



Summary

Executive Report 2018

From a sustainable to the
most sustainable university
of applied sciences
in the Netherlands

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Foreword - Executive Board

In recent years, we have taken significant steps towards a sustainable university of applied sciences. Thanks to the inspiration and dedication of all our employees, we have also received recognition for this year's work. This happened with the presentation of the SustainaBul 2018, the sustainability ranking for universities and universities of applied sciences. We can proudly call ourselves "the most sustainable university of applied sciences in the Netherlands".

As a university of applied sciences, we were already awarded with the CSR quality mark "Erkend" (Approved). This sustainability quality mark shows that we have achieved demonstrable results in all the areas mentioned for corporate social responsibility. Many of our study programmes had already been awarded three AISHE stars (Auditing Instrument for Sustainability in Higher Education) in 2017. We also achieved three stars for all our other study programmes in 2018. This certification for the Bachelor's programmes shows that sustainability is well integrated into our education.

In keeping with the Institutional Plan 2018-2021, sustainability remains an important topic. The Master's programmes achieved three AISHE stars and some Bachelor's programmes are even planning to reach four AISHE stars in 2019, such as Environment and Coastal and Marine Management. The professorships have linked Sustainable Development Goals to their research programme and will continue to take this into account in 2019.

In addition to sustainability, we invest in the quality of our education, research, study career guidance, and the transition from MBO to HBO. The additional resources that became available after the disappearance of the basisbeurs voor onderwijs (basic education grant) were used for this purpose, among other things. This year, we have spent these resources on expanding study career guidance and appointing two e-coaches to support lecturers in the development of new teaching methods.

Additional activities were carried out with subsidy aid from the "MBO-HBO transfer subsidy scheme". We are very satisfied with the Educational Festival at our locations. Many MBO students have visited this festival and this has further strengthened the cooperation with MBO. In addition, we started the mentoring programme and HBO students have been paired with MBO students with the aim of making the transition from MBO to HBO easier.

We made changes to the range of study programmes. The Master of River Delta Development and the Food Technology associate degree have started. The Master of Innovative Dairy Chain Management was converted into a standard HBO Master's degree. In 2018, we continued to work hard on the new Bachelor's programme in Forensisch Laboratorium-onderzoek (forensic laboratory research) within the Life Sciences and Technology partnership with NHL Stenden Hogeschool, and on the Bachelor's programme in International Business and the Animal Management associate degree. At the same time, we ended the Entrepreneurship associate degree and the full-time programme in Integral Enforcement Sustainability Law.

We were pleasantly surprised by the RAAK-PRO nominations of two of our studies: Arossta (restoration of coral reefs in the Caribbean) and Better Wetter (better water system in the Frisian peatland meadows). The Arossta project has even won the second jury prize of the "RAAK Award 2018". These are great results. It also shows appreciation for the good applied research at our university of applied sciences.

We are pleased that the teams responsible for results are increasingly able to find their way and can make responsible choices together. And we are convinced that together we can overcome the hurdles on the way to a futureproof position for our university of applied sciences within higher education.

The Executive Board would like to thank all employees, students, and partners for their efforts and contributions. We look forward to a successful continuation into 2019!



Drs. P.C.A. van Dongen
Chair of the Executive Board



Drs. A.C. Keizer-Mastenbroek
Member of the Executive Board

**Golden Globe for Fryslân Fungies**

Fryslân Fungies by Michiel de Groot, student of Environment in Leeuwarden, received the first jury prize at the annual VHL Golden Globes. BioBlitz Potmarge, from Animal Management students in Leeuwarden, received the audience prize. At the same time they earned a nomination for the LC Awards, the student prizes of the Leeuwarder Courant. The start-up Fryslân Fungies recycles waste (coffee grounds) for the cultivation of protein-rich oyster mushrooms for the local market.

The aim of the Golden Globes competition is for students to think about solutions for sustainability issues. Prizes go to ideas with a positive impact on society.



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The most sustainable

University of Applied Sciences Van Hall Larenstein moved up in the SustainaBul 2018 ranking. This is the sustainability ranking of universities and universities of applied sciences that Studenten voor Morgen (students for tomorrow) has been organising since 2012. Van Hall Larenstein moved up to the third place, behind two universities. Van Hall Larenstein is now the "most sustainable university of applied sciences in the Netherlands". We achieved a score of 99 out of 100 on the "integration of sustainability in education" component. According to the assessment committee, this is because the study programmes and subjects of Van Hall Larenstein are classified on the basis of the Sustainable Development Goals. We even achieved a score of 100% in the category "research".



Van Hall Larenstein

The growth and development of the global population is increasing the pressure on our planet and a greater need for innovation and sustainable solutions is being observed. Based on our mission, we ensure the development of professionals who are capable of thinking sustainably who, in their own way, will contribute to the solution of sustainability issues and to the preservation of a liveable world.

Mission, vision, and ambition

We train students to become ambitious and innovative professionals and, through our applied research, aim to contribute towards a sustainable world. Van Hall Larenstein is a green University of Applied Sciences. This can be seen in our education, research, and business operations. Based on a substantive profile in the areas of our university of applied sciences, we make strategic choices for our education and research.

As a green university of applied sciences, we ensure high-quality education in which sustainability takes centre stage. All of our Bachelor programme have at least three AISHE stars. By linking education, applied research, and the professional field, research outcomes can be used in our education and our students are able to acquire competences that comply with the demands of the professional field. We have study programmes and research themes that are often unique in the Netherlands, have an interdisciplinary character, and always cover a special field of study.

On 1 January 2019, we changed our organisational structure: we moved from three to two domains (Delta Areas and Resources and Food and Dairy). The Animal Management study programme has been added to Delta Areas and Resources from the Animal and Business domain. And the degree programmes in International Business and Business Administration and Agribusiness have been added to the domain of Food and Dairy. Furthermore, the research department and the support of the Animal and Business domain are divided between both domains.

