

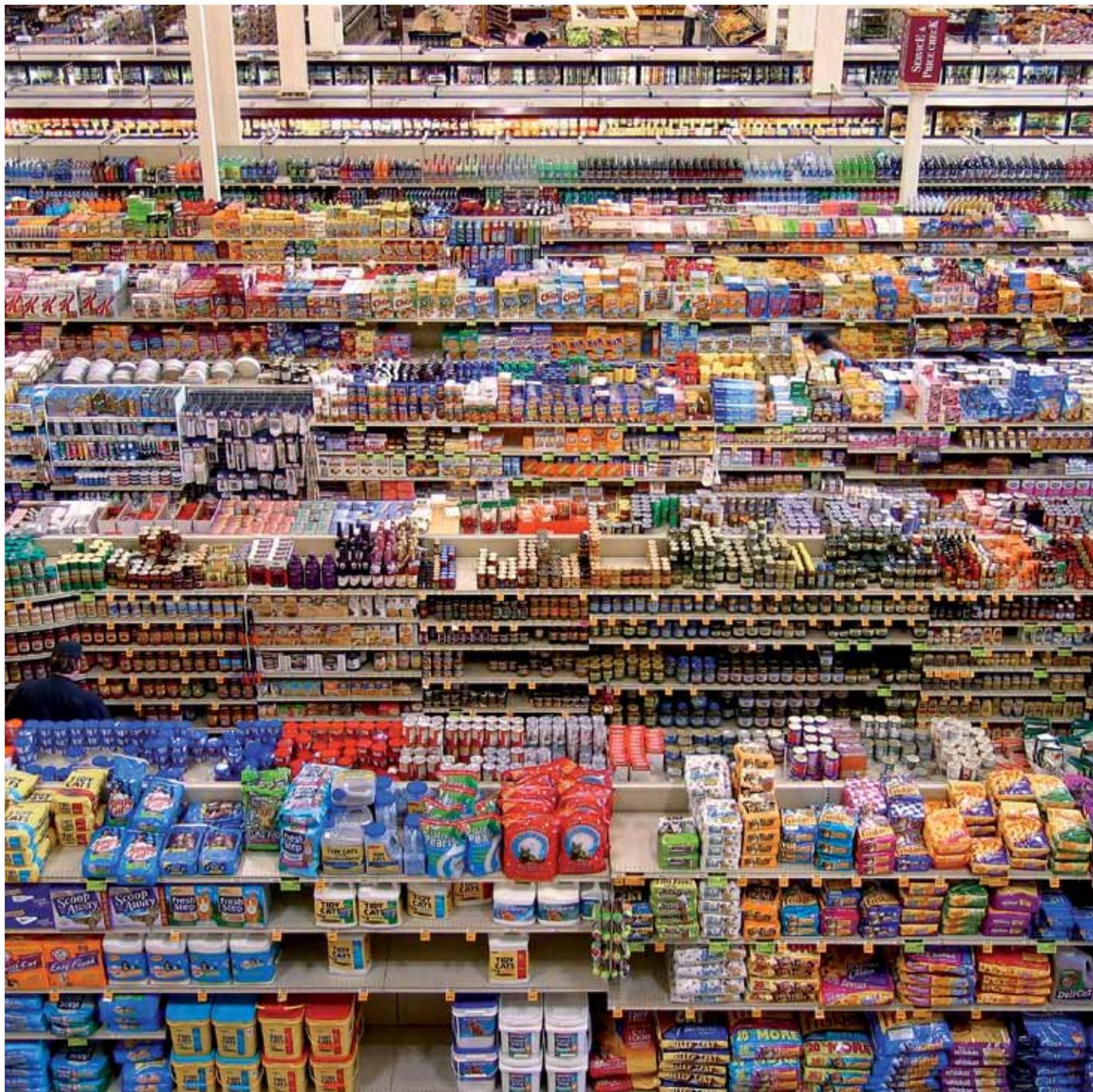
2014

Strategic Plan 2011-2014 | Wageningen UR



WAGENINGEN UR

For quality of life



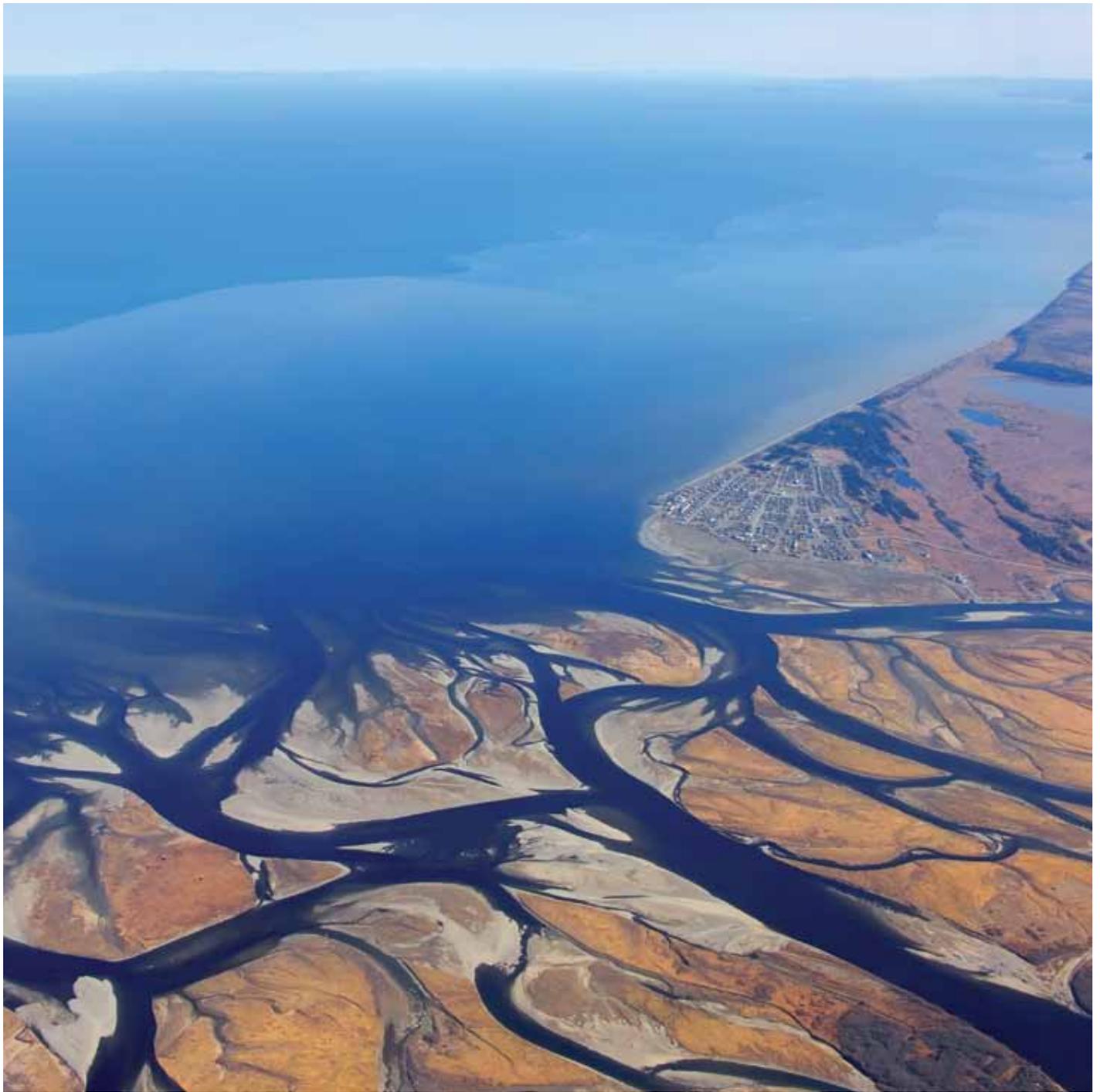
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To explore
the potential
of nature to
improve the
quality of **life**

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Introduction

Board of Directors: (left to right) Kees Slingerland (ESG), Raoul Bino (AFSG), Ruud Huirne (SSG), Martin Kropff (ExBo), Aalt Dijkhuizen (ExBo), Tijs Breukink (ExBo), Ernst van den Ende (PSG), Ellen Marks (VHL), Martin Scholten (ASG).



