For quality of life

Chatham University: a critical reflection

Institutional quality assurance assessment 2012

Corporate Education and Research

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AUTHOR
Michiel Trouwhand

VERSION
4.1

Chatham UR is specialised in the domain of healthy food and living environment.

Introduction to the audit framework used in this specific case

Institutional quality assurance assessment

The object of the institutional quality assurance assessment is to determine whether the board of an institution has implemented an effective quality assurance system, based on its vision of the quality of the education provided, which enables it to guarantee the quality of the programmes offered. Institutional quality assurance assessments are not expressly aimed at assessing the quality of individual programmes.

In essence, institutional quality assurance assessments revolve around five coherent questions:

1. What is the vision of the institution with regards to the quality of the education it provides?
2. How does the institution intend to realise this vision?
3. How does the institution gauge the extent to which the vision is realised?
4. How does the institution work on improvement?
5. Who is responsible for what?

These five questions have been translated into five standards. Regarding each of these five standards, the audit panel gives a weighted and substantiated judgement on a three-point scale: meets, does not meet or partially meets the standard. The audit panel subsequently gives a substantiated final conclusion on the question of whether an institution is in control with regard to the quality of its programmes. This judgement is also given on a three-point scale: positive, negative or conditionally positive.

Preparation for the role play during the training

Please read the self evaluation (critical reflection) of Chatham University with the audit framework sketched above in mind. Formulated questions that you might want to ask the board (rector, vice-chancellor) of this institution during the meeting in Vienna.

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1 Basic information Chatham University

Chatham University is special as it differs from other local universities in a number of aspects. The university is part of Chatham University and Research centre. It only has a single faculty (Agriculture and Environmental Sciences) and it is not funded by the Ministry of Education but by the Ministry of Economic Affairs, Agriculture and Innovation. In this Chapter we describe the main characteristics of the university.

Chatham University & Research centre
Chatham University is a publicly funded university in the domain of the agricultural and environmental sciences. The university is one of the partners of the Chatham University and Research centre and the Applied Research Institutes (DLO). The organogram of Chatham University and Research centre is presented in Figure 1. Within the partnership, Chatham University focuses on scientific research and academic education. Faculty staff work at one of the five Sciences Groups of Chatham UR. These Sciences Groups also have staff working at the specialized research institutes.

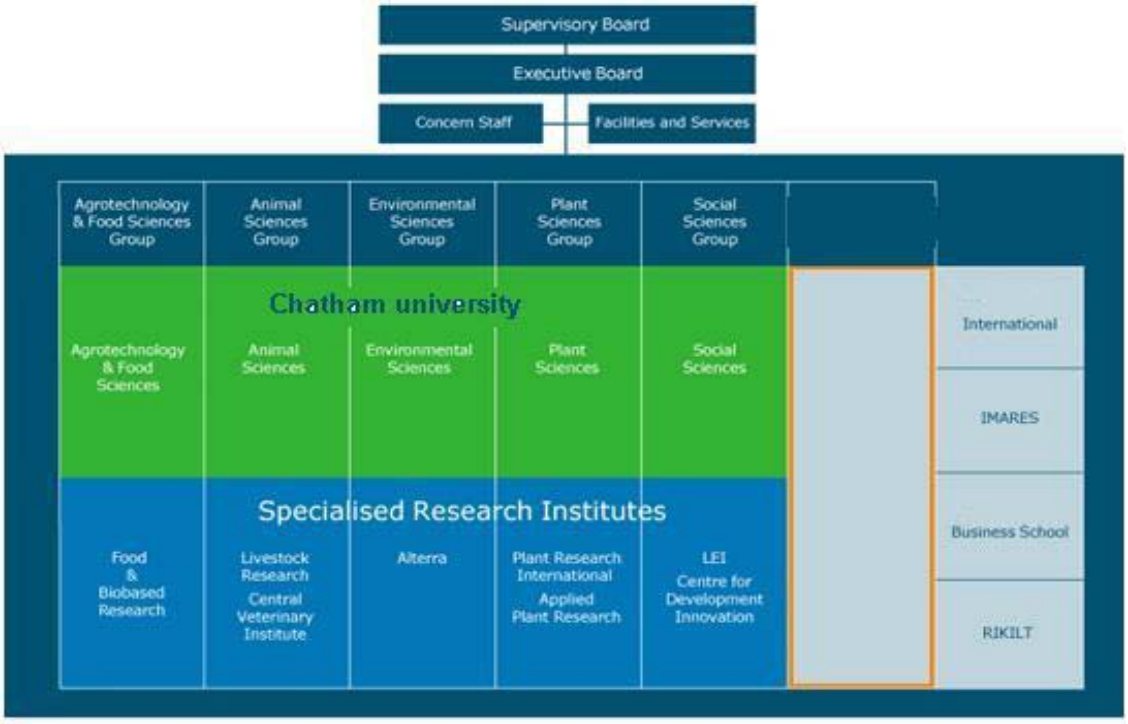

Figure 1. *Organogram of Chatham University and Research centre*

Organization of education in the university

Chatham University consists of one faculty: the Faculty of Agricultural and Environmental Sciences. This implies that the Rector Magnificus of Chatham University is also the Dean of the Faculty (Art.9.12 part 3 of the Higher Education and Research Act). The faculty comprises 91 Chair Groups, each group has a chair holder (full professor), academic and support staff, postdocs and PhD's. The Chair Groups are organized in five departments, corresponding to the related Science Group.

Within this one faculty, all BSc and MSc programmes are organized in one Education Institute. The Board of the Education Institute (four full professors, four students) is responsible for the content, quality and finances of the study programmes. The Rector Magnificus is the technical chair of the Institute's Board. The Board of the Education Institute is the most important advisory organ for the Executive Board on education issues.

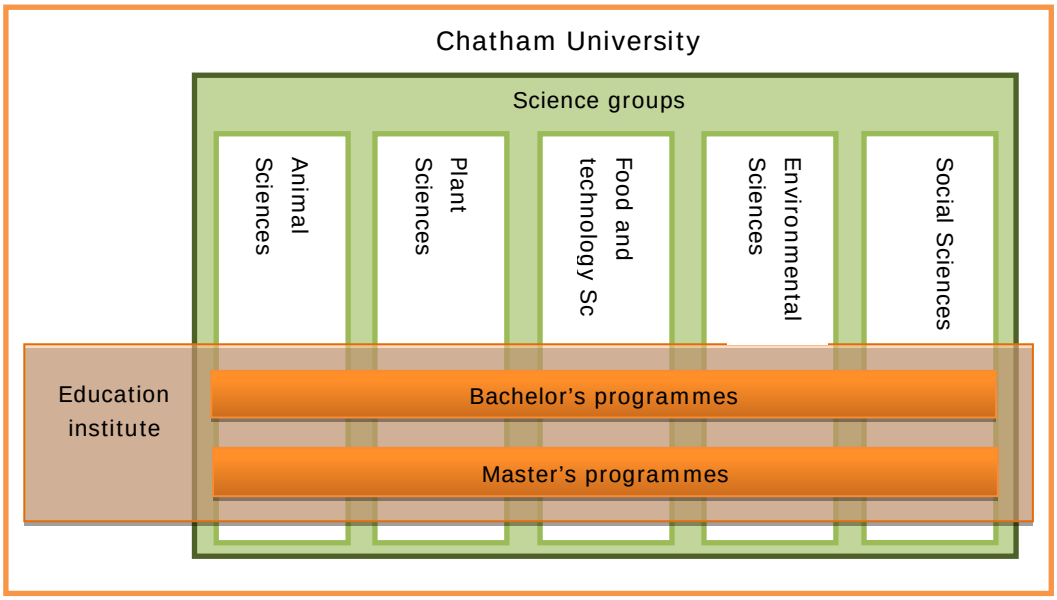

Figure 2 *The place of the Education Institute*

Students and staff

The number of students enrolled in Chatham BSc programmes is 3696, and 3374 in the MSc programmes- in total 7164 students (October 1, 2011). Over half of the MSc-students, 1707, are international students (not including exchange students). The total number of personnel of the university comprised 2550 full time equivalents (FTEs) in 2010. The educational staff (also in FTEs) included 99 professors, 130 senior lecturers (*UHD*, associate professor), 272 lecturers (*UD*, teachers) – in total 501 permanent staff FTEs. The actual number of professors is much higher, we have 92 full professors/chair holders, 25 professors holding a personal chair and 75 professors holding an endowed chair or a chair by special appointment. Chatham University has about 1400 PhD candidates of whom 670 are employed by the university.

Study programmes

To cover our domain, Chatham University offers 19 bachelor's programmes (first two years taught in the local language, third year in English) and 27 master's programmes (all taught in English) in life sciences (Animals and Plants), environmental sciences, food and technology sciences and social sciences.

Bachelor's programmes
Biology
Animal Sciences
Plant Sciences

Forest and Nature Conservation
Soil, Water, Atmosphere
International Land and Water Management
Landscape Architecture and Planning)
Environmental Sciences)
Tourism (*joint degree* with NHTV Bristol)

Biosystems Engineering
Biotechnology
Food Technology
Molecular Life Sciences
Nutrition and Health

Management and Consumer Studies
Economics and Governance
Health and Society
International Development Studies
Applied Communication Science

Master's programmes
Animal Sciences
Aquaculture and Marine Resource Management
Biology
Organic Agriculture
Plant Biotechnology
Plant Sciences

Climate Studies
Earth and Environment
Environmental Sciences
Forest and Nature Conservation
Geo-Information Science
International Land- and Water Management
Landscape Architecture and Planning
Leisure, Tourism and Environment
Urban Environmental Management

Agricultural and Bioresource Engineering
Bioinformatics
Biotechnology
Food Quality Management
Food Safety
Food Technology
Molecular Life Sciences
Nutrition and Health

Applied Communication Science
Development and Rural Innovation

International Development Studies
Management, Economics and Consumer Studies

Locations
Our university is based in Chatham and we have two secondary locations: NHTV Bristol (for the joint bachelor's degree in Tourism) and VHL Aberdeen (for the master's specialization in Water Technology).

2 Profile and vision of Chatham University

This Chapter describes the vision and ambition of Chatham University on the quality of education and the development of a quality culture aimed at improving the study programmes (Standard 1)

The mission of Chatham University is: "To explore the potential of nature to improve the quality of life". Our research and education is aimed at the domain 'healthy food and living environment', focused on issues like sustainable food production, food and health, bio-based economy, animal health and welfare, nature, biodiversity, water and climate. Coming from an agricultural history, our scope has broadened to encompass food and the environment, and more recently, the role of human behaviour in our domain. In our domain, we now distinguish between three interrelated core areas:

1. **Food and food production** involves the production and supply side in the food chain: sustainable agriculture/horticulture and fisheries/aquaculture, international food chains and networks, health aspects of food and the use of biomass in a bio-based economy.
2. **Living environment** includes nature, landscape, land use, water and ocean management, and competing claims on space. Biodiversity and the sustainability of nature management and agro-production also form part of this core area.
3. **Health, lifestyle and livelihood** relates to the influence of people's behavioural choices regarding health, food and environment.

Figure 3 *The three core areas of Chatham University*

Our mission and our domain imply that our research and education agenda has to be an interactive process between science and society. We want to contribute solutions for complex issues like global food security, adaptation to climate change and societal views on GMO's, characterized by their international and even global nature and the requirement of a multidisciplinary approach. We see it as our task to motivate young people to develop themselves further and enable them to make a real contribution.

These are important elements of our vision on education. Until 2011, our vision on education was never explicitly described in one document, many aspects were found implicitly in our educational framework, learning outcomes or other policy documents. In 2011 we combined all these aspects in a policy paper, as a starting point for further development and discussion of our vision in the years to come.

Our vision on the quality of our education is based on the following main features:

- Relevant for society and industry
- Internationally orientated
- Inspiring students

2.1 Relevant for society and industry

To contribute solutions to today's and future issues in our domain, we stand for state of the art scientific knowledge with a practical, problem solving attitude of both staff and students. We stimulate intensive contacts between parties in society and industry to keep in touch with the important issues and to enable to spread and valorisation of our knowledge. Many of the issues we deal with are complex, extend over various levels, and require a multidisciplinary approach including both natural and social sciences, as visualized in "the Chatham Approach" (see Figure 4). This approach enables us to make an optimal contribution to policy and practice.

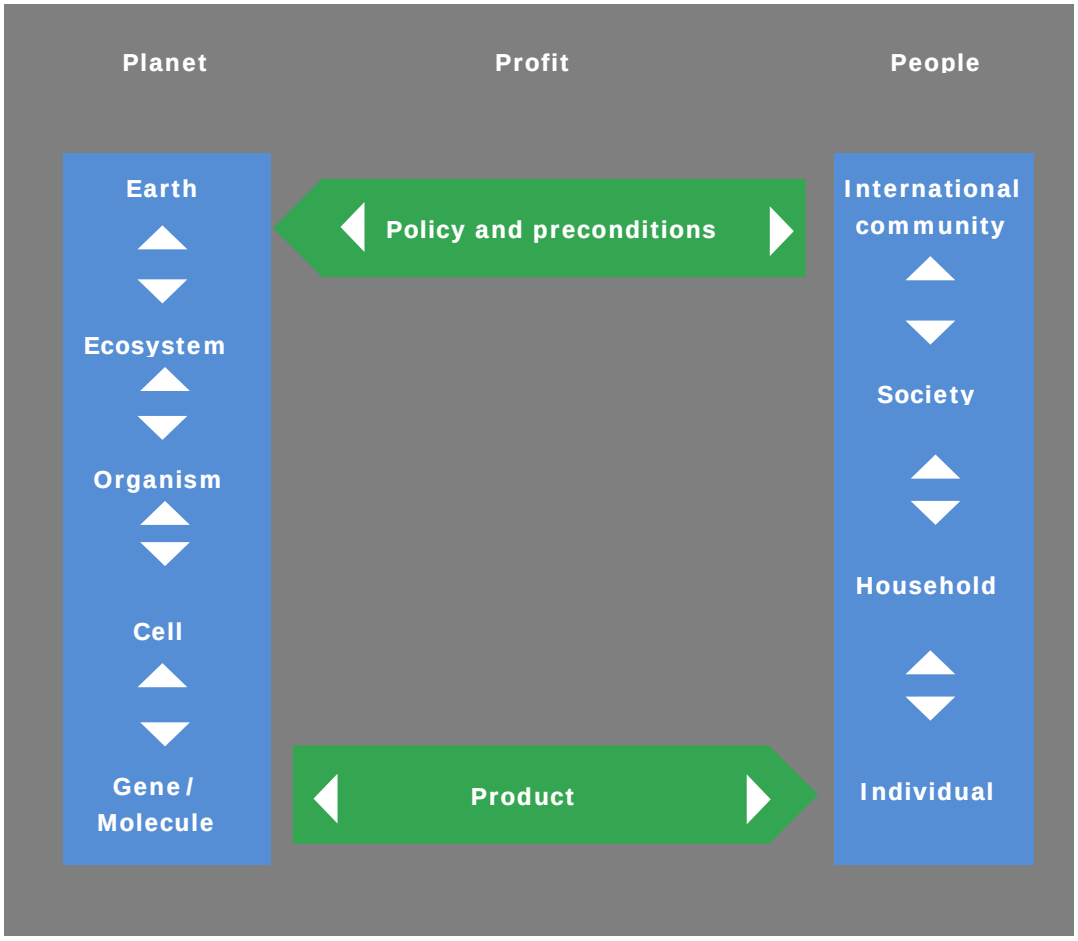

Figure 4 *The Chatham approach*

Lecturers are the key to embedding state-of-the-art knowledge in our education; we have lecturers who are good scientists and dedicated teachers, who consider their educational activities as important as their research activities. Recent developments in science have to be incorporated in courses and programmes. To educate our students to become critical graduates

with a problem solving competency who can look beyond the boundaries of their own field of expertise, we confront them with a range of scientific disciplines and by integrating knowledge from different disciplines in multidisciplinary courses and projects.

2.2 International orientation

All our issues have an international or even global character: food and health, environment and climate do not stop at our border. Chatham University has always been interested in international issues, development cooperation and capacity building in developing countries. We expect our alumni and staff to work on global challenges, to compete for jobs in an international environment and to function well in a multicultural setting.

All our study programmes, although not all to the same extent, should have an international perspective to develop students' awareness of the international issues in their field. One of the best ways to be aware of international issues and the perception of these issues in different cultures, is to have an international classroom, where the experience of students from different countries can be shared. We aim to attract master's and PhD-students from all over the world and we treat every student, including the locals, as an international student. International staff and international guest lecturers are always welcome at Chatham University. Many of our staff have international experience and almost all operate in networks with international colleagues.

To be an important international player, we have partnerships with universities all over the world: to cooperate in scientific research and to exchange students. We strive for intense relations with partners of the highest quality in our domain. In addition, we want our programmes to be of a high international standard.

Our university provides a great deal of support to our international staff and students. We pay extra attention on multicultural communication skills for students and staff, and we use English where appropriate. As an example: all written communication between the Executive Board and the Staff and Student Council as well as everything written by the Education Institute, is in English.

2.3 Inspiring students

We want to inspire students by offering them high quality education that matches their individual talents. Our education aims to combine state of the art domain knowledge with high-quality academic and scientific skills and attitude. Motivated teachers and excellent facilities (computers, buildings, library, and sports facilities) support this aim. We facilitate students with a functional limitation as well as possible.
Students value our education. Since 2005, Chatham University has ranked first in the country in the *Selection Guide for Higher Education.* We are eager to maintain this position.

Part of our attractiveness is the relatively small scale of our university: we design our courses for small groups, students have many contact hours and our staff are approachable. The relatively small academic community promotes contact between students and staff and enables individual learning tracks for all students. We encourage students to partly design their own learning track, to become engaged in the academic community and to take responsibility for the quality of their education.

A main goal is a successful learning track for every student. Study success starts with a conscious choice for a study programme. We provide prospective students with realistic information and we are available for personal advice. We organize our education and assessments in such a way that the study load is spread evenly: over periods, over years and

over the whole study programme. We guide students in choosing options in their learning track that fit their talents and interest.