Four core values form the basis of our identity and help us achieve our mission and vision.

1. Sustainable

Everything we do is driven by our ambition to contribute towards a sustainable society, in which the aspects people, planet, and profit are in equilibrium;

2. Involved

We are involved with the student, each other, the organisation, and our partners. Personal contact with students, colleagues, and partners matters to us. By knowing and listening sincerely to each other, we can work better together. We are also closely involved in the sectors for which we provide training and conduct research;

3. Enterprising

We are innovative, follow what is happening around us, often go one step further than is expected of us, and make use of opportunities to achieve our goals. Through short lines of communication and personal contact, we can respond quickly to new developments;

4. Responsible

We do what we say and show what we do. We are accountable for our contribution to the results to be achieved.

"Sustainability and a great responsibility for the future of our earth are always recurring items"



First "vertical harvest"
Students of the minor Feeding Our Planet harvested the first vertically grown herbs in December 2018. The crops come from towers of stacked cultivation layers which the students built in Van Hall Larenstein's greenhouse, in collaboration with Urban Ponics and Aqua Futura. Our caterer Eurest uses the herbs in soups, sandwiches, and drinks. This allowed the canteen to provide a healthier and more sustainable menu. Vertical farming increases the food supply using little space. Moreover, according to Urban Ponics, there are more possibilities to control growth, taste, and nutrients, and the recycling system saves a lot of water.



Key Figures

Students

In 2018, 4337 students, excluding Master's students, studied at Van Hall Larenstein. Enrolments in our Bachelor's and associate degree programmes (ads) were slightly higher than in 2017. The number of enrolments in our Master's programmes in 2018 was 52. This is slightly lower than in 2017. The number of continued to increase, just as in previous years. There was an increase in 2018 of 15.6% compared to 2017.

	2016	2017	2018
Students (1 Oct., per academic year, excl. Master's students) ¹	4.239	4.312	4.337
Incoming Bachelor's students and associate degree programmes	1.150	1.239	1.269
Incoming Master's students	50	62	52
Bachelor's programme graduates ²	568	646	747
Associate degree graduates	41	38	51
Master's programme graduates	50	32 ³	50

Employees

The number of FTEs in 2018 compared to previous years has remained almost constant. The number of female employees has risen slightly compared to previous years: from 53.1% in 2017 to 53.4% in 2018. The ratio of employees in the workforce that is 55 or older remains more or less the same compared to 2017: 34.7 percent. The ratio of support and teaching staff remained exactly the same compared to 2017.

	2016	2017	2018
Number of employees	566	560	565
Number of FTEs	449	446	449
Support staff	34,8%	32,7%	32,7%
Teaching staff	65,2%	67,3%	67,3%

Financial

	2016	2017	2018
Total income	54.492	55.437	54.964
Total expenditure	54.233	54.838	53.965
Net result (in € thousands)	321	352	708
Solvency ratio	31,1%	33,7%	33,1%
Current ratio	0,54	0,39	0,68

Study Programmes

Van Hall Larenstein offers a broad range of study programmes in the green domain. As of 1 September 2018, Van Hall Larenstein offers thirteen Bachelor's programmes, five professional Master's programmes, and seven associate degree programmes.

Four of the fourteen Bachelor's programmes are taught both in Leeuwarden and Velp. These are Agribusiness and Business Administration, Animal Husbandry, Management of the Living Environment, and Food Technology.

Location - Leeuwarden

Name of the study programme	Type	ISAT
Associate degree		
Sustainable Soil Management	part-time	80070
Sustainable Water Technology	part-time	80069
Integral Enforcement	part-time	80023
Sustainability Law		
Dairy Farming	full-time	80044
Food Technology	part-time	80141
Bachelor		
Agribusiness and Business Administration	full-time	34866
Biotechnology (in conjunction with NHL Stenden University of Applied Sciences)	full-time	34331
Animal Husbandry	full-time	34869
Animal Management	full-time	34333
International Business and Management Studies (in conjunction with NHL Stenden University of Applied Sciences)	full-time	34936
Coastal and Marine Management	full-time	39204
Management of the Living Environment	full-time	34859
Environment	part-time	34284
Horticulture and Arable Farming	full-time	34868
Food Technology	full-time	34856
Master		
Innovative Dairy Chain Management	full-time	49290
	part-time	49290

Location - Velp

Name of the study programme	Vorm	ISAT
Associate degree		
Land and Water Management	part-time	80128
	full-time	80128
Garden and Landscape	part-time	80068
	full-time	80068
Bachelor		
Agribusiness and Business Administration	full-time	34866
Forestry and Nature Management	part-time	34221
	full-time	34221
Animal Husbandry	full-time	34869
International Development Management	full-time	34203
Land and Water Management	part-time	34226
	full-time	34226
Management of the Living Environment	full-time	34859
Garden and Landscape	part-time	34220
	full-time	34220
Food Technology	full-time	34856
Post-initiële master		
Agricultural Production Chain Management	full-time	70058
Management of Development	full-time	70057
Project- en Procesmanagement in the Domain of Land and Water	full-time	70056
River Delta Development	full-time	49504

Stakeholders

The stakeholders interested in our education include our future graduates, governments such as the Ministry of Economic Affairs, provinces and municipalities, and our partners in the field of education, applied research, and knowledge circulation. We work with them on joint education and research, good transition in education, an optimal connection to the labour market, and local, economic, social, and environmental developments. We invest in long-term relationships with professional practice, e.g. in the form of Centres of Expertise (CoEs) on agriculture, food and the living environment, collaborative agreements, networks, training, courses, external supervisors in education, in the provision of facilities, and in the work field advisory committees of the study programmes.