This Strategic Plan outlines the near future of Wageningen UR and our ambitions for this period. The document is in line with the plan that was drawn up for 2007-2010, the contents of which were largely realised and brought us to the favourable position in which we now find ourselves.

There is a strong growth in the number of students. We are performing more and better research, the buildings and facilities are being upgraded, and our finances are in good order. Our profile is clear and the Wageningen UR domain of 'healthy food and living environment' – focused on issues such as sustainable food production, food and health, biobased economy, animal health and welfare, nature, biodiversity, water and climate – is increasingly relevant on a global scale. As a result we can continue on our chosen path with confidence and conviction.

Five key points can be identified in the plan: We will strengthen the market position of our applied research institutes; extend the research themes as determined in the previous strategic plan; increase the focus on quality in both research and education; aim for a stronger presence in the various Dutch regions; and enter into alliances with leading international universities and research institutes. We will also take further steps to improve our internal organisation and achieve operational excellence.

The bar has been raised high so our plan has to be carefully carried out. We will evaluate progress on an annual basis and determine which points are to be further developed and implemented in the following year. Our approach can be summed up by the motto: 'Do not do everything at once and be sure to do everything well.' We will also continue to closely monitor the requirements of our stakeholders and relations, making adjustments to the plan where necessary.

All these ambitions can only be realised when people work together. We hope this plan inspires you to do so.

Executive Board of Wageningen UR,
Dr Aalt Dijkhuizen, Chairman
Prof. Martin Kropff, Education and Research as well as Rector Magnificus Wageningen University
Dr Tijs Breukink, Operational Management

Looking ahead

1



Over the coming decades, the global population will increase from the current seven billion to eight billion in 2025 and nine billion by 2050

Combined with a further increase in wealth, this will result in a doubling of the demand for food. It will also mean that the composition of the typical diet includes an increasing amount of animal protein. A key issue for the future is how to meet these demands responsibly. The extra people and their activities will take up ever more space and put further pressure on the environment, nature and climate. It is a huge challenge that requires genuine breakthroughs in knowledge and technology.

The Netherlands has built up a strong position in this field, and as a result of a focused government policy, strong entrepreneurship, authoritative research and constant innovation has developed into the world's second largest exporter of food. This all takes place in one of the world's most densely populated deltas. Moreover, the Netherlands is constantly increasing the sustainable use of the living environment based on its knowledge of the best use of space, nature development and water management.

As a centre of knowledge, Wageningen UR already plays a leading role in this process and wishes to expand further. This will be achieved in close cooperation with government and industry (the 'golden triangle'), and fellow institutes and universities in the Netherlands and abroad. Furthermore, strong roots in the region and a central position in Food Valley has resulted in a close interaction with practical experiences.

The combination of Wageningen University, the Van Hall Larenstein University of Applied Sciences and (nine) applied research institutes (the DLO Foundation) means Wageningen UR is superbly equipped to deal with the issues at hand. The three mutually connected elements, each with their own role and position in the knowledge and innovation process, are:

- > **University research and education** of the highest quality, focused on frontier research, with a strong appeal to the best scientists and students worldwide.
- > **Professional education**, with a professional course of study and internationally oriented themes closely embedded in regional innovation processes.
- > **Applied research** with a solid scientific foundation and a firm position in the contract research market specialised in the further development of green knowledge in actual innovations.

These elements combine to form a knowledge centre that develops both expertise and applications, is aware of its contribution to society and economy, and carries out fundamental and applied research. We also educate students in a professional course of study in which the primary focus is to apply existing knowledge, and in an academic course of study which is aimed at developing and passing on new knowledge. Last but not least, Wageningen UR spreads its wings with regional and international branches and partnerships, and focuses on building a clear image and a healthy financial foundation.

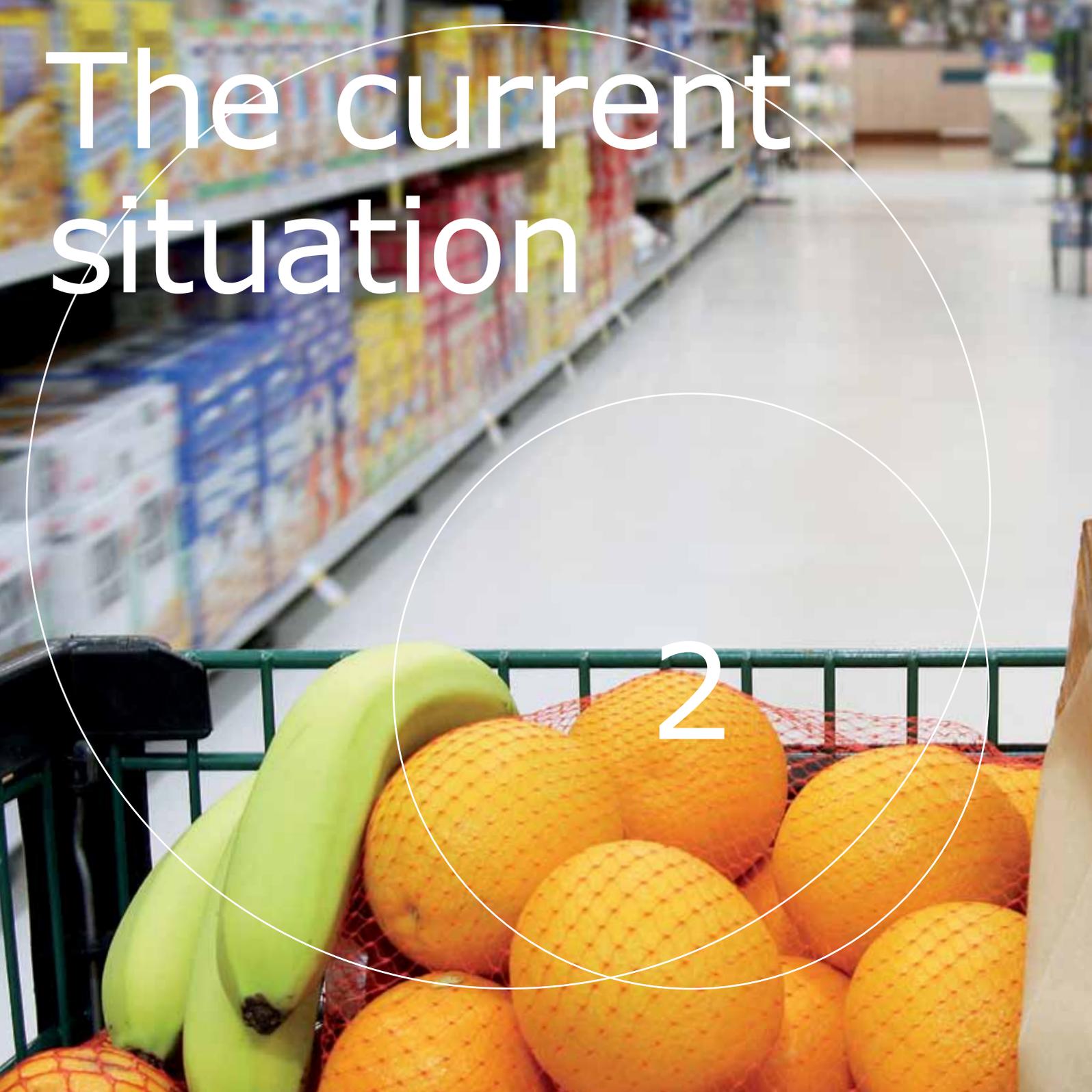
Over the coming period, governments in the Netherlands and other Western countries will be cutting back as a result of the financial downturn. It is therefore important to increase the focus on the contribution that research and education make to boosting the economy and supporting industry. This will enable Wageningen UR to further enhance its position in the contract research market and increase the number of demand-driven innovations.

Aiming high at Wageningen UR

Wageningen UR aims to be the European knowledge institute and leading global partner within the Healthy Food and Living Environment domain by 2020. To achieve this, Wageningen University has to (continue to) be among the best in the world and regain its number one position in the national benchmark for students. In addition, the Van Hall Larenstein University of Applied Sciences needs to establish itself permanently in the top ten of Dutch applied universities and serve as the backbone of various regional clusters due to its activities. In 2020, the applied research institutes will be the preferred partner for developing green knowledge and translating it into sustainable innovations. This will be based upon their solid scientific foundation, customer-oriented approach and strong network in the 'golden triangle' of government, industry and research institutes.