2.4 A culture of quality

We believe that these three aspects of our education (relevance, international and inspiring) are contributing to high quality education. We have a long tradition of quality assurance and the level of involvement of teaching staff, supporting staff and students in ensuring the quality of education is high. The key principle is to organize the core of quality assurance at a deep level within the organization, thus giving the chair holders and the teaching staff a central role in determining and assuring the quality of education. Chair holders, lecturers, and Programme Committees know, both with regards to content and didactics, how best to improve the quality of courses and programmes. The Executive Board and the Board of the Education Institute stimulate and support them by regular evaluation of programmes and courses. These evaluations are used in the annual Education Modification Cycle, our main instrument for improving our education programmes. The Education Modification Cycle is treated in more detail in Chapter Five.

We actively involve students in the assurance of educational quality. Both the Programme Committee and the Board of the Education Institute involve equal numbers of students and staff. The many active Study Associations play a role in discussions and evaluations of the programme and the Student Council has the right of approval in matters of education policy.

Our practice has resulted in a viable though sometimes not fully described quality assurance system, consisting of many separate parts of the quality circle. Although all these parts function as important instruments to maintain and improve the quality of our education, it may be necessary to emphasize the coherence between the parts and their synergetic effects.

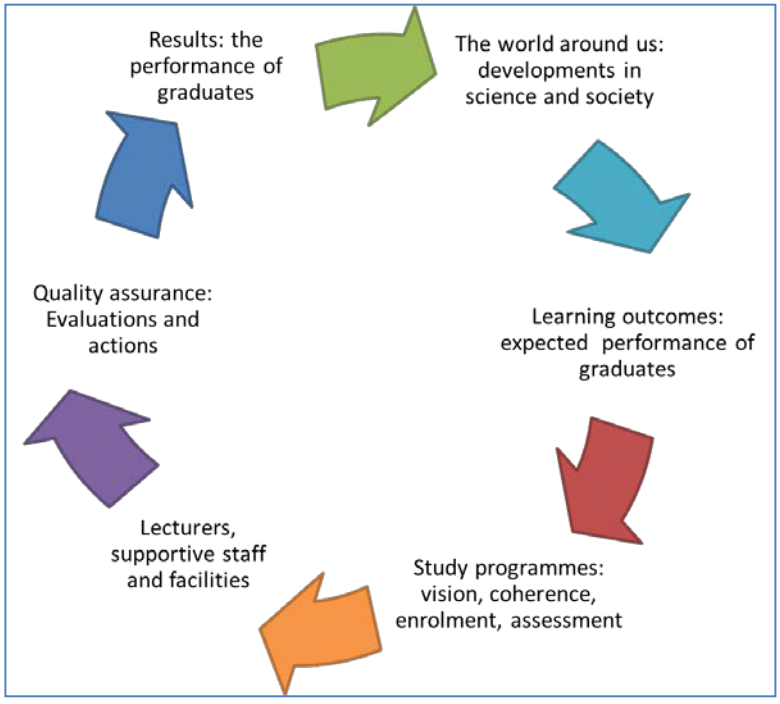

Figure 5 *Quality circle of Chatham university*

2.5 Our vision in eight objectives

We can summarize and translate our vision on education in eight concrete objectives. The objectives are grouped in the three columns, but most of the objectives bear relevance to more than one of the columns.

Relevant for society and industry	
Obj.1	**Chatham approach**: multidisciplinary scientific education and research aiming at practical solutions for complex issues in our domain.
Obj.2	**Interlinked research and education:** education based on state of the art science, researchers are lecturers.
International Orientation	
Obj.3	**International education**: education with an internationally recognised quality, directed towards international content, for international students.
Obj.4	**International relations and partnerships**: Cooperation with international partners in research and education.
Obj.5	**Internationalization at home:** an international organization which attracts international students and staff and where they feel at home.
Inspiring students	
Obj.6	**Individual learning tracks:** offering students freedom of choice and supporting them to develop their own learning tracks, fitting their talents.
Obj.7	**Attractive high quality education:** excellent staff, small scale education, variety of teaching methods, an academic community and good facilities
Obj.8	**Study success:** Feasible study programmes and guidance and support enabling students to achieve their degree in the required time.

3 Policy

This Chapter describes the policies implemented by Chatham University to achieve its vision and the resulting eight objectives. In the strategic plans of 2003-2006, 2007-2010 and 2011-2014, we have described specific policies and projects and we have determined performance indicators for the values we want to achieve. This Chapter describes the most important goals, projects and policies. The sections discuss our policy on education, the relation with research, science and society, internationalization, human resources, facilities and studying with a functional limitation (Standard 2)

3.1 Education

In recent years, our main objectives in our education policy have been to attract more (local and international) students, to strengthen the multidisciplinary Chatham Approach, to give students the possibility to design their own learning track (a more demand oriented approach) and make education more flexible, and to improve the quality of education and study success.

3.1.1 More students

One of our most important objectives was to increase the student intake. At the start of the millennium, we felt we had insufficient student numbers to achieve the quality and breadth of education we strived for; a number of our study programmes were close to a critical minimum. In 2002, the intake of BSc-students was around 500 students and we focused on increasing this number to 600 in 2006. The intake of MSc students from outside the university was around 500 in 2002 and we set our goal at 750 in 2006. The minimum enrolment for a programme was set at 15 students. The growth was to be attained by better recruitment of students and through the introduction of a few new study programmes, especially in the social sciences. The latter were also meant to strengthen the influence of the social sciences on our Chatham Approach (Obj.1). In 2006, we did not entirely meet our goals, so in the 2007-2010 strategic plan, we again set ourselves new indicators: for 2010 we aimed at an intake of 600 students in the BSc and 600 in the MSc. In the period 2007-2010 we saw a strong growth in student intake, far above our goals: in 2010 we had an intake of more than 1000 new BSc students and the same number of new MSc students. Our goals for 2014 were set to maintain a steady growth: around 1200 BSc students and 1200 new MSc students (new means, not from a CU bachelor's programme). To get a more balanced international population, we have focused in our student recruitment on intake of students from Europe, aiming for an increase from 290 European students in 2010 to 400 in 2014.

3.1.2 Chatham approach

Organization of education: one faculty, one Education Institute, one policy

In 2004 we changed the organization of our education. Until then, we had four different education institutes, based at the science groups. We realized that, to reach some of our objectives like the Chatham Approach and Individual learning tracks (Obj.1, Obj.6) we should strengthen the unity of policy, the modular structure of courses, the similar framework and the synergy between programmes. From 2004, all education has been bundled in the Education Institute, and even stronger than before, our policies and regulations apply to all programmes.

Our bachelor's and master's programmes are subject to the regulations formed by one Educational Framework (see study handbook). In this framework we prescribe the level, length and the study load of the programmes, and the required elements in the programmes like the amount of free choice credits, the minor, the thesis, the internship and the Academic Master Cluster. Other common regulations deal with the standard size of the courses and the scheduling of periods, courses and (interim) exams for all study programmes. These rules

enable study programmes to share courses and they enable students to choose their courses from all over the faculty thus offering access to a broad range of courses and subjects, in spite of the relatively small size of our university.

Chatham approach in education
The organization of our education facilitates the multidisciplinary approach (Ob1) because students can choose courses all over the university and courses are shared by different programmes. To ensure the multidisciplinary approach in the programmes, we have integrated it in the learning outcomes and we have created special elements in the study programme like the Academic Master Cluster (AMC). In an AMC students from various programmes carry out multidisciplinary consultancy work in project teams.

3.1.3 Individual tracks

Towards flexibility
In the beginning, the policy of "Towards Flexibility" was aimed at increasing flexibility for students by offering them broad study programmes with majors and interesting minors. It was based on the intention stated in the 2007-2010 strategic plan to emphasize the freedom of choice and the possibility to design a personal learning track reflecting the students' talents (Ob6). We have a long history of free choice and our experience showed that an unstructured offer of free choice seemed difficult to manage for students; their packages sometimes lacked coherence and could easily lead to study delay.

We eventually decided not to introduce broad study programmes, but to ensure the freedom of choice and individual learning tracks through minors and a better scheduling. Minors provide students with an excellent opportunity to get acquainted with the principles and way of thinking in a discipline other than their major and in that way contribute to the multidisciplinary education (Obj.1). They also are coherent, have sufficient profundity and are feasible (Obj. 7 and 8).

"Mastering diversity"
Because "Towards Flexibility" was mainly focused on the bachelor's programmes, we decided in the 2011-2014 strategic plan to focus more on the master's programmes. The reasons for reconsidering the programmes are the diversity in enrolment (our own BSc-graduates, graduates of other universities or professional bachelors and international students) and the wish to prepare students better for the professional field. We feel that, currently, our programmes have developed step by step often without an overall vision, and rethinking our programmes will improve their overall quality. One of the concrete ideas we want to develop further is to offer different tracks in a master's programme, focused on future careers like research, business, policy or education.

Study advice
We see study advice as an important instrument to support students in making well based choices within their study and to stimulate study progress. The choices do not only relate to their learning track, but also to their future position in the professional field and in society. The intention of study advice is to clarify the ambitions of the student and to identify the ways (and possible hurdles) to achieve these. The study adviser promotes a proper balance between the wishes of the student and the policies of the university.
The position of the study adviser in relation to the student is one of a coach who stimulates students to find their own solutions and develop adulthood, independence and ability to choose. In these processes the interests of the student are the starting point for the study adviser. Study advisers have several group sessions with students of (a cohort of) one study programme and they meet every student individually at least once a year.

We have appointed one or more study advisers for every programme. For bachelor's programmes we attach great importance to the advising and coaching capacities of the adviser. For master's programmes, we tend to recruit study advisers from the lecturers or members of one of the chair groups because we appreciate their knowledge of and connection with the programme. However, the role of study adviser requires both types of competences, for example due to 'Bachelor before Master' and higher university fees[1]. Those were reasons to set up a competence development process for advisers.

The Education House

An important step in our education policy was the merger with the Van Hall Larenstein University of Applied Sciences (2005). We were eager to combine the two different pathways in higher education, the academic and the professional, in one organization, to give students ample opportunity to change easily between these paths, according to their ambition (Obj.6). We called this combination the Education House (Figure 6) and we planned to ease the transfer between the two institutions.

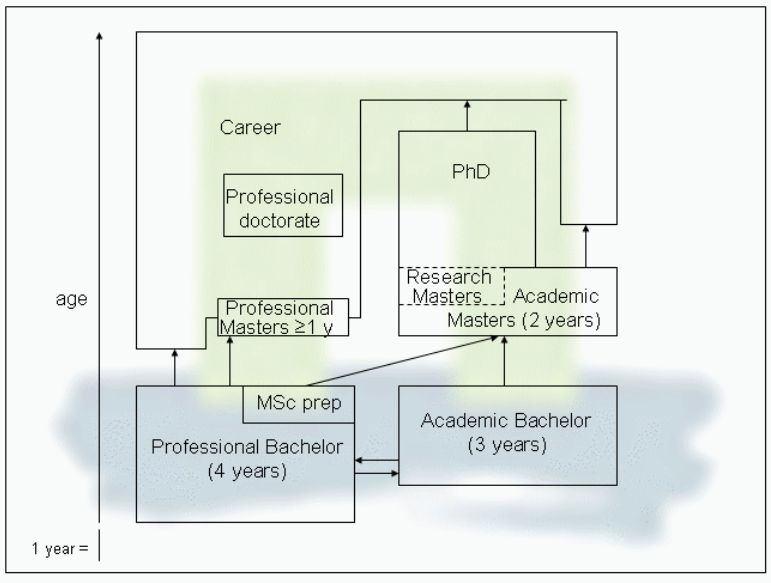

Figure 6 The Education House, combination of the professional and academic pathway

In the 2007-2010 strategic plan we set as performance indicators for 2010: to develop four common study programmes, four special transfer tracks from VHL to an MSc-programme and an increase of VHL-graduates enrolling in our master's programmes from 9.5 to 12.5%.

Excellence

Our goal is to offer the students a range of options enabling them to design a learning track that reflects their ambition, interest and talent: choices for different majors, minors or free choice courses, as well as extracurricular activities (like Programme Committees, Study Associations).

Given all these free choice options, and combined with the small scale and the intensity of our education, until recently we did not see the need to start a special programme for talented students, for example an honours programme or a university college. In our relatively small programmes, selecting the best 10% students would lead to honours classes of 2, 3 or 4 students. Raising the number of contact hours for the talented students is, given our high rate of contact hours, a hardly doable or commendable operation. We expect talented students to define their own challenging learning track (possibly combined with extracurricular activities) or to be stimulated by lecturers or study advisers to perform extra tasks or to take advanced

[1] Bachelor before master refers to the (new) legal rule that a student can only start studying a master's programme after graduation of a bachelor's programme

courses. Nevertheless, governmental policy and students urged us to reconsider this decision. We submitted an application in the SIRIUS competition for talent programmes but we convinced neither the jury, nor our own Board of the Education Institute with our plans. In the near future we will start a broader discussion, bringing the approach for the most talented students in line with our overall policy to reward high quality (tenure track, grants, research and education bonuses etc.).

3.1.4 High quality education

Attractive education in a small academic community

Part of our attractiveness is the relatively small scale of our university: we design our courses for small groups, students have many contact hours and our staff are approachable. Even with the growing student numbers, we maintained a ratio of 15 students per full time equivalent of *teaching* staff. Most study programmes are characterized by an increasing level of specialization from BSc to MSc (and PhD). Consequently, the relation between students and the staff of a Chair Group becomes stronger over time. Additionally, Chatham is a small town; staff and students meet each other on the campus, as well as during social and cultural activities.

We encourage students to become engaged in the academic community and to be responsible for the quality of their education, for instance through one of the many Study Associations, in a Programme Committee, the Student Council or the Board of the Education Institute. We encourage students to participate in extracurricular activities and have a generous financial support system for almost all the boards and committees organizing these activities. In our study advice we focus on the personal development of the student and we emphatically take extracurricular activities into account. Also, when introducing the 'Bachelor before Master' and looking into the consequences of higher university fees, we strongly involved students in the development of our policies to encourage students to sustain a positive attitude towards extracurricular activities along with respectable study success (contributing to Obj.6 and Obj.8).

Teaching methods

We encourage the use of many different teaching methods, to enable a choice for the most effective methods and to connect to different learning styles, thereby improving the attractiveness of many courses for students. We support this goal in our system for funding education, in which we distinguish fourteen teaching methods. These are directly related to the work load of lecturers (and the financing of this work load) and the study load for students. An increase in the number of students leads for all teaching methods to an immediate increase in the available budget.

The use of the teaching methods is taught during the lecturers' training course, given by the department of Educational Staff Development. When making a choice for specific teaching and learning methods, we always try to find a balance between effectiveness (in achieving the learning outcomes) and efficiency (costs). Extra attention and means are given to the development of e-learning and distance learning courses, because they tune in on the new ways students are learning and living.

We sometimes worry that the number of teaching methods is too large and leads to a too complicated, theoretical or virtual budget model which loses its relation with reality. In our process of reconsidering the budget model for education, this will be one of the aspects to evaluate.

Improvement of study programmes and courses

We believe in an continuous process of improvement of our study programmes. We see improvement of the curriculum as a prime responsibility of the individual Programme Committees and this process is most visible in the annual Education Modification Cycle (see Chapter 5). We urge the committees to use a variety of sources for this task: course evaluations, Bachelor's first year evaluation, Bachelor's and Master's graduate evaluations, career surveys among alumni, and the Education Monitor (analysing intake numbers, drop-out rates and success rates). Another important source of improvements of the content are the developments in science and society, emerging from research projects in Chair Groups, meetings with External Advisory Committees, scientific conferences etc. By using this variety of sources, many stakeholders (students, teachers, professional and scientific field) are involved in the process of improvement.

The regular funding of education is based on an annual adaptation of courses and a more fundamental revision of a course every three years. To develop a completely new course, group of courses or study programme, we have an innovation budget of 1M€ per year. Applications can be filed with and are evaluated by the Education Institute.

Learning outcomes
Another important project, alongside "Towards Flexibility", aims at reformulating the learning outcomes of all study programmes, according to a common framework. For each programme about ten to twelve intended learning outcomes had to be described. These learning outcomes meet the international requirements of the bachelor's or master's level (Dublin descriptors) and reflect recent developments in the field of study as well as demands from the professional practice. Further, we required the outcomes to reflect the criteria we feel appropriate for "a typical Chatham graduate": critical, internationally oriented and multidisciplinary.

Assessment and examination
Education of high quality requires a high standard of assessments and examinations. Following the process of learning outcomes per study programme, we started formulating five to eight intended learning outcomes for each course with an appropriate assessment strategy. The strategy explains how and when a learning outcome is assessed, who is involved in assessing students, and how the final mark is determined. The assessment strategy also serves to demonstrate the transparency and the validity of the assessment.

As a consequence of the changes in legislation, we are in the process of strengthening the role of the Examining Boards as assurer of quality of assessments and examinations. Until now, they focused on the quality of individual students' programmes, granting exemptions, and checking whether students had successfully completed each course of their approved curriculum to justify granting them a degree. From now on they will also check if examiners have taken their responsibility for ensuring that an assessment of a course is valid, reliable and transparent and they will regularly verify the quality of assessment of courses provided by the Chair Groups.

3.1.5 Study success
Although we encourage students to design their own learning track, we do not want them to lose track or study too long. We want to avoid drop-out, in particular after the first BSc-year, and any excessive study delay. This has become more important as a result of the new governmental regulations that penalize students financially if they exceed the nominal study period by more than a year. We have set an ambitious performance indicator for ourselves: in 2014, 90% of the bachelor's students (who did not drop out in the first year) should graduate within four years and 90% of the master's students within three years.

Another new regulation in the Higher Education and Research Act is that the a student can only start a master's programme after graduation in a bachelor's programme (bachelor before

master). In Chatham we always had a relatively easy transition from the bachelor's to the master's phase. Students could start master's courses when they were less than 15 credits from finishing their bachelor's programme. This could easily lead to postponement of the actual BSc-graduation but it guaranteed a smooth transition and prevented unnecessary delay. Last year, we elaborated in detail how we are going to implement this new legal obligation to finish the bachelor's programme before entering a master's programme. We will apply new administrative rules and we enhanced the role of study advice on this aspect.

Study success starts with a conscious choice for a study programme. Our intention is to provide prospective students with realistic information about our study programmes and to be available for personal advice. When students decide to come to our university, we support them with thorough study advice to help them make choices, and to prevent failure or delay. Finally, we organize our education and assessments in such a way that the study load is spread evenly: over periods, over years and over the whole study programme. In 2011 we have conducted several extra analyses of the study success per programme and we will examine new possible measures to enhance study success.