In order for our stakeholders to identify with our education, we also speak to them regularly, e.g. regarding the direction of Van Hall Larenstein, the labour market, and applied research. The quality of our education and study programme portfolio is also discussed with field advisory committees and alumni. As far as research is concerned, an Advisory Board advises us on our research portfolio and the quality of our research. And every lecturer, professor, and director maintains intensive contact with the professional field to get an up-to-date picture of the field.

¹ Main registration at Van Hall Larenstein, source 1CijferHO 1-10-2018

² Per academic year, reference date 1 October.

³ Qualification 2017-2018 (Master's 1-10-2017 until 30-9-2018)

**Stand for aquaponic system delivered**

Aquaponics combines the cultivation of aquatic animals with the cultivation of plants. Van Hall Larenstein investigates this new food production. Aquatic animals provide fertilisation, and plants absorb nutrients from the water. This recycling process offers opportunities for sustainable food production in cities where opportunities are limited by polluted soil. Soil is not needed for this, as you can use tools such as a "stand". Together with the company Aquafutura, students designed and built this type of stand near the Potmarge in Leeuwarden. It features a pump drive that uses solar panels. Students of the minor Feeding our Planet organized a festive gathering on the completion of the stand.

Sustainability

We believe in a world in which we are constantly making sustainable choices for complex issues such as climate change, the food problem, tension between nature and the living environment, land and water management. Professionals who are capable of thinking and acting sustainably are needed for all these themes: people who view sustainability as self-evident. Van Hall Larenstein plays a social role in this regard. By putting sustainability at the heart of our education, research, and business operations, we wish to contribute together – and with all students – towards a better world for today and for future generations.



Sustainable Development Goals

We link our contribution to the big picture through the Global Goals For Sustainable Development. This is why we have signed the corresponding SDG Charter, by which we commit to working actively towards these global goals. These are 17 goals which the United Nations set in 2016, as the successors to the millennium development goals. The SDGs aim to eradicate poverty, inequality, and climate change by 2030. This cannot be achieved by governments alone. As a green university of applied sciences, we can also contribute. We feel connected to all 17 global goals, but have chosen – based on our education portfolio and professorships – to focus specifically on 8 of the 17 goals.

CSR quality mark "Erkend" (Approved)

In 2017 Van Hall Larenstein achieved the CSR quality mark "Erkend" (Approved). This sustainability quality mark shows that we have achieved demonstrable results in all the areas mentioned for corporate social responsibility, and that we are continuing to do so.



AISHE quality marks

The integration of sustainability in education is based on AISHE certifications (AISHE stands for Auditing Instrument for Sustainability in Higher Education). An audit team from the Hobéon certification agency assesses study programmes based on the extent to which sustainable development is integrated into education, research, and organisation. For example, they look at vision and policy, personnel, and graduates.

All the remaining study programmes were awarded three AISHE stars in 2018. This means that all of our Bachelor's programmes have been certified with three stars. In 2019 a number of study programmes are aiming to reach four AISHE stars.

SustainaBul, the most sustainable university of applied sciences Since 2015

Van Hall Larenstein has participated in SustainaBul: the annual sustainability ranking of all Dutch universities and universities of applied sciences. The student network organisation, Studenten voor Morgen (Students for Tomorrow) started the ranking in 2012 to stimulate further sustainability in higher education. Ranking is done based on four categories: education, research, business operations, and an integrated approach.

In 2018, Van Hall Larenstein, together with Wageningen University & Research, was the institution that scored the best in the integration of sustainability into education. Van Hall Larenstein scored 99 points of out 100. According to the assessment committee, the main reason was that the study programmes and courses at Van Hall Larenstein are classified on the basis of the Sustainable Development Goals of the United Nations. This way, the institution makes it clear that it contributes to making the world more sustainable by means of different disciplines.



We even achieved a score of 100% in the category "research". In the final ranking, across all categories, Van Hall Larenstein has this year moved up from 7th place to a top 3 position, just behind two universities (Wageningen and Eindhoven). This means that we can now call ourselves the "most sustainable university of applied sciences in the Netherlands".

