THE YOUNG ACADEMY



A BEGINNER'S GUIDE TO DUTCH ACADEMIA



A BEGINNER'S GUIDE TO DUTCH ACADEMIA



2018 The Young Academy

© Some rights reserved.

Usage and distribution of this work is defined in the Creative Commons License, Attribution 3.0 Netherlands. To view a copy of this licence, visit: http://www.creativecommons.org/licenses/by/3.0/nl/

THE YOUNG ACADEMY

PO Box 19121, NL-1000 GC Amsterdam T+31 (0)20 551 0702 dja@knaw.nl www.dejongeakademie.nl

The Young Academy is an independent part of the Royal Netherlands Academy of Arts and Sciences

PDF available at www.dejongeakademie.nl

Text: Raf de Bont, Tatiana Filatova, Nathalie Katsonis, Christian Lange

Layout and editing figures: Ellen Bouma
Translation: Balance Amsterdam/Maastricht

Photo cover: Steven Snoep

ISBN 978-90-6984-726-9

Preferred citation: The Young Academy (2018). *A Beginner's Guide to Dutch Academia*, Amsterdam.

A BEGINNER'S GUIDE TO DUTCH ACADEMIA

INTRODUCTION

This guide, an introduction to Dutch research and higher education, serves as a support document for researchers and instructors who are unfamiliar with the Dutch academic setting. We wrote it primarily with new 'senior' academic staff in mind, but we hope that postdoctoral and doctoral researchers will also find relevant information in it. The emphasis is on professional challenges and opportunities. Everyday practicalities are covered to a lesser degree, but there are websites and handbooks that provide such information, often in ways that are both useful and entertaining (see section 7.4).

Our aim is to offer essential information on Dutch academia: how it relates to Dutch politics and society, what the research and teaching culture is like, and how the funding system and academic protocol are structured. We also provide translations of key terms and a list of abbreviations and acronyms. In addition, the text is supported by quotes from an anonymous survey of early and midcareer international staff at Dutch universities.

As you consult this guide, please bear in mind that Dutch academia is a moving target of multiple dimensions. Institutional settings, funding schemes, and rules and regulations concerning promotion, PhD supervision and a host of other matters are in constant flux and can differ significantly from one scientific domain and university to the next. Some of the information provided in the following pages may therefore apply to your own situation only in part, or may even be outdated by the time you read it. The Young Academy plans to update and revise this guide at regular intervals. If you have suggestions for improvement, please feel free to share them with us: dja@knaw.nl. We wish you every success in taking your first steps in Dutch academia and hope that this guide will help you get off on the right foot!

TABLE OF CONTENTS

INTRODUCTION 5

1.1 Types of academic institutions in the Netherlands 8			
1.2 Organisation of Dutch universities 9			
1.3 Research units and clusters 11			
1.4 Permanent academic positions 11			
1.5 Non-permanent academic positions 13			
1.6 University services 15			
2. WHO DOES WHAT? RESEARCH ORGANISATIONS IN THE			
NETHERLANDS 16			
0.410 1			

1. HOW DOES IT ALL WORK? STRUCTURE OF DUTCH ACADEMIA

- 2.1 Ministry of Education, Culture and Science 16
- 2.2 Association of Universities in the Netherlands 16
- 2.3 Netherlands Organisation for Scientific Research 17
- 2.4 Royal Netherlands Academy of Arts and Sciences 18
- 2.5 National research schools 19

3. WHAT'S IN A NAME? DEGREES AND TEACHING AT DUTCH

UNIVERSITIES 20

- 3.1 Higher professional and academic education 20
- 3.2 Degree programmes 20
- 3.3 Accreditation of degree programmes 21
- 3.4 Grading system 21
- 3.5 Teaching formats 22
- 3.6 Teaching load 23

