

At Home in the World

Profiling document EUR 2012

Erasmus University Rotterdam



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Foreword

In 2008, Erasmus University Rotterdam (EUR) published its strategic plan "At Home in the World", which set out a series of ambitious goals to be achieved by 2013 when the university will celebrate its 100th anniversary. In the years since then equally ambitious plans have been launched to introduce new programmes, modernise the campus, improve education, adapt operations to contemporary demands and to form a strategic alliance with the universities of Leiden and Delft. A mid-term review was published in 2011.

The formulation of performance-related agreements offers another opportunity to evaluate the progress that has been made and to sharpen the EUR's profile, as well as formulating new ambitions, for example in the context of the strategic alliance with Leiden and Delft. For this review we have consulted the community of academics, students and support staff, the supervisory board and the university's external stakeholders. This document, together with the memorandum entitled *Added Value [Meer Waarde]*, therefore constitutes an important blueprint for the university's strategy in the coming years.

We are proud of Erasmus University Rotterdam and of the ambitions we have expressed in this document and are answerable for them to society and the government. We in turn expect the government to give the universities the space, the time and the instruments to realise their ambitions. Specifically, this means that the government should alleviate the growing administrative burden caused by the accumulation of rules, that it should quickly provide a legislative framework that will allow us to carry out the plans for the strategic alliance and achieve our ambitions in terms of education, and that it should seriously address the need for a system of financing that is based on quality rather than on quantity.

Pauline van der Meer Mohr
President Executive Board
Erasmus University Rotterdam

Executive Summary

Erasmus University Rotterdam (EUR) is a relatively specialised research university with a pronounced social orientation in its education and research. Academics and students at our institution endeavour to find answers to global social challenges in the fields of wealth, health, governance and culture, drawing inspiration from the metropolis in which it is situated. The EUR's core values are ambition, a no-nonsense approach and an entrepreneurial spirit.

The university has a diverse student population, with many ethnic students, a large number of students from the surrounding region and a growing number of international students. The central challenge is to further improve the quality of education and the success rate of students with this diverse population. The EUR has therefore opted for a strong and daring educational profile: a growing number of programmes are adopting the 'Nominal is Normal' formula, with the requirement that students secure the full complement of credits in the first year, more compensatory testing and fewer resits, with the aim of ensuring that suitable students complete their studies without unnecessary backlogs. At the same time, teaching in smaller groups and other forms of more intensive education designed to motivate students will be introduced gradually. The EUR is requesting a subsidy from the profiling budget to accelerate the implementation of this ground-breaking and evidence-based educational profile. The most important performance-related agreement that EUR wants to make for 2015 is to increase the study completion rate among continuing students in the four-year Bachelor programmes to 75%.

The EUR only offers courses in a select number of disciplines. The strategy in recent years has been to start new Bachelor programmes to meet the demand for higher education. With the opening of the Erasmus University College, planned for 2013, it will be time for consolidation. But in order to continue meeting specific demands, we will create more honours and international tracks. In time, the growing quality and reputation of our research and education, the strong profile and the excellent fit with the labour market will be used to attract more international talent and to offer more education for students in every phase of life. The EUR's target is to provide courses specifically tailored to 8% of its most excellent students in 2015.

The quality of research, measured in terms of citation impact, can only be described as excellent, but that is not matched by the university's academic reputation and the volume of external research funds it raises. The aim of the strategy is to strengthen the best and most promising research groups through targeted investments and so enhance our global impact, visibility and profile. We have to increase the income from funding of projects by Dutch research organisations (the second flow of funds) and from contract research (the third flow of funds) by concentrating on a number of selected Grand Challenges and Top Sectors. Graduate schools will be established and expanded to recruit and train talented international researchers. The strategic alliance with Leiden and Delft will play an important role in all three of these tracks.

To reduce our dependence on national public resources, EUR also wants to build further on its strong position in the field of valorisation. The Rotterdam Valorisation Programme, the Holland Programme on Entrepreneurship (HOPE) and the Institute of Social Studies (ISS) all play an important role in this. One of the ways we hope to integrate these activities more firmly in the EUR is by creating an Erasmus Valorisation Centre and by making agreements with deans about attracting funds and by formulating indicators and criteria to be adopted in job appraisal interviews with academic staff.

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General

The EUR is a university of academics and practitioners. Our enterprising academics and students endeavour to solve global social challenges in the fields of health, wealth, governance and culture. They draw inspiration from the metropolis, which serves as both a testing ground and a laboratory. The EUR is a major supplier of personnel for the boardrooms of national and international companies.

The EUR in figures

Number of students	22,938 (reference date 5-10-2011, first-time enrolments and students enrolled for a second degree programme)	
Faculty*	1,239.43 FTE (reference date 31-12-2011)	
Support and management staff*	802.55 FTE	
Organisation	7 faculties 2 institutes Erasmus Holding BV	
Number of programmes	20 Bachelor programmes 41 Master programmes 13 Research Master programmes 19 non-initial Master programmes	
Prior qualifications of students	VWO	64%
	HBO Bachelor	16%
	International	11%
	HBO propaedeutics	7%
	Other	2%
Ethnic students	25% Non-Western immigrants	

* = excluding employees of the Erasmus Medical Centre (also the Faculty of Medicine and Health Sciences) and affiliated hospitals.

History

Erasmus University Rotterdam is a relatively recent addition to the community of Dutch universities. The university was founded in 1913, when a group of Rotterdam businessmen established the Netherlands School of Commerce (Nederlandsche Handels-Hoogeschool) to meet the growing demand for skilled personnel for the companies operating in the port of Rotterdam. In 1939 it changed its name to the Netherlands School of Economics (Nederlandse Economische Hogeschool), going on to achieve world fame in economics, business economics and econometrics, under the guidance of professors like Nobel Prize-winner Jan Tinbergen.

The faculties of Law and Social Sciences were established in the 1960s, followed in subsequent decades by the faculties of Philosophy, History and Arts and Business Administration. In 1973, the Rotterdam Medical Faculty and the Netherlands School of Economics merged to form Erasmus University Rotterdam (EUR).

The most recent expansion occurred a number of years ago when, in July 2009, the International Institute of Social Studies in The Hague was absorbed into Erasmus University.¹

¹ More about the history of the EUR can be found at www.eur.nl/english/eur/history/

Current profile

This history is still reflected in the university's current profile. The EUR is a research university with a pronounced *social orientation* in its education and research. Academics and students at our institution endeavour to solve global social challenges, drawing inspiration from the metropolis. The spearheads of its research and education are:

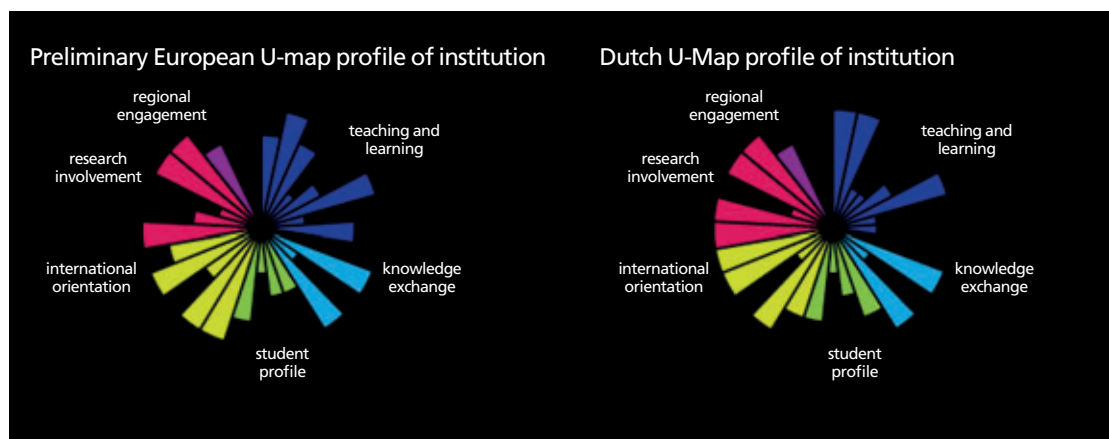
- >>> **Health:** molecular-human-social
- >>> **Wealth:** sustainable economic growth
- >>> **Governance:** the organisation of companies and society
- >>> **Culture:** media, happiness and identity in the modern urban society

Important values associated with the EUR are ambition, a no-nonsense approach and an entrepreneurial spirit: it is a university of academics and practitioners, which supplies both people and knowledge for the boardrooms of national and international companies. With its deep roots in the community, the university faces the world with self-assurance and business acumen in the spirit of the philosophy espoused by Erasmus (and the motto of the current strategy) that "*The entire world is your home*".²

U-Map

The figures below present the EUR's U-Map profile at national and European level.

On both levels the twin aspects of EUR's profile are *international orientation*³ and *research involvement*. That corresponds with EUR's current (international) profile and its ambitions. This profiling tool measures research mainly in terms of quantity. In addition to the high level of productivity of the researchers at the EUR shown by this measurement, rankings specifically devoted to research also show that the research output has a major impact (see the section on Quality: perception gap). The *student profile* dimension reveals that it is a small university in terms of student numbers. At the same time, the EUR is a fairly specialised university offering a relatively small range of courses, particularly in the natural sciences (the fifth bar under 'teaching and learning'). The EUR is also heavily involved in *knowledge transfer*, as reflected by the 'hard' valorisation (for example, the number of patents).



² More about the profile of the EUR can be found at www.eur.nl/eur/missie_strategie/

³ The low score on international students is connected with the fact that U-mapping uses a different definition than ECHO.

Profiling strategy 2008-2013

In 2008, the EUR published its strategic plan "At Home in the World", setting out its goals for 2013 when the university celebrates its centenary. The heart of the plan is that the EUR wants to further strengthen its profile as a leading international research university firmly rooted in the Rotterdam region.

The objectives of the strategy and the results that have been achieved⁴ in the last few years are summarised below:

- >>> **Growth in student numbers:** absorbing the growth in the number of students by totally modernising the campus, starting new programmes and increasing the international appeal of the courses. The response has been the start of a number of new courses, including the International Bachelor in Communication and Media (2009) and the Bachelor in Pedagogical Sciences (2011), and the planned launch of the Erasmus University College and a Bachelor in Nanobiology (both scheduled to start in 2013). In other words, the strategy has been to expand the education, particularly at Bachelor level, with a view to offering students a wider choice of courses that reflect EUR's social profile and meet the demand from the community.
- >>> **Improving quality and the success rate of students:** by offering tailored courses and devoting more attention to the diversity of the student population, providing training for teachers and with innovations in the curricula. Various projects have been carried out and have ensured that the EUR as a whole is improving, but not yet sufficiently.
- >>> **Research policy:** increasing the social and scientific impact of the research by selectively strengthening the best research programmes. To accomplish this, selected research groups have received additional financing of around € 9 million from the funds provided by the Ministry of Education for Social Sciences and Humanities
- >>> **The EUR and the community:** strengthening the university's regional roots by providing community services, through cooperation with the municipality and other educational institutions in the region and by pursuing a professional alumni policy. Examples of initiatives in this context include the creation of centres of excellence with the city of Rotterdam and other social partners (*Gezond Rotterdam, Rotterdams Talent* and *Smart Port Rotterdam*). When University College opens in 2013, the university will also have an important campus in the city centre.

⁴ From the mid-term review in 2011, which can be found at www.eur.nl/eur/missie_strategie/

Current situation



The strengths of the EUR:

- >>> Profile: the EUR has a distinct and focused range of programmes in specific disciplines.
- >>> The quality of the education is good, as attested to by accreditations, student assessments and rankings. The same applies to research: in academic terms (such as output, citations, impact), the EUR is one of the leading universities in the Netherlands, ranks just behind the best in Europe and is among the top 100 in the world.
- >>> The EUR has a very diverse student population, with the largest group of non-Western immigrants of any Dutch university and a growing number of international students. It has accumulated a lot of knowledge about these groups.
- >>> Graduates have a strong position in the labour market.
- >>> The EUR generates a lot of income from contract research and from public-private partnerships, as is apparent from the subsidies it receives for cooperation in R&D. The EUR also has a strong range of non-degree programmes.
- >>> The EUR's strategic location close to a major world port and the political centre of the Netherlands.
- >>> In time, the strategic alliance with Leiden and Delft could strengthen the EUR's position.

The EUR's weaknesses are:

- >>> The EUR's study completion rates have improved but still cannot be described as good.
- >>> The EUR still does not offer enough courses for excellent students.

- >>> The scientific impact of the research at the EUR is high, but the university scores less well on indicators of its reputation among "peers". This means that the scientific quality of the EUR is not sufficiently recognised or acknowledged outside the institution.
- >>> The EUR is not fully capable of translating the quality of research into personal grants for its scientists.
- >>> Although a lot of valorisation is carried out in the EUR, it could be integrated more effectively in the institution.