The current situation



2

Wageningen UR's Strategic Plan 2007-2010 made clear choices focused on the 'healthy food and living environment' domain

Which consists of three related main areas:

Food and food production

The production and supply side in the food chain: sustainable agriculture and horticulture (including floriculture), fisheries and aquaculture, human nutrition and health, international food chains and networks, animal health and welfare, and the use of biomass within the scope of a bio-based economy.

Living environment

Nature, landscape, biodiversity, land use, climate change, water and ocean management, and the various needs regarding the use of space.

Health, lifestyle and livelihood

The influence of people's behavioural choices regarding health, food and living environment, the behaviour of consumers, citizens or recreational participants, attitudes towards risk and uncertainty, the perception of quality and safety, working and living conditions in the agrifood sector itself, and the importance of food safety, especially in developing countries.

In addition to the synthesis of university, professional education and applied research, Wageningen UR's intrinsic strength lies in the link between scientific and social disciplines. After all, today's issues are rarely just scientific, technological or social in nature. The combination enables Wageningen UR to make major contributions to concrete issues both in policy and in practice. Establishing these multidisciplinary connections is a distinguishing feature of the 'Wageningen Approach', which is also characterised by the ability to connect knowledge at various scale levels, and the interactions in between; on the one hand from gene and cell to plant, animal and ecosystem; on the other from individual to household, society and international communities.

Wageningen UR has a clear image that is recognised and acknowledged by clients and target groups; an image that is attractive to staff and students and achieves results. Student numbers have grown significantly over recent years, the quality and scope of the research have been further enhanced, buildings and facilities renovated at a rapid pace, and the organisation is financially sound. Moreover, the domain of 'healthy food and living environment' and core issues such as food, sustainable energy, animal health, water and climate have only become more important on a global level. This is why we choose to continue on the path we are on with confidence, both on a national and international level.

Key results of Strategic Plan 2007-2010

	Starting point 2006	Goal 2010	Realised 2010
Quantitative			
<i>Number of new students</i>			
- Wageningen University (WU)	1110	1200	2070
- Van Hall Larenstein (VHL)	1115	1225	1230
<i>Number of articles in top magazines</i>			
	15	20	18
<i>Number of Veni, Vidi, Vici scientists (NWO)</i>			
	19	20	30
<i>Spinoza-laureates (NWO)</i>			
	0	1	3
<i>Percentage non-Dutch employees</i>			
	5.5	7	9.6
<i>Percentage female Professors</i>			
	8	11	11
<i>Net margin DLO applied research institutes (% of turnover)</i>			
	2.0	3.5	3.3
<i>Solvency DLO applied research institutes (% own capital)</i>			
	37	45	48
Qualitative			
<i>Implementation tenure track at WU</i>	-	yes	yes
<i>Alliance with medical faculty/hospital (food & health)</i>	-	yes	yes
<i>English as the official language within the administration</i>	-	yes	no

Our domain: healthy food and living environment

Health, Lifestyle, Livelihood



Food and Food Production



Living Environment

Our environment

3

A satellite view of Earth showing the Americas, with two overlapping white circles and the number 3 in the center.

With its research and education, Wageningen UR operates at the heart of the societal playing field

This makes the work and study options both interesting and current, especially when what has been learned can be used to resolve tensions and conflicts. In the Netherlands and Western Europe, for instance, people are critical about the practice of intensive livestock farming (animal health and welfare) and developments concerning bio-technology. There is also tension regarding the relationship between economy and ecology (land use versus nature and biodiversity, integrating barns in the landscape). On a global scale, major issues include the competing claims on land use and the possible contrast between food and fuel in the bio-based economy. This requires innovative solutions with a close relation between technology-driven research on the one hand, and societal-oriented research on the other (the 'Wageningen Approach').

A competitive economy is essential if countries are to function well in an open global economy. In this respect, the Netherlands has a good starting position and the ambition to do even better in the years ahead. The agrifood sector is a major economic sector that holds a top position internationally. Investments in innovation and increasing sustainability are crucial to retain this leading position and provide answers to global challenges related to food security, poverty, energy, water, climate, peace and stability. Within this framework the interaction between knowledge, practice and policy is a key factor for success in innovation. 'Green' education and research in the Netherlands remains linked to a line ministry, namely the new Ministry of Economic Affairs, Agriculture and Innovation (EL&I) formed in 2010.

With the establishment of this new Ministry, our research regarding nature, biodiversity and climate will have to be placed in a new perspective, and the economic interest thereof more clearly demonstrated. Innovation will take a more central position, which will stimulate us to increase our focus on the implementation of knowledge: *Science for Impact*. The government budget for our education will be under pressure over the coming years. The cancellation of extra investments in research (the FES: Fund for the Enhancement of the Economic Structure) will mainly affect the bigger programmes with a large number of PhD and post-doc projects. Additionally the government has decided to invest in top economic sectors, such as water, food, horticulture and life sciences.

Another change is that students have to start paying for their own MSc education, and have to study at a faster pace. The automatic process of the 'follow-up MSc' will disappear, and students will become more deliberate in choosing their MSc, either at their own university or elsewhere. Because education structures in Europe are growing closer together, the international competition for talented students will increase, which will create opportunities for Wageningen University and Van Hall Larenstein.

Science is an international activity and resolving major European and global issues will increasingly require international scientific coalitions that coexist for longer periods of time. In this respect international funding for research and infrastructure will become ever-more important. Examples are European initiatives such as *Joint Programming*, *European Graduate Schools* and the *Knowledge & Innovation Communities*, as well as private foundations such as the *Bill & Melinda Gates Foundation* and private fundraising.

Another clear development is that several growing economies in Asia and South America are making substantial investments in research and education. Over the coming years they will increase their presence, and start competing for talented students, employees and funds. We have to address this issue sooner rather than later, and intensify our cooperation with strong partners worldwide. Wageningen UR has an excellent starting position to succeed on this and, with a 20% share in Dutch research financed by the EU, is an internationally leading player with an extensive network. Individual grants will become increasingly important for financing top research at universities, both at a national and European level (Veni Vidi Vici in the Netherlands: ERC grants in the EU), which creates possibilities for our best scientists.

Top sectors in the Netherlands

When the government took office in 2010, it appointed nine key sectors that it deems crucial to the economy and employment in the Netherlands. These sectors have been highlighted in the innovation and stimulation policy for the coming years: (1) Agro & food (2) Horticulture & plant reproduction material (3) High-tech industry (4) Energy (5) Logistics (6) Creative industries (7) Life sciences (8) Chemistry and (9) Water. Sectors 1, 2, 7 and 9 are at the core of Wageningen UR's domain, and there are also clear overlaps with 4, 5 and 8. This illustrates the extent to which Wageningen UR operates at the heart of the current and future Dutch economy.

Relation-oriented fundraising



The rising global population and increase in wealth will double the demand for food over the coming decades. At the same time it is necessary to considerably reduce the production footprint with fewer greenhouse gas emissions, lower water consumption and less undesirable effects on the environment, nature and climate. 'Twice as much with twice as less' is the challenge we face, one which will inevitably require further breakthroughs in knowledge and technology. Together with the Wageningen Ambassadors, a group of prominent alumni, we have developed the 'Food for Thought, Thought for Food' campaign. This is aimed at wealthy individuals who are interested in investing in pioneering research. Supporters can determine the subject on which their investment is spent, and, should they so desire, be closely informed on the realisation and progress of the research. Wageningen UR hopes that this will enable the organisation to (continue to) play a leading role in finding solutions to this global issue.



