink

1 Introduction

This annual report covers the 2016 financial year of Wageningen University & Research, the partnership between Wageningen University and Wageningen Research. This encompasses both the joint executive report and the individual annual financial report of the separate legal entities.

In the annual report, the performance of Wageningen University & Research will be presented along with the social aspects of this performance. Holding both internal and external stakeholders accountable, extends across the economic, environmental and societal impact of this performance. The annual report has been prepared in accordance with internationally accepted guidelines of the Global Reporting Initiative (GRI).

Both Wageningen University and Wageningen Research have a social function. The annual report offers insight into how both organisations have fulfilled their public responsibilities.

The following chapters offer the reader an overview of the key developments that occurred in 2016. Chapter 2 contains the reports from the Executive Board and the Supervisory Board (2.1). Section 2.2 provides key figures, while Section 2.3 outlines the ambitions of Wageningen University & Research. Following that are the achievements in education (2.4), research, (2.5) and value creation (2.6). Development in terms of human resources (2.7) and business operations (2.8) are also covered. Section 2.9 offers insight into the way in which the organisation is administered and Section 2.10 covers the reporting criteria for this annual report.

Chapter 3 covers the annual financial reports of Wageningen University (3.1) and Wageningen Research (3.2) and the auditor's report of the financial statements. The abridged annual financial reports are directly derived from the [full Annual Financial Reports for 2016](#), which are published separately on the Wageningen University & Research website. Finally, Section 3.3 deals with the remuneration for the executives of Wageningen University & Research.

The Wageningen University & Research Annual Report 2016 was prepared and validated by the Executive Board on 18 May 2017 and approved by the Supervisory Board on 29 May 2017.

2 Wageningen University & Research Executive Report

2.1 Supervisory Board

2.1.1 Report of the Supervisory Board

In 2016, the Supervisory Board held six regular meetings. In addition, the board also met six times in closed sessions. The Chair of the Supervisory Board regularly held informal consultations with the President and other members of the Executive Board.

Supervisor

An important topic for the Supervisory Board was the cooperation between the four technical universities (4TU), for which approval was granted for the signing of the 4TU joint regulations. Wageningen University (WU) funding, in relation to student growth and in the context of the 4TU partnership, has been brought to the attention of the Ministry of Education, Culture and Science (OCW). Simultaneously, the 2% maximum cap on the budget growth per year makes the financial situation extra tight for WU. Also, the possible transfer of green education to the OCW received a lot of attention. It is expected that the new cabinet in 2017 will decide on the possible transfer of green education. For Wageningen University & Research, it is important that the governance does not become more complex since Wageningen Research will continue to report to the Ministry of Economic Affairs (EZ).

Furthermore, an assessment was carried out regarding the management of Wageningen Research following the DLO self-evaluation report 2012-2015 (*Zelfevaluatie DLO 2012-2015*) commissioned by the EZ. Further attention was given to the risks facing the ministry resulting from the decreasing research funding.

Another key topic of discussion arose due to the growth of student numbers and the measures that are being explored in anticipation of this.

Progress on the Strategic Plan 2015-2018 was also discussed. In addition, the Supervisory Board was informed throughout the year on the developments of the Environmental Sciences Group, for which a recovery plan is being implemented due to the rapidly diminishing income.

Delaying the introduction of the new Student Information System received the necessary attention. The Supervisory Board received the final report of the Strategic Construction Plan, with which the construction of the campus was completed after a fifteen-year period.

Based on the positive recommendation of the Audit Committee, the Supervisory Board approved the Wageningen University & Research Annual Report 2015 and the annual financial reports of Wageningen University and the DLO Foundation (Wageningen Research). The Supervisory Board and the Audit Committee consulted with the external auditor regarding the annual financial reports for 2015 and the 2016 half-year interim report. The Supervisory Board requested that the Executive Board adopt the auditor's recommendations.

The Supervisory Board received regular management reports regarding the financial condition of the organisation. The Supervisory Board approved various decisions regarding the real estate portfolio and set the guidelines for the reimbursement of expenses of the Supervisory Board. The board approved the half-year overview of personal expenses by Executive Board members. In 2016, the board adopted the statutory name change from *stichting Dienst Landbouwkundig Onderzoek* (DLO Foundation) into Wageningen Research and also revised the statutes of Wageningen Research.

Based on the positive recommendation of the Audit Committee, the Supervisory Board approved the 2017 budget of Wageningen University and Wageningen Research. The board is aware that the

financial return of Wageningen University will be under considerable pressure in the coming years, since more is being spent on education than is received in funding. Furthermore, the Supervisory Board realises that Wageningen Research, partly due to decreasing government funding and low earning potential, is on the eve of a revitalisation.

Adviser

The Executive Board also informed and exchanged views with the Supervisory Board about the developments surrounding applied research (TO2), the national debate about a potential transfer of green education to the Ministry of Education, Culture and Science (OCW) and the consequences of a constrictive budget for the innovative capacity of Wageningen University & Research.

Employer

Based on the recommendation of the Appointment Committee, the Supervisory Board started the recruitment procedure for a member of the Executive Board with the finance and operational management portfolio, which will become available on 1 October 2017. The other activities are described in Section 2.1.3.

Relationship with stakeholders

In the year under review, a delegation from the Supervisory Board attended the two bi-annual state-of-affairs discussions between the managers and the central participational body.

The board consulted and became better acquainted with staff members who hold key positions at Wageningen University & Research. After the board meetings, they visited one of the Wageningen University & Research faculties. The board was present at a range of meetings, such as the Dies Natalis and the official opening of the academic year.

2.1.2 Report of the Audit Committee

The Audit Committee convened for three regular meetings and one additional meeting in 2016.

The committee specifically discussed the Wageningen University & Research Annual Report 2015 and the findings of the auditor. Special attention was given to property valuation, the provisions for VAT and the liquidity developments at Wageningen University. The Audit Committee agreed with the auditor's specific recommendations and advised the Supervisory Board to approve Wageningen University & Research's Annual Report and the annual financial reports of Wageningen University and the DLO Research Foundation (Wageningen Research), and to implement the auditor's recommendations.

The Audit Committee also discussed Wageningen University's 2015-2025 multi-year projections, which are seen as an important tool in the strategic decision-making process. Important themes were capping the government funding to a maximum of a 2% growth in the light of the much more rapidly growing student numbers and increasing institutional tuition fees for non-EU students. In addition, the internal control measures (IC-risk), the Wageningen University & Research information policy and the management of the information system were discussed with the Executive Board.

Furthermore, in the year under review the Audit Committee also discussed the management reports, including the financial reports. The committee consulted with the auditor regarding the outcomes of the 2015 audit and the interim audit for 2016.

The 2017 budgets of Wageningen University and Wageningen Research were also discussed extensively. The return of Wageningen University is under considerable pressure in the coming year and Wageningen Research, partly due to decreasing government funding and low earning potential, is on the eve of a revitalisation. Based on the improved long-term perspective, the committee advised the Supervisory Board to approve the budgets.

2.1.3 Report of the Appointments Committee

In 2016, the Appointments Committee convened on six separate occasions. This involved the regularly planned meetings to prepare and conduct the annual job performance reviews with the members of the Executive Board.

In connection with the end of Dr J.J.H. Breukink tenure as a member of the Executive Board on 1 October 2017, the recruitment to fill this vacancy was started in late 2016 based on the recommendation of the Appointment Committee. The profile for the position was established after consultation with the Executive Board and the central participational body. The profile has been made public. For the selection of candidates, the Supervisory Board set up a selection committee, which includes three members of the central participational body.

The composition of the Executive Board has a healthy distribution of seats among men (67%) and women (33%). This is in contrast to the composition of the Supervisory Board, which is composed entirely of men.

With a view to the expiry of the first term of office of L.C. Bruggeman, Prof. S. Korver, R.P. Smith and H.E. Waalkens on 31 December 2016 the Appointment Committee advised the Supervisory Board on the reappointment of these members. Mr Waalkens opted not to accept reappointed. The Supervisory Board invited the central participational body to provide a nomination for a member of the Supervisory Board who has the confidence of the participational structure. The board nominated Bruggeman, Korver and Smith to the minister for reappointment.

In 2016, the Supervisory Board renewed its focus on self-evaluation. This highlighted the many roles that the board has. This gave rise to a number of recommendations that were subsequently discussed with the Executive Board and put into action.

Details of the remuneration for the members of the Executive Board and Supervisory Board for 2016 are provided in Section 3.3 of this report.

2.1.4 Report of the Education and Research Committee

The Education and Research Committee met twice in 2016. The committee extensively discussed the educational quality, the role of the examining boards and the education ecosystem, which reflects the ambitions up until 2020.

The investment themes of the Strategic Plan for the period 2015-2018 were also discussed with the Executive Board. In doing so, Wageningen University & Research is focused on achieving more synergy between fundamental and applied research. In addition, the talent programmes were discussed, including the honours programme.

2.1.5 Independence and compliance

The Supervisory Board ensures that board members are independent. In the board's opinion, this is indeed the case in accordance with the requirements of Wageningen University & Research's Corporate Governance Code.

The Executive Board is responsible for compliance with all relevant legislation and regulatory requirements and for managing the risks associated with the activities of the institution. The Executive Board reports on and discusses internal risk management and control systems with the Supervisory Board and the Audit Committee.

The Wageningen University & Research Supervisory Board [Regulations](#) (only available in Dutch) apply to the Supervisory Board.

2.1.6 Background of the Supervisory Board members

Prof. M.J. Cohen (1947) has been a member of the board since 1 January 2013 and is Chair of the Appointments Committee and a member of the Education and Research Committee. His term of office will expire on 1 September 2017, at which point he will be eligible for reappointment under the Board's rotation schedule. Prof. Cohen has held numerous public offices, among them Rector Magnificus of Maastricht University, Mayor of Amsterdam and Leader of the Labour Party in the House of Representatives. His current positions include the Thorbecke Chair at Leiden University.

Mr L.C. Bruggeman (1950) has been a member of the board since 1 January 2013 and is also currently a member of the Audit Committee and the Education and Research Committee. His appointment term will end on 1 September 2017, at which point he will be eligible for reappointment under the board's rotation schedule. The Supervisory Board has nominated Mr Bruggeman to the Minister of Economic Affairs (EZ) for reappointment for a one-year period. Mr Bruggeman was the Head of the Board of Directors at the University Medical Center Groningen.

Prof. S. Korver (1953) has been a member of the board since 1 January 2013 and is Chair of the Education and Research Committee and a member of the Appointments Committee. His appointment term will end on 1 January 2017, at which point he will be eligible for reappointment under the board's rotation schedule. The Supervisory Board has nominated Mr Korver to the Minister of Economic Affairs (EZ) for reappointment for a four-year period. Mr Korver is also an associate professor at Tilburg University.

Mr B.J. Marttin MBA (1965) has been a member of the board since 1 July 2011 and is also Chair of the Audit Committee. His term of office will expire on 1 September 2019, at which point he will not be eligible for reappointment due to the provisions of the board's rotation schedule. Mr Marttin is also a member of the Executive Board of Rabobank Netherlands.

Mr R.P. Smith RA (1960) has been a member of the board since 1 January 2013 and is also a member of the Audit Committee. His term of office will expire on 1 January 2017, at which point he will be eligible for reappointment under the board's rotation schedule. The Supervisory Board has nominated Mr Smith to the Minister of Economic Affairs (EZ) for reappointment for a four-year period. Mr Smith is Chair of the Executive Board of Royal Cosun.

Mr H.E. Waalkens (1948) has been a member of the board since 1 January 2013 and is also a member of the Appointments Committee. His term of office will expire on 1 January 2017, at which point he will be eligible for reappointment under the Board's rotation schedule, though he has opted not to accept reappointment. Mr Waalkens is a former Member of Parliament for the Labour party and is an organic dairy farmer.

2.2 Key figures

2.2.1 Wageningen University & Research

Table 2.1 Education

	2013-2014	2014-2015	2015-2016	2016-2017
Bachelor's programmes	19	19	19	19
Master's programmes	28	28	28	28

Table 2.2 Research

	2013	2014	2015	2016
Number of scientific publications ¹	4,553	4,405	4,398	4,514
Wageningen University	3,871	3,795	3,924	3,986
Wageningen Research	1,401	1,355	1,230	1,401
Number of PhD degrees obtained	273	287	305	296

Table 2.3 Students

	2013-2014	2014-2015	2015-2016	2016-2017
Number of enrolled students (Figure 2.1)	8,825	9,544	10,380	11,278
Bachelor's students	4,231	4,543	4,790	5,298
Master's students	4,190	4,562	5,050	5,480
Other enrolments	404	439	540	500
Influx of first-year students	2,412	2,507	2,612	2,962
Bachelor's	1,492	1,493	1,524	1,655
Master's	920	1,014	1,088	1,307
Number of graduates (Figure 2.2)	2,126	2,313	2,576	2,519
Bachelor's	854	875	991	880
Master's	1,272	1,438	1,585	1,639
Number of nationalities	106	107	112	103
Percentage of international students				
Bachelor's students	6	5	4	3
Master's students	40	38	37	40

Table 2.4 Employees

	2013	2014	2015	2016
Average number of employees (in FTE)	5,190	5,106	4,995	4,912
Wageningen University	2,630	2,594	2,546	2,523
Wageningen Research	2,560	2,512	2,449	2,389

Table 2.5 Sustainability

	2013	2014	2015	2016
Climate neutrality (%) ²	78	76	110	80
Annual energy reduction (%)	4.5	4.2	3.4	2.3

¹ Reference date 24-2-2017 - The numbers of publications may differ slightly from the number specified last year, as there was a lag in entering the publications into the registration system.

² The result of the CO₂ compensation measures as a percentage of total CO₂ emissions (in CO₂ equivalents). For further explanation see section 2.8.6.2.

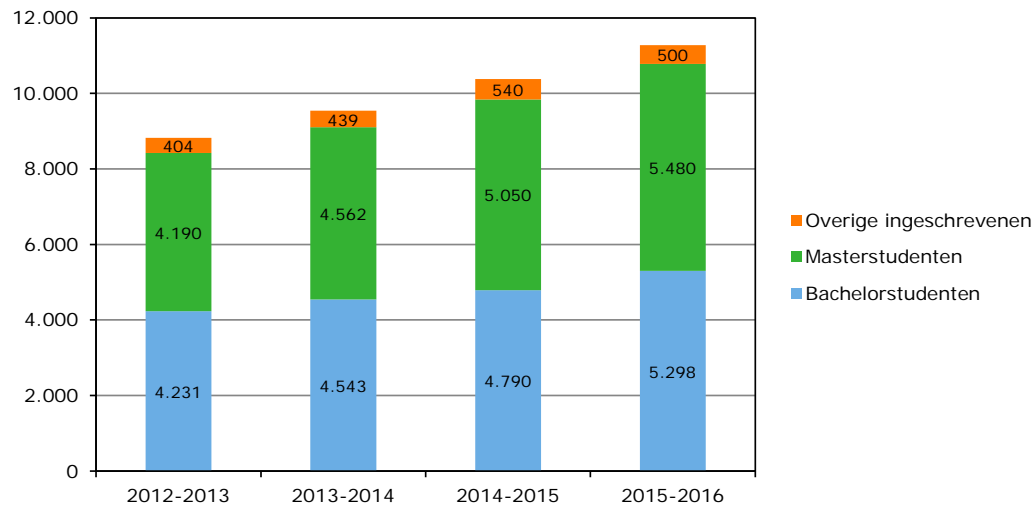


Figure 2.1 Number of enrolled students at Wageningen University, 2011-2012 to 2015-2016

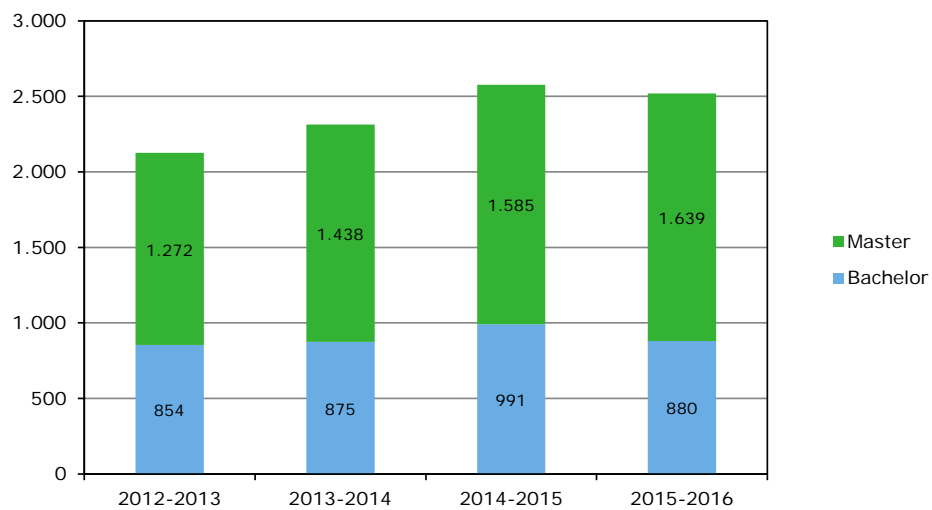


Figure 2.2 Number of graduates from Wageningen University, 2012-2016

2.2.2 Wageningen University

Table 2.6 Key financial figures for Wageningen University in 2016 (in € millions)

	2013	2014	2015	2016
Government funding excluding targeted subsidies	166.5	167,6	173,7	182,4
Tuition Fees ^{a)}	24.9	25,0	28,2	32,3
Research funding and targeted subsidies	26.6	26,8	26,8	28,3
Matching market and contract research	84.8	79,6	66,2	60,1
Investments	36.9	35,6	24.6	16,3
Net result	2.2	-0,4	-1,7	-2,5
Wageningen University capital				
Capital invested in fixed assets	263.2	275,7	279,6	258,7
Internal capital	155.8	155,4	153,7	151,2
Total capital	380.4	354,9	375,3	353,1
Solvency ratio (%)	41.0	43.8	40.9	42.8
Wageningen University liquidity				
Liquid assets	48.4	31,4	39,6	44,9
Current ratio	0.6	0,5	0,5	0,5

a) Excluding course fees

2.2.3 Wageningen Research

Table 2.7 Key financial figures for Wageningen Research in 2016 (in € millions)

	2013	2014	2015	2016
Turnover	333.7	330.1	314.4	299.2
Proportion of turnover from EZ (%)	43	42	40	40
Investments in land and buildings	16.7	5.2	3.7	14.3
Investments in other tangible fixed assets	3.9	4.9	3.0	3.8
Net result	-3.4	1.0	8.7	2.7
Wageningen Research capital				
Capital invested in fixed assets	377.2	361.2	339.3	335.4
Internal capital	292.1	293.1	301.8	304.5
Total capital	564.1	546.7	544.7	542.9
Solvency ratio (%)	51.8	53.6	55.4	56.1
Wageningen Research liquidity				
Liquid assets	77.4	80.9	94.2	115.8
Current ratio	1.2	1.3	1.5	1.5

2.3 Mission, vision and strategy

2.3.1 Mission and ambition

Wageningen University & Research (WUR) is an international research and knowledge centre whose mission is to *explore the potential of nature, to improve the quality of life*. WUR's ambition within the domain "healthy food and living environment" is to not only develop high-level knowledge but also to help put this knowledge into practice across the planet. In addition, we train professionals who are able to generate breakthroughs in knowledge and technology in the near and more distant future. It is our ambition to maintain our position as a leading supplier of applied scientific research in the green domain.

There are no one-dimensional solutions for the urgent challenges within our domain. This is why we cherish the open connections that exist between the natural science and social science disciplines at Wageningen University & Research.

In the coming years, we wish to further develop our leading position in the domain "healthy food and living environment". We wish to do this in close collaboration with the government, the business community, and other knowledge institutes and universities at home and abroad. We wish to remain an international leader, to bundle strengths and funding together with other parties, to share knowledge and to find sustainable solutions for the major challenges the world faces. This is the ambition of Wageningen University & Research.

2.3.2 Domain

WUR's domain of "healthy food and living environment" consists of three interrelated core areas with partial overlap:

- *Society and well-being*
This core area concerns human behaviour in regard to food and living environment, lifestyle and perceptions, but also institutions, governance, market, supply chains and social innovations.
- *Food, feed and biobased production*
This core area concerns the sustainable production and processing of food, feed and biobased products, international food chains and networks, food safety and health aspects of nutrition.
- *Natural resources and living environment*
This core area concerns nature, landscape, land use, water management, sea, natural resources and biodiversity.

2.3.3 Strategic Plan

In 2015, work was started on implementing the [Strategic Plan](#) for the 2015-2018 period. An environment analysis in which important developments were identified, together with the realisation and progress of the Strategic Plan for 2011-2014, was the starting point for determining the mission, vision and strategy of Wageningen University & Research for the 2015-2018 period.

The ambitions of Wageningen University & Research are far-reaching: through top research and education we aim to make a substantial contribution to solving the major societal challenges in our knowledge domain. The direction outlined in the Strategic Plan for the 2015-2018 period encompasses five important innovations:

- Increasing and anchoring synergy in the organisation by working on multidisciplinary problems, both fundamental and applied, across our sciences groups ("One Wageningen").
- Developing a new teaching approach for larger numbers of students and for the One Education System (development of online teaching materials for use with different target groups: campus, distance, initial and lifelong learners).
- More attention for economic and social value creation focused on contributing to innovations in businesses and the dialogue with society.

- Striving to improve the joint market approach and achieve a higher turnover for the research institutes in the public-private and private market.
- Strengthening our international connections.

To realise the above ambitions, each year a number of priority areas for the year are identified. For 2016, these were the further development of the five investment themes for new research (Global One Health, Resource Use Efficiency, Resilience, Metropolitan Solutions, and Synthetic Biology), the future of applied research, account management, exploring new MBA modules, implementation of the Education Ecosystem, programming and vibrancy, developing a vision for internationalisation, chair group robustness and resilience, further developing CSR policy and improving internal cooperation.

To measure the progress towards the direction outlined in the Strategic Plan, key performance indicators have been established for the five important innovations, the progress of which there will be reported on annually. With the progress of the abovementioned priority areas, the realisation of the Strategic Plan of Wageningen University & Research is taking shape.

2.3.4 Attention for Corporate Social Responsibility

Corporate Social Responsibility (CSR) means to “do good” and to contribute to a better world - no more and no less. A sustainable business is part of this, but the concept of CSR is broader than that. This is why this year WUR is expanding its sustainability report into a CSR report. CSR is substantively linked to the WUR domain, in which the knowledge on healthy food and living environment that is being developed directly contributes to a better world. WUR also establishes stringent criteria within its own organisation in the area of CSR. The premise is that in everything we do - research, education, value creation and management - the social impact is automatically taken into account in the decision making.

Three pillars are important to the CSR approach: 1) do what you say and show what you do, 2) create awareness within and outside the organisation, and 3) search for connections between research, education, value creation and operational management. The risks and opportunities WUR sees in the area of CSR are part of the [Strategic Plan 2015-2018](#). In 2016, the CSR strategy of WUR was further mapped out and the CSR agenda was further developed. The core of the CSR agenda is fully in line with the [WUR Integrity Code](#). WUR acts as a socially responsible organisation: *“We account for social aspects and ecological boundaries in our performance.”* WUR also expects its employees to be aware of the societal impact of their work and to act accordingly, with respect for humans and animals and with an eye for nature and our living environment.

With the CSR agenda, WUR highlights the social themes that will receive extra attention in the coming years: 21 CSR topics were identified which are important inside and outside Wageningen University & Research. Ten of these are so important for our organisation and our stakeholders that we wish to highlight them and give them additional focus. The CSR agenda can be adjusted throughout the work process, for example if additional insight shows that certain issues or dilemmas are not yet sufficiently on our radar.

The CSR agenda is the result of the materiality assessment carried out in 2015 ([WUR CSR report 2016](#); only available in Dutch). In 2016, the agenda was further defined with clear ambitions, concrete objectives and relevant indicators (key performance indicators or KPIs). A department was designated to be responsible for each CSR topic. By following the framework of the ISO 26000 self-declaration and the Global Reporting Initiative (GRI), we ensure that we will continue to work on what we consider important in areas where we can make a difference.

Table 2.8 *The topics and ambition of the CSR agenda*

Subject	Ambition
1. Innovation & research	Contribute to the global challenges in the field of ecology, sustainability, public health and food safety. Translate our knowledge into innovations. Quickly translate scientific breakthroughs into practice and education.
2. Education	Outstanding education. Implement the latest insights in the area of embedding sustainability in education. Strive for meaningful contact between teachers and students. Focus on the personal learning needs of the student. Offer students a solid foundation of scientific knowledge and academic skills.
3. Contribute to the public debate	Include society in an ethical and honest way in the outcomes of scientific research and the assumptions and considerations that have been made. Generate awareness of the contribution which our research makes to healthy food and living environment in the public debate.
4. Diversity and opportunities for employees and students	Realise an inclusive work environment with equal opportunities for staff and students. Pay attention to talent, mobility, equal opportunities and reflecting society based on the realisation that different talents complement each other.
5. Responsible use of public funds	Ensure the responsible (i.e. lawful, efficient and effective) use of public funds and make this clear to government bodies and society.
6. Public-private partnerships	Collaborate with national and international partners (according to the golden triangle principle) in achieving our goals (research for and towards society) and guaranteeing (financial) continuity in research and education.
7. Customer satisfaction	Respond effectively to what clients expect from us regarding CSR: optimise research and education based on the needs of our clients.
8. Stakeholder involvement	Involve stakeholders in our research and education in order to bring our strategy and activities in line with their expectations of us.
9. Partnership	Take responsibility towards society. Be accountable for our choices of partners by accounting for social, economic and environmental risks, opportunities and effects.
10. Ethically responsible research and education	Follow an independent and ethical work method to ensure that society can trust in the results of our work.
11. Emissions	Take a leading role in sustainable operational management. As much as possible, limit adverse environmental effects and emissions from our activities. Have an eye for biodiversity. Provide insight into the environmental effects of energy, water and waste so that targeted saving and preventive measures can be taken.
12. Responsible procurement	Socially responsible procurement: <ul style="list-style-type: none"> • Set sustainability requirements for procurement processes (in the broadest sense). • Ensure that suppliers of WUR comply with codes of conduct covering various sustainability issues, including human rights, labour conditions, the environment and business ethics.
13. Health and safety of employees and students	Guarantee optimal working conditions. Safeguard the health and safety of workers and students and promote the well-being of our staff and students as much as possible.
14. Biodiversity	Work on understanding the resilience of ecosystems worldwide. With local and regional stakeholders, work on the sustainable approach that is required to meet the challenges regarding biodiversity and the increasing use of natural resources.
15. Transparency	Take responsibility for the impact of our research and teaching activities on the environment and society. Openly publish results of research carried out with public funds.
16. Public Affairs	Establish a coherent policy for public matters related to politics (local, national and EU), society and NGOs. Anticipate political decisions and public opinion which may directly affect the strategy and approach of our organisation.
17. Employee training and development	Invest in the development of employees by actively offering professional training and degree programmes.
18. Responsible supply chain management	Integrate sustainability requirements into the tendering procedure for awarding contracts. Actively involve partners in the value chain to improve the sustainability performance of WUR.
19. Economic performance	Attain higher income from research and education so that we can achieve our (new) strategic goals, including our CSR goals.
20. Responsible animal research, use of pesticides and GMOs	Guarantee the responsible use of laboratory animals, pesticides and genetically modified organisms and ensure maximum transparency.
21. Compliance with environmental laws and regulations	Comply with all environmental laws and regulations. Set additional environmental targets to minimise our environmental impact.

The CSR agenda in 2016 was coordinated by the Sustainability Group. At the end of 2016, this group continued their work under the new name of "CSR Group" since this agenda encompasses

sustainability in its broadest sense (people, planet, profit). As chair, the Director of Facilities & Services manages this group and together with the Director of Human Resources is responsible for the CSR and sustainability priority area. The CSR Group, comprising a group of employees in key positions in the organisation, assesses the progress and reports to the Executive Board.

The CSR agenda is, as much as possible, linked to the priority areas and KPIs from the Strategic Plan. In 2016, CSR itself was one of the priority areas from the Strategic Plan, with the task of developing CSR policy for two action points: working on environmental sustainability (including energy and the CO₂ footprint) and inclusiveness (including stimulating feedback, mobility, diversity and participation). For environmental sustainability, the focus was on further defining the environmental topics on the CSR agenda and formulating the Energie Efficiency Plan (EEP) 2017-2020 which is applicable throughout WUR. For the human resources domain, CSR has been translated into "inclusiveness". This means that we deliberately hire people from various target groups and pay attention to talent, mobility, equal opportunities and representativeness. Regular progress reports were sent to the Executive Board.

Wageningen University & Research can rightly claim that it is one of the most sustainable education and knowledge institutions in the Netherlands. In 2016, WUR scored exceptionally well on the different CSR benchmarks such as SustainaBul, the Transparency Benchmark and Green Metric. As a result, Wageningen University has been rated as the most sustainable education institution by students for the fourth consecutive year. In 2016, the Transparency Benchmark once again identified WUR as the most transparent of all Dutch universities and knowledge institutes and the most transparent in its CSR reporting. Finally, WUR earned a top 3 place in the Green Metric for the world's greenest universities.

The [WUR CSR Report 2016](#) (only available in Dutch) describes the results in more detail. It focuses on the developments and activities of the CSR agenda, describes the results of the efforts to improve sustainability and presents the GRI index.

2.3.5 In dialogue with the world

2.3.5.1 Wageningen dialogues

A trend that is emerging in recent years, is the declining confidence in institutions. This development should be taken seriously, because we owe our legitimacy as a knowledge institution largely to society's trust in us. As this concerns a broad societal development, it is not easy to reverse this. Our focus lies within our own domain, in the contacts with our own stakeholders and with society in a broad sense. In our Strategic Plan for 2015-2018, maintaining the dialogue is an important priority area. To this end the programme Wageningen Dialogues was created. This programme was further developed in 2016. Among other things, activities focus on becoming more open and transparent as an organisation and increasing the number of possibilities for stakeholders to enter into a dialogue with us through the website, media and social media and during gatherings and events.

In addition, a large number of specific dialogues have been organised on topics within our domain and our staff have participated in dialogues that were organised by others. A couple examples: in collaboration with Foodlog (an independent news platform on food and health) a public event on trust in food and food science was organised; just after the summer an intensive two-day dialogue was held for young professionals working in non-profit organisations (NGOs), business, research and government. The focus of this last dialogue was to foster mutual understanding and commitment to jointly tackling social issues. A follow-up to this event will be organised, because it appears that the younger generation is much less biased about solutions than the older generation which is currently at the helm. One of the externally organised dialogues which our staff participated in was a dialogue of *KennisCafé* in *De Balie* theatre. In this dialogue, Louise Fresco spoke with Elbert de Jong and Sjef Smeeckens (both Utrecht University) about genetic modification in agriculture in relation to food safety, food security and ecology. During a lecture series in our debate centre Impulse, a discussion was held on the way in which our organisation can contribute to the sustainable development goals of the UN.

In the coming year, in addition to organising dialogues, there will be a focus on improving the dialogue skills of the people in our organisation, thus enabling us to reach our stakeholders more effectively.

2.3.5.2 Interaction with stakeholders

Stakeholder contact starts at our primary process. Research programmes have a steering committee in which stakeholders from different backgrounds in society can be involved in the setup and implementation of our research. In education, the most important stakeholders are organisations representing students, such as the Student Council, study associations and student associations. In addition, each degree programme has a programme committee in which students are represented and a professional committee for permanent reflection on the content of the programme by the professional field. At the administrative level, discussions take place almost daily with representatives from nature conservation organisations, directors of food companies, representatives of political parties and regional and local authorities. Internationally we are working on building strong relationships with important stakeholders such as the CGIAR institutes, the United Nations, the World Bank and key NGOs.

Because the work we do is very closely linked with major social themes, our research is also regularly the focus of discussions and debates in the media and on a number of blog platforms such as Foodlog. Our researchers and administrators are actively involved in these discussions. Relevant topics last year were the scientific basis for the government's manure policy, debates on fish stocks, the meadow bird preservation and a study into the sustainability effect of deposits on bottles.