4. HOW DO I PAY FOR MY RE	ESEARCH? FUNDING OPPORTUNITIES
IN THE NETHERLANDS	24

- 4.1 Funding streams 24
- 4.2 Netherlands Organisation for Scientific Research 25
 - 4.2.1 individual grants 26
 - 4.2.2 programmatic grants 27
 - 4.2.3. direct government research funding 28
- 4.3 Royal Netherlands Academy of Arts and Sciences 28
- 4.4 European Union (Horizon 2020 and FP9) 28
- 4.5 Country-specific collaborative funding schemes 30

5. WHAT'S THE LONG-TERM PICTURE? HIGHER EDUCATION AND RESEARCH POLICY 31

- 5.1 Governmental research policy 31
- 5.2 Top sectors 31
- 5.3 Dutch National Research Agenda 32
- 5.4 Research and teaching assessments 33

6. WHAT'S IN IT FOR US? DIVERSITY AND FAMILY SUPPORT 34

- 6.1 Bringing your partner and children to the Netherlands 34
- 6.2 Parental leave and childcare 34
- 6.3 Women in Dutch academia 35
- 6.4 International staff in Dutch academia 37

7. SOME USEFUL LINKS AND READING FOR NEWCOMERS TO DUTCH ACADEMIA 39

- 7.1 Websites for foreign academics 39
- 7.2 Student websites 39
- 7.3 Country reports and policy advice 40
- 7.4 Other relevant literature 40

8. LIST OF ABBREVIATIONS AND ACRONYMS 41

1. HOW DOES IT ALL WORK? STRUCTURE OF DUTCH ACADEMIA

1.1 Types of academic institutions in the Netherlands

There are fourteen major universities in the Netherlands. Six of these are comprehensive universities: Leiden University (UL), Utrecht University (UU), the University of Groningen (UG), Radboud University Nijmegen (RU), VU Amsterdam (VU), and the University of Amsterdam (UvA). They offer degree programmes and support research across a broad spectrum of academic disciplines. To use a taxonomy that is popular in the Netherlands, they cover the 'alpha disciplines' (i.e. the Humanities), the 'beta disciplines' (i.e. the Natural Sciences) and the 'gamma disciplines' (i.e. the Social and Behavioural Sciences).

Seven universities are specialised institutions: Delft University of Technology (TUD), Eindhoven University of Technology (TU/e), the University of Twente (UT), Wageningen University & Research (WUR), Erasmus University Rotterdam (EUR), Tilburg University (TiU), and Maastricht University (UM). Finally, there is the Open University in the Netherlands (OU), which specialises in online (part-time) education and research. Of these fourteen universities, three have a religious background (VU Amsterdam, Radboud University Nijmegen, and Tilburg University).

There are eight university medical centres (UMCs): Erasmus MC (Rotterdam), UMCG (Groningen), LUMC (Leiden), VUmc (Amsterdam), RadboudUMC (Nijmegen), UMCU (Utrecht), AMC (Amsterdam) and Maastricht UMC (Maastricht).

In 2010, a further four universities were added to the list of government-funded universities: Theological University Kampen (TUK), University of Humanistic Studies Utrecht (UvH), Protestant Theological University (PThU), and Theological University Apeldoorn (TUA).

In addition, there are seven University Colleges, each affiliated with a university: Leiden University College (LUC, situated in The Hague), University

College Utrecht (UCU), University College Maastricht (UCM), Amsterdam University College (AUC; affiliated with UvA and VU), University College Twente (ATLAS), University College Groningen (UCG) and University College Fryslân (UCF; also affiliated with UG). They offer bachelor (BA and BSc) degrees in the Social Sciences, Humanities and Sciences and tend to be broad Liberal Arts & Sciences programmes taught in English. Academic staff of UL, UU, UM, UvA/VU, UT and UG occasionally teach courses at the University Colleges; their own permanent staff typically have little or no time for research.

BA/BSc, master (MA/MSc) and even PhD degrees can also be obtained at private institutions and universities, such as Nyenrode Business Universiteit. These institutions are not financed by the government, seek accreditation separately, and are free to set their own student fees.