More use
of available
knowledge

4

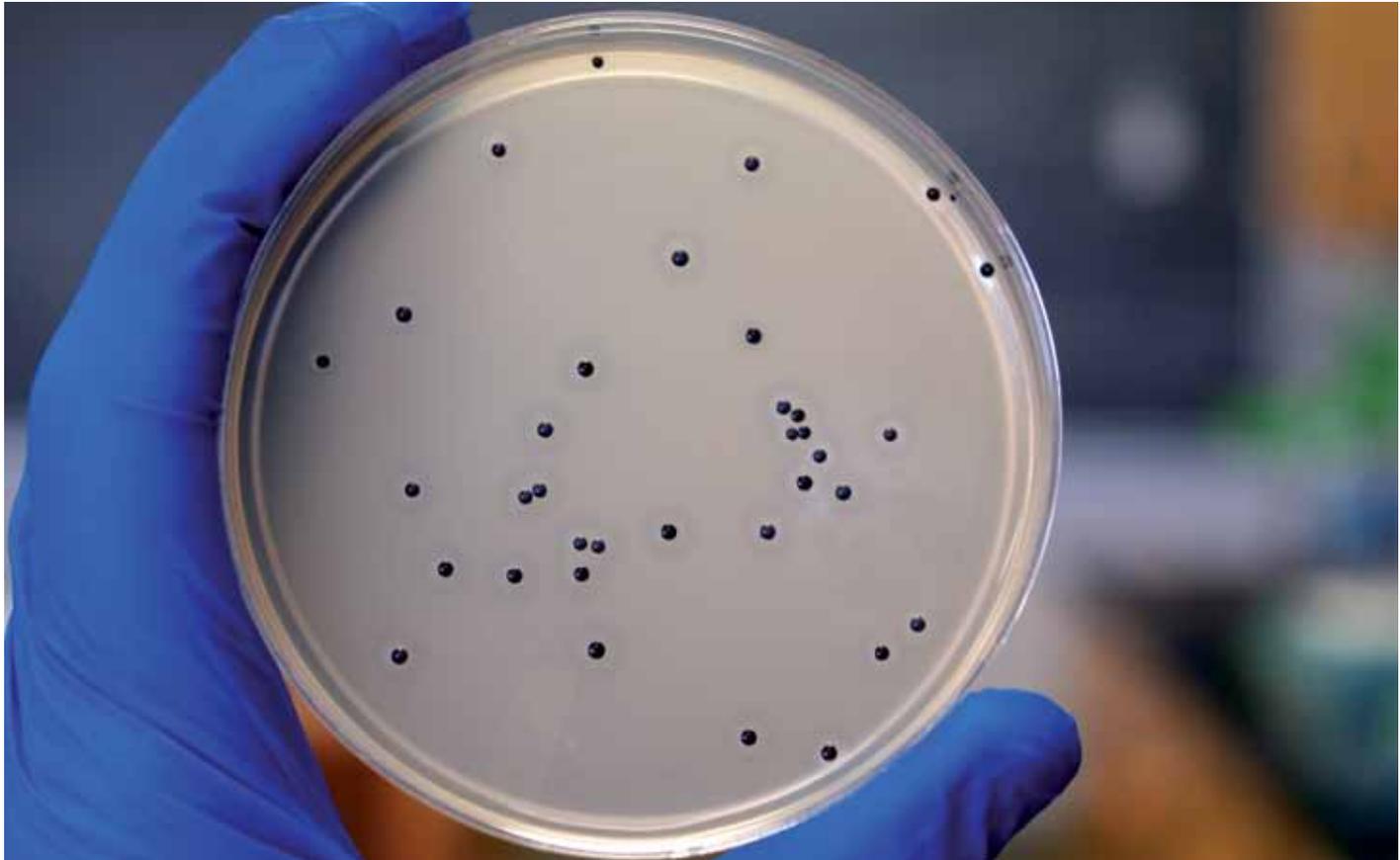
Wageningen UR believes it is important that its knowledge be applied in practice

This is achieved by educating people and using them to disseminate know-how, as well as by working closely on innovations with companies, governments and other parties involved in projects. Sometimes these projects result in new companies or patents: while this is a great way to create value from knowledge, it is certainly not the only or most important one. The fact is that, in addition to research, Wageningen UR and its applied research institutes form the ideal organisation for generating direct value from developed (university) knowledge, and over the coming years we will increase our focus on doing so. We expect a growing contract research market which we will only be able to benefit from if we further strengthen various competences, such as professional account management and customer-oriented work methods.

Due to the explosion in food prices in 2007/2008, our domain has been placed under the global spotlight. An increasing number of governments, organisations and companies want to invest in making existing knowledge applicable in a faster and better way. The interest is especially high among growing economies in Asia, South America and Eastern Europe. The Dutch agrifood model in general and Wageningen UR in particular have both the position and reputation to play a leading role in this process. This applies not only to applications concerning food, but also those in the field of green and blue space.

The contract research market is by definition demand-driven, so we will mainly focus on the areas with the largest demand, and, of course, those for which we have developed the necessary expertise. In this perspective, there are five market fields that offer Wageningen UR the most potential: (1) Agro-production in the 21st century, (2) Water, (3) Sustainable use of space, (4) Bio-based systems and products, and (5) Food, health and behaviour.

We aim to considerably enhance the turnover of our applied research institutes in these fields in the coming years. This will enable us to better apply our existing knowledge and stimulate innovation in practice, and hopefully allow us to create (extra) financial space for innovative research that does not necessarily pay the most. We will further stimulate this process internally by establishing an annual innovation award for applications that are successful in practice.



Good opportunities in the contract research market to improve the application of our existing knowledge

1 Agro-production in the 21st century

This field is aimed at using existing knowledge to increase food production and availability in the short term, while simultaneously reducing pressure on the environment. The field is based on four pillars: fully utilise the potential of biology, prevent losses in the food chain, make smart adaptations to unique conditions, and realise new alliances. We are currently developing demand-oriented business cases to contribute to 'agro-production in the 21st century', including, for example, the application of the tailor-made greenhouse concept in various parts of the world.

2 Water

The fast growing world population and changes in consumption patterns are causing a rising demand for clean water, while climate change is increasing the risk of floods and extreme drought periods. With a shortage of available space on land, the sea is increasingly being used for economic activities. All this means that the issue of water is high on the global agenda. Wageningen UR aims to use its existing knowledge to contribute to the realisation of concrete solutions for governments and industry, in the Netherlands and abroad.

3 Sustainable use of space

Pressure on space is increasing on a global scale. The growing world population has to be able to live, work, relax and eat, while nature and climate changes also require acreage. Within this field Wageningen UR works with regional governments, national and international institutions and industry, deploying its existing knowledge to contribute to innovative solutions. The issue involves subjects such as sustainable tourism, ecosystem services, green metropolises, economic activities at sea, and spatial ICT.

4 Biobased systems and products

Knowledge of metabolism processes in plants and micro-organisms has become so advanced that it can be deployed in the production of fossil fuel alternatives for energy and chemistry. An added benefit of this approach is that much less energy is required to start and keep these processes going. The existing expertise will be used to develop successful applications in practice and take genuine steps towards realising a biobased economy.

5 Food, health and behaviour

Healthier eating and living habits are among the major challenges facing this century. More and more people worldwide are suffering from obesity, which brings an increase in illnesses such as diabetes in its wake. Our current dietary habits of over-eating (often unhealthy) food are difficult for people to break on their own. Wageningen UR aims to use its existing knowledge to contribute to a structural improvement of dietary behaviour and new and healthy food products. This will reduce health problems, while simultaneously strengthening the competitive position of the agro-food industry.

A microscopic image showing several blue, elongated cells with purple, spherical nuclei. The cells are arranged in a somewhat circular pattern, and the nuclei are scattered throughout. The background is a light, pale blue.

Developing new knowledge

5

The fast pace of developments in our sector means we need to decide on which research themes to invest extra funds in

The Strategic Plan 2007-2010 described six themes in which Wageningen UR made extra investments. Three of these were societally oriented, with joint investments by university and research institutes, and three were based more on science, in which the university played a leading role. Five of the six themes will be continued over the coming period (the scientific bio-nanotechnology theme was dropped as sufficient investment funds were obtained elsewhere) and two will be added to the programme for the 2011-2014 period, namely sustainable food production, and complex adaptive systems.