Table 2.9 Overview of stakeholder dialogues

Stakeholder group	Interest	Most important contact points
Employees	Offering an inspiring work environment with possibilities for development.	Participational structure; breakfast with the Executive Board; work visits by the Executive Board to sciences groups; talent development programme; confidential counsellors.
Students	Offering an inspiring learning environment and high-quality education that provides the answers to societal needs and offers good career perspectives.	Education, participational bodies; student associations; activities of various committees such as the AID (annual student introduction day) and Green Office.
Clients	Providing knowledge for innovation in their business processes and products.	Account management, researchers and administrators at Wageningen University & Research; participation in debates organised by us; Wageningen World, a magazine for clients/contacts and alumni.
Authorities	Providing knowledge to strengthen the policy foundation and initiate new policy, identifying social issues and contributing to legal tasks.	Researchers and account managers at the research project level. At the administrative level regarding broader policy themes and collaboration with Wageningen UR.
Societal organisations	Providing knowledge to help improve issues that are important to society such as climate problems, animal welfare and the environment.	Involvement in research projects, such as through sounding board groups or as commissioning parties for research projects. Active dialogue (face-to-face and online) on the topic of current social issues.
European Union	Strengthening the economic climate in the EU by contributing to the innovative capacity, to the policy foundation and to the development of new policy.	Researchers and account managers at the research project level; contribution to the FP7 (Seventh Framework Programme) evaluation.
International organisations	Working on a common research agenda to better contribute to solutions for the sustainable development goals of the UN.	Researchers and administrators of CGIAR institutes, such as CYMMIT and IRRI; presidency evaluation of the EU's Seventh Framework Programme; member of the jury of the World Food Prize.
Alumni	Maintaining the good reputation of their alma mater and providing a network of alumni worldwide.	Organisation of alumni meetings worldwide on the topic of themes in our domains; newsletters and the alumni and Wageningen World magazine.
Secondary school students	Offering inspiring degree programmes with interesting career prospects in line with the interests of secondary school students.	Organising open days and participation days for secondary school students interested in Wageningen University degree programmes; contributing to secondary education through activities such as offering input for school assignments, participating in the Green Knowledge Cooperative, and membership in the Food Valley school network.
Local residents	Contributing to a good living environment in the surroundings of our locations.	Organising or participating in meetings with local residents on future developments in or around our locations; talks with resident associations from the surrounding neighbourhoods.

2.3.5.3 Dialogue in 2016

Important topics of dialogue in 2016:

- The quality of our food. The Dutch consumers are increasingly concerned about the health and safety of the available food. Different movements are contributing to this debate. For instance, there was an intense discussion on the quality of "processed" food, in which one of WUR's food technologists made quite a stir in both the classical media such as newspapers and television and in social media. His assertion is that carefully industrially prepared food - canned, frozen, packaged - can fit excellently in a balanced, healthy diet.
- Many WUR researchers have contributed to the social debate on large-scale versus small-scale agriculture. The role of the scientists was, above all, the provision and interpretation of facts. These facts are often counter-intuitive, but that does not mean that we feel that facts should be the sole basis of these kinds of important debates.

- The Executive Board regularly takes an active part in discussions on the sustainable mobility of employees and students. An important aim here is to encourage the use of bicycles and public transport. Alongside sustainable procurement this is also a priority area.
- In 2016, after intensive discussions within the Wageningen University & Research community, the Executive Board decided to actively stimulate the increase of the number of women in higher positions (such as professors). Thus, within three years the number of female professors must be at least a quarter of the total.
- Wageningen University has further operationalised its social media policy. Since the summer of 2016, a webcare team of fourteen students has been following the discussions and posts on social media almost 24/7. In collaboration with the Communications Department where possible, the dialogues, questions and comments are answered. This has strengthened Wageningen University & Research's involvement in the social debate.

2.4 Education

2.4.1 Profile and policy

Wageningen University provides academic Bachelor's, Master's and PhD programmes and performs fundamental research in the fields of life sciences and natural resources. Research is carried out at our graduate schools. Lecturers participate in both research and education at the university and work closely with sister institutions at home and abroad.

In the 2015/2016 academic year, the range of programmes for the more than eleven thousand campus students consisted of 18 Dutch Bachelor's programmes, one English Bachelor's programme (Tourism) and 28 English Master's programmes in the fields of Life Sciences, Social Sciences, Technology and Nutrition and Environmental Sciences (Appendix 28, Table B1.1).

In addition to the 18 Bachelor's programmes, Wageningen University also has an Honours Programme for a select number of Bachelor's students, a broad Life Sciences orientation year, which replaces the first year of seven different life sciences programmes and the joint degree in Tourism (BTO). The latter is offered in Breda for the first two years and is provided by NHTV and Wageningen University. The joint degree in Water Technology (MWT) is offered in Leeuwarden and is provided by Wetsus, University of Groningen, University of Twente and Wageningen University.

To a greater or lesser extent, education in all the programmes is multidisciplinary and the Master's programmes are strongly international in character, both in regards to the curriculum and the composition of the campus student population (40% international). WUR's international classroom is the tool by which students learn from each other's cultural backgrounds.

The form and content of education in the Bachelor's and Master's programmes is updated and reviewed via the annual "education change cycle". The board of the Educational Institute determines the curriculum of the study programmes and is responsible for the quality and study feasibility of the programmes.

Wageningen University also offers online education (MOOCs) and online Master's degree programmes.

Wageningen is working towards a new educational approach that makes more use of digital materials and in which the concept of the flipped classroom plays an important role. In doing so, we will focus on active students who guide their own learning process and on devoting more attention to diversity and feedback.

To ensure a permanent focus on the further development of education and our study programmes, Wageningen University is a member of many umbrella associations and organisations relevant to its domain.

- ACA (Academic Cooperation Association)
- ELLS (European League for Life Sciences)
- EUA (European University Association)
- ICA (Association for European Life Science Universities)
- NUFFIC (Netherlands Universities' Foundation for International Cooperation)
- NVAO (Accreditation Organisation of the Netherlands and Flanders)
- Bologna Process Organisation
- PIE (Platform for International Education)
- Platform EdX (MOOC provider and online learning platform)
- VSNU (Association of universities in the Netherlands).

2.4.2 Highlights

Teacher of the Year, Dies Natalis and Opening of the academic year

The Teacher of the Year Award 2016 of the University Fund Wageningen (UFW) was awarded to Dr Roel Dijkema on 21 April 2016. Students have long expressed their appreciation of his enthusiasm and approachability. Roel Dijkema teaches courses within the group Hydrology and Water Quality.

The celebration of Wageningen University & Research's 98th anniversary (Dies Natalis) was on the theme of "the digitalisation of nature".

Speakers were Rector Magnificus Prof. Arthur P.J. Mol, Laxmi Parida from the Computational Biology Centre of IBM, and researchers from Wageningen University & Research: Dr Heidy den Besten, Dr Gert-Jan Steeneveld and Arjen Daane.

Rector Magnificus Prof. Arthur P.J. Mol opened the 2016-2017 academic year on 5 September 2016. The theme was Rethinking Innovation. Prof. Louise o. Fresco, President of the Wageningen University Executive Board addressed the attendees.

Priority areas education, education innovation

2015 saw the first steps towards the introduction of the Wageningen Education Ecosystem, one of the strategic "education" priority areas for 2015-2018. The sub-projects in 2016 were in relation to modularisation and certification; storing, retrieving and sharing online learning materials; and the ability of the Education Support Centre to support lecturers in creating and implementing online education.

In 2016, the resources for educational innovation were used to support lecturers in adapting their course and also to adapt entire degree programmes simultaneously.

Open and online education

Since 2015, Wageningen University has offered two fully online Master's programmes: Plant Breeding and Human Nutrition and Epidemiology. In the near future, a third programme will be started: Food Technology. Most new students to these part-time programmes are employed and the average age is thirty years. Therefore, this seems to cater to a whole new target group. The courses developed for the online programmes, through their updated setup and methods of instruction also contribute to the quality of the campus courses for the existing Master's programmes.

In 2016, the EdX platform had ten WUR MOOCs, for which almost 130,000 course participants had registered. Since the launch in 2014 more than 250,000 course participants received education on WUR topics such as Human Nutrition, Food Security, Food Access, Animal Behaviour, Sustainable Soil and Sustainable Urban Development.

In 2016, the decision was also made to offer a Micro-Master's programme in Biobased Economy, a coherent course package of five MOOCs for professionals (scheduled to start in 2017). The course package is designed primarily to provide added value in the job market, but participants who complete the entire package successfully can transition into one of Wageningen University's Master's programmes. In 2016, five of the WUR MOOCs were opened up to campus students, who are now able to include one in their free elective space (credits for MOOCs). In 2017, the possibility of opening the MOOCs to students of other Dutch universities and a consortium of European universities is also being researched.

New programmes

Together with Delft University of Technology, Wageningen University has submitted a macro efficiency application for a joint MSc programme in Metropolitan Analysis, Design and Engineering (MADE) within the framework of the Amsterdam Institute for Advanced Metropolitan Solutions. This programme involves collaboration with the Massachusetts Institute of Technology (MIT). The Minister of Education, Culture and Science has responded positively to this application. For this joint degree provided by Wageningen University and Delft University of Technology, an application for initial accreditation for new degree programmes (*Toets Nieuwe Opleidingen*) has been submitted to NVAO. Furthermore, a macro efficiency application was also submitted for a Master's programme in Biobased Sciences, which is expected to be approved in 2017. Both programmes make use of not just campus education, but also online education and MOOCs.

Numerus Fixus

The number of students who choose one of the technological programmes at Wageningen University has increased greatly in recent years. This has led to increased pressure on staff and facilities. For this reason, in 2016, the decision was made to impose a "numerous fixus" for Molecular Life Sciences and Biotechnology, in addition to the existing enrolment restriction for Nutrition and Health.

Honours programme

The honours programme was launched in the spring of 2014 and was evaluated via a mid-term review carried out in 2016, following the completion of one entire cycle. The external committee was enthusiastic about the design and implementation of the programme. Based on this review, the decision was made to continue the programme in 2017 with a larger influx of sixty students instead of thirty.

2.4.3 Results and success rate

The success rate (after three years) of the Master's programmes decreased by 3% to 84%, while that of the Bachelor's programmes (after four years) decreased by 4%. For the 2012 cohort, the youngest cohort for which these results can be calculated, this number is now 75% in comparison 79% last year. This decrease is largely due to a change in the student financing structure, by which students in the previous academic year are encouraged to graduate quicker.

For the twelfth year in a row Wageningen University has been named the best University in the Netherlands. In the *Keuzegids Universiteiten 2017* (guide to higher education 2017) of the *Centrum Hoger Onderwijs Informatie* (higher education information centre - CHOI), almost all of the study programmes receive the designation "top programme". This result proves that high-quality degree programmes and growing student numbers can go hand in hand quite well indeed. "Education is still intensive, personal and both challenging and application-oriented. In all disciplines, Wageningen scores above average and usually even excellent. At the same time, the experts at NVAO are continually positive about the education level of graduates, according to *De Keuzegids*.

Wageningen University also scored exceptionally well internationally in 2016. The University is one of the 50 best in the world, according to the Times Higher Education Ranking and as a domain-oriented life sciences university it can count itself among the top twenty according to this ranking. In the sub-areas of Agricultural Sciences and Plant and Animal Sciences, Wageningen University & Research respectively occupied first and third place, according to the US Best Global University ranking. This

ranking also awarded Wageningen University & Research a prominent 8th place in the area of Environment/Ecology.

2.4.4 Quality assurance

Internal

The Bottleneck Course Monitor and Programme Evaluations Report are tools used by the Education Institute for quality assurance. Workshops for programme directors on both of these quality assurance instruments have shown that they are necessary and useful for exchanging knowledge and experiences. On the basis of the workshops, programme committees suggest possible solutions to the Education Institute for courses that seem to cause study delays.

The course evaluations provide crucial feedback to lecturers, programme directors, chair holders and the Examining Board regarding the quality of education. The examining boards use that information to guarantee the quality of exams. The electronic survey responses on the programme evaluations were generally satisfactory.

The results of the Bachelor's first-year evaluation for the 2015-2016 academic year were once again very positive, with an average score of 4.0 on a scale of 1 to 5. Of the students, 82% had a positive response to the question "Considering all aspects of the first-year programme (content, difficulty, level), how would you rate it in general?" Of the Master's graduates, 81% said they would recommend prospective students to do their Master's at Wageningen University (previously 83%), in comparison to 6% who said they would not recommend it.

Externally

In 2016, the BSc Economics and Policy, the BSc Communication Science, the MSc Applied Communication Science and the MSc Aquaculture and Marine Resource Management received positive evaluations in their programme accreditations. Based on these reviews of the quality of education by independent panels, accreditation for these programmes has been requested from the NVAO once again.

2.4.5 Funding

Education at Wageningen University is funded by direct government funding for education and research that consists of government funding of €183 million and the proceeds from tuition and course fees of €32 million, totalling €215 million. Just as in 2014 and 2015, government funding was capped at a maximum increase of 2% in 2016. This decision was based on the funding agreements with the Ministry of Economic Affairs (EZ) set out in 2001. The funding parameters of the model that calculates the government funding for Wageningen University – based on the number of enrolled students, degrees and completed PhD programmes – have increased to such an extent that a funding limit has been set at €8.7 million. The external educational funding therefore did not increase proportionately to our student numbers. And yet, Wageningen University maintained last year's internal system in which educational resources are allocated based on real education data.

Pre-investments in education

In the context of the introduction of the student grant act (*Wet Studietoelagen*) the agreement was made that academic universities and universities of applied sciences will make prior investments in the years 2015-2017 aimed at improving the quality of education. This is taking place in anticipation of the release of additional funding from the Ministry of Education, Culture and Science (OCW). Table 2.10 shows the prior investments, both the cash outflow and the operating costs. These cannot be added together.

Descriptive text is provided below the table.

Table 2.10 Prior investments in education (in € millions)

2012	2013	2014	Education investments	Prior investment period		
				2015 Result	2016 Result	Budget for 2017
Teaching quality						
0.0	0.4	0.6	Distance learning	0.5	0.5	0.5
0.0	0.0	0.1	Honours programme	0.2	0.3	0.3
0.0	0.0	0.3	Education Improvement Fund (EIF)	0.7	0.8	0.8
0.0	0.0	0.0	Education Ecosystem (SP)	0.0	0.5	0.5
0.0	0.0	0.0	Additional resources for education counselling (OWI)	0.0	0.7	0.7
0.0	0.0	0.0	New examination hall (as part of the sports hall)	0.0	0.2	0.3
0.0	0.4	1.0	a. Education quality (utilisation)	1.4	2.8	3.1
Modern infrastructure						
0.0	0.0	0.0	Forum (utilisation, because of extra m2 due VHL's departure)	0.8	1.6	1.6
0.0	0.0	0.0	Transitorium/Dreijen (utilisation)	0.0	0.4	0.4
0.0	0.0	0.0	Additional costs of new SIS (utilisation)	0.0	0.0	0.2
0.0	0.0	0.0	Learning Management System	0.0	0.0	0.6
0.0	0.0	0.0	b. Modern infrastructure (utilisation)	0.8	2.0	2.8
0.0	0.4	1.0	Total education investments (utilisation: a + b)	2.3	4.8	5.9
Increase compared to 2014				1.3	3.8	5.0
Pro rata WU share for prior investments (about 3.6% of the investments of all universities)				2.4	2.4	2.4
Education investments: general (cash outflow)						
0	0	0	Upgrade/expansion of Forum building	1.4	0.1	0.3
0	0	0	Upgrade De Dreijen/Atlas	0.0	0.0	2.6
0	0	0	New examination hall/sport hall	1.5	2.7	0.0
Total general (investments in fixed assets)				2.9	2.8	2.9

The line item "Total education investment (utilisation: a + b)" shows the total of the education investments per year in the period 2012-2017. The line item "Increase compared to 2014" indicates the size of the additional education investments that have been carried out in the relevant divisions compared to the investments made in 2014.

The universities have indicated that they have invested a total of €200 million in education in the period 2015-2017. The "market share" of Wageningen University, expressed as the relative share of the total education component of the government contribution of all universities, comes to approximately 3.6%. The amount involved, rounded up €2.4 million per year, is included in the line item "Pro rata WU-share of prior investments (about 3.6% of the investments for all universities)". The total of the amounts (spent in the period 2015-2017) in the line item "Increase compared to 2014" comes to €10.1 million. Factoring in the total prior investment period, this amount is higher than the pro rata portion (€7.2 million) of Wageningen University in the €200 million prior investment of all the universities. Given the amounts budgeted in 2017, Wageningen University thus meets the commitment made in 2014 regarding the prior investments.

The actual investments in 2015 and 2016 are lower than budgeted by the termination of the project SIS/WISE.

In addition to the amounts included in the table, in 2015 compared to 2014, €5.1 million of additional funding was allocated for providing course-specific and non-curricular courses. This additional amount is €9.2 million in 2016 and €11 million in 2017. This funding also contributes to the quality of education, but are considered to be more of a contribution towards the enforcement thereof. The same applies to investments in student work spaces that are likewise not included in the table.

Apart from the effects of the prior investments on operational costs, the cash outflows resulting from the prior investment were also provided. These are included in the heading “Investments in education: general” In the actual budget for 2016, this primarily concerned investments in the new examination hall/sports hall. In the 2017 budget, this concerns investments in the design of educational spaces in the Atlas building (€2.2 million) and De Dreijen (€0.4 million).

2.4.6 Students

2.4.6.1 Student numbers

Interest in Wageningen University’s programmes increased slightly in 2016 once again. The student intake for the Bachelor’s programmes (first-year higher education students) rose by 9%, while the intake for the Master’s programmes (first-year, including the international external transfer students) rose by 20%. The internal influx from BSc to MSc, however, showed a decline, partly because of a lower number of BSc graduates and partly because of the fact that more BSc graduates continue their education elsewhere.

The intake of applied sciences students and academic BSc graduates (541 students in total) increased by 8%.

On the reference date of 1 October 2016, 3% of Bachelor’s students were not Dutch. 184 of a total of 5,299 students. Approximately two thirds of these international students were German. Of the Master’s students, 40% are not Dutch: 2,198 of 5,480, spread over 103 nationalities. The main nationalities are Chinese (383), Indonesian (263), German (235), Italian (185), Greek (139), Spanish (115) and Mexican (93).

All the Master’s programmes are taught in English and are provided to Dutch and non-Dutch students together.

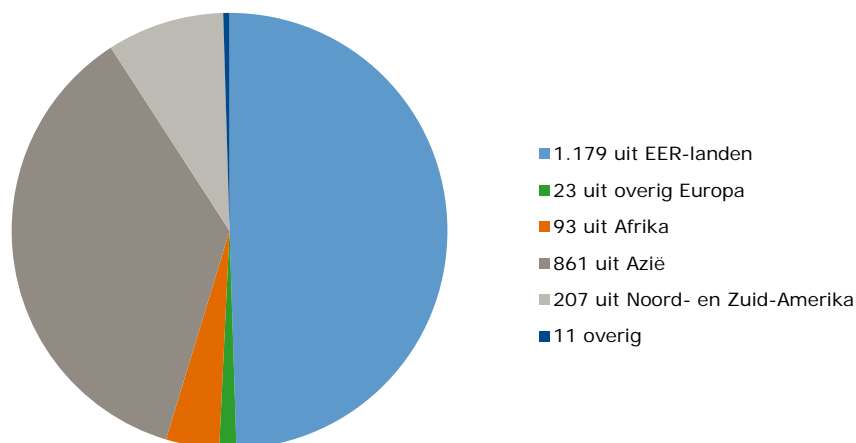


Figure 2.3 Distribution of the 2,382 international students (BSc and MSc) at Wageningen University according to continent on reference date 1 October 2016 (excluding exchange students)

2.4.6.2 Student services

Wageningen University is highly committed to providing excellent service to its students. This is provided for the most part by the Student Service Centre (SSC). This is housed in the Forum building and provides students with information about enrolment, admission, tuition fees and more. Students can also go to the SSC for legal advice on study-related matters, for advice on study delays or for help from a psychologist.

In 2016, extra attention was paid to providing services to international students. An information desk was set up during the influx periods. The information desk is staffed by international students who, due to their own experiences, are well-equipped to help new international students quickly find their way around in Wageningen. In addition, during the influx periods, agreements were made with the municipality, banks, insurance companies, IND and GGD. All these parties are present in the Forum during the influx periods so that international students can be helped directly.

In 2016, Wageningen University concluded a new contract with Idealis, the Wageningen-based student housing agency. This is an extension of the agreements ("the Wageningen Model") that were made in 2015 between Idealis, the Municipality of Wageningen and Wageningen University. The starting point of the "Wageningen Model" is that students, including international students, are able to choose for themselves which student complex and which room in which they want to live. Separate rooms for international students are no longer reserved. The aim of the "Wageningen Model" is not only to provide students with the freedom of choice, but also to promote an international culture with Dutch and international students studying, working and living together.

2.4.6.3 Study and student counselling

To ensure good study progress, Wageningen University provides its students with study counselling via study advisers and student counselling via student deans and psychologists.

Students are given assistance through the Student Counselling sub-department, which consisted of four deans (3.1 FTE) and three psychologists (2.4 FTE) in the reporting year.

In 2016, the student deans held 1,256 talks with 873 students - a slight increase compared to 2015. There was also a rise in the number of follow-up talks. In light of the growth in student numbers, the decision of the Dean's Office to handle simple questions by email or phone as much as possible has proven successful. The number of processed emails to deanforstudents@wur.nl nearly doubled in three years' time (1,493 in 2016). In addition, every Dean annually answered between 2000 and 3000 emails from his or her personal mailbox

Also, further standardisation and automation has led to a transition from conversations (phone or face-to-face) to written correspondence. An increasing number of requests for services related to a disability is handled via a standardised written procedure: 78 in 2012, 121 in 2013, 189 in 2014, 250 in 2015 and 273 in 2016. The number of conversations with students with disabilities increased to 306 in 2016 (24% of the total number of calls). In 2014, this number was 212 (19%) and in 2015, 248 (21%). This group has a relatively higher proportion of students who come back multiple times a year. In addition, a shift is visible when it comes to conversations about mental conditions. The Dean's Office has the impression that the (performance) pressure is increasing, caused among other things by the introduction of the new study finance system (student loan instead of performance grant), the binding study recommendation (BSA) and the modern migration policy act (MoMi).

A remarkable trend is the increase in the number of conversations with Dutch students and the decline in the number of conversations with non-EU students. The proportion of Dutch students in the total number of conversations amounted to almost 73% in 2013 and 78% in 2014. This number increased to 83% in 2016. For non-EU students, a reverse trend is visible. Their proportion was still over 22% in 2013, but dropped to 12% in 2016. This is particularly interesting as the proportion of non-EU students in the student population has not significantly declined, but has hovered around 25% since 2012.

In 2016, 723 students had one or more sessions with a student psychologist. This is similar to the number in the previous year (726). In total, 1,481 individual talks took place. The number of follow-up sessions per student is comparable to last year. 140 students (more than 19% of the counselling cases) were referred to external specialists for diagnosis and treatment of more complicated personal problems. This is a 12.7% increase over the previous year.

In addition to individual talks, a number of training sessions were given: the performance anxiety reduction training (2x), *Schuitgroep* (4x for discipline problems), *Voluit Leven* (4x for mild depression

and stress complaints), and self-confidence and assertiveness training (1x). A new addition to the training programme selection in 2016 was a stress reduction course in English for international students (2x).

In late 2015, the decision was made to start “walk-in” counselling sessions. This is a daily walk-in session for students experiencing serious problems or for students with questions for which they do not or do not yet wish to attend a regular session. The walk-in session started as a pilot in January 2016 and was alternately conducted by student deans and student psychologists. In total, this year 201 students came to the counselling walk-in sessions. This low-threshold service appears to meet a need, especially for international students: 46% of the students who utilised the walk-in sessions were international. Because the questions were primarily psychological in nature, at the end of 2016 it was decided that, starting from January 2017, the walk-in counselling sessions will exclusively be staffed by student psychologists three times per week.

The tasks of the student physician (4-8 hours per week) provided by the general practice Van der Duin & Van Dinther in Wageningen. This practice has an office on Campus and accepts all students, PhD candidates and guest staff of Wageningen University for regular general practice care. The student physician advises the student Dean's Office with regard to financial arrangements for students and study suitability. In 2016, 248 students visited the student physician.

2.4.6.4 Student Facilities

Both Wageningen University and numerous student and other organisations are actively working to provide an attractive study and living environment. The university places a great emphasis on this and supports many of the organisations.

Sports Centre De Bongerd (SCB) is the sports centre for students and employees of Wageningen University & Research. SCB encourages responsible exercise and sports for students and staff. It offers a high-quality sports programme with a broad range of sports and activities in excellent indoor and outdoor facilities. All students and staff of Wageningen University & Research are able to use the SCB facilities at reduced rates.

A second sports hall and an additional sports hall were completed in 2016. This extension provides the opportunity to expand the selection even further.

The Wageningen University's sports foundation, SWU Thymos, promotes sports and exercise for students of Wageningen University and universities of applied sciences in Wageningen by organising a wide range of events and internal competitions. The foundation promotes the interests of student athletes – both the individual athlete and the members of the 27 student sports clubs.

In 2016, the ballroom dance association WuBDa and squash club Ballistic were founded. In addition, a citizen association has been recognised: Tennis club Keltenwoud in Bennekom. Students can try out the new sport of Padel. Additionally, one or more clubs will likely be added this year as well. With the growing number of students in Wageningen, it is expected that the number of members of student sports associations will increase.

Swimming lessons for international students are also organised: the first eight students started the course on 4 February, showing that this meets a clear need.

In June 2016, Studentsport Nederland decided that SWU Thymos can organise the *Groot Nederlands Studenten Kampioenschap* (great Dutch student championship - GNSK) in 2018. The GNSK will take place in Wageningen, as part of the celebration of the centenary of Wageningen University.

2.4.6.5 Profiling Fund

A number of regulations for supporting students financially have been incorporated into the Wageningen University Profiling Fund:

1. Student Financial Support Regulation (FOS regulation): due to force majeure, professional sport and recognised administrative activities;
2. WU study financing for students following a two-year Master's programme in Social Sciences who are entitled to Dutch study finance (MCS, MDR, MID and MME);
3. the Wageningen University Fellowship Programme: scholarships/waivers for non-EEA students;
4. the Social Emergency Fund.

In 2016, 428 students made use of the *FOS regulation*: 337 students of these (including 8 non-EEA students) were on the basis of approved administrative activities and participation in a top sport (including participational activities) and 91 were on the basis of medical/psychological/educational force majeure (including 4 non-EEA students). In the first category, there were a total of 1,445 FOS months, totalling €502,302. In the force majeure category of FOS, this involved a total of 232 months, totalling €94,328. For the FOS pay-outs, up until September 2016 the amount paid for an FOS month was the basic student grant + possible supplementary grant. From September 2016, the amount of an FOS administrative month was fixed: €320 for students who are or were entitled to Dutch student finance and €640 for students who are not or were not entitled to such a grant. For force majeure category of FOS, the payment of any supplementary grant was maintained in addition to the basic amount. The share of students that were eligible for FOS compensation due to force majeure was 21% in 2016, in comparison to 20% in 2015.

In 2016, 177 EEA students benefited from the Extra study finance scheme for students following a two-year Master's programme in Social Sciences, totalling €628,804.11. Non-EEA students did not benefit from this funding. To be entitled to this funding, one must be entitled to Dutch study finance and, thus, non-EEA students are only eligible under very special circumstances (e.g. refugee students).

Only non-EEA students are eligible for the Wageningen University Fellowship Programme (WUFP). In 2016, 26 grants for a maximum of the institutional tuition fees were awarded to outstanding students, totalling €287,953. Also, 445 tuition fee waivers for a maximum of the institutional tuition fee were granted on the grounds of institutional cooperation or agreements with sponsors, totalling €820,420.

In 2016, no new students were funded by the Social Emergency Fund through a loan to cover unforeseen, one-off costs that were not the fault of the student. A previously provided loan of €1,000 was converted into a gift in 2016. It concerned a non-EEA student.

2.4.6.6 International exchange

In 2016, the opportunity for international exchange was actively and successfully promoted amongst students of Wageningen University. The number of outgoing students rose to 543 in the 2016-2017 academic year: 464 students with an Erasmus Scholarship within Europe, 67 students with an Erasmus Scholarship outside of Europe and 12 students within Europe with a scholarship from Switzerland. The number of incoming students remained fairly stable at 346.

A number of new agreements have been made to ensure that the demand for exchange opportunities can be met. Some agreements were also terminated. Contracts that end in 2017 and that did not offer good opportunities for our outgoing exchange students were not extended, while contracts that are highly popular amongst our outgoing exchange students will be expanded in accordance with demand.

The incoming students were generally at a good level (quality, prior knowledge) and performed well. They were a welcome addition to the diversity of nationalities in Wageningen and contributed to the international character of our education.

The incoming exchange students took part in the regular activities organised for them, such as the Annual Introduction Days (AID) in August and February, primarily due to the efforts of the student organisations IXESN and ISOW. The arrival of the students went smoothly. They were very

enthusiastic about the personal guidance they received from the Erasmus coordinators and about the form and content of the education. Some students have transferred into the regular study programmes at Wageningen University following their exchange.

In contrast to the previous year, housing was again an issue in 2016. There was a clear shortage of student accommodation. The student rooms of Idealis for exchange students were mostly assigned to students from the United States and other non-EU countries.

2.4.6.7 Student Participational Structure

Wageningen University students have opportunities to participate in governance at different levels within the university. In the programme committees, in the board of the Educational Institute (in regards to content and quality of the programmes) as well as in the Employees Council of the Sciences Groups.

At the central level, students hold seats in the Joint Student Staff Council (SSC) and the Student Council (SC). The Student Council consists of twelve full-time members from various groups and nationalities.

These student members are elected each year for a one-year term by Wageningen University students. Important topics on the Student Council agenda in 2016 include the consequences of the university's growth for students and employees, the evening education pilot, the dispute regarding the proposal to change the profiling fund policy and the resulting establishment of the profiling fund regulations, and the Student Council initiative proposal on talent development. The election turnout in 2016 was 39.6%.

2.4.6.8 Complaints and appeals

In 2016, the Advisory Committee on Disputes (GAC) received 13 appeals from Wageningen University. Eight objects were submitted against a decision on the grounds of the Student Financial Support Regulations. The other objections were submitted against decisions on the basis of the Regulations for Enrolment, the *Reisbeleid* (travel policy), Extra WU Study Financing for Students in Master's Programmes in Social Sciences and the Regulation Vaccination and Travel Funding.

In nine cases, the GAC did not need to pass judgment as the appeal was withdrawn: five times after the Executive Board agreed with and accepted the appeal, three times after a verbal explanation of the decision and once after a personal consideration of the stakeholder.

In three cases, the GAC, after hearing the parties, advised the Executive Board to declare the appeals unfounded. In one case, the GAC advised the Executive Board to declare the objection inadmissible because of non-excusable delay, as a result of which the hearing of the interested party was cancelled.

In 2016, 27 appeals were filed with the Examination Appeals Board (CBE) of Wageningen University. 18 appeals were filed in response to a binding negative study recommendation. In seventeen of these cases, the parties reached an amicable agreement which meant that the CBE did not have to consider the substantive details of the appeal. In one case, the CBE declared the appeal unfounded after hearing the student and the Examining Board.

Of the other nine appeals, six were filed in response to an assessment. Additionally, two appeals were filed against the conversion of a grade obtained abroad, and one against a decision concerning the taking of the final student evaluation. In two cases, the appeal was declared inadmissible due to inexcusable delay and, as a result, the hearing of the applicant was cancelled. In six other cases, the CBE also did not reach the substantive processing phase. Twice because the appeal was withdrawn after clarification of the decision and four times because the parties had come to an amicable settlement. In one case, the CBE entered the substantive processing phase, but did not have to decide because the parties reached an amicable settlement.

2.4.7 Alumni

In 2016, Wageningen University had a network of 44,500 alumni and PhDs spanning approximately 150 countries. Alumni are kept informed of relevant developments in the Wageningen domain through

social media, LinkedIn and <http://www.wur.nl/en/Alumni.htm>. In addition, various alumni meetings take place at home and abroad.

In 2016, alumni meetings were held in Kenya, Ethiopia, Belgium, Singapore and the US, among other locations. During the Plant and Animal Genome Conference in San Diego (PAG), all participating alumni were invited to an informal get together. Several Holland Alumni activities were also organised, together with the embassies and Nuffic.

The Dutch alumni network Wageningen Ambassadors consists of 45 prominent alumni that have a close relationship to Wageningen University & Research, all of whom are leaders in business and in government. In 2016, eight new ambassadors with diverse backgrounds were welcomed. With the deployment of their network, experience and financial resources, they significantly contribute to strengthening the link between Wageningen University & Research and society. Five new projects were supported in 2016, including the preparation of festivities surrounding the 100-year anniversary of Wageningen University and the development of executive education by Wageningen Academy.

Alumni donations to the Wageningen University Fund (WUF) aim to promote the growth and prosperity of Wageningen University. Among other things, the donors helped make it possible for twenty students from developing countries to study in Wageningen and supported international activities by Wageningen students. In 2016, the new crowdfunding platform received many donations, including from non-alumni who felt involved in certain research projects. In 2016, the University Fund started to offer a Business Skills Programme, initially for student boards of associations and the Student Council. In four workshop sessions led by alumni, the following topics were explained: networking, etiquette, finance, general management & law and dealing with the media.