The most important threats:

- >>> The effect of the global competition for students, researchers and funds could be that the "winner takes it all", creating a gap between the world's leading universities and the rest.
- >>> Public funding is under pressure: government policy is weighted very heavily in favour of research in the natural sciences, which threatens funding for the social sciences and humanities, as well as life sciences and health. The system of funding also contains perverse incentives, while further cutbacks are also pending.
- >>> Demographic trends (ageing of the population) will in time cause a decline in the number of Dutch students.
- >>> The EUR attracts a relatively large proportion of its students (roughly 70%) from the region. Given the composition of the regional population, with many unskilled persons and non-Western immigrants, there is a high risk that students enrolling at the university will drop out.

The most important opportunities:

- >>> Whereas public funding in the Netherlands is declining, the sources of international funding are expanding. Particularly promising are the funds from Brussels for the EU's Grand Challenges. There are also still plenty of missed opportunities in the private market.
- >>> Students are increasingly mobile and a growing number choose to study outside their own region. This creates opportunities to attract talented students from other countries, as well as other regions of the Netherlands.
- >>> Public attention for education and the development of talent (both national and regional) will create further positive incentives and additional opportunities.

Priorities in the coming years

The above SWOT analysis encapsulates the challenges facing the EUR:

- >>> We need to further increase the study success of our students by exploiting the sense of urgency among politicians and the public and the accumulated expertise in this area in practice. The next chapter, *Quality and study success: smart studying*, explains how we intend to accomplish that.
- >>> Attracting (international) talent by exploiting the quality of education and research, the profile of the EUR, the prospects on the labour market for alumni and our diversity. This calls for expansion and strengthening of the range of programmes for excellent students. That will prevent a decline in the number of students and avoid the student population becoming too dominated by students from the region. This aspect is explored in detail the chapter *Profiling of Education*.
- >>> Strengthening our position in international rankings and improving our reputation by increasing the impact of our research and raising our profile, within the EUR and in association with Leiden and Delft. This aspect is discussed in more detail in the chapter *Profiling Research*.

- >>> Attracting additional external funds (private and international) by doing more to exploit our profile, the EUR's strategic location, the quality of the education and research, the experience in generating income from contract research and the alliance with Leiden and Delft. Valorisation needs to be more deeply embedded in the organisation. Together, these factors will reduce our dependency on shrinking public funds. This aspect is discussed in more depth in the chapter *Valorisation*.

Strategic alliance with Leiden and Delft

The unique strategic alliance that has been formed between Erasmus and the universities of Leiden and Delft will be intensified and formalised in the coming period. The alliance is prompted by the positive experiences gained with collaborative projects that the universities have carried out for more than ten years now and by the enormous potential benefits of cooperation between the institutions arising from their geographic proximity and their complementary range of programmes and facilities. The alliance encompasses a unique combination of disciplines. The collaboration will be along substantive lines.

The alliance is intended to further improve the quality of education and research, to help establish a clearer profile for the programmes that are offered and to enhance the international positioning of the research carried on at the three institutions. For example, there will be better alignment of the complementary range of programmes offered by the three institutions and the programmes offered will be made more accessible for students from each of the universities. The alliance will also lead to new, multidisciplinary combinations in the range of programmes offered, which will be better placed to compete internationally. The current experiences with joint programmes or joint tracks will be expanded. By working together, relatively small but significant programmes will be able to survive, thus allowing a wide range of programmes for students to be preserved. If the alliance is to achieve these educational objectives, it is important for the three institutions to abandon the 'principle of established location', so that the programme can be taught at each of the three universities. The collaboration also increases the possibilities for further developing support for teaching and the teaching staff. Expertise in that area will be gathered.

Together, the institutions will not only improve their teaching and make it more appealing (added value for education), but also expand their distinctive research profiles. Cooperation between disciplines offers better possibilities to contribute to the Grand Challenges formulated by the EU and to the Top Sectors designated by the Dutch government, and will also enhance their ability to remain among the world's leading academic institutions with their research. This will create added value for the Netherlands' research position. By joining forces, the institutions hope to make themselves more attractive for talented students and increase their chances of securing external funding for excellent research.

The combination of a broad general university (Leiden), a broad university of technology (TU Delft) and a more specialised university (EUR) that are situated close together in a densely populated and economically important region, which includes Rotterdam port and The Hague, with its status as the third city of the UN, offers considerable opportunities for generating added value for teaching, research and valorisation. The aim of the strategic alliance between the institutions is to grasp those opportunities: the whole is more than the sum of its parts.

The collaboration between the three institutions is described in more detail in the memorandum '*Added Value*'.

Quality and study success: smart studying

Introduction

The EUR has traditionally promoted emancipation. Just as the city and the region have evolved into a melting pot of cultures, so also the student population of our university has become increasingly diverse. The number of students and their diversity have both increased significantly in recent years. The EUR has the highest percentage of students from non-Western ethnic groups of any university in the Netherlands (25% in 2011)⁵. The university also attracts a lot of students from higher professional education (HBO) (16.7% in 2011)⁶ and the proportion of international students has risen sharply in recent years (from 2.3% in 2002 to 11.8% in 2011)⁷.

The EUR is proud to make such an important contribution to their emancipation by educating these students. But the growing diversity also increasingly represents a serious challenge for the EUR, since students from non-Western ethnic groups generally perform less well than Dutch students and also drop out or switch courses more often⁸. In response to the growing diversity of the student population and the observed differences in their performance, a lot of research has been conducted in recent years in an effort to discover the factors that explain these discrepancies. Researchers at the EUR have also studied this subject. The findings from this research have enabled the EUR to refine its vision of education more specifically than before, in the process placing the emphasis on the development of the talent of its students.

In this chapter we present our vision of the education we will provide in the future. But first we will review the most important developments in our education policy in recent years, including an outline of the current situation.

Review

From 2000: Discipline-based approach

In the early years of the 21st century a lot of attention was devoted to the quality and the feasibility of the courses. In that context, innovations usually occurred within a particular discipline. At the same time, the teachers acquired professional didactic skills and the match between the curriculum, teaching methods and assessment was improved. The online learning environment also emerged during his period. In the interests of the feasibility of a study programme from the student's perspective, the interrelationship between subjects was streamlined. These measures improved the quality of the education, but did not produce a significant improvement in the student completion rates or reduce the drop-out rate.

From 2005: Growing attention to drop-out rate and study succes

During the first decade of the 21st century the EUR devoted more attention to reducing the drop-out rate and improving the study succes. In 2005 the Binding Study Advice (BSA) was introduced throughout the EUR as an incentive for students to complete their first year quickly and so reduce the drop-out rate in later years.

⁵ Percentage of non-Western ethnic students among new entrants in 2011, 1 CijferHO 2011

⁶ Percentage of students with a HBO-p, HBO-ba or HBO-ma qualification among new entrants in 2011, 1 Cijfer HO 2011

⁷ Percentage of students with a non-Dutch passport among new entrants, 1 CijferHO 2011

⁸ Example: Van de Berg, M.N. & Hofman, W.H.A. (2005). Student success in university education: a multi measurement study of the impact of student and faculty factors on study progress. Higher Education, 50, 413-446 and Dutch Education Inspectorate (2009) *Aandacht voor diversiteit in het hoger onderwijs*.


 **The Binding Study Advice (BSA)**

Following an experiment at the Rotterdam School of Management, in 2005 the Binding Study Advice was introduced in the EUR. Under this system, students who secured at least 40 of the requisite 60 EC in the first year could advance to the second year. This meant that students had to have completed a significant part of year 1 before they could continue their studies. This avoided the situation where students dropped out in years 2 and 3 because it was only then that they realised they did not have sufficient interest in the course or could not cope with it. A study of the effects of the measure showed that the completion rate for the propedeuse after 1, 2 and 3 years rose by 16%, 48% and 60% to 37%, 60% and 60%, respectively⁹. In other words, the overall drop-out rate throughout the course had neither risen nor fallen, but students who did leave dropped out earlier.

However, the BSA has had no effect on the pace at which students progressed and graduated after the propedeuse. On average, continuing students took the same length of time to complete their studies. A possible explanation for this is that the subjects that were not completed in year 1 still had to be passed in year 2, so that students generally did not pass all of the subjects in the second year.

Research¹⁰ shows that study successes are the result of an interaction between the learning environment, the education, the organisation, the exam system, teachers and students. Stimulated by the targets that have been agreed with the faculties in response to the strategic plan¹¹, in the last few years the programmes have made the transition from discipline-based innovations to a more integrated approach to educational reforms.

Increasingly, scientifically-proven approaches have been adopted and shared. At the same time, greater attention has been devoted to the diversity of our students. For example, research revealed that some groups of students perform better and are less inclined to drop out in a small-scale and structured environment with intensive contact with teachers. It was also found that Dutch students perform better in a setting with international students.

 **Integrated educational reform:
Problem-driven learning and
small-scale education**


The Psychology programme at the EUR is taught according to the principles of “problem-driven learning” (PDL), in combination with training in professional and academics skills. Insights gained from educational psychology are also used to prevent students from dropping out: avoiding competition between subjects by teaching a cohesive theme or subject in a block and maintaining the students’ focus through regular and compensatory tests and reducing the number of resits. Together with intensive instruction in small groups of 10-12 students in classes supervised by tutors, this creates a tight bond between the students themselves and between students and the faculty. The effect has been that Psychology has had the highest percentage of continuing students (apart from the courses that select the students that will be admitted) and the best 4-year study completion rates (apart from some small courses) in the EUR. Accordingly, small classes and problem-driven learning seem to help in the preventing students from dropping out and accelerating the pace at which they study.

Sociology and the new Bachelor in Pedagogical Sciences have both now also adopted this approach, and the courses in Law, Fiscal Law and Criminology will also introduce the practice of problem-driven learning and small classes in 2012. Practically every programme in the EUR has now adopted at least some elements of this approach.

⁹ Fleur Duijndam and Ad Scheepers in HO Management (volume 1, no 5, September 2009)

¹⁰ For a review of the literature, see Henk Schmidt, in “Nominaal is normaal”, 2011

¹¹ See www.eur.nl/eur/missie_strategie/erasmus2013/convenanten/

 **Integrated educational reform:
The annual plan system**

In the 2007-2008 academic year the Erasmus School of Economics (ESE) introduced the annual plan system for all of its degree courses. The system involved a change in the structure of the academic year (from three trimesters to five teaching modules / blocks), intensification of the teaching in the Bachelor programme, smaller groups and changes in the policy of assessment: introducing compensatory tests and reducing the number of re-sits (for up to three of the ten subjects).

The effect: the number of students that could proceed to the second year was the same, but they had earned more credits. The majority of the compensatory credits were earned by students who would have been received a (provisional) positive BSA in any case. It also emerged that students who compensated for a basic subject did not suffer from it in their studies in the same subject later in the course¹². Changing the policy of assessment therefore seems to be an effective instrument for mitigating the degree to which the pace of study of the students slows in later years without lowering standards, but not for addressing the issue of students dropping out in the first year of the Bachelor programme.

Similar results have been seen in the Law faculty, which introduced similar changes in 2010.

Besides the change in the curriculum, efforts have also been made to increase the professionalism of teachers and other key members of the staff. Since fundamental changes in the curriculum call above all for teamwork among teachers, considerable value is attached to educational leadership. Sixteen educational leaders have now followed the Educational Leadership course organised by the Utrecht Center of Excellence in University Teaching. They have formed the Erasmus Network for Education, a community dedicated to sharing knowledge about education and publishing research into innovations in education.

Apart from the curriculum and the teaching staff, the make-up of the student population is also a factor in the drop-out rate and the performances of students. That can be clearly seen by comparing the study completion rates of courses that select students before enrolment and those that do not. Prior knowledge, intelligence, socioeconomic background and personality traits such as perseverance are correlated to the risk that a student will drop out and his or her performance. Differences have been found between specific groups, for example between girls and boys and between Dutch and foreign students. However, the decision to study at university and the choice of course to follow are already made before they enter the EUR and are often difficult to influence once the student has enrolled. In recent years, therefore, some programmes at the EUR have experimented with two forms of interview designed to help prospective students to prepare properly for their studies before they enter the university. An evaluation has shown that students who have attended an interview perform better during their studies.