Lastly, there are a number of government-funded research institutes. Several of these operate under the umbrellas of the Netherlands Organisation for Scientific Research (*Nederlands Organisatie voor Wetenschappelijk Onderzoek*, NWO; see section 2.3) and the Royal Netherlands Academy of Arts and Sciences (*Koninklijke Nederlandse Akademie van Wetenschappen*, KNAW; see section 2.4).

1.2 Organisation of Dutch universities

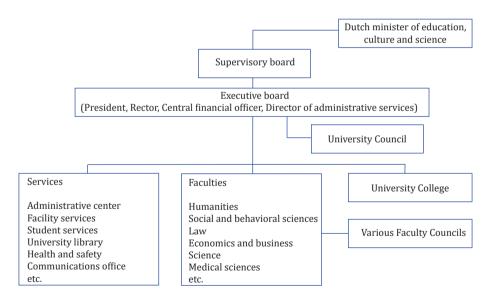


Fig. 1: Standard organisation chart of a Dutch university (may differ from one university to the next)

The supervisory board (*raad van toezicht*) of Dutch universities is a board of trustees that oversees the executive board (*college van bestuur* or CvB) and monitors its annual reports, strategic plans, etc. The supervisory board is usually appointed by the Minister of Education, Culture and Science.¹

The executive board is the central administrative board, or board of directors, of Dutch universities. The executive board usually consists of:

- 1. The president (*voorzitter*) or chief administrator.
- 2. The rector magnificus (often simply referred to as 'rector' in spoken Dutch), a full professor of the university, appointed by the supervisory board (for comparison, in Belgium they are elected).² The rector magnificus is responsible for research and teaching. Inaugural lectures (*oraties*) are formally addressed to the rector magnificus. PhDs are awarded on his/her behalf. The rector magnificus is considered *primus inter pares* (first among equals) among the professorial staff.
- 3. One or two administrators (e.g. central financial officer). Several Dutch universities (e.g. UvA, UT) also have a director of administrative services or secretary general (*secretaris*) on the executive board.

Faculties (faculteiten) are headed by the dean (decaan), who is usually a member of the faculty board (faculteitsbestuur) along with the research director (onderzoeksdirecteur or portefeuillehouder onderzoek), the teaching director (onderwijsdirecteur or portefeuillehouder onderwijs) and a director of operational management (e.g. directeur bedrijfsvoering). This common division of labour is typically replicated within the departments as well, with a head of the department (departementshoofd or voorzitter afdelingsbestuur), a research director, and a teaching director.

There are also staff councils, whose members are elected by the university staff. They may represent the university staff as a whole (*universiteitsraad*) or the staff of a particular faculty (*faculteitsraad*).

'Generally, the Dutch are known to be more informal; coming from a more formal society, I struggled a lot to find the right tone when talking to senior colleagues, for instance the difference between jij/u, the quick use of first names, etc.'

 $^{1\}quad$ At the VU, members of the supervisory board are elected by the association members council.

 $^{2\ \ \,}$ In Leiden and Delft, the rector magnificus is also the chief administrator of the executive board.

1.3 Research units and clusters

In contrast to how teaching is organised at Dutch universities, there has been a shift away from the traditional emphasis on faculties and departments as the primary sites of research towards a number of cross-disciplinary and interfaculty and interuniversity research units, variously referred to as research institutes (*onderzoeksinstituten*), research schools (*onderzoeksscholen*), research programmes, initiatives, centres, groups, etc.

In addition, Dutch universities identify 'focus areas' (large, trans-faculty units) and 'strategic themes' (e.g. at UU), 'research themes' (e.g. at RU, UT) or 'societal themes' (e.g. at UG) to characterise (and also, to guide) their research activities. Such research clusters can have considerable influence on the distribution of seed money or other research-related benefits allocated within the universities.