The Anne van den Ban Fund received a record amount of donations thanks to collections and promotions. Thanks to this, 25 students received a scholarship. The founder of the fund, Anne van den Ban died in 2016. There has been an increase in donations to Dutch foundations and named funds, including Dioraphte, the Gijsbert Oomen Fund and the Marina van Damme Fund. The latter fund was established as a result of the connection with the 4TU Federation with the aim to grant young talented female students a scholarship for deepening or expanding their careers.

2.4.8 Outlook

Growth in student numbers

The student numbers of Wageningen University have been on the rise for years now, which leads to challenges such as finding the available educational spaces. In order to continue to offer high-quality education to students despite their growing numbers, work is underway on improving the efficiency of scheduling through the use of Wi-Fi-measurements. In that context, in period 1 and 2 of the 2016/2017 academic year, the Evening Education Pilot took place. With evening classes, more education can be scheduled with the existing buildings. This has an impact on both students and lecturers and, therefore, the experiences were monitored via surveys. The results were reported in the spring of 2017. Additionally, educational reform can in some cases lead to more efficient use of space, for example by introducing more online education so that education is less dependent on time and place. Preparations have been made for the project Bring Your Own Device (BYOD), in which each student brings their own laptop. This allows more flexibility in dealing with educational spaces.

Reorganisation of educational support services

Education was always supported by two divisions of the Organisation: the Education Institute (OWI) and the Department of Education Research and Innovation (ER&I). Under the influence of the development of the Education Ecosystem (see Section 2.3.3), in which changes will take place in the selection of education and the support for lecturers and students, it was decided that both divisions can be consolidated into a single education office (working title). This reorganisation of people and processes will be carried out in 2017. Prior to this, in late 2016, a separate programme team was established openly and with an online presence with the aim of providing help to the chair groups in the production and market placement of online courses.

In 2016, the decision was made that starting in 2018 Wageningen University will offer a number of Bachelor's degree programmes fully in English. This fits the international work field and the international profile of the university. This means that the international classroom concept will now also be realised in the Bachelor's phase. Furthermore, a pilot will be launched in 2017 to give refugee students access to parts of our education. We strive for an increase in the number of refugee status holders that are able to study with us through the Foundation for Refugee Students (UAF).

2.5 Research

2.5.1 Policy and organisation

The research at Wageningen University is conducted through chair groups. Each chair group, led by a professor, has its own sphere of expertise within the domain of "healthy food and living environment".

Wageningen University leads six graduate schools within an overarching organisation. The Wageningen Graduate Schools:

- Experimental Plant Sciences (EPS; a national graduate school)
- Wageningen School of Social Sciences (WASS)
- The C.T. de Wit Graduate School for Production Ecology & Resource Conservation (PE&RC)
- The VLAG Graduate school (for Nutrition, Food Technology, Agrobiotechnology and Health Sciences; a national graduate school)
- Wageningen Institute of Animal Sciences (WIAS)
- Wageningen Institute for Environment and Climate Research (WIMEK); part of the national graduate school SENSE.

In addition, Wageningen University participates in the following graduate schools which are led by other organisations:

- Research School for Resource Studies for Development (CERES)
- Institute for Sustainable Process Technology (ISPT)
- Research Institute and Research School for Economic and Social History (N.W. Posthumus Institute)
- Graduate School of Polymer Science and Technology (PTN)
- Graduate Research School of Science, Technology and Modern Culture (WTMC)
- Interuniversity Centre for Educational Research (ICO)
- Netherlands Institute for Catalysis Research (NIOK)

The graduate schools have three core tasks. First, they coordinate a coherent research programme for the university within the mission of the graduate school. Second, they ensure the safeguarding, monitoring and advancement of the quality and progress of academic research (PhD candidates, postdocs and researchers). Third, they develop, facilitate and coordinate the courses and programmes for professionals. And finally, they organise discipline-specific courses.

In the graduate schools of Wageningen Research³ (WR), research is grouped around knowledge base research (KB), policy support research (BO), legal research (WOT) and top sector research.

Knowledge base research is an important part of the research carried out within the WR themes. These themes were updated in 2015. They are financed through knowledge base research funding. The programme content of the policy support research, the legal research, the top sector research and the contract research is connected to these themes. The selected themes are:

- Sustainable food and non-food production
- Global food and nutrition security
- Healthy and safe food for healthy lives
- System earth management

³ Wageningen Research (formerly the DLO Foundation).

-
- Metropolitan solutions
 - Biobased circular economy
 - Big data, technologies and methodologies⁴
 - Social innovation for value creation

The policy support research is carried out in two programmes: Nature, landscape and rural areas and Agro.

The legal research tasks have been incorporated into six programme units.

- Infectious Animal Diseases
- Food Safety
- Genetic Resources
- Nature and Environment
- Fisheries
- Economic Information

Research within the top sectors Agri-food and Horticulture & Propagation Materials is managed by the Top Consortium for Knowledge and Innovation (TKI), specifically set up to manage these two top sectors. Planning for each top sector is done on the basis of questions, such as those formulated in the context of the “golden triangle” of the government, the business community and knowledge institutions. From these questions, public-private partnerships (PPPs) arise through the implementation of projects and programmes.

In addition, Wageningen University & Research decided to make extra investments in a number of research themes. For this, strategic resources from Wageningen University, knowledge base resources from WR and R&D resources from the top sectors will be used. The themes from the Strategic Plan for 2015-2018:

- Resource Use Efficiency
- A Global One Health
- Resilience
- Metropolitan Solutions
- Synthetic Biology

2.5.2 Internationalisation

Wageningen University & Research has chosen to identify and distinguish between priority and focus countries in regard to its international approach. In priority countries, proactive work is done in collaboration with local partners, while in focus countries, WUR operates reactively. In total, WUR works together with partners from more than 120 different countries worldwide.

Because Europe is the home market for WUR, no specific priority countries have been identified for this continent. Within the framework of EU programmes, collaboration takes place with many partners. Although it is more difficult in the stimulation programme of the EU Horizon 2020 to procure projects, WUR was quite successful in this in 2016 in comparison to comparable institutions. In order to improve the visibility in Brussels, WUR has an office on location in the Netherlands House for Education and Research (Neth-ER). On 12 and 13 April 2016, the 4th Bio-economy Stakeholder Conference was organised in the Netherlands under the auspices of the Dutch EU Presidency. Part of it took place on Wageningen Campus.

In Africa, Ethiopia and Ghana are the priority countries, while Kenya and Mozambique are the focus countries. In order to coordinate the activities of Wageningen University & Research, an office has been set up in Addis Ababa. In Kenya, the 3R Kenya project was further developed. Three agricultural sectors are supported in the transition from “aid” to “trade”. In 2016, there were outgoing missions to Ethiopia, Ivory Coast, Ghana, Kenya, Rwanda, South Africa and other countries. Wageningen Campus

⁴ In addition to knowledge base (KB) funds, the WR theme “Big data, technologies and methodologies” will receive R&D funding as well.

received thirteen delegations from Africa in 2016. This included the Ministers of Agriculture of both Nigeria and South Africa.

In the Middle East, Saudi Arabia and Egypt are the focus countries. In Central Asia, Russia is the priority country and the Ukraine is the focus country.

In Asia, China, India and South Korea are the priority countries and Japan, Myanmar, Thailand and Vietnam are the focus countries. WUR is particularly active and successful in China. WUR has a regional office in Beijing. In 2016, various WUR delegations went to China, India, Iran, Japan, Myanmar, Pakistan, Thailand and South Korea. Ties were forged with the business community, research institutes, universities and ministries. In June 2016, Xiaoyong Zhang, Manager International Cooperation China, participated in the G20 Agricultural Entrepreneurs Forum in Xi'an China. Wageningen Campus received 57 delegations from Asia in 2016.

Brazil and Chile are the priority countries in Latin America. Argentina, Colombia and Mexico are the focus countries. In 2016, there were outgoing missions to Argentina, Brazil, Chile and Colombia. Wageningen Campus received 12 delegations from Latin America, including the Minister of Agriculture and Livestock of Costa Rica.

In the industrialised world, the United States is the priority country. Canada and New Zealand are the focus countries. Bram de Vos, Director of the Environmental Sciences Group, represented WUR during the state visit to New Zealand in November 2016.

Wageningen University & Research is a member of several umbrella organisations, including AgriNatura (The European Alliance on Agricultural Knowledge for Development), AgriProfocus, EFARD (European Forum for Agricultural Research for Development) and ELLS (Euroleague for Life Sciences).

Account managers have also been employed at WUR to manage contacts with organisations such as CGIAR (global research partnership for a food-secure future), CTA (Technical Centre for Agricultural and Rural Cooperation) and FAO. Especially in Africa, WUR has excellent contacts within umbrella organisations such as AGRA (Alliance for a Green Revolution in Africa), ANAFE (African Network for Agriculture, Agroforestry and Natural Resources Education), FARA (The Forum for Agricultural Research in Africa) and RUFORUM (Regional Universities Forum for Capacity Building in Agriculture).

2.5.3 Results

The awarding of seven Veni and two Vidi grants in 2016 brought the total number of laureates since the beginning of the innovation incentive in 2002 up to 77 Veni, 38 Vidi and 9 Vici grants. Since the ERC grants were set up by the European Research Council in 2007, 6 ERC Starting Grants and 8 ERC Advanced Grants were awarded to Wageningen researchers. The ERC Consolidator Grant was set up in 2013, of which Wageningen has received one. Three of them have now been awarded to Wageningen researchers, one of which was in 2016.

In 2016, for the first time in years, there was a slight reduction in PhD graduations in comparison to the previous calendar year. 296 compared to 305. Of the PhDs, 168 were women (57%). The previous education (PhD, Master's) for 122 PhD candidates took place outside the Netherlands. Of the PhDs, 181 (61%) were not of Dutch nationality. The percentage of PhDs with a Training and Supervision Plan (TSP) remains unchanged at 96%.

In the top sector Agri & Food, the Topconsortium for Knowledge and Innovation Agri & Food (TKI Agri & Food) honoured 38 new public-private partnerships (PPPs) in 2016 (equal to €7.1 million) and fourteen EU co-funding projects (€1.1 million in total). Within the top sector Horticulture and Propagation Materials, this involved approximately 29 PPPs (€2.9 million) and also 9 EU co-funding proposals (€0.4 million) and 9 PPP proposals (€0.1 million) within NWO. Wageningen Research participated in these PPPs and funding was received from the Ministry of Economic Affairs, while businesses provided 50% (combination of cash and in-kind) of the financial contribution.

2.5.4 Quality assurance

The research inspections at Wageningen University are part of a national system, in which each university is required to submit to an external inspection once every six years. All these external inspections are carried out in accordance with the Standard Evaluation Protocol (SEP 2015-2021), developed and established by the Royal Netherlands Academy of Arts and Sciences (KNAW), the Netherlands Organisation for Scientific Research (NWO) and the Association of Universities in the Netherlands (VSNU).

Wageningen University conducts its external inspections as the leading organisation of the graduate schools. The formal recognition (accreditation) of the graduate school is connected to the evaluation of the research performance. This was formerly in the hands of the KNAW accreditation committee for graduate schools (ECOS-KNAW). Since the end of ECOS, the judgment regarding whether the graduate schools may keep their accreditation now lies with the peer review committee. Since then, all Wageningen graduate schools have received a positive recommendation from this committee enabling them to continue their activities as accredited graduate schools.

Already in 2015, this assessment of the graduate schools took place, in which both the performance of the graduate schools and all the chair groups categorised under them received an “excellent” rating in general. For details, visit the [Wageningen University](#) website and the website of the graduate schools ([EPS](#), [PE&RC](#), [VLAG](#), [WASS](#), [WIAS](#), [WIMEK](#)).

The obligation to periodically have the research institutes of Wageningen Research (WR) scientifically assessed is stated in the WR grant regulations (*Regeling subsidie stichting WR*) and is part of the agreements between the Ministry of Economic Affairs and WR. In the context of these regulations, in December last year, Wageningen Food & Biobased Research was assessed and received a very positive review. The report is public and was submitted to the Ministry of Economic Affairs, along with a management response to the recommendations.

In addition, a total assessment of all TO2 institutes took place in 2016. This involved a full inspection of WR according to a protocol (EMTO) that was developed especially for this by the Rathenau Institute. Based on the guidelines of this protocol, several independent committees have assessed the six TO2 institutes and the final report is currently being finalised at the time of writing of this annual report.

2.5.5 PhD candidates

The graduate schools ensure a challenging PhD programme and are committed to helping their PhD candidates attain the highest possible level. Their success has been demonstrated numerous times by the positive assessments of the inspections that have been carried out and by the participation levels of PhD candidates from elsewhere in Europe in the courses offered in Wageningen.

The total number of PhD candidates at the end of 2016 was over 1,900. Most PhD candidates are affiliated with one of the Wageningen graduate schools: EPS (221), WASS (428), PE&RC (344), VLAG (388), WIAS (206) and WIMEK (343)⁵. The other 6 are affiliated with graduate schools led by other organisations.

2.5.6 Funding

2.5.6.1 Wageningen University

Research at Wageningen University is funded by direct government funding, indirect government funding and contract funding. The amount of direct government funding for education and research was €214.7 million in 2016. In addition, targeted subsidies from the Ministry of EZ and OCW totalled €1.8 million. The indirect funding research, which is mostly funded by the Netherlands Organisation for Scientific Research (NWO), amounted to €26.5 million in the year under review. Contract research

⁵ The number of PhD candidates per graduate school is based on the reference date of 31-12-2016.

funding amounted to €60.1 million. Of this amount, approximately €39.8 million was related to contract research, €1.3 million to top sectors, and €18.9 million to co-funding and subsidies.

In 2016, the graduate schools had €2.3 million of their own resources at their disposal for the appointment of PhD candidates and postdocs. Some graduate schools allocated these resources fully through an internal “open competition” whether or not on the basis of particular themes, for instance the strategic investment themes. Other graduate schools chose a combination of open competition, resource allocation for newly appointed professors, Veni/Vidi laureates and co-funding of subsequent rounds in the “new style” of the NWO Graduate Programme, for which NWO only finances the first round.

2.5.6.2 Wageningen Research (formerly the DLO Foundation)

Of the research funding at Wageningen Research, €13.8 million comes from EZ knowledge base funding, €68.5 million from EZ programme funding (BO and WOT), €1.5 million from indirect government funding from NWO, €27.7 million from the co-funding and subsidy market (including the EU), €55.4 million from the Top Sectors and €92.4 million from the bilateral market/contract research (including the business community and EZ).

2.5.7 Outlook

The quality of our research provides a strong starting position. We strive to hold on to our strengths, such as our excellent connection to the European Union (EU) and the business community, the complementary nature of our fundamental and applied research and the focus on current relevant topics.

In 2015, work was started on implementing the Strategic Plan for the period 2015-2018. This should result in improved collaboration between the various parts of the organisation (One Wageningen) and more investment in research themes in fields in which our expertise overlaps. We are in the process of developing the way we will present ourselves to the world into the future, with our brand policy and through contact with influential stakeholders.

In terms of contact and knowledge exchange with other universities and knowledge institutes, society expects more than in the past. Wageningen University & Research is taking this into account in setting the direction and content of its research and is increasing its research effectiveness through new applications and innovations.

2.6 Value creation

2.6.1 Value chains

Wageningen University & Research is focused on education, research and value creation. The education value chain starts with training national and international students at Wageningen University. Students take the knowledge gained at WUR during their Bachelor's and Master's study programmes into their future work environments in the Netherlands and across the world. Wageningen University & Research maintains active contact with its alumni. Many graduates find work at WUR, for instance as PhD candidates, researchers or staff members.

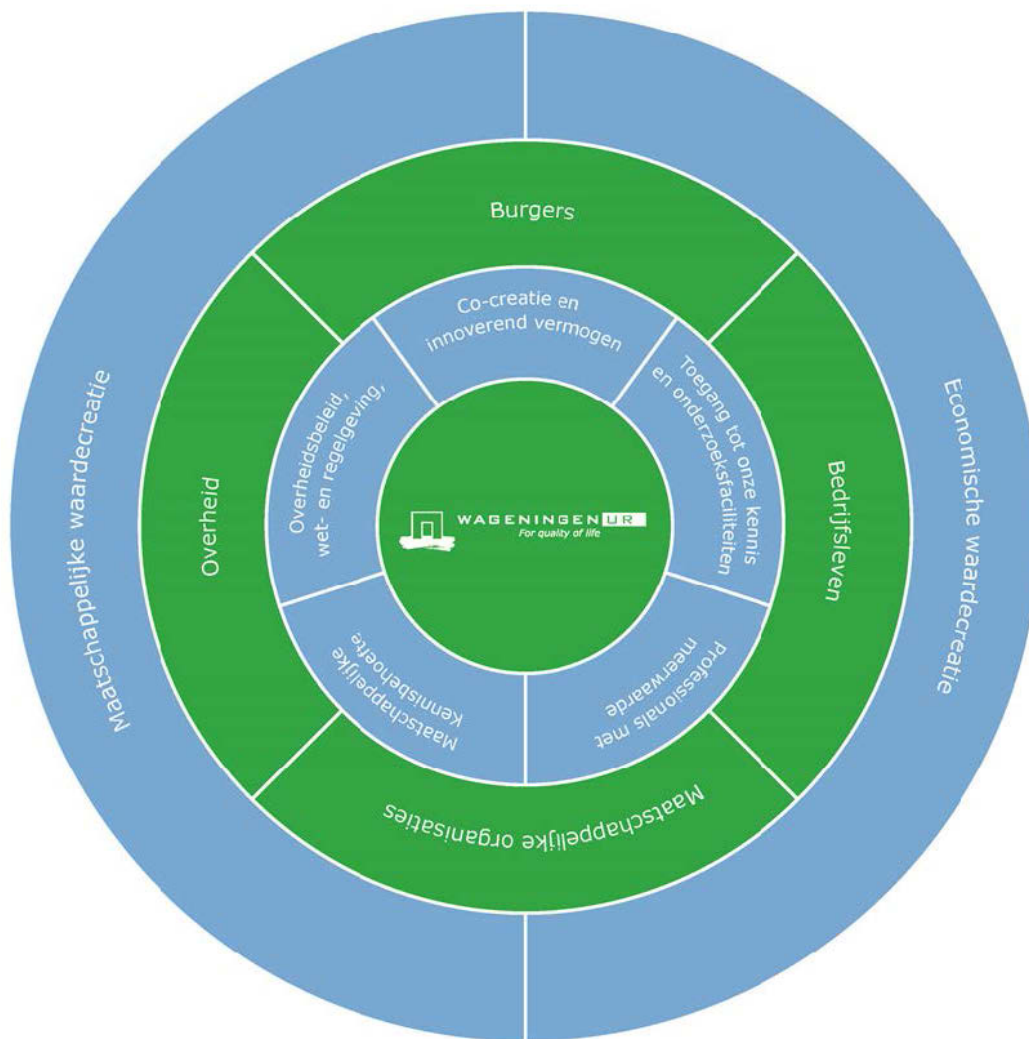


Figure 2.4 The value chain of Wageningen University & Research

Research is conducted through Wageningen University's research schools and Wageningen Research programmes. The knowledge acquired through research is disseminated to the government, businesses (through the implementation of developed technologies, models, etc.), citizens and societal organisations through publications in scientific journals, policy memorandums and patent applications. In other words, this value chain is interwoven with the government, the business community and society.

Value creation through research and education is an intrinsic part of Wageningen University & Research's activities. Wageningen University & Research is charged with the task of applying its knowledge and findings in order to optimally benefit society. This is why value creation and knowledge

valorisation is explicitly named as the third pillar in the Strategic Plan 2015-2018, alongside education and research.

2.6.2 Social and economic value creation

Our knowledge makes a significant contribution to innovation and progress. In this process, our economic value creation occurs through the transfer of knowledge and technology via patents, licenses and spin-offs, but particularly through collaborations such as contract research and PPPs. At the same time WUR provides social value creation, in which scientific knowledge is used to solve problems in society. For details, refer to the website of [Wageningen University & Research](#).

With a wide variety of knowledge valorisation activities, Wageningen University & Research ensures a strong connection between its education and research and the needs of business and society.

2.6.3 Professionals with added value

2.6.3.1 Students and PhD candidates

With its regular course programme, Wageningen University offers a wide selection of degree programmes that are well-aligned to the labour market. In the 2015-2016 academic year, there were 10 courses that were fully or partially focused on value creation and/or entrepreneurship, see Table 2.11.

Table 2.11 Courses focused on entrepreneurship and the number of participating students per academic year

Course	Number of students per academic year		
	2013/2014	2014/2015	2015/2016
New Venture Creation: from Idea to Business Plan	24	35	45
Economics of Science and Technology	22	26	34
Principles of Entrepreneurship	85	83	60
Business Cases Agri-Food Entrepreneurship	-	32	46
Competence Management for Building Entrepreneurial Teams	5	11	10
Introduction to Management and Life Sciences	60	55	27
Financial and Business Management	63	54	112
Strategic Change Management & Innovation	87	94	107
Business and Society	12	13	19
Circular Economy: Theory and Practice	24	32	51
Management and Marketing	246	213	290
Agricultural Business Economics	67	58	71
Innovation Management and Transdisciplinary Design	88	91	90
Entrepreneurial Skills	74	67	74
Pursuing and Realising Entrepreneurial Projects	N/A	68	47
TOTAL	382	435	511

Wageningen University has offered a BSc minor in Innovation and Entrepreneurship since 2010. The Master's track Entrepreneurship has been available for Master's students since the 2014-2015 academic year.

The Education Pillar of Climate-KIC (the knowledge and innovation community which offers entrepreneurship activities for staff, PhD candidates and Master's students) was also embedded in Wageningen University courses. Since 2015, the Wageningen degree programmes have been able to take part in the KIC programme.

A PhD course "Entrepreneurship in and outside science" is offered to PhD candidates.

2.6.3.2 Wageningen alumni

Our alumni contribute to achieving social objectives such as more sustainable production and consumption and improved health, as well as boosting the competitive capacity of the business community. A year after graduation, 19% of Wageningen alumni (MSc) had found a job in the business community. The national university average in 2016 was 12%.

Table 2.12 *Percentage of MSc graduates who find employment per sector*

	2013	2014 ^{a)}	2015	2016
Business community ^{b)}	20	-	19	19
Business services ^{c)}	9	-	11	15
Government ^{d)}	6	-	10	9
Other non-academic sectors ^{e)}	41	-	38	38
Universities ^{f)}	24	-	21	19

Source: WO monitor

a) No data available for 2014

b) Industry, trade, transport

c) Information and communication, financial services, legal services, human resources, press and information, other business services

d) Government

e) Research institutes, universities of applied sciences, other education sectors, hospitals (including academic medical centres), health and well-being institutions, other healthcare, other sectors

f) Academic universities (not including academic medical centres)

In November 2014, through a partnership between Wageningen University & Research and StartLife, the student incubator StartHub Wageningen was opened, catering to students, PhD candidates and recent graduates who wish to learn more about entrepreneurship and/or who have already started their own business. In 2016, 60 students participated in an intake interview at the student incubator. Seven start-ups opened their office in the student incubator over the past year, bringing the total number of tenants in 2016 to 17. In 2016, the incubator organised a total of 20 practical workshops on entrepreneurship and 30 network events. More than three hundred students and recent graduates visited the events. Two startups received a student startup loan from StartLife to accelerate their activities.

2.6.3.3 Courses and degree programmes for professionals

Through Wageningen Academy and the Centre for Development Innovation (CDI), WUR organises courses, training programmes and degree programmes for professionals in the business community, in government or in the semi-public sector.

Wageningen Academy offers courses through open enrolment and also organises a growing number of customised programmes, summer schools, study visits, events and seminars, both for mid-career professionals and for the more senior executive target group. The number of participants is growing steadily since its founding in 2012. In the past year, the numbers of participants in the summer schools and the distance-learning programmes ballooned. Apart from that, 2016 was mainly a development year. A number of new programmes for the executive target group will start in 2017: Executive MBA in cooperation with TIAS and the European Food and Agribusiness Seminar in collaboration with CEIBS.

Table 2.13 *Number of students and courses at Wageningen Academy*

	2013	2014	2015	2016
Course participants in open enrolment courses	495	844	862	752
Open enrolment courses	24	36	35	39
Course participants for in-company courses	211	560	Leisure, Tourism and Environment (MLE)	394
In-company courses	10	23	32	26

Source: Wageningen Academy

The Centre for Development Innovation (CDI) offers an annual programme of short, open enrolment courses for mid-career professionals primarily from Africa and Asia and to a lesser degree also from Latin America, Europe and North America. The courses cover the full range of Wageningen University & Research's knowledge domain, with topics such as Climate Change Adaptation, Fisheries Governance and Rural Entrepreneurship. Course participants come from government institutions, research institutes, NGOs and the business community. Sometimes CDI course participants continue on to MSc or even PhD programmes at Wageningen University. Alumni from CDI courses regularly secure follow-up assignments for CDI or projects from other WUR divisions.

Table 2.14 *Number of CDI students and courses*

	2013	2014	2015	2016
Number of course participants in open enrolment courses	939	865	833	806
Number of open enrolment courses	35	35	32	32

Source: CDI 2017

2.6.4 Societal knowledge needs

2.6.4.1 Knowledge centres

Making our knowledge and knowledge infrastructure accessible to businesses, citizens and societal organisations is an important part of the knowledge valorisation of Wageningen University & Research. Businesses, authorities, and research institutes can receive support through the [Education Project Services](#), which links issues in society with courses in our curriculum. In the different courses, students and their supervisors investigate the problem at hand, enabling students to learn to apply academic skills in order to solve problems in society. This usually takes place in a multidisciplinary environment.

Table 2.15 *The number of student projects carried out by the Education Project Services in response to requests from various societal stakeholders and students involved*

Target group	Number of student projects conducted in 2016	Number of students involved (Bachelor's and Master's)	Number of WUR employees involved in supervision	Stakeholders involved
SMEs & startups	34	764	207	85
PPS consortia	13			
Government	14			
Societal organisations	29			
Knowledge institutes	20			
Other	3			

The **Science Shop** helps societal organisations with research projects in which students and researchers work together with the commissioning party to solve the problem. This requires a great deal of attention to the practical value of the recommendations for the external client. With these types of Learning in Communities, Wageningen University & Research promotes dialogue between science and society.

Table 2.16 Number of research projects funded by the Science Shop for the benefit of societal, non-affluent organisations and number of students involved

Target group	Number of research projects funded by the Science Shop in 2016	Number of students involved (Bachelor's and Master's)	Number of WUR employees involved (incl. project leaders)	Number of external stakeholders involved in projects
Societal organisations	14 ^{a)}	116	44	71

a) Number of projects funded with the allocated budget.

Wageningen University & Research is continually consulting with its stakeholders to ensure its knowledge is valuable and accessible. More information about the dialogue with various stakeholders can be found in Section 2.3.6.

2.6.4.2 Contributing to other education

The *Wetenschapsknooppunt Wageningen University* (Science for Primary Education - WKWU) and the Food Valley Network VO-HO (formerly *Bètasteunpunt Wageningen*) together with researchers from Wageningen University & Research develop lesson material and activities for primary and secondary education. Through this, WUR contributes to socially relevant, challenging and attractive education and improves the quality of incoming students. In the year under review, the *Wetenschapsknooppunt* offered approximately twelve teaching products, introducing close to two thousand children to themes and researchers of Wageningen University & Research. The Food Valley Network VO-HO reached three hundred teachers through courses, workshops and teacher development teams with 250 teaching products.

Table 2.17 Impact of the activities of the *Wetenschapsknooppunt* and the Food Valley Network VO-HO

Initiative	Target group	Number of pupils reached	Number of teachers reached	Number of WU employees involved	Total selection of teaching materials
<i>Wetenschapsknooppunt</i>	Primary education	1,989	178	72	12
<i>Wetenschapsknooppunt</i> and Food Valley network VO-HO	Secondary education (junior)	350	15	7	
Food Valley network VO-HO	Secondary education (senior)	1,900 (2,350 including Global Guests)	300	100 (125 including Global Guests)	250

With the assistance of public-private partnerships (PPPs), Wageningen University & Research provides a major contribution to lessons on nutrition and food in primary education. This is done through the Food Education Platform, the *Smaaklessen* (tasting lessons) school programme and the EU School Fruit and Vegetables Scheme. In the 2015-2016 school year, the teaching material consisting of seventeen Taster Lessons was downloaded about 35,000 times and loaned out about five hundred times. In 2016, EU School Fruit was distributed at 2,600 schools (mainly in primary education) to 470,000 children.

Wageningen University & Research also participates in the Green Table - the partnership for green education. This is the successor of the Green Knowledge Cooperation (GKC).

2.6.5 Government policy and legislation

An important part of the research conducted at our institutes is commissioned by the Dutch and EU government. We carry out statutory research tasks in the areas of infectious animal diseases, food safety, economic information, fisheries management, genetic resources and nature. Our policy-supporting and scientific research forms the basis for government policy, rules and regulations in our domain aimed at protecting the health of people and animals, promoting exports and preserving vibrant nature. Through these statutory research tasks and the policy-supporting research, we make a concrete contribution to society.

2.6.6 Co-creation and innovative capacity

An important component of Wageningen's knowledge valorisation is co-creation: the added value from research with stakeholders and other parties. In 2016, Wageningen University & Research conducted more than 100 new and ongoing projects and programmes funded by public-private partnerships (PPPs), especially by participating in the top sectors Agro & Food and Horticulture and Propagation Materials. Wageningen University & Research also participated in various consortia for the development of research, education and innovative business clusters at the regional level with the Food Valley region being a prime example. This concept was also used at the national level in order to connect the business community, Wageningen University & Research and other universities. One example is the BioSolarCells consortium.

Research projects with the business community often also lead to co-authored publications in academic journals and trade journals. (Table 2.18)

Table 2.18 Number of co-authored publications by WUR with worldwide partners within and outside of the academic world

	2013	2014	2015	2016
Corporate (business community)	110	102	114	154
Academic	2,115	1,998	2,170	2,447
Government	690	606	603	750
Medical	28	34	36	35
Other	116	146	130	170
Total publications (co-authored & other)	2,334	2,195	2,365	2,657

Source: Scopus, Elsevier B.V. All rights reserved. SciVal ®

a) Publications per publication year. The previous annual reports listed the publications entered during the course of the year. This means numbers may deviate slightly from those previously reported.

Wageningen University's contract research (funded by the business community) totalled €15.1 million in 2016 (€18.4 million in 2015). The turnover of Wageningen Research consisted for €42.2 million from contract research funded by the business community, in comparison to €44.3 million in 2015.

StartLife Foundation is a WUR valorisation programme and is the national point of contact for startups in Food, Agro and Biobased Economy. Over the last 6 years, StartLife has supported more than 200 startups through business incubation and acceleration. Wageningen University & Research and Oost NV are the co-founders of StartLife. In this way, WUR provides access to knowledge and network for startups from all over Netherlands. One of the activities of StartLife is the new Incubation Programme. This programme provides support to start-ups that are working on major technological innovations in Agri, Food and the Biobased Economy. Upon successful completion of the programme, they can receive a starters loan in 3 instalments totalling €85,000. In 2016 a total of 24 new startup teams joined the network managed by StartLife, including two spin-offs from Wageningen University & Research.

Since 2014, StartHub is the student and staff incubator through which WUR stimulates and facilitates startups for current or previous students and staff members of WUR. These companies often start without WUR intellectual property, but always in the domain of the research groups and with public

knowledge from the WUR domain. In 2016, 17 startup companies set up shop in StartHub. The Centre for Entrepreneurship handles all the efforts surrounding entrepreneurship education and inspiration at the MSc and PhD level and, along with the management of StartHub, is housed within the StartLife programme enabling the bundling of WUR's efforts in the area of startups.

2.6.6.1 Protection and transfer of intellectual property

Wageningen University and Wageningen Research protect their inventions by claiming the right to their intellectual property. For partners, this may be an important condition to start the development of an innovative product or technology. By granting patent licenses to potential market partners, knowledge can be broadly disseminated, leading to more innovations. Wageningen University & Research has 159 patent applications in its portfolio, and 97 granted licences for patents, species, models or materials. In 2016, 17 new patents were filed (Table 2.19).

Table 2.19 Number of new patents for Wageningen University & Research

	2013	2014	2015	2016
Total number of patent applications	21	17	19	17

Our policy is aimed at granting patent licenses as much as possible to potential market partners so that knowledge can be disseminated as widely as possible, thereby, leading to innovations. This involves a process of searching for partners willing to make use of the patent within the first thirty months following the patent application.