For the coming planning period this gives us the following societal themes:

- > Sustainable food production
- > Customised nutrition
- > Sea and coastal zones
- > Bio-refinery

and the following scientific themes ('emerging sciences'):

- > Systems biology
- > Information, behaviour and governance
- > Complex adaptive systems

Further improving the quality of research

To maintain Wageningen UR's leading research position, it is desirable to further develop parts of our quality policy, including:

- Our talent policy: tenure track and attracting personal grants.*
- The internationalisation policy of the graduate schools.*
- In addition to the existing annual research bonus for the chair groups with the best research performance, we will look into the possibility of rewarding the absolute top groups that are also doing well in their management and finances with:*
 - Long-term financial agreements.*
 - Maximum freedom in the use of available means.*
 - Simpler procedures for interim reports.*

All in all, this should lead to a higher position in the international rankings.

Sustainable food production

As mentioned, the coming decades are expected to see a doubling in the demand for food. Meeting that demand will require a great deal of new knowledge and technology, especially as it is also necessary to simultaneously achieve a smaller footprint with fewer greenhouse gas emissions, lower water consumption and less undesirable effects on the environment, nature and climate. This requires innovation throughout every link of the chain, from raw materials to end products and production systems as a whole.

Customised nutrition

Food is playing a more important role in preventive health care for people and animals. Any further increase will require more knowledge about the interaction between our genes and what we eat, the role played by our choice of behaviour, and how this can be influenced. Such knowledge can lead to analyses and substantiated advice for each individual: customised nutrition. An extra focus will be on food and exercise in general, and food and sports in particular.

Sea and coastal zones

Seas and coastal zones are already being used for transport, fishery, sand reclamation and recreation. In addition, they offer opportunities for the production of sustainable food, wind energy and bio-active substances from organisms such as seaweed and algae. To make the most of these opportunities, knowledge in this field will need to be further developed. It also requires insight into the resistance and adaptability of the ecosystems in coastal areas to achieve an optimal and sustainable use of space in densely populated deltas. Within this scope we will also study whether and, if so, how Wageningen UR should strengthen its image regarding the theme Coast and Sea (and subjects closely related) with the designation 'Ocean Sciences'.

Bio-refinery

Bio-refinery is a way to do more with agricultural crops and other biomass without limiting the amount of food available. This science detects ingredients that play no role in the nutrition of people and animals, but can be used for green chemistry and energy. Being able to use plants as a factory requires a lot of new knowledge and technology. Wageningen UR currently has expertise mainly in biomass and process technology. The challenge for the coming years is to develop efficient and robust systems that can be applied in practice.

Social debate

Current issues, such as the imminent shortage of food, climate change, depletion of natural resources, the shortage of fresh water and reduction of biodiversity are at the heart of the Wageningen UR domain. There is ample discussion about possible solutions: expand or intensify, regional production or global specialisation (and thus accepting trade flows), seeing climate change as an opportunity or threat, and so on. Wageningen UR wants to be clearly present in these debates; not as a protest group, policymaker or political body, but to enrich the debate with objective information and help identify relevant knowledge gaps. To recognise issues and put them on the agenda at an early stage, we will establish a taskforce of Wageningen Ambassadors (a group of prominent alumni), employees and students. We will expand current activities such as placing dossiers on the intranet and publishing blogs by scientists via social media. There will also still be room for more traditional channels such as lectures, letters, interviews, seminars and brochures. There remains a great deal of ground to cover in the social debate, to which we will gladly contribute within our domain.



Maintaining Wageningen UR's leading position in the future will require the stimulation and further development of new research directions in several fields. To better apply knowledge from various basic disciplines for future innovations requires the further development of more complex system approaches as a scientific discipline in addition to the basic disciplines.

Systems biology

Systems biology revolves around discovering how biological systems function based on underlying processes. For example: how cells function based on molecules and cellular processes; how organisms function based on physiological processes; or how ecosystems function based on organisms and abiotic factors, such as climate, soil and water. Developments in (information) technology and the progress in the genomics disciplines are resulting in an increasing amount of available data for theoretical approaches and predictive models. Wageningen UR is looking to expand in this field.

Information, behaviour and governance

This theme is related to behaviour from the level of the individual to that of society as a whole. We are talking here primarily about group governance processes. Applications can be found in the field of consumer and producer behaviour, as well as that of adaptation processes at the level of municipalities, regions, countries and international communities. Additional investments are required to gain further insights in this area.

Complex adaptive systems

Complex, adaptive systems are dynamic networks of, for example, cells, people, companies or countries that operate on a parallel level and constantly react to one another, as a result of which specific characteristics of the systems as a whole become apparent. Coherent behaviour of the system as a whole (for example companies or countries) is the result of cooperation between the individual elements (for example company departments or regions). While it partly determines the success of achieving changes within a system, only little is known about the adaptability of systems and the possibility of managing or designing those adaptations, and extra investments will be made in this field.

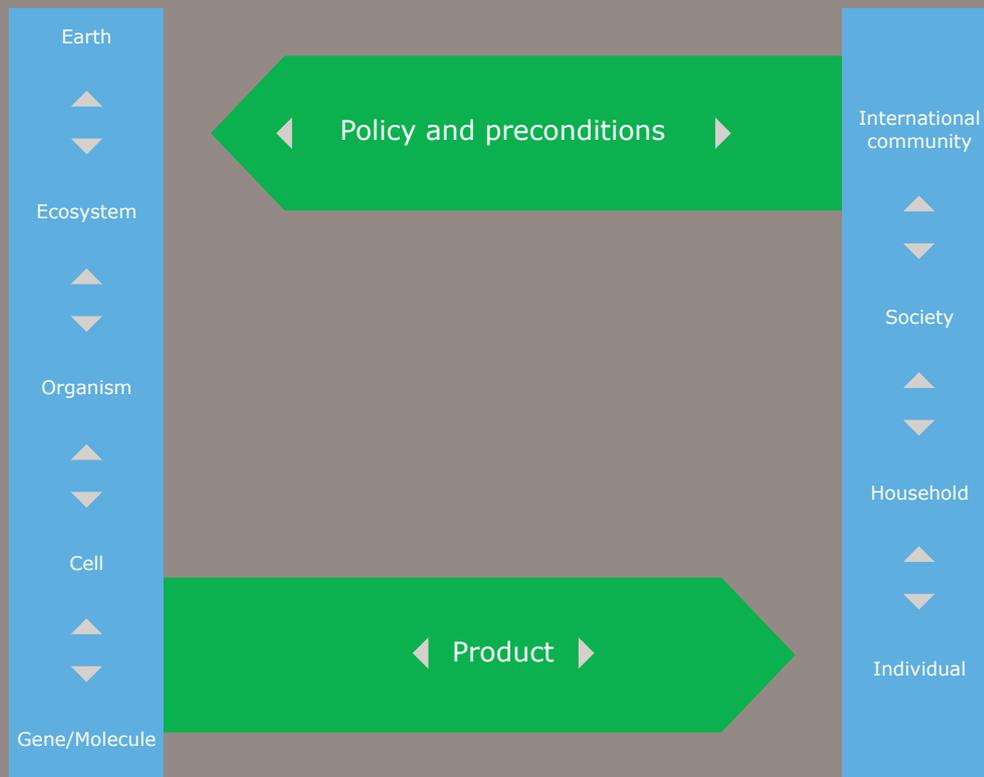
The Wageningen Approach

Making multidisciplinary connections is one of the distinguishing characteristics of the 'Wageningen Approach'. Another is the way knowledge is connected across various levels and the interactions in between: from gene and cell to plant, animal and ecosystem on the one hand; from individual to household, society and international communities on the other. This enables Wageningen UR to make an optimal contribution to concrete issues in policy and practice.

Planet

Profit

People



Enhancing and improving education

6



The appeal of the education at Wageningen UR is in the first place determined by the relevance of the subjects in society

This also applies to the possibility of being involved in resolving global issues. Another major element is the way the education increases the chances of an interesting career. The clearly defined domain attracts motivated students that carefully choose their study, which results in a relatively low dropout percentage. 'Inspiring young people' is the motto for the educational activities, and the culture within Wageningen UR.

A single educational organisation with an academic and professional course of study

Wageningen UR has chosen for an academic course of study (at Wageningen University) and a professional one (at Van Hall Larenstein) within one organisation. The vocation-oriented education is primarily focused on applying the existing knowledge, while the academic one is focused on developing and conveying new knowledge. Students can switch between the courses of study at various moments during their studies, aided by the major-minor structure of the bachelor courses. We will focus on further enhancing this system in the coming period.