1.4 Permanent academic positions

Academic ranks	International equivalent ranks	Major administrative job titles and roles typically (but not necessarily) associated with rank
Hoogleraar	Full professor	Dean of Faculty, Faculty Director of
1 and 2		Research, Faculty Director of Teaching,
		Head of Department or Institute, Research
		Director of Department or Institute,
		Teaching Director, etc.
Universitair	Associate professor	Coordinator of degree programmes, chair
hoofddocent	(US), senior lecturer	of second-tier committees (e.g. teaching
1 and 2	(UK), reader (UK)	committee, etc.)
Universitair	Assistant professor	Chair of second-tier committees (e.g.
docent	(US), University	teaching committee, etc.) Member of
1 and 2	lecturer (UK)	second-tier committees

Fig. 2: Dutch academic ladder (permanent positions), including a general indication of associated administrative roles

There are three types of permanent academic positions at Dutch universities: the 'university lecturer' (universitair docent, UD), the 'university senior lecturer' (universitair hoofddocent, UHD), and the professor (hoogleraar) (Figure 2). The Collective Labour Agreement of Dutch Universities (Collectieve Arbeidsovereenkomst voor de Nederlandse Universiteiten, CAO NU) details terms and conditions of employment, and also includes salary scales (http://www.

labouragreementuniversities.nl/).³ It is worth noting that there is a single salary scale system across the Netherlands, which means that negotiating a salary is usually limited to discussing the starting step (*trede*) on a scale (*schaal*).

Universitair docenten, whose position is roughly equivalent to that of a lecturer in the UK or an assistant professor in the US, often benefit from a tenure-track system, but practices in this regard differ from one university and faculty to the next. Sometimes, individual agreements are made. Universitair docenten at most Dutch universities are less likely to be given heavy administrative duties than universitair hoofddocenten and hoogleraren. They are usually expected to have earned the Basic Teaching Qualification (Basiskwalificatie Onderwijs, BKO), or acquire one. The BKO involves compiling a teaching portfolio (e.g. including teaching plans, a recorded lecture, etc.), which is evaluated by a committee. In some cases, the BKO is a requirement for tenure.

The position of *universitair hoofddocent* is roughly equivalent to that of a senior lecturer in the UK or an associate professor in the US. In June 2017, the Senate (*Eerste Kamer*) of the Dutch Parliament (*Staten-Generaal*) declared that *universitair hoofddocenten* may receive the *ius promovendi*, which means that they can register formally as the primary supervisor of PhD candidates. Previously, only professors had the *ius promovendi*; *universitair hoofddocenten* could only and in fact were often required to act as 'co-supervisor' and 'daily supervisor' (*dagelijkse begeleider*). In the new situation, the doctorate board (*colleges voor promoties*) may issue the *ius promovendi* to *universitair hoofddocenten* for an unspecified period. For each PhD programme, the doctorate board decides who will be the supervisor (*promotor*) for the specific PhD candidate. The Young Academy would like to see broader and more frequent use of the *ius promovendi* by Dutch universities, and it alerts relevant parties to the need to plan ahead carefully when arranging PhD supervision.⁴

The many ranks and titles for professors in the Netherlands can be confusing. They range from *gewone hoogleraar* (without further designation: ordinary professor) to *buitengewoon hoogleraar* and *bijzonder hoogleraar* (Figure 3). A prestigious special professorship is the *universiteitshoogleraar* (university professor), in some places replicated within the faculty as the *faculteitshoogleraar* (faculty professor).

³ For researchers working at university medical centres, the CAO UMC applies.