Approximately 90% of the Wageningen Research patent applications older than thirty months are used through licenses, spin-offs, or public-private research projects. Of the other applications, Wageningen Research covers the risk and costs itself, mostly because there is a potential partner in mind. The knowledge is also publicly disseminated.

In some cases knowledge is applied through the transfer of the intellectual property to researchers who are starting a business (spin-off). WUR has a total of 23 spin-offs in its portfolio. By investing in the valorisation programme StartLife, the national impact of WUR on new business activities is much higher (support for more than 179 startups) than through spin-offs alone.

Table 2.20 Number of new spin-offs and student startups

	2014	2015	2016
Number of spin-offs started in 2016	2	0	1
Number of student startups started in 2016	1	1	3

The number of spin-offs (with WUR intellectual property) is limited in comparison to other universities within the 4TU. This is expected based on the policy of WUR to focus on multiple routes of value creation in addition to spin-offs, including contract research, knowledge transfer to medium-large companies and public-private partnerships. The establishment of spin-offs is not a primary goal. Instead, the focus is on supporting startups through StartLife as WUR's initiative and national development programme (see previous section). The number of students startups from WUR with (Chamber of Commerce) offices on the campus StartHub is growing.

Stimulating entrepreneurship and supporting start-ups integrates seamlessly into the needs of the sectors in which WUR is active. The societal challenges call for multiple, radical solutions and startups play a crucial and growing role in this. Many of these sectors are not easy environments for establishing startups. For instance, the primary production in agri-food is strongly fragmented and specialised; food processing is dominated by major players and is strongly focused on security, regulation and risk reduction; and circular (biobased/environmental technology) breakthroughs are often capital intensive and risky. Add to all that the various forms of intellectual property (including

plant breeding rights in addition to patents) and a long history of public-private collaboration for innovation, making the Wageningen domain significantly different from the high-tech manufacturing industry or semiconductor industry.

The number of spin-offs from WUR therefore differs compared to the other technical universities. But bringing together entrepreneurship and science offers radical new possibilities, particularly through the combination of our domain with other sectors such as robotics and sensors. This is why WUR stimulates spin-offs and startups to create an additional route that makes it possible to turn scientific findings into applications that can have an impact in society. In the recent past, the attention placed on this route was limited.

2.6.7 Access to our knowledge and research facilities

The results of publicly funded research can be accessed through the library, [Kennis Online](#), METIS and other online databases as well as through a large number of specialised websites. The Wageningen University & Research website provides files on various themes, including one for activities in the area of [knowledge transfer](#).

In 2016, WUR contributed to various public events, both by organising them and working together with other organisations. For instance, during the science weekend hundreds of people visited the greenhouses in Bleiswijk and Wageningen and some five hundred people learned about the wondrous world of the human immune system. The research into agriculture on Martian soil won the Klokhuis science award and a dinner was also organised with Martian vegetables. The Teacher of the Year event has grown to become WUR-Talk, a TED-talk inspired public meeting with approximately three hundred attendees. For the international meeting on the topic of urbanisation in Quito (Habitat III), a series of articles was launched in collaboration with NRC. The first Mansholt lecture represented a more active presentation of Wageningen in Brussels.

Wageningen University & Research offers access to state-of-the-art research facilities both to its own research groups as well as to companies and institutions in the agrofood sector and in the Food Valley. This is done via Wageningen Shared Research Facilities (SRF, formerly CAT-AgroFood). Since Wageningen University & Research is making significant investments in new equipment within this portfolio, new devices are constantly being added which have only recently begun to be used. The average occupancy of the equipment portfolio of SRF in 2016 was 60% and the number of external users amounted to 34 (data until June 2016).

In addition to SFR equipment, there are various other research facilities at Wageningen University & Research, such as Algae Parc, Dairy Campus, the Swine Innovation Centre (VIC), experimental dairy farm De Marke, Carus, the Central Veterinary Institute, Unifarm, the greenhouse facilities in Bleiswijk and the PPO AGV experimental facilities, RIKILT, NMR, Modutech, and Wageningen Imaging & Spectroscopy Hub (WISH).

2.6.8 Knowledge valorisation indicators

In accordance with the outline agreement between the VSNU and the State Secretary of Education, Culture and Science (OC&W) which states that the universities will publish a set of indicators in 2016 in order to enable the efforts and results of universities in the area of knowledge valorisation to be better measured and more visible, WUR has developed a set of indicators for both Wageningen University and Wageningen Research. These indicators can be found in Appendix 5.

To date, the Ministry of Economic Affairs conducted an annual survey amongst the commissioning parties of the publicly funded research at Wageningen Research to get an idea of the extent to which the research findings have been put to good use.

The Ministry of Economic Affairs has submitted an impression of customer satisfaction and knowledge utilisation for all six TO2 institutes to the House of Representatives. This is why, starting in 2016, a new survey system was introduced, in which all TO2 institutes use the same questionnaire for all types of projects (with the exception of those that fall under the statutory research tasks and projects

without a clear external commissioning party). In 2016, WR carried out the survey according to this system for the first time. In this measurement WR scored a 8.5 for customer satisfaction and 97% of the research is rated as useful by the respondents.

Table 2.21 *WR customer satisfaction measurement*

Customer satisfaction	Number of respondents	Score	Total score	Average score
Very satisfied	66	10	660	
Satisfied	60	8	480	
Neutral	20	6	120	
Dissatisfied	1	4	4	
Very dissatisfied	2	2	4	
Total	149		1,268	8.5

Table 2.22 *Measurement of knowledge utilisation*

Project result assessment	Percentage
Useful	97
Not useful	1
No opinion	2

2.6.9 Outlook

Society is increasingly demanding answers to questions regarding the legitimacy of public spending in the area of research and demanding that these scientific insights be translated into innovative applications. Value creation or knowledge valorisation is a continual process involving many stakeholders, such as the government, the business community, entrepreneurs, regions and societal organisations, and with Wageningen University & Research as the knowledge supplier at the beginning of the whole process.

The insights resulting from monitoring our output through the use of knowledge valorisation indicators can contribute to fulfilling our need to improve the efficiency of our knowledge valorisation process and infrastructure.

In the coming period, we will work to support initiatives by the OC&W and the EZ in the area of knowledge valorisation at the national level, for instance through VSNU and the TO2 federation. In 2017, a new department of Value Creation will be created, the mission of which is to develop and coordinate activities for creating more economic and societal value with the developed knowledge.

We want to better scout and track the innovative ideas of our research, to enable us to make better use of potentially marketable findings through partnerships with the business community, entrepreneurs and investors. Meanwhile, we will continue to invest in existing knowledge valorisation activities with which WUR is already making a significant contribution to societal knowledge needs, including the expansion of and access to our campus for businesses and entrepreneurs.

2.7 Employees

2.7.1 One Wageningen

Wageningen University & Research's HR policy is inextricably linked to the organisation's ambition to offer top education and conduct top research in the domain of "Healthy Food and Living Environment", thus making an important contribution to major social challenges. This ambition can only be realised if the quality of both employees and management remain aligned with it. One Wageningen is the basis for working on mobility, collaboration and connection. HR also focuses on generating awareness among employees that they are jointly responsible for the whole. WUR wants to offer employees a challenging, inspiring and international work environment in which individual talents can thrive.

From this vision, a number of priority areas were formulated in the HR policy of WUR and have been summarised by the concept of inclusiveness. These priorities are set out and explained briefly below. In this chapter, attention is also given to a number of HR subjects within the framework of corporate social responsibility (CSR).

2.7.2 Inclusiveness

WUR strives to be an inclusive organisation which deliberately engages people from different groups, paying attention to talent, mobility, equal opportunity and reflection, and in which every staff member contributes to the total result according to his or her own capacity and in his or her own way. This is based on the belief that inclusive organisations with mixed teams are more productive and more innovative.

To promote inclusiveness, a project group was formed across the width of Wageningen University & Research and identified three sub-themes:

- mobility: sustainable employability, internal mobility, talent development
- diversity: gender, ethnicity/cultural background, religion, age, sexual orientation, distance to the labour market (Participation Act)
- corporate culture: opportunity, eye for talent, attract and retain top talent, community formation, hospitality, cultural awareness, internationalisation.

2.7.2.1 Mobility

Long-lasting employability and internal mobility

WUR offers several programmes in the field of sustainable employability. These are mainly focused on the development of competencies and/or supporting career development. HR also focuses on removing obstacles to internal mobility.

Sustainable employability requires constant training and development of talent and behaviour, whereby also the need for downsizing is limited. As a result, one can anticipate market developments, make strategic business choices and look ahead. Strategic workforce planning is of great importance for the organisation and its employees.

In the CAO DLO (WR) agreements have been made in the context of *Van Werk naar Werk* (from work to work) programmes. With the employees in these programmes, timely agreements are made regarding their development in the area of knowledge, know-how and/or skills, so they can hold specific positions in the future. By increasing employability in this manner, the mobility of employees is facilitated and any reorganisation is prevented.

Last year further professionalisation was achieved in relation to the succession planning of the (staff) directors and a number of other key positions at the administrative level. These positions have been mapped and an overview was created of the staff members who report directly to these (staff) directors. In consultation with the Head of the HR Department of the relevant sciences group and the relevant director, the direct reports were discussed on the basis of the formulated criteria for leadership vision, ability to connect and focus on results. This is how the potential succession candidates were mapped. This created insight into possible personal development needs and the necessary career steps in the context of follow-up and mobility.

Talent development

Attention to talent development and career management also promotes mobility. Thus, Wageningen University has a tenure track for academic staff. Tenure Track offers academics career perspectives in which academic staff can grow from an Assistant Professor 2 (UD2) position into a personal professorship within approximately 12 years. The Tenure Track development programme supports the career policy through development assessments and a course programme designed for this target group. More statistics on the number of employees in Tenure Track per job profile, including the

gender ratio can be found in the [Wageningen University & Research Corporate Social Responsibility Report 2016](#); only available in Dutch).

Leadership development for both young talents and experienced managers is essential for WUR to be the inclusive organisation that it wants and this is therefore well planned. This focus is especially apparent in the Talent Development programmes to an increasing degree. Based on the three decisive leadership values of Wageningen University & Research, the Management Development (MD 3.0) master plan was carried out. These values are:

- Vision (develop and disseminate)
- Capacity for connection (with people, market and environment)
- Result-orientation

The programme Welcome to Management offers employees space to familiarise themselves with leadership within WUR and to further develop their skills in this area. Here, specific attention is paid to topics such as account management, improving internal collaboration, mobility and diversity of employees. In this context, a number of professors started peer review groups for support in developing their role as a manager.

Furthermore, leadership development in the area of team building for supervisors and managers is also being reflected on. In addition, the training programme Beyond Connection devotes attention to collaboration, leadership and inclusiveness.

The organisation's training programme budget is equivalent to a total of 2% of the wage costs. In 2016, just over half the training programme budget was spent on out-of-pocket costs. Courses take place mostly during work hours and are therefore not visible in the training budget spent. In addition, specific programmes that have been developed in the area of leadership and talent development, including the University Teaching Qualification (UTQ), have also not yet been included in this training programme budget.

2.7.2.2 Diversity

In recent years the principal focus was on gender diversity. For instance, the Action Plan for Gender Balance aims to better support female talent, promote the advancement of women to top positions in the organisation and thus improve WUR's quality. The book Inspiring Women at WUR was published, in which successful women within WUR share their experiences. The purpose of this publication is to serve as a source of inspiration for the new generation of women working within WUR, but also those outside. The figures from the [Wageningen University & Research Corporate Social Responsibility Report 2016](#) show that the percentage of women in regular professorship positions have nearly doubled since 2014: from 8.4% to 16.2%.

In 2016, the choice was made for a larger number of diversity criteria, such as ethnicity and people with a distance to the labour market. This is because the staff composition of WUR is not reflective of society and the student population. In response to the Participation Act and the (job agreement act (*Wet banenafspraak*) and the quota requirement for people with a work disability (*quotumheffing arbeidsbeperkten*), WUR has developed an action plan for employing people with a distance to the labour market. In 2016, this led to 15 FTE of additional employment contracts for this target group.

The mentoring programme for talented women which started in 2014 was further expanded and there are currently around 24 mentees with a mentor. The mentoring programme ensures that researchers who are in the middle of their career, are coached by a more experienced colleague. At the start of their mentorship, the mentors receive training for their role as mentors. In addition, workshops and networking events are also organised. Many mentors are available so there is a wide range of choice for forming fitting pairs. The experiences will be directly used to improve the selection process and the execution of the programmes with the aim of preventing gender biases.

For more information on the trends in the male/female ratio in the various job categories, salary scales and management positions, please refer to the [Wageningen University & Research Corporate Social Responsibility Report 2016](#).

Another activity aimed at diversity is the recruitment of more international employees. The current staffing level has limited international diversity. International recruitment and labour market

communication will be important HR priority areas in 2017, particularly with regard to research positions. WUR's ambition is to be the leading knowledge institute in Europe in the domain of "healthy food and living environment" by 2020 and a leading partner worldwide. This also means that employees will be posted abroad and vice versa. It is essential here that the organisation pay attention to cultural awareness. Supporting employees who have come from abroad and supporting the staff who have been deployed abroad are both handled through the Expat Center Food Valley. In the coming years, they will, together with Corporate HR, increasingly focus on creating an international community, partner programmes and dual careers (career paths for partners).

At the end of 2016, the percentage of non-Dutch employees at WUR was over 12%. This share was 19% at Wageningen University and at 5% at Wageningen Research. See the [Wageningen University & Research Corporate Social Responsibility Report 2016](#).

2.7.2.3 Corporate culture

Inclusiveness also means attention to corporate culture. WUR consists of a large group of passionate, motivated professionals who are committed to improving the quality of life. That includes an organisational culture which allows for growth, has an eye for talent and in which top talent is attracted and retained. But also a culture in which there is community formation, hospitality and cultural awareness. The commitment and involvement of employees is high but the work load is too. For the necessary balance, a culture is needed in which agreements are made and we are able to approach each other on the basis of mutual trust. One of the tools to keep track of corporate culture, including cultural awareness, is the Performance & Development interview (P&D).

2.7.3 Corporate Social Responsibility

For WUR, the human resource side of corporate social responsibility (CSR) means that in addition to promoting vitality, employability and employee development, we also guarantee scientific integrity, protect human dignity, provide appropriate working conditions and ensure a healthy and safe working environment under sustainable conditions. We will not discuss how this is guaranteed at WUR.

2.7.3.1 Integrity

Society must be able to trust that the results of the work done at Wageningen University & Research are generated and published independently and with integrity. Wageningen University & Research has therefore adopted a number of core principles in the form of codes, regulations and agreements to ensure the integrity of individual employees and the organisation as a whole.

These are:

- The Netherlands Code of Conduct for Scientific Practice of the Association of Universities in the Netherlands (VSNU). This is fully applicable for all researchers within Wageningen University & Research.
- The Implementation Regulations Side Activities Wageningen University & Research. According to these regulations, employees are required to ask their employer for permission in advance to carry out side activities. It is important both for Wageningen University & Research and for potential clients to have insight into any side activities in order to prevent a conflict of interest. The approved side activities can be found at [we@wur](#).
- Network Regulations These regulations provide guidelines and principles to students and staff for the correct operational use of WUR's digital network. The rules pertaining to supervision and control are also explained here.

Employees are required to familiarise themselves with these principles and verify this by signing their appointment letter or their employment contract.

2.7.3.2 Recruitment and selection

A clear recruitment and selection procedure offers candidates insight into the WUR work method for job applications. WUR uses such a procedure based on the following principles:

- The code established by the Dutch Association for Personnel Management & Organisation Development is applicable throughout the entire procedure.

- Vacancies are first made available internally to priority candidates, such as transfer candidates and those with a long-term disability, before other interested parties are able to apply. The position will be filled from these priority categories if the candidate is a good fit.
- Candidates with a distance to the labour market and employees who participate in a *Van Werk naar Werk* (from work to work) programme (when applying for a "target position") are given priority over other internal candidates, including seconded employees.
- Only then will external candidates be eligible to apply for a position.

Multiple channels are used to recruit employees for senior management positions and vacancies are communicated through different media. Selection sometimes takes place with the help of a specialised recruitment office. If this is the case, a shortlist of potential candidates is often drawn up for each vacancy. These candidates are then actively approached.

The qualities and talents of the employee is decisive in recruitment. Thus, employees are recruited from the Netherlands and internationally, especially when it comes to research positions. They often relocate themselves to the Wageningen region, which is why over the next few years the focus will be on creating an international community.

2.7.3.3 Employment conditions

Many measures in the CAO NU are aimed at promoting sustainable employability and reducing the number of employees hired through temporary employment contracts. The maximum duration of temporary employment has also been limited from 1 July 2016 onward, which is largely in line with the Work and Security Act (*Wet werk en zekerheid*).

The CAO NU, which was concluded for the period 1 January 2014 until 1 July 2016, has been extended for an additional year. In 2015 and 2016, the universities had already implemented wage increases of a total of 4.25%, but in June 2016 decided after all to carry out the remaining wage increase of 0.8% on the basis of the wage allowance agreement (*loonruimteakkoord*) 2015, with retroactive effect from 1 January 2016.

The collective labour agreement of Wageningen Research (formerly CAO DLO) contains agreements on *Van Werk naar Werk* programmes. These agreements include provisions on the need to make timely agreements with employees regarding their development in the area of knowledge, know-how and/or skills, so they can hold specific positions in the future.

In November 2015, an agreement was signed on a new CAO DLO (WR) valid from 1 November 2015 until 1 July 2016. After that, on 4 July 2016, a supplementary agreement was signed with a duration until 1 April 2017. This concerned the continuation of a pay increase by 1.5% from 1 October 2016 and an adaptation to the Unemployment Scheme DLO (WR) in the context of a reparation of the unemployment benefits act (WW).

The remuneration for senior executives is in line with the Standard Remuneration Act for Public and Semi-public Sector Senior Officials (WNT). For statistics regarding classification of salary scales and job categories, please refer to the [Wageningen University & Research Corporate Social Responsibility Report 2016](#).

2.7.3.4 Healthy and safe working environment

Prevention policy

WUR addresses the policies in the area of health and welfare integrally from the disciplines of Industrial Medicine, Corporate Social Work, Labour and Organisational Sciences and Human Resources. These disciplines actively contribute to promoting a healthy lifestyle amongst employees. Via the Vital@Work priority area, HR further shapes sustainable employability, health and vitality. The programme My Balance focuses primarily on health, balance and workload.

In addition, various courses are offered to employees annually in the area of yoga, fitness and mindfulness and many employees make use of these. Requests for assistance from staff often have to do with work stress and nervous exhaustion and how to recognise and prevent it. A timely and appropriate approach can often prevent sick leave.

In the context of fulfilling its preventative responsibility, Corporate Social Work (CSW) also places a great deal of focus on the prevention of work-related stress and the promotion of effective coping strategies. In 2016, as in previous years, a large number of workshops and lectures were given. The workshops are always organised on request and customised to individual/group needs.

In addition to CSW, Wageningen University & Research also has confidential counsellors for undesirable behaviour, to whom employees and students can turn with questions regarding undesirable behaviour. The confidential counsellors can also provide help with navigating the complaints procedure. The confidential counsellors are almost always able to prevent a complaints procedure.

Risk analyses and evaluations (RI&Es) provide insight into the possible risks of certain work activities for the health of the employee. This insight is very important in order to be able to arrange the work in such a way so as to avoid adverse health effects from certain work activities. In a number of positions at WUR, it is useful to periodically perform medical checks on affected employees or provide vaccinations. Where necessary, this is compulsory at WUR. If an employee is unable to comply with this (for example due to his/her religion), the work activities in question will not be able to be carried out by this employee.

WUR has also developed a policy for periodic occupational health examinations (PAGO). WUR uses the Occupational Health and Safety (Arbo) catalogue in collaboration with VSNU.

Finally, special attention should be given to the health risks of employees who are posted abroad. They will be given the necessary preventative vaccinations and, in consultation with organisations such as the Vaccination Centre, follow-up care will also be provided upon their return to the Netherlands.

Sick leave

Despite the prevention-oriented policy, there will always be some sick leave. For this, effective absenteeism guidance will still be needed. It is essential that the employer remains in contact with the sick employee throughout the period of absence and that both of them do everything in their power to achieve a swift return to the workplace.

The sick leave rate at WUR (including long-term sick leave) remained well below 4% in 2016 as well. The percentage of 4.1% at WR did rise above the established norm due to a 0.4 percentage point increase. At Wageningen University absenteeism also went up by 0.3 percentage points, but at 2.9% it still remains well below the norm.

For more information on the sick leave rates, please refer to the [Wageningen University & Research Corporate Social Responsibility Report 2016](#).

2.7.3.5 Employee participational structure

Employees of Wageningen University and Wageningen Research are represented in decentralised work councils, the Central Works Council (COR) and the Student Staff Council (SSC). Important items on the agenda in 2016: Wageningen University joining the federation of technical universities (4TU) and the growth of the university and its consequences for students and employees especially in relation to the evening classes pilot in the fall of 2016. In 2016, the results of the employee satisfaction survey were also discussed, as well as the repositioning of some divisions within the organisation.

In the consultation with the management, the participational structure addressed various topics for which input had been requested from the represented employees. In the constructive dialogue between the management and the central participational structure, viewpoints were exchanged resulting in the tightening of policies and/or decision making, among other things.

2.7.3.6 Employee Monitor

The Employee Monitor, which is conducted every two years, assesses whether employees are actually satisfied working at WUR, feel involved with the organisation, positively evaluate the working conditions and their manager, etc. This was carried out again in September 2016.

More than 3000 employees (59%) responded to the monitor. The results are more positive than previously. The satisfaction has increased from 7.4 to 7.6. In addition, almost 95% of the employees say they are inspired and/or feel involved in the organisation. Also, they are positive about the social

relevance of their work, about the freedom, variety and responsibility they have when doing their work activities and about the international character of the organisation. Points of attention are the mutual cooperation, bureaucracy and the contact between the management and the workplace. Each division was charged with the task of studying the results of their own division more closely and providing feedback on this to the Executive Board in the second quarter of 2017.

2.7.3.7 E-HRM

2016 was marked by the introduction of a new E-HRM system, Workforce, and the transfer to a new payroll system (Multipay). Since October 2016, the salary payments have been done via this new payroll system.

In 2016, a great deal of attention was also given to the development of a new tool for conducting Performance and Development (P&D) interviews in Workforce. The purpose of these interviews is to evaluate performance agreements and make new agreements for the coming period with attention for the development of the employee, both in their current position and in their future career. The training wishes from the perspective of the employer and employee are also a fixed component of the P&D interview. The new P&D system will also meet those functionalities.

The current digital registration shows that in 2016, P&D interviews were held with around 83% of employees.

2.7.4 Complaints and appeals

Protection of employees against possible objectionable decisions or conduct is guaranteed through various complaints and objection regulations at WUR. The following provides an overview of the number of submitted or processed complaints in 2016 by procedure.

2.7.4.1 Wageningen University & Research

Wageningen University & Research's Scientific Integrity Committee received one new complaint in 2016. In addition, the Executive Board dealt with a complaint for which the Scientific Integrity Committee had offered a recommendation in 2015, but whose appeal deadline with the Netherlands Board on Research Integrity (LOWI) ran on into 2016. This complaint was declared unfounded. No complaints of undesirable behaviour were submitted.

The Wageningen University Advisory Committee on Appeals and Objections (AWB Chapters 6 and 7, CAO-NU) received three new appeals in 2016. One of these was declared unfounded. Two cases are still pending a decision. In addition, an objections procedure initiated in 2014 was declared unfounded in 2016. One appeal, which started in 2015 and was completed in 2016, was declared founded. No appeals were filed in 2016.

On the basis of the *Bezwarenreglement Functieordenen Nederlandse Universiteiten* (appeals regulations for job ranking for Dutch universities).

2.7.4.2 Wageningen Research

On the basis of Wageningen Research's *Klachtenregeling Individueel Klachtrecht* (regulations for individual grievances), six complaints were submitted to the Complaints Committee for Individual Grievances (*Klachtencommissie Individueel Klachtrecht*) in 2016. Two complaints have been revoked and three were deemed unfounded. One case is still pending.

On the basis of the *Bezwarenreglement Functieordenen Nederlandse Universiteiten* (appeals regulations for job ranking for Dutch universities).

2.8 Operational management

2.8.1 Personal Data Protection Act

In 2016, the general data protection regulation (AVG; also called the privacy regulations) entered into force. Wageningen University & Research has until 25 May 2018 to comply with this direct EU regulation. From that date, the obligations which result from the privacy regulations are generally enforceable in the Netherlands. In anticipation of this development, the national legislature introduced

the Data Leaks (Reporting Obligation) Act on 1 January 2016. With the potential for high fines to be imposed on WUR by the Dutch Data Protection Authority (formerly *College Bescherming Persoonsgegevens*), this has the potential to lead to material risks resulting from possible data leaks involving personal data. Under the privacy regulations, the fines that can be imposed have been increased considerably once again from €820,000 to €20,000,000 / 4% of turnover.

These privacy regulations make it imperative to introduce suitable organisational and technical measures in the areas of privacy and IT security at WUR. In 2016, WUR drew up a policy plan for the protection of personal data obligated under the AVG, and preparations were made to appoint a Data Protection Officer from 1 January 2017. A reporting procedure has also been set up for lost or stolen mobile devices which may result in data leaks. Efforts in 2016 began with fitting all mobile devices with encryption. The intention is to have this completed by April 2017. WUR internet will also be better protected through the secure https. Finally, various initiatives to raise awareness among employees have been set up. From 2017, under the direction of a steering committee, all processes and systems involving personal data will be mapped out, after which measures will be taken in order to meet the requirements of the AVG on time.

2.8.2 Application roll-out and process optimisation

In response to the need for flexible working and learning, employees can now use their personal devices to log in to a fully WUR-equipped virtual PC environment (MyWorkspace). In support of place-independent, digital collaboration, a new telephony environment and Skype for Business were also introduced.

In line with the vision of Wageningen University & Research on the learning ecosystem, a vision has been formed for the future digital learning environment. At the national level, a call to tender was made for a number of underlying software packages. To measure the utilisation rate of educational spaces and to plan their use more efficiently, a new system was introduced: Lone Rooftop.

The new intranet has been contracted and virtually all digital applications on human resources have been replaced. Self-service has been introduced for general and technical questions, allowing users to track the processing of their message or question more easily.

In 2016, the decision was made to terminate the project WISE (implementation of a new SIS). This decision was made because the system was insufficient in supporting Wageningen University & Research processes, despite the significant commitment of the software, implementation team and Wageningen employees. The Executive Board subsequently set up a committee to scrutinise the education and examination regulations, processes and rules. With “the values of Wageningen University” (such as freedom of choice) as the foundation, the committee must identify which issues can be standardised and which issues must remain flexible.

On the basis of these strategic choices and based on a thorough analysis of new developments, such as in the area of online education, the Executive Board will then assess which solution best fits the educational processes of Wageningen University & Research into the future.

In addition, the Executive Board decided to make the current SIS suitable for application in the next 3 years and, to this end, an action plan has been developed which assumes that the adjustments will also contribute to a smoother implementation of the new SIS.

2.8.3 Open access

In 2016, good results were achieved in negotiating so-called “Big Deals” with publishers in combination with Open Access publication rights at minimal extra cost. At the moment agreements have been made with commercial publishers for more than 7,000 journals in the collection of Wageningen University & Research library. Publishing articles by WUR authors in Open Access in these journals is possible without having to pay Article Processing Charges (APCs). Unfortunately, the Open Access possibilities within the package of journals of Elsevier Science, WUR’s main publisher, are still

limited. The negotiation results of 2016 bring us significantly closer to the standard of 100% Open Access in 2024 that has been set by State Secretary Dekker.

In addition to the Gold Open Access deals with publishers (publication in OA journal), VSNU decided to implement a Green Open Access Policy (making publication with OA in subscription journals possible oneself). When Gold Open Access is not available, an author is asked to upload an author's version of the publication in Pure, the system in which Wageningen researchers register their output. The number of publishers moving toward agreements for prepaid Open Access is still growing. In 2016, the library organised a number of meetings to inform researchers on publishing in Open Access. This campaign will be expanded in the first quarter of 2017.

2.8.4 IT security

The quality of our research and education depends strongly on the integrity and exclusivity of our data. Cyber threats are therefore recognised as a real risk for the business continuity of WUR. These cyber threats could be directed against the IT systems of WUR but also, for example, against a cloud-based service in which data of WUR is stored. In order to increase resilience against a major cyber incident, WUR held a cyber crisis drill in 2016. In this multidisciplinary exercise, lawyers, management and IT-specialists from various organisations worked together with WUR to accommodate this kind of threat. The exercise was carried out with great enthusiasm and forged bridges between the operational-tactical level and strategic level.

IT security is not only the responsibility of IT professionals. Everyone uses IT resources and a good level of security can only be achieved by pay attention to all the steps in the process. Last year, when we assessed our education and looked at the safety of our digital testing environment, we did not limit ourselves to the software. To assess the risk of fraud, IT professionals, lecturers and invigilators mapped out the entire testing process. From creating a test to administering the test in the examination hall. Based on their individual expertise, everyone identified weaknesses in the process, creating a total overview that was greater than what the parties could have conceptualised individually. This is a wonderful example of a comprehensive approach to IT security.

2.8.5 Campus development

In 2016, work continued on the realisation of the objectives of the Wageningen Campus Strategy. With the completion of Helix, all chair groups are now concentrated on Wageningen Campus. With this, the most significant construction activities on the centre of the Campus have been completed, which provided more opportunity to focus on the green infrastructure. Taking into account the natural conditions of the region, approximately three hundred trees were planted in 2016 along with 4,000 m² of shrubs and 5,000 m² of flowers meadows. The campus thus reflects the green experience of WUR. The Campus Plaza was opened in late 2016. This building boasts over four hundred accommodation units for students, some shopping and catering facilities, and day-care facilities.

The improved accessibility of the campus remains a focus area due to its increased use. WUR, together with important stakeholders such as the Municipality of Wageningen and the Province of Gelderland, has taken steps in 2016 to find good short-term and long-term solutions.

Wageningen Campus is taking shape. The link between the Food Valley region and the investment companies OostNV and NFIA, contributes to a professional approach to acquisition. With the completion of the business centre Plus Ultra by Kadans Science Partner, promising possibilities have been created for startups and SMEs to set up shop in the heart of Wageningen Campus. Within a year of completion (late 2015), all the space in Plus Ultra had been rented out to more than 25 different tenants, including StartLife and eight high-tech startups. Currently, plans for the expansion of Plus Ultra are being explored. In late 2016, Unilever announced its intention to house its Global Food Innovation Centre on Wageningen Campus.

The cooperation with Wageningen Business & Science Park is taking shape. With the municipalities of Wageningen and Ede and the Province of Gelderland, we strive to further position Wageningen

University & Research as the knowledge hub of the Food Valley region. Firmly establishing the foundation of this knowledge hub is important for continuing to enable spin-offs in the form of an attractive location for companies and organisations on campus as well as in the wider region.

Entrepreneurship, in addition to talent, shared research facilities and local buzz⁶, is one of the most important aspects of making Wageningen Campus an attractive location for companies. In the area of entrepreneurship, various activities were organised by the StartHub student incubator and at the new StartLife location in Plus Ultra. The Food and Agro Next event for startups in May 2016 was a great success and was the start of an annual event. The second edition will take place in May 2017. StartLife is also active in the valorisation of 4TU and the further anchoring of the different startup activities on Wageningen Campus.

2.8.6 Safety and environment

WUR is taking its social responsibility seriously with sustainable operational management. This endeavour is also the starting point for the attention areas of safety and environment.

2.8.6.1 Safety

WUR's activities in the field of education, research and business operations bring risks. In order to manage these risks as effectively as possible, the different risk assessments and evaluations (RI&E) are reviewed each year to ascertain whether they are up-to-date. For some work activities permits are necessary. In the area of safety and health, WUR wishes to protect employees and students as effectively as possible and ensure their health and safety as much as possible.

The quest for optimal working conditions is the starting point for the WUR health and safety catalogue (Arbocatalogus WUR), which is derived from the eponymous product of the VSNU. This catalogue applies to both Wageningen University and Wageningen Research. Parts of the VSNU Health and Safety Catalogue were translated into policies for WUR, namely in-house emergency services; risk assessments and evaluations; hazardous materials; information, instruction and supervision (VO&T); and arms, neck and shoulder complaints (KANS).

In the coming years, WUR will prepare their own versions of the VSNU sections on animal allergies and machine safety (*Proefdierallergie en Machineveiligheid*) from the VSNU Health and Safety Catalogue.