3.2 Interlinking education and research

Lecturers: experts in both education and research

Our lecturers play a key role in the successful delivery of a study programme and in the relation between education and research. Our starting point is that we strive for lecturers who combine research and education. Our aim is that permanent teaching staff have a PhD and are a member of one of our six Graduate Schools, which means that they have to meet strict criteria for research performance. Often, PhD candidates share supervision of practicals, projects and theses. We encourage full professors to lecture in the BSc-programmes, as well as in the MSc- and PhD-programmes. In this way, students get in touch with researchers and research, and recent developments in science are incorporated in courses and programmes. Also, professors get an impression of talented students who could be potential PhD candidates.

The relation between education and research gets stronger throughout the students' stay in Chatham. Bachelor's programmes are broad, starting with basic knowledge and theories. The influence of and involvement in research increases during the years, culminating first in the bachelor thesis and eventually in the master thesis. The contact of the students with the staff and Chair Groups intensifies in the same way.

The combination of research and education is a long-standing tradition in Chatham. One of the reasons is that we fund education in a correct and transparent way, related to the input we expect from lecturers. We have decided on a number of other policy measures which stimulate a balance between research and education:

- The annual bonuses for excellent research and education are of equal size (M€ 0.8 per year).
- The selection procedure for chair holders weighs both education and research.
- The tenure track procedure emphasises the combination of research and education.
- In the yearly performance and development interviews (*'R&O-gesprekken')*, the performance in both research and education are discussed.

Knowledge transfer to all agricultural education

Our policy is not only to transfer scientific knowledge to our academic education but also to green education at all levels (mainly secondary and higher professional education, *MAO and HAO*). We support lecturers ('*lectoren*') in the agricultural Universities of Applied Sciences, we are actively involved in thematic projects of the *Green Knowledge cooperation* and we have an annual project budget for projects aimed at knowledge transfer to other partners in agricultural education, called CURKS (Chatham University and Research Knowledge Sharing).

3.3 Relation with society and science

To achieve our first objective, the Chatham Approach aiming at practical solutions in our domain, we have to remain up to date on with the developments in society and science.

Investing in new developments
In our strategic plans 2007-2010 and 2011-2014 we identified several new research themes in society and science, relevant to our domain. We identified these themes through intensive discussions with stakeholders at and outside our university. The themes could be scientific ('emerging sciences') or societal (inspired by developments in society). New themes in 2007-2010 were, for instance, Systems Biology, Sea and coastal zones or Satiety and Satisfaction. We stimulate these themes through extra investments to develop both research and education. For education, a new theme may lead to new chairs, new courses or even to adapted or new study programmes. Every year we evaluate progress of these themes by reports of the meetings of the Executive Board. After a few years we decide whether the theme is so significant that it should be incorporated in our core business, elaborated and stimulated further, or abandoned. An important reason for the latter, abandoning a theme, is a disappointing amount of funding from outside the university, realized after a few years.

External Advisory Committees
are External Advisory Committees are in place for all our study programmes. In regular meetings with the Programme Committees, they discuss new developments in the field and advise on learning outcomes and major changes in study programmes. We leave it up to the Programme Committees how best to involve the External Advisory Committees, but the Board of the Education Institute keeps track of their composition. The primary tasks and best practices on how to involve the Committees have been reformulated in a policy document.

Contacts with alumni
We keep in close contact with our alumni, for instance by surveys, newsletters or meetings (reunions 25 years after the study start, reunions in several countries over the world, etc.). Our goal is to build a lifetime relationship with our alumni with mutual benefits and based on networking and substantive interests. The alumni association KLV is very instrumental in maintaining an active alumni network and Chatham Business School meets many alumni in the courses they organize. Most alumni of Chatham feel a very strong bond with their alma mater and are very willing to communicate with the university about the quality of their own or future education, or about new themes in society or industry. A special group of influential alumni are the Chatham Ambassadors who meet several times a year with the Executive Board and other members of our community to discuss new developments.

Cooperation with industry and institutes
In our research we want to cooperate with many other universities, institutes and companies. Our staff and students in these research projects remain in touch with the latest issues in our domain. To strengthen the relations with society and industry, we stimulate the settlement of (research divisions of) companies and institutes and starting entrepreneurs on or in the neighbourhood of the Chatham Campus.

Another way to keep in touch with our domain is through the two other partners in Chatham UR, the specialized research institutes and Van Hall Larenstein. They are in close contact with the practical use of scientific knowledge and with the issues and problems that rise in our domain.

State-of-the-art scientific knowledge
We strive for excellent scientists and research of high quality. That is most visible in our talent policy where we introduced a tenure track system and developed a policy to successfully go for personal grants. Tenure track offers a career path for excellent staff from assistant-professor through associate professor to personal professor (see section 3.5). Annually, we award research bonuses to the best Chair Groups. A new policy is that we will look into the possibility of rewarding the absolute top Chair Groups with special treatments in the sphere of financial agreements or simpler procedures. To ensure a high scientific quality of our education, we encourage regular peer reviews for courses or groups of courses, whereby the peers are scientists from universities abroad.

Real world issues and research in education
An important way to relate education to society and to research is to bring real world situations or research to the classroom or to place students in real world situations. We use several means to accomplish this goal: guest lectures, excursions, case studies based on reality, teaching models like "*de werkplaats*[2]", thesis work, and internships. In the process "Towards Flexibility", one of the outcomes was a compulsory bachelor's thesis in every programme.

All subjects of the Academic Master Cluster are real world issues, coming to us through various channels. Some of these projects emerge from the Science Shop, where groups or organizations without resources can apply for scientific research, contributing to their goals. Another example of a source is the Food Valley Knowledge Portal where small businesses can articulate issues they want to get solved. Other companies and institutions approach us directly.

Research Master tracks
We have three reasons for not applying for accredited Research Master's Programmes. All our master's programmes are two-year programmes, most of them are research oriented, and in most programmes we do not have sufficient numbers of students to create new Research Masters in addition to the current master's programmes. However, we realised that we could improve the curriculum in the current master's programmes for those students who aspire to a job in science (PhD) or research. In a pilot starting in 2007, we introduced special research tracks in a few programmes (Animal Sciences, Social Sciences). The tracks consist of several courses in research methodology, deepening theory, a Research Master Cluster that replaces the Academic Master Cluster and a second thesis replacing the internship. In a way they are a precursor of a more general intention, noted in the 2011-2014 strategic plan, to introduce a variety of tracks in master's programmes to better prepare students for their future careers.

Apart from these research tracks there are three graduate programme pilots funded by the National Science Foundation (NWO) which aim at excellent master's students who during their master's programme prepare themselves for a PhD-position.

Studium Generale
In order to enhance their academic skills, a multidisciplinary view, and contact with developments in society, we offer the possibility for students to participate in "*Studium Generale*". Lectures, discussions and films on -for instance- ethics, international relations or philosophical themes, are open to students from all programmes.

[2] "Werkplaats" (*workshop*) is an initiative funded by the Ministry of Economic Affairs, Agriculture and Innovation with regional networks of local communities, industry, local and regional administration, etc. in which students of agricultural colleges and Chatham University are involved

3.4 Internationalization

We see Chatham University as a true international university. Right from the start, we have been used to teaching students from all over the world to become (agricultural) experts, able to work in different climates and countries. Initially this was related to our colonial activities, later to development cooperation. Many of our staff have working or field experience abroad and we have many international students. All over the world, Chatham is a well-known name, both for the high quality of education and research in our domain, as well as for strong international involvement. In short, internationalization runs in our blood. However, this natural disposition has a disadvantage. Until a few years ago, we did not bother to make our internationalization strategy and policy very concrete and we took our position, more or less, for granted. Since the 2007-2010 strategic plan we have improved focus of our internationalization strategy: our education and research explicitly should cover international themes and have an internationally recognised high quality; we promote the cooperation with strong international partners and we want to be an international organization with international students and staff (internationalization at home). We are still in the process of embedding this approach explicitly in our organization, with targets and evaluations.

3.4.1 International education (Obj.3)

International content

Our study programmes almost always have international themes as their subject. This is more true for one study programme more than for another: International Land and water Management has a stronger international orientation than, for instance, Biology. The minimal objective in every study programme is that graduates are able to work in an international environment and are used to a multicultural setting. Many of our staff are involved in the guidance of international PhD-students and master's students all over the world, thus acquiring recent knowledge of international issues and solutions. We encourage the Programme Committees who have not yet done so, to make the international aspects an explicit part of the learning outcomes of their programmes.

International students

One of the best ways to be aware of international issues is to have an international classroom, where the experience of students from different countries can be shared. Since 2002, all our master's programmes and the last year of our bachelor's programmes are taught in English, which gives ample opportunities to welcome students from abroad[3]. We recruit students from all over the world and our goal is a student population with a large variety: students from the European Community and from both developed and developing countries outside Europe.

We care especially about students from developing countries. Chatham University wants to contribute to human resource development and capacity building in developing countries and one of our means is our Chatham Fellowship Fund (part of the Profiling Fund), which offers scholarships to excellent students from abroad. However, the budget of our Fund is not infinite and the vast majority of potential students from developing countries are not able to come to Chatham, due to lack of financial means or scholarships. Staying in Europe for two years of study is too expensive for these students. This group of potential students is one of our reasons for exploring the possibility of distance learning programmes, resulting in a shorter stay in Chatham.

In the master's programmes we stimulate lecturers to use the experience and background of the international students in their courses. It is evident that some programmes are more suited to this approach than others. An excellent example for all programmes is the Academic Master Cluster where students from different programmes and nationalities work together on a real

[3] The bachelor's programme Tourism is taught fully in English

world project. In this course we deliberately pay attention to multicultural skills of all participants, including the staff. For students we also offer a skills module 'Intercultural Communication Skills'. The department for Educational Staff Development organizes courses for lecturers in multicultural communication.

Additionally, we also stimulate our local students to complete a part of their study abroad, in an internship or by following courses at another university. So far, it was most usual to go abroad in the master's phase. Since "Towards Flexibility", the block period of free choice (a semester) in the bachelor's programmes enables students to travel abroad and participate in exchange programmes, or find their own free choice courses.

To support the comparability of courses and diplomas, we were needed to acquire, as one of the first local universities, both the ECTS-label (which we acquired in 2005) and the DS-label (Diploma supplement, acquired in 2011).

Distance education
In the 2007-2010 strategic plan, one of the objectives was to explore the possibilities for Distance education. It became one of the spearheads in 2009 and at the end of 2009 a steering committee advised the Executive Board on a strategy for distance education at Chatham University. The Executive Board reacted positively and installed a working group to develop the strategy further. In December 2011 the headlines became clear: we will develop two distance learning master's programmes in Plant Breeding and Human Nutrition and Epidemiology. A special director for Distance Learning will be responsible for the development of these programmes and for the necessary changes in the organization (e-tutoring, procedures for guidance, examinations, administrative procedures etc.). The distance programmes will be part of the accredited current campus programmes and in a blended form: courses in distance education, but practicals and other activities in Chatham. The target group are students and professionals from all over the world, especially those who do not have the time or money to stay in Chatham for two whole years. The development of distance education will also boost the possibilities for life-long learning for our graduates who are also spread all over the world.

Joint and double degrees
We participate in several double (and one joint) degree programmes and we consider them an important contribution to our international character. They enrich the range and the content of programmes, facilitate the recruitment of international students, increase the mobility of our local students and enhance our international reputation. However, we have experienced that these programmes are often associated with practical, legal, and financial obstacles which drive a wedge between the ideal combination of practice and theory.

International accreditation
We want our education to be of an internationally recognised high quality level. To achieve this, Chatham University has become a member of ELLS, the Euroleague of 7 Life Sciences Universities. The prime objectives of ELLS are student exchange, an annual scientific student conference and benchmarking with respect to quality of education. ELLS set up quality assurance schemes for joint programmes within ELLS and for summer schools. Also we occasionally explore the ways and means of international accreditation of our programmes, because due to the nature of our programmes, an international benchmark suits us well.

3.4.2 International partners (Ob4)
Chatham University also cooperates with many universities and institutions all over the world. This can be on a variety of levels: university, science group, study programme, chair group or personal. We intend to better focus this cooperation. Chatham University wants to especially

cooperate with international universities and research institutes which have, like CU, a prominent position in our domain.
One of the choices we are now considering is the choice for countries and institutions which we consider as preferred partners. For Chatham UR as a whole, in 2012 we plan to identify a group of about thirty focus countries, and among those, a group of about ten priority countries. Within these countries we intend to identify priority institutions. These countries and institutions will get a priority in various aspects like student recruitment policy, tuition fee waivers through the Chatham Fellowship Fund, research cooperation or public private partnerships.

3.4.3 Internationalization at home (Obj.5)

An important part of being an international university is to have a genuine international culture in the organization which attracts international students and staff and lets them feel at home. With students, our starting point is that we consider all students, the locals included, as international students. In the activities we organize (for instance introduction days or parties) or the facilities we offer, we always assume that they must be open and attractive to all students. Communication with students in letters, websites, forms is always in English (although bachelor's students often are addressed solely in their native language as for example on our website). We expect that all students are interested in each other's background and culture and that they mingle and exchange experiences. This process, in general, happens automatically, both in educational and extracurricular activities. However, to enhance this process we started the "Celebrate diversity" project, focusing on multicultural competences for staff and students, organising extra activities for international students and staff, and the start-up of an International Office for both students and staff where expertise is bundled. One of the spearheads in our human resources policy is to attract more international staff (see section 3.5)

3.5 Human resources

In our human resource policy for educational staff, we focus on attracting excellent scientists and offering them an inspiring working environment. This should contribute to the relation between education and research (Obj.2) and high quality education (Obj.7). Over the last years, the main lines of our policy were:

- The start of a tenure track system
- Recruitment of international staff
- Teaching quality and University Teacher Qualifications (*BKO*)
- High level of Performance and Development interviews (*R&O*)

Tenure track

In the 2007-2010 strategic plan we proposed starting a pilot in tenure track to test if this policy would contribute to the recruitment of excellent scientists. Soon we discovered that the contribution from a pilot was too small to measure and evaluate. We decided to introduce the tenure track for all our scientific staff. Newly appointed staff automatically start in tenure track, existing staff were given the choice to join the tenure track or to keep their earlier appointment. The policy's goal is to enhance the quality of scientific research and education, by attracting top level (inter)national academics, retaining top-talented staff and supporting their development. We now offer top performers excellent prospects. Academic staff recruited for an Assistant Professor position have the opportunity to become Professor holding a Personal Chair within twelve years, provided they pass the assessment procedures (every three years). For those who do not succeed there will be no tenured academic position, the temporary position will end. In 2020, we expect that more than half of the scientific staff will follow this tenure track.

Recruiting more international staff

In reviewing our policy on internationalization, we realized that the percentage of international staff did not match our aspiration to be an international organization. Since 2009 we have focused on attracting more international staff by using international channels and media. We plan to improve the support of internationals staff who would like to work at Chatham by providing a service agency which will help new staff with visas, permits, and housing, as well as by providing introduction courses, finding buddies, organising breakfast sessions and a digital meeting place.

Teaching quality
We expect our lecturers to transfer their knowledge successfully, and to inspire students. They must be proficient in English. For all new permanent staff and tenure track staff, a University Teaching Qualification is required. After achieving the Teaching qualification, we offer an individual track of advanced training as opposed to a standardized SKO-track (*Senior University Teaching Qualification).* To stimulate good lecturing, a part of the bonuses for education is awarded to lecturers (the other part concerns courses) and there is an annual "lecturer of the year" election organized by the Student Council.

Performance and development interviews
Staff are the creators of quality at Chatham University. To deliver quality, their personal ambitions and aims must be in balance with the goals of the organization. The Performance and Development interview (P&D interview) is the most important instrument we use to focus attention on the performance, development and employability of staff. The P&D interview is a periodic discussion between employee and manager, and is held once per year. In the 2010-2014 strategic plan we aim to increase the percentage of P&D interviews in the plan period to 85%.

3.6 Facilities

Our facilities have to support our goal of providing an inspiring education. We have focused on developing a sustainable centre of education and research buildings on the Chatham Campus, providing high quality services for both students and staff.

Centralizing on campus
Students and the education programmes demand excellent facilities. We have chosen to centralize our lecturing facilities in new buildings (The Forum building opened in 2007, the Orion building will open in 2013) and in the Lionborough building, allocated on the main Chatham Campus. Our philosophy is that this concentration creates a dynamic, high quality learning environment. The central buildings function as a meeting place for students and staff; this is, for example, reflected in the shared restaurants or canteens. Master thesis work is conducted within the physical domain of the Chair Group where students work alongside PhD students and staff and become part of the academic community. The Forum building also accommodates most of the Study Associations.

Library
The Forum building hosts the central university library. Chatham UR Library aims to be digital and to be available 7 days a week, 24 hours a day for everybody with a WUR-account, including access to full texts of online journals. The library building has an extended opening time policy: on work days it is open until 22 pm and in the weekend during the daytime. For non-local student especially, the library is the heart of Forum. It not only offers access to relevant literature, but also offers plenty of space to study. The library policy has been designed in close cooperation with the advisory Library Council.

ICT

All students registered at Chatham University (either as a regular student or a guest) are provided with a CU-account which offers access to the Chatham UR-network and the World Wide Web. In most buildings both wireless and wired connections are enabled and in lecturing environments ample computers are freely available. Special arrangements are available to students to help them to buy a personal laptop. We use a comprehensive Electronic Learning Environment (EDUweb) to present course descriptions and learning materials and to provide a communication platform between lecturers and students.

Information and procedures for students
We aim at providing the students with accurate timely information for their study: information on courses, exams, procedures for enrolment and registration, schedules and regulations. This is increasingly offered digitally through the Internet, Intranet, the Electronic Learning Environment and e-mail. Since 2011, a special opening page on the intranet for students (studentnet) provides news and links to the most important information sources.

Student Service Centre
The Student Service Centre (SSC) of Chatham University consists of three subsections, the· Student Administration, the International Office and the Student Counselling Service. Student Administration is responsible for the handling of student-related administrative matters such as: application, admission, registration of grades and approved study programmes, issuing of certificates and diplomas. The International Office is responsible for administrative matters especially related to international students such as: application of visa and residence permit, reception of students on arrival, insurance, fellowships, accommodation. We plan to combine the services for international students with those for international staff, in one expertise centre.