 $^{{\}small 4~https://www.dejongeakademie.nl/nl/actueel/nieuws/uhd2019s-mogen-promotor-worden}$

Professorship	International equivalent	Description
Hoogleraar	Full professor	An ordinary professor
Buitengewoon	Professor by special	A chair that is funded externally and
hoogleraar	appointment, part-time	created for specific expertise in research
	professor	or teaching
Bijzonder	Professor occupying an	An externally funded, temporary, and often
hoogleraar	'endowed chair'	part-time position, which is sometimes
		also used when a senior researcher is
		based primarily at a non-university
		research institute and is given the
		honorary title at a university
Universiteits-	University Professor	A prestigious chair which temporarily
hoogleraar		alleviates professors of administrative and
		teaching duties to focus on research

Fig. 3: Professor ranks

The job classification system (UFO) for Dutch universities, available on the website of the VSNU (see section 2.2 below), provides more detailed descriptions of the various research and teaching tasks associated with the job titles UD, UHD and professor. In the Netherlands, senior government officials' salaries cannot exceed those of government ministers.⁵

1.5 Non-permanent academic positions

PhD candidates (*promovendi*) and postdocs, who are funded by a university, the Netherlands Organisation for Scientific Research (NWO) or a European funding body (e.g. the European Research Council or ERC), do not receive a fellowship but are usually treated as salaried employees and enjoy full employee benefits. As such, PhD candidates are often not referred to as 'students' in the Netherlands. This is different for 'external PhD candidates' (*contractpromovendi* or *buitenpromovendi*), who bring their own funding with them, e.g. a government fellowship from abroad or private funds, or work in their own time.

In 2016 the Ministry of Education, Culture and Science (see section 2.1 below) started an experiment with PhD scholarships in which the University of Groningen and Erasmus University Rotterdam decided to participate. Unlike 'regular' PhD candidates, the recipients of these scholarships are considered

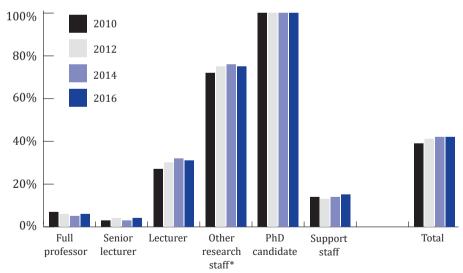
⁵ This is laid down in the Public and Semi-public Sector Senior Officials (Standard Remuneration) Act (WNT). This Act also applies to the salaries of senior officials of organisations in the semi-public sector, such as universities, hospitals, schools and public broadcasters.

students. They receive a scholarship for four years and are entitled to take courses that prepare them for broader employment than in academia alone.

Unlike in the US, for example, PhD graduate programmes are not a typical feature of the Dutch system. Instead, aspiring PhD students tend to address their applications directly to the intended supervisor. Between 2000 and 2010, the annual number of new PhD candidates in the Netherlands rose from 2,500 to 3,700 and then to 4,500 in 2013, with the sharpest increase in the medical sciences. Note that in the Dutch system, universities receive a government subsidy (the *promotiebonus*, typically between $\[Effective \in \]$ 70,000- $\[Effective \in \]$ 90,000) for every completed PhD.

Researchers who are planning to move entire research teams, including PhD candidates and postdocs, to the Netherlands should be aware that PhD candidates and postdocs receive higher salaries here than in other (European) countries.

PhD candidates and postdocs are not usually expected to contribute to their department or institute's administrative core functions, although they may fulfil such roles in other contexts, for example in the university's graduate schools or the national research schools. However, they are often expected to teach (e.g. many PhD candidates serve as teaching assistants for university courses), even though conditions may vary by the type of contract and funding they receive. Figure 4 shows the percentage share of fixed-term contracts for different academic positions.



^{*} Note; other research staff consists mostly of postdocs, like PhD candidates, postdocs are offered fixed-term employment contract as a general rule.

Fig. 4: Percentage share of fixed-term employment contracts at the fourteen Dutch universities, 2010-2016. Source: VSNU.