In the context of VO&T, in 2016, work was carried out, under the name safety@wur, to develop e-learning modules. Within safety@wur, e-learning modules are being developed for the different risks. For working with genetically modified organisms (GMOs), the e-learning module "Better safe than sorry" was developed by the Plant Sciences Group and made available for all divisions of WUR. 2016 saw the start of the development of two e-learning modules for employees and students on the risks of fieldwork and computer work. These will be rolled out in the coming year and a general Safety module focused on lab work activities and biological agents will be developed.

2.8.6.2 Environment

WUR annually publishes an environmental report on implemented policy, activities and performance in the area of the environment. With this, WUR meets the requirements of various environmental licenses. The goals achieved in 2016 in the field of CO₂ emission, energy and waste are summarised in Table 2.23 and are briefly explained in this annual report. In the [WUR Annual Environmental Report 2016](#) (only available in Dutch), the results and activities of all environmental policy fields are addressed in more detail.

⁶ Local buzz is the term used for the dynamics of face-to-face meetings to stimulate innovation. This makes the exchange of knowledge possible and supports social networks.

Table 2.23 Summary of the environmental results of operational management

Component/Issue	Objective	Achieved in 2016
(1) CO ₂ footprint	Reduction relative to 2010	-46%
CO ₂ compensation footprint	Increase relative to 2010	35%
Climate neutrality		80%
(2) Energy	2.0% reduction per year	-2.3%
	Sustainable electricity procurement	100% ^{a)}
	Generating wind energy	58 million kWh
(3) Waste	Reduction relative to 2014	+16%

a) Purchase of wind energy with guarantees of origin, registered with certiq

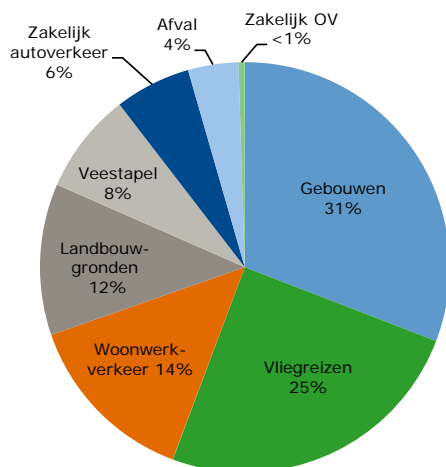
(1) The CO₂ footprint is calculated annually. This calculation is conducted in accordance with ISO 14064-1, based on the Greenhouse Gas Protocol. The CO₂ performance ladder was applied to the analyses. The CO₂ footprint was audited by an independent consultant.

The footprint provides more insight into the direct and indirect emissions of greenhouse gases, among other things. These emissions are due to the use of energy and fuel, the leakage of cooling liquids, keeping livestock and agricultural land use. Mapping out the emissions enables WUR to be more aware of CO₂ emissions and what can be done to reduce and compensate for it.

The results regarding the CO₂ footprint are shown in Figure 2.6. In total, the CO₂ footprint comes to 43.9 ktonnes of CO₂. The calculated CO₂ compensation was 35.2 ktonnes of CO₂ in 2016. In 2016, CO₂ compensation was 80% of the emissions.

In recent years, progressive insight has made it possible to report on a greater number of emission sources and, thus, the emission factors have been adjusted. A comparison between the CO₂ footprints of the period 2010-2015 is, therefore, increasingly difficult to make. Therefore, in 2016, a recalculation was made of the base year of 2010. In 2016, CO₂ emissions were reduced and CO₂ compensation was increased in comparison to the renewed calculations for the reference year 2010.

The sources that contribute most to greenhouse gas emissions are the buildings (especially natural gas), air kilometres, commuting (17%) and agricultural land (see Figure 2.5). The natural gas consumption for the heating of buildings has decreased in comparison to last year. There was also less cattle. 2016 saw many relocations which was reflected in the increased consumption of refrigerants (+ 67%) and the increased disposal of waste (+ 16%). Notable are the decreased emissions of commuters (-6%) and business travel by train (-65%). The emission factor for rail travel in Netherlands has been reduced due to the Dutch Railways use of green energy. However, emissions from air travel increased (+ 7%).

**Figure 2.5** Distribution of CO₂ emissions sources in 2016

WUR compensates for its CO₂ emissions by generating its own wind and solar energy through thermal energy storage systems at Wageningen Campus and through the use of biomass. The CO₂ compensation footprint in 2016 came to 35.2 ktonnes of CO₂. This constitutes 80% of the total CO₂ footprint. Although the yield from thermal energy storage systems on Wageningen Campus has increased and more and more solar panels have been placed, the compensation footprint fell sharply due to the disappointing yields of wind energy.

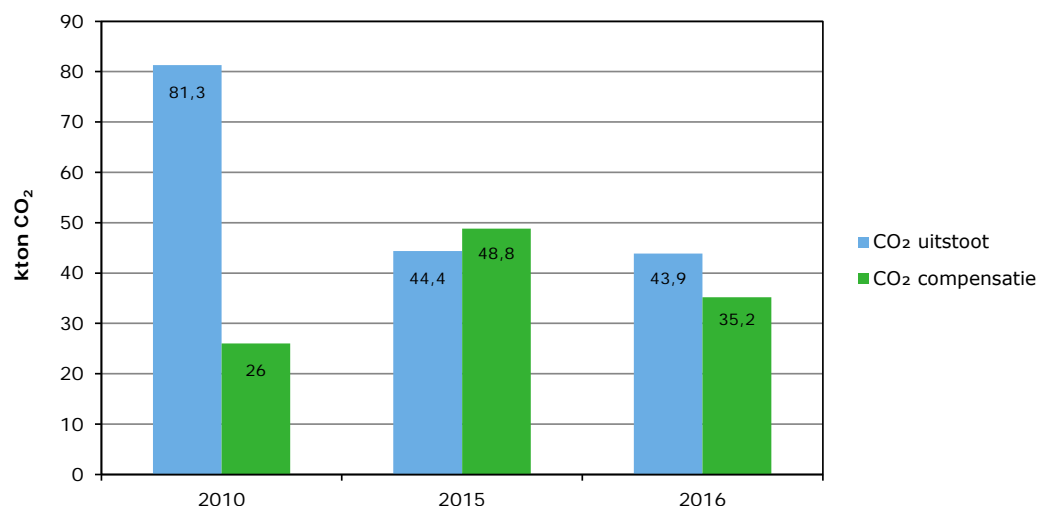


Figure 2.6 CO₂ emissions and CO₂ compensation in kilotonnes, 2015 and 2016 in comparison with the reference year of 2010

(2) WUR conforms to the Long-Term Agreements on Energy Efficiency in the Netherlands (MJA3) for universities. Within this context, we adhere to various objectives, such as the use of renewable energy and achieving a 30% improvement in energy efficiency in the 2005-2020 period, or a 2% energy reduction per year.

In 2014, we drew up our Energy Vision for 2030. This vision aims for a secure, affordable and, most importantly, sustainable energy supply. As a result of the energy management incentive, in which the WUR divisions are responsible for their own energy budget, the insight into energy consumption has improved in recent years. Better insights result in the opportunity for targeted energy savings. The direct calculation based on actual energy use stimulates investments in order to achieve energy savings. In late 2016, the energy efficiency plan for 2017-2020 was submitted, including the planned measures for realising energy savings and further increasing the share of renewable energy. The direct and indirect energy consumption of the buildings and activities of WUR is continuously measured. The overall consumption is shown in Table 2.24.

Table 2.24 Direct and indirect energy consumption by WUR

Energy consumption WUR	Base year 2005	2013	2014	2015	2016
Electricity (kWh)	59,581,768	59,190,720	57,129,458	55,660,591	54,930,781
Natural gas (Nm ³)	11,031,812	7,985,127	6,273,363	6,503,170	6,302,302
Electricity and natural gas (GJ)	886,033	785,446	712,717	706,771	693,845
CO ₂ (tonnes)	53,598	15,192	12,095	11,650	11,290
CO ₂ as a percentage of 2005	100	28	23	22	21
Annual energy reduction (%)		4.5	4.2	3.4	2.3

In 2016, WUR achieved a 2.3% energy reduction compared to 2015. This includes a correction for climate influences on cooling and heating. Without this correction the reduction would be 1.8%. This means the MJA3 objective was also met in 2016, despite the increased student numbers. This saving

was achieved, inter alia, through a more efficient use of existing new buildings. The energy consumption of buildings that are no longer in use or only partially in use was reduced to a minimum. The thermal energy storage system was also expanded and more energy-efficient cooling systems were installed in multiple buildings. Existing heat pumps were used more efficiently and the usage of excess heat was increased. Also, the proportion of LED lighting has been increased and climate regulations have been further optimised.

With the energy savings achieved and the procurement of 100% green wind energy (with guarantees of origin), CO₂ emissions have been reduced further compared to the 2005 base year, as Table 2.24 shows. In Lelystad, WUR has wind turbines that generated more than 58 million kWh of renewable energy in 2016. That's more than WUR's own energy consumption.

(3) WUR has three main waste streams: industrial, paper and hazardous waste. In recent years, better insight was gained primarily of the discharged waste volumes. Virtually all 28 locations in the Netherlands now provide waste figures. 2015 saw the continued increase in the number of locations at which waste is weighed instead of calculated on the basis of discharged volumes. Waste volumes in 2016 increased by 300 tonnes, or 16% (Figure 2.7).

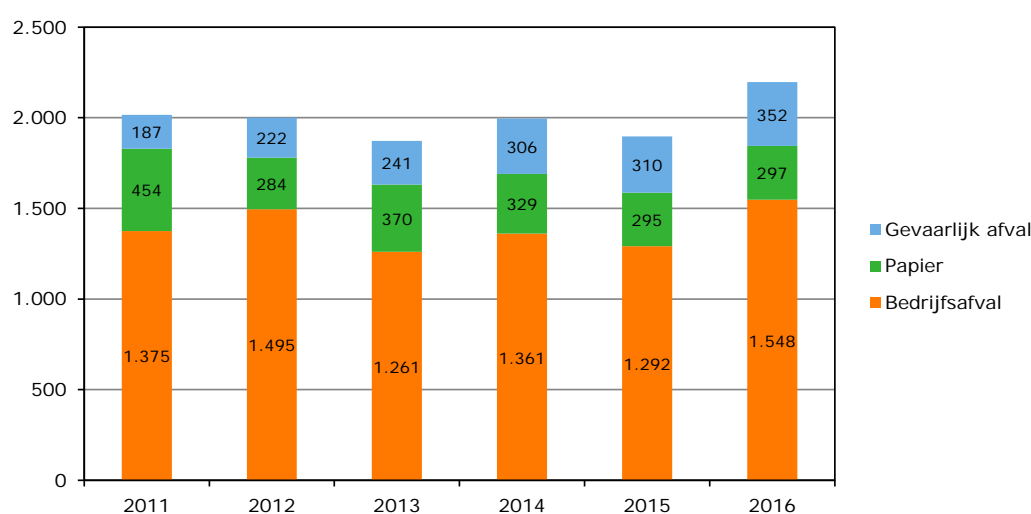


Figure 2.7 Amount of waste produced in tonnes, 2011-2016

The increase in the quantity of industrial waste in 2016 (+ 256 tonnes) is explained by a sharp increase in the amount of residual waste (+ 189 tonnes) which was primarily due to vacating buildings that will be disposed of on the Dreijen (Wageningen) and the Edelhartweg 15 (Lelystad). Construction activities have led to an increase in construction related waste (+ 34 tonnes). The amount of hazardous waste increased by 42 tonnes, mainly because of a sharp increase in the amount of animal waste (+ 35 tons) as a result of a variation in research activities.

Table 2.25 Waste flows in 2011-2016

Waste WUR	2011	2012	2013	2014	2015	2016
Paper and cardboard (tonnes)	454	284	370	329	295	Deposits
Industrial waste (tonnes)	1,375	1,495	1,261	1,361	1,292	1,548
Hazardous waste (tonnes)	187	222	241	306	310	352
Separation percentage (%)	39	37	46	54	52	50
Annual energy reduction (%)	--	-1	-6	+7	-5	+16

The improvement of the separation of waste, corrected for the relocations, continued in 2016. The number of separated waste streams increased at more locations. This led to more plastic waste (+ 8 tonnes) and swill (+ 33 tonnes). In the educational buildings, the separation percentages now 72% at Forum and 68% at Orion.

2.8.7 Procurement policy and supply chain responsibility

WUR complies with all relevant laws and regulations in the area of procurement and adheres to the principles of proportionality, objectivity, non-discrimination and transparency. In order to responsibly carry out our procurement, the integrity of the purchasers must be beyond repute. For this purpose, the NEVI Code of Conduct used as the foundation. This code of conduct respects the regulations of the United Nations on human rights and the rights of children. This code serves as a test for assessing the behaviour of purchasers. The most recent General Government Terms and Conditions for Public Service Contracts (ARVODI), General Government Purchasing Conditions (ARIV), and the Uniform Administrative Conditions for the Execution of Works and Technical Installations (UAV) are, in principle, applicable to all service contracts and outsourced work projects.

In addition to the existing laws and regulations, WUR also upholds its own Procurement Policy. The objective of this is for all controllable expenditures to take place lawfully, efficiently and effectively, in accordance with our core values. As much as possible, we follow the sustainability criteria as published on Pianoo.nl. In addition, for each contract, additional sustainability criteria are considered and upheld, where possible. This can include consulting the sustainability panel consisting of employees and students.

The policies and procedures for procurement are determined by the Executive Board. The results are discussed regularly with the directors of operational management and the responsible member of the Executive Board. From 2016, the new method MVI growth model is used to measure MVI-related efforts and to achieve a higher CSR awareness throughout the organisation.

In 2016, 35 European tenders and multiple private projects were completed with a total value of €34 million. In addition, 94.3% of WUR's purchases were sustainable, on the basis of the MVI growth model for the durability requirements of the Netherlands Enterprise Agency (RVO). The sustainability panel was used twice. The [WUR Annual Environmental Report](#) presents all the procurement figures and supply chain responsibility results.

2.9 Compliance

2.9.1 Governance

Wageningen University and Wageningen Research operate as separate legal entities under the name Wageningen University & Research. In terms of administration, collaboration has been shaped by a governance union: the Executive Boards of Wageningen University and Wageningen Research consist of the same members. This is intended to guarantee maximum administrative unity between the university and the research institutes. The Executive Boards and Supervisory Boards of Wageningen University and Wageningen Research together form the Executive Board and Supervisory Board of Wageningen University & Research.

The Executive Board is responsible for the administration of the university and the research institutes and is accountable to the Supervisory Board. The Executive Board determines the vision and the resulting strategy and objectives and receives advice regarding this from the Board of Directors, in which the five sciences groups are represented by their managing directors.

The participational structure is an important partner in policy formation for the Executive Board and the managing directors of the organisational units. Each sciences group has a joint works council for employees of Wageningen University and Wageningen Research who work within the sciences groups. Additionally, there are separate works councils for Wageningen Marine Research, RIKILT, Corporate Staff and Facilities and Services. From these works councils, a Central Works Council (COR) has been formed for which members are elected by and from among the members of the works councils. The Student Council (SC) and the Student Staff Council (SSC) are participational bodies of the university. The SSC consists of members of the Central Works Council, supplemented by two directly elected employees, two directly elected PhD candidates and members of the SC. Students and staff have an equal number of votes in the SSC.

The COR and SSC together make up the WUR Council. The consultation meetings between the Executive Board and the central participational body take place in the WUR Council and the SC. However, the WUR Council does not have any authority, as this remains with the COR and SSC.

Wageningen University & Research strives to ensure complete transparency regarding the governance of the organisation, behaviour and mutual rights and obligations. This is expressed in the [Corporate Governance Code of Wageningen University & Research](#), comprised of the most appropriate principles from the Code of Good Governance for Universities 2013 and the Dutch Corporate Governance Code. This transparency is also demonstrated through the [Bestuurs- en Beheersreglementen \(administrative and management regulations\)](#), the [Netherlands Code of Conduct for Scientific Practice](#), the [Wageningen University & Research Integrity Code](#), the [Positioning of Wageningen University & Research research](#), the [Guidelines Multicultural Settings](#), the [Whistle-blower Regulations Wageningen University & Research](#), the [Code for Transparency in Animal Testing](#) and various complaints regulations.

2.9.2 Risk management and internal control

2.9.2.1 Risks of strategic objectives

Wageningen University & Research's strategic objectives for a four year period are laid out in its 2015-2018 Strategic Plan. The section Strategic Plan (2.3.3) describes how the plan will be implemented and progress monitored. Annually, the progress of ten key performance indicators in relation to the five most important developments is reported on. This list is supplemented with some indicators that reflect the organisation's performance across the entire organisation. The Executive Board annually determines what priority areas will get more attention. Based on this, objectives are specified, priority area leaders are appointed and progress throughout the year is monitored.

The main strategic risks facing the organisational units are discussed in the quarterly meetings between the managing directors and the Executive Board.

Furthermore, multi-year projections for Wageningen University are formulated and shared with the Supervisory Board. These give an indication of the risks associated with the growth in student numbers and support decisions for large investments, such as the Strategic Construction Plan as well as the formulation of the new Strategic Plan.

The decreasing size of the EZ contracts requires Wageningen Research to find replacement revenue. This has resulted in greater acquisition efforts, but has also led to projects with less favourable conditions being accepted, for instance with lower rates and the requirement for supplementary co-funding. An additional problem is that in a number of research fields such as environment, living environment, social development and development cooperation, too much of the turnover consists of subsidies, for which only part of the costs will be reimbursed. Without proper core funding, it is hardly possible to break even working in these research areas. A positive result can only be achieved if the project portfolio is sufficiently balanced and if the human resource capacity adjusts to these changes in a timely fashion. In 2016, these efforts were insufficiently successful at Wageningen Environmental Research, resulting in a loss for this division and significant adjustments in the operational management. The Executive Board is closely monitoring developments for this division.

Following the termination of the introduction of the new student information system (SIS), the Executive Board issued a recommendation on the approach to computerisation projects by Wageningen University & Research and the improvement possibilities in this regard. On the basis of this advice, the following measures were taken:

- Strengthening the architecture board and the role of the Information Policy Manager;
- Strengthening the IT organisation with two business analysts;
- Establishing a finance-oriented, quality-assurance position (0.5 FTE) at Corporate Finance & Control;
- For large IT projects, project staff are freed up with a more specific task description than has been the case.

2.9.2.2 Risk Committee

WUR's Risk Committee, which is formed by the member of the Executive Board charged with operational management (President), the directors of Corporate Governance & Legal Services and Corporate Finance & Control, the Compliance Officer and the Internal Control team leader, convened once in 2016. In this meeting, the recommendations of the auditor and IT risks (Data Leaks Act, OZON exercise) were discussed.

2.9.2.3 Operational risks

In order to implement the proposed policy, Wageningen University & Research has instituted managerial measures to separate the functions, process design, procedures and controls to ensure that they function properly. In this regard, a planning and control cycle is an effective tool to help steer both management and directors. WUR's Planning and Control Cycle includes the following:

- Annually drawing up a framework letter (multi-annual framework) to define the tasks for upcoming financial year;
- Formulation of an annual budget statement for each unit;
- Quarterly reports on the performance, balance sheet developments and risks;
- Monthly monitoring of financial and liquidity developments per organisational unit and department (Early Warning System). These reports are an integral part of discussions between the Executive Board and the managing directors;
- The Budget Allocation and Project System (BAPS) was introduced for the Ministry of Economic Affairs (EZ) project budgets. BAPS is used to inform cluster leaders and financial departments about the depletion of the Ministry's project budgets;
- Recalculation of the cost per business unit. Deviations from previous years are declared and disclosed. Deviations from the previous year were clarified or explained.

Within Wageningen University & Research, an Interest Committee convenes once every quarter under the direction of a member of the Executive Board. This committee assesses the liquidity management of the past period. It also outlines the policy and procedure for making use of surplus liquidity in the following quarter. The treasury regulations are the applicable framework here.

In 2016, efforts were made to improve the internal control of the organisation's financial operations under the remit of the Financial Accounting and Internal Control department. This department not only draws up guidelines, but also independently monitors whether the decentralised units adhere to them. The major concerns with respect to the internal control are the tax compliance and the quality of the project management.

A great deal of effort is required by the organisation to comply with the tax laws. Topics covered in 2016 were the introduction of the labour costs regulations, a VAT audit by the tax office, and preparing for the introduction of corporation tax at Wageningen Research. The VAT audit related to the reclaimed taxes was concluded. The tax authorities' questions regarding VAT payable have yet to be answered, but provisions have already been made in anticipation of the outcome of the audit. The Executive Board recognised that, given the increasing fiscalisation within our domain, investments need to be made to further ensure fiscal accuracy and, therefore, decided to appoint a tax controller in 2016.

The internal control of the grant projects continues to demand a lot of attention from the organisation. To meet the increasingly stringent requirements of funding providers, a great deal of investment is being made in improving project control through training programmes, but also by recruiting new employees with a higher level of education. Furthermore, under the direction of the Corporate Staff, efforts are carried out on the further standardisation of the instruments for project management and the implementation of the internal control of the projects has been centralised.

2.9.2.4 Legal compliance

A great deal of effort is required by the organisation to comply with the tax laws. Topics covered in 2016 were the introduction of the labour costs regulations, a VAT audit by the tax office, and preparing for the introduction of corporation tax at Wageningen Research. The VAT audit related to the reclaimed taxes was concluded. The tax authorities' questions regarding VAT payable have yet to be answered, but provisions have already been made in anticipation of the outcome of the audit. The

Executive Board recognised that, given the increasing fiscalisation within our domain, investments need to be made to further ensure fiscal accuracy and, therefore, decided to appoint a tax controller in 2016.

The public procurement legislation and the increased control of this makes high demands on the quality of the purchasing process. On the one hand, this calls for the timely identification and tendering of purchases that should be put out to tender on the basis of national or EU procurement directives and, on the other, for careful documentation of the legality of the other purchases. This matter is complex and requires an adequate information system and intensive management of the purchasing process. In 2016, WUR was unable to sufficiently demonstrate the legitimacy of private purchases and, as a result, for approximately €9 million worth of purchases it cannot be established whether these purchases have been made lawfully. In 2015, the auditors found that some product groups were erroneously not put out to tender. The calls for tender for these were launched in 2016. All purchases in these product groups until the contract is awarded through the tender process are illegitimate. A contract award process requires a significant amount of time. For 2016, these illegitimate purchase amounted to €2.5 million and WUR expects that, in 2017, there some processing time will still be required for the tender process of these product groups. Not fully meeting the procurement rules at Wageningen University does not result in a violation of the standard that would cause an auditor to impose a limitation on the auditor's report in regard to the specific topic of legal compliance. However, at Wageningen Research this is the case due to the relatively low level of tolerance stipulated in the control protocol in comparison with Wageningen University.

WUR is undertaking a number of actions in order to guarantee and demonstrate the legality of its purchases. This involves the use of business intelligence, so risky purchases are easier to detect and buyers are better supported in their choice of the appropriate purchasing procedure. In addition, the purchasing department will be given more of a leading role in ensuring that procurement obligations are actually adhered to and that the choices are adequately documented.

2.9.2.5 Looking ahead to 2017

The risk profile of Wageningen University & Research will increase significantly in the coming years. This is due to the growing government cutbacks in funding for Wageningen University, the declining government contribution to applied research which is placing additional pressure on acquisition in the contract research market, the increasingly strict conditions and checks from our most important funding providers, growing legislation and the developments in real estate. At the same time, society and our own organisation expects the support processes to be as efficient and cost-effective as possible so as to free up as much funding as possible to be channelled to the primary tasks. At times, these two objectives (more compliance vs. less overhead) are at odds with each other. Therefore, the further development of the risk management process is needed. As such, it is especially important that risks are detected and discussed by the relevant management transparently and in a timely fashion. Making this possible requires the further development of the support departments.

The most important attention areas for 2017 are:

- Improving the management of IT projects according to the external recommendation.
- Strengthening the management of the EZ subsidies, including the top sectors. Introducing the new subsidy scheme for the TO2 institutes, while accounting for that fact that the alignment with the top sectors regarding the financial accountability requires central coordination. On a tactical and operational level, the staff departments Corporate Finance and Strategic Accounts will together shape the coordination with the EZ. This guarantees the coordination of the substantive and financial aspects.
- Further improving the tax control through the tax controller appointed in 2016. The focus in 2016 was primarily on establishing the tax processes and the administrative documentation. In 2017, the will focus will be on the internal control of the processes to ensure proper execution. In addition, attention will be given to the developments surrounding the DBA act.
- Strengthening the project control through the centralisation of the development of the project control function and through the centralisation of the internal control of projects. Special attention is required for coordination projects, in which WUR acts as the coordinator and is responsible for the execution of complicated projects often with dozens of partners in Europe and elsewhere. The

management of these projects requires a lot of effort from WUR and carries risks if partners do not meet grant conditions, with no adequate compensation to compensate for this.

- Paying attention to the cultural aspects within the organisation. Organisations in a dynamic environment require an open culture with sufficient, in-built checks and balances. This prevents tunnel vision. For an open culture, it is necessary that management gives sufficient space to the staff departments, and particularly the controller, thus involving their independent opinion in the decision-making. This requires the controller to have a strong role and management to be willing to hear other opinions. The Executive Board is of the opinion that the checks and balances generally function properly, but feels that it is important to pay additional attention to this in the coming year.
- Improving compliance with national and EU public procurement rules.

These improvement projects are set up and implemented in close consultation with the financial departments and the operational managers.

2.10 Economic performance indicators

2.10.1 Direct economic value

Wageningen University & Research is a non-profit organisation. Positive returns are added to the organisation's reserves. The below table shows the turnover from Wageningen University & Research's main markets, divided between its two legal entities, Wageningen University and Wageningen Research. For more details and a substantiation of these key figures, refer to the Annual Financial Report (Chapter 3).

Key Figures Wageningen University & Research

	2014	2015	2016
Research turnover Wageningen Research (WR) (in € millions)			
Contract research	112.1	98.2	92.4
Top sectors (including EZ funding)	51.3	55.1	55.4
Matching market and NWO	31.3	28.1	29.2
EZ Ministry programme research (excluding top sectors)	89.0	83.9	82.3
Wageningen University turnover (in € millions)			
Direct and indirect government funding	219.4	228.7	243.0
Contract funding turnover	79.6	66.3	60.1
Solvency as percentage of total assets			
Wageningen Research	53.4	55.7	55.5
Wageningen University	43.8	40.9	42.8

2.10.1.1 Pensions

Pension provision for the whole of Wageningen University & Research has been taken out with ABP. Pension accumulation takes place on the basis of the average earnings system (*middelloodsysteem*). Indexation will take place if the required coverage of 104.2% is reached.

In the fourth quarter, the financial situation of ABP improved considerably. The current coverage ratio rose to 96.6%. That level is well above the critical threshold at which pensions would be reduced, but also below the required coverage ratio. The improved financial situation is primarily due to the interest rate development in the fourth quarter. Due to the increase in interest rates, obligations decreased by €25 billion. Furthermore, a return of 9.5% was also achieved in 2016. The ABP now expects that it is unlikely that it will be able to increase the pensions in the coming five years. There is still a chance that the ABP will have to lower the pensions in 2018 or in the coming years. This will be relevant if, in late 2017, the current coverage ratio falls below the critical threshold, or if the policy coverage ratio remains under the required level of 104.2% up until 2020.

There was no obligation to make up any shortfall as a result of ABP's coverage ratio. This is why no provisions have been made.

2.10.1.2 Government funding

Wageningen University & Research receives financial support from the government. The amounts received in 2016 are shown in Table 2.26.

Table 2.26 Overview of government funding – Wageningen University & Research (in € millions).

Legal entity	Type of funding	Income	Government contribution
Wageningen University	Direct government funding	182.4	182.4
	Direct government funding and research funding (including targeted subsidies)	88.3	28.3
	Tuition and course fees	32.3	
	Other income	26.2	2.3
Wageningen Research	Research programmes EZ Ministry	120.9	52.4
	Contract research	138.5	7.8
	Other income	41.5	2.3
Total		630.1	276.5

Funding from the central government consists of funds provided by the government but from which it does not benefit directly. This includes government funding for education and research of Wageningen University, the contribution from the EZ ministry for knowledge base research and top sectors, funding via contract research (NWO), the TKI supplement for top sectors and other subsidies.

Wageningen University & Research receives common agricultural subsidies for its testing facilities. Wageningen Research receives funding for its wind turbine parks. This funding is listed under other income.

2.11 Wageningen University & Research Continuity Section

In accordance with the guidelines set down by the Ministry of Education, Culture and Science, the Continuity Section is part of Wageningen University's Annual Report. For the financial outlook for Wageningen Research in 2017, refer to the Wageningen Research Annual Financial Report.

Table 2.27 Key figures for Wageningen University, forecast for 2017-2020 (price index 2016)

	2016	2017	2018	2019	2020
Direct government funding (in € millions)	182.4	185.7	189.4	193.1	197.0
Tuition fees (in € millions)	32.3	38.8	41.4	43.3	44.8
Direct government funding and research funding (including targeted subsidies) (in € millions)	88.3	78.0	78.0	78.0	78.0
Investments (in € millions)	16.3	14.7	16.0	33.9	33.5
Average number of employees at WU (FTE)	2,654	2,661	2,749	2,837	2,905
External PhD candidates	512	512	512	512	512
Total staff	3,166	3,173	3,261	3,349	3,417
Support staff (%)	5.1	5.1	5.1	5.1	5.1
Overhead staff (%)	18.1	18.1	18.1	18.1	18.1
Primary staff (%)	76.8	76.8	76.8	76.8	76.8
Number of enrolled BSc and MSc students	10,775	11,550	12,543	13,454	14,197
Number of WISE PhD degrees obtained	287	310	285	310	280
Net result (in € millions)	-2.5	0.0	1.7	0.0	-0.2
WU ASSETS					
Capital invested in fixed assets (in € millions)	258.7	252.9	247.7	261.8	275.7
Internal capital (in € millions)	151.2	151.6	153.4	153.4	153.2
Total capital (in € millions)	353.1	349.9	350.5	349.7	349.4
Solvency ratio (%)	42.8	43.3	43.9	43.9	44.4
WU LIQUIDITY					
Liquid assets (in € millions)	44.9	43.0	48.8	33.9	19.7
Current ratio	0.55	0.55	0.59	0.50	0.42

*Amounts in € millions

2.11.1.1 Principles of the financial policy

Wageningen University policy is determined by two potentially conflicting principles. On the one hand, the aim of Wageningen University is the long-term continuation of the current healthy financial position, which can be achieved through an annual balance in the profit and loss statement. It is also necessary to maintain sufficient resources in the long-term for investments and risk coverage. On the other hand, Wageningen University believes it is essential to preserve the quality of education and, therefore, increase spending along with the growing student numbers. Since the university's expenses have been increasing for several years now due to rising student numbers, while government funding has not kept pace due to the funding cap, the financial results in the coming years will continue to be under considerable pressure. Wageningen University has chosen to accept this negative result for the time being, provided the solvency ratio in the long-term does not fall below 40% and at no time below 35%.

For the time being we assume that Wageningen University will continue to be financed from the Ministry of Economic Affairs. At present a possible transition of the Green Education, including Wageningen University, to the Ministry of Education, Culture and Science is being examined.

In relation to investments, Wageningen University has adopted a cautious policy. In the context of the Strategic Construction Plan, two educational buildings have been constructed, along with sufficient housing for all the departments to be located on or near the campus. To accommodate the further growth of student numbers, investments are being kept to a minimum in order to avoid vacancies in the event of a drop in student numbers and because the university would rather spend the available resources on lecturers instead of buildings. Since student number are expected to continue to increase, this compels us to develop plans for how to use the existing spaces even more effectively and it is being determined whether modifications in the building portfolio are needed. This last consideration also involves the planned partial disposal of outdated education buildings on De Dreijen.

The development of the decision-making at the ministerial level to resolve the restrictive government funding will also play a role in this. In this context, additional investments are projected from 2019.

2.11.1.2 Student numbers and direct government funding

The growth of student numbers is expected to continue in the coming years. Wageningen University expects that the influx of BSc students in 2017 will increase by 10%. In the coming years, a further increase in the BSc influx is expected, albeit with somewhat lower growth rates. The external influx to the MSc programmes from international students is also expected to grow in the coming years by 5% annually.

This growth makes it necessary to employ additional teaching and supervisory staff. The Ministry of Economic Affairs has instituted an annual maximum funding cap of (+/-) 2% change in the funding model for Wageningen University. This funding cap has led to a significantly lower level of direct government funding than what Wageningen University would have been entitled to on the basis of the growth in student numbers and PhD candidates. The expectation is that the rising costs due to the increase in the primary process (the expected growth in student numbers for the period 2016-2019 is 25%) will surpass the funding from the Ministry of Economic Affairs which, due to the funding cap, will only increase by a maximum of 6% over this period. Thanks to all the measures already taken, the losses in recent years have remained manageable. However, with the sharp increase in the primary process together with government budget cuts and the above-mentioned funding cap on the growth of direct government funding (*Rijksbijdrage*), it is expected that the resulting funding imbalance will continue to be a significant strain on Wageningen University's operations in the coming period. This might also partially affect the way the education will be given.