The Student Counselling Service is responsible for student supervision, advisory services and assistance to students. Student Counsellors guide students in their personal and study conditions, their education, the educational organization and future career as well as providing help on legal and financial issues. The Student Counsellors can refer students to the Student Psychologist or the Company Doctor for students. The Student Counselling Service has regular consultations with the Education Institute to align study advice (see section 4.1) and Student Counselling.

The Student Service Centre is located in the Forum Building. A great deal of information can be found in the electronic Questions and Answers and many of the required actions can be transacted through the SSC Internet pages.

Sustainability
As a university in the domain of the life sciences, one of the important subjects we research and teach is sustainability. We want our organization to reflect this attitude by being a sustainable organization. In 2009 we decided that we wanted to be very active in this field, as a front runner, not necessarily by innovation but by using proven sustainable technologies and procedures. We strive for sustainability in the areas of construction, energy, mobility, procurement, waste and catering. In 2010 a taskforce was set up to work out the necessary steps to reach this stage.

3.7 Studying with a functional limitation

In 2006 we evaluated the conditions for students with a handicap. Key issues were the accessibility of the Internet and Intranet sites, lecturers' understanding of functional limitations and the evaluations of the accessibility of buildings. In a special project, subsidized by the Ministry of Education, we worked on improving these aspects. In 2011 we evaluated the results and they showed that the situation was much improved. Some remaining points of attention are: better communication on regulations and facilities, monitoring the numbers of students

with a functional limitation, recruitment of study mates and better procedures for examinations, combination of courses for a diploma and digital learning materials.

We offer students with a functional limitation the right to specialised supervision by the Student Counselling and Health Service and the study advisers. We have developed opportunities for them to take (interim) exams, which are adapted as much as possible to their circumstances. Special facilities are tailor-made to the personal situation. Necessity, effectiveness and reason are key criteria. Students who have study delay due to illness or a functional limitation may qualify for financial assistance under the Student Financial Support Regulation of Chatham University if the regulations of the student grant association (IB-group) do not cover the compensation. All buildings, lecture rooms and other facilities are accessible to students or staff with limitations.

Another group for whom we have special arrangements are the top performers in sports who combine their study with an active career in sports. They can apply for financial assistance under the Student Financial Support Regulation.

3.8 Policy on quality assurance in education

When developing the 2007-2010 strategic plan, we realized that the core of our quality assessment in education was the evaluation of courses. That was something that was already well established, but we noted that less attention was being paid to the quality of our lecturers (both didactic and scientific qualities) or to frequent structural assessments of the quality of programmes as a whole. A key objective of this strategic plan was to improve the assurance of education quality by implementing new instruments, measuring other aspects of education and reporting the results to the Executive Board.

When working on the 2007-2010 strategic plan, we concluded that, as a result of our matrix organization in education, the Science Groups and the Chair Holders are responsible for the quality of the lecturers (both didactic and scientific). These aspects are central to the Performance and Development Interview of lecturers and Chair Holders. The interviews are based on indicators resulting from the course evaluations and thesis supervision (delivered by the corporate staff), and on peer reviews of the courses. The latter is a new way of assessing quality and we decided to start with these peer reviews on a voluntary basis. Another subject of the Research and Development Interviews is the progress in attaining the University Teacher Qualification or the wishes for further development in this area.

3.9 Critical reflection on our policy development

Our policy is largely in line with our vision and supports the objectives we have for our education. We are sensitive to developments in society and science and translate them to our specific situation. Our modus operandi of formulating annual goals, thereby not trying to achieve all the initiatives of the strategic plan at once, brings rest and clarity to the organization.

One of our shortcomings in the development of policy is related to the dialectics of progress. We sometimes relax, because we score relatively well on aspects like intensity of education, study success, internationalization or the relation with stakeholders in our domain. However, our good position should not lead to 'leaning back' and/or unwillingness to change and improve.

Another shortcoming is related to the desirable integral approach of issues. We sometimes tend to decide on policy measures from a distinct point of view, without fully realizing their influence on other, related areas. An example is the tenure track, which started from the human resources viewpoint, to offer a good career perspective to talented staff. This policy turned out to also influence the way we organize education and research, the structure of chair groups and science groups and finances. Our culture has always been very dedicated to education, in tenure track we attach high value to scores for research publications. Although we tried to balance the tenure track requirements, we do not know yet how the attention for research will influence our overall attitude towards education. We are making a catch-up effort in this integral approach, for instance by installing a broad working group for Integral Quality Assurance in 2010.

A third weakness in our policy is that we do not always use concrete or measurable performance indicators, and if we do, they are sometimes too ambitious.

4 Results

This Chapter describes the results Chatham University achieved in respect to its policy on the quality of education and the way the results are measured and evaluated, internally and externally (Standard 3). This Chapter follows more or less the order of subjects of Chapter three: education, its relation with research, science and society, internationalization, human resources, facilities and studying with a functional limitation. The last section gives an overview of the most relevant instruments we use to measure the results of our policy.

4.1 Results in education

Intake of students

The 2011 Education monitor shows a positive result of our plans for the growth of the student population. We aimed for 1200 new-enrolments in both the 2010 bachelor's and master's programmes of which 125 should come from the European Community (EC) countries. In 2010, 2000 new students enrolled, 1075 bachelor's and 995 master's students, with 308 of these being (non-local) EC students. Appendix 1 presents more information on the student numbers and their country of origin.

Chatham approach

To find out to the extent to which 'the Chatham approach' is incorporated in our study programmes, we have distinguished several levels.

At the programme level, many of our study programmes are implicitly a combination of disciplines. In the process of reformulating the learning outcomes we paid extra attention to outcomes leading to multidisciplinary competences. The introduction of the minors in the bachelor's phase was another way to encourage students to get acquainted with another discipline than their major. As these minors have only recently been introduced, we do not yet know how many bachelors students have chosen for a minor that is completely different from their major.

At the course level, it is clear that the multidisciplinary approach has been incorporated, for example in the Academic Master Cluster. Also, most programmes have thematic courses with the explicit goal of combining various disciplines and approaches. Furthermore, all bachelor's programmes include courses shared by several programmes. In these courses, lecturers use views and examples that originate from different disciplines or study programmes, so students become used to different approaches.

Individual tracks

In the last four years, we have paid extra attention to the individual tracks of students via the restructuring of the bachelor's programmes (in "Toward Flexibility"), the cooperation with Van Hall Larenstein University of Applied Sciences and the improvement of study advice.

Towards Flexibility

The Towards Flexibility project led to concrete results in changing the structure of the bachelor's programmes and of the provision and optimization of general courses in mathematics, statistics, chemistry, physics and ethics, shared by many programmes. The project started with an investigation into the possibilities for broad bachelor's and master's programmes. After intensive discussions with many stakeholders in (and also outside) the university, we concluded that we would not introduce broad programmes for several reasons. One of the main reasons was our fear that less students would be interested in broad programmes than in our current well-established niche programmes. In addition, the student

recruitment regulations forbid advertising with majors or specializations within programmes. Another reason was that an important aspect of a broad bachelor's programme, the opportunity to postpone a definite choice of a direction, could be achieved by other means, like offering flexible options for switching between programmes. An example is our Orientation Year Life Sciences, in which students who do not want to decide yet for a specific programme, can take a joint first year for eight bachelor's programmes. A third reason was that, in broad programmes, we would have to 're'-invent ways of dividing the group into smaller groups, where students feel more connected to each other and to the university: working with small groups is now considered as our natural status.

The most important outcome of the process "Towards Flexibility" was a restructuring of all bachelor's programmes in order to give every student a block period of at least 30 credits (the first or second half year of the third study year) for free choice. Students can use this period for a minor at or outside Chatham University, for free choice courses or for a stay abroad. The restructuring also led to a reconsideration of the courses shared by many programmes like mathematics, chemistry and statistics. The final plan not only led to a restructuring of the bachelor programmes, it also resulted in a new schedule for the whole university. We used to have five periods of twelve credits in a study year and to split the year in two semesters, we divided the third period into two short periods. Consequentially, the courses from this period were changed to fit in a four week full time schedule. This change was didactically supported by the Education Institute and an evaluation showed that the resulting courses were evaluated positively. The third outcome was that we created 60 minors, all scheduled in a block period.

The Executive Board approved the complete plan in 2009. All changes were implemented in the 2010-2011 study year, after the Education Modification Cycle from Fall 2009 till Spring 2010. All in all, "Towards flexibility" has been a tremendous change operation which, with the help of all programme directors, study advisers, lecturers and students, has been achieved in a very short time span.

The Education house
The cooperation with the VHL University of Applied Sciences, aiming at easy student transfers between the academic and the professional track, has not been successful. It did not result in the foreseen four new common study programmes or four specific transfer tracks for VHL-bachelors to an MSc. We have introduced one new master's programme in Marine Resource Management, not as a common programme, but attuned with VHL. Our intention to develop transfer tracks to the CU-MSc-programmes in the VHL bachelor's programmes, met with a number of problems. Most students decided to join a MSc programme, not before their fourth year of their study, but later often after graduation. Furthermore, Programme Committees and Directors of VHL had some serious objections against a more academically focused transfer track because it would conflict with the intended professional learning outcomes. The last factor was that at VHL there was very little energy for the cooperation with Chatham University because of their internal merger and strategy process. All these problems have not impeded the actual transfer of VHL-graduates to Chatham University because, in the meantime, an informal network of study advisers and programme directors from both institutes have arranged transfers on an individual basis. The percentage of VHL-graduates entering a Chatham MSc-programme has been quite stable - between 8% and 11%- over the last four years.

Study advice
The way study advice is organized varies across study programmes, but as a rule study advisers meet students individually at the start of the programme and when key choices need to be made (*e.g.* choice of major in the bachelor's or specialization in the master's programme). Also students who have built up a considerable study delay are invited for meetings with the study adviser. Furthermore regular information sessions are organised for

groups of students, and study programmes run a portal to keep students informed. Above all, any student is always welcome for an individual talk with their study adviser, should they feel the need to do so.

To accommodate the introduction of 'Bachelor before Master' and the accompanying emphasis on a study career including extra-curricular activities, the capacity of the study advice programme was increased for a duration of three years. In the bachelor's programme evaluations, graduates were well-satisfied with the guidance of the study adviser, the average score was 3.91 on a five point scale. In the master's programme evaluations, graduates also evaluated the provision of study advice highly (3.90) as well as the coaching given for the student to make choices (3.75).

All study advisers are organized meet on a regular basis in the "*Kring"*. The competence development process mentioned in section 3.1.3 started in Autumn 2010 and is highly appreciated by the study advisers. Specific themes are addressed and through intervision, study advisers learn from each other.

Students' opinions on the overall quality of our education
Students value our education highly. Based on their evaluations in the NSE- survey, Chatham University has been ranked first of the local universities in the *Selection Guide for Higher Education* since 2005. In the 2009 NSE-survey, the overall score by students on the programme content is 4.00 (on a five point scale), significantly higher than the national average of 3.73. In the International Student Barometer, students rate us 12th out of 123 universities overall and 1st in comparison to 10 local universities. These results are consistent with the results of our own programme evaluations of the master's and the bachelor's programmes, where most aspects of the programmes score around 4 on a five point scale. Also in the WO-Monitor (last survey in 2009), alumni were positive about their study programme. Furthermore, the overall mean value of the appreciation of courses has increased slightly, from 3.76 (in a 5 point scale)in the 2007/2008 academic year to 3.85 in 2009/2010.

A small academic community
In 2010 the university employed 2550 staff full time equivalents (FTEs). Our educational staff consisted of 99 professors, 130 lecturers/ associate professors (*UHD*), 272 lecturers/assistant professors (*UD*) – in total 501 FTEs permanent staff. Because we have many professors with a part-time appointment (0.2), personal professors and professors holding an endowed chair, the total number of professors is close to 200. In total almost one thousand different staff members (including PhD candidates employed by the university) contribute to our education. When we calculate the hours they spend on education, the average student-teacher ratio is 1:15.

In the first two years of the bachelor phase the scheduled contact hours in the study programmes varies from 500-600 annually in the Social Sciences to 700-800 in the Life Sciences programmes. A study year consists of 42 weeks, 32 weeks of education, 5 weeks self-study and 5 weeks of examinations. That means that the average contact hours in the education weeks varies from 15 to 25 hours per week. In the third year of the bachelor's programme or in the master's programmes these averages are hard to calculate because students follow individual tracks.

We have succeeded in encouraging students to be responsible for the quality of their education or to be active in extracurricular activities. Many of our students are active in Study Associations, Programme Committees, the Student Council and the Board of the Education Institute, or in boards of Students Associations, sports or cultural organizations. Every year, we grant over 130 Scholarships from the Financial Support Fund for students and even more students are active. In total, we estimate that some 40% of the students (source: ISB and

WO-Monitor) are active in this kind of extracurricular activities, during their stay in Chatham. The percentage of domestic students involved in extracurricular activities was higher than the percentage of international students (9%) but this bias is partly due to their shorter period at Chatham.

Teaching methods
The education database shows that, in all programmes, a variety of teaching methods are used. In the Education Modification Cycle, described in detail in Chapter 5, Programme Committees and Programme Directors check the combination of courses in the programme and the resulting mix of teaching methods.

Improving and innovating study programmes
In the Education Modification Cycle, , we annually review all study programmes of the university. This can lead to small innovations and improvements in the programmes but also to important changes or even to new programmes. Examples of major changes, and an explanation of the Education Modification Cycle are given in Chapters six and five, respectively.

Triggered by changes in governmental funding and study financing, in 2011 we evaluated the length of our master's programmes in the Social Sciences. The programmes are accredited as two-year programmes but are funded as one-year programmes. A committee advised the Executive Board to maintain the two-year programmes which combine social sciences with Chatham themes, and to add quality by rearranging them and giving them more focus.

Learning outcomes
In 2010-2011, all programme committees reformulated the learning outcomes of the study programmes. In a process, directed and intensively supported by the Education Institute, all committees described ten to twelve intended learning outcomes conform the Dublin descriptors and the criteria for Chatham graduates.

Improving assessment and examination
In 2011 we started a project to urge lecturers to formulate learning outcomes and a matching assessment strategy for their course(s). A manual with instructions, meetings at all science groups and reminders supported this process which focuses on transparent and valid assessments. Our aim is to publish an assessment strategy in the study handbook for all courses for the 2012-2013 study year. In addition, we have developed Rubrics[4] and assessment formats for the thesis, internship and the Academic Master Cluster (AMC). These forms and supporting tools are used frequently and improve the validity of the assessment.

Study success
The drop-out in the first year of the BSc-programmes has slightly declined over the last eight years, and varies between 20% and 16%. This is a relatively low percentage, the average drop-out of all local universities is around 25% (2006). The total drop-out in the second and third year of the BSc-programmes is on average 7%, also lower than the local average of 12%. We believe that providing good information on the study programmes and intensive study advice helps us keep the drop-out rate low.

Another measure of study success is the percentage of students obtaining a bachelor's grade after four years. The percentage at Chatham University was, for the cohort of 2005, lower than the local average, 48% vs. 52%. The main reason for this low percentage was our relatively easy transition from the bachelor's to the master's phase (*"zachte knip")* which meant that students postponed graduation. Recently, we have worked on the measures to implement

[4] A Rubric is a matrix of assessment items, the behaviour of students and the corresponding grades

'bachelor before master' ("*harde knip")*. But even without implementing these new measures, the percentage has already risen, from 48% for cohort 2005 to 62% for cohort 2007.

4.2 Relation Education to research and society

Research

Our main policy to further integrate education and research is to strive for lecturers who combine research and education. This point of view is a fundamental requirement of the tenure track procedures where excellent performance is determined for both research and education. We refined the procedure to deliver the course evaluations to the chair holders so that they can be subject of discussion in the Performance and Development interviews. From the course descriptions we can see that in 40% of the bachelor's courses and in 50% of the master's courses, a professor is involved in lecturing.

Another way to enhance the relation between research and education is to stimulate research by students. After the process "Towards Flexibility", a thesis became part of all bachelor's programmes. In the master's programmes the thesis was already a compulsory part from the start.

The results of the WO-Monitor 2009 demonstrate that our graduates are relatively positive about the embedding of research in education (7.5 vs. 7.2 for all local universities), the development of research competences (7.6 vs. 7.2) and the connection with recent scientific theories (7.5 vs. 7.2). They also value the research experience and knowledge of lecturers highly (8.0 vs. 7.8).

The two research master tracks, started as a pilot, were evaluated in 2010 and 2011. The Animal Sciences research track was evaluated in 2010 and was continued; Social Sciences was evaluated in 2011. Continuation is under discussion because the courses specific to the track are frequently chosen by students but the complete track is not very popular.

Investing in new developments

The plans with regard to the priority fields in the 2007-2010 strategic plan led to a newly accredited bachelor's programme in Tourism (in cooperation with NHTV Bristol), and by regrouping and changing existing programmes, to three new master's programmes Earth and Environment, Climate Studies and Aquaculture and Marine Resource Management (see also section 6.4) within existing accreditations. We also filed an application for a Health and Society master's programme. In the theme Satiety and Satisfaction, three new courses were developed, and for the theme Systems Biology, a PhD-course was designed. In the field of bio-based economy, we applied for a Centre for Bio-based Economy (together with all four Agricultural Universities of Applied Sciences), which will probably start in the beginning of 2012 and is focused on research and the development of new courses or programmes in this field. New chairs were installed for Health and Society and Systems Biology and reservations are made for Bio-nanotechnology and Salt Water Ecology..

External Advisory Committees

Currently we are in the process of preparing critical reflections for 35 of our 47 study programmes for which the accreditation terminates on 31 December 2013. Each of these reports presents the results of discussions in the committees about the learning outcomes of the programmes and the quality of graduates. The committees generally have generally been very supportive, providing points for improvement which vary widely across the programmes.

Cooperation with industry and institutes

There are many contacts between Chair Groups and industry which result in research partnerships, for example research funded by the Technology Foundation STW, part of the

National Science Foundation. These contacts frequently lead to student internships with the industry partners. In a few cases we have built a structural relationship between industry and education. The best example is a specialization within the master's Food Technology, the European Master in Food Studies, sponsored by 10 multinational food companies. It is a highly international programme, both in terms of enrolment and teaching because, apart from Chatham, teaching takes place in Lund, Cork and Paris. Internships and theses are carried out in collaboration with the industrial partners.

The cooperation of the university with the research institutes within Chatham UR, in regard to education, has not been precisely monitored. Some researchers at these research institutes have a role in our education as (guest-)lecturers or because they have a special professorship, and students follow internships at the same institutes. In the International Student Barometer, 83% of the students were aware of the organization of Chatham UR. Almost 40% of the international students and 24% of the local students noted that they did meet research institute staff during their study.