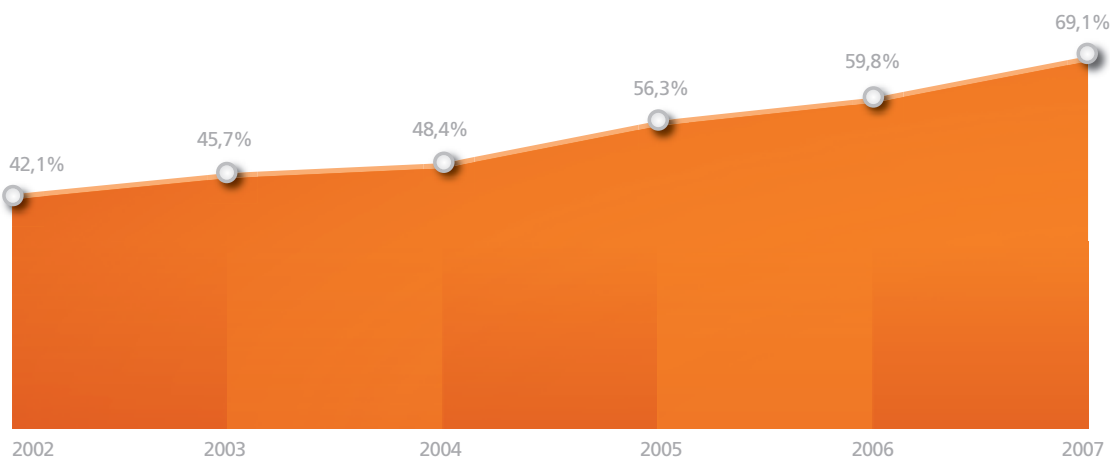
 **Projects with secondary students at the Erasmus Medical Centre (EMC)**

In addition to the pilot projects with study choice interviews, for several years now the EMC has been running the Junior Science Program and the Junior Med School. The Junior Science Program is intended for pupils in groups 4, 5 and 6 of secondary school who are following Nature and Health or Nature and Technology streams in pre-university education (VWO). The purpose of the programme is to give the students an introduction to the practice of scientific research in the hope of inspiring them to study biology, biomedical sciences or medicine. The students can choose to follow an internship in a lab or to attend seminars.

Very good students can be selected for the Junior Med School in group 4 of secondary school. The student then follows a very intensive two-year programme, which also includes lessons during school holidays. Participants at the Junior Med School are admitted directly to the Medicine programme and these students have proved successful in the course.

Current situation

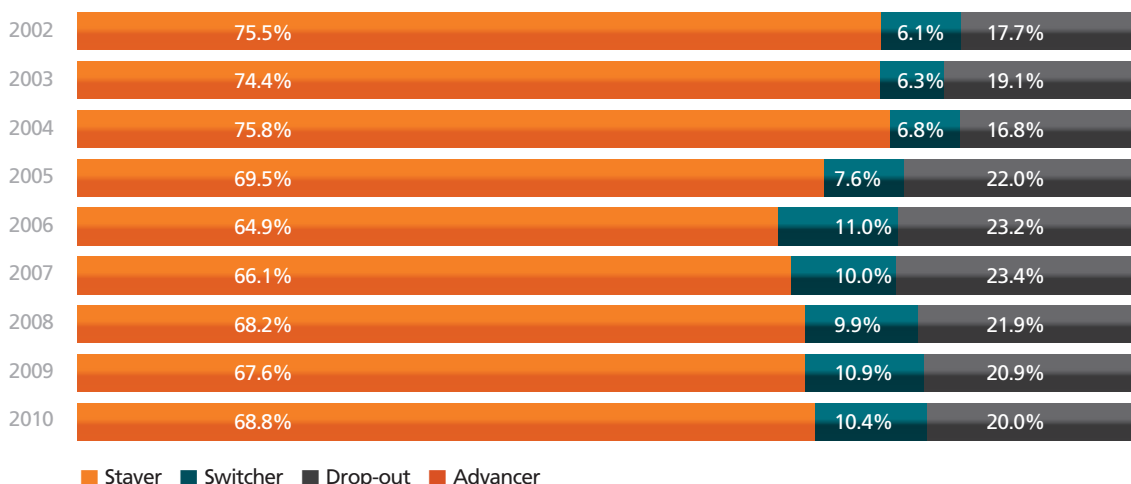
Study completion rate at EUR (continuing students after 4 years, per cohort)



Source: VSNU cohort database VSNU 1Cijfer HO 2011 13

The growing focus on the drop-out rate and study completion rate is bearing fruit. The percentage of *re-enrollers* who have earned a degree has risen sharply in recent years. Whereas it lagged well behind in 2002, the study success at the EUR has risen to the university average, despite the high percentage of first-generation higher education students and non-Western immigrants.

First-year study completion rate at EUR (% dropping out and switching per cohort)



Source: VSNU cohort database 1Cijfer HO 2011 14

Since the introduction of the BSA in 2005 the number of drop-outs and switchers in the first year has increased, but it has declined in later years. The university's own figures further show that continuing students earn a higher number of credits in the first year.

13 1st year Higher Education, main & subsidiary enrolment, full time students, re-enrolment, diploma = BA or MA at EUR

14 1st year Higher Education, main & subsidiary enrolment, full time students

The next step: smart studying

In 2011, it was decided in consultation with the deans and programme directors that, despite the efforts and the progress made in recent years, we want to further increase the success rate in degree programmes. In conjunction with the incentive the Ministry of Education, Culture and Science has created for students¹⁵ to complete their studies within the prescribed period, we have combined the experience gained in recent years and academic research to formulate a uniform teaching concept tailored specifically for the EUR's student population. Our hope is that this concept will motivate ambitious students to get the best out of themselves and to study efficiently and complete their studies on time, while leaving sufficient time to deepen and broaden their experience. This system makes demands on students, teachers and those responsible for programmes.

Basic principles

This approach to education is characterised by:

- >>> **Intensive, activity-based teaching**, with regular tests and assignments to keep the students alert.
- >>> **Small groups**, which improves knowledge transfer and creates a culture in which teachers and students feel a commitment to the students' performance and get to know each other better. A normal standard for a small group is 25. A number of courses at the EUR already employ this standard, but a growing number of courses at the EUR already have or will have significantly smaller groups of roughly 10-12 students.
- >>> **Serial programming** (in blocks), so that the students can concentrate properly on a subject.
- >>> **Reducing the number of re-sits in combination with compensatory tests.** The practice in the economics faculty shows that this increases the pass rate: accordingly, more students complete their first year in the prescribed time.
- >>> **Increasing the criterion for the BSA to 60 credits.** Experience since its introduction has shown that the Binding Study Advice causes students to drop out earlier but does not lead to more students dropping out. By fixing the standard at 60 credits, students start their second year with a clean slate.

With this system, students adjust to university more quickly, have greater motivation to study and are able to keep up.

Good motivation, a commitment to the course and good performance prevent students from dropping out and logically lead to a higher number of students completing the year. Together, these factors create a culture in which ambitious students are eager to perform well.

Phased implementation

In practice, every programme is already implementing at least some of these elements at their own pace. Many more innovations are planned for the coming years. In 2011, we started a pilot project with the innovations relating to the examination system (BSA, re-sits, compensation), which quickly became informally known as "Nominal is Normal", in the Social Sciences faculty.

Since then research¹⁶ has shown that the results have been positive: more students than previously are expected to receive a positive advice after the first year (will have earned 60 credits), while the drop-out rate will not be greater than it used to be after two years. On the other hand, the number of new entrants has declined, which is a cause for concern. In the light of these findings, the Executive Board decided not to roll out Nominal is Normal university-wide in the 2012-2013 academic year. However, further pilot projects will be carried out in those faculties with the organisational and educational facilities to conduct them.

Accordingly, not only will the pilot project in the Social Sciences faculty have been running for a full year (2011-2012) but more data will also be available about the effects of Nominal is Normal on the choice of study programme by prospective students, on the performances and success rates of students and on the figures for new entrants. Those data can then be used to make a decision on the policy towards Nominal is Normal for the entire university at the beginning of 2013. During the preparations for the expansion of the pilot project the University Council made a number of recommendations to the Executive Board for monitoring the effects and those recommendations will be taken into account in fleshing out the details of the expanded pilot project.

Increasing the intensity of teaching and introducing smaller classes will both depend to a great extent on the financial and organisational scope. The Erasmus School of Law will be investing in small-scale and intensive education, in any case. That represents a major reform in both organisational

¹⁵ The financial incentive for institutions is the opposite, see section in costs and financial risks

¹⁶ www.risbo.nl/r_nieuws.php?n=67

and financial terms which will require an investment of around €8 million. The new Erasmus University College will also be based on small-scale and intensive education. Internal subsidy schemes will be used to promote other reforms designed to increase the intensity of teaching and/or reduce the size of groups.

Measures to attract new entrants

Apart from the educational reforms, attention is also being devoted to attracting new students. The study choice interviews will be expanded. The announcement that these interviews will become mandatory by law from 2013, and will therefore extend to every student, will greatly increase their impact.

We will also be intensifying the collaboration with secondary schools by launching a pre academic development programme along the lines of the Junior Med School, In this programme the university will try to prepare school students better for studying at university. We have chosen to specifically target "first-generation higher education students". In view of their extensive experience and plans in relation to study choice interviews, we will explore the possibilities for collaboration with Rotterdam University (*Hogeschool Rotterdam*) and Inholland University of Applied Sciences. A working group has been formed with the municipality of Rotterdam and the boards of secondary schools to design a collaborative programme ("Better Performance").

Erasmus School of Law

Erasmus School of Law will organise a pilot project called the Erasmus Law Experience in 2011 / 2012. In this programme students in the last two years at secondary school will learn about the subject of law and the new teaching methods. During the lessons the students will discuss a legal case. This experience with active academic learning could help the students in choosing a course.

Quality of teaching

More will be demanded of the students, but also of our teachers. Education leaders in the EUR will be encouraged to conduct research and so make a direct contribution to the evidence-based educational innovations that have now become commonplace within the EUR. The aim is to establish a joint LDE Centre for Education & Learning with the universities of Leiden and Delft, where the expertise in the field of education of the individual institutions will be consolidated and the distinction between different sectors of education and between experts in general didactics and in specific disciplines will dissolve. The research, training and curriculum development undertaken by the centre will boost the quality of education.

For the regular teachers, there is the Basic Qualification in Education (BKO). Every new teacher must possess this certificate. In our view, it is inappropriate to require academics who have more than earned a good reputation as teachers to secure a university teaching qualification. The deans will decide whether these teachers meet the standards for the BKO certificate on the basis of an agreed set of criteria. If so, they can be granted an exemption from securing the qualification. The most important criterion will be the outcome of student evaluations¹⁷: teachers will have to receive a grade of at least 3.5 out of 5 or of 7 out of 10 (provided the survey is sufficiently representative). Some faculties will set the bar even higher.

¹⁷ Marsh, H. W. (2007b). Students' evaluations of university teaching: Dimensionality, reliability, validity, potential biases and usefulness. In R. P. Perry & J. C. Smart (Eds.), *The scholarship of teaching and learning in higher education: An evidence-based perspective* (pp. 319–384). New York, NY: Springer.

BKO certificate attained by academic staff	Absolute ¹⁸	Percentage
BKO	99	5%
BKO-level	194	10%
BKO not yet completed	115	6%
Unknown/not introduced	1626	79%
Total	2034	100%

In the last few years a lot of emphasis has been placed on educational leadership and training programmes geared to our educational strategy rather than on simply securing the BKO certificate. That explains the low percentages in the table above. For example, the Social Science faculty offers its own BKO programme, with a specialisation in problem-driven learning. The programme devotes special attention to the role of the tutor. A training programme specifically designed for teachers who supervise small groups has also been launched for some Bachelor courses that also work with small tutorial groups but do not follow the problem-driven learning approach. A basic course in didactics will be organised for teachers who do not qualify for the BKO, PhD students, teachers with a temporary appointment and teachers who require additional training.

Training courses offered by Erasmus Medical Centre

In addition to the BKO, the Erasmus Medical Centre offers its teachers a wide range of courses and workshops.

- 1. Four types of Teach the Teacher courses (a two-day course in Basic Didactics) for different target groups: teachers, supervisors of EMC interns, supervisors of PhD students, (principal) teachers, deputy teachers and acting teachers**
- 2. Half-day workshops:**
 - Giving a lecture
 - Dealing with groups
 - Preparing exam questions
 - Getting started with E-learning!
 - Clinical reasoning
 - Feedback notebooks
 - Assessment of interns
 - Supervising a thesis and research
- 3. Individual support and on-the-job coaching for teachers studying for the BKO. This coaching consists of observation of the teaching, feedback, advice on the preparation of a curriculum and exam questions, supervision in compiling a teaching portfolio**

Performance-related agreements

Drop-out and switch rates in the first year

	Baseline measurement: Cohort 2009 ¹⁹	Performance-related agreement:
Drop-out	20%	19%
Switch	10%	9%
Continuing students	69%	72%

We anticipate that with our policy the percentage of continuing students will remain stable in most courses. Because of the smaller groups and intensification of teaching in the Erasmus School of Law, the more intensive teaching in other programmes and the expansion of the study choice interviews, we expect a small increase in the percentage of continuing students in the coming years.