In the 2017-2020 period, Wageningen University is expected to invest a total of €98.1 million in buildings, equipment and inventory. Wageningen University will be able to finance these investments through its operational cashflow, which will be approximately €21 million a year in the coming years, and from the liquid assets available on 31-12-2016. The solvency ratio will remain more or less stable in the coming years at 44%.

2.11.1.3 Other developments

Wageningen University is working on finding ways to add value to fixed assets that have become redundant as a result of the new Strategic Construction Plan. It is still uncertain when the value creation plans will lead to concrete sales. In the multi-year plan, a book profit of €1.6 million has been estimated for 2018. With the measures taken, it is expected that Wageningen University will achieve a balanced to slightly negative result without value creation and without up-scaling.

BALANCE SHEET FOR WAGENINGEN UNIVERSITY, FORECAST 2016-2020 (in € millions)

	2016	2017	2018	2019	2020
Fixed assets	258.7	252.9	247.7	261.8	275.7
Inventory and current assets	49.5	54.0	54.0	54.0	54.0
Liquid assets	44.9	43.0	48.8	33.9	19.7
Total Assets	353.1	349.9	350.5	349.7	349.4
Internal capital	151.2	151.6	153.4	153.4	153.2
Facilities and provisions	29.2	22.8	22.1	21.6	21.1
Long-term Debt	0.0	0.0	0.0	0.0	0.0
Short-term debt	172.7	175.5	175.0	174.7	175.1
TOTAL LIABILITIES	353.1	349.9	350.5	349.7	349.4

PROFIT AND LOSS STATEMENT FOR WAGENINGEN UNIVERSITY, FORECAST 2016-2020 (in € millions)

	2016	2017	2018	2019	2020
INCOME					
Direct government funding	182.4	183.4	187.1	190.8	194.7
Tuition fees	32.3	38.8	41.4	43.3	44.8
Research funding and targeted subsidies	28.3	29.3	29.3	29.3	29.3
Co-funding and subsidies	18.9	17.0	17.0	17.0	17.0
Contract research	41.1	34.0	34.0	34.0	34.0
Secondary activities and other income	22.5	20.2	20.6	20.5	20.5
Total income	325.5	322.7	329.4	334.9	340.3
EXPENDITURES					
Personnel costs	196.4	195.4	201.9	208.3	213.3
Depreciation	26.9	22.7	21.2	19.8	19.7
Accommodation costs	26.4	25.3	25.7	27.4	28.4
General costs	39.6	37.7	38.6	38.0	37.9
Specific costs	41.6	41.9	41.9	41.9	41.9
Total expenditures	330.9	323.0	329.3	335.4	341.2
Operating result	-5.4	-0.3	0.1	-0.5	-0.9
Financial income and expenditures	-0.7	0.0	0.0	0.0	0.0
Result from operational activities before tax	-6.1	-0.3	0.1	-0.5	-0.9
Third-party share and value added	3.4	0.3	1.6	0.5	0.7
Net result	-2.7	0.0	1.7	0.0	-0.2

2.11.1.4 Risks and uncertainties

Developments in student numbers crucially impact the financial operations of Wageningen University. In recent years, student influx has grown steadily and further growth is expected on the basis of interest from potential students. Wageningen University's multi-year plan is based on accommodating the growing student population. On the one hand, this means a required growth in the number of lecturers and the funds invested in educational spaces. On the other hand, it calls for higher government funding. Stronger growth than expected in student numbers could lead to a shortage of available classrooms. Wageningen University can accommodate this by extending its use of the educational facilities in the Dreijen complex and by utilising available buildings more efficiently. Lower growth than planned could lead to vacancies in educational spaces. This is why Wageningen University is cautious about investing in additional educational facilities and will strive to find solutions that offer maximum flexibility in light of the possible scenario of a lower than expected student influx.

So far, Wageningen University is able to finance the necessary investments for the 2017-2020 period entirely from the operational cash flow. No provisions have been made during this period for further large-scale construction to accommodate the continued growth of student numbers.

In conjunction with the continued stagnation in the real estate market and in order to exercise caution, multi-year projections have only accounted for very limited sales proceeds from the fixed assets that are to be sold, although a number of sales have been planned for this period.

The multi-year projections also take into account the currently known direct government funding and the cuts to that funding. Additional reductions in government funding as a result of future government policy or an adjustment of the parameters of the funding model have not been included in the calculations.

2.12 Report criteria and scope

2.12.1 Consolidated report

The Wageningen University & Research Annual Report presents the organisation's performance, the social impact of this performance and the consolidated financial results. Both Wageningen University and Wageningen Research have a social function. Sustainability and corporate social responsibility are an integral part of the business operations of WUR.

2.12.2 Report criteria

This annual report has been prepared in accordance with the internationally accepted guidelines of the Global Reporting Initiative (GRI). The GRI guidelines state that the purpose of a report is as follows:

"Sustainability reporting involves the measurement and publishing of the performance of an organisation with respect to the goal of sustainable development, as well as the accountability of this to internal and external stakeholders. Sustainability reporting is a broad term considered to be synonymous with other terms that are used to describe reporting on economic, environmental and social consequences."

In its reports, Wageningen University & Research uses the guidelines from the Global Reporting Initiative (GRI). Reporting is done in accordance with the GRI "core" application level. A full overview of GRI indicators and related data is found in the [WUR CSR Report for 2016](#).

The external auditor will provide a report on the accuracy of the financial statements. Reporting on sustainability has not been externally audited. Data collection, accuracy, and control processes within Wageningen University & Research are subject to stringent quality assurance measures, including through internal audits and ISO certification.

2.12.3 Scope

With regards to the accountability for the societal impact of Wageningen University & Research, in setting the limitations and scope of this report, the materiality analysis was leading. In this analysis, relevant and material topics were determined on the basis of the Strategic Plan for the 2015-2018 period. Through identification, prioritisation and validation, these topics were then assessed on the basis of their significance both for stakeholders and for Wageningen University & Research. This Annual Report focuses on these material topics.

Material topics are topics that are important for our internal and external stakeholders and in which our organisation can make a real difference. As much as possible, the material topics were determined in dialogue with our stakeholders, who are then also invited to comment on our CSR report.

This report covers the 2016 fiscal year. Because the majority of the activities of Wageningen University and Wageningen Research take place in the Netherlands, the sustainability reporting focuses on the activities in the Netherlands.

3 Abridged Wageningen University & Research Annual Financial Report

3.1 Wageningen University

3.1.1 Abridged Wageningen University Annual Financial Report

This annual report includes the abridged Wageningen University Annual Financial Report. The abridged annual financial report is directly derived from the full Wageningen University Annual Financial Report for 2016. The abridged annual financial report does not contain all the explanations required by law. The full Wageningen University Annual Financial Report for 2016 can be found on the Wageningen University & Research website.

3.1.1.1 Results and balance developments

Results developments

In 2016, Wageningen University recorded a result of -€2.5 million, which is a decrease of €0.8 million in comparison to 2015. This result consists of a loss of €0.1 million originating from the departments and a loss of €0.7 million from the central divisions.

Table 3.1 Wageningen University results (in € millions)

	2016	2015
Departments	-1.3	-1.2
Central departments:		
- Operational result	3.9	3.1
- Incidental results	-5.0	-4.1
- Addition made to the appropriated reserve for project costs in later years	-0.1	0.5
Net result based on the Ministry of Education, Culture and Science (OCW) guidelines	-2.5	-1.7

The departments achieved a joint annual result of -€1.3 million, which is a decrease of €0.1 million in comparison to 2015. The Department of Environmental Sciences (DES) and Agrotechnology and Food Sciences achieved negative results, while the other departments achieved positive results.

The operating result of the central departments amounted to €3.9 million. This is €0.8 million higher than in 2015. This is due to lower spending on corporate activities and strategic resources.

In addition, the Executive Board and Corporate Staff processed a number of incidental result entries (-€5.0 million). This concerns provisions related to fiscal investigations and other staffing facilities, costs of asbestos removal by Biotechnion, impairments of assets (SIS, Centre for Small Experimental Animals) and sales profits of excess real estate.

As prescribed in the regulations, direct government funding is calculated as income by Wageningen University. Income related to project costs that will be incurred in later years is calculated as income in the review year and a write-down in later years. The distortion this causes is neutralised via the appropriated reserve. In accordance with this approach, €0.1 million of the result was extracted from this appropriated reserve in 2016.

Revenue and costs developments

Revenue in 2016 increased by €10.1 million. The basic funding (government funding excluding earmarked funds and tuition fees) rose from €201.9 million to €214.7 million.

The government funding from EZ increased by €8.6 million in 2016 in comparison to 2015. The increase in government funding was due to the funding granted based on performance agreements with the Ministry of Economic Affairs (€0.2 million), the structural inclusion of the funding for the Physics and Chemistry sector plan in government funding (€0.2 million), additional funding for the NAHI (€0.1 million), wage adjustment (€3.0 million), an increase in the funding due to variable funding parameters for enrolments/degrees/PhDs (€6.3 million) and a reduction of the funding cap (€0.8 million). The decrease in government funding was due to cuts related to various targets from coalition agreements (total -€2.0 million). The funding cap for 2016 was -€8.7 million.

The income from work for third parties decreased by 5% to €88.4 million. This income consists of programme research funding (research funding and targeted subsidies), which increased by 6% to €28.3 million; co-funding projects and matching market funding, which decreased by 8% to €18.9 million; and contract research and top sectors, which decreased by 10% to € 41.1 million.

In comparison to 2015, staff expenses increased by €2.1 million to €196.6 million. This change is due to a lower number of staff (-5 FTE) and 1.1% higher salary costs per FTE. The number of staff decreased in 2015 from 2,659 FTE to 2,654 FTE.

Balance Developments

The liquidity of Wageningen University increased in 2016 from €39.6 million to €44.9 million. The factors that affected this drop in liquidity are listed in Table 3.2

Table 3.2 *Wageningen University liquidity overview (in € millions)*

	2016
Result	-2.5
Decrease in fixed assets (investments minus depreciation and sales)	20.6
Increase in short-term debt and receivables	-13.3
Increase in provisions	1.9
Decrease in long-term debt**	-1.4
Total change in cash and cash equivalents	5.3

** short-term bank debt of €17 million related to the loan repayment on 3 January 2017 is included under the long-term debt

The decrease in fixed assets is caused because there are currently no large investment projects. In addition, €10.0 million in assets were sold. The decrease in short-term receivables is mainly due to a lower work in progress position. The total liquidity of €44.9 million includes advances (short-term debts) of €103.1 million, of which €8.4 million are funds to be passed on to partners. These funds to be passed on to partners were received because Wageningen University is the lead party for a number of consortia. These funds will be passed on to the partners in early 2017. Without the increase in funds to be passed on to partners, the increase in liquidity is €3.1 million.

Wageningen University's solvency ratio was 42.8% on 31 December 2016, compared to 41.0% in 2015.

Changes in the legal structure and capital stake

There are no changes in the legal structure and capital stake in 2016

Prospects for 2017

Wageningen University expects to achieve a result of €0.0 million in 2017. The result remains under pressure due to the increasing student numbers. This will result in additional costs, while government funding has failed to keep up due to the funding cap.

Turnover will drop to €323.0 million in 2017. This €6.7 million decrease is caused by an increase in basic funding of €7.5 million to €222.2 million and a decrease in research funding and contract

research funding of €8.0 million to €80.3 million. Other income will decrease by €6.2 million to €20.5 million due to the removal of the 2016 sales profit from Kortenoord.

Government funding will increase by €3.3 million to €185.7 million. As in 2014-2016, Wageningen University will be affected by a funding cap of 2% on the annual growth in government funding in 2017. Due to increased funding parameters, the change in government funding will exceed the 2% maximum in 2014 to 2017. The cap will amount to approximately -€10.2 million in 2017 based on the provisional government funding calculations. This takes into account cutbacks in profiling funding from performance-based funding (-€1.4 million) and various targets in the coalition agreement (-€0.5 million).

Tuition fees will increase by €6.5 million to €38.8 million due to the rise in student numbers. The total population of Bachelor's and Master's students will increase from 10,775 students in October 2016 to an estimated 11,550 students in October 2017.

The direct personnel costs will increase by €1.4 million to €180.7 through a 7 FTE decrease in the staffing level and a 0.5% rise in the average salary costs due to access and wage costs development.

Depreciation will decrease by €4.2 million due to the disappearance of the one-off impairment in 2016 from the termination of the introduction of the new Student Information System in that year. No impairments are expected for 2017.

The liquidity will remain practically the same at €43.0 million. The scheduled loan repayment in 2017 of €10.0 million can be covered from the cash flow. With a cash position of €43.0 million, the continuity of business operations in 2017 is guaranteed. Wageningen University also has the option of requesting collegial funding from Wageningen Research.

The investment activities for Wageningen University have been budgeted at €14.7 million and thus remain within the investment ceiling set for 2017, where investment spending is lower than the balance of regular depreciation plus the net result (€22.7 million in total).

For further information on the development of the results in the coming four years, we refer to the continuity section in the Annual Report.

3.1.1.2 Abridged Wageningen University Annual Financial Report

CONSOLIDATED BALANCE SHEET AFTER THE ALLOCATION OF THE NET RESULT (IN €1,000)

	31-12-2016	31-12-2015
ASSETS		
FIXED ASSETS		
Intangible fixed assets	1,526	5,479
Tangible fixed assets	256,872	273,565
Financial fixed assets	267	581
Total fixed assets	258,665	279,625
CURRENT ASSETS		
Inventory	68	62
Receivables and prepayments	49,466	56,040
Liquid assets	44,867	39,612
Total current assets	94,401	95,714
TOTAL ASSETS	353,066	375,339
CAPITAL AND LIABILITIES		
INTERNAL CAPITAL		
General reserve	143,089	145,469
Designated reserve	8,106	8,204
TOTAL INTERNAL CAPITAL	151,195	153,673
EQUALISATION ACCOUNT	7,107	8,488
PROVISIONS	22,064	20,194
LONG-TERM DEBT	0	17,008
SHORT-TERM DEBT	172,700	175,976
TOTAL LIABILITIES	353,066	375,339

CONSOLIDATED PROFIT AND LOSS STATEMENT (IN €1,000)

	Actual 2016	Budgeted for 2016	Actual 2015
INCOME			
Direct government funding	182,359	178,000	173,674
Tuition fees	32,320	33,400	28,208
Research funding and targeted subsidies	28,290	27,000	26,814
Co-funding and matching market revenues	18,941	21,200	20,541
Top Sectors	1,309	400	1,202
Bilateral market	39,827	35,400	44,505
Secondary activities	17,987	17,000	20,165
Other income	10,022	9,500	5,865
Total income	331,055	321,900	320,974
EXPENDITURES			
Personnel costs	196,574	190,300	194,455
Depreciation	26,962	25,400	20,415
Accommodation costs	26,407	26,500	27,565
General costs	40,724	40,000	36,631
Specific costs	41,884	41,700	43,125
Total expenditures	332,551	323,900	322,191
OPERATING RESULT	-1,496	-2,000	-1,217
Financial income and expenditures	-708	-500	-500
RESULT FROM OPERATIONAL ACTIVITIES BEFORE TAX	-2,204	-2,500	-1,717
Taxation on operational activities	0	0	0
Result from participating interests	-299	0	-29
RESULT FROM OPERATIONAL ACTIVITIES AFTER TAX	-2,503	-2,500	-1,746
Third-party share	0	0	0
Exceptional income and expenditures	0	0	0
NET RESULT	-2,503	-2,500	-1,746

CONSOLIDATED CASH FLOW STATEMENT (*IN €1,000)

	2016	2015
OPERATIONAL ACTIVITIES		
Operating result	-1,496	-1,217
Depreciation and impairments	26,962	20,415
	25,466	19,198
Change in provisions	1,870	2,480
Change in inventory	-6	66
Change in receivables	6,576	-8,261
Change in short-term debt	-20,275	19,875
Cash flow from investment activities	13,631	33,358
Interest received	63	600
Interest paid	-771	-1,100
Cash flow from operational activities	12,923	32,858
INVESTMENT ACTIVITIES		
Investments in intangible assets	-1,500	-3,985
Investments in buildings and sites (incl. WIU)	-3,972	-10,961
Investments in other tangible assets	-10,852	-9,673
Investments in participating interests and members' capital	13	-4
Divestments of fixed assets	10,006	220
Cash flow from investment activities	-6,305	-24,403
FINANCING ACTIVITIES		
Newly acquired loans	0	17,000
Repayment of long-term debt	-7	-15,230
Changes to equalisation account	-1,381	-1,980
Changes to internal capital	25	0
Cash flow from financing activities	-1,363	-210
CASH FLOW	5,681	8,245
CHANGE IN LIQUID ASSETS		
Balance of liquid assets on 1 January	39,612	31,367
Balance of liquid assets on 31 December	44,867	39,612
Change in liquid assets	5,681	8,245

3.1.1.3 Accounting Principles

General

The annual accounts were prepared and validated by the Executive Board on 20 April 2017. The annual financial report was prepared in accordance with the below accounting principles. Any departure from these principles is stated alongside the relevant financial information.

The settlements and debt ratios between the various members of the group (which are referred to as inter-group payments) have been eliminated. The figures for the previous financial year are in accordance with the figures in the annual financial report of the relevant year. Variations may arise as a result of corrections, shifts between items or changes in the rounding-off method. Variations of relevant significance are indicated in the annual financial report.

General accounting principles for the preparation of the annual financial report

Wageningen University is part of a group that also comprises WU Holding, ISRIC Foundation, Restaurant van de Toekomst Foundation and Expat Center Foundation.

The annual financial report is prepared according to the historical cost model. Unless otherwise stated, assets and liabilities are calculated at nominal value.

Monetary assets and liabilities in foreign currencies are converted at the exchange rate on the balance sheet date.

Exchange rate differences are included in the profit and loss statement. Revenues and expenses in foreign currency are included in the profit and loss statement at the exchange rate on the date of receipt or payment.

The annual financial report was prepared in accordance with Annual Accounts Regulations for Educational Institutions (*Regeling Jaarverslaggeving Onderwijs*), the Netherlands Civil Code, Book 2, Title 9 and the Guidelines for Annual Reporting (*Richtlijnen voor de Jaarverslaggeving*).

Use of estimates

The preparation of the annual accounts demands that the board draw conclusions and makes estimates and assumptions that affect the accounting principles and reported value of fixed assets and obligations, as well as of income and expenditures. The actual outcome will deviate from these estimates. The estimates and underlying motivations are continually evaluated. Adjustments to estimates are implemented in the period during which the adjustment is made as well as the following periods that are affected by this adjustment. The principal items subject to estimates are:

- Valuation and life span of fixed assets
- Provisions of receivables and projects
- Provisions
- Claims

Consolidation

The consolidated reports incorporate the annual accounts of the institution, its subsidiaries and other organisations over which the institution exercises control (pursuant to the actual situation) or central management. The subsidiaries are legal entities directly or indirectly controlled by Wageningen University, given that the institution possesses the majority of the voting rights or can control the financial and operational activities in some other manner. Also taken into account are potential voting rights that may be exercised directly on the balance sheet date.

The annual accounts of Wageningen University, its subsidiaries and other organisations over which the institution exercises control (pursuant to the actual situation) or central management are fully incorporated into the consolidated financial report. Third party shares with respect to internal capital and the group result are reported separately.

Table 3.3 Consolidated participating interests

	Shareholder	Registered office	%	%
			31-12-2015	31-12-2016
Wageningen Universiteit Holding BV	Wageningen University	Wageningen	100	100
ISRIC Foundation	N/A	Wageningen	N/A	N/A
Restaurant van de Toekomst Foundation	N/A	Wageningen	N/A	N/A
Expat Center Foundation	N/A	Wageningen	N/A	N/A

Table 3.4 Non-consolidated participating interests

	Registered office	%	%
		31-12-2015	31-12-2016
CanIT BV	Wageningen	35	35
Ceradis BV	Wageningen	14	7
Bio-Product BV	Wageningen	5	5
Surfix BV	Wageningen	13	13
Green Dino BV	Wageningen	11	11
KLV Professional Match BV	Wageningen	5	5

Accounting policies for asset and liability valuation

Intangible fixed assets – Development costs, patents and licences, software, goodwill and production rights are not capitalised unless they are purchased from third parties or the production costs can be reliably established. In addition, the intangible fixed asset must be capable of generating future economic benefits. Intangible fixed assets are valued at acquisition or production cost. Amortisation is applied in proportion to the realisation of the forecast revenue over five years. When revenue realisation cannot be reliably determined, the straight line method is used. Pursuant to statutory obligations, a statutory reserve is maintained for the capitalised amount of development costs. Write-offs as a result of impairment, sale, loss or discontinuation are listed separately.

Tangible fixed assets – Tangible fixed assets are valued at acquisition price or production cost with the deduction of accumulated depreciation. Depreciation is applied using the straight line method on the basis of the estimated useful life and the residual value. Depreciation is proportionally applied in the purchase year.

Tangible fixed assets under construction or in production are valued at acquisition price or for the amount that has already been invoiced to the company by third parties. Investments of less than €5,000 are charged directly to the profit and loss statement.

Table 3.5 Depreciation periods

Asset type	Linear depreciation in years
Company property / Work in progress	None
Site layout and infrastructure	60
Buildings	
Shell	60
Fittings	30
Built-in equipment / furnishings	15
Greenhouses, sheds, sundry buildings / structures	15
Machinery and equipment	
Office furniture / machines and equipment / inventory of restaurant facilities / fibre optic network / other inventory	10
Laboratory equipment / audio-visual equipment / vehicles / PR and information material	5/8
ICT equipment including software (network hardware)	5
ICT equipment including software (other hardware)	4

Acquired investment subsidies and amounts from externally-financed projects are deducted from the capitalised amount in the year of purchase. Subsidies received for the purchase of assets required for the primary operations are shown as liabilities and are released during the useful life of the asset.

The institution carries out an evaluation on each balance sheet date to determine whether there are indications that a fixed asset may be subject to an impairment. Should there be any such indications, then the realisable value of the asset is then determined. If the realisable value of the individual asset cannot be determined, then the realisable value of the cash flow generating unit to which the asset belongs is determined. An impairment is applicable when the book value of an asset is higher than the realisable value, where the realisable value is higher than the market value and the business value.

When it is determined that an impairment that was included in the past no longer exists or has decreased, then the increased book value of the asset is set no higher than the original book value would have been without the application of the impairment of the asset.

Fixed assets that are no longer usable for the primary operations are not depreciated. Write-offs as a result of impairment, sale, loss or discontinuation are listed separately.

Financial fixed assets

Participating interests and capital of members over whose business and financial policy the institution exerts a significant influence are valued at net asset value. This value is determined on the basis of the group's accounting policies for the valuation and determination of the result.

Participating interests and capital of members over whose business and financial policy the institution does not exert a significant influence are valued at acquisition cost. The valuation of these assets takes into account any permanent decline in value, where relevant.

Inventory

This item is comprised of the trading inventory, finished products, livestock and harvested agricultural produce. The trading inventory and finished products are valued in accordance with the FIFO method at the acquisition cost or production cost, including a supplement for indirect costs.

The valuation of livestock and harvested agricultural produce is based on market prices.

The value of unmarketable inventory or inventory with a lower market value is decreased accordingly.

On the basis of the average annual use in the last ten years, antisera were found that according to this calculation had been in stock longer than three years.

Semi-finished products are valued in accordance with the FIFO method at the acquisition cost or production cost, including a supplement for the indirect costs.

Receivables and prepayments

Receivables are valued at nominal value minus a provision for uncollectible debts, where relevant.

Work in progress

Work in progress for third parties is valued at the cost of the direct material use and labour, including a supplement for indirect costs. Invoiced instalments and forecast losses on projects are deducted from this balance. The result is allocated in proportion to the progress (proportion of actual costs incurred) of a project. After accounting for the prepayments that have been received, projects with a debit balance are then included under short-term receivables. Projects with a negative balance are included under the prepayments item of short-term debt.

Internal capital

Wageningen University does not distinguish between private and public capital.

- General reserve

This reserve is credited with the operating result in any year in which the result is not allocated to a specific use.

- Designated reserve

Two appropriated reserves are formed within the equity capital at corporate level:

- The innovation fund and the
- reserve for future projects to be carried out.

Provisions

The provisions are valued at nominal value, with the exception of the personnel provisions formed on the basis of RJ 271. The determination of the amount of the obligations takes account of future indexation and price increases. The amount of the provision included in the annual financial report is the best estimate of the amount that will be required to settle the relevant obligations and losses on the balance sheet date.

Provisions are created for:

- legally enforceable or actual obligations that exist on the balance sheet date;
- when it is probable that the settlement of the obligation will require an outflow of funds; and
- for which a reliable estimate can be made of the extent of those obligations.

Provision for unemployment insurance obligations

Provisions for unemployment insurance obligations are determined as the cover required for the unemployment insurance obligations on the balance sheet date and the expected future obligations in relation to personnel that have already left and personnel with a temporary employment contract.

Provision for WGA/ZW-flex

The provision for Resumption of Work for Partially Disabled Persons Act (WGA) and Sickness Benefits Act (ZW-flex) covers the obligations for which the organisation bears the risk as of 1 January 2015, as anticipated on the balance sheet date.

Other personnel provisions / Service bonuses

The anticipated obligation arising from future service bonuses is determined on the basis of historical information and withdrawals are made upon realisation. The present value is determined on the basis of the basis of the prevailing market rate of interest for Wageningen University.

Other Personnel Provisions / Pensions

The pension provider for the whole of Wageningen University & Research is the ABP. Pension accrual takes place on the basis of the average earnings system (*middelloodsysteem*). Indexation will take place if the required coverage of 104.2% is reached.

In the fourth quarter, the financial situation of the ABP improved considerably. The current coverage ratio rose to 96.6%. That level is well above the critical threshold at which pensions would be reduced, but also below the required coverage ratio. The improved financial situation is primarily due to the interest rate development in the fourth quarter. Due to the increase in interest rates, obligations decreased by €25 billion. Furthermore, a return of 9.5% was also achieved in 2016. The ABP now expects that it is unlikely that it will be able to increase the pensions in the coming five years. There is still a chance that the ABP will have to lower the pensions in 2018 or in the coming years. This will be relevant if, in late 2017, the current coverage ratio falls below the critical threshold, or if the policy coverage ratio remains under the required level of 104.2% up until 2020.

There was no obligation to make up any shortfall as a result of ABP's coverage ratio. This is why no provisions have been made.

Provision for reorganisation expenses

This provision was formed to cover anticipated costs incurred as a result of decisions regarding current or intended reorganisations that have been made and announced within the organisation.

Provision for product and contract risks

This provision covers the expected cost of loss-making contracts, guarantees and claims arising from services and products delivered to third parties.

Long-term debt

Long-term debt concerns liabilities that are due in more than one year from the end of the relevant financial year.

Short-term debt

Short-term debt concerns liabilities that are due within one year from the end of the relevant financial year.

Financial instruments

Wageningen University uses financial derivative instruments such as interest rate swaps to cover risks from interest rate fluctuations. Such financial instruments are valued at cost price at first valuation. Ineffective interest rate swaps are displayed as a loss if they result in negative results.

Wageningen University applies cost hedge accounting on the basis of generic documentation. The determination of results is as follows:

- On each balance sheet date, it is determined whether there is or has been any ineffectiveness.
- If the critical characteristics of the hedging instrument and of the hedged item are not or have not been equal, this is an indication that the cost hedge contains an ineffective component.
- Any ineffective component is determined by means of the dollar-offset method.
- If and to the extent that the ineffectiveness results in a cumulative loss on the balance sheet date, this ineffectiveness is recognised in the profit and loss statement.

Accounting policies to determine income and expenditure

General

Proceeds and costs are included as business income and expenditures that can be allocated to the relevant financial year or activity, regardless of whether they have resulted in receipts and payments during the annual reporting period.

Proceeds are included in the year in which the goods were delivered or the services were provided to clients. Losses and risks arising before the end of the financial year are taken into account when they are known before the preparation of the annual financial report.

Direct government funding and other payments

Direct government funding is included as income in the year in which the funding is received. Components of direct government funding that can be considered to have been specifically allocated are added as income to the extent to which costs have been incurred for the activity in question. Other payments are included in the result in the year in which the project is carried out or the costs are incurred.

Tuition and course fees

The tuition fees for the reporting year include the statutory tuition fees and the institutional tuition fees applicable for that year. The payments for courses for professionals are included under course fees.

Income from third-party contracted research

The proceeds from contract activities are included under "Income from third party contracted research". The income is determined on the basis of the direct costs, including a supplement for indirect costs to a maximum of the rate to be paid by the finance provider. Results are calculated in proportion to the progress of the project. The proceeds of work contracts are broken down according to programme funding (government funding and targeted subsidies), co-funding and matching market revenues and top sectors and bilateral market.

Accounting principles for the preparation of the cash flow statement

The cash flow statement was prepared using the indirect method.

System changes

Not applicable.

3.1.2 Auditor's report by the independent auditor

To: the Executive Board and the Supervisory Board of Wageningen University

The "Abridged Wageningen University Annual Financial Report" included in Chapter 3.1 of the Wageningen University & Research Annual Report 2016 consisting of a summary of the state of income and expenses and the summarised balance sheet on 31 December 2016 with accompanying notes, are derived from the audited Wageningen University Annual Financial Report for 2016. We

approved that Annual Financial Report in our auditor's report on 7 June 2017. The annual financial report and this summary of it do not include the events that took place after the date of the auditor's report on 7 June 2017.

The abridged annual financial report does not contain all the explanations required on the basis of the Annual Accounts Regulations for Educational Institutions (*Regeling Jaarverslaggeving Onderwijs*). Consulting the "Abridged Wageningen University Annual Financial Report", therefore, cannot take the place of consulting the audited and approved Wageningen University Annual Financial Report.

Management's responsibility

The management is responsible for the preparation of an abridged version of the audited annual financial report in accordance with the basic principles as used in the Wageningen University Annual Financial Report 2016.

Auditor's responsibility

Our responsibility is to draw a conclusion about this abridged annual financial report based on our audit. We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing 810, "*Opdrachten om te rapporteren betreffende samengevatte financiële overzichten*".

Our opinion

In our opinion, in all materially relevant aspects, the abridged annual financial report is consistent with the Wageningen University Annual Financial Report which was audited on 7 June 2017 and is in accordance with the basic principles as used in the Wageningen University Annual Financial Report 2016.

Arnhem, 7 June 2017
Ernst & Young Accountants LLP

F. de Bruijn RA

Appendix 1 Clarifications

Outsourcing of one or more components of CROHO Registered Study Programme(s) to a Private Organisation (+ costs)

Wageningen University does not outsource activities in the sense referred to above. Any outside expertise contracted for teaching (for example, as a consequence of the earlier “division of duties and concentration” operations) is contracted from higher education institution partners and not from private institutions.

Customised programmes for companies / organisations

Wageningen University does not provide any customised programmes for companies and/or organisations in the form of CROHO registered courses leading to a certificate. Customisation in the form of post-initial courses is provided under the Wageningen University & Research umbrella by the Centre for Development and Innovation (CDI) and Wageningen Academy (WA).

Exchange agreements

Wageningen University has exchange agreements with 171 institutions. The total number of incoming students is 346 and the total number of outgoing students is 543.

Allocation of direct government funding for private activities

Wageningen University allocates a small portion of the direct government funding to the following private activities:

- Post-initial education relating to establishing new study programmes and transferring knowledge to society;
- Student facilities such as sports and training activities;
- Student accommodation for international MSc students. Although the provision of student accommodation is not one of the university’s primary duties, the acute accommodation needs nevertheless resulted in the Executive Board’s decision in 2009 to invest in temporary accommodation for international students. The Supervisory Board agreed to this, in light of the state of Wageningen’s housing market, particularly for students. Accommodation is rented out at fair market value prices. The objective is to achieve break-even operations with these investments. No new investments were made in 2016. However, one of the locations, Berinchem, was sold in 2016.

In 2016, Wageningen University did not make any investments in spin-offs.