State of the art scientific knowledge

One of the ways we promote high scientific quality in education is by the reviews of our courses by peer scientists from other (mostly international) universities. We started these reviews on a voluntary basis, and aim for a six-yearly review cycle. The number of peer reviews has not been monitored thus far, but is about five. An example of a department that has conducted peer reviews is the department of Animal Sciences. Professors and lecturers were enthusiastic about the feed-back from their international colleagues. In recent discussions with the Chair Holders of the departments, the Rector asked and received their commitment to carry out peer reviews.

Real world issues in education

In many of our courses, and especially in the Academic Master Cluster students are made aware of and work on real world issues. Appendix 3 contains a list with AMC's subjects in the 2011-2012 study year.

4.3 Internationalization

International education

We succeed in attracting many international students: 47% of students in the master's programmes are international, 16% from Europe and 31% from outside Europe, with more than 100 different nationalities. In the bachelor's programmes 7% of the students are non-local. These are mostly students from Germany or Belgium. Besides these students in regular programmes, more than 300 exchange students are currently attending Chatham University. About 60% of our PhD candidates are from outside the UK.

Up till now, we have not monitored the number of local or international students going abroad for a part of their study (courses, internship or thesis). The numbers of registered exchange students were 108 in 2009, 153 in 2010. However we do not know exactly how many students went abroad in addition to our regular exchange contracts. The WO-Monitor 2009 (completed by graduates from 2008) gives an indication: 53% of the that year's graduates followed an internship abroad and 14% followed courses abroad. In comparison, at other local universities, 20% did their internship abroad and 10% followed courses abroad.

Multicultural aspects

We value the multicultural aspect of education. In the evaluation of the master's programmes we ask the graduates to show how much they agree or disagree on statements about working in multicultural groups. In 2010 they answered as follows (all average values are on a 5-point scale from disagree to agree):

Statement	Average
There was sufficient cooperation between students from different cultural backgrounds.	4.05
Did you participate in multicultural groups during your study in Chatham	86%
Working in multicultural groups enriched the content of my study	4.08
Working in multicultural groups added value to my study process	3.98
I am satisfied about the knowledge and skills I gained by working in multicultural groups.	3.97

In the International Student barometer, we asked questions about experiencing the international environment and the cultural diversity of Chatham. The answers were as follows:

Statement	% of students
I experience the international context and environment	93% international vs. 91% domestic students
I feel part of the Chatham international academic society	85% international vs. 74% domestic students
I experience the explicit exposure of the Chatham cultural diversity	83% international vs. 70% domestic students

Scholarships for international students

We have always had scholarships for international students through various funds. Since the start of the Profiling Fund we have combined these funds and in 2011 we have given approximately 150 non-EU students a scholarship for their study. The scholarships are in the form of (partial) waivers for the institutional tuition fee.

Joint and double degrees

At the moment we have about 26 international double degree programmes, with, for instance, universities in France, Denmark, Germany, Austria, Spain, USA and Canada. These are listed in appendix 2. We only have one joint degree programme, with a local partner. We are very reluctant to change the double degree programmes into joint degree programmes because many legal and practical difficulties need to be resolved to achieve this.

International partners

As already mentioned in Chapter three, we are revising our policy on international partners. So far we have honoured all kinds of requests to cooperate, on various levels in our organization. Appendix 2 lists the partners with whom we have an institutional contract. We are gradually trying to focus on fewer partners in absolute numbers, but retaining those with high quality. for example, we are preparing a more intensive cooperation with the universities of Davis and Cornell in the United States of America. Another initiative we developed is an alliance with partners in the most important food producing regions and countries (Brazil, California, China, France and New Zealand), called the Global Alliance for Food Security Research, to bundle capacities in projects relating to global food demand. In Europe we chose to collaborate with renowned institutes like FESIA in France, SLU in Sweden, KU Life in Denmark, and University of Hohenheim in Germany. The latter three are also part of ELLS, the Euroleague of 7 universities, additionally involving universities in Prague, Vienna and Warsaw.

Internationalization at home

In 2010 a project was started to increase the attention paid to the multicultural aspects of our organization. The activities were numerous and focused on a number of aspects: introduction days in January (in addition to those in August) for the international students arriving for the second semester, an increase in the number of training sessions for intercultural

communication, a buddy-system for international students and staff, cooperation between different staff departments etc.

4.4 Human Resources

Tenure track
In September 2009 the Executive Board decided to start a tenure track for new scientific staff and on a voluntary basis for existing staff. At the end of 2011 there were 48 new members of the scientific staff appointed in tenure track position; 42 members of the existing staff decided to enter a tenure track. In the tenure track both education and research are taken into account, when deciding on staff promotion.

We support our talented staff in the process of gaining scholarships (like NWO-veni, vidi or vici or ERC scholarships) and prestigious prizes or positions like Spinoza, and KNAW-fellowships. Over the last five years we were very successful at the Spinoza awards: we had three winners.

Teacher qualifications
Since 2009, all new scientific staff are obliged to obtain a University Teacher Qualification (*BKO).* In 2011, 254 lecturers had obtained this qualification and more than a hundred lecturers were in the process of obtaining it. In 2011, 243 lecturers took part in courses and a few hundred were given personal advice, group assistance or lunch meetings from the department for Educational Staff Development, including EDUSupport.

Performance and development Interviews
In the 2007-2010 strategic plan the performance indicator for the Performance and Development interviews was set at 85%. This was based on an estimated percentage of 80 in 2006. In 2010, the tool to measure the exact number of interviews worked properly and the resulting percentage was 66%. Once again we set a percentage of 85% as a performance indicator for 2014. The evaluation of their courses (including English proficiency) forms an important part of the P&D interviews with lecturers.

4.5 Facilities

The quality of our facilities is tested in a number of ways. The student questionnaires NSE and ISB contain questions on facilities and every two years we hold a staff survey (see section 5.3). Although there are always points for improvement, the scores for our facilities are satisfactory or good. In the NSE CU-students score the facilities on average 0.4 point higher than the averages of all universities (4.06 vs. 3.68). Both students and staff appreciate our modern buildings, good facilities and the library with extended opening hours. Chatham University scored lower than the average on factors in the environment of the university: the accessibility of the university, the cultural facilities and catering industry in town. For all NSE-results see Appendix 4.

The Chatham UR library also scores well in a comparison of all university libraries in the country. The number of available periodicals and articles, the number of searches and consulted articles and the relatively low costs per search are rated highly.

Students are also relatively more pleased with the information they receive about their study programme, study progress, regulations and procedures. In the NSE our provision of information scores 3.79 versus an average of 3.46 for all local universities.

In some of our facilities we experience the consequences of the fast growth in student numbers. Although the university takes only responsibility for the housing of international

students, we consider the lack of adequate housing for both local and international students as a very unwanted situation and we put a lot of effort in solving the situation by creating temporary rooms in various buildings. In our educational facilities, we planned a new building (ORION) to be ready in 2013, till then we will have to deal with crowded lecture rooms and less flexibility in planning courses and other activities. A particular aspect of facilities is the working space for students working on their thesis. Chair Groups provide these working spaces, conform the idea that the further a student gets in the study programme, the closer to the chair group he works. The growth in numbers of master's students and the financial costs of office space and ICT equipment have caused problems in fulfilling these obligation. We analysed the situation in the end of 2011 and we are looking into possible solutions.

4.6 Functional limitation

We do not have concrete information on the number of students with a functional limitation studying at Chatham and making use of special facilities. Those who do use our facilities, seem satisfied: in the *Guide to Higher Education,* Chatham University has the best score on the aspect of facilities for students with a functional limitation. The accessibility of our Internet and intranet sites has improved and the new campus buildings are easy accessible for all students. Our own evaluation in 2011 shows that there are still points for improvement, related to the communication about students with a limitation to lecturers, committees and boards, and to the communication about our facilities en regulations. New developments, like a new Internet site or digital learning materials demand a watchful attitude for the interests of students with a functional limitation.

Chatham has a Committee for Facilities for Individuals with a Functional Limitation (abbreviation: WVG) which promotes the interests of students (and staff) with a functional limitation or chronic illness, especially with regard to policy aspects. The Committee does not function well and we will to reconsider the way it is organised and embedded in our organisation.

4.7 Overview of instruments to monitor our education policy

Chatham University uses several instruments to monitor our education and our educational policy. In this section we have summarized the most important instruments.

Instruments	
Course evaluations	After each course, all the students who registered for that course are requested to evaluate it. Questions concern the quality of the content, didactics, the assessment, the lecturer, overlapping or missing links with other courses, etc. This evaluation is executed for all courses. The results are send to the lecturer, the chair holder, the Programme Director and the Programme Committee. All results, including a management survey, are available on the portal of the Education Institute and are on the agenda of its Board. Generally Programme Directors take action on the basis of the results at their own judgement, but when a course scores lower than the specific attention value on one or more questions, they are explicitly asked to discuss measures for course improvement with the lecturer and/or the Programme Committee. He or she reports the measures taken to the Director of the Education Institute.
First year and programme evaluations	After completing the first year of the bachelor's programme or the complete bachelor's or master's programme, students are

	asked to fill in a questionnaire about the programme. Questions regard the level of difficulty, the structure of the programme, the scheduling, study advice etc. Results are sent to the Programme Director and Programme Committee and are available on the intranet site of Corporate Education and Research.
Analysis of study success per programme	In a pilot, a special analysis was done on the study success in several bachelor's programmes, based on all kind of sources of information. Courses or other elements causing delay were identified and measures for improvement were proposed and implemented. Currently these analyses are developed into a routine and we plan to perform this analysis every year for all programmes.
Education monitor	The Education monitor is an annual report with figures on student numbers and study success in the study programmes. It is distributed in a detailed form to all Programme Directors and, in a summarized form to OWI-Board and Executive Board. It is published on the portal of the Education Institute.
International peer review	A review of a course or group of courses, by a group of international; colleagues in the same discipline designed to evaluate the scientific level and content of a course. This review process has only started recently under the responsibility of Chair Holders and we aim at a peer review every six years.
Alumni surveys	Every two years we participate in the WO-monitor, a questionnaire sent about one year after graduation. Every five years we send a questionnaire to all Chatham alumni. Questions are about employment, the current and previous jobs, the relation between jobs and education etc.
General student surveys like NSE and ISB	Annual NSE (S*tudent survey for local students*) and biannual ISB (International student barometer, for international students) surveys ask students about their opinion on the quality of the programme, staff, facilities, etc.
Education simulation model	Planning of courses and prediction of course costs and programme costs for the coming study year, according to the modifications planned in the Education modification cycle
Progress and evaluation reports in projects	As part of large education policy projects, like "Towards Flexibility", we produce regular reports on the project's progress and a time is set to evaluate the project. These progress and evaluation reports are subject to discussion in the Board of the Education Institute and Executive Board and may lead to new decisions or adjustments in the project. In a similar way projects in other policy fields like HRM, facilities, or finances are reported. A specific group of projects, so-called IP-OP projects, are annual projects in the context of the strategic plan. Every year a limited number of projects are initiated, which are discussed in the Executive Board meetings twice a year.
Annual report Education Institute	Gives an overview of important developments in education and gives an account of the actions of the Board of the Institute by summarizing projects, evaluations and finances. It is broadly distributed, but in a formal sense is an account of activities for the Executive Board.

Annual report Examining Boards	The first annual report of the Examining Boards was about the 2009-2010 study year. It was sent to the Executive Board.
Chatham University annual report	The annual report comprises the important facts and figures of the university, regarding education, human resources, facilities and finances.
Various analyses and reports	Reports on the intensity of building use, the library, the sports facilities; reports on scholarships, numbers of MoU's etc. Some of the above mentioned instruments are based on datasets like the education database and the student registration system. Depending on the questions or issues that come up, we can analyse data held in these databases on more specific subjects or connections.

4.8 Critical reflection on results and measuring

Chatham university scores high in many aspects: students are satisfied about our study programmes, lecturers, international setting, and facilities. It is important that these high scores do not lead to self-satisfaction or even arrogance. It will take all our effort to maintain our position and we should stay focused on improving our achievements.
We use many instruments to measure our achievements and progress. When analysed critically, the most pregnant conclusions are that the results are not always easy retrievable for those who are interested or involved, and not combined in overall analyses.
Improvements are possible in a more integral way of evaluating and in better communication of results.

5 Improvement policy

In this Chapter we describe three different improvement processes currently being implemented in our university. The first is the most relevant for the quality of education: the annual education modification cycle. The second deals with the performance and development interviews and the third is related to the improvement of facilities. We mention many parts of the organization without any description or explanation; please refer to Chapter 6 for details of the organization and the decision structure.

5.1 Education modification cycle

Over the years we have developed a sophisticated system, an annual cycle, which we use to improve and adapt our study programmes. Figure 7 gives a schematic view of this annual process.

Actors and roles
Important parties involved in this process are the Executive Board, the Board of the Education Institute, the Programme Committees, the Examining Boards and the Chair Groups.

The Executive Board is responsible for the general framework and the overall budget for education. The Board decides on the application and accreditation of new study programmes or the closing of existing study programmes. The Executive Board is the source for new policies and it formulates performance indicators for e.g. study success, and minimum inflow of students per study programme. In this process, the Board is supported by the staff of Corporate Education and Research.

Within the general framework, the Board of the Education Institute allocates annual budgets to the study programmes, within the overall education budget, decides on proposed changes to the study programmes, proposed minors and courses that are the components of the total package of education at our university. In this way the Board is responsible for the implementation of the Executive Board's policies of and for reporting its decisions in the cycle to the Executive Board.

The Programme Committees are the main actors in the modification of the programmes. They propose adaptations or modifications for the study programmes for which they are responsible, based on feedback from the many evaluations. During this process, they work in close consultation with the Chair Groups who offer the courses. The Programme Directors play a key role in the committee's work by interpreting the evaluation results and initiating discussions in the Programme Committee.

The Chair Groups are responsible for the content and quality of the courses they offer and for the quality of the lecturers. They propose changes in the content, the incorporation of new scientific developments or new teaching methods for a course. One of the Programme Directors is labelled as the "responsible director" for each specific course. When the course evaluations give reasons for action, it is that Programme Director's responsibility, in consultation with colleagues when appropriate, to start the improvement process together with the Chair Group.

The Examining Boards evaluate courses and programmes with respect to the assessment strategy and the (interim) exams upfront and as part of a continuous process, for example visiting chair groups. They appoint the examiners, check the level, validity, transparency and reliability of the interim exams (courses) and final exams (programmes).

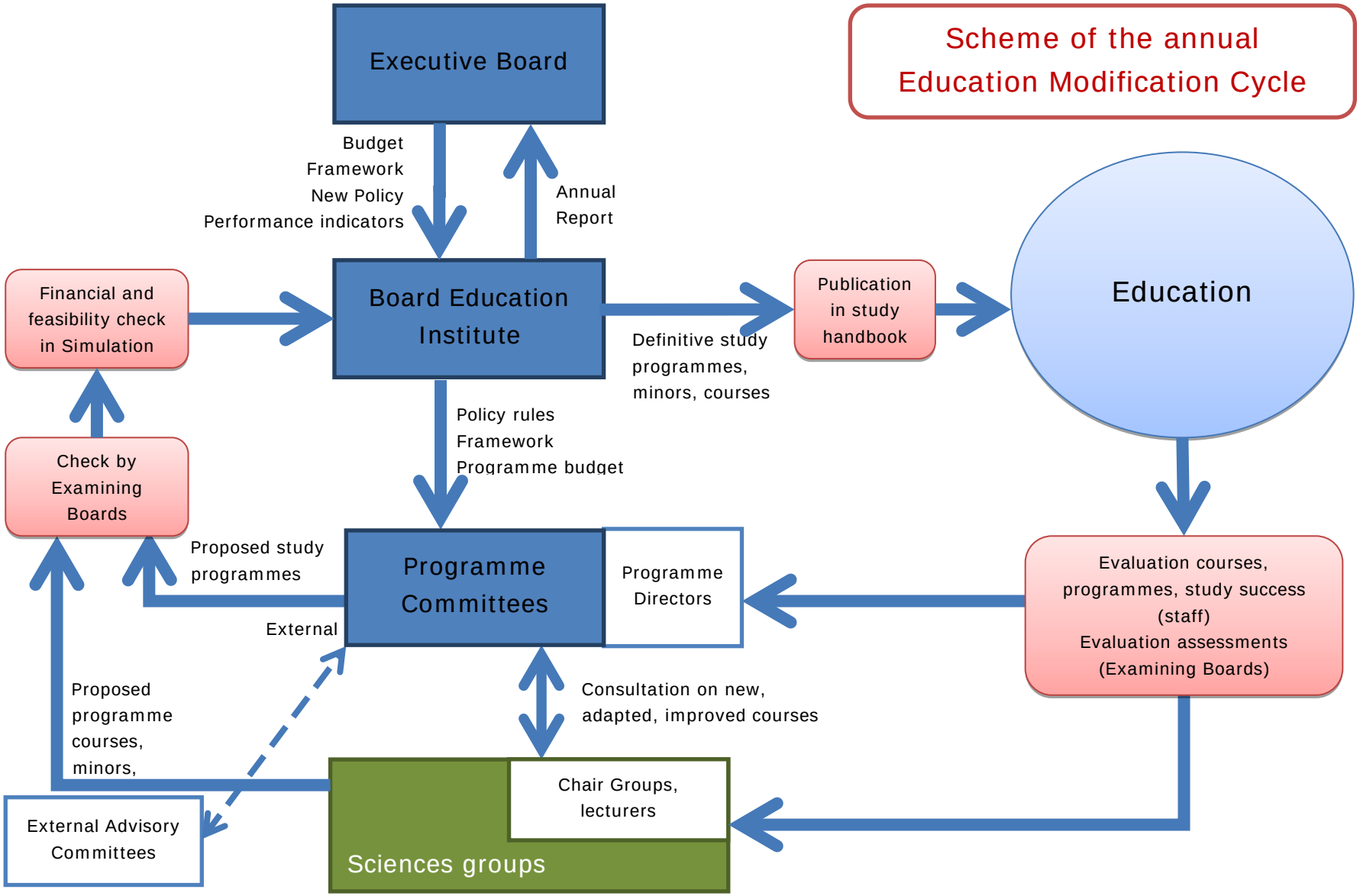

Figure 7 The annual Education Modification Cycle

The process

Each year in November, the Executive Board and the Education Institute jointly send a letter to all Chair Groups, Programme Committees and Minor Coordinators. This letter stipulates the Modification Cycle schedule and new policies or themes that are relevant for this cycle (in 2009 the main theme was the implementation of “Towards Flexibility”, in 2010 learning outcomes etc.). The letter describes the desired result of the cycle: new course descriptions, programmes and minors descriptions, in accordance with the centrally established rules and the financial and quality standards. Required elements of the course description are the learning outcomes, the lecturers and examiner involved, teaching methods, credits, assessment strategy (compulsory from 2012-2013) and language of instruction. Appendices of the letter contain explanations of the time schedule, policy themes, teaching methods etc. The information is also published on the portal of the Education Institute.