We also expect the ratio between students who drop out and switch to remain more or less the same as it is now. It is actually difficult to make a distinction between students who drop out of the institution and those who switch courses within the institution, partly because we encourage students who have received a negative BSA to carefully consider their decision and in doing so they can choose from courses offered at the EUR or elsewhere. In other words, our objective is to encourage students to choose a study programme that suits them rather than aiming to meet a specific target for the percentage of drop-outs or switchers.

Bachelor study completion rate

	Baseline measurement: Cohort 2007 ²⁰	Performance- related agreement: Cohort 2011
Continuing students with a diploma after 4 years	69%	75%

The standard we use for performance-related agreements on the study completion rate is students who have enrolled for the same course at the EUR in the second year. Despite the sharp increase in recent years, we expect the number of students securing a degree in four years to continue rising substantially in the coming years as a result of the recent educational reforms.

The Executive Board believes that with the introduction of the Nominal is Normal policy, on which a decision will be made in 2013, the success rate after four years could rise further to roughly 80%.

Teaching intensity

Academic year 2015-2016	
Number of contact hours per week in the first year of the Bachelor	Minimum of 12

The programmes at the EUR do not yet all offer at least 12 contact hours per week in the first year of the Bachelor course. As mentioned above, the EUR is endeavouring to introduce smaller-scale and/or more intensive teaching within the budgetary and organisational constraints that we face and the conditions we regard as desirable. The lower limit in this context will be 12 contact hours per week in the first year.

The EUR will also monitor the number of hours students devote to their studies in the coming years.

Quality of teachers

	1 April 2012	31 Dec. 2015
Teachers (academic staff) at BKO level	15%	70%

The EUR's target is that 70% of its teachers should be qualified at BKO level by 2015. These are teachers who have either obtained their BKO certificate or have been shown to function at BKO level after an assessment. The remaining 30% will be academic personnel with marginal teaching duties, particularly at the Erasmus Medical Centre.

¹⁹ Source: cohortbestand VSNU 1 cijfer HO, 1st year Higher Education, main & subsidiary enrolment, full time

²⁰ 1st year Higher Education, main & subsidiary enrolment, full time students, re-enroller, diploma = BA or MA at EUR, cohortbestand VSNU 1 cijfer HO

Selective budget

The EUR is sticking its neck out and formulating a strong and daring education profile. However, the pace at which its ambitions can be realised depends on the organisational and financial possibilities, because the associated costs are substantial. At the same time, the evaluation of the pilot project with Nominal is Normal has identified a financial risk connected with a possible decline in the number of students enrolled.

Costs

The EUR will invest heavily in its education in the coming years: € 8 million for the introduction of smaller groups and more intensive instruction in Law, Fiscal Law and Criminology, € 6 million in the establishment of the small-scale University College and € 2.4 million in the Study Choice Centre.

An estimate of the remaining costs of introducing small-scale, activity-based and intensive education comes to around € 60-65 million (this would cover matters such as reform of curricula, additional deployment and professional training for staff members, modification and increased use of rooms, audio-visual support, the library). Small-scale teaching could be introduced sooner throughout the EUR if additional funds are available.

Financial risks

At the same time, the EUR's approach brings with it financial risks: 1) if students complete their studies sooner they will pay less in tuition fees, while the institution's costs will remain the same²¹; 2) earlier graduation means fewer students and hence a contraction of the macro-financing²²; 3) students who are fined for taking too long to complete their studies and who complete their studies in the course of a year will have the fine refunded for the remaining months of that year, but the EU will have to pay the fine for the full year; 4) the institutions will be penalised for efficiency if fewer students fail to complete their studies on time, since the total amount of the cutbacks (the fine for the students + reduction of the grant to the institutions) is fixed; and 5) the possible deterrent effect of Nominal is Normal²³ will produce a loss of financing, both absolute and in terms of market share.

Conclusion

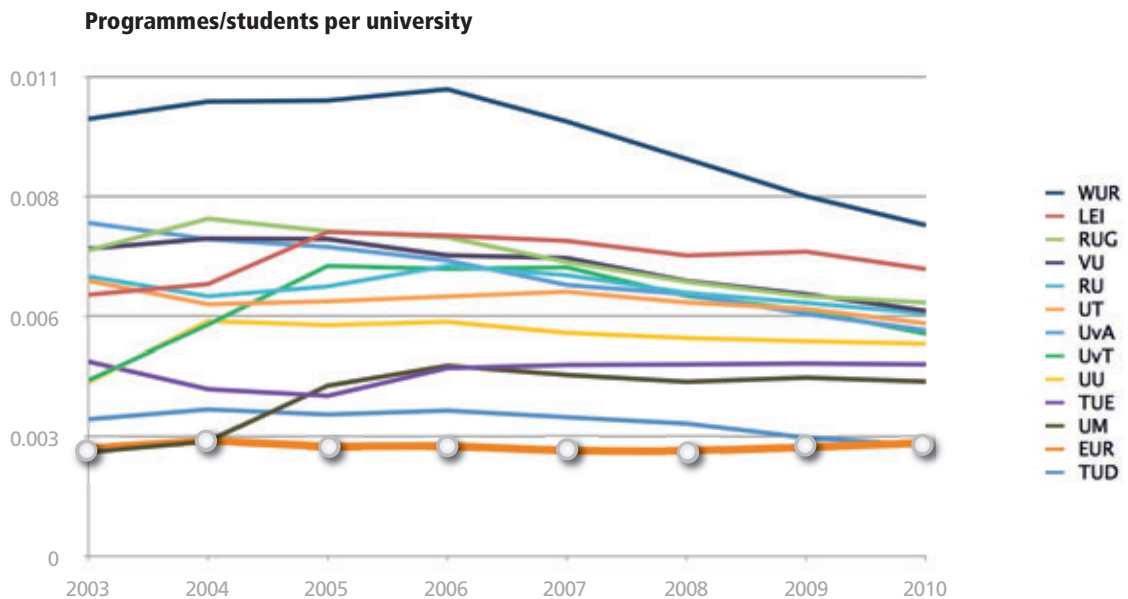
The approach we have adopted calls for major investments that can only be made in instalments over a longer period of time. With a substantial contribution from the selective budget we will be able to carry out our plans more quickly. With our evidence-based approach, careful monitoring and by conducting research into the effects of our measures, that contribution will also increase our knowledge of measures that can reduce the number of students who take too long to complete their studies in general.

²¹ This is apparent from no show at lectures and (1st) exams, for example.

²² The Ministry of Education, Culture and Science does compensate for students who do not complete their studies on time, but not for students who are not more than a year late in completing them.

²³ The pilot project in the faculty of Social Sciences seems to indicate that.

Education profile



Source: 1 cijfer HO VSNU

The EUR offers a robust range of programmes of a high standard in the domains of health, wealth, governance and culture. The range of courses has been expanded in recent years to absorb the growth in the number of students without increasing the strain on existing programmes. Nevertheless, as the above figure shows the EUR still has the fewest courses in relation to the number of students in relative terms.

The expansion phase has almost come to an end. In the coming years, the EUR will concentrate mainly on developing and attracting talent by increasing study success and diversifying the range of courses in the existing programmes. The profile will also be further sharpened in the alliance with Leiden and Delft.

Review

Three factors played a role in the expansion of the range of courses in recent years: the needs of society, internationalisation and research.

The needs of society

The needs of society in general, and more specifically of Rotterdam, dictated the launch of new programmes in Psychology, Criminology and Pedagogical Sciences. For example, the latter course meets a huge demand in the pedagogical sector in Rotterdam by focusing on the complex socio-economic, ethnic and cultural setting of a metropolis and the problems associated with it. An academic teacher-training course is now also offered in association with the University of Rotterdam to provide teachers in Rotterdam with a better preparation for dealing with that complexity.

Internationalisation

Attracting students from abroad allows us to create international classrooms (with a mix of Dutch and international students) and enhances the quality of the education. The EUR has responded to the possibilities of the international market in a number of ways:

- >>> New courses: two new English-language Bachelor courses have been started: International Business Administration (IBA) and the International Bachelor's Programme in Communication and Media. To raise the university's visibility and increase its appeal in the international market, the majority of the graduation profiles in the Master of Business Administration will be converted into independent Master courses in 2011.
- >>> Almost all Master programmes and several existing Bachelor programmes are taught in English.
- >>> English-language streams are offered in some courses that are taught in Dutch.
- >>> Since July 2009 the International Institute of Social Studies (ISS) in The Hague has been attached to the EUR. The ISS is devoted to studying global issues relating to development and social equality. The student population consists almost entirely of international students. The curriculum takes the cultural and professional diversity of the students and their experience as a platform to build a critical academic engagement with problems connected with development. The curriculum is not only accredited by the Accreditation Organisation of the Netherlands and Flanders (NVAO), but also by the European Association of Development Institutes.

For the distinctive quality feature "Internationalisation", the NVAO has awarded the rating of Good to the Bachelor in International Business Administration and the Master in Development Studies.

The EUR launched the International Bachelor of Business Administration in 2000

Half of the students for this course, which is taught entirely in English, are Dutch and half are from other countries, mainly in the EU. Students are selected using the experimental regime in the "Ruim baan for talent" programme, in which it is regarded as a good practice. The philosophy of the IBA is that students learn to appreciate different perspectives in an international course and that the diversity raises the standard of the course as a whole. Careful consideration is therefore given to the international composition of the group to promote cooperation between different cultures. In 2011 the number of first-year students admitted to the course was increased to 400. The NVAO also recognised our distinctive quality in the area of internationalisation in 2010. The study completion rate in the IBA is 76%, which is significantly higher than the Dutch-language course in Business Administration.

Research

The EUR has established one or more research Master programmes in all of the domains it covers. It has also formed institutes in partnership with other universities, such as the Tinbergen Institute with the Vrije Universiteit and the University of Amsterdam and an institute of public administration with the University of Utrecht and University of Tilburg. In the absence of preliminary courses other than medicine, the Erasmus Medical Centre has started five research Master programmes.

Phasing out of courses

The EUR has scrapped some courses in recent years, including the Bachelor in Economics & Information Science, which generated an inadequate study success and attracted too few students. The part-time options for some courses (the Bachelor in Economics & Business Economics, the Bachelor and Master in Criminology) were also abandoned because there were too few students and the success rate was not high enough.

Current situation

It was mentioned earlier in this document that the EUR concentrates on global social challenges in the fields of health, wealth, governance and culture. The courses offered by the EUR therefore also fall within these domains or domains that intersect with them, as is shown in the figure below for the Bachelor courses. Provided accreditation is secured, the programmes in Nanobiology and Erasmus University College will start in 2012 and 2013. Our Masters programmes are closely connected with the top research groups described in the next chapter.