Educational concept

Wageningen University also applies the multidisciplinary 'Wageningen Approach' in its education, combining beta and gamma in knowledge and realisation to optimally prepare students for performing research and resolving issues in practice. Wageningen graduates should be able to look beyond the boundaries of their own field of expertise and see things in an international context. This is achieved via an education system in which students can determine their own elective course of study. Wageningen University will expand this unique and characteristic approach in the coming period.

Van Hall Larenstein offers students competence-oriented education. From day one, they are trained in professional competences and learn how to obtain knowledge from practical issues in their field of expertise. This is achieved, for instance, via 'communities of practice' in which teachers, professionals and students jointly develop knowledge based on practical problems.

Small-scale and student-oriented

Wageningen University and Van Hall Larenstein are relatively small-scale institutions where there is close contact with the students, and where students have many options for choosing courses in line with their studies and interests. After obtaining a bachelor at Wageningen University there is always the choice of more than one master programme, and students are stimulated with regard to both content and their future career. Examples include *the communities of practice* at Van Hall Larenstein. At the master stage, the university aims to offer education profiles aimed at research, policy, business and education respectively. The relatively small size and focus on the needs of individuals means that students who excel are noticed and encouraged to follow extra in-depth and/or wider education, possibly via a talent development

programme. This excellence is then reflected in the diplomas. Regarding the social sciences master programme, we will explore the options for financing the two-year programme or shortening the programme while maintaining an adequate quality level.

Emphasis on quality of education

Wageningen University believes education is equally as valuable as research and our employees should be inspiring teachers as well as good scientists. This is why lecturers are stimulated in their professional and didactic development. Every education element is evaluated by the students on an annual basis to make sure improvements are made where necessary. Measuring the quality of education will be given special attention this period, current instruments can be improved and other instruments will be considered and implemented if necessary. In terms of content our education is state of the art as it is directly linked to the research at the university and at the institutes. The chair groups with the best education elements are awarded an annual education bonus.

Education is the primary task at Van Hall Larenstein and some of the teachers have considerable practical experience. In the coming years we will be further improving this combination of education and professional practice by increasing the involvement of teachers in applied research. Van Hall Larenstein is also investing in applied research via its lectureships.

Today's students have grown up with a multitude of modern communication tools, are used to the speed of modern media and expect access to an unlimited array of information. To accommodate them we are further developing the e-learning and distance learning concept. There will also be a constant focus on the quality and further development of student facilities such as the electronic learning environment and our sports facilities.



Student numbers, performance and rankings

In the coming period student numbers will continue to increase towards 10,000 at our university and 6,000 in our professional education. Wageningen UR is ready to support this growth while maintaining its quality with respect to didactics, operations and science. The Dutch government has assigned the remuneration quota for the number of students from outside the EU. As a result, we are researching whether and how the tuition fee for these students can be brought to the level of the integral cost price at an accelerated pace, and who should be eligible to study within the assigned quota and at a reduced fee.

Although all the conditions for a successful study process are in place, the aim should always be to improve the study performance (fewer drop-outs, shorter study period), both at Van Hall Larenstein and at Wageningen University. Students who make the wrong choice should receive better support and references. Our goal is that the benchmark of the Dutch guide for higher education (*Keuzegids Hoger Onderwijs*) numbers the courses at Wageningen UR as being among the best. Wageningen University should regain its first position, and Van Hall Larenstein acquire a spot in the Dutch top ten of applied universities.

Recruiting students

The Van Hall Larenstein and Wageningen University recruitment campaigns and strategy are closely aligned in order to give potential students an accurate overview of the total educational package within Wageningen UR. We are aiming for a higher number of EU students and continue to look into the possibilities for joint degrees.

To stimulate interest in the Wageningen UR courses we are working closely together with institutions in intermediate and higher education in regions with limited green education, such as the Randstad region. We will also be further intensifying the successful cooperation within the Green Knowledge Cooperative (*Groene Kennis Coöperatie*).

Chairs and lectureships

The current chair policy of Wageningen University will be continued. Whenever a chair becomes vacant we investigate whether the developments in research and education require a new purpose. Clustering chair groups increases flexibility and strength. If a group's performance is insufficient, actions will be taken to raise the bar by using tools such as coaching, stimulating mobility and, where possible, attracting new employees with tenure track. If that does not help, there are further measures that can be taken, and if all else fails, the group will be disbanded. The implemented tenure track policy gives excellent young employees the outlook of becoming professor with a personal chair if their performance continues to stand out and the opportunity to further develop their own field of expertise when they are permanently appointed.

A new and promising area of expertise can also be explored by means of part-time chairs or special chairs. Once an area has acquired a clear position in research and education, it can be turned into a normal (fulltime) chair, whereby the total number of normal chairs remains the same - new for old - to prevent overstretching the finances. Over the coming period, we will strive

to establish three new chairs that are in line with our previously named themes:

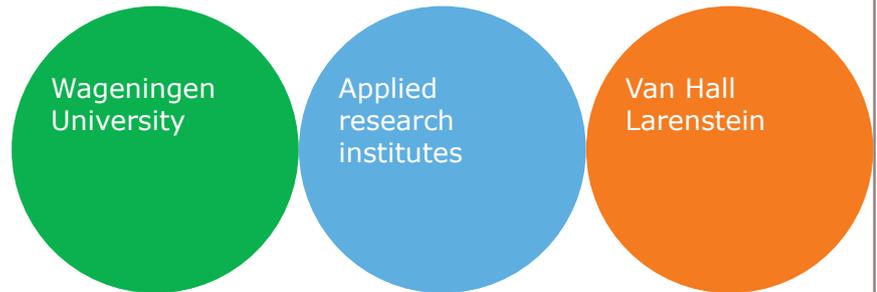
- > Marine Systems Ecology
- > Bio-refinery
- > Urban Environments

In addition, a platform will be established for the theme Animal Welfare. Consideration will be given as to how the behaviour ecology chair can support the platform scientifically.

Van Hall Larenstein aims to achieve interaction between research, education, practice and society. The units are connected by the lectureships, and the organisational relationship with the research of Wageningen University and the institutes for applied research offers fast and direct access to a wealth of additional knowledge.

*Cooperation in education and research
Synergies in management and policy*

January 2011



	Wageningen University	Applied research institutes	Van Hall Larenstein
Location*	Wageningen	Wageningen Lelystad IJmuiden The Hague + 30 other locations	Leeuwarden Velp Wageningen
Employees	2950	3000	550
Students	6500 BSc/MSc 1500 PhD		4000

* Wageningen UR has official offices in Brazil, China and Ethiopia



Regionalisation and inter- nationalisation

7

Wageningen UR aims to further expand and strengthen its leading position on a regional and international level

Regionalisation

Wageningen UR believes it is important to be embedded in the region, particularly via its applied research institutes and the Van Hall Larenstein University of Applied Sciences. Extra attention will be paid to this issue in a selective and more effective way, with the emphasis on larger programmes. Programmes and initiatives we will focus on include:

Food Valley (Gelderland)

Food Valley is solidly embedded with an active centre around Wageningen and has established a national and international reputation. Wageningen UR will continue to provide considerable support for Food Valley's further development in order to create opportunities for new joint projects with government and industry.

Dairy Campus (Friesland)

In accordance with an agreement with the province of Friesland and Leeuwarden council, applied research activities in the field of dairy farming will be concentrated and expanded at the Dairy Campus near Leeuwarden to create a national applied centre with an international appeal. The dairy research farm in Lelystad will be moved to that location.

Water technology, green energy & technology (North and Central Netherlands)

Activities concerning the technological top institute Wetsus in Leeuwarden, the Carbohydrate Competence Centre in Groningen and the wind energy initiative ACRRES in the province of Flevoland will be continued over the coming years, including from Wageningen UR.

Shellfish and aquaculture (Zeeland)

A national and international centre for shellfish and aquaculture is developing around the Wageningen UR location in Yerseke (IMARES). Major initiatives to combine saline food production with spatial projects are already underway and will be further expanded.