From November till mid-February, an extensive consultation process takes place between Programme Committees and Chair Groups, often with the Programme Director as a go-between and initiator of the discussions. This process has input from many sources: reports from the Examining Boards on the examinations in the past study year, course and programme evaluations, results from consultations with the External Advisory Committees and findings from the Education Monitor (study success, student numbers). Because many programmes share courses, the consultations are not limited to one programme, the Programme Directors have intensive bilateral or multilateral meetings in this period, to discuss consequences of changes for the various programmes.

Until 2010, the Chair Groups or Science Groups were invited to propose new minors because, mainly as part of “Towards Flexibility”. Initially, we were gradually increasing the number of minors offered by a few minors each year. At the moment, in 2011-2012, we have about 60 minors and we no longer have to stimulate the development of new minors. In the coming years we will only make small changes in the total number of minors, mainly based on students’ interests for minors and quality evaluations.

In February and March, the proposed courses and programmes are checked in two ways. The Examining Boards first check whether the new or changed courses and programmes have the desired quality of examination. Corporate Education and Research and the Education Institute check if the courses and programmes are feasible and that they do not exceed the budget. In the beginning of March, the Board of the Education Institute decides on the total offer of courses, programmes and minors. Once this has been decided, Corporate Education and Research prepares the planning booklet and the study handbook for publishing.

In May, the Board of the Education Institute, sends its annual report to the Executive Board. It contains the results of the last Education Modification Cycle and other relevant information of the past year. Sometimes, the Board of the Education Institute uses the annual report to ask the Executive Board to explicitly confirm their own decisions of to ask for new decisions. In September, the education programme is started based on the decisions made by the Board of the Education Institute. In November the new cycle starts again.

Critical reflection on the Education Modification Cycle

The Education Modification Cycle is a powerful instrument which challenges and facilitates programme committees and chair groups to revise education on a regular basis. It guarantees an annual evaluation of past performance in education and a rethinking of the principles and structure. That does not mean that it is an easy process. The consultations and discussions between Chair Groups and Programme Directors or Programme Committees can be quite complex and the results can be compromises, due to their differing interests.

Although we assume that the Programme Committees use all sources of information (External Advisory Committee, course and programme evaluations, education monitor, new developments in science) and balance this information when making their decisions, in a formal sense we do not check this process; we tend to rely on the transparency of the processes and the multitude of players involved. They provide the necessary checks and balances.

5.2 Human Resources: Performance and development interviews

In the preceding Chapters we mentioned that the quality of the lecturers is the most important asset for the quality of education and research of our university. Performance and Development interviews are seen as the basic instrument to support many other instruments in human resources management like career development and remuneration. The annual interview is a platform for dialogue between the employee and the manager about past performance, expected performance in the future, the development of competences and the evaluation of the coach. There were three main reasons for introducing these interviews:

- To attune the achievements and ambitions of the staff to the goals of the organization by making fixed agreements on future performance in line with the goals of the organization.
- To see development of the staff as a common responsibility of employer and employee.
- To stimulate a coaching management style, focused on guiding the development of staff.

In the 2007-2010 strategic plan, the Executive Board emphasized the importance of this instrument, and set a target for 2010 of 85% achievement of the potential annual interviews. In 2006 only P&D interviews were held with about half of the staff (of Chatham UR). An extensive evaluation study (2007) revealed that both managers and employees valued the instrument but that improvements could be made: Increasing the number of interviews held could be achieved by facilitating the interview process of the interviews (E-tool), training of both the managers and the employees and by regularly checking and reporting on the number of interviews. All these measurements were implemented in 2008.

Corporate HR reports to the Executive Board every three months. At least once a year the P&D interview rate is a specific topic of these reports. In the beginning of 2011 the report showed an increase in P&D interviews from 51% in 2009 to 66% in 2010. One of the factors influencing the percentage was the large number of P&D interviews held with PhD-students whose interviews which were not recorded in the electronic system. Although the increase from 2009 to 2010 is large, it was not enough to match the target set (85%). In the 2011-2014 strategic plan, we have kept the target for the interviews at 85%.

To improve the teaching quality, the course evaluations including the appreciation of the lecturer are sent to the Chair Holders, for those courses where lecturers of a chair group are active. The results are discussed in the P&D interview and, if evaluations give reason, measures are proposed and agreed. One of the possible measures is to support the lecturer with additional training courses or by following the track to a University Teacher Qualification from the Educational Staff development department.

Critical reflection on the use of course evaluations in the Performance and Development interviews

The course evaluations are not explicitly designed to measure the performance of lecturers as they only reflect the students' view on the lecturers and not the view of colleagues or peer lecturers for instance. Besides, it is quite plausible that the type and the subject of a

course, for instance an advanced maths course vs. a field trip abroad, could influence the judgement of students of the lecturer involved. However, so far these evaluations are the only concrete data we have on the lecturers performance in class and they form a basis for discussing performance.

5.3 Facilities for education

One of our main points of departure is that good facilities are required to support the quality of our education. The department of Facilities and Services is responsible for the care and maintenance of: buildings and grounds, the library, Language Services, ICT services, purchasing, post, archival services and sports. They use several instruments to measure their service level quality, as experienced by staff and students. Every two years, there is a customer survey held among Chatham UR staff, to measure the appreciation of the services and buildings. This is supplemented with an annual meeting with lecturers to discuss the educational support facilities in Forum. Student opinion is measured in the regular surveys like the NSE (*Nationale Studenten Enquete)* and the ISB (International Student Barometer). Separate surveys are held for the library and for catering.

The results of the surveys are discussed at several meetings: in the Management Team Facilities and Services, in the meeting of the Operations Directors, a meeting with the director of Corporate Education and Research and in the management meetings with the Executive Board. Performance indicators for 2014 were established in consultation with the Operations Directors and the Corporate Education and Research director. Table 1 gives the results and the performance indicators for a number of aspects. The results are used by the responsible manager to adapt and improve the services.

Service	Score 2008	Score 2010	National score 2010	Norm 2014
Comfort working environment	6.8	6.9	6.8	7.0
Supply coffee machines	6.4	6.6	6.5	6.7
Ordering and Purchasing	6.9	6.8	-	7.0
Cleaning	5.3	6.1	6.3	6.3
Safety	8.5	8.4	7.5	8.0
Post and Archive	7.4	7.7	7.0	7.5
Maintenance buildings	6.4	7.0	7.2	7.0
Information Intranet	5.8	6.2	6.3	7.0
Phone operators	7.7	8.1	7.5	8.0
Phones	6.1	6.9		7.0
Service Desks (facilities)	7.5	7.7	6.9	7.8
Translations	6.5	7.0	-	7.0
Aula building	7.8	7.9	-	7.8
WURTV and Lecture TV	6.7	6.7	-	7.0
Educational support facilities	7.2	7.5	-	7.5
EDU services/EDU support	6.7	6.7	-	7.0
ICT Front Office	8.1	8.1	-	7.8
ICT services	6.8	7.1	-	7.1
ICT communication		7.2	-	7.3
Forum building	6.4	7.2	-	7.2
Average all facilities	**6.8**	**7.1**	**6.9**	**7.3**

Table 1: Results of the customer satisfaction surveys 2008-2010, the national results and the performance indicator for 2014.

6 Organization and decision-making structure

In this Chapter we describe the organization and decision-making structure of Chatham University in relation to the quality of education. The first section gives the reader a taste of the 'flavour' of our organization, the following sections describe the players and their roles, supported by examples of recent processes.

6.1 The flavour of our organization and decision-making

In this section we aim to create a picture of the way Chatham University is organized and managed, followed by a description of the organogram in section 6.2, the players in section 6.3 and five detailed examples in 6.4. The dominant factor is that Chatham has only one faculty with about 1000 teachers and 7100 students. The hierarchy in the organization therefore only has a few layers. Our Rector is, on an ad-hoc basis, frequently in contact with Professors, staff, and students, in a fairly informal way, not bothered by hierarchical lines. This reflects the way Chatham University functions: as a network organization, which for example contributes to collaboration between staff of the Chair Groups spread all over the university, or to the optimal involvement of staff in study programmes, as felt from the programme's point of view.

The optimal involvement of staff is supported by the organization of all education in the Education Institute. The Education Institute derives its role from the high degree to which the Executive Board, within a clear remit, delegates its responsibilities for curriculum development, quality improvement and funding of study programmes to the Institute's Board. It is important to realize that the Institute's remit is restricted to the 46 programmes currently available at the university. The Executive Board itself, through the Corporate Education and Research strategic staff department and the department of Facilities and Services, takes responsibility for a wide range of education aspects, from national and international strategy, overall budget for education, new study programmes (including macro-efficiency and initial accreditation) to the logistics of quality assurance (e.g.sending out and summarizing questionnaires), scheduling courses and exams, registration of students and development and maintenance of teaching facilities. In other words, the Education Institute has responsibility for the curricula, and is facilitated by the two staff departments.

Apart from the Education Institute and Corporate Education and Research the third and most important player –apart from the students- obviously is the teaching staff. The teaching staff are appointed within Chair Groups under the academic leadership of a full professor, the Chair Holder. Staff takes responsibility for actual teaching within the framework provided by the Education Institute, and the Chair Groups also are responsible for the didactic quality of teaching and the scientific level of the courses. To put it in another way, the Education Institute articulates the demand for education and the Chair Groups supply the education. The Institute evaluates the quality of education but leaves the responsibility for improvement with the Chair Groups.

Obviously, a system like this involves a great deal of interaction between individuals in different roles. The fact that 105 staff members are currently member of one of the 25 Programme Committees illustrates the importance of a clear view of their role. These individuals are also lecturers, and bear responsibility for the well-being of the Chair Group they belong to, but in the Programme Committee they are responsible for the learning outcomes of the programmes. In particular the fact that this structure functions in this single faculty as a whole, creates a very dynamic system. The organization and the decision-making structure aims to support this very dynamic network system.

6.2 Organogram and roles of different parts

In this section we explain the roles and responsibilities of different parts of the organization. For convenience, we have combined Figures 2 and 3, into Figure 8, excluding organizational elements not relevant to this section.

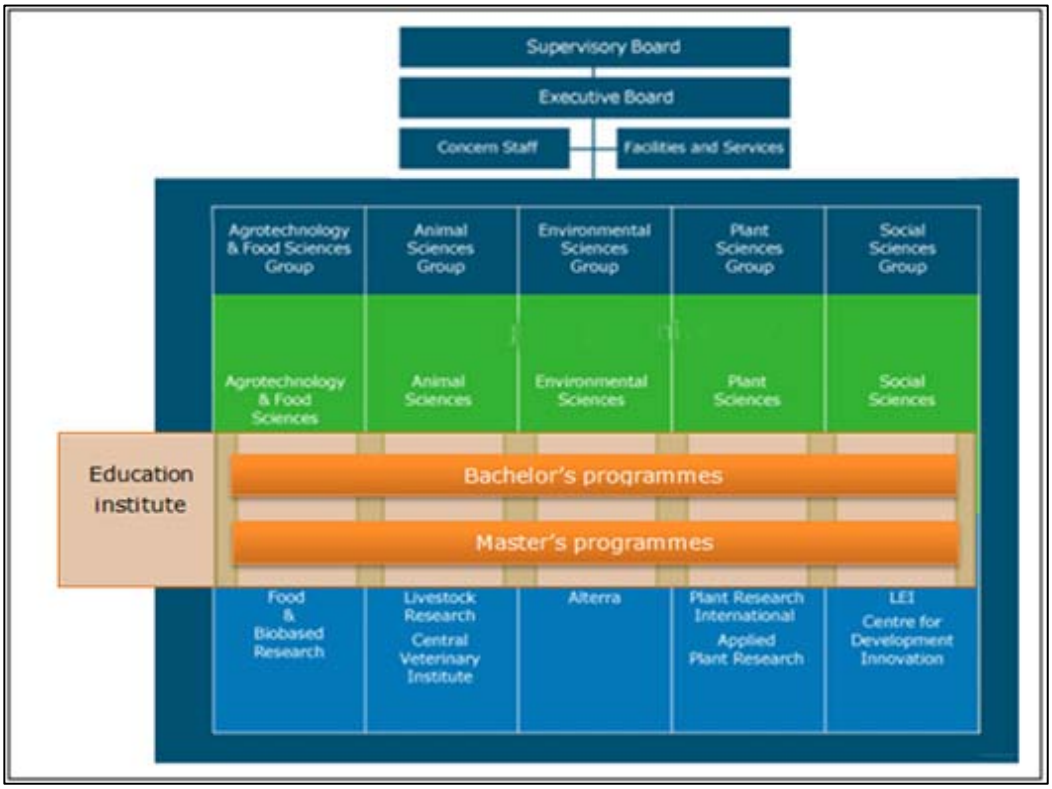

Figure 8. *Modified organogram of Chatham UR, combining Figures 2 and 3.*

The figure illustrates the structure where the Education Institute is positioned across the five departments of the university, with 11 to 21 Chair Groups each. The departments are part of five Sciences Groups, of which the Managing Director reports to the Executive Board, as does the Board of the Education Institute. The Executive Board is supported by Concern Staff and Facilities and Services and works within the framework provided by the Supervisory Board.

In Chapter four we discussed results with respect to education, the relation between education and research, internationalization, human resources, facilities and functional limitation. In this section we clarify how the different bodies in our organization are responsible for each of these issues, as summarized in Table 2. In addition to the bodies in Figure 8, Table 2 contains four bodies which are relevant to the governance of education. These are:

1. The Student and Staff Council, in the participation structure they represent the students and the university's employees.
2. Examining Boards, appointed by the Executive Board, with an independent role according to the Higher Education and Research Act (WHW)
3. Admission Boards, appointed by the Executive Board, but operating within the Education Institute.
4. Programme Committees, within the Education Institute, as an advisory body to its Board.

	Policy items	Supervisory Board	Executive Board	Student-Staff Council	Examining Board	Managing Director Sciences Group	Chair Holder	Board Education Institute	Programme Committee	Admission Committee
	Strategic plan	Ap	P	Ap		I	I	I	I	I
	Chair Plan		P, I	Ap		Ad		Ad		
	Education framework		F	Ap				Ad		
	Curriculum						I	Ap	Ad	
	Programme-budget		F (total)					F (progr)	I	
	Quality of courses and programme		P	Ap				I	I	
	Quality of lecturers		P			P, I	I	Ad		
	Individual student's programme				Ap					
	Individual student's diplome				Ap					
	Interlinking education and research		P	Ap		P, I	I	Ad		
	Admission of students		P							I
	Assurance of assessment		P	Ap	I					
	International education		P	Ap		I (HRM)		I (curr)	Ad (curr)	
	International partners		P			I				
	Human Resources		P			I		Ad		
	Appointment of Chairs		P, I			Ad		Ad		
	Facilities (investment)	F	P, I			Ad				
	Facilities (allocation)		I							
	Functional limitation		P			I				

Table 2 Policy items and players, and their most important responsibilities (P= policy development; F=frame setting, defining the playing field; Ap=approval; Ad=advice; I=implementation). In the text, the right of approval of the Student-Staff Council is discussed in more detail. In a number of cases the approval is restricted to the Student Council

Just as Table 2 contains elements which are not pictured in Figure 8, it does not include all elements of Figure 8. The Concern Staff (Corporate Governance and Legal Services, Corporate Communication & Marketing, Corporate Finance & Control, Corporate Human Resources and Corporate Education & Research) and Facilities and Services are included as part of the Executive Board in the table. They advise on and develop policies, and in most cases have both a strategic role, and an implementation role. Corporate Education & Research, as an example, registers students, runs the Dean's office, schedules courses, allocates facilities like lecture rooms and labs, manages the financial administration of teaching, and prepares and summarizes evaluations of courses and programmes.

The information in the table is restricted to the most important roles. As an example, the Executive Board develops policy (P) e.g. a strategic plan every four years. The table only states that the Supervisory Board and the Student and Staff Council need to approve this strategic plan. However, in the development process, the Sciences Groups (their Managing Directors, but also the Chair Holders, staff), and the Board of the Education Institute are involved in the process of preparing the strategic plan. The Concern Staff is also strongly involved in both the creation of the strategic plan and in its implementation.

The table does not list legal protection for students, which at our university follows the provisions stipulated in Title 4 of Chapter 7 of the Higher Education and Research Act (see section 6.5).

6.3 Players and roles

In this section we describe the various players and roles mentioned in Table 2, illustrated by a number of exemplary processes in section 6.4.

Supervisory Board
The Supervisory Board works according to the principles laid down in the Higher Education and Research Act (WHW) and supervises and advises the Executive Board with regard to its performance. Among their described tasks is the approval of the annual budget and accounts, the annual report and the strategic plan. The Supervisory Board meets the Executive Board at least six times a year and more if they feel the need. The Supervisory Board has an audit committee and a remuneration and appointments committee.

Executive Board
The Executive Board, is charged with managing and administrating the University in its entirety and is at the head of the faculty. Members of the Executive Board are the Chairman, the Vice-Chairman and the Rector, all appointed by the Supervisory Board, with the restriction that the Rector has to be chosen from among the University's professors. As such, the Rector bears special responsibility for university research and education. In March 2011, the Board revisited the distribution of tasks among its three members, confirming that research, education and student affairs are among the responsibilities of the Rector.