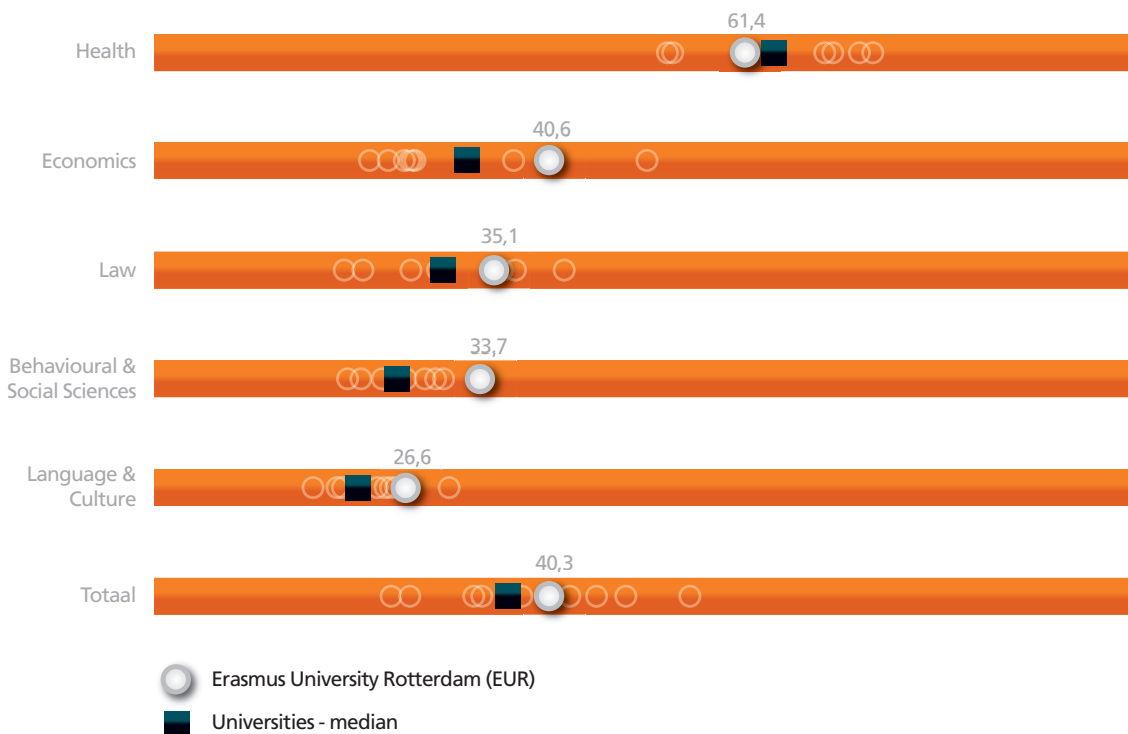


Quality

The basic quality of our programmes is sound as attested to by the evaluations by the NVAO. The exit qualifications, the learning environment (in particular the curriculum, the staff and measures to effect improvements), the quality of assessment and the final attainment level are adequate, and in some respects good. The weakness lies in the study succes of some courses. In the Master in Health Care Management (evaluation in 2010), the process for the graduation theses needs to be improved to guarantee the final attainment level.

According to the National Student Survey, students at the EUR are satisfied with the content of the programmes, the general skills and the academic skills. The students at the EUR are also generally also more satisfied with the preparation for a future profession than students at other universities. In that respect, the EUR lives up to it motto: a university of academics and practitioners.

NSE: Assessment of preparation for profession (% satisfied, 2011)



The following table shows the position of the courses at the EUR in relation to the other twelve universities in the Netherlands in 2011, broken down according to the EUR's three areas of expertise²⁴. In the Elsevier survey, both students and professors / principal lecturers expressed their views; the *Keuzegids* (a guide to help students choose a course) bases its rankings on student surveys and reports by experts.

	Elsevier (students)	Elsevier (professors)	Keuzegids
University	*	2	4
Economics and Management			
Business Administration	1	1	3
International Business Administration	2	1	2
Econometrics	1	1	2
Economics	5	2	4
Fiscal economics	1	*	1
Medicine and Health			
Medicine	2	1	1
Health Sciences	2	2	2
Law, Culture and Society			
Public Administration	2	2	2
Communication Science	4	*	6
Criminology	2	1	3
Fiscal Law	5	3	5
History	1	5	3
Art and Culture Studies	6	*	5
Law	6	7	6
Psychology	1	7	1
Sociology	6	4	5
Philosophy	3	6	4

* no data

²⁴ The drawback of these rankings is that small, specific courses in a niche market may be included in one ranking, for example with the broad Bachelor in Economics.

Competitiveness

Apart from the quality of the courses, another important requirement is that they are also sufficiently appealing to students. Research has shown that the courses at the EUR are not only of a high standard, but are also appealing²⁵. This aspect represents a particular challenge for the EUR because Rotterdam's image as a city does not enhance the EUR's appeal for students. Eight Bachelor courses at the EUR have traditionally had great appeal²⁶. These are Econometrics and Operational Research, Economics and Business Economics, Fiscal Economics, Business Administration, International Business Administration, Public Administration, Sociology and Cultural Studies. The numerus fixus that most other Bachelor courses adopt, means that their popularity is hard to measure. The competitive edge of the Master courses is a function of the competitive edge of the preceding Bachelor programmes.

Plans for education profile

In terms of its education profile, the EUR will concentrate heavily in the coming years on the progressive view of education set out in the previous chapter. To reinforce that approach, we have opted first and foremost for differentiation within the existing portfolio of programmes in order to increase the possibilities of attracting talent and allowing this to develop. To accomplish that, the range of courses for excellent students and of international tracks will have to be expanded and strengthened. It will also be important to continue attracting talented students from universities of applied science (HBO) to prevent a decline in student numbers and avoid relying too heavily on students from the region. The profile will be sharpened and reinforced in association with the universities of Leiden and Delft.

Excellence

The EUR wants to give able and willing students the scope to excel. Although the EUR does not receive a subsidy from the Sirius programme, it does have a wide variety of Honours programmes, both EUR-wide (Bachelor programmes with a Dutch-language and English-language streams) and at faculty level. The courses vary greatly in terms of form, study load, curriculum and the level of effort required. It is important to establish a better structure within which students can be challenged. In the context of its profile, the EUR's envisaged target group comprises excellent students, both academics and practitioners, who:

- >>> perform better than average;
- >>> are highly motivated;
- >>> possess academic talent;
- >>> have broad social interests;
- >>> adopt a critical attitude and are bold: are daring, academically or otherwise
- >>> are inventive and creative: entrepreneurial;
- >>> take responsibility for their own education and are able to shape it: possess leadership potential.

²⁵ Final report on the overall marketing plan for the EUR

²⁶ Competitiveness per programme per year = new entrants EUR/ (new entrants nationally /number of suppliers). If this is >1, this programme has more new entrants than expected, if it is <1 the programme has fewer new entrants than expected.

In the coming period the EUR intends to further expand and formalise the possibilities for excellent students by:

- >>> establishing Erasmus University College;
- >>> streamlining and expanding the Honours programmes;
- >>> creating a structure for coordination of activities and sharing of knowledge among the various Honours programmes.

Erasmus University College

In September 2013 the EUR will launch its broad liberal Arts and Sciences programme, Erasmus University College²⁷. The College, with a capacity of 240 students per year, will provide small-scale, intensive and problem-driven education. The focus of the curriculum will be on Urban Challenges, which corresponds with the fields in which the EUR is strong (life sciences, social sciences and humanities) and establishes a link with the EUR's setting and profile. Complex cities like Rotterdam in fact represent a microcosm of the Grand Challenges facing the world. Rotterdam therefore has a lot to offer and is a unique base for a University College, where the students can concentrate fully on their work but are never far removed from the noise of the street. We want our students to learn about the problems a multicultural city faces, but also to use their knowledge to help in finding solutions for them.

Streamlining and expanding Honours streams

The EUR wants to anchor Honours programmes more firmly in its education concept. To achieve this, in addition to the regular final attainment levels (which reflect the minimum final qualifications) the programmes will formulate "honours" or "plus" final attainment levels for Honours streams. Accordingly, the minimum criteria for an Honours programme will be:

- >>> A minimum study load equivalent to 15 EC;
- >>> Selection of students on the basis of the EUR profile;
- >>> Addresses current social issues and problems;
- >>> Fosters the students' entrepreneurship, creativity and leadership skills, for example by allowing the students to design their own curriculum or choose their own area of specialisation;
- >>> Assessment on the basis of the stipulated final attainment levels.

The existing excellence programmes will be designed along the same lines in the coming period. The intention is that every faculty will offer such programmes. There will also be an EUR-wide Honours programme devoted to the Grand Challenges at Master level. The programme will be designed in such a way as to require considerable personal input and entrepreneurial acumen on the part of the students.

Differentiation by target group

To attract new and different talent from the Netherlands and abroad, the strategy will be revised to focus it more tightly on specific target groups. For the international market, we can build on the model pioneered by the IBA by extending it to other Bachelor courses. In specific niches, the EUR could offer a joint degree with universities in other countries. That could be modelled on an initiative by the Institute of Health Policy and Management together with universities in Oslo, Innsbruck and Bologna.

We should also endeavour to sustain the large number of entrants to the EUR from universities of applied science (HBO), in part because changes in the system of financing will make it less appealing for HBO students to switch programmes. The EUR has chosen to focus mainly on entrants to the Master programmes from HBO. This will require thorough preparation.

Together with the universities of applied science, we will explore whether broad tracks can be established in higher professional education with the quality and quantity to allow a smooth transition to a Master programme at the EUR.

Erasmus School of Economics

The Erasmus School of Economics has contractual arrangements with five HBO courses (at three universities of applied science) on the curriculum and quality assurance for a minor for 30 credits, which provides direct entry to a Master in combination with the HBO degree. Since recently the Rotterdam School of Management has also had an agreement with the University of Rotterdam on a minor that allows direct admission to its Master programme.

²⁷ Subject to assessment of new programme

In the longer term the growing quality and reputation in research and education, the strong profile and the good fit with the labour market will be used to attract more international talent and to offer more education for people in every phase of life. In that context, it is important to explore the market potential of new business models, such as distance education and modular education, which could appeal to new target groups, particularly working people. This strategy will be fleshed out in the new strategic plan.

Sharpening the education portfolio with Leiden and Delft

The plans for the alliance are described in detail in the memorandum Added Value, which explains how the range of teaching programmes will be expanded by opening up courses to students from the other universities and how the institutions will join forces to develop new elements. It also states how the EUR's profile will be sharpened, particularly with respect to the small programmes (philosophy) and the research and other Master programmes.

Performance-related agreements

	Academic year 2011-2012	31 Dec. 2015
Number of students in Bachelor, excellence programmes per cohort	1%	8%

The EUR wants to make a performance-related agreement on the percentage of students per cohort that complete an excellence programme in the Bachelor stream. This will only cover the Honours programmes that have been assessed and meet the EUR criteria, plus the students of Erasmus University College. Because the EUR does not participate in the Sirius programme, these programmes will be submitted to the leading experts of the Sirius programme for evaluation.

Research profile

Positioning

The scientific research at the EUR has a strong social orientation, drawing inspiration from the issues facing the metropolis. It is deeply embedded in international research networks and one of the EUR's priorities is to recruit and train top academic talent.

Socially relevant research is increasingly carried out by multidisciplinary teams. That is the case, for example, on themes such as the Economics of Health, Social Innovation, Transport and Logistics, Cognitive Psychology, Corporate Engagement, Early Modern Studies, Sustainability and the demographic study, Generation R. The underlying areas of expertise can be grouped into four domains in which the leading research conducted by the EUR can be seen: Health, Culture, Wealth and Governance.

The research is conducted at nationally accredited research schools and research institutes or by faculty research groups. Almost every programme offers a research Master, thus creating the link between education and top-class research. As part of this trend, Graduate Schools have also recently been established with the objective of training promising young researchers. There are Graduate Schools in all of the EUR's areas of expertise, where the research Master is integrated with the PhD programme. Most researchers at the EUR work together with or have contacts in international research networks.

Quality: perception gap

The quality of the research output is very high. Judged by academic performance and research publications, the EUR is systematically ranked in the top 100 of the world's universities.

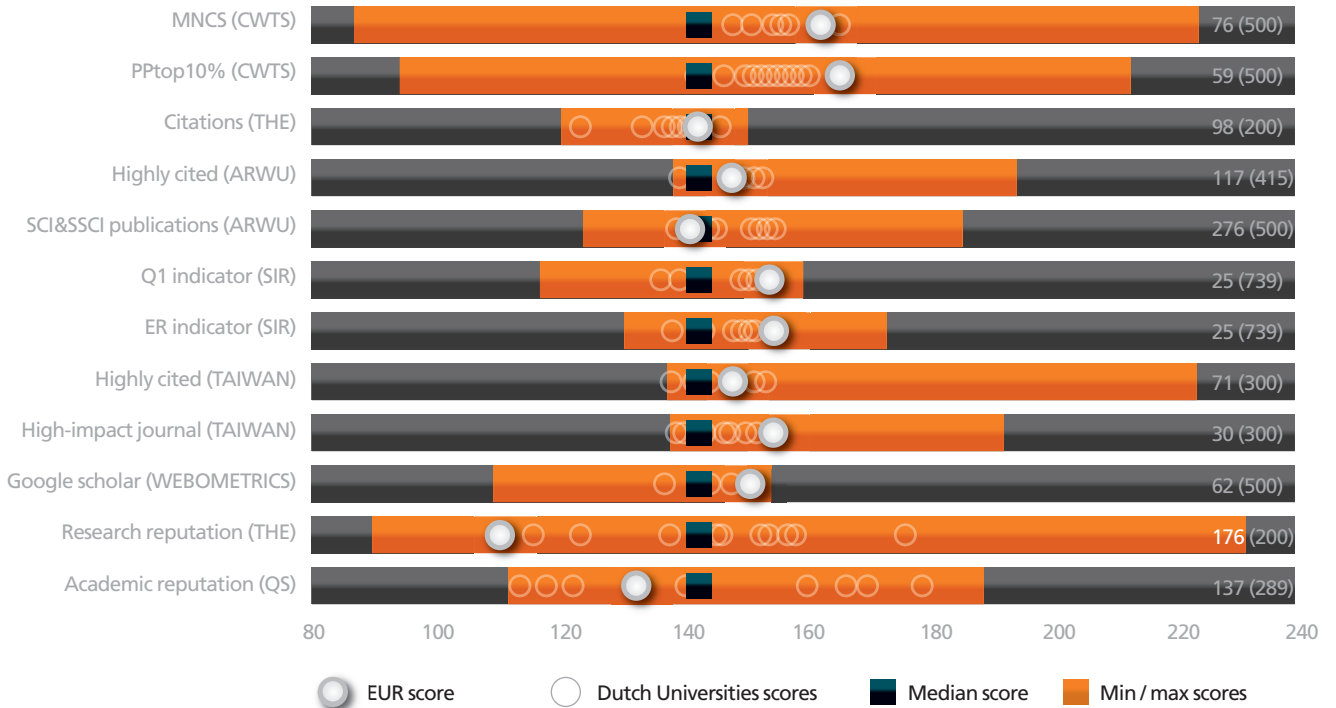
The EUR is also highly rated in regional and national rankings: it ranks first in the Netherlands for research publications that are among the top 10% of most cited publications. The EUR is among the very best in the world in a number of domains, for example for research into viral diseases. The Erasmus Medical Centre is one of the top-20 research institutions in the world on the basis of scores for citations in the field of clinical research.