1.6 University services

Generally speaking, academic staff (wetenschappelijk personeel, WP) receive robust administrative support from their institution's support staff (ondersteunend en beheerspersoneel, OBP). Figure 5 shows the breakdown and total number of academic staff and support staff at Dutch universities. Newcomers to Dutch academia, especially those with teaching duties, are well advised to familiarise themselves early on with the various faculty and university services, e.g., Teaching Support (onderwijssecretariaat), Information and Technology Support (informatie- en communicatietechnologie, ICT), Communications and Marketing (communicatie en marketing), Research and Grant Support, as well as the International Office.

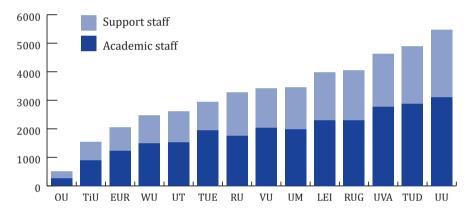


Fig. 5: Breakdown and total number of academic staff and support staff at the fourteen Dutch universities in 2016. Source: VSNU.

2. WHO DOES WHAT? RESEARCH ORGANISATIONS IN THE NETHERLANDS

2.1 Ministry of Education, Culture and Science

The Ministry of Education, Culture and Science (*Ministerie van Onderwijs, Cultuur en Wetenschap*, OCW) has two Ministers: the Minister of Education, Culture and Science, Ingrid van Engelshoven, and the Minister for Primary and Secondary Education and Media, Arie Slob. The Ministry of OCW is responsible for Dutch higher education and research, with the exception of agricultural research and some 'innovation-oriented research' (*innovatiegericht onderzoek*, particularly Wageningen University & Research), which fall under the Ministry of Economic Affairs and Climate Policy (*Ministerie van Economische Zaken en Klimaat*, EZK).

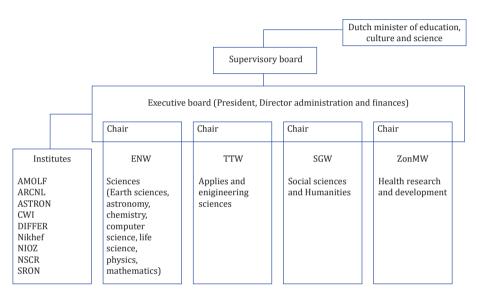
2.2 Association of Universities in the Netherlands

The Association of Universities in the Netherlands (*Vereniging van Universiteiten*, VSNU) is the umbrella organization of Dutch research universities (see section 1.1 above). It represents the Dutch universities in politics and society at large. As the university employers' association, it also negotiates the Collective Labour Agreement of Dutch Universities (*Collectieve Arbeidsovereenkomst voor de Nederlandse Universiteiten, CAO NU'*) with the various labour unions. The CAO regulates salary scales (including for PhD candidates and postdocs), holidays, sick leave, etc. The most recent version of the CAO (both in Dutch and English) can be found on the VSNU's website.

The board (*bestuur*) is composed of the chairs and vice-chairs of the three steering groups (*stuurgroepen*) of the VSNU and chaired by the president of the VSNU. Each university is represented in each steering group by the portfolio holder of its executive board. All members of the executive boards of the universities meet in the General Assembly. The VSNU has its offices in The Hague.

'The Netherlands, though small, is very diverse and that diversity is reflected in how each university takes care of its own affairs. While the VSNU aims to formulate shared aims and approaches to improve teaching and research at the Dutch universities, universities are also very attached to their own autonomy.'

2.3 Netherlands Organisation for Scientific Research



Abbreviations: ENW: Exacte en Natuurwetenschappen (Science), TTW: Toegepaste en Technische Wetenschappen (Applied and Engineering Sciences, AES), SGW: Sociale en Geesteswetenschappen (Social Sciences and Humanities, SSH), ZonMW: Zorgonderzoek en Medische Wetenschappen (Health Research and Development, HRD).