Greenport Netherlands (especially in the Westland region and around Venlo)

This revolves around the further development of innovations in horticulture, with a special focus on export. Wageningen UR is an active participant.

Randstad region

Youngsters from the Randstad region seem to be mainly interested in a combination of a green education and aspects such as economy, healthcare, design and sport. Consideration will be given as to how best to address this issue. There are also initiatives in the Randstad region in the field of horticulture (Greenport Netherlands) and the bio-based economy, aimed at innovation, increasing export and strengthening the mainport Rotterdam.



Greenport Netherlands

International offices of Wageningen UR

Wageningen UR has official offices in Brazil, China and Ethiopia. These play an important role in developing and maintaining relations with our partners within the domain of healthy food and living environment in our priority countries, and with relevant government services and international consortia. In addition, the offices identify interesting new projects for Wageningen UR, and help attract students. The activities for Latin America, with a main focus on Argentina, Brazil, Chile and Mexico, are coordinated from the office in Sao Paulo, Brazil. Wageningen UR's China Office is aimed at our major partners in the provinces of this giant country. Last but not least, the office in Addis Ababa coordinates the projects that are part of the cooperation between Ethiopia and Wageningen UR.



Internationalisation

Wageningen UR has an internationally leading position within its domain. In the coming years we will be strengthening this position with respect to both education and research. Wageningen University will enter into new cooperative ventures with leading non-Dutch universities, and, like Van Hall Larenstein, strengthen collaborations in emerging economies such as the BRIC countries (Brazil, Russia, India and China). This also applies to developing countries (especially in Africa) where issues such as food, water and 'biobased' are high on the agenda. Another goal is to increase the number of European organised graduate schools and joint degrees with other universities and schools, supported by the above-mentioned expansion of e-learning and distance learning.

Based on the expected doubling of the global food demand, Wageningen UR took the initiative of establishing an alliance with leading universities and applied research institutions in the main food-producing regions and countries (Brazil, California, China, France and New Zealand) with the intention of synchronising priorities, tapping into joint financing possibilities, and bundling capacities in realising projects.

And finally, although Wageningen University and Van Hall Larenstein are already very much internationally oriented with their large number of international students, it is the goal to further develop the internal culture in an international direction. This includes a larger share and better programme for and embedding of non-Dutch employees and students, as well as increasing the use of the English language for internal communication. This will allow Wageningen UR to continue to evolve from a Dutch institution with international activities into an institution with an international culture and modus operandi. A review will be carried out into whether the current growth in the share of non-Dutch employees should be accelerated.

Improving the organisation



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Every euro not spent on the internal organisation can directly benefit our core activities

It is therefore of great importance that the costs of the organisation remain low, which is why we give such a high priority to operational excellence. This includes ensuring that operational management is as efficient and effective as possible. This is not necessarily achieved by rigorous interventions or sizeable investments, but mainly by making logical step-by-step improvements of existing processes and improving how we utilise existing facilities.

An important part of the intended operational excellence is the way we use the available square metres in our buildings such as teaching space, laboratories and offices. Optimising the utilisation thereof can be achieved by, for example, condensing class schedules, sharing laboratories and equipment, group accommodation and introducing the *Nieuwe Werken*.

A second element that can save costs and/or improve quality is the Shared Service Centre concept, which will be further developed in the coming period. The steps regarding service processes, personnel and salary administration which were already in progress will be completed first. We will then determine and start up the next steps based on an evaluation of the existing shared service centres. This mainly involves further combining expertise and reducing costs in Finance & Control, Human Resource Management and Legal Services.

New working methods (Het Nieuwe Werken)

Higher productivity, more working enjoyment, an improved balance between private and working life, and care for the environment - these are the benefits attributed to the Nieuwe Werken (new working methods). Due to the advancement of information technology it is now possible to plan work differently. Many companies have already taken the requisite steps and are realising an average productivity increase of eight percent. At the same time, traffic delays are avoided and absence through illness is reduced. In the coming planning period, Wageningen UR will be taking steps toward these new working methods wherever possible. This means focusing on shifting responsibilities, the application of social media and IT, and how people interact with each other, in addition to the layout of buildings. See also www.hetnieuwewerkendoezelf.nl (Dutch only).



Another possibility is created by developing a more efficient and less costly set-up of the Staff and Student Councils, Wageningen UR-wide, as well as increasing cost efficiency and improving the quality of the university's graduate schools. Regarding the latter, we aim to establish a single back office and are exploring the possibility of a single graduate school. At Van Hall Larenstein there are also various steps that can be taken to improve quality and considerably reduce operational costs, keeping the needs of students to the fore.

In addition to specific subjects, we are exploring existing processes and procedures to remove any inefficiencies from the organisation. The centralised and decentralised overheads will also be evaluated for their added value in relation to the size of the organisation. All these actions are aimed at freeing up as much money as possible for the primary process of education and research.

Support processes

The financial housekeeping will be improved. Examples include the quality of the financial discipline as well as administrative processes and the financial information supply for decision-making and risk management. In concrete terms this means:

- > Consistently implementing the Corporate Standard Framework.
- > The leap from financial control to management support, aimed at supporting and improving decision-making processes.
- > Strengthening risk management to enable timely adjustments.
- > Strengthening and operationalising cash management.
- > Increasing the quality of integrated prognoses and analyses.

The ICT policy of optimising its contribution to the entire organisation will be continued by further streamlining the information architecture and server park. We will finalise the implementation of the system for project management (known as Kameleon) and realise a new system for employee self service and management self service as well as a new Student Information System. The website will be upgraded and adapted to meet current requirements. The 'My Portal' project will give employees and students intranet access to an information supply that is tailored to their individual demands.

The real estate policy will continue unchanged, with supporting the primary processes as a major element. The focus will be on further realising the current Strategic Real Estate Plan, which will include in the coming years the start-up and realisation of the second teaching building (Orion) and the new building for the university part of the Agro-technology & Food Sciences Group (AFSG).

Concentrating our activities in Wageningen on Wageningen Campus allows us to free up and sell the two other large locations in the city, Duivendaal and De Dreijen. For Van Hall Larenstein the goal is to further develop the estate in Velp in a financially responsible way into a centre of expertise in the analysis, design and management of outdoor spaces. For Lelystad we will focus on improving the utilisation of the land and buildings, including the Bioscience Centre, and optimise their value. Another priority is the further development of the existing and new wind turbines as part of the ACRRES initiative.

In view of the significant increase in student numbers at the university, we will be analysing the need for temporary and permanent student housing for the coming years. We will also further develop proposals to considerably expand the permanent capacity in order to minimise the student housing shortage in Wageningen, and investigate whether this can be realised on or nearby Wageningen Campus. This will continue to be based on the principle of not investing in structural student housing ourselves, but leaving this in the hands of specialised market parties.

The core values of Wageningen UR

1 Enterprising

Looking for new challenges and (commercial) opportunities. Innovative and enterprising. Result-oriented. National and international.

2 Customer-oriented

Our clients come first and are our partners. We support them in their thinking processes to jointly find responsible and applicable solutions that are in the best interests of our clients and society as a whole.

3 Providing space for talent and growth

We want to learn, as both employees and an organisation, from successes and failures. We are not afraid of criticism, nor of being proud of our results. We provide space for personal talent and individual growth.

4 Cooperation-oriented

Cooperation makes us strong and set us apart from other organisations. We find partnerships within Wageningen UR and beyond, both nationally and internationally, based on commitment and aimed at improving results.

5 Reliable

Reliable and transparent, impartial and independent, as individuals and as an organisation. Integrity is self-evident and agreements should always be kept.

Wageningen Campus

The development of the campuses is high on the governmental and political agenda. They are perceived as breeding grounds for new knowledge, innovation and entrepreneurship, and thus as a booster for the regional and national economy. In the spring of 2010, the former Ministry of Economic Affairs described Wageningen Campus as a 'campus of national importance', which means that its further development has a provincial and national priority. In addition to the realisation of the Strategic Real Estate Plan, the coming years will see an extra focus on the presentation of the campus, to create an inspirational work and study environment. This will include plenty of opportunities for meetings – for instance in the Competence Centre 'Impulse' currently under development – and cooperative ventures between scientists, teachers and students, as well as interaction with industry, organisations and governments. It also entails other possible campus functions, such as facility sharing, student housing, hotel facilities, shops and sports facilities. The goal is to create a lively and inspiring science park as an integrated part of the plans described in the Food Valley Ambition 2020 strategy document.