While the measured impact on the basis of academic output is good, the EUR ranks less highly in tables based on reputation and the opinions of 'peers' or in terms of visibility and size (ARWU ranking). The EUR suffers from a 'perception gap': there is a discrepancy between the scientific quality and the perceived quality. This perception gap is illustrated by the figures on the next page, where the EUR's score on various aspects in the rankings is compared for the dimension of academic output and the reputation dimension, both globally (the first figure) and in the Netherlands (the second figure).²⁸

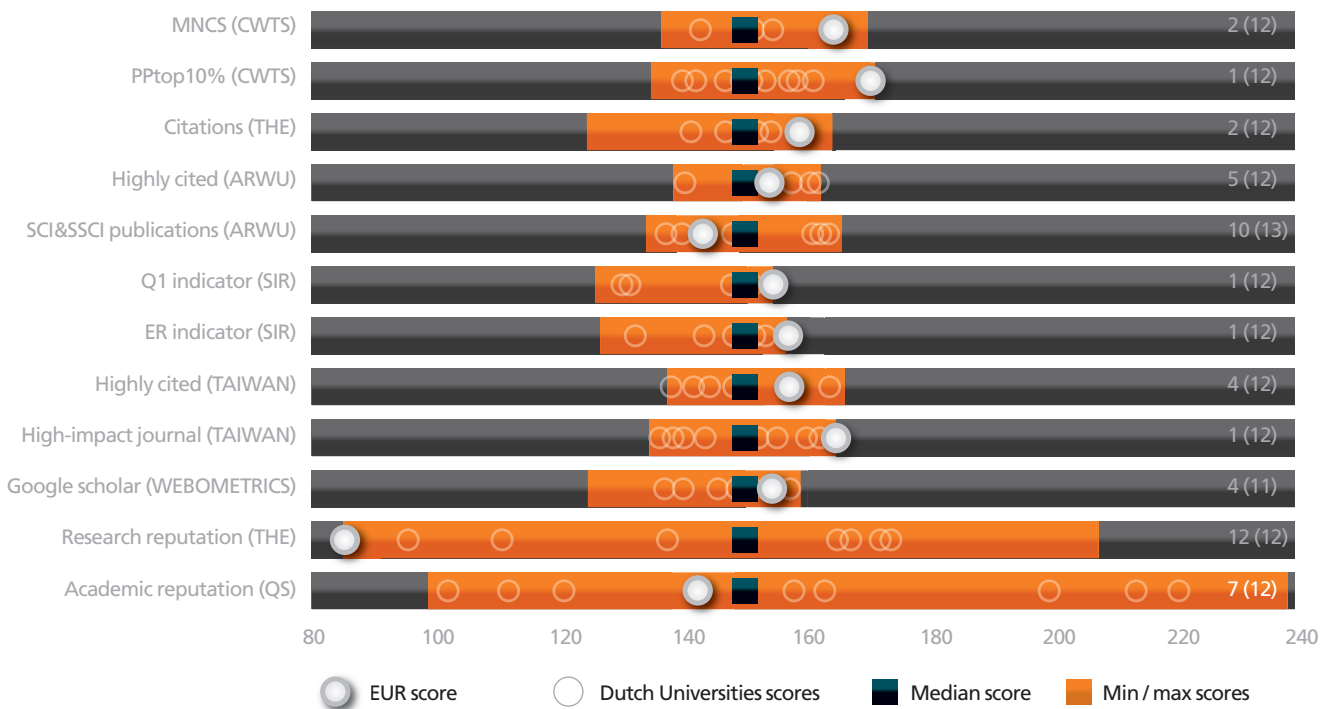
The EUR wants to do more, both internally and in the alliance with Leiden and Delft, to improve its position in the world and to strengthen its reputation by further increasing the impact of its research and enhancing its research profile. This chapter explains how we plan to accomplish this.

²⁸ The score in the figure is harmonised, whereby the separate scores have been re-scaled on the basis of the standard deviation of each individual scale. The median value is then fixed at 150 on the harmonised scale. This is an arbitrary method that was adopted to prevent negative figures appearing in the table.

EUR reconstructed GLOBAL ranking position based on academic and reputation dimensions



EUR reconstructed NL ranking position based on academic and reputation dimensions



Research profile: EUR 100 years of impact

It is against that background that the EUR will further refine its research profile. The theme of the EUR's centenary in 2013 is: 100 years of impact. The impact of the research conducted at the EUR is not only central to the centenary celebrations, but will also determine the focus of its policy as a research-intensive university in the coming years.

Accordingly, the research policy for the period up to 2020 will concentrate on:

- >>> Further strengthening the research groups of proven excellence and the promising leading research groups by means of specific investments;
- >>> Generating more income from funding by Dutch research councils (second flow of funds) and from contract research (third flow of funds) by specifically opting for research relevant to the Grand Challenges and the Top Sectors, through cooperation with Leiden and Delft and by making agreements with the deans;
- >>> Establishing and expanding graduate schools to attract and train talented international researchers, where possible in cooperation with Delft and Leiden;
- >>> Setting up a system of professional support for the researchers.

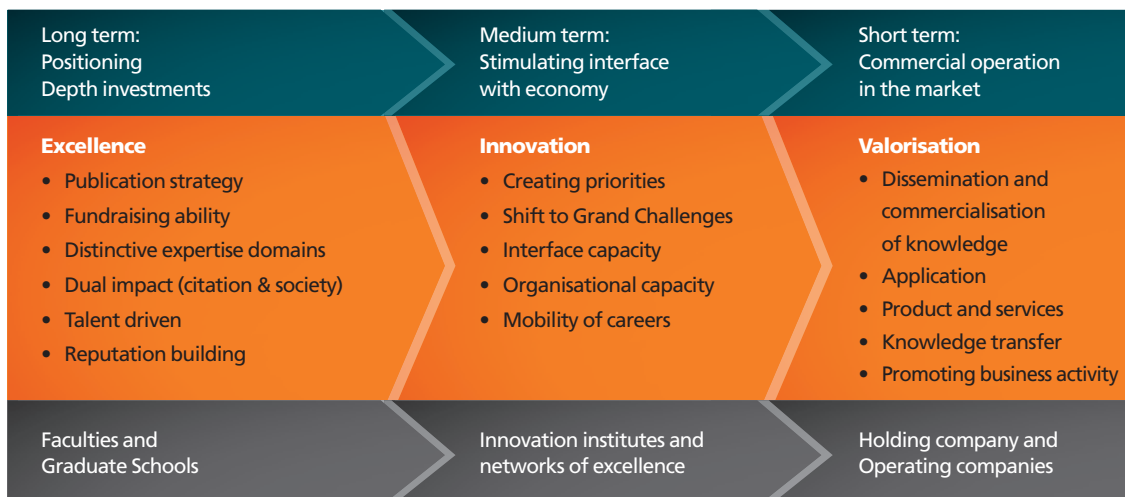
Excellence is therefore central to the research policy for the coming period; this is explained in more detail in this chapter. Besides excellence, the knowledge chain also includes the dimensions of innovation and valorisation. Innovation is discussed further at the end of this chapter, while valorisation is dealt with in the next chapter.

At the beginning of the knowledge chain, the aim of the policy of excellence is to strengthen the position of the research conducted at the EUR by means of depth investments. This will be achieved by encouraging a publication strategy and fundraising ability. Responsibility for this is delegated to the faculties and Graduate Schools. In the medium term, stimulating the interface with the economy is central, for example through innovation in our operations and by creating a smart organisation. This is where the connections with the Grand Challenges and the Top Sectors come in. These processes will occur through (temporary) innovation institutions and networks of excellence.

The long-term focus will be on commercial operation in the market. Valorisation of knowledge is central to this: the economic and social commercialisation of knowledge and the promotion of business activity. As a rule, this will be a task for the Holding and the associated operating companies.

With this approach, the aforementioned perception gap will also be addressed. By focusing on innovation and valorisation in the coming years, while simultaneously maintaining the high level of academic quality, the EUR can expect to see its reputation climb in the rankings. The innovation and valorisation policy will be explained further at the end of this chapter and in the next chapter.

The entire knowledge chain is illustrated below. The top bar shows the strategic dimension, including the associated timeline. Beneath it is the policy dimension, and finally how the two dimensions are anchored in the organisation.



Excellence policy: Spearheads of the strategy

This strategy was launched in 2009 and will be continued in the coming years. A limited number of top research groups have been selected to receive money from the funds for the social sciences and humanities that have been allocated to the newer universities in recent years. The faculties have been given funds to permanently strengthen these leading research groups and increase the impact of their research. An initial evaluation shows that this policy is having a positive effect in a number of respects. For example, with these funds the faculty of Social Sciences, the Erasmus School of Law, the Rotterdam School of Management and the Institute of Health Policy and Management have been able to attract a number of leading scientists and so greatly enhanced the dynamism of their best research groups. The impact on the volume and quality of publications will become visible in the coming years. The recruitment of these leading academics is also expected to significantly increase the capacity to attract funds. The Erasmus School of Economics has started a successful programme for visiting professors.

In 2010 a spearhead analysis was carried out with view to sharpening the focus of our research. These spearheads

are the top research groups in the EUR which are among the best in Europe or the world and/or are crucial to the EUR's research profile. The analysis prompted a repositioning of the research at the EUR in the four domains of Health, Culture, Wealth and Governance (see figure below).

The spearheads create a framework for a further refinement of the research profile. The Health domain can best be described as from 'molecule to human to society and back'. It embraces leading research groups in the biomedical sciences, in the clinical domain and in health sciences. The domain of Culture focuses on media, happiness and identity in modern urban societies. It covers research groups in the fields of sociology, history, culture and the legal sciences. Wealth covers the theme of sustainable economic growth and encompasses research groups in the fields of econometrics, finance and decision science. Governance is concerned with proper organisation of companies and society, covering topics such as labour and organisational psychology, the legal sciences and public administration. The interactions within and between these domains contribute to the EUR's research profile with its focus on the issues confronting the international metropolis.



Over the next five years more than €6.5 million will be invested annually in an excellence-driven programme designed to enable the leading research groups to maintain their position among the leaders in Europe and the world by attracting and retaining top academic talent. The selected top research groups in the social sciences and humanities will be able to request grants from these funds in 2012 and 2013 to secure or strengthen their position. The groups will have to compete for the funds by submitting plans explaining how the funds will be used in pursuit of their strategy of excellence. A maximum of five applications from the groups can be honoured in 2012, and the same number again in 2013. One of the requirements is matching by the faculties: consultation and cooperation is necessary on the use of capacity and resources and where advisable the faculties will join forces to achieve a greater effect. By designing the policy of excellence in this way (setting priorities, competition for the allocation of funds and the matching obligation), the EUR's aim is to strengthen the groups that are global leaders, while groups that perform less well will be phased out.

The ultimate aim is to enable the proven top groups to join the global leaders and to help promising groups to join, and be seen to join, the leading groups. The excellence of the research will always be the guiding factor.

Spearhead in Health: Virology

The Virology department – headed by Professor Ab Osterhaus – is dedicated to conducting top-class scientific research for the benefit of society. Two pieces of evidence of this are: the department proved that SARS was caused by a corona virus and discovered the H5N1 (avian flu) virus in humans. Their interdisciplinary approach to scientific research and the constant search for new viruses and insights have laid the basis for new intervention strategies and therapies. Viroclinics-Biosciences BV, a growing company that was spun off from the department, is another public success, perfecting new diagnostic tools and applying them in practice.