Sustainability Activities

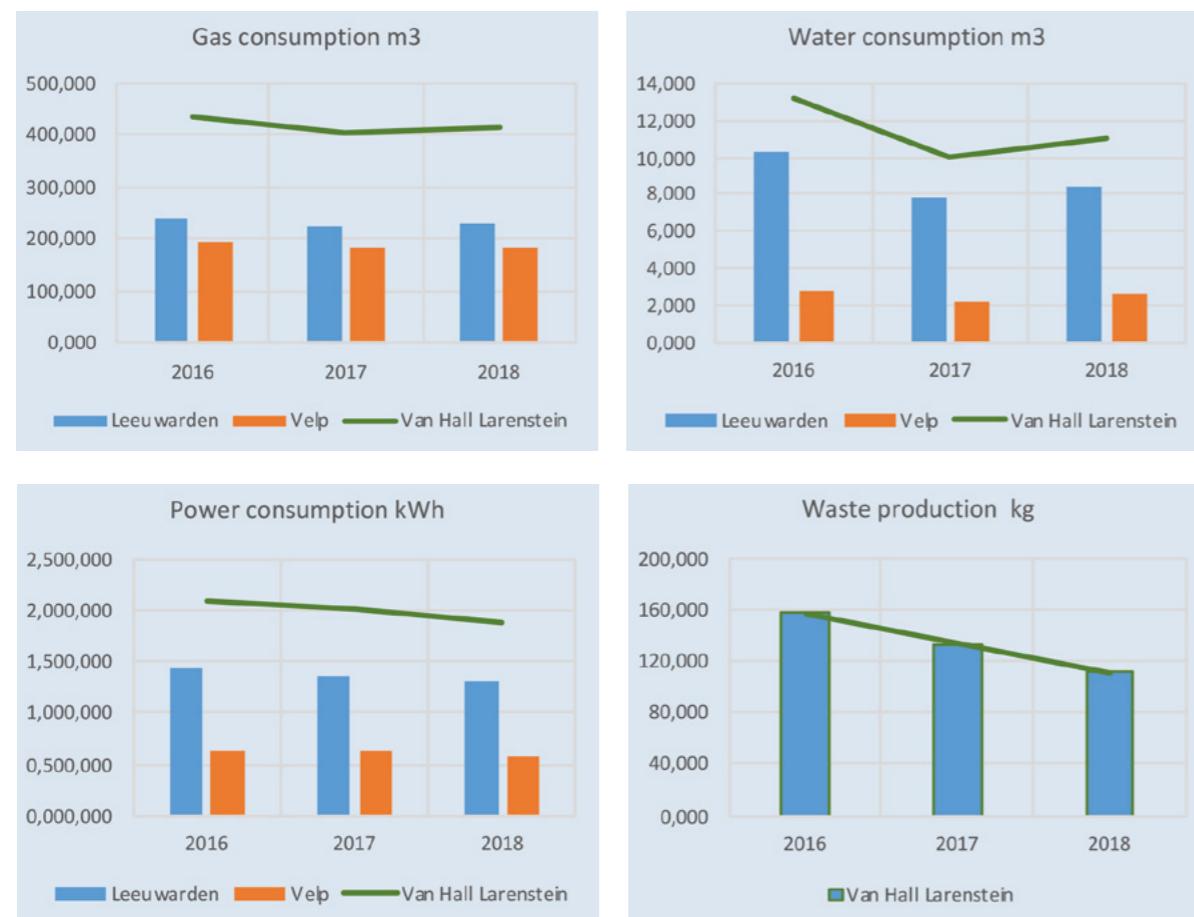
As "the most sustainable university of applied sciences in the Netherlands" we often initiate activities that raise awareness of the urgency of sustainability. For example, in 2018 these were:

- various free lectures and courses;
- a series of workshops on the implementation of Sustainable Development Goals in business operations;
- presenting "Groene voetjes" (green feet) to employees who have performed exceptionally well in the field of sustainability;
- a visit by the core sustainability team to the world's most sustainable office building (according to the BREEAM Awards 2016), owned by our main bank ABN AMRO;
- switch to postal delivery by a regional bicycle courier company;
- a "waste audit" in which all the waste was collected, sorted, weighed, and analysed for a week.

CO₂-footprint

Our ambition to be the greenest university of applied sciences extends beyond education. It also pertains to our business operations. This means that we set targets, as an organisation, for energy consumption, waste processing, and water consumption, etc., and for the sustainable management and use of buildings. One measure of this is the CO₂ footprint. This shows how much CO₂ you emit as a business and enables you to properly assess where emissions can be reduced. A minimal footprint is also an objective in our tenders and mobility policy.

We achieved great results in 2018. For example, in Leeuwarden electricity consumption was reduced by 5.3%. In Velp this was reduced by 8.17%. The water consumption per consumer has decreased. The total amount of waste was reduced by 15%. These positive results can be attributed to better awareness and a higher yield from the solar panels. As a result, the decreasing trend continues.



Area Development

In the Potmarge precinct (Leeuwarden) and in the Larenstein Sustainable Knowledge Estate (Velp) we want to contribute to the development and dissemination of knowledge in the field of sustainability. For example, by bee-, bird-, and butterfly-friendly green management and draining rainwater to the sewer system. We do this with students and researchers, with neighbouring green schools such as Helicon in Velp and Nordwin College in Leeuwarden, with Rheden and Leeuwarden municipalities, and other stakeholders in the area.

Van Hall Larenstein and Helicon want to turn the Larenstein Estate into one of sustainable knowledge. A work group on the Larenstein Sustainable Knowledge Estate, in which education, facilities services, and communication combined their expertise, is involved in the design and management of the estate, the development of Voedselbos Larenstein, and the planning of events.

The Potmarge steering group in Leeuwarden aims to make the potential and qualities of the area available. This will take the form of a city garden with test sites and an innovative area with visible water and energy art. Themes that are given form at these test sites are "water & energy", "food", and "welfare and health".



The solar boat scores highly

The Van Hall Larenstein and Nordwin solar boat team finished second in one of three races for the World Solar Sport One Championship. With two fourth places in the other races, they finished second overall this year. A fantastic result! Solar boat races, which are especially popular in the Netherlands, are available in various classes, based on educational level, materials used, and technical innovations. The Van Hall Larenstein and Nordwin solar boat team sails in the A-class. The team was founded in 2008 by a number of students and Environment lecturers. Since then, students from different study programmes have joined this team, which has been very successful in the Sinnestream for a couple of years now.

Education

As a green university of applied sciences with two campus locations in the Netherlands, we contribute towards the green domain. We do this regionally, nationally, and internationally.

Van Hall Larenstein offers study programmes that enable students to tackle the complex issues of our time. They learn how they can contribute towards a sustainable world.

For the reorganisation of our range of study programmes, we looked at the national and international demand in our domain. The developed educational concept is the basis for organising and implementing all education. It allows the individual student to develop their talents and professional competencies in an inspiring environment.

All study programmes have five characteristics:

- centres on the real world
- freedom of choice
- diversity
- up-to-date use of digital resources
- applied research, internationalisation and sustainability in the final competences

Changes to the Study Programme Offerings

We made changes to the range of study programmes in 2018.

Study programmes that ended as of 1 September 2018:

- The full-time Entrepreneurship Associate degree programme is no longer available.
- The full-time International Business and Management Studies (IBMS) Bachelor study programme has ended. International Business will be offered instead.
- The Integral Enforcement associate degree programme is now only offered as a part-time study programme. The full-time programme ended on 18 December 2018.