Appendix 2 Staffing position

WAGENINGEN UNIVERSITY AVERAGE STAFFING LEVEL IN FTE

	31-12-2016	31-12-2015
FACULTY		
Academic staff:		
Professor	100.7	102.2
Associate Professor**	193.9	172.1
Assistant Professor	253.4	272.0
Researchers	290.1	285.5
Lecturers and other academic staff	75.2	64.8
PhD candidate	623.0	636.6
TOTAL ACADEMIC STAFF	1,536.3	1,533.2
Support and administrative staff:		
Job grades 13+	8.4	9.4
Job grades 9 - 12	205.6	207.0
Lower than job grade 9	309.0	318.0
TOTAL SUPPORT AND ADMINISTRATIVE STAFF	523.0	534.4
TOTAL FACULTY	2,059.3	2,067.6
GENERAL SERVICES		
Job grades 13+	43.2	45.8
Job grades 9 - 12	228.3	226.4
Lower than job grade 9	192.2	206.1
TOTAL GENERAL SERVICES	463.7	478.3
Total employees with a Wageningen University contract	2,523.0	2,545.9
Employees with a Wageningen Research contract	131.0	113.1
Total staffing level	2,654.0	2,659.0

** This includes the professors holding a personal chair (51.6 in 2015 and 40.3 in 2016)

3.2 Wageningen Research

3.2.1 Abridged Wageningen Research Annual Financial Report

This annual report includes the abridged Wageningen Research Annual Financial Report. This report is directly derived from the full Wageningen Research Annual Financial Report for 2016. The abridged annual financial report does not contain all the explanations required by law. The full Wageningen Research Annual Financial Report for 2016 can be found on the Wageningen University & Research website.

3.2.1.1 Results and balance developments

Results developments

Wageningen Research (WR) obtained a positive net result of €2.7 million in 2016. This result is €6.0 million lower than the net result for 2015 (€8.7 million).

Table 3.6 Breakdown of the result of Wageningen Research (in € millions)

	31-12-2016	31-12-2015
Result from institutes and primary process	-1.2	-0.2
Result from housing and internal WW/BW premiums including cost of capital	7.4	9.1
Central departments:		
Incidental result	-2.9	-1.4
Operational result	0.2	1.2
Operating result Wageningen Research	3.5	8.7
Corporation tax	-0.8	N/A
Net result Wageningen Research	2.7	8.7

The result for 2016 is adversely affected by a number of incidental result components, totalling -€2.9 million:

- Reorganisations and "werkenderwijs" programmes: -€0.8 million
- Layoffs due to reorganisations and impairments of fixed assets: €0.3 million
- Increase in provisions: -€2.4 million

Revenue and costs developments

The turnover for 2016 was €299.1 million. For 2015, the total turnover was €314.4 million.

Wageningen Research's largest client is the Ministry of Economic Affairs, which generates approximately 40% of the total turnover (47% of research turnover). Direct government funding from the Ministry of Economic Affairs decreased by €4.3 million in comparison to 2015 to a level of €120.9 million.

Another important development is the €5.8 million reduction in the turnover from the bilateral market to a level of €92.4 million.

Furthermore, the turnover from secondary activities decreased by €7.5 million to €35.8 million.

Personnel costs decreased in comparison to 2015 by €4.1 million to a level of €173.7 million. This was mainly due to lower staffing levels (2,258 FTE in 2016, a decrease of 65 FTE).

Balance developments

At the end of 2016, liquidity had increased by €21.6 million compared to 2015 (€94.2 million), reaching a level of €115.8 million. The following are the factors that explain the increase:

Table 3.7 Wageningen University liquidity development (in € millions)

	Amount
Net result	+2.7
Decrease in fixed assets (investments minus depreciation and sales)	0.2
Increase in short-term debt and receivables	24.7
Increase in provisions	-3.2
Decrease in long-term debt	-2.8
Total change in cash and cash equivalents	21.6

The change in fixed assets is composed of €17.9 million of building and inventory depreciation and impairments; investment expenditures of -€18.5 million (including interest and members' capital) including Dairy Campus, HCU and CVI Unilocatie; and divestments of €0.8 million.

The amount of the advances received including funds to be passed on to partners amounted to €80.6 million on the balance sheet date. This amount is relatively high and includes €13.0 million to be passed on to partners for a large coordination project. These funds were paid at the beginning of January. Excluding this increase in funds to be passed on to partners, the increase in liquidity is €8.6 million.

As a result of the positive result, solvency rose slightly to 56.1%. In 2015, the solvency was 55.4% (recalculated based on the revised balance sheet total).

Changes in the legal structure and capital stake

The following change occurred in the group in 2016: Lelystad Biologicals was terminated and the stake in Pepscan Systems BV was sold.

Prospects for 2017

Wageningen Research is expected to have a negative result of -€4.3 million in 2017. A major cause for this loss is investments in the organisation: an amount of €8.3 million was included in the budget to solve mismatch and overcapacity and to better respond to expected developments in the future. There is also a setback due to the recent increase in the pension premium from 18.8% to 21.1%. For Wageningen Research, this means an unexpected extra cost of €2.3 million.

The budgeted research turnover will increase by €5.6 million to €265.0 million. The composition will change compared to 2016. Programme funding (policy support research and WOT tasks) will decrease by €7.8 million, co-funding and grant revenue will increase slightly by €1.1 million and top sector revenue will increase by €7.6 million. For the bilateral market, which decreased by €5.8 million in 2016, the aim is to achieve an increase of €6.6 million compared to 2016 to a turnover of €99.0 million.

The total turnover from EZ programme research will drop further in 2017. A total of €110.9 million is expected for 2017. This was €120.9 million in 2016.

Investment activities are budgeted at €20.2 million and are therefore €4.9 million higher than the budgeted depreciation. This amount can be paid from the liquid assets of Wageningen Research. Wageningen Research expects the liquid asset balance in 2017 to decrease by €44.2 million to €71.6 million. The decrease is due to the above-mentioned investment activities, the expected negative result, an expected decrease in advances (€15.0 to €20.0 million) and an additional repayment on a loan from EZ (€13.0 million). This repayment fits within the policy of utilising a portion of the liquid assets reserve.

Solvency will increase from 56% in 2016 to 59% in 2017.

3.2.1.2 Abridged Wageningen Research Annual Financial Report

CONSOLIDATED BALANCE SHEET AFTER THE ALLOCATION OF THE NET RESULT (* IN €1,000)

	31-12-2016	31-12-2015
ASSETS		
FIXED ASSETS		
Intangible fixed assets	1,241	961
Tangible fixed assets	285,873	285,649
Financial fixed assets	48,308	52,686
Total fixed assets	335,422	339,296
CURRENT ASSETS		
Inventory -	3,289	4,050
Receivables and prepayments ⁷	88,384	107,188
Liquid assets	115,767	94,197
Total current assets	207,440	205,435
TOTAL ASSETS	542,862	544,731
CAPITAL AND LIABILITIES		
INTERNAL CAPITAL	304,497	301,765
PROVISIONS	27,542	30,759
LONG-TERM DEBT	72,711	79,451
SHORT-TERM DEBT	138,112	132,756
TOTAL LIABILITIES	542,862	544,731

⁷ This category deviates from the 2015 annual financial report due to the reclassification of "work in progress"

CONSOLIDATED PROFIT AND LOSS STATEMENT (* IN €1,000)

	Actual 2016	Actual 2015
INCOME		
Basic funding	13,757	13,075
Programme funding	70,058	71,692
Co-funding and subsidies	27,686	27,187
Top Sectors	55,447	55,121
Bilateral market	92,363	98,187
Secondary activities	35,801	43,287
Other income	4,042	5,803
TOTAL INCOME	299,154	314,352
EXPENDITURES		
Personnel costs	173,686	177,776
General costs	64,243	66,300
Specific costs	53,478	57,713
TOTAL EXPENDITURES	291,407	301,789
OPERATING RESULT	7,747	12,563
Financial income and expenditures	-4,443	-4,304
RESULT FROM OPERATIONAL ACTIVITIES BEFORE TAX	3,304	8,259
Taxation on operational activities	-816	-2
Result from participating interests	221	420
RESULT FROM OPERATIONAL ACTIVITIES AFTER TAX	2,732	8,677
Third-party share	0	0
NET RESULT	2,732	8,677

CONSOLIDATED CASH FLOW STATEMENT (*IN €1,000)

	Actual 2016	Actual 2015
OPERATIONAL ACTIVITIES		
Net result	2,732	8,677
Depreciation and impairments	17,860	20,320
	20,592	28,997
Change in provisions	-3,217	2,567
Change in inventory	761	-652
Change in receivables	18,804	-2,567
Change in short-term debt	5,356	-10,207
Result from non-consolidated participating interests	-244	-419
	21,460	-11,278
Cash flow from operational activities	42,052	17,719
INVESTMENT ACTIVITIES		
Investments in intangible assets	-628	-613
Investments in buildings and sites (incl. WIU)	-14,240	-3,692
Investments in other tangible assets	-3,831	-3,001
Investments in participating interests and members' capital	216	875
Divestment of fixed assets	797	4,444
Cash flow from investment activities	-17,686	-1,987
FINANCING ACTIVITIES		
Change in long-term receivables from the Ministry of Economic Affairs	3,944	3,944
Change in long-term debt to the Ministry of Economic Affairs	-5,625	-5,619
Change in other long-term debt	-1,115	-741
Cash flow from financing activities	-2,796	-2,416
CASH FLOW	21,570	13,316
CHANGE IN LIQUID ASSETS		
Balance of liquid assets on 1 January	94,197	80,881
Balance of liquid assets on 31 December	115,767	94,197
Change in liquid assets	21,570	13,316

3.2.1.3 Accounting Principles

General

The annual financial report was prepared and validated by the Executive Board on 20 April 2017 and approved by the Supervisory Board on 30 May 2017. The annual financial report was prepared in accordance with the below accounting principles. Any departure from these principles is stated alongside the relevant financial information.

The settlements and debt ratios between the various members of the group (which are referred to as inter-group payments) have been eliminated. Variations may arise as a result of corrections, shifts between items or changes in the rounding-off method. Variations of relevant significance are indicated in the annual financial report.

General accounting principles for the preparation of the annual financial report

Wageningen Research, Wageningen Research Holding BV and a number of subsidiaries are grouped together. Staff are employed by Wageningen Research and are allocated to the various operating

companies on the basis of the actual wage costs incurred. Wageningen Research owns the real estate used by the operating companies pursuant to contracts for use.

The annual financial report is prepared according to the historical cost model. Unless otherwise stated, assets and liabilities are calculated at nominal value.

Monetary assets and liabilities in foreign currencies are converted at the exchange rate on the balance sheet date.

Exchange rate differences are included in the profit and loss statement. Revenues and expenses in foreign currency are included in the profit and loss statement at the exchange rate on the date of receipt or payment.

The annual financial reports are prepared pursuant to the Netherlands Civil Code, Book 2, Title 9, and the accounting standards issued by the Dutch Accounting Standards Board.

Use of estimates

The preparation of the annual accounts demands that the board draw conclusions and makes estimates and assumptions that affect the accounting principles and reported value of fixed assets and obligations, as well as of income and expenditures. The actual outcome will deviate from these estimates. The estimates and underlying motivations are continually evaluated. Adjustments to estimates are implemented in the period during which the adjustment is made as well as the following periods that are affected by this adjustment. The principal items subject to estimates are:

- Valuation and life span of fixed assets
- Provisions of receivables and projects
- Provisions
- Claims

Consolidation

The consolidated reports incorporate the annual accounts of Wageningen Research, its subsidiaries and other organisations over which the institution exercises control (pursuant to the actual situation) or central management. The subsidiaries are legal entities directly or indirectly controlled by Wageningen Research, given that the institution possesses the majority of the voting rights or can control the financial and operational activities in some other manner. Also taken into account are potential voting rights that may be exercised directly on the balance sheet date.

The annual accounts of Wageningen Research, its subsidiaries and other organisations over which the institution exercises control (pursuant to the actual situation) or central management are fully incorporated into the consolidated financial report. Third party shares with respect to internal capital and the group result are reported separately.

Table 3.8 Participating interests whose annual accounts have been consolidated

	Shareholder	Registered office	% 31-12-2015	% 31-12-2016
Agri New ventures BV	WBG	Wageningen	100	100
Wageningen Research Holding BV	Wageningen Research	Wageningen	100	100
Exploitiemaatschappij Windmolenparken Lelystad BV	WBG	Wageningen	100	100
Lelystad Biologicals BV	Holding	Wageningen	100	
Wageningen Business Generator BV	Holding	Wageningen	100	100
Windmolenpark Neushoortocht BV	WBG	Wageningen	100	100
Windmolenpark Mammoethocht BV	WBG	Wageningen	100	100

Table 3.9 *Non-consolidated participating interests valued at acquisition cost*

	Shareholder	Registered office	% 31-12-2015	% 31-12-2016
Bfactory BV	WBG	Wageningen	17	17
Isolife BV	WBG	Wageningen	5	5
Telemetronics Biometry BV	WBG	Heteren	4	4
Wageningen Science & Technology Consulting Services Ltd.	Holding	Beijing	100	100

Table 3.10 *Non-consolidated participating interests valued at net asset value*

	Shareholder	Registered office	% 31-12-2015	% 31-12-2016
CoVaccine BV	WBG	Lelystad	25	25
Fresh Forward Holding BV	WBG	Wageningen	49	49
Knowhouse BV	WBG	Horst	30	30
Oostwaardhoeve Beheer BV	WBG	Wageningen	50	50
Pepscan Systems BV	WBG	Lelystad	10	0
VOF Oostwaardhoeve	ANV	Slootdorp	50	50

Accounting policies for asset and liability valuation

Intangible fixed assets

Development costs, patents and licences, software, goodwill and production rights are not capitalised unless they are purchased from third parties or the production costs can be reliably established. In addition, the intangible fixed asset must be capable of generating future economic benefits. Intangible fixed assets are valued at acquisition or production cost. Amortisation is applied in proportion to the realisation of the forecast revenue over five years. When revenue realisation cannot be reliably determined, the straight line method is used. Pursuant to statutory obligations, a statutory reserve is maintained for the capitalised amount of development costs. Write-offs as a result of impairment, sale, loss or discontinuation are listed separately.

Tangible fixed assets

Tangible fixed assets are valued at acquisition price or production cost minus accumulated depreciation. Depreciation is applied using the straight line method on the basis of the estimated useful life and the residual value. Depreciation is proportionally applied in the purchase year. Tangible fixed assets under construction or in production are valued at the acquisition price or for the amount that has already been invoiced to the company by third parties. Investments of less than €5,000 are charged directly to the profit and loss statement.

Table 3.11 Depreciation periods

Asset type	Linear depreciation in years
Company property / Work in progress	None
Site layout and infrastructure	60
Buildings	
Shell	60
Fittings	30
Built-in equipment / furnishings	15
Greenhouses, sheds, sundry buildings / structures	15
Machinery and equipment	
Office furniture / machines and equipment / inventory of restaurant facilities / fibre optic network / other inventory	10
Laboratory equipment / audio-visual equipment / vehicles / PR and information material	5/8
ICT equipment including software (network hardware)	5
ICT equipment including software (other hardware)	4

Acquired investment subsidies and amounts from externally-financed projects are deducted from the capitalised amount in the year of purchase. Subsidies received for the purchase of assets required for primary operations are shown as liabilities and are released during the useful life of the asset.

The institution carries out an evaluation on each balance sheet date to determine whether there are indications that a fixed asset may be subject to an impairment. Should there be any such indications, then the realisable value of the asset is then determined. When the realisable value of the individual asset cannot be determined, then the realisable value of the cash flow generating unit to which the asset belongs is determined. An impairment is applicable when the book value of an asset is higher than the realisable value, where the realisable value is higher than the market value and the business value.

When it is determined that an impairment that was included in the past no longer exists or has decreased, then the increased book value of the asset is set no higher than the original book value would have been without the application of the impairment of the asset.

Fixed assets that are no longer usable for the primary operations are not depreciated. Write-offs as a result of impairment, sale, loss or discontinuation are listed separately.

Financial fixed assets

Participating interests and capital of members over whose business and financial policy the institution exerts a significant influence are valued at net asset value. This value is determined on the basis of the group's accounting policies for the valuation and determination of the result.

Participating interests and capital of members over whose business and financial policy the institution does not exert a significant influence are valued at acquisition cost. The valuation of these assets takes into account any permanent decline in value, where relevant.

Inventory

This item is comprised of the trading inventory, finished products, livestock and harvested agricultural produce. The trading inventory and finished products are valued in accordance with the FIFO method at the acquisition cost or production cost, including a supplement for indirect costs.

The valuation of livestock and harvested agricultural produce is based on market prices.

The value of unmarketable inventory or inventory with a lower market value is decreased accordingly. On the basis of the average annual use in the last ten years, antisera were found that according to this calculation had been in stock longer than three years.

Semi-finished products are valued in accordance with the FIFO method at the acquisition cost or production cost, including a supplement for the indirect costs.

Receivables and prepayments

Receivables are valued at nominal value minus a provision for uncollectible debts, where relevant.

Work in progress

Work in progress for third parties is valued at the cost of the direct material use and labour, including a supplement for indirect costs. Invoiced instalments and forecast losses on projects are deducted from this balance. The result is allocated in proportion to the progress (proportion of actual costs incurred) of a project. After accounting for the prepayments that have been received, projects with a debit balance are then included under short-term receivables. Projects with a negative balance are included under the prepayments item of short-term debt.

Internal capital

The internal capital consists of:

- Issued capital:
The nominal value of issued and paid-up share capital is included under this item.
- Statutory reserve:
The mandatory maintenance of a statutory reserve for research and development costs capitalised in the balance sheet.
- General reserve:
This reserve is credited with the operating result in any year in which the result is not allocated to a specific use.

Third-party share

The share of third parties in a participating interest consolidated in full by the group is included in the "Third-party share" item in the annual financial report.

Provisions

Unless otherwise stated, provisions are valued at nominal value. The amount of the provision included in the annual financial report is the best estimate of the amount that will be required to settle the relevant obligations and losses on the balance sheet date.

Provisions are created for:

- legally enforceable or actual obligations that exist on the balance sheet date;
- the settlement of obligations that will probably require an outflow of funds;
- and for which a reliable estimate can be made of the extent of those obligations.

Provision for unemployment insurance obligations

Provisions for unemployment insurance obligations are determined as the cover required for the unemployment insurance obligations on the balance sheet date and the expected future obligations in relation to personnel that have already left and personnel with a temporary employment contract.

Provision for WGA/ZW-flex

The provision for Resumption of Work for Partially Disabled Persons Act (WGA) and Sickness Benefits Act (ZW-flex) covers the obligations for which the organisation bears the risk as of 1 January 2015, as anticipated on the balance sheet date.

Other personnel provisions / Service bonuses

The anticipated obligation arising from future service bonuses is determined on the basis of historical information and withdrawals are made upon realisation. The present value is determined on the basis of the prevailing market rate of interest for Wageningen Research.

Other Personnel Provisions / Pensions

The pension provider for the whole of Wageningen University & Research is the ABP. Pension accrual takes place on the basis of the average earnings system (*middelloodsysteem*). Indexation will take place if the required coverage of 104.2% is reached.

In the fourth quarter, the financial situation of the ABP improved considerably. The current coverage ratio rose to 96.6%. That level is well above the critical threshold at which pensions would be reduced, but also below the required coverage ratio. The improved financial situation is primarily due to the interest rate development in the fourth quarter. Due to the increase in interest rates, obligations decreased by €25 billion. Furthermore, a return of 9.5% was also achieved in 2016.

the ABP now expects that it is unlikely that it will be able to increase the pensions in the coming five years. There is still a chance that the ABP will have to lower the pensions in 2018 or in the coming years. This will be relevant if, in late 2017, the current coverage ratio falls below the critical threshold, or if the policy coverage ratio remains under the required level of 104.2% up until 2020.

There was no obligation to make up any shortfall as a result of ABP's coverage ratio. This is why no provisions have been made.

Provision for reorganisation expenses

This provision was formed to cover anticipated costs incurred as a result of decisions regarding current or intended reorganisations that have been made and announced within the organisation.

Provision for product and contract risks

This provision covers the expected cost of loss-making contracts, guarantees and claims arising from services and products delivered to third parties.

Long-term debt

Long-term debt concerns liabilities that are due in more than one year from the end of the relevant financial year.

Short-term debt

Short-term debt concerns liabilities that are due within one year from the end of the relevant financial year.

Accounting policies to determine income and expenditure

Proceeds and costs are included as business income and expenditures that can be allocated to the relevant financial year or activity, regardless of whether they have resulted in receipts and payments during the annual reporting period.

Proceeds are included in the year in which the goods were delivered or the services were provided to clients. Losses and risks arising before the end of the financial year are taken into account if they are known before the preparation of the annual financial report.

The income from contract research is determined on the basis of the direct costs, including a supplement for indirect costs to a maximum of the rate to be paid by the finance provider. Results are calculated in proportion to the progress of the project.

Revenue from the Ministry of Economic Affairs falling under the Ministry's funding regulation is determined on the basis of the direct costs, including a supplement for indirect costs. The margin for indirect costs is determined once a year in accordance with the prevailing system for the margin. Results are calculated in proportion to the progress of the project.

Taxation on the profits includes the corporate tax (payable and deductible) for the entire financial year. The payable and deductible corporate income tax for the financial year is the corporate income tax expected to be payable for the taxable profit in the financial year, taking into account the fiscal legislation and facilities, calculated on the basis of tax rates set on the reporting date, and any

corrections to the taxes owed for prior years, such as fiscally compensable losses from prior financial years. Wageningen Research does not take into account deferred tax due to a difference in fiscal and commercial valuation of assets and liabilities. Due to the lack of a profit target for the long term, and the very long duration of the differences, there is insufficient assurance that the deferred tax can be realised.

Accounting principles for the preparation of the cash flow statement

The cash flow statement was prepared using the indirect method.

System changes

Not applicable.

3.2.2 Auditor's report by the independent auditor

To: the Executive Board and the Supervisory Board of Wageningen Research

The "Abridged Wageningen Research Annual Financial Report" included in Chapter 3.2 of the Wageningen University & Research Annual Report 2016 consisting of a summary of the profit and loss statement and the summarised balance sheet on 31 December 2016 with accompanying notes, are derived from the audited Wageningen Research Annual Financial Report for 2016. We provided a judgement with limitations on the Annual Financial Report in our auditor's report on 7 June 2017. The annual financial report and this summary of it do not include the events that took place after the date of the auditor's report on 7 June 2017.

The abridged annual financial report does not contain all the explanations required on the basis of Title 9 Book 2 of the Dutch Civil Code (BW), the subsidy regulations for the DLO Foundation (*Regeling Subsidie Stichting Dienst Landbouwkundig Onderzoek*) and the policy rules from the Standard Remuneration Act for Public and Semi-public Sector Senior Officials (*Beleidsregels WNT 2016*). Consulting the abridged financial report, therefore, cannot take the place of consulting the audited and approved Wageningen Research Annual Financial Report.

Management's responsibility

The management is responsible for the preparation of an abridged version of the audited annual financial report in accordance with the basic principles as used in the Wageningen Research Annual Financial Report 2016.

Auditor's responsibility

Our responsibility is to draw a conclusion about this abridged annual financial report based on our audit. We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing 810, "*Opdrachten om te rapporteren betreffende samengevatte financiële overzichten*".

Our opinion

In our opinion, in all materially relevant aspects, the abridged annual financial report is consistent with the Wageningen Research Annual Financial Report which was audited on 6 June 2017 and is in accordance with the basic principles as used in the Wageningen Research Annual Financial Report 2016. However, the abridges annual financial report includes an abnormality in the same degree as the audited Wageningen Research Annual Financial Report for 2016.

The deviation in the audited annual financial report is described in our judgment with limitations concerning the financial legality in our audit report of 7 June 2017. For an amount of €2,291,000 of purchase expenses, we have determined that the European tendering rules have not been met and thus these purchases were not made legitimately.

Arnhem, 7 June 2017

Ernst & Young Accountants LLP

F. de Bruijn RA

3.2.3 Appendices to the abridged WR Annual Financial Report

Appendix 1 Overview of property sales and purchases (* in €1,000)

Subtotal ground and infrastructure	Hectares	Purchase	Sale	Reference number
Purchase of land Valthermond	3.95	218		DGBI-I&K 16002669 15-1-2016
Purchase of land Hollandseweg	0.19	7		
Purchase of land Bornsesteeg/Bornse meadows	6.95	471		
Purchase of land Goutum	45.15	2,258		
Purchase of land Langesteeg Bennekom	19.35	2,029		
Sale of land Zegveld	1.91		61	
Subtotal ground and infrastructure		4,983	61	

Buildings	Purchase	Sale	Reference number
Subtotal buildings	0	0	

Total	4,983	61	
--------------	--------------	-----------	--

Sales breakdown	Sales proceeds	Book value	Book profit
Sale of land Westmaas	2	0	2
Total	2	0	2

Appendix 2 Accountability for EZ funding 2016 (x €1,000)

Wageningen Research funding 2016		
Project and programme funding		
Knowledge base	13,306	
Kennis Online	248	
Knowledge circulation for education	165	
HCU	600	
The Ecological Monitoring Network	2,263	
Afghanistan project	1,601	
Opportunities for tomorrow	50	
Opportunities for tomorrow	200	
ISSD	400	
Policy-supporting research - AGRO	5,983	
Policy-supporting research - Natuur en Regio	6,921	
Top Sectors	37,432	
Knowledge for Policy	1,489	
Statutory research tasks	43,152	
Additional projects	8,873	
<i>Total received project and programme funding</i>	<i>122,683</i>	
<i>Other contributions</i>		
Compensation for loan repayments	2,800	
Compensation for PO loan repayments	957	
Compensation for IAC/ILRI loan	188	
Correction for drop in demand due to loan remission	-56	
VAT	24,630	
Payment through Laser/honey scheme	-130	
Total funding to Wageningen Research 2016	151,072	letter with reference number DGBI-I&K/16184061 date 20 December 2016
Ministry of Economic Affairs funding processed through the balance sheet		
Compensation for Ministry of Economic Affairs portion of WR loan repayments	2,800	Balance sheet item receivables from Ministry of Economic Affairs
Compensation for Ministry of Economic Affairs portion of PO loan repayments	957	Balance sheet item receivables from Ministry of Economic Affairs
Compensation for Ministry of Economic Affairs portion of IAC/ILRI loan repayments	188	Balance sheet item receivables from Ministry of Economic Affairs
WR VAT	24,630	On balance sheet end date
HCU	600	On balance sheet end date
ISSD	400	On balance sheet end date
Opportunities for tomorrow	200	On balance sheet end date
Ministry of Economic Affairs funding processed through the balance sheet	29,775	
EZ income accounted for	121,297	
Decrease in Ministry of Economic Affairs programme research yet to be enacted	672	Changes to Ministry of Economic Affairs research still to be carried out
Increase in advance payments of HCU operating contribution	-1,105	Balance sheet item HCU operation
Other Ministry of Economic Affairs income accounted for		
Income accounted for Wageningen Research Annual Financial Report	120,865	

To supplement the above accounts, in 2016, an amount of €1,883,156 (2015: €2,608,552 - 2014: €6,219,696 - 2013: €4,004,000 - 2012: €2,452,000 and 2011: €42,500) was spent on the Agriculture ATVET Afghanistan project, the main phase of which started on 1 November 2011 and will continue until 31 October 2021.

For the contribution from the Ministry of Economic Affairs to the practical learning facilities at the Dairy Campus (1300015790), an advance payment of €500,000 was received. The construction activities for the Dairy Campus facilities and the practical learning facilities are strongly interconnected, which is why it is not possible to view the costs of the practical learning facilities separately. During 2016, the practical learning facilities and the main building were fully completed according to plan and were put into use, albeit slightly later than originally planned. The budget was hereby completely spent. This also fully exhausted the EZ contribution to the construction costs of the practical learning facilities.

3.3 Remuneration

The remuneration for executives from Wageningen University & Research was established in accordance with the rules of the Standard Remuneration Act for Public and Semi-public Sector Senior Officials (WNT) or have been brought into accordance with the WNT by complying with the transitional rules. The remuneration of Supervisory Board members is in accordance with the WNT standards. In compliance with Article 1.1 of the WNT, Wageningen University & Research has summarised the remuneration of the Executive Board members and the Supervisory Board members in Tables 3.13, 3.14 and 3.15.

The remuneration of administrators was determined in accordance with the regulations concerning the remuneration of top level executives in the OCW sectors (*regeling bezoldiging topfunctionarissen OCW-sectoren*). The maximum remuneration amount is determined on the basis of classification in class G. The score on the complexity points per criterion is included in Table 3.12.

Table 3.12 Wageningen University complexity points score

	Wageningen University score	Complexity points
Income	> €200 million	10
Students	2,500 – 10,000	3
Types of education	>5	5
Total		18

Table 3.13 Remuneration for executives (amounts in €)

Developments in 2016		Breukink	Mol	Fresco
A.	Remuneration	230,474	179,000	230,474
	Minus additional tax liability for car	-	-	-
A1.	Remuneration minus additional tax liability	230,474	179,000	230,474
B.	Personal expenses			
	Representation costs	2,400	2,400	2,472
	Domestic travel expenses	19,937	10,735	20,751
	International travel expenses	3,209	7,550	12,164
	Other expenses	520	550	817
B1.	Personal expenses	26,066	21,235	36,204
C.	Total expenses	256,940	200,235	266,678

Distribution across components		Breukink	Mol	Fresco
A.	Remuneration minus additional tax liability			
50.0%	WU	115,237	89,500	115,237
50.0%	WR	115,237	89,500	115,237
B.	Personal expenses			
50.0%	WU	13,033	10,617	18,102
50.0%	WR	13,033	10,617	18,102

Table 3.14 Remuneration for executives (amounts in €)

Job title	L.O. Fresco	I.J.J.H. Breukink	A.P.J. Mol	M.J. Kropff	M.J. Kropff
	President of the Executive Board	Member of the Executive Board	Member of the Executive Board	Member of the Executive Board	Professor
Former executive	No	No	No	No	Yes
Employment relationship	Yes	Yes	Yes	Yes	Yes
Duration of appointment in 2016	1-1 to 31-12	1-1 to 31-12	1-1 to 31-12		1-1 to 31-12
Scope of employment in FTE	1	1	1		1
Individual WNT maximum	179,000.00	179,000.00	179,000.00		179,000.00
Remuneration 2016					
Remuneration	213,487.40	213,498.68	163,381.88	0.00	0.00
Taxable expense reimbursements	0.00	0.00	0.00	0.00	0.00
Provisions for remuneration payable in this term	16,986.60	16,975.32	15,618.12	0.00	0.00
Total remuneration	230,474.00	230,474.00	179,000.00	0.00	0.00
Reason for exceeding norm and other notes	WNT-1 norm ¹	WNT-1 norm ²	WNT-2 norm		
Payment on termination of employment	N/A	N/A	N/A	N/A	N/A
Remuneration 2015					
Data from 2015					
Duration of appointment in 2015	1-1 to 31-12	1-1 to 31-12	28-5 to 31-12	1-1 to 31-5	1-6 to 31-12
Scope of employment in FTE	1	1	1	1	1
Remuneration 2015					
Remuneration	213,267.50	213,267.50	96,439.45	86,523.37	691.51
Taxable expense reimbursements	0.00	0.00	0.00	1,306.40	0.00
Provisions for remuneration payable in this term	17,206.50	17,206.50	9,496.20	7,325.50	0.00
Total remuneration	230,474.00	230,474.00	105,935.65	95,155.27	691.51

¹⁾ The WNT remuneration stems from written agreements as laid down in the employment contract dated 3 February 2014. The transitional law took effect on 1 January 2016.

²⁾ The WNT remuneration stems from written agreements as established in the reappointment letter dated 10 September 2013. The transitional law took effect on 1 January 2013.