The department plays a prominent role in various international research projects and is a WHO reference centre, both for influenza and for exotic viruses. This scientific excellence has earned it international recognition. In the Netherlands, the department is also an important reference centre for clinical virology and diagnostics.

The department does a lot in the way of valorisation: it encourages school students to pursue a career in science, a number of the researchers are professors and the department provides advisory services for the government.

For 15 years the department's average 'Crown Indicator' has been 1.92, which means that its work is cited almost twice as often as the global average. The department is a prolific publisher: not only in leading journals of virology but also in leading general science magazines like Science and Nature.

By allowing scope for innovative research and sharing knowledge between the different teams, the department offers a unique combination of skills for conducting research and for discovery and for translating the results of leading scientific research into what society needs.

EUR Graduate Schools

The establishment of the Erasmus Graduate Schools of Law and Graduate School of Humanities, Social and Behavioral Sciences has created an EUR-wide network through which the quality and impact of research can be increased and that provides an excellent forum for international talent. The research Master and PhD courses will be integrated into these Graduate Schools. The Graduate School of Humanities, Social and Behavioral Sciences is a joint venture of the faculties of Social Science, Philosophy, the Erasmus School of History, Culture and Communication and the Institute of Social Studies. In time, the Graduate Schools will be further expanded in association with Leiden and Delft (see the memorandum Added Value).

For some time the EUR has also had Graduate Schools in a number of other domains, guaranteeing the quality of the PhD programme. The priority is to attract, train and retain talent. The Erasmus Research Institute of Management (ERIM) is an interfaculty research school in which the PhD programme is firmly embedded. The Tinbergen Institute is an interuniversity research school formed by the economic faculties of the EUR, the Vrije University and the University of Amsterdam. The Erasmus Medical Centre has Graduate Schools in a number of fields, where the activities for the research Master and the training of PhD students are bundled. The EUR also participates in national research schools (including Ethics, Posthumus and Huizinga).

Innovation policy: Grand Challenges and Top Sectors

The EUR must be strongly positioned if it is to remain a global player.

The primary objective of the EUR's research policy is the pursuit of scientific excellence. The connection with the Top Sectors policy is also made from that perspective. The involvement of the research institutes in the Top Sectors policy is of paramount importance. The EUR's input to the Top Sectors policy is concentrated in a number of domains, naturally in the social sciences, humanities and medical disciplines in particular, and expertise in these fields is essential for achieving the objectives of the Top Sectors policy.

The EUR has a leading position in the Top Sector Creative Industry through the 'captain of science' and through the ICT and Media working group. The same applies to the Top Sector Logistics, a field that is one of the EUR's spearheads. The 'captain of science' for the Top Sector Head Offices is also a figurehead from the EUR. The Erasmus Medical Centre is closely involved in developments in the Top Sectors Life Sciences and Health, and High Tech Systems and Materials. The EUR also feels its expertise can make an important contribution in other Top Sectors given the strong social orientation of its research. EUR researchers will also be able to make important contributions to interdisciplinary research in other Top Sectors.



The EUR will match its researchers to the Top Sectors through the programmes for the various sectors funded by the Netherlands Organisation for Scientific Research (NWO). The EUR will also endeavour to at least maintain the volume of subsidies at the current level. The operating companies in the EUR Holding BV will also play an important role in this process (contract research, public-private partnerships).

The EUR also sees possibilities to increase its share of EU funds by participating in the working programmes connected with the Grand Societal Challenges designated by the EU. The broad social orientation of EUR's research profile forms a perfect fit with them. Grand Societal Challenges are inherently interdisciplinary issues, which can only be resolved by promoting cooperation and achieving synergy between different disciplines.

An example of how research will be promoted in the medium term through a so-called 'innovation institute' is the research into social innovation carried out by the EUR in the INSCOPE programme. Consortia like this that are dedicated to a specific theme, which encompass different domains of science, are intrinsically interdisciplinary. Hence, they are ideally suited to addressing social issues and therefore constitute an excellent link in the chain of excellence – innovation – valorisation.

In 2011 the EUR conducted a benchmark study of its performance in the Seventh Framework Programme. As with the ERC grants, the EUR's rating was lower than might be expected on the basis of its scientific output and impact. The Erasmus Medical Centre scored slightly better than the EUR. The ambition laid down in the policy of excellence in research will focus on securing a higher proportion of EU funds, including those for themes connected with the Grand Challenges (for example Healthy Ageing), and more generally Horizon 2020. Research projects based on international cooperation have a greater impact. This is another reason why the EUR will concentrate more on the EU programmes. As part of the new strategic plan, agreements will be made with the deans on the expected increase in successful applications (Horizon 2020, ERC starting and advanced grants and the mobility line (the Marie Curie programme)).

Innovatie: INSCOPE

Trends such as the increasing scarcity of resources, including labour, globalisation, more collaboration among organisations and institutes, and increasing competitive pressures strengthen the necessity for more academic and applied research on social innovation. INSCOPE will focus on these and other major social issues. Moreover, INSCOPE will align its activities with national and international (research) programmes, like research concerning Horizon 2020 of the European Commission and the Dutch top sectors, which is an initiative of the Dutch Ministry of Economic affairs, Agriculture, and Innovation. For instance, the European Commission has proposed allocating over €40 billion for research on topics including innovation within small and medium-sized firms, leadership of certain industries and Marie Curie activities between 2014 and 2020. Social innovation plays a crucial role within these topics. Alignment with national and international programmes and examination of major social issues do not only provide ample opportunities for valorisation projects, but they also provide resources for academic output, PhD places, and attention from the media.

The EUR has chosen to 'take the lead' in relation to some of the Grand Challenges and Top Sectors. The relevant top sectors are Logistics, Creative Industry and Health Offices. Among the Grand Challenges, the greatest potential lies in Health, Demographic Change and Well Being, Inclusive, Innovative and Secure Societies and Smart, Green and Integrated Transport. The Medical Delta consortium with Leiden and Delft represents an important trump card in relation to the area of Health, Demographic Change, and Well Being.

Other universities have better "credentials" with regard to other Grand Challenges and Top Sectors. We will review which themes the EUR can contribute to, particularly through the collaboration with Leiden and Delft. The interaction between the various Top Sectors is important for the major societal challenges and it is precisely at the point where they overlap that the EUR wants to play a part.

Agreements with deans

As part of the new strategy, specific targets will be agreed with the deans for securing grants from the research funds from 2013.

Valorisation

Background and positioning

Erasmus University adopts a broad definition of valorisation:

“The process whereby added value is created by making knowledge suitable or available for economic or social use and by actually using this knowledge in products, services and processes or otherwise creating new business activity with this knowledge.”

According to the OECD territorial review in 2009, the system for innovation and valorisation in the Rotterdam region is fragmented, with too little cohesion and cooperation between the major stakeholders.

Consequently, opportunities are missed or not fully exploited. Accordingly, despite the considerable potential of the Rotterdam region, investments in knowledge do not necessarily or automatically lead to additional growth or improve the region’s competitiveness. This calls for additional policies involving all of the stakeholders. They will focus on attracting additional external funds by making better use of the EUR’s sharp profile, its location, the quality of its education and research, its experience with contract research and the alliance with Leiden and Delft. To accomplish this, valorisation has to be embedded more deeply in the organisation to reduce the dependence on declining public funds. This chapter explains how this will be done.

There are still plenty of possibilities to improve and increase the professionalism of knowledge valorisation and valorisation systems. What is currently lacking is sufficient incentive for intensive collaboration between research institutes in the region for the purpose of valorisation. The infrastructure that links demand to knowledge is not yet ideal. Joint methods and procedures for mapping the (impact of) knowledge valorisation and coordinating are not properly developed. The focus, cohesion and effectiveness of the cooperation between the relevant stakeholders in the province of Zuid-Holland need to improve. (These are a few examples of areas in which the valorisation system in the region could improve.)

There are a number of knowledge clusters in the Zuid-Holland region. Zuidvleugel, the new economic agenda, identifies the following clusters as strengths for the province of Zuid-Holland:

Security (Rotterdam-The Hague-Delft-Leiden)

Logistics & transport (including Deltri consortium (with Drecht cities and West-Brabant) Dinalog, SMART Port)

Water & delta (including Stadshavens, Ecoscope, Dordrecht)



Medical & care: MedicalDelta (Rotterdam – Delft- Leiden)

Chemicals & energy (including Petrochemicals, Gas roundabout, RCI, Clean Tech Delta (with Delft), CCS)

The broad social orientation of research at the EUR presents considerable possibilities for valorisation. In addition to education and research, valorisation of knowledge, particularly about the economy and society, is regarded as one of its key tasks. The focus of the EUR's research profile (the societal issues of the metropolis) forms an excellent fit with this core task.

The EUR's strategic alliance with Leiden and Delft increases the possibilities for valorisation, for example through closer cooperation between the valorisation centres (established or yet to be established) of the three universities in Zuid-Holland (along the lines of MedicalDelta and the *Kansen voor West* structural fund). There is already successful cooperation with Leiden and Delft in the tripartite Holland Program on Entrepreneurship (HOPE), for which the EUR acts as secretary.

 **Holland Program on Entrepreneurship (HOPE)**

HOPE is a collaborative venture between Erasmus University Rotterdam, Delft University of Technology and Leiden University. HOPE stimulates entrepreneurship in the region of Zuid-Holland and tries to connect academic knowledge from the universities with the practical skills necessary for successful entrepreneurship. Together with different strategic partners HOPE develops numerous programmes and events that bring out the entrepreneur in everyone.

In 2011, HOPE organised over forty events, with approximately 10,000 total participants. Over 32 starting entrepreneurs participated in the 'Get Started' pre-incubation programme, and 32 entrepreneurs with growth ambitions joined the 'Accelerator' programme. In November 2010, HOPE hosted the Dutch edition of the Global Entrepreneur Week (GEW), a worldwide initiative focused on entrepreneurship outreach.

The organisation of valorisation

The EUR Holding and the Erasmus Medical Centre Holding are currently responsible for a substantial part of the valorisation activities. There are 16 companies under the umbrella of the EUR Holding, which together generate around € 30 million a year. Each company is in principle affiliated to one of the faculties, although some faculties 'own' more than one company. The activities of the EUR Holding encompass training and education, contract research and consultancy. The training and education ranges from 'post-graduate' Master programmes to executive courses and short courses for adults. An example of the latter are the courses for the over-50s given by the Erasmus Academy.

The valorisation activities of the Erasmus Medical Centre are clustered in the Technology Transfer Office (TTO) in the EMC. The TTO is staffed by 11.5 FTEs. The licensing income amounted to around € 1 million in 2012. The Erasmus Medical Centre Holding BV (1.2 FTEs) is also the holding company of companies established by the departments and the spin-out companies that have been formed to exploit technology developed by the EMC. The holding company currently owns stakes in 28 companies, including seven companies established by departments. The combined turnover amounted to € 26.4 million in 2011. Erasmus Medical Centre has an incubator for start-up companies. EMC Holding's policy is to build up a large portfolio of patents, with much of its valorisation activities being based on that portfolio. Scouting for innovations that could be patented is an essential step in the process, as is constantly raising awareness about the importance of securing patents.

In addition to the valorisation that occurs through the EUR Holding, other departments at the EUR are also highly active in this area. The Rotterdam School of Management has a strong international reputation for its education and training courses for business. The International Institute of Social Studies, which is a separate institute within the EUR, has been providing a post-graduate Master programme and short courses for international students for many years now. It also provides consultancy services relating to capacity building in a great many countries.

Rotterdam Global Health Initiative

The Rotterdam Global Health Initiative (RGHI) is a virtual network aiming at worldwide collaboration in education, research and advisory services in the fields of health systems research, access to health care, financial systems, health economics management and logistics, governance and law.

RGHI wishes to promote the interaction between global health researchers, practitioners, social entrepreneurs and policy makers to advance the health of people, fight against poverty and socio-economic health inequalities, contribute to good governance in health and to access to good health care as a human right. The main activities of RGHI are:

- >>> **Research in the fields of health systems; social determinants of health; assessment, monitoring and evaluation; disease control; innovations in health development knowledge;**
- >>> **Education: Global health education innovation labs; global health master programme; E-Learning; long-distance PhD;**
- >>> **Social valorisation: Strategic health financing; Comprehensive assessment and disease control; health delivery systems, management, logistics, quality of care; urban health and development.**

A final example that needs to be mentioned is the so-called knowledge workshops' created by the EUR and the Municipality of Rotterdam as a vehicle for social valorisation. These are groups formed with representatives from different scientific disciplines and research institutes, government services and civil-society organisations to study a social theme that is relevant for the city. The group disseminates knowledge and conducts new research and tries to raise funds. This approach was pioneered by the Center for Effective Public Health in the Larger Rotterdam Area (CEPHIR), with partners including the municipal health services. It has been followed by 'Smart Port' (the EUR and the Rotterdam Port Authority, 2010), *Rotterdams Talent* (with the University of Rotterdam and the city's Youth, Education and Society department, 2011) and *Leefbare Wijken* (with ROTEB, 2012).