Fig. 6: NWO institutes and science domains

The Netherlands Organisation for Scientific Research (*Nederlands Organisatie voor Wetenschappelijk Onderzoek*, NWO) is the primary national funding body for researchers. NWO's specific funding schemes are introduced below, in section 4.2.

In 2014, a report on higher education policy commissioned by the government (*Wetenschapsvisie 2025*) advised NWO to bolster its governance and to provide a flexible framework for integrative science. In response, NWO launched a procedure to update its organisation. The major restructuring programme began in 2016, and parts of the new structure became effective in January 2017 (Figure 6). One of the goals of the restructuring programme was to create larger domains in which interdisciplinary research would be

more easily accommodated. The slogan of the organisation has remained 'by researchers and for researchers'. NWO's reorganisation has strengthened its paramount position by unifying research policy and practices and by promoting interdisciplinary initiatives. The NWO website and its newsletters are a reliable source of updates on national debates related to higher education and research.

NWO receives its funds directly from the national government and this means that political priorities, for example support for the 'top sectors' (see section 5.2 below), a government economic programme that stresses applied research, play a part in the evaluation process, in addition to the excellence of the researcher and the research proposal. NWO presented its latest strategic plan in early 2018.

NWO also funds and manages the following nine research institutes: AMOLF Laboratory for molecular and materials research; ARCNL Advanced Research Center for Nanolithography; ASTRON Netherlands Institute for Radio Astronomy; CWI Centrum Wiskunde en Informatica; DIFFER Dutch Institute for Fundamental Energy Research; Nikhef National Institute for Subatomic Physics; NIOZ Royal Netherlands Institute for Sea Research; NSCR Netherlands Institute for the Study of Crime and Law Enforcement; SRON Netherlands Institute for Space Research.

2.4 Royal Netherlands Academy of Arts and Sciences

The Royal Netherlands Academy of Arts and Sciences (Koninklijke Nederlandse Akademie van Wetenschappen, KNAW) was founded in 1808 as an advisory body to the Dutch government. Today, it consists of a learned society with four domains: 1) Behavioural Sciences, Social Sciences and Law, 2) Humanities, 3) Medical, Biomedical and Health Sciences, 4) Natural Sciences and Engineering (approx. 550 members altogether). It also has four advisory councils in broad disciplinary areas: the Council for the Humanities (Raad voor Geesteswetenschappen, RGW), the Council for Medical Sciences (Raad voor Medische Wetenschappen, RMW), the Council for Natural Sciences and Engineering (Raad voor Natuur- en Technische Wetenschappen, RNTW) and the Social Sciences Council (Sociaal-Wetenschappelijke Raad, SWR). The councils also play a significant role in drawing up and implementing the Academy's overall advisory agenda. Special committees have been established in specific areas of concern, such as education and freedom of scientific pursuit.

The members of the Academy's advisory councils and committees are scientists and scholars representing universities, research institutes, civil society, and the business sector. Some are members of the Academy and some are not.

In addition, the Academy is home to The Young Academy (*De Jonge Akademie*), founded in 2005 (50 members, elected for five years, on average between 35 to 45 years of age), and the Society of Arts (*Akademie van Kunsten*), founded in

2014 (approx. 50 members, elected for five years). The Academy also awards a number of fellowships and prizes. For the Academy's funding activities, see section 4.3.

The Academy also funds and manages a string of national research institutes. The 15 Academy institutes are: DANS Data Archiving and Networked Services; FA Fryske Akademy; Hubrecht Institute for Developmental Biology and Stem Cell Research; Huygens ING Huygens Institute for the History of the Netherlands; IISH International Institute of Social History; KITLV Royal Netherlands Institute of Southeast Asian and Caribbean Studies; Meertens Institute Research and documentation of Dutch language and culture; Netherlands Institute for Neuroscience; NIAS Netherlands Institute for Advanced Study in the Humanities and Social Sciences (the Dutch equivalent of the Institute for Advanced Studies at Princeton); NIDI Netherlands Interdisciplinary Demographic Institute; NIOD Institute for War, Holocaust and Genocide studies; NIOO Netherlands Institute of Ecology; Rathenau Instituut; Spinoza Centre for Neuroimaging; Westerdijk Fungal Biodiversity Institute.