New study programmes as of 1 September 2018:

- Two new study programmes have passed the "New Programme Assessment". These are the Food Technology associate degree and the Master of River Delta Development, a joint programme with HZ University of Applied Sciences and Hogeschool Rotterdam.
- The Master's in Innovative Dairy Chain Management was converted from a post-initial Master's to a standard HBO Master's degree.

Study programmes that will end as of 1 September 2019:

- The Bachelor's programme Agribusiness and Business Administration in Velp will be phased out from the academic year 2018-2019 onwards. Students can still finish their study programme. The Dutch variant of this study programme will remain in place in Leeuwarden.
- The post-initial part-time Master's in Project & Process Management (Land and Water) will also end. Students can still finish their study programme. Parts of this study programme will remain available as a separate course.

Plans for New Study Programmes

- Van Hall Larenstein and NHL Stenden Hogeschool are preparing the new Bachelor's degree programme in Forensisch Laboratoriumonderzoek (forensic laboratory research)
- The Bachelor's programme in International Business will replace International Business and Management Studies (IBMS) as of 1 September 2019.
- A new Animal Management associate degree will be provided in Velp.

We want to encourage and challenge students to develop their talents with high-quality education."

"We want to engage students in the design and structure of our study programmes."

"For us, the main quality indicator is how satisfied students and alumni are with their programme and everything related to it."

Use of Quality Funds

The resources released by the disappearance of the basic grant will be invested into the quality of education and research related to education. Ambitions to this end have been formulated in the "Gemeenschappelijke Agenda Hoger Onderwijs" (common agenda for higher education). These ambitions are: more intensive and small-scale education, more and better education for students, commitment to talent development both within and outside the study programme, appropriate and good educational facilities and further professionalisation of lecturers.

With the approval of the Participational Council, Van Hall Larenstein has decided to spend these funds by 2018 on the development of study career guidance and the appointment of e-coaches.

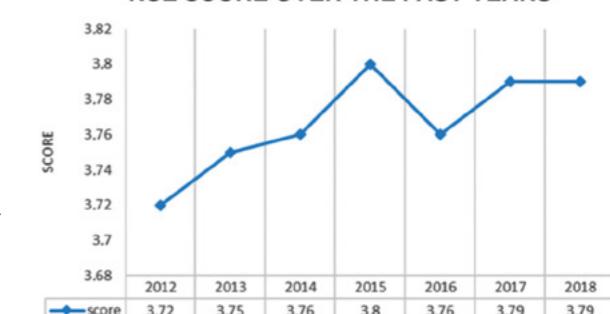
In 2018, approximately €900,000 will be distributed on the basis of student numbers in order to increase the number of hours available for study career guidance in training teams. Good study career guidance helps enormously in better connecting secondary education and secondary vocational education to higher vocational education and to professional preparation. Van Hall Larenstein's study career guidance is also linked to talent development. The student's personal talents, interests, and ambitions always form the starting point. Our study career guidance was further developed in 2018 and was more aimed at connecting and professional preparation. The study career guides and the study career team directors now have more time available for these tasks.

For the appointment of two e-coaches to support lecturers in the development of "blended" teaching methods, approximately €100,000 will be spent in 2018. Van Hall Larenstein invests in a (blended) combination of learning in contact and distance learning. The e-coaches support the lecturers in this.

Student Satisfaction

Overall satisfaction for students across the entire university of applied sciences remained stable in 2018 at 3.79 (on a scale from 1-5). The National Student Survey (NSE) also showed that the appreciation of all subjects was stable or had increased. After a decrease in 2016, the 2018 score is now back to the same level as 2015. At 4.20, the general atmosphere in the programmes is still higher than the national average of 4.10. The score "recommending the study programme to friends and family" increased to a score that is approximately at the national average. Satisfaction with study guidance, information provision, and study facilities also scored higher.

NSE SCORE OVER THE PAST YEARS



International Student Satisfaction

In 2018, a satisfaction survey was conducted for the first time among international students, as a supplement to the NSE survey. We looked at the support during the study, the orientation and registration process, ICT matters, facilities matters, and life in the Netherlands. The general satisfaction is 33 on a scale of up to 50.

Alumni Satisfaction

Study satisfaction among alumni was 69% in the last measurement from the HBO monitor. More than two thirds of our alumni look back satisfied on their studies and quality of the programme they participated in..

Study success rate

Cohort Indicators	Yield	Drop-out rates
Cohort 2011	59,9 %	
Cohort 2012	58,5 %	
Cohort 2013	59,2 %	
Cohort 2015	30,6 %	3,0 %
Cohort 2016	26,5 %	4,0 %
Cohort 2017	27,9 %	4,2 %

Van Hall Larenstein has three indicators for study success. The yield is 59.2% (2013 cohort), the drop-out rate is 27.9% (2017 cohort), and the percentage of "switchers" is 4.2% (2016 cohort). The yield increased from 58.5% to 59.2% in the academic year 2017-2018. The drop-out rate in the 2017 cohort is 27.9%, this was 26.5% in 2016 and 30.6% in 2015. The amount of "switchers" further increased to 4.2%.

Points for Attention

We want to work together to increase customer focus and quality awareness, particularly with regard to the provision of information, quality assurance, teacher quality, and internship guidance.



Internationalisation

Van Hall Larenstein is an international school with an international study environment. Students come from the Netherlands and abroad. All Van Hall Larenstein students are prepared for professional practice in an international context.