Valorisation programme in Rotterdam

The EUR is the secretary of the Rotterdam Valorisation Programme that was established in 2011. The programme was set up to implement the knowledge agenda for the region in collaboration with other research institutes, including Erasmus Medical Centre, universities of applied science, SMEs in the region and the Rotterdam Port Authority. One element of the programme is to improve the organisation and create a permanent structure for the valorisation of research in the arts and social sciences. One of the options is to create an Erasmus Valorisation Centre, to scout, screen and share knowledge. It would also complement the activities of the sister institutions in Leiden and Delft. The development of valorisation activities also has an international dimension; the Medical Delta consortium works closely with other regions with a leading international reputation, including Oxford and the Thames region, Barcelona and Zurich. Within the EMC, the TTO will bring a special focus and depth to innovation in patient care as part of the valorisation programme, an area where technological and commercial applications can lead to significant savings in the costs of health care and improvements in the quality of life of patients.

Entrepreneurship

The founders of the Netherlands School of Commerce a century ago were already intent on improving the education of entrepreneurs. Thirty years ago, the Erasmus School of Economics was the first faculty to create a chair in entrepreneurship. The Holland Program on Entrepreneurship – see box on page 34 – continues that tradition.

With a number of professors specialising in entrepreneurship, three Master programmes (economics, business administration, art and culture), three minors, various Bachelor subjects and post-academic education (see the box on Lecture Series), more than 20 researchers engaged with entrepreneurship and the recently founded Erasmus Centre for Entrepreneurship, which coordinates the teaching, research and extra-curricular activities relating to entrepreneurship, the EUR has established a very strong position in teaching, researching and promoting entrepreneurial skills.

 **Erasmus Lecture Series for Entrepreneurs**

In this lecture series prominent academics and successful entrepreneurs present their views and introduce the participants to every aspect they need to know to help achieve their ambitions for growth as an entrepreneur. Through the unique combination of academics, practitioners and successful entrepreneurs, participants leave the lectures armed with the knowledge and ideas they need to enable their business to grow in the long term.

The Erasmus Valorisation Centre (EVC)

We will explore how an Erasmus Valorisation Centre can be incorporated into the existing holding structure. The purpose of the centre will be to assist in the primary screening in the faculties and to provide second-line screening of the potential and feasibility of valorisation in a commercial or social sense. It will also help to exploit the knowledge. Plans for the Valorisation Centre will be fleshed out in the course of 2012. The Centre's provisional opening date is the end of 2013.

The Erasmus Valorisation Centre could to a large extent be built on the foundations of the expertise that already exists in the EMC's Technology Transfer Office. The EVC and the EMC TTO are expected to cooperate closely. Cooperation in the field of valorisation is also regarded as an important aspect of the strategic alliance with Leiden and Delft (including the medical centres).

The centre will provide support throughout the EUR.

The intention is that it will evolve into a centre of expertise that can provide assistance with:

Policy support: helping to anchor valorisation in the organisation and HRM policy.

Subsidies: relating to the process of valorisation and the linking of research to the business community (SMEs), as well as the international dimension through the EU Framework Programmes and other international sources of subsidies. The centre will complement the support provided for raising funds in the context of the policy of scientific excellence, which involves funds like the ERC and the Innovation Impulse for Education programme.

The EVC will also assume responsibility for various on-going projects, for example serving as the secretariat for the Rotterdam Valorisation Programme²⁹ and assuming co-responsibility for the Holland Program on Entrepreneurship and the Erasmus Centre for Entrepreneurship.

 **Valorisation ranking**

The EUR was ranked fourth in the first ranking of valorisation at Dutch universities that was published in June 2011 (Elsevier / Science Alliance). The ranking distinguished between three types of universities: the enterprising, the collaborative and the communicative. The EUR performed particularly well as an enterprising university.

The EVC will also be represented in various valorisation networks, including the Leiden – Delft – Erasmus platform, the national valorisation platform, Global Entrepreneurship Week (GEW) in the Netherlands and the international GEW network.

²⁹ With the Rotterdam Valorisation Programme the research and educational institutions in Rotterdam (with a combined total of around 100,000 students) have joined forces with the municipality, private partners and network organisations to strengthen the innovation and valorisation system in Rotterdam with a view to making better use of knowledge for economic and social purposes. The Rotterdam Valorisation Programme wants to address the challenges facing Rotterdam by strengthening the valorisation system in the Rotterdam region on the above themes. The key is a productive interaction between knowledge, capital and talent.

Development of indicators and HRM policy

A national debate is underway about how to develop indicators for measuring the effect of valorisation activities. The EUR considers such indicators to be very important. The broad definition of valorisation (economic and social value) adopted by the EUR makes it all the more relevant to develop good indicators. As an institution we also want to join the efforts already being made at national level, such as the report *Waardevol* and the ERIC protocol (Evaluating Research in Context), both of which were produced by the Rathenau Institute. One of the EUR's priorities in the coming period, in conjunction with the setting up of the Erasmus Valorisation Centre, will be to highlight its activities in relation to valorisation throughout the organisation and to formulate an appropriate HRM policy.

The current HRM policy does not really allow for the evaluation of valorisation activities. As one of the university's key tasks, valorisation must be adequately addressed in the annual appraisal interviews with academic staff, with the central EUR human resources policy being decisive. Further agreements will be made with the faculties on this point in the course of 2012.

There are still considerable differences between the faculties in how they treat valorisation activities. In general, no assessment is yet made of the activities nor are any targets defined (except where activities are embedded in companies falling under the Holding). A number of faculties have introduced awards and/or bonuses, but have not attached any criteria. There are also faculties that have formulated criteria relating to valorisation for appointments as senior lecturers and these criteria are also discussed during job appraisal interviews. In time, greater attention should be given to both the economic and social valorisation of knowledge. The inherent differences between the areas of science is another factor in this regard. All of these aspects will also be considered by the Erasmus Valorisation Centrum.

Faculties do keep records of valorisation activities. They range from appearances in public debates, publications in popular magazines, the use of social media, radio

appearances. In this context, the Erasmus Medical Centre devotes special attention to integrity and potential conflicts of interest. As a rule, valorisation in projects involving contract research and education valorisation takes place through the activities delegated to the Holding.

On the basis of ERIM impact model, the Rotterdam School of Management is currently studying the possibilities of enabling the results in terms of impact to be registered in the regular research administration systems. To this end, a six-dimensional model was recently developed for the domain of business and management.

Valorisation: Institute of Social Studies and Institute for Housing and Urban Development Studies

For more than 50 years the International Institute of Social Studies (ISS) and the Institute for Housing and Urban Development Studies (IHS) have been providing post-graduate education and consultancy services in the field of capacity building in countries outside Western Europe. Both institutes are concerned with building human and institutional capacity to improve the quality of life. The IHS specialises in housing issues and problems relating to urban management. The ISS concentrates on global development issues and question of social equality. The institutes train students and professionals from around the world as agents of change who can make an effective contribution to development and eradicating social inequality, poverty and environmental degradation in their societies. Research driven by the pursuit of scientific excellence forms the basis for policy advice to national governments, international non-governmental agencies, non-governmental organisations and the business community. In this way, ISS and IHS strengthen the executive capacity of academic and political institutions in developing countries, transition countries and emerging economies.

For some time now the EUR has been devoting a significant share of its budget to valorisation. In 2011, the income from contract research of the various operating

companies of the EUR Holding was more than € 8 million compared with a sum of € 110 million for research from public funding (first flow of funds). These figures do not include those for the EMC. The EUR therefore does not anticipate any problems in spending 2.5% of the income from public funding on valorisation by no later than 2016.

Agreements with deans

Specific targets for valorisation will be made with the deans from 2013 as part of the new strategy. The targets will mainly concern the inclusion of valorisation in the job appraisal interviews, specific agreements on intensifying the use (for social and economic purposes) of knowledge and targets for securing funding for contract research through the relevant channels.

Indirect costs

BV 2013

In 2010 the EUR launched Operational Management 2013 (BV 2013), a wide-ranging programme designed to improve and modernise the university's operations.

The programme has yielded improvements that allow academics to focus on their core business. This means in part that long expected improvements will be made. Another objective of the programme is to investigate how the efficiency and effectiveness of the support processes can be improved.

Operational Management 2013 consists of six programmes:

- >>> Education & Research support
- >>> ICT and Business Process Integration
- >>> Marketing & Communication
- >>> Campus Services
- >>> Human Resources and Organisation Development
- >>> Finance and Management Information

An important red line running through all the programmes is to make optimal use of the potential afforded by modern information technology. Another objective of the programme is to further harmonise business processes and working methods.

In conjunction with Operational Management 2013, the university is making the transition to a system of Shared Service Centres (SSC). By concentrating and consolidating activities, the EUR expects to make further improvements and efficiency gains.

Aim of performance-related agreements

We explained our two-track policy towards the support services earlier in this document. On the one hand we will focus on improving the support processes, and on the other on increasing efficiency.

Efficiency gains will be realised in the coming years by expanding the number of SSCs. That will be reflected mainly in a reduction of the number of FTEs in the general overhead. The EUR's target is to arrive at the current market average for general overhead by 2015. The method we adopt for measuring that is the number of FTEs according to the definition used by Berenschot. According to that definition, the current percentages are as follows:

	EUR	Non-technical universities	Average universities
General overhead	21.40%	20.40%	19.90%

No major efficiency gains are expected in the short term. In fact, more support staff will probably be needed until 2013 to complete the various projects and to implement the improvements. It will only be possible to start realising the planned benefits and efficiency gains after 2013.

Appendix: list of abbreviations

ARWU	Academic Ranking of World Universities
BKO	BasisKwalificatie Onderwijs (Basic Qualification in Education)
BSA	Bindend Studieadvies (Binding Study Advice)
BV 2013	Bedrijfsvoering 2013 (Operational Management 2013)
CWTS	The Centre for Science and Technology Studies, University of Leiden
EC	European Credits
EMC	Erasmus Medical Centre
ER	Excellence Rate: The Excellence Rate indicates which percentage of an institution's scientific output is included into the set formed by the 10% most cited papers in their respective scientific fields.
ERC	European Research Council
ERIM	Erasmus Research Institute of Management
ESE	Erasmus School of Economics
EUR	Erasmus University Rotterdam
EVC	Erasmus Valorisation Centre
FSW	Faculty of Social Sciences
FTE	Full-time equivalent
HOPE	Holland Program on Entrepreneurship
HOVO	Hoger Onderwijs Voor Ouderen (Higher Education for Seniors)
IBA	International Bachelor of Business Administration
IHS	Institute for Housing and Urban Development Studies
INSCOPE	Social Innovation, Competitiveness, Performance and Human Excellence
ISS	Institute of Social Studies
LDE	University of Leiden, Delft University of Technology and Erasmus University Rotterdam
LEI	Leiden University
MNCS	Median Normalized Citation Score
NSE	Nationale StudentenEnquête (National Student Survey)
PGO	Probleem Gestuurd Onderwijs (Problem-driven learning)
PPtop 10%	Proportion Top10% publications (The proportion of the publications of a university that, compared with other similar publications, belong to the top 10% most frequently cited.)
Q1	1st quartile; Percentage of publication in top 25% journals
QS	QS World University rankings
RGHI	Rotterdam Global Health Initiative
RU	Radboud University Nijmegen
RUG	University of Groningen
SCI & SSCI	Science Citation Index & Social Sciences Citation Index
SIR	Scimago Institutions Rankings
SSC	Shared Service Centre
TAIWAN	Taiwan Ranking (= Higher Education Evaluation & Accreditation Council of Taiwan ranking)
THE	Times Higher Education
TTO	Technology Transfer Office
TUD	Delft University of Technology
TU/e	Eindhoven University of Technology
UM	Maastricht University
U-map	European classification of higher education institutions
UT	University of Twente
UU	University Utrecht
UvA	University of Amsterdam
UvT	Tilburg University
VU	VU University Amsterdam
WEBOMETRICS	Ranking Web of World Universities
WUR	Wageningen University & Research centre

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