Image of the new educational building Orion

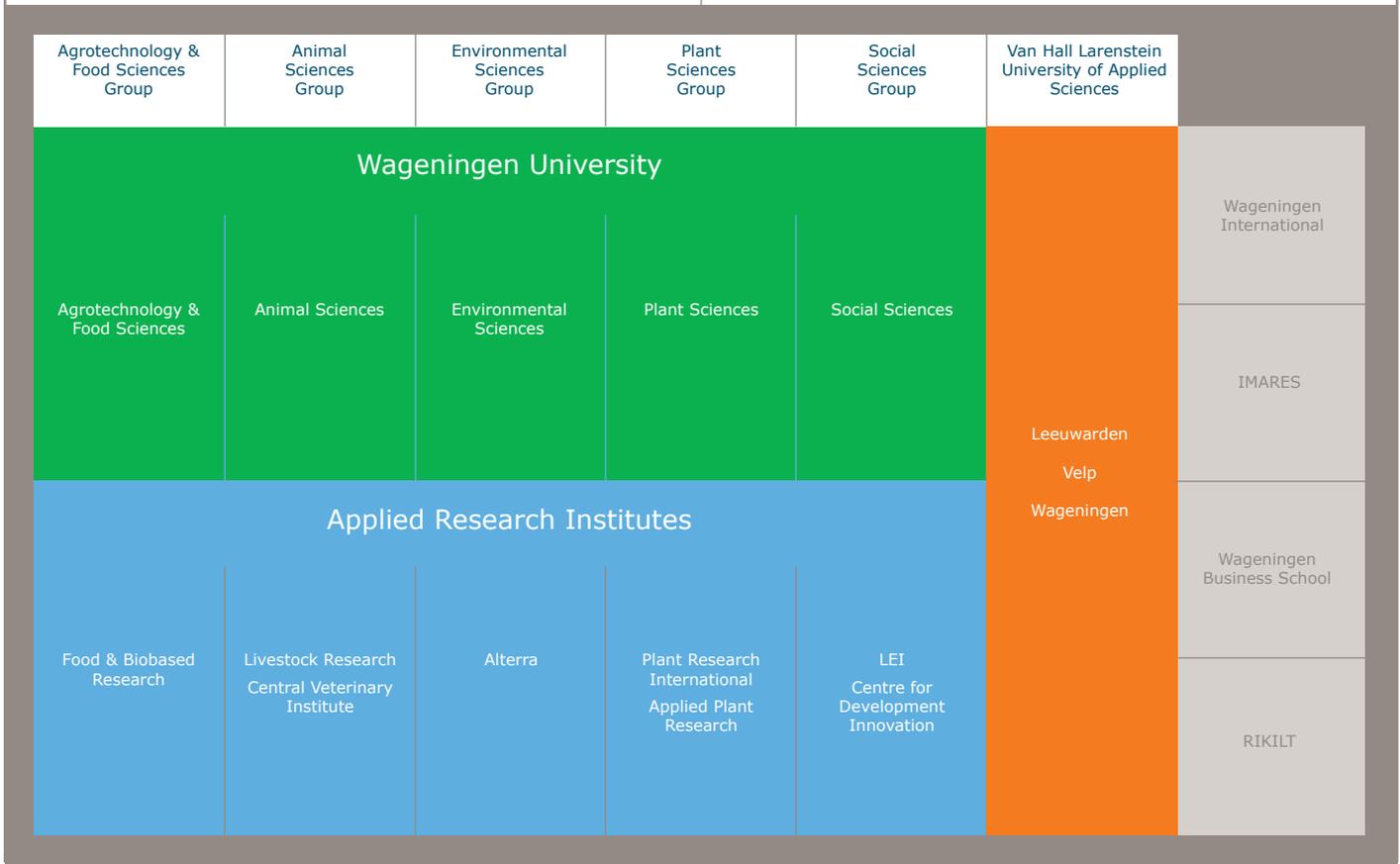
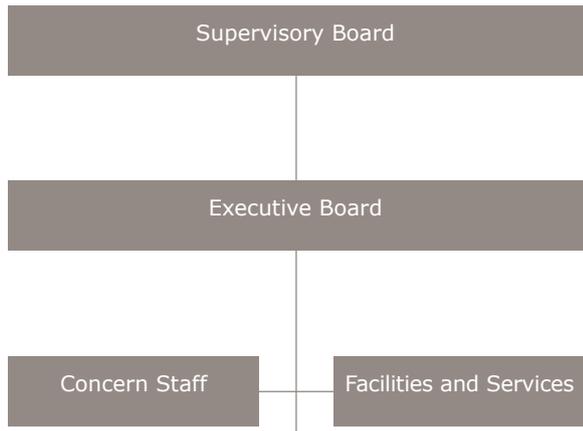
Investing in employees

Wageningen UR will continue to develop into a network organisation in which the working environment of the employees is not determined by the boundaries of their own research group or department. Employees will increasingly work in varying compositions as a result of larger and often multidisciplinary projects, strengthened by our international activities. This will affect the development of the organisation and our employee management, which will require the development of new competences. Several of these aspects are directly related to the organisation's core values.

Within the coming period, we will develop a life-stage policy that creates space for the needs and ambitions of individual employees at every stage of their working life. Naturally the policy will be in line with the goals of the organisation and the changing social context, such as the ageing of the population. There will be an increased focus on the responsibility of the employee for his individual activities and employability. Wageningen UR aims to give its employees the opportunity to shape their growing individual responsibility via flexible management and by meeting their relevant requirements, while providing maximum clarity on what is expected of them: aiming for results. This requires a change in how we think about working relations and conditions, new flexible work concepts and new management competences.

Sustainable operational management

A sustainable image in research and education goes hand in hand with a sustainable approach to operational management. Wageningen UR aims to maintain a leading position in the field of sustainable operational management while applying proven technologies. This means that we deliberately choose not to use the most risky innovative solutions. Changes in the organisation and in the attitude of the employees are required to make sustainability an inextricable part of our operations and daily practice. It is a long process, but one Wageningen UR is determined to realise.



In conclusion

The further development of the plans for the coming years will be based on annually set priorities to ensure that our plans are actually realised. Our motto is: 'Do not do everything at once and be sure to do everything well.'

The progress will be evaluated and reported upon on an annual basis, and adjustments made where necessary. The main target values we aim to achieve by the end of the planning period (end of 2014) are summarised in the annex.

Annex: Measurable Performance Indicators

	2010	2014
Education		
Influx new students VHL	1230	1450
Influx new students WU	2070	2350
- from Dutch VWO level	969	1200
- from EU (other than NL)	290	400
Percentage flow-through VHL to WU	8.3	12.5
VHL-ranking in guide for higher education (at medium-sized and large universities of applied sciences)	middle bracket	top 10
WU-ranking in guide for higher education	nr 2	nr 1
WU-ranking International Student Barometer	top 10%	top 10%
Graduation rate		
- BA VHL (after five years)	61	> 90
- BSc WU (after four years)	51	> 90
- MSc WU (after three years)	88	> 90
Research		
Turnover DLO, other than from EL&I and matching market	€85 m	€135 m
Influx PhD students WU per year	280	280
Assistant research fellow (AIO) graduation rate (after five years)	57	≥ 60
Relation-oriented fundraising campaign	-	≥ €15 m
ERC grants (EU) in planning period	2	8
Number of Veni, vidi, vici grants (NWO) in planning period	30	32
Number of publications in leading magazines (average per three years)	18	20
Shanghai Index (ranking in 'Life & Agricultural Science')	36	top 30
Other		
Percentage employees having performance interviews	66	85
Ratio permanent / temporary personnel DLO	86/14	80/20
Net margin DLO (applied research institutes) as % of the turnover	3	3
Solvability (% own capital)		
- DLO	48	≥ 45
- WU	41	≥ 35
- VHL	16	≥ 20
Reduction working capital in relation to turnover in planning period	-	2%
Increase effective utilisation of buildings in relation to 2010	-	20%

Colophon

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