In 2018, our international students were able to choose from five full-time English-language Bachelor's programmes, three English-language programmes (consisting of seven variants), and five English-language short courses. The conversion of the Master's programmes was continued for the English-language programmes, so that these could also be offered in modular format as short courses. Last year, the Master of Management of Development started with the Disaster Risk Management specialisation. We also worked hard on the development of the new Master of River Delta Development, in conjunction with the HZ University of Applied Sciences and Rotterdam University of Applied Sciences. This Master study programme will start in September 2019.

International Students

158 international students started their study programme in 2018; 122 of these students are enrolled in a Bachelor programme, one in an associate degree, and 47 in a Master study programme. The total number of international students enrolled in a study programme at Van Hall Larenstein was 439 in 2018. The percentage of international students in the total student body in 2018 was approximately 10%.

This year, EP-NUFFIC selected 42 students from 593 applications for a scholarship for a Master's programme at Van Hall Larenstein.

Nationalities of International Students

Nationalities of international students ⁴	Leeuwarden		Velp		Total
	Bachelor	Master	Bachelor	Master	
Europe ⁵	144	1	146	0	291
Africa	2	1	3	30	36
Asia	3	1	91	12	107
North and South America	0	0	3	1	4
Oceania	0	0	0	0	0
Unknown	0	0	0	1	1
Total	149	3	243	44	439

⁴ From the Student Information System, reference date 1 October 2018.

⁵ Excluding students with a Dutch nationality.

⁶ Decrease in number of Chinese students due to the changed circumstances at the Chinese partner in Kunming

International Cooperation

Focus countries for Van Hall Larenstein are Germany, Spain, Romania, India, China, Indonesia, Ethiopia, Brazil, and the United States. The school wants to intensify collaboration in and with those countries in the field of education and research. A business case was made for each focus country. At the end of 2018 we rearranged the focus countries. Germany, India, China, Ethiopia, Indonesia and Romania will receive more attention from 2019 onwards than countries such as Spain, Brazil, and the United States.

Curriculum

Each study programme offers students the opportunity to obtain an international record from their third academic year. Other forms of internationalisation in the curriculum are the compulsory international work placement, language instruction, international guest lecturers from the professional field or partner institutions, international cases or assignments (from living labs), virtual education with partner institutions, international literature, international excursions, participation in international conferences, and an international classroom.

Total number of International students per focus country

	2014	2015	2016	2017	2018
Chinese students	40	34	26	20 ⁶	21
German students	206	190	216	223	208
Indian students		37	41	48	58
Spanish students		1	2	2	2
Ethiopian students			15	12	13
Indonesian students		7	5	5	6
Romanian students		2	3	3	6

"We bring students from different nationalities together in international classrooms"

European study project in Estonia

Lahemaa National Park in Estonia, densely forested and sparsely populated, was the location for an Erasmus+ project. 31 Students from six countries studied the possibilities for residents to undertake entrepreneurship for a week. In preparation for this, they had followed an online course Social Entrepreneurship for Local Change. Three students from Van Hall Larenstein took part in Land and Water Management, one Master's student took Management of Development, and three students in Management of the Living Environment. They worked in groups of different nationalities and educational backgrounds and eventually made a business plan for a social enterprise. They all found the international experience a tremendous enrichment of their studies.

Research

VVan Hall Larenstein is a knowledge institution where applied research takes centre stage. We conduct research to improve, develop, and innovate professional practice within the three domains of "Delta Areas and Resources", "Food and Dairy", and, in 2018, also "Animals and Business". As of 1 January 2019, the domains have been reclassified. With research in these domains, we contribute to the development of a sustainable society.

Applied Research Centres en professorships

Each of the three domains has an Applied Research Centre (ARC). An ARC is the umbrella structure within which several professorships work together. An ARC serves as a knowledge centre.

The summary of ARCs shows the lines of research (professorships) and the individual professors of each ARC. In most projects, different professors from the three domains work together or staff and students from the different domains are involved. Projects are organised in structures such as living labs (or testing grounds), in which the different parties collaborate.

Centres of Expertise

In a Centre of Expertise (CoE), lecturers and students work with researchers and scientists. The aim is to contribute with applied research towards innovations in the professional field and in turn, promote the quality of education at universities of applied sciences.

Van Hall Larenstein coordinates the joint development of the green CoEs. Van Hall Larenstein is the leader of the CoE Agroanimals and of the Knowledge Centre for Nature and the Environment. Within the green CoEs, Van Hall Larenstein participates intensively in CoE Food and modestly in CEOs Greenports and Open Cultivation. In addition to collaborating with other green universities of applied sciences in the four green CoEs, Van Hall Larenstein participates in three CoEs in the "greyer" sector that are in line with its profile and focus areas: The CoE Biobased Economy (in which Wageningen University and Research also participates), CoE Water Technology, and CoE Delta Technology.

Sustainable applied research

Our research projects are local, national, and/or international. The research links local results to Sustainable Development Goals. We also ensure that the Nationale Wetenschapsagenda (national science agenda - NWA), the Ontwikkelagenda Groen Onderwijs (green education development agenda) and the strategic research agenda of the Vereniging Hogescholen (association of universities of applied sciences) are connected with each other. We are also associated with various CoEs, which in turn are related to the Topsectorenbeleid (top sectors policy).

Our research is further integrated into our education in the domains and with our services. The professorships, within which this research takes place, pursue different objectives in the fields of agriculture and nature conservation. They work with the re-use of waste materials and in accordance the guidelines of the circular economy and animal welfare. The professorships share their knowledge by means of lunchtime lectures, student projects, living labs, and so on.

We are always looking for a connection with sustainability and society. Each new research project has an explicit sustainable contribution. And our cooperation partners do not only serve financial goals, but also social goals. For example, we have a large number of partnerships with NGOs.