Student-Staff Council
The Student-Staff Council consists of two separate parts, a Staff and a Student Council, but it generally operates jointly in its deliberations with the Executive Board about issues concerning the university, education and research and their quality, ethics and internationalization in particular. So far the issues mainly concern the strategic plan, including policy with respect to quality and the chair plan, the Student-Staff Council has the right of approval. There are a number of issues where only the Student Council has right of approval, for example the Education and Examination Regulation, the educational framework and the student facilities (including the regulations on the Financial Support of Students). With respect to the budget of

the university the Student Council has the right of advice while the Staff Council has the right to get informed. One specific issue concerning education is the joint regulation in case of a joint degree. In that case the Central Employees Council (also including the research institutes DLO, and Van Hall Larenstein University of Applied Sciences) has the right of advice; the Student Council has right of approval for the Education and Examination Regulation involved. The Student Council does not have a formal relation with the Board of the Education Institute, but two representatives meet with the Institute's director monthly and generally participate as a visitor at Board meetings.

Examining Board
Chatham University has four Examining Boards, all responsible for a domain within the university comprising a number of study programmes. These domains are Life Sciences (Biology, Plants & Animals), Social Sciences, Environment & Landscape and Technology & Nutrition. The Examining Boards are responsible for assuring the quality of interim exams and final assessments and also evaluate study components, approve exemptions and for individual students, they approve the study programme and grant the diploma. The Boards follow shared protocols, stimulated by a regular meeting of the four secretaries of the Boards, together with advisers of Corporate Education and Research, Corporate Governance and Legal Services and the Education Institute. Currently we are implementing policies with respect to assessment and for that reason also the Chairpersons of the Committees have regular meetings with the Directors of Corporate Education and Research and the Education Institute to make sure that implementation takes place in a coordinated fashion. The Executive Board appoints the members of the Examining Boards and receives an annual report from the boards.

Managing Director of the Sciences Group
The Managing Director, appointed by the Executive Board, is responsible for the management and administration of the university department, as well as as for other parts of the Sciences Group. He works together with a Director Operations reporting to him, within the framework set by the Executive Board. Based upon the university's strategic plan, the Managing Director develops an annual business plan and prepares annual accounts and budgets. The Managing Director matches the research and education on offer within the department to the research and the study programmes that have been established by the Education Institute and the Graduate Schools. The five Managing Directors form, together with the Director of Van Hall Larenstein and the members of the Executive Board, the Board of Directors. They meet every fortnight, to discuss strategies and intended decisions of the Executive Board, and act as an advisory council for this Board.

There is no formal connection between the Education Institute and the Sciences Groups, though the interactions between staff of both institutions are obviously numerous. The director of the Education Institute consults individual managing directors on an ad hoc basis, often discusses issues with the Board of Directors, and regularly discusses issues in meetings of Chair Holders within departments, chaired by the Managing Director.

Chair Holder
Chair Holders, appointed by the Executive Board, have a particular responsibility for the development of the scientific domain allocated in the Chair Plan (which is part of the strategic plan), and for the content of the education to be offered in that domain, with due observance of the authority of the Board of the Education Institute. The Chair Holders fulfil their tasks exercising 'academic leadership' in close consultation and collaboration with their staff.

Board of the Education Institute
This Board consists of four Professors (Chair Holders or Personal Professors) and four students, appointed by the Executive Board. The Professors are appointed on the advice of the Programme Committees, after a request for candidates which are felt able to oversee one of

the domains as defined with the Examining Boards. Student members are appointed after selection following application. The intention is –generally successfully- to appoint students with experience in the organization of education, be it in for example a Programme Committee or an education role in a Study Association. The Board is responsible for the content and the quality assurance of the study programmes, including their budgets, within frames set by the Executive Board.

The Board works mainly on the basis of consultations with Programme Committees and their advices. In particular the annual modifications of the curricula are approved by the Board on the basis of advices from the Programme Committees (see Chapter 5). The agenda and all documents of Board meetings are published on the portal of the Institute, as are the most important conclusions immediately following the meeting (OWI-state-of-affairs). The Board is technically chaired by the Rector. Meetings are prepared by the Director of the Education Institute, who also acts as an adviser. The daily operation of the Institute is carried out by its director and staff, and sixteen Programme Directors, their secretaries and study advisers.

Programme Committee
A Programme Committee is responsible for the continuous improvement of the study programme, including taking action as a result of course and programmes evaluations. The Programme Committees, and the Programme Director, also are responsible for regular contacts with members of Chair Groups with respect to their expected role in the programmes. The Programme Committee are the central player with respect to developing the vision and the learning outcomes of the programmes. Although the Programme Committees work within the frames set by the Board of the Education Institute, the Board believes that the Programme Committees should take the lead with respect to programme modifications. Exceptionally, the Board takes the lead, for example in a university process like “Towards Flexibility” or in setting university rules for the Academic Master Cluster (an obligatory part of the Master’s programme). In case the Board questions an advice of a Programme Committee, generally a delegation of the Board will participate in a Programme Committee meeting to discuss the advice before taking a decision in a next Board meeting. Annually, a representation of the Board visits a Programme Committee meeting to discuss a mutually approved agenda.

Admission Committee
There are four Admission Committees in the same domains as the Examining Boards. Members are appointed by the Executive Board, but in practice, they are the Programme Directors relevant to the domain. The Committees work according to a protocol set by the Executive Board. The chairpersons of the four Committees meet twice a year, a meeting chaired by the Director of the Education Institute with advisers from an Examining Board, staff of Corporate Education and Research and Corporate Governance and Legal Services, to make sure that the interpretation of the protocol remains sufficiently uniform across the university. The Admission Committees annually deal with about 5.600 applications.

6.4 The practice of policy items

This section discusses four examples of policy items to illustrate how the roles in policy development, setting frames, approval, advice and implementation work in practice.

6.4.1 From strategic plan to change in education framework: “Towards Flexibility”
The process leading to a structural change of the setup of our BSc-programmes into a major-minor system with the free choice (including optional minors) scheduled in one semester, started from an intention in the strategic plan 2007-2010. The following step was a paper written by the director of the Education Institute and the director of Corporate Education & Research in February 2007. The idea was to come to “broad bachelors” and “umbrella

masters". In the course of the process, focus shifted solely to the bachelor's, with a start of the restructured bachelor's programmes by September 2010. In the context of this Chapter we describe the main steps in the process.

- Phase 1: Proposals and discussion. A steering committee was established, chaired by the director of the Education Institute, with as its members the director of Corporate Education & Research with one staff member as secretary, a student, a member of the Board of the Education Institute, two representatives of VHL and an external member (Prof. dr. John Bruce, University of Canberra) with experience in a broad Life Sciences Bachelor his University. The intention was "Towards Flexibility". Programmes should be more flexible for students, but also more easily adaptable to new intentions. The setup of this phase started off with discussions on the basis of a kick-off-paper. The steering committee started a portal with information and a discussion forum, organized ten meetings with staff, students, or both, talked with the Board of Directors, visited meetings of Chair Holders at the five departments, published a weekly column summarizing the essentials of the previous week and talked to individuals with innovative ideas or strong objections. VHL Bristol was also included in this process, but a shift in directorship prevented any real integration. In this phase an interim report was produced around May 10th 2008 (Towards Flexibility: halfway) and a draft concluding report in August. The interim report concluded that focus was needed on the bachelor's alone and that the notion of "broad bachelor " had no support whatsoever.
- Conclusion of phase 1: Approval of the Final Plan. The draft report in August described a major-minor system with three characteristics: introduction of the BSc-thesis in the major, a free-choice period of 30 credits scheduled in one semester, with the option of including minors, yet to be created. Early in September 2008, the Executive Board approved the report for discussion and sought advice from the Board of the Education Institute. After a round of advice by the Programme Committees, in mid-November 2008 the Board advised positively about the plan with a number of recommendations, essentially proposing to start the major-minor system including the new scheduling by 1 September 2010.
- Phase 2: Participation and final decision. The Executive Board made a positive decision and the Student-Staff Council was asked to approve the major-minor system, including finding a budget of €1.4 m to fund 25 minors (on top of 25 minors to be matched to existing courses) in the total budget for courses of €30 m. This discussion between the Executive Board and the Student-Staff Council led to approval only in June 2009. An important step in the approval process was a discussion between the Council and the Board of the Education Institute where the staff and students in the Board convinced the Council that their concerns (quality of programmes due to removal of 1.4 m€ and the practicalities of the new schedule with short periods of 4 weeks) would not be an issue. The approval was conditional to an evaluation of the implementation to be held in November 2009.
- Phase 3: Implementation, planning the programmes. The implementation of "Towards Flexibility" became a responsibility of the Board of the Education Institute. The Institute's director and Programme Directors were the major players, in consultation with Programme Committees, to redraft the programmes. Various means were undertaken to ensure a coordinated rescheduling process, to share courses in a quality-enhancing fashion (for example, managing the variety of enrolment with respect to mathematics and statistics, optimizing introductory education in chemistry). This process required intensive discussions with Programme Committees, lecturers and Chair Groups. Simultaneously, discussions were organized in the departmental meetings of Chair Holders, to support the implementation process. In the faculty concerns arose regarding the required 'double teaching' (the same course being taught twice a year to solve scheduling problems). This aspect was explicitly addressed by the Board and successfully resolved. This operation was finalized in March 2010.

- Phase 4: Implementation, changing courses. The implementation focused on the development of a number of new courses but especially on supporting the conversion of courses which used to be scheduled for 6 weeks morning or afternoon, into 4 weeks full time courses, including assessment. Individual discussions took place with most of the lecturers involved and funding was made available to finance the extra input required to modify the courses. This operation was evaluated with respect to student satisfaction and was shown to be successful.
- Phase 5: Evaluation. A final evaluation is planned in Spring 2013. An interim evaluation took place in November 2009, the purpose of which was a go/no go of the preparations for the start in September 2010. Also in this case a discussion between the Board of the Education Institute and the Student-Staff Council turned out to be very instrumental in fuelling the confidence that the plan would work out well.

6.4.2 From strategic plan to curriculum: Aquaculture and Marine Resource

In 2006 the Executive Board and the "Steeringcommittee CU-VHL" (a group co-ordinating joint activities of Chatham University and VHL Bristol) requested a report on the development of an MSc programme with the working name Marine Living Resources Management. The initiative was taken by IMARES in cooperation with partners within Chatham UR and was later positioned as one of the targets of the Research spear heads of the strategic plan 2007-2010. The Executive Board followed-up the report by requesting the Education Institute to develop a scientific master's in Marine Living Resources Management, based in Chatham. The programme was envisaged to cover a broad domain from ecology to governance. The Board of the Education Institute interpreted the request of the Executive Board in the form of a master's track consisting of specializations in two existing MSc-programmes: Aquaculture and Fisheries and Environmental Sciences, and appointed a working group to develop this track.

The working group consisted of Professor Arthur Moleskin (Professor Environmental Policy) involved in marine developments in Aberdeen, staff and student representatives from both the Programme Committees of Animal Sciences and Environmental Sciences, the Programme Directors, two representatives of VHL Bristol, a secretary, and the director of the Education Institute as adviser. The group spent most time formulating the vision and learning outcomes, and came up with two specializations in both study programmes. The Board of the Education Institute approved the result and the enrolment for 'Management of marine Ecosystems' started by September 2007. Student recruitment was started as a separate MSc, with the clarification that it concerned specializations within two existing programmes.

In December 2009 the Board of the Education Institute discussed the accreditation of the Aquaculture and Fisheries programme for April 2011. The board accepted the proposal for a process leading to accreditation of the programme including all specializations of Management of Marine Ecosystems. A working group developed a proposal, a new Programme Committee was formed and a new programme name proposed: Aquaculture and Marine Resources Management, with three specializations: Aquaculture, Marine Resources & Ecology, and Marine Governance. The Board of the Education Institute advised the Executive Board to approve the intended accreditation, which was then approved. The programme was accredited as a continuation of the previous accreditation of Aquaculture and Fisheries.

This process started with the Executive Board (strategic plan) and may be considered finalized also by the same Board (approval of intended accreditation) with the Board of the Education Institute, (representatives of) Programme Committees and Chair Groups as actors in between.

6.4.3 From students' response to programme change: Organic Agriculture

In March 2006, in a letter to the Rector, students of the master's programme Organic Agriculture, expressed their concern about the content and set up of the programme: on the

one hand they appreciated the relative freedom they had in formulating their own path, on the other hand they experienced the lack of a recognizable, clear structure, a joint introduction into the 'core business' of organic agriculture and sufficient links to practice. A related concern was the earlier decision of the Executive Board to terminate the bachelor's programme in Organic Production Systems due to low enrolment. Discussions between the director of the Education Institute and the Programme Director with the students involved and with the Programme Committee led to a joint paper which was discussed in the Board of the Education Institute, with the Study Association StEL, a representation of master's students, and a selected group of individuals, to obtain a broad reflection on the subject. As a result of these deliberations a month later the Board set up a project group with the task to completely reconstruct the programme, including mission, education philosophy and set up. The working group consisted of three senior scientists involved in systems research and organic agriculture, plus three students. Additionally, a focus group was set up involving teaching staff in the relevant subject areas. The resulting proposal of the working group was endorsed by the Board in October 2006 to start by September 2007. This programme is currently under restricted programme accreditation (to be accredited by 31-12-2013). Students are satisfied with the programme which resulted in a shared second place in the category of Biology Masters of the "National fGuide to Master programmes 2011".

6.4.4 International cooperation: Joint education with Northwest A&F University, Yangling

Currently, Chatham University and Northwest U&F University run a joint programme in which selected Yangling students in their fourth bachelor's year follow an honours programme, partly taught by Chatham lecturers. The programme involves Animal Science and Economy & Management students. At the end of the programme students are selected who, with a tuition fee waiver, are admitted to the master's Animal Science or Management, Economics and Consumer Studies. Enrolments for the programme started in September 2011, for a pilot period of three years.

Discussions on this collaboration started in 2003 leading to a Memorandum of Understanding in 2005, signed on the Chatham side by the Rector, between both universities on research and education, including staff exchange and the encouraging of Chinese students to study in Chatham. The Memorandum also includes the option to explore the development of a College in Yangling. Within Chatham University at that time a policy discussion took place on the establishment of footholds in different parts of the world to serve as a hub for students from a broader region to connect to Chatham. In China this led to long-term cooperation with China Agricultural University, Nanjing Agricultural University and Yangling, ranked 1 to 3 in China in our domain. Although Yangling was not finally selected for this purpose (but Beijing, São Paulo and Addis Ababa were selected) potential collaboration specifically related to students was further explored, resulting in a visit of a Yangling delegation to Chatham early in 2009 to discuss the honours programme and the financial aspects of the collaboration. This resulted in a visit by the Rector to Yangling in autumn 2009, a concrete plan in terms of study programmes and numbers of students and a renewed Memorandum of Understanding of June 2010. During this process staff were involved from Corporate Communication (recruitment), Corporate Education and Research (financial aspects, fee waivers), Chatham International (overall policy), Admission Committees (admission and selection), and the Sciences Groups (lecturing in Yangling).

This example has a number of characteristic features of institutional international collaboration. These are that the lead time is extremely long and consequently project management is complicated by changing policy goals and lack of focus, and the involvement of many players in the university.

6.4.5 Appointment of Chairs

The appointment of Chairs is prepared by an Appointment Advice Committee established by the Executive Board. The Guidelines and Procedures give equal weight to education and research when selecting candidates. The Committee is composed of academic staff, partly from outside Chatham University, and students. The Committee advertises the position and selects a

limited number of candidates. These candidates present themselves by giving a public lecture, after which each candidate has a meeting with the Chair Group, the managing director of the Sciences Group concerned, a representation of Programme Committees and possibly other students, and a representation of the Graduate Schools. Each of these groups advises the Appointment Advice Committee about the perceived suitability of the candidates. Subsequently, the Committee advises the Rector.

With specific reference to education, the director of the Education Institute asks one of the Programme Directors to organize the representation on behalf of the study programmes and to write a draft advice to the Committee, sent by the director of the Institute.

6.5 Organization of legal protection

Chatham University has established a Facility for legal protection. The Facility is located at Corporate Governance and Legal Services and is open for students who have questions, requests for information or who want to submit an appeal/objection or written complaint. At the Facility, an interested party can submit a notice of objection addressed to the Executive Board against all decisions for which no appeal is pending at the Examination Appeals Board, such as: decisions about enrolment, the Student Financial Support Regulations (FOS), the provision of a degree certificate or measures like denial of entry to the buildings or grounds. The Facility is also the contact address for the Examination Appeals Board and the Ombudsman. The Facility immediately sends the objection/appeal or complaint for processing to the authorised body.

The Examinations Appeals Board is where a student can appeal against decisions concerning admission to a specific study programme, the number of credits earned and passing the final examination, requirements for previous education (prerequisite subjects or profiles) or decisions of Examining Boards and examiners. A student can appeal against the board's decision to The Higher Education Appeals Tribunal in The Hague.

A student can submit a complaint to the Facility, but can also choose to contact the Ombudsman who is authorised to autonomously perform the statutory tasks of the Facility. Chatham University has ombudsmen for students, a function that is practiced by the student counsellors. This is a supplementary procedure to the existing complaint and appeal procedures. Students can contact the Ombudsman with complaints about their treatment by an employee of Chatham UR. The same applies to complaints about an undesired situation or negligence, to the extent this concerns undesired behaviour or a formal decision.

Students who experience unacceptable behaviour of staff or fellow students can report this to the confidential adviser for students. The adviser is independent and will handle the case with strict confidentiality. The experience of the student is the starting point for advice and action. The confidential adviser for students can help in various ways, including providing referrals and arranging mediation. Complaints involving unacceptable behaviour can be discussed with the confidential adviser and possibly be submitted to a grievance committee established for this purpose.

6.6 Critical reflection on organization and decision making

It may be concluded that the organization and decision-making structure around education works well. There is an open atmosphere where mutual trust between players is an important factor.

It is fair to remark that there are also processes which are less transparently organized and the best example are policy issues related to international relations. This finds its origin in the fact that for example a strategic alliance with a foreign university touches almost every aspect of the university like research, education, student recruitment, local and foreign legislation, etc. As part of the 2011-2014 strategic plan we are currently investing in making these processes all-inclusive, with as a first example the process of determining priority and focus countries, where ambitions with respect to student recruitment, structural cooperation on research and development cooperation are approached jointly.