Table 3.15 Remuneration for supervisors (amounts in €, excluding VAT)

Chair Y/N	M.J. 15-9-2008	B.J. Marttin ^{a)}	L.C. Bruggeman	H.E. Waalkens	S. Korver ^{b)}	R.P. Smith ^{a)}
	Y	N	N	N	N	N
Duration of appointment in 2016	1-1 to 31-12	1-1 to 31-12	1-1 to 31-12	1-1 to 31-12	1-1 to 31-12	1-1 to 31-12
Individual WNT maximum	26,850.00	17,900.00	17,900.00	17,900.00	17,900.00	17,900.00
Remuneration 2016						
Remuneration	16,901.04	11,267.54	11,267.40	11,267.40	11,267.40	11,267.40
Taxable expense reimbursements	0.00	0.00	0.00	396.00	0.00	133.02
Provisions for remuneration payable in this term	0.00	0.00	0.00	0.00	0.00	0.00
Total remuneration	16,901.04	11,267.54	11,267.40	11,663.40	11,267.40	11,400.42
Reason for exceeding norm and other notes	N/A	N/A	N/A	N/A	N/A	N/A
Payment on termination of employment	N/A	N/A	N/A	N/A	N/A	N/A
Data from 2015						
Duration of appointment in 2015	1-1 to 31-12	1-1 to 31-12	1-1 to 31-12	1-1 to 31-12	1-1 to 31-12	1-1 to 31-12
Remuneration 2015						
Remuneration	16,901.04	11,267.40	11,267.40	11,267.40	11,267.40	11,267.40
Taxable expense reimbursements	0.00	0.00	0.00	0.00	0.00	0.00
Provisions for remuneration payable in this term	0.00	0.00	0.00	0.00	0.00	0.00
Total remuneration	16,901.04	11,267.40	11,267.40	11,267.40	11,267.40	11,267.40

a) No payment to the person concerned in connection with a third-party agreement

b) Remuneration to company Korver Beheer en Management

Table 3.16 Remuneration for non-executives (amounts in €)

Job title	Director	BU Manager	BU Manager	Researcher
Duration of appointment in 2016	1-1 to 31-12	1-1 to 30-11	1-1 to 30-11	1-1 to 31-3
Extent of employment in FTE	1	1	1	1
WNT threshold remuneration amount	179,000.00			
Remuneration 2016				
Remuneration	203,268.33			
Taxable expense reimbursements	0.00			
Provisions for remuneration payable in this term	16,295.28			
Total remuneration	219,563.61			
Reason for exceeding norm and other notes	Agreements made for 2013			
WNT dismissal allowance threshold		179,000.00	179,000.00	179,000.00
Payment on termination of employment	N/A	258,750.00	233,625.00	201,093.00
Mandatory justification		Termination of employment by means of a settlement agreement	Termination of employment by means of a settlement agreement	Termination of employment by means of a settlement agreement
Data from 2015				
Job title	Director			
Duration of appointment in 2015	1-1 to 31-12			
Extent of employment in FTE	1			
Remuneration 2015				
Remuneration	196,422.67			
Taxable expense reimbursements	2.50			
Provisions for remuneration payable in this term	17,016.36			
Total remuneration	213,441.53			

Table 3.16 shows all remuneration exceeding the WNT norm at Wageningen University and Wageningen Research. All employees in this table were in the service of Wageningen Research.

Appendix 1

Education at Wageningen University

Table B1.1 List of Bachelor's and Master's programmes, 2015-2016

Bachelor's	Master's
Life Sciences programmes	
Biologie (BBI)	Animal Sciences (MAS)
Dierwetenschappen (BDW)	Aquaculture and Marine Resource Management (MAM)
Plantenwetenschappen (BPW)	Biology (MBI)
	Organic Agriculture (MOA)
	Plant Biotechnology (MPB)
	Plant Sciences (MPS)
Technology and Nutrition degree programmes	
Agrotechnologie (BAT)	Biosystems Engineering (MAB)
Biotechnologie (BBT)	Bioinformatics (MBF)
Levensmiddelentechnologie (BLT)	Biotechnology (BBT)
Moleculaire levenswetenschappen (BML)	Food Quality Management (MFQ)
Voeding en Gezondheid (BVG)	Food Safety (MFS)
	Food Technology (MFT)
	Molecular Life Sciences (MML)
	Nutrition and Health (MNH)
	Water Technology (joint degree) (MWT)
Social Sciences programmes	
Bedrijfs- en Consumentenwetenschappen (BBC)	Applied Communication Science (MCS)
Communicatiewetenschappen (BCW)	Development and Rural Innovation (MDR)
Economie en Beleid (BEB)	International Development Studies (MID)
Gezondheid en Maatschappij (BGM)	Management, Economics and Consumer Studies (MME)
Internationale Ontwikkelingsstudies (BIN)	
Tourism (joint degree) (BTO)	
Environment and Landscape programmes	
Bodem, Water, Atmosfeer (BBW)	Climate Studies (MCL)
Bos- en Natuurbeheer (BBN)	Earth and Environment (MEE)
Internationaal Land- en Waterbeheer (BIL)	Environmental Sciences (MES)
Landschapsarchitectuur en Ruimtelijke Planning (BLP)	Forest and Nature Conservation (MFN)
Milieuwetenschappen (BMW)	Geo-information Science (MGI)
	International Land and Water Management (MIL)
	Landscape Architecture and Planning (MLP)
	Leisure, Tourism and Environment (MLE)
	Urban Environmental Management (MUE)

Table B1.2 Number of enrolled students at Wageningen University by type of enrolment and gender on 1 October 2016

Type of Enrolment	First-year			All enrolments		
	Male	Female	Total	Male	Female	Total
Students	1,259	1,703	2,962	4,769	6,009	10,778
Contract education participants	4	4	8	9	5	14
Second enrolment students	65	105	170	89	141	230
Erasmus Mundus	0	3	3	0	3	3
Erasmus double degree	9	8	17	9	8	17
Erasmus students	68	104	172	69	105	174
Exchange students / Other	6	16	22	18	44	62
Total	1,411	1,703	2,254	4,963	6,315	11,278

Table B1.3 Number of students, first-year and total, at Wageningen University by study phase and gender on 1 October 2016

Types of Enrolment	First-year			All students		
	Male	Female	Total	Male	Female	Total
BSc	734	921	1,655	2,436	2,862	5,298
MSc	525	782	1,307	2,333	3,147	5,480
Total	1,259	1,703	2,962	4,769	6,009	10,778

Table B1.4 Number of Bachelor's students at Wageningen University by programme and gender on 1 October 2016

Programme	First-year			All students		
	Male	Female	Total	Male	Female	Total
Agrotechnologie (BAT)	36	4	40	124	13	137
Bedrijfs- en consumentenwetenschappen (BBC)	91	99	190	306	292	34
Biologie (BBI)	84	73	157	294	231	525
Bos- en natuurbeheer (BBN)	37	35	72	131	108	239
Biotechnologie (BBT)	94	39	133	261	109	370
Bodem, water, atmosfeer (BBW)	55	21	76	167	74	241
Communicatiewetenschappen (BCW)	6	19	25	15	41	56
Dierwetenschappen (BDW)	17	69	86	70	253	323
Economie en beleid (BEB)	33	18	51	101	46	147
Gezondheid en maatschappij (BGM)	7	63	70	24	208	232
Internationaal land- en waterbeheer (BIL)	50	31	81	156	96	252
Internationale ontwikkelingsstudies (BIN)	17	69	86	76	239	289
Landschaparchitectuur en ruimtelijke planning (BLP)	29	31	60	121	99	220
Levensmiddelentechnologie (BLT)	49	100	149	165	295	460
Moleculaire Levenswetenschappen (BML)	58	27	85	157	87	221
Milieuwetenschappen (BMW)	23	32	55	69	69	138
Plantenwetenschappen (BPW)	29	31	60	113	92	205
Tourism (BTO)	5	24	29	22	65	87
Voeding en gezondheid (BVG)	14	136	84	64	445	509
Total number of enrolled students	734	921	1,655	2,436	2,862	5,298

Table B1.5 Number of Master's students, first-year and total, at Wageningen University by programme and gender on 1 October 2016

Programme	First-year			All students		
	Male	Male	Female	Total	Female	Total
Biosystems Engineering (MAB)	9	4	13	71	13	84
Aquaculture and Marine Resource Management (MAM)	16	14	30	64	55	119
Animal Sciences (MAS)	25	47	72	90	243	333
Bioinformatics (MBF)	7	8	15	26	25	51
Biology (MBI)	13	10	23	134	135	259
Biotechnology (BBT)	41	41	82	207	144	351
Climate Studies (MCL)	10	11	21	46	31	77
Applied Communication Science (MCS)	3	11	14	24	151	175
Development and Rural Innovation (MDR)	9	19	28	27	31	58
Earth and Environment (MEE)	12	19	31	121	81	202
Environmental Sciences (MES)	38	48	86	138	177	289
Forest and Nature Conservation (MFN)	32	32	64	127	117	221
Food Quality Management (MFQ)	11	19	30	21	57	78
Food Safety (MFS)	20	56	76	47	140	187
Food Technology (MFT)	59	108	167	173	333	506
Geo-information Science (MGI)	18	11	29	76	33	109
International Development Studies (MID)	8	38	46	63	203	266
International Land and Water Management (MIL)	15	6	21	89	57	146
Leisure, Tourism and Environment (MLE)	7	13	20	14	50	64
Landscape Architecture and Planning (MLP)	2	9	11	63	67	130
Management, Economics and Consumer Studies (MME)	22	19	41	185	174	359
Molecular Life Sciences (MML)	3	5	8	56	51	107
Nutrition and Health (MNH)	19	102	121	55	410	465
Organic Agriculture (MOA)	18	34	52	73	79	96
Plant Biotechnology (MPB)	24	16	40	68	40	108
Plant Sciences (MPS)	58	48	106	190	155	345
Urban Environmental Management (MUE)	14	27	41	61	77	138
Water Technology (MWT)	12	7	19	24	18	42
Total number of enrolled students	525	782	1,307	2,333	3,147	5,480

Table B1.6 Success rate of the MSc programmes for the starting class of 2012-2013 to 2014-2015

Programme	Class of 2012				Class of 2013			Class of 2014	
	N	%			N	%		N	%
		After 2 yrs	After 3 yrs	After 4 yrs		After 2 yrs	After 3 yrs		After 2 yrs
MAB	33	73	91	94	32	66	88	23	48
MAM	36	53	86	94	29	38	69	32	25
MAS	158	71	93	94	158	58	87	151	54
MBF	8	63	75	75	22	55	86	22	59
MBI	104	50	79	87	102	35	77	93	31
MBT	101	59	86	90	96	49	91	110	45
MCL	17	41	88	88	26	42	73	27	22
MCS	39	38	79	85	51	27	67	62	40
MDR	16	56	81	81	21	19	67	18	56
MEE	44	59	86	93	68	49	81	47	23
MES	112	55	89	89	140	58	84	99	52
MFN	91	38	75	81	80	41	79	94	44
MFQ	29	52	83	90	35	43	94	29	69
MFS	53	64	94	94	49	61	90	70	54
MFT	154	71	96	97	172	56	90	182	52
MGI	38	45	89	89	33	33	85	39	33
MHW	1	100	100	100	0	0	0	0	0
MID	69	25	70	80	92	24	77	104	20
MIL	47	47	85	94	34	32	71	63	40
MLE	31	39	77	84	26	54	65	28	46
MLP	67	37	73	85	37	19	70	40	13
MMA	0	0	0	0	0	0	0	0	0
MME	149	58	87	91	117	49	85	148	49
MML	44	59	86	93	42	55	98	47	40
MNH	135	59	89	96	146	53	84	120	48
MOA	37	54	89	95	53	60	91	57	47
MPB	26	58	96	100	40	60	95	32	63
MPS	103	51	87	89	88	50	85	112	48
MUE	35	37	71	86	45	47	76	39	44
MWT	4	25	75	75	16	56	75	16	81
Total for all programmes	1,781	55	86	90	1,850	48	83	1,904	44
Total including programme transfers	1,781	55	87	91	1,850	48	84	1,904	44

Table B1.7 Success rate of the BSc programmes on the basis of re-enrolments in the second year ($N t+1$) for the starting class of 2011-2012 to 2013-2014 (N and $N t+1$ in absolute numbers, after x year in %)

Programme	Class of 2011					Class of 2012				Class of 2013		
	N		%			N		%		N		%
	t	t+1	After 3 yrs	After 4 yrs	After 5 yrs	t	t+1	After 3 yrs	After 4 yrs	N	N t+1	After 3 yrs
BAT	25	22	36	86	100	32	30	70	80	37	33	30
BBC	53	41	27	78	88	95	88	52	75	154	143	41
BBI	111	103	34	77	83	136	114	46	65	122	111	39
BBN	64	54	30	70	76	55	46	41	70	61	54	30
BBT	52	44	59	80	86	56	51	49	61	87	72	33
BBW	59	48	48	92	96	71	64	56	83	66	56	46
BCW	14	13	69	92	100	18	14	57	71	13	12	50
BDW	111	93	43	70	74	89	59	49	68	129	108	54
BEB	21	14	21	79	93	25	22	41	73	31	23	30
BGM	32	28	57	89	100	54	46	72	91	68	63	59
BIL	48	43	35	81	86	42	36	39	67	62	57	28
BIN	75	63	52	79	86	86	69	42	78	98	82	44
BLP	59	53	21	74	87	48	44	34	75	46	37	14
BLT	64	60	60	80	83	73	68	50	81	107	97	52
BML	44	35	40	74	77	27	20	45	60	58	45	42
BMW	16	15	80	93	100	28	23	52	78	32	28	54
BPW	27	26	46	77	81	35	31	55	81	26	24	42
BTO	50	38	82	87	87	29	24	88	92	24	19	68
BVG	117	89	57	83	87	137	114	69	85	177	154	42
Total for all programmes	1,042	882	46	79	85	28	963	53	76	1,39 8	1,218	42
Total including programme transfers	1,042	905	45	79	85	28	1,001	51	75	1,39 8	1,262	41

Appendix 2

Side activities – Supervisory Board

Relevant side activities as of 31 December 2016

Prof. M.J. Cohen (1947) (Chair of Supervisory Board)

Principal appointment: -

First Appointment: 1 September 2013, end of current term: 1 September 2017

Membership: Appointment Committee (Chair) and Education and Research Committee

- Professor by Special Appointment (Thorbecke chair)
- Chair of the Curatorium VNG
- Member of the Board of Social Sciences and Humanities - NWO
- Co-Chair of Overlegorgaan Infrastructuur en Milieu (OIM)
- Chair of VOICE (Vereniging van Organisaties die Intellectueel Eigendom Collectief Exploiteren)
- Chair of Cedris (trade association for social employment)
- Chair of the Supervisory Board of Vfonds (Fonds voor Vrede, Vrijheid en Veteranenzorg)
- Chair of the Supervisory Board of Openbare Bibliotheek Amsterdam
- Chair of the Stichting voor Vluchteling-Studenten UAF
- Chair of the Amsterdams 4-5 mei comité
- Vice-chair of the Policy Education Council (Chair of the Knowledge and Research committee)
- Chair of the Advisory Board of Grondrechten Functie-uitoefening Ambtenaren
- Chair of the Co-Ex Foundation (think tank for the prevention of radicalisation)
- Chair of the Bart Tromp Foundation
- Chair of the Dr. J.M. Den Uyl-lezing Foundation
- Chair of the Cello Oeuvreprijs Foundation
- Chair of the Board of Cappella Amsterdam
- Chair of the MS Nederland Foundation
- Member of the Trustees Board of the Onderwijsrecht chair group at VU Amsterdam
- Member of the Trustees Board for the Vfonds chair group at Tilburg Law School

L.C. Bruggeman (1950) (Vice Chair of the Supervisory Board)

Principal appointment: -

First Appointment: 1 January 2013, end of current term: 1 January 2017

Membership: Audit Committee and Education and Research Committee

- Member of the Supervisory Board of Dimence
- Supervisor of Maastricht Health Campus
- Chair of the Supervisory Board of Medisch Centrum Alkmaar/Gemini Ziekenhuis Den Helder
- Chair of the Supervisory Board of Groningen Seaports

Prof. S. Korver (1953)

Principal appointment: Professor by special appointment at Tilburg University

First Appointment: 1 January 2013, end of current term: 1 January 2017

Membership: Appointment Committee and Education and Research Committee (Chair)

- Chair of the Supervisory Board of LTO Bedrijven BV
- Member of the Board of Stichting Administratiekantoor SBT
- Chair of KWPN
- Chair of the Holland National Horse Foundation
- Member of the Board of the WK Nederland Foundation
- Member of the Board of SRP
- Chair of the land consolidation committee of Binnenveld Rheden

B.J. Marttin MBA (1965)

Principal appointment: Member of the Executive Board at Rabobank Nederland

First Appointment: 1 September 2011, end of current term: 1 July 2019

Membership: Audit Committee (Chair)

- Chairman of the Advisory Board of Amsterdam University College
- Vice-chairman of the Board of Directors of the American Chamber of Commerce
- Member of the Supervisory Board of IDH (Sustainable Trade Initiative)
- Chairman of the Supervisory Board of ARISE B.V.
- Member of the Dutch Trade & Investment Board
- Member of the Board of the Unico Banking Group
- Member of the Advisory Board of Neumann Stiftung
- Chairman of the Shareholders Council of Rabo Development
- Chairman of the Supervisory Board of De Lage Landen International BV
- Chairman of the Supervisory Board of Obvion NV
- Member of the Board of Directors RI Investment Holding BV
- Member of the Board of Directors Rabobank International Holding BV
- Member of the Board of Directors of Rabohypotheekbank NV
- Member of the Board of Rabobank Australia Ltd
- Member of the Board of Rabobank New Zealand Ltd
- Member of the Board of the Rabobank Foundation
- Member of the North America Board of Directors / Member of the North America Risk Committee

R.P. Smith (1960)

Principal appointment: President and CEO of Royal Cosun

First Appointment: 1 January 2013, end of current term: 1 January 2017

Membership: Audit Committee

- Member of the Board of FNL
- Member of Agri & Food top team
- Member of the Board of Stichting Levensmiddelenhuis Nederland

H.E. Waalkens (1948)

Principal appointment: Former MP for the PvdA (Labour Party) and organic dairy farmer

First Appointment: 1 January 2013, end of current term: 1 January 2017

Membership: Appointment Committee

- Chair of the Waddengroep Foundation
- Member of the General Board of Landschapsbeheer Groningen
- Member of the Supervisory Board of Streek Producten Nederland
- Chair of the Landschap Oldambt Foundation

Appendix 3

Side Activities – Executive Board

Relevant side activities as of 31 December 2016

Prof. L.O. Fresco (1952)

President of the Executive Board

First Appointment: 1 July 2014, end of current term: 1 July 2018

- Non-executive board member of Unilever, Chair of Corporate Responsibility Committee (remunerated)
- Member of the Board of Koninklijk Concertgebouworkest
- Columnist at NRC
- Editorial staff member of De Gids
- Member or honorary member of various international academies
- Member of the Trilateral Commission
- Member of the Advisory Board of the World Food Prize
- Member of the Strategic Committee of the Moroccan OCP Group (Office Chérifien des Phosphates)
- Member of the Board of the VSNU Nederland Foundation
- Member of the Steering Committee and President of the Innovation-expo 2018

Prof. A.P.J. Mol (1960)

Vice-President of the Executive Board and Rector Magnificus of Wageningen University

First Appointment: 28 May 2015, end of current term: 28 May 2019

- Member of Nationaal Comité Herdenking Capitulaties Wageningen 1945
- Editor of New Horizons Environmental Politics (Edward Elgar)
- Member of the Board of the Research Committee Environment and Society, International Sociological Association
- High Level Panel of Experts (HLPE) on Food Security and Nutrition of the UN Committee on World Food Security (CFS)
- Scientific Advisory Committee of the Global Governance and Democratic Government programme, Catholic University of Leuven Centre for Global Governance Studies, Belgium
- Member of the Board of the Sustainable Places Research Institute, Cardiff University, UK
- Editorial staff member of Environmental Policy and Planning, Environmental Sociology, Current Opinion in Environmental Sustainability, Environment and Planning, Nature & Culture, Open Environmental Sciences, The International Journal of Public Policy and Environmental Development
- Member of the General Board of Agrifood Capital Foundation
- Member of the Supervisory Board of Wetsus
- Member of the Board of The Sustainability Consortium
- Member of Rectorencollege VSNU
- Member of the Research and Valorisation Committee VSNU
- Member of the Scientific Advisory Committee of the Amsterdam Institute for Advanced Metropolitan Solutions

Dr IJ.J.H. Breukink (1964)

First Appointment: 1 September 2005, end of current term: 1 October 2017

- Member of the Advisory Committee of Jubileumfonds of Kröller-Müller Museum
- Member of the Supervisory Board of Ziekenhuis Gelderse Vallei in Ede (remunerated)
- Member of the Supervisory Board of ROVA (remunerated)
- Member of the General Board of Stichting SURF
- Member of the Steering Committee of Governance en Financiën VSNU
- Member of Gelders Strategisch Innovatie Beraad
- Member of FoodValley Core Group
- Member of Advisory Board of DUWO

-
- Member of the Supervisory Committee of Operationeel Programma EFRO 2014–2020 Oost Nederland
 - Member of the Steering Committee of the World Food Center

Appendix 4

Knowledge valorisation indicators

1 Indicators for the VSNU domain "People"

1.1 Research into entrepreneurship

Table B4.1 Percentage of MSc graduates who find employment per sector

	2013	2014 ^{a)}	2015	2016
Business community ^{b)}	20	-	19	19
Business services ^{c)}	9	-	11	15
Government ^{d)}	6	-	10	9
Other non-academic sectors ^{e)}	41	-	38	38
Universities ^{f)}	24	-	21	19

Source: National Alumni Survey

a) No data available for 2014

b) Industry, trade, transport

c) Information and communication, financial services, legal services, human resources, press and information, other business services

d) Government

e) Research institutes, universities of applied sciences, other education sectors, hospitals (including academic medical centres), health and well-being institutions, other healthcare, other sectors

f) Academic universities (not including academic medical centres)

1.2 Entrepreneurship

Table B4.2 Number of employees involved in knowledge transfer positions (centralised and decentralised) in 2016

Typology	Number of FTEs
Legal advice, intellectual property and patents ^{a)}	16.1
Knowledge account managers involved in knowledge transfer ^{b)}	34.9
Entrepreneurship ^{c)}	4
Applications for funding and grants ^{d)}	10.9
University Fund	5
Social services ^{e)}	5.5
Communication and marketing SGs ^{f)}	12.7
WUR Campus	1
FTE Total	90.1

a) Concerns positions of jurists, including intellectual property services

b) Concerns positions such as Business Developer, External Partnership Coordinator, Purchaser, WR Purchaser, Knowledge Valorisation Officer: includes Wageningen International

c) Concerns StartLife and Climate-KIC

d) Concerns positions of Knowledge Valorisation Officer and Knowledge Transfer Officer

e) Science Shop, Education Project Services, *Wetenschapsknooppunt* and *Bètasteunpunt*

f) Only concerns decentralised positions at Science Groups

Table B4.3 *Entrepreneurship education; number of students per course*

Course code	Course name	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
MST23406	New Venture Creation: from Idea to Business Plan	23	27	24	35	45
MST51306	Economics of Science and Technology	22	29	22	26	34
MST55306	Principles of Entrepreneurship	-	76	85	83	60
AEP90306	Business Cases Agri-Food Entrepreneurship	-	-	-	32	46
ECS51306	Competence Management for Building Entrepreneurial Teams	8	6	5	11	10
YSS22306	Introduction to Management and Life Sciences	49	51	60	55	27
BEC52306	Financial and Business Management	59	68	63	54	112
MST32306	Strategic Change Management & Innovation	47	38	87	94	107
MST53806	Business and Society	-	-	12	13	19
MST33806	Circular Economy: Theory and Practice	38	23	24	32	51
MST24306	Management and Marketing	178	200	246	213	290
BEC51806	Agricultural Business Economics	65	51	67	58	71
CPT22806	Innovation Management and Transdisciplinary Design	66	86	88	91	90
ECS66100	Entrepreneurial Skills	111	115	74	67	74
ECS66700	Pursuing and Realising Entrepreneurial Projects	-	-	-	68	47
	TOTAL	711	770	857	932	1,083

1.3 Lifelong Learning

Table B4.4 *Courses for professionals*

Wageningen Academy (WU)	2014	2015	2016
Number of open registrations	844	862	752
Number of open registrations for courses	43	42	39
Number of course participants in in-company courses	560	Leisure, Tourism and Environment (MLE)	394
Number of in-company courses	23	32	26

CDI (WR)	2014	2015	2016
Course participants open registrations	865	833	806
Number of courses given	35	32	32

2 Indicators for the VSNU domain "Results"

2.1 Patents

Table B4.5 *Number of new patents for Wageningen University & Research*

	2014	2015	2016	Total number of applications in Wageningen University & Research's portfolio
WU	6	9	10	61
WR	11	10	7	81
Wageningen University & Research new applications	17	19	17	142

2.2 Licences

Table B4.6 Number of licenses for patents, breeds, models and materials in 2016

	Number of licenses
WU	17
WR	80
Total for Wageningen University & Research	97

2.3 Entrepreneurship

Table B4.7 Number of new spin-offs and student or staff startups

	2014	2015	2016
Number of spin-offs	2	0	1
Number of startups	1	1	3

2.4 Client satisfaction and knowledge utilisation Wageningen Research

Table B4.8 Customer satisfaction in 2016

Customer satisfaction	Number	Score	Total	Final score
Very satisfied	100	10	1,000	
Satisfied	83	8	664	
Neutral	23	6	138	
Dissatisfied	1	4	4	
Very dissatisfied	2	2	4	
Total number of respondents	209		1,810	8.7

Table B4.9 Knowledge utilisation in 2016

Project result assessment	Percentage
Useful	97
Not useful	1
No opinion	2

Of these, 97% the project results were used for:

Knowledge utilisation	Percentage
New/renewed product	28
New/renewed process	11
Policy formation	45
Strategic decision	2
Legal obligation	1
Basic knowledge	2
Follow-up research	2
Do not know yet	9

3 Indicators for the VSNU domain "Collaboration"

3.1 Collaboration

Table B4.10 Number of research projects funded for the benefit of societal, non-affluent organisations

Initiative	Target group	Number of research projects funded by the Science Shop in 2016	Number of students involved (Bachelor's and Master's)	Number of WU/WR employees involved (including project leaders)	Number of external stakeholders involved in projects
Science Shop	Societal organisations	14 ^{a)}	116	44	71

a) Number of research projects funded with the allocated budget

Table B4.11 Number of student projects carried out in response to requests from various societal stakeholders

Initiative	Target group	Number of student projects conducted in 2016	Number of students involved (Bachelor's and Master's)	Number of WU/WR employees involved in supervision	Number of stakeholders involved in projects
Education Project Services	SMEs & startups	34			
	PPS consortia	13			
	Government	14	764	113	85
	Societal organisations	29			
	Knowledge institutes	20			
	Other	3			

Table B4.12 Contribution to other education: number of pupils and teachers reached, number of Wageningen University employees involved and teaching product selection

Initiative	Target group	Number of pupils reached	Number of teachers reached	Number of WU employees involved	Total selection of teaching materials
<i>Wetenschapsknooppunt</i>	Primary education	1,989	178	72	12
<i>Wetenschapsknooppunt</i> and Food Valley network VO-HO	Secondary education (junior)	350	15	7	
Food Valley network VO-HO	Secondary education (senior)	1,900 (2,350 including Global Guests)	300	100 (125 including Global Guests)	250
National Biology Olympiade	Secondary education (senior)	More than 11,000	325	15	N/A

Table B4.13 Capacity utilisation of the CAT-AgroFood equipment portfolio as well as the share of external companies and institutions

CAT-AgroFood equipment portfolio	2016*
Average utilisation (%)	60
Of which from external users (%)	12
Number of external users	34

a) Till June 2016

Table B4.14 Number of temporary exchanges/secondments with the business community

	2014	2015	2016
Number of WUR employee secondments with the business community	6	7	8

3.2 Funds

Table B4.15 Wageningen University & Research turnover from the business community (in € millions)

	2014	2015	2016
WU			
Contract research for top sectors	0	0.01	
Contract research for the business community	19.2	18.4	
Total WU Contract Research	19.2	18.4	
WR			
Contract research for top sectors	2.4	3.15	
Contract research for the business community	54.4	49.5	
Total WR Contract Research	56.8	52.7	
TOTAL WAGENINGEN UNIVERSITY & RESEARCH CONTRACT RESEARCH	76.0	71.0	

Table B4.16 Wageningen University & Research turnover from EU grant programmes (in € millions)

	2014	2015	2016
WU	17.8	16.6	
WR	19.45	19.8	
Total EU Turnover Wageningen University & Research	37.2	36.4	

3.3 Publications

Table B4.17 Number of public-private Wageningen University & Research co-publications

	2013	2014	2015	2016
Corporate (business community)	110	102	114	154
Academic	2,115	1,998	2,170	2,447
Government	690	606	603	750
Medical	28	34	36	35
Other	116	146	130	170
Total publications (co-authored & other)	2,334	2,195	2,365	2,657

Source: Scopus, Elsevier B.V. All rights reserved. SciVal ®

Table B4.18 Number of professional publications, publications for the general public, other publications

Type of publication	WU			WR		
	2014	2015	2016	2014	2015	2016
PROFESSIONAL PUBLICATIONS						
a. Journal articles	220	143	151	703	421	83
b. Books	13	8	8	9	2	6
c. Book chapters	55	31	22	57	25	18
d. Annotations	0	0	0	0	0	0
e. Conference papers	7	3	15	8	5	15
f. Protocols	0	0	0	0	0	0
g. Reports	282	137	220	1,052	763	593
PUBLICATIONS FOR THE GENERAL PUBLIC						
a. Books	1	0	1	1	0	1
b. Book chapters	7	0	4	2	1	1
c. Articles in newspapers/magazines/journals	93	85	39	56	49	43
OTHER PUBLICATIONS						
a. Book reviews	11	6	12	0	2	0
b. Book editorships	31	15	14	11	1	7
c. Journal editorships	54	25	73	3	1	16
d. Inaugural speeches	18	8	7	4	0	0
e. Abstracts	646	190	461	263	130	193
f. Designs	0	0	0	0	0	0
g. TV or radio appearances	135	56	64	34	21	47

© 2017 Elsevier B.V. All rights reserved. SciVal ® is a registered trademark of Reed Elsevier Properties S.A., used under license

Appendix 5

Glossary

Limitations	The scope of reporting, namely where the organisation has set the boundaries of the activities reported on. The limitations determine what information is consolidated in the report, as well as what information is included regarding activities in the supply chain that could be of particular interest to users, but over which the organisation may have limited or no control.
Dialogue with stakeholders	The entirety of interactions between an organisation and its stakeholders. This is not limited to physical or virtual meetings specifically organised for that purpose.
Governance	The entirety of regulations for managing an organisation and the monitoring of their proper implementation. On the one hand, governance involves the relationships between shareholders, supervisors, management, and other stakeholders. On the other hand, governance also has an internal definition which includes management and control, internal control measures, and division of authority and responsibilities.
Social aspects of entrepreneurship	Social aspects of entrepreneurship which are identified when looking at businesses from a broader perspective than the traditional financial perspective. These include economic, environmental, and social aspects. It is used here as a synonym for Corporate Social Responsibility or sustainable business.
Societal information	All information related to the social aspects of business.
Societal results	The performance of an organisation with regard to the social aspects of business.
Societal reporting	External information on the organisation's policies and results with regard to the social aspects of business. Societal reporting is a generic term for typically non-financial information published in sustainability reports, CSR reports, or integrated in the annual report by the organisation in order to satisfy stakeholders' comprehensive information requirements.
Material topics	The topics most relevant to a specific organisation that, as such, are eligible for inclusion in societal reporting. A topic is more relevant, and therefore more material, when the organisation has a significant impact in that area. Topics that satisfy stakeholders' comprehensive information requirements and which could be decisive to stakeholders' decision making and considerations with regard to the organisation must also be considered material.
Performance indicator	A key figure used by the organisation with regard to a specific topic in order to monitor its development as well as to measure the organisation's progress and account for its results.
Scope	The range of reporting, namely the entirety of topics reported on. The scope of reporting concerns the organisation's choices regarding whether or not to report on specific topics.
Stakeholders	Internal or external individuals or parties who may reasonably expect the organisation to take their legitimate interests and expectations into account.
Value creation	An organisation's business operations require various forms of capital to or from which value can be added or detracted. An organisation creates economic, environmental, and social value for its stakeholders. Value creation refers to the process to which the organisation owes its existence.
Value chains	A company is active in a chain of activities that lead to the production and delivery of products and/or services which are sold, used and discarded by end users. For some organisations, activities in the value chain progress both "upstream", such as the activities of suppliers, and "downstream", such as the use of products and/or services. The hallmark of a value chain is the addition and detracting of value at various places and moments due to the activities of the various players in the chain.

Colophon

Wageningen University & Research, June 2017
www.wur.eu

Layout content
MediaCenter B.V. Rotterdam

Design and Layout cover
Wageningen University & Research, Communication Services

Photography
Petra appelhof (front)
Guy ackermans (back, left)
Marte Hofsteenge (back, right)

Printing
MediaCenter B.V. Rotterdam

To explore
the potential
of nature to
improve the
quality of life



The mission of Wageningen University and Research is "To explore the potential of nature to improve the quality of life". Under the banner Wageningen University & Research, Wageningen University and the specialised research institutes of the Wageningen Research Foundation have joined forces in contributing to finding solutions to important questions in the domain of healthy food and living environment. With its roughly 30 branches, 5,000 employees and 10,000 students, Wageningen University & Research is one of the leading organisations in its domain. The unique Wageningen approach lies in its integrated approach to issues and the collaboration between different disciplines.