Research Efforts in 2018

Category	Total amount	Number of FTEs	Number of PhD students
Professors	23	12,9	23
Lecturers, other researchers, and support	297	24,8	
PhD students	6	4,1	
Students	448		

Overview of Professorships and Professors

Animals and Business Applied Research Centre

Supporting entrepreneurs, authorities, and social organisations with applied research in innovations aimed at animal behaviour and welfare and at developing sustainable living environments for animals and people, translating those requirements into sustainable business models for producing adequate and safe food and other biobased products.

Professorships	Professor(s) (FTE)
Animal Welfare	Dr. H. (Hans) Hopster (0,5)
<i>Animal Behaviour, Animal Health, and Animal Welfare</i>	
Sustainable Agribusiness in Metropolitan Areas	Dr. H.P.A. (Rik) Eweg (0,5) Leading professor (0,4)
Environmental impact of Circular Agro-Food Chains (MICAF)	Dr. Ir. J.W. de Vries (0,6) <i>Associate professor</i>
Healthy Bees	Ir. K. Steijven (0,6) (until 1 March 2018) Dr. A. Strijkstra (0,4) <i>Acting Professor - Healthy Bees</i>
Meadow birds	Dr. A.G.E. Manhoudt (0,5)

The ARC is currently active in living labs in India (Baramati-Pune), NE Romania, Brazil (Minas Gerais), Ethiopia and Kenya, and obviously in the Netherlands. Internationally, cooperation is sought with governments in the countries where the living labs (or testing grounds) are organised. Cooperation with international knowledge institutions occurs within these living labs.

The Family Dairy Tech project, which was concluded in 2017, has now made a film, financed by Regieorgaan SIA (Stichting Innovatie Alliantie), to stimulate incorporation into education. This film is used in various study programmes in India and the Netherlands, in workshops for professional practice, and in international living lab projects.

Projects include:

- Focus on dike-diggers
- Van verblijf naar verblijf (from shelter to shelter)
- Greenhouse Protein

Delta Areas and Resources Applied Research Centre

Conducting applied research, aimed at improving, developing, and innovating professional practice in Delta Areas and Resources and thus contributing towards a sustainable society in a delta.

Professorships	Professor(s) (FTE)
Circular Economy and Water Resources Management	Prof. Dr. A.J.M. (Toine) Smits (0,2) Leading professor (0,4)
Coastal and Marine Management	Dr. P.A. Walker (0,6)
Sustainable Landscape Management	Dr. Ir. D.J. Stobbelaar (0,6)
Sustainable Foodscapes in Urban Regions	N. Van Dooren (0,6)
Management of Forested Landscapes	Dr. E.L. Abarca (0,6)
Oil Palm and Tropical Forests	Dr. Ir. P.J. van der Meer (0,6) <i>associate professor</i>
Sustainable River Systems	Dr. J.S. Rijke (0,4) <i>HAN en Van Hall Larenstein</i>
Sustainable Soil Management	Dr. E.V. Elferink (0,6)
Organic material for fertile and functional soil management (start November 2018)	Dr. V. Sechi (0,6) <i>Associate lector</i>

Living labs within the ARC Delta Areas and Resources are working on complex, water-related regional tasks in delta areas and river basins. Steps have been taken in the Living Lab Friesland (Fjildlab Fryslan) and the Living Lab Waddenzee (Wadlab). The Waterschap Vallei en Veluwe (Vallei and Veluwe water board) has also volunteered to introduce a similar approach in the area that they manage. In 2018, the Nationaal Lectoren Platform (national professorships platform) "Delta and Water Technology" and the Delta Platform adopted the living lab approach formulated by the ARC. This will increase the contribution of the ARC Delta Areas and Resources to national and international research programmes.

Projects include:

- Arossta (Raak-PRO)
- Integrated Watershed Management
- Carbon Connects

Artificial coral reefs in the Caribbean

The Arossta project (Artificial Reefs on Saba and Statia) stimulates the restoration of coral reefs on St. Eustatius and Saba, islands in the Caribbean. The quality of the ecosystem has been deteriorating for years due to climate change and poor water quality. Sea urchins disappear as soon as the reef structure decreases, and algae appear. Algae growth hampers coral growth. Artificial reef provides a new structure on which key species could re-establish themselves. This is the subject of the research that Van Hall Larenstein is conducting with the local nature conservation organisations Stenapa and SCF, among others, and with Wageningen Marine Research. The Arossta project won second prize in the RAAK awards.

Food and Dairy Applied Research Centre

Conducting applied research for the sustainable production of healthy food and dairy worldwide. This is always done with broad knowledge and use of modern technology, in a social context, and with consideration for the living environment. Achieving a socially adequate food supply in a safe and healthy living environment requires a circular and interdisciplinary/multidisciplinary approach with collaboration between knowledge institutions in the area of food, non-food, and biobased solutions.

Professorships	Professor(s) (FTE)
Sustainable Dairy farming	Dr. W. Voskamp-Harkema (0,4) Leading professor (0,4)
Herd Management and Smart Dairy Farming	Dr. C. Lokhorst (0,5)
Cost-effective Dairy farming	Dr. X. Chen (0,6)
Dairy Value Chains	Dr. R.M.T. Baars (0,8) <i>associate professor</i>
Healthy and Sustainable Food & Western Diseases	Dr. E. Nederhof (0,5)
Food safety (ending at the end of 2018)	Dr. A. Schaafsma (0,4)
Health and Nutrition	Dr. F. van der Leij (0,2) <i>Inholland and Van Hall Larenstein</i>
Food Physics	Dr. A.A.C.M. Oudhuis (0,25 - 0,5)
Dairy Process Technology	Dr. P. de Jong (0,6)
Safety in the Food Chain	Dr. M. Strikwold (0,6) <i>associate professor</i>
Sustainable Water Systems	Dr. P.M.F. van der Maas (0,5)
Biobased Proteins	Dr. E.C. de Bruin (0,6)
Water Technology	Dr. L. Agostinho <i>NHL Stenden and Van Hall Larenstein</i>
Biomimicry	Dr. M. Gallo (0,1) <i>Aeres, Inholland and Van Hall Larenstein Biomimicry</i>
Circular Plastics*	Dr. R. Folkersma Dr. J. Jager <i>NHL Stenden and Van Hall Larenstein</i>