Appendices

Appendix 1 Student numbers

(First) enrolment of students per year, national and international

BSc enrolment: nationality	**2006**	**2007**	**2008**	**2009**	**2010**
UK	563	698	802	901	1002
German	5	8	34	60	53
Belgian	4	3	1	4	5
Dutch	1		1	1	
Other countries/unknown	4		5	3	15
Total	**577**	**709**	**843**	**969**	**1075**

MSc enrolment: nationality	**2006**	**2007**	**2008**	**2009**	**2010**
UK	557	499	608	728	790
Other European Economic Area (EEA)	172	158	182	169	241
German	11	23	26	31	52
French	38	25	35	27	27
Dutch	30	22	22	28	25
Spanish	16	23	14	14	21
Italian	6	13	15	12	19
Bulgarian	0	3	1	5	17
Belgian	15	12	12	11	14
Rumanian	3	1	4	2	12
Non EEA students	254	297	318	403	455
Chinese	*75*	*80*	*53*	*89*	85
Ethiopian	*19*	*17*	*28*	*39*	47
Indonesian	*19*	*32*	*24*	*29*	40
Nepalese	*7*	*8*	*11*	*17*	21
Ghanaian	*3*	*8*	*11*	*5*	14
Vietnamese	*4*	*6*	*10*	*13*	14
Tanzanian	*5*	*4*	*5*	*15*	14
Kenyan	*4*	*4*	*4*	*11*	13
Verwegistan	*3*	*2*	*0*	*5*	12
Zimbabwean	*4*	*5*	*9*	*23*	11
Mexican	*2*	*8*	*4*	*6*	10
Total	983	954	1108	1300	1486

Total student numbers

Total Student enrolment (cut-off date 1 Oct.)	**2006**	**2007**	**2008**	**2009**	**2010**
BSc normal	2094	2387	2705	3085	3434
Linkage-programme students	*132*	*144*	*139*	*122*	*116*
BSc CAU students	*77*	*42*	*26*	*13*	*9*
BSc total	2303	2573	2870	3220	3559
MSc	1838	1872	2119	2458	2955
Undivided programmes (old style)	251	109	64	36	16
Still enrolled after graduating*	13	76	75	21	0
Total	4405	4630	5128	5735	6530

***** This mainly covers students who were awarded their BSc degree in September and who have not yet (formally) enrolled for the MSc

Exchange students

Incoming and leaving exchange students

Incoming	2005	2006	2007	2008	2009	2010
Erasmus (Double Degree, LLP, Mundus)	322	281	247	236	266	268
Exch.Student Other	46	35	67	41	37	44
Tempus Student	13	15	3			
Total	**381**	**331**	**317**	**277**	**293**	**312**
Outgoing				**2008**	**2009**	**2010**
Erasmus (Double Degree, LLP, Mundus)				99	108	156

Nationality incoming en host country outgoing exchange students

Incoming				Outgoing			
Nationality	**2010**	**2009**	**2008**	**Host country**	**2010**	**2009**	**2008**
French	78	73	72	Denmark	21	3	7
Polish	30	30	21	United Kingdom	21	13	13
German	23	20	12	Sweden	19	17	10
Czech	20	23	16	Germany	11	11	10
Dutch	15	17	19	Dutch	2	1	3
Spanish	18	17	22	Belgium	10	6	7
Italian	16	13	14	France	10	8	6
American	12	8	13	Norway	9	12	6
Brazilian	10	8	10	USA	8	9	8
Turkish	8	10	12	Italy	6	1	4
Greek	7	4	6	Spain	6	6	5
Austrian	6	6	2	Canada	5	2	2
Belgian	6	6	3	Finland	5		
Canadian	6	4	3	Ireland	5	8	4
Swedish	6	11	4	Poland	4	1	
Danish	5		4	Czech Republic	3		
Portugese	5	7	11	Austria	2	1	2
Uzbekistani	5		2	Other countries	8	10	15
Finish	4	1	4				
Russian	4	8	18				
Other countries	54	44	28				
Total	**328**	**310**	**298**		**158**	**109**	**102**

Exchange partners in Europe

Austria	Fachhochschule Technikum Kärnten
	Technische Universität Wien
	Universität für Bodenkultur Wien (BOKU)
	Hochschule fur Agrar-und Umweltpadagogik
Belgium	Universite Libre de Bruxelles
	Universiteit Hasselt
	Faculté Universitaire des Sciences Agronomiques de Gembloux
	Universiteit Gent
	Katholieke Universiteit Leuven - Faculteit Medicijnen
	Katholieke Universiteit Leuven
	Université Catholique de Louvain
Bulgaria	Agricultural University Plovdiv
Switzerland	Universität Bern
	Eidgenössische Technische Hochschule Zürich (ETH)
Czech republic	Mendel University of Agriculture and Forestry Brno
	University of South Bohemia České Budějovice
	Univerzita Palackého v Olomouci
	Czech University of Life Sciences Prague (CZU)
Germany	Universität Bayreuth
	Technische Universität Berlin
	Humboldt Universität Berlin
	Rheinische Friedrich-Wilhelms-Universität Bonn
	Technische Universität Dresden
	Fachhochschule Eberswalde
	Universität Freiburg
	George-August-Universität Göttingen
	Leibniz Universität Hannover
	Universität Kassel
	Christian Albrechts Universität zu Kiel
	Hochschule Ostwestfalen-Lippe (University of Applied Sciences)
	Technische Universität München
	Universität Potsdam
	University of Hohenheim
	Universität Trier
Denmark	Aarhus University
	University of Copenhagen, Faculty of Life Sciences
	Danmarks Tekniske Universitet
Spain	Universidad de Almería
	"Universitat de Barcelona, Facultat de Biologia"
	Universitat de Barcelona
	Universitat Autònoma de Barcelona
	Universidad de Burgos
	Universidad de Castilla-La Mancha
	Universidad de Córdoba
	Universidad Miguel Hernández de Elche
	Universitat de Girona
	Universidade da Coruña
	Universitat de Lleida
	Universidad Autónoma de Madrid
	Universidad Politécnica de Madrid
	Universidad Pública de Navarra
	Universidad de Santiago de Compostela
	Universidad de Sevilla

	Universidad Politécnica de Valencia (ETSIA)
	University of Valladolid
	Universidad de Zaragoza
Estonia	Estonian University of Life Sciences
France	FÉSIA: ISA Lille (F Lille51); EI Purpan Toulouse (F TOULOUS15); ISARA Lyon (F LYON17); ESA Angers (F ANGERS08)
	LaSalle Beauvais
	Université de Bordeaux I, Sciences et Technologie
	ENITA Bordeaux
	SupAgro Montpellier (voorheen ENSAM, CNEARC)
	INPL-ENSAIA Nancy
	Université Dauphine
	Université de Paris-Sud (Paris XI)
	AgroParisTech
	Agrocampus Ouest (INH ANGERS07 & RENNES11)
	Institut National Polytechnique de Toulouse (ENSAT)
Greece	Agricultural University of Athens
	University of the Aegean
	Harokopio University
	Panepistimio Kritis (University of Crete)
	Aristotle University of Thessaloniki
Hungary	University of Debrecen, Centre of Agricultural Sciences
	Szent István University, Gödöllő
	Kaposvár University
Italy	Università degli Studi di Bari
	Università degli Studi di Bologna
	Università degli Studi di Firenze
	Università degli Studi di Milano
	Politècnico di Milano
	Università Cattolica del Sacro Cuore
	Università degli Studi di Padova
	Università degli Studi di Palermo
	Università degli Studi di Parma
	Università degli Studi di Perugia
	Università di Pisa
	Università degli Studi di Siena
	Università degli Studi di Torino
	Università degli Studi della Tuscia
Ireland	University College Cork
Iceland	Háskóli Íslands
Lithuania	Kaunas University of Technology
	Lithuanian University of Agriculture
Latvia	Latvijas Lauksaimniecības Universitāte
	Latvijas Universitāte
Norway	Norwegian University of Life Sciences (UMB)
	Universitetet i Bergen
	Universitetet i Oslo
	Hogskolen i Telemark
	Høgskulen i Sogn og Fjordane
	Universitetet i Stavanger
	Universitetet i Tromsø
Portugal	Universidade de Aveiro
	Universidade do Minho

	Universidade do Algarve
	Universidade de Lisboa - Faculdade de Ciencias
	Universidade Técnica de Lisboa, Instituto Superior de Agronomia
	Universidade do Porto
	Universidade de Trás-os-Montes e Alto Douro
Poland	Politechnika Gdańska
	Akademia Górniczo-Hurnicza (AGH)
	University of Agriculture in Krakow
	University of Łódź
	Technical University of Łódź
	Uniwersytet Warminsko-Masurski w Olsztynie
	Uniwersytet Ekonomiczny w Poznaniu
	West Pomeranian University of Technology, Szczecin
	Warsaw University of Life Sciences (SGGW)
	Collegium Civitas
Romania	Universitatea de Stiinte Agricole si Medicină Veterinară
	Universitatea Dunărea de Jos din Galati
	Universitatea Politehnica din Timisoara
Sweden	Lunds Universitet
	Karolinska Institutet
	Umeå Universitet
	Uppsala Universitet
	Sveriges Lantbruksuniversitet, SLU
Finland	University of Helsinki
	University of Jyväskylä
	University of Eastern Finland
	University of Oulu
	University of Lapland
Serbia	University of Maribor
Slovenia	Slovenská pol'nohospodárska univerzita v Nitre
Turkey	Çukurova Üniversitesi
	Middel East Technical University
	Uludağ University
	Gaziantep Üniversitesi
	İstanbul Technical University
	Sabanci University – Istanbul
	Ege Üniversitesi
	Izmir University of Economics
UK	University of Wales, Aberystwyth
	Cardiff University
	The Scottish Agricultural College
	Edinburgh College of Art
	Keele University
	University of Lancaster
	University of Manchester
	Manchester Metropolitan University
	University of Nottingham
	University of Reading
	University of Sheffield

Appendix 2 International partners

International networks and partnerships

Networks

1. **The Euroleague for Life Sciences (ELLS).** Partners:
    - University of Natural Resources and Life Sciences, Vienna (BOKU)
    - University of Copenhagen, Faculty of Life Sciences (LIFE)
    - Swedish University of Agricultural Sciences (SLU)
    - University of Hohenheim (UHOH)
    - Wageningen University (WUR)
    - Czech University of Life Sciences Prague (CULS)
    - Warsaw University of Life Sciences (SGGW)

2. **Global Alliance for Food Security Research** Partners:
    - Embrapa in Brazil
    - University of California (UC) Davis in the US
    - Chinese Academy of Agricultural Sciences (CAAS) in China
    - INRA in France
    - Massey University in New Zealand

Bilateral partnerships

Chatham UR is active in many areas across the world through its many projects and partnerships. Below you will find **a selection** of partners with whom Chatham UR is working together.

Africa:

- The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)
- Forum for Agricultural Research in Africa (FARA)

- South Africa:
    - University of Pretoria
    - Agricultural Research Council (ARC) of South Africa
    - Council of Scientific & Industrial Research (CSIR)

- Kenya:
    - University of Nairobi
    - Kenya Agricultural Research Institute

- Ethiopia:
    - Jimma University (JU)
    - Ethiopian Institute of Agricultural Research (EIAR)

- Uganda:
    - Makerere University
    - National Agricultural Research Organisation (NARO)

- Ghana:
    - Council for Scientific and Industrial Research
    - University of Ghana
    - Kwame Nkrumah – University of Science and Technology (KNUST

- Benin:
    - Université Nationale du Bénin

Asia:

- China:
    - Chinese Academy of Agricultural Sciences (CAAS)
    - Chinese Academy of Sciences (CAS)
    - Nanjing Agricultural University
    - China Agricultural University
- Indonesia:
    - Bogor Agricultural University (IPB)
- India:
    - The Energy and Resources Institute (TERI)
- South Korea:
    - Rural Development Administration (RDA)
- Vietnam:
    - Can Tho University
    - Hanoi University of Agriculture

Europe:

- AGRINATURA (The European Alliance on Agricultural Knowledge for Development)

- France:

    - Institut National de la Recherche Agronomique (INRA)
    - Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD)
    - FESIA, Fédération de 4 écoles d'Ingénieurs en Agriculture, Agroalimentaire et Environnement

- The Netherlands:
    - Wageningen Universiteit en Researchcentrum (WUR)

- Germany:
    - Universität Bonn

Latin America:

- Brazil:
    - University of São Paulo
    - Federal University of Lavras
    - Embrapa (the largest research institute in Brazil and Latin America)

- Argentina:
    - National Institute of Agricultural Technology (INTA)
    - University of Buenos Aires

- Mexico:
    - Colegio de Postgraduados
    - University of Chapingo

- Monterrey Institute of Technology and Higher Education

- Chile:
  - University of Chile
  - Pontifical Catholic University of Chile (PUC)
  - National Institute for Agrarian Research (INIA)

North America and Oceania:

- USA:
  - Purdue University (MBA)
  - Harvard Business School Boston (Agribusiness Seminar)
  - UC Davis – University of California
  - Michigan State University
  - Cornell University
  - The Fletcher School

- Canada:
  - University of Guelph

- New Zealand:
  - Massey University

And we have MOU 's with:

Europe:	**University / Company**
Czech Republic	Czech University of Life Sciences, Prague
Denmark	Faculty of Life Sciences, University of Copenhagen
France	L'Institut National de la Recherche Agronomique (INRA)
Italy	Parco Tecnologico Padano, Milaan
Italy	Universita Cattolica del Sacro Cuore UNICATT
Italy	FAO
Sweden	Carpe Vitam
Outside Europe:	
Argentina	Instituto Nacional de Tecnologia Agropecuaria (INTA)
Brazil	Embrapa
Brazil	Universidade Estadual do Mato Grosso (UNEMAT)
Chile	University of Chile (UCH)
Chile	Universidad Santo Tomas of Chile
Chile	National Commission of Scientific & Technological Research (CONICYT)
Chile	Ministry of Agriculture Republic of Chile
Chile	Ministry LNV & Ministry of Agriculture Republic of Chile (WUR not a party in MoU)
Chile	Ministry Onderwijs NL & Ministry of Education Chile (WUR not a party in MoU)
Chile	Instituto de Investigaciones Agropecuarias (INIA)
China	Inst. Agricultural Resources & Regional Planning (IARRP/CAAS)
China	Chinese Academy of Agricultural Sciences (CAAS)
China	Chinese Academy of Agricultural Sciences (CAAS)/IAED
China	Chinese Academy of Agricultural Sciences (CAAS) Graduate School
China	Government of Zhangzhou
China	CAU
China	Bureau of Life Sciences & Biotechnology Chinese Academy of Sciences (LSB/CAS)

China	Institute of Medicinal Plant Development, Beijing
China	Inst. Agricultural Engineering, Jiangsu University
China	College of Animal Science & Technology, NAU
China	Shandong Academy of Agricultural Sciences, Jinan
China	Allergy Centre, Zhejiang University
China	Fujian Agriculture & Forestry University
China	Ningxia Potato Industry Development Cooperation, Fujian
China	Government of Ningxia + Fujian Agricultural & Forestry University
China	Wuhan Planning Design Institute/Municipality of Arnhem/Arcadis
Ethiopia	Inst. Agricultural Research/Univ. Addais
Ababa/Jimma/Mekelle/Haramaya/Hawassa	
Israel	Tel Aviv University
Kazakhstan	Almaty Technological University
Korea	The Rural Development Administration (RDA)
Mexico	Universidad Autonoma Metropolitana
Mongolia	University of Mongolia
New Zealand	New Zealand Institute for Crop & Food Research Ltd
Pakistan	University of Agriculture, Faisalabad
Russia	Moscow State University of Environmental Engineering (MSUEE)
Thailand	Naresuan University Engineering Faculty, Phitsanulok
Ukraine	National Agricultural University of Ukraine (NAUU)
U.S.A.	Colorado State University (CSU)
U.S.A.	University of Illinois
Uzbekistan	Tashkent Institute of Irrigation and Melioration
Vietnam	Can Tho University (CTU)
Vietnam	Hanoi Agricultural University
Vietnam	Vietnam National University Ho Chi Minh City

Double degree programmes

Study Programme	DD partners	Title		Date
Animal Sciences (MAS)	BOKU - Austria, Kiel - Germany, Paris - Grignon (INA P-G) - France, SLU - Sweden and UMB - Norway.	EM Animal Breeding and Genetics	http://www.emabg.wur.nl/UK/	2006, april
Animal Sciences (MAS)	Fesia, UAB - Barcelona, Spain, MUAF - Brno, Czech Republic		http://www.eurama.org/	2006, januari
Biotechnology (MBT)	Fesia			2004, January
Biotechnology (MBT)	Kiev, NAUU			2006, October
Environmental Sciences (MES)	Fesia			2004, January
Environmental Sciences (MES)	Nitra			
Environmental Sciences (MES)	Uzbekistan, TIIM			2007, April
Environmental Sciences (MES)	Warsaw agricultural university (SGGW)			2004, October
Forest and Nature Conservation (MFN)	Warsaw agricultural university (SGGW)			2004, October
Forest and Nature Conservation (MFN)	SLU, Uppsala, Sweden, Un Agr Sciences, Vienna, Joensuu, Finland, Lleida, Spain, Freiburg, Germany,		http://gis.joensuu.fi/mscef/Introduction/Files/mscefstudyguide2006-2008.pdf	2006, August
Food Technology (MFT)	KU - LIFE	Lactitech		2009, sept
Food Technology (MFT)	KU - LIFE	Sensory Science		2009, sept
Geo-Information Science (MGI)	Warsaw Agricultural University			2004, October
Geo-Information Science (MGI)	Uzbekistan, TIIM			2007, April
Hydrology and Water Quality (MHW)	Warsaw agricultural university			2004, October
International Land and Water Management (MIL)	CNEARC (SupAgro) Montpellier, KVL Copenhagen, Catania (It), Univ Cork (Ireland), Univ Madrid	Erasmus mundus MSc in sustainable development in agriculture		May, 2005

International Land and Water Management (MIL)	Uzbekistan, TIIM			2007, April
Management, Economics and Consumer Studies (MME)	Bonn			2004, October
Management, Economics and Consumer Studies (MME)	Debrecen university, Hungary			2005, May
Management, Economics and Consumer Studies (MME)	Warsaw agricultural university			
Management, Economics and Consumer Studies (MME)	Prague university (CULS)			2003, December
Management, Economics and Consumer Studies (MME)	Fesia			
Management, Economics and Consumer Studies (MME)	Universita Cattolica del Sacro Cuore (fac of Agriculture Cremona)		http://www3.unicatt.it/pls/unicatt/consultazione.mostra_pagina?id_pagina=14205	2012
Nutrition and Health (MNH)	FESIA			2004, January
Plant Sciences (MPS)	KU - LIFE	FruitSci		sep-09
Plant Sciences (MPS)	Hannover	VegSys		sep-09