At the end of 2018, the ARC's new outline memorandum was adopted, in which the mission was shifted more towards circular agriculture. The Food Application Centre for Technology (FACT) was also opened with the symposium "Sustainable, Mild Processing". With the financial support of Provincie Fryslân, set up by Van Hall Larenstein and Nordwin College, FACT wants to make a testing site for SMEs and knowledge institutes in the field of food technology available. With the Water Application Centre there is room for applied education and research in the field of nutrition and water. The food safety professorship ended in 2018.

Projects include:

- Welcome to the village
- Kruidenrijk grasland (herbaceous grassland)
- Eten voor de wetenschap (eating for science)
- Better Wetter
- Safety in Food Chain
- New and Clean Label Products
- Optimisation of the operation and costs of dairy farming

*Is not part of the Food and Dairy Applied Research Centre, but is a professorship from NHL Stenden University of Applied Sciences where research for the Chemistry and Chemical Technology programmes is carried out.

**An inspiring symphony of soils**

A symposium on soil vitality, on 11 October 2018 in Ecomunitypark Oosterwolde. That was one step in a plan to achieve healthy soil within five years. After all, soil is the basis for biodiversity and sustainable agriculture and water management. The Soil Knowledge Consortium organised the "symphony of soils" (the symposium) together with the Symphony of Soils Foundation (founded in 2015 due to concerns about soil health) and Van Hall Larenstein University of Applied Sciences. Speakers such as Volkert Engelsman, director of Eosta and number one in the Trouw Duurzame Top 100, inspired an audience of farmers, administrators, citizens, policymakers, and many students, lecturers, and scientists.

Professionalisation

The quality of Van Hall Larenstein is determined by its employees. Their knowledge, skills, and enthusiasm ensure an attractive learning environment. This is why Van Hall Larenstein believes it is important to be an employer that puts effort into the direction and personal leadership of its employees. This is embedded in a culture in which the learning and development of the individual for the benefit of the group come first and foremost.

Major steps have been taken in this direction in recent years. A new way of working in teams responsible for results was introduced. In the professionalisation plan for the years 2018-2021, adopted in 2018, we use the personal development of our employees, as people and as professionals, as our starting point. We strive for a professional culture in which our core values (sustainable, involved, enterprising, and responsible) are the anchors. Collaboration and respect also characterise our culture. We are developing ourselves as a value-driven organisation, based on teams responsible for results and with core values integrated in the way we work. By each contributing towards the objectives of the organisation, employees get the best out of themselves.

Van Hall Larenstein Academy

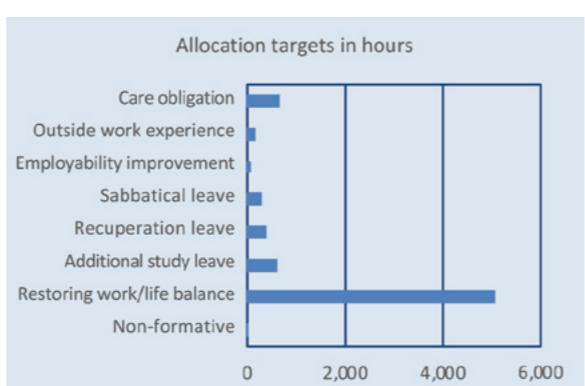
We facilitate employee training and development with various in-company training sessions and workshops. The Van Hall Larenstein Academy's offer focuses on the priorities of the professionalisation plan. In 2018, the Van Hall Larenstein Academy offered 17 different training courses and workshops in which a total of 336 employees participated. In 2018 the following training sessions and workshops were organised:

- Training Programme for Study Programme Committees
- Basic Qualification in Teaching Method Skills
- Teaching Methods
- Basic Assessment Qualification
- Senior Assessment Qualification
- SCG day for study career guidance
- Workshops for team directors: Effective meetings, Team development, and my role as director of the team, Ownership of me and my team, Working in a planned manner.
- Feed Forward
- English course for lecturers (C1 level)
- English course for support staff (B1 level)
- Training in written recommendations and writing reports/research
- Video training

Sustainable Employability Scheme

Van Hall Larenstein wants its employees to remain employable in the future. Both we and the employees themselves have a responsibility in this regard. Sustainable employability is about the extent to which an employee is willing and able to conduct work. The sustainable employability of our employees has received more attention in recent years. Not only by giving employees freedom and responsibility to continue developing their professionalism, but also by encouraging them to participate in other teams, to broaden their horizons and to come into contact with other perspectives. For this purpose, employees can utilise the "Sustainable employability" scheme.

During 2018, a total of 8,311 hours were allocated. The majority of these hours were used for restoring the work-life balance. Care obligations and additional study leave were also popular.



Harvest dinner in urban agriculture

Chestnut, pumpkin, or ground elder soup, chard or leek quiches, elderberry syrup. The ingredients for the dinner made by the students from the Management of the Living Environment programme on Sustainability Day (10 October), were largely harvested at Larenstein estate. During the annual harvest dinner, students were told about these ingredients and gave pitches about opportunities for urban agriculture. Other guests at the table included 40 partners, members of the Larenstein Community who are involved in Circular Knowledge Estate Larenstein. University of applied sciences lecturer Dick van Dorp talked about hungry bins, a project in which natural non-recyclable waste is composted by tidal worms. The few leftovers from the harvest dinner ended up in those bins.





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