2.5 National research schools

The national research schools (nationale onderzoeksscholen) or graduate schools are a uniquely Dutch phenomenon and deserve separate mention. These schools (there are currently more than forty) bring researchers from Dutch universities together in a shared research domain to train graduate students (mostly PhD candidates, but also Research Master students) and encourage transregional scholarly collaboration. Each national research school is housed in one of the universities, spread more or less equally over the universities.

Join the relevant research school: in the Netherlands, scholars from different universities collaborate a lot, which is wonderful!'

'The compactness of the Netherlands is a great advantage because it means that there are several world-class universities within a short train ride.

That's also why many disciplines are organised nationally into research schools, allowing faculty and students across institutes to collaborate meaningfully and enrich the research environment.

Use this to your advantage!'

⁶ A joint institute of KNAW and NWO

3. WHAT'S IN A NAME? DEGREES AND TEACHING AT DUTCH UNIVERSITIES

3.1 Higher professional and academic education

Higher education in the Netherlands is a binary system. There is academic education (*wetenschappelijk onderwijs*, WO) and higher professional education (*hoger beroepsonderwijs*, HBO)

In the higher professional education sector, schools or colleges of higher vocational or professional training (*hogescholen*, comparable to colleges and polytechnics) award BAs and MAs. Since 2011, they have been allowed to call themselves 'University of Applied Sciences' in English. There are some forty accredited and government-subsidised Universities of Applied Sciences in the Netherlands, including art and design schools, conservatories, the national police academy, and a number of schools offering a variety of study programmes.

For admission to a University of Applied Sciences, students need a secondary vocational (*middelbare beroepsonderwijs, mbo*) or senior general secondary (*hoger algemeen voortgezet onderwijs, havo*) qualification. In contrast, the requirements for admission to academic education is a pre-university (*voorbereidend wetenschappelijk onderwijs, vwo*) qualification or, alternatively, one year of preparatory study (the *hbo propedeuse*) at a University of Applied Sciences.⁷

3.2 Degree programmes

The Netherlands was quick to implement the 1999 Bologna Treaty, introducing the European Credit Transfer and Accumulation System (ECTS) and implementing the BA/BSc degrees (either 3 years [180 credits or ECTS] or

⁷ This does not apply to all degree programmes, some of which only accept students with a pre-university qualification or require them to sit exams at that level for specific courses.

4 years [240 ECTS]) and MA/MSc degrees (typically 1-2 years, sometimes more), in addition to PhD degrees (typically 4 years).

For MAs and MScs, a distinction is made between Academic Masters (typically 1 year [60 ECTS]), which is more vocationally oriented, and Research Masters (typically 2 years [120 ECTS]), which is more research-oriented.

3.3 Accreditation of degree programmes

Degree programmes (*opleidingen*) must be accredited by the Accreditation Organisation of the Netherlands and Flanders (*Nederlands-Vlaamse Accreditatie Organisatie*, NVAO). All accredited programmes are registered in the Central Register of Higher Education Programmes (*Centraal Register Opleidingen Hoger Onderwijs*, CROHO), a unit within the Ministry of OCW. New degree programmes that want to have their own, new name must apply for a 'CROHO label' to be accredited. The procedure is complicated, which is why departments usually decide to use an existing label.

3.4 Grading system

In the Netherlands, a 10-point grading system is generally used (usually with one decimal):

Grade	Meaning
10	Outstanding (uitmuntend)
9	Very good (zeer goed)
8	Good (goed)
7	Very satisfactory (ruim voldoende)
6	Satisfactory (voldoende)
5	Unsatisfactory (onvoldoende)
4	Less than unsatisfactory
3	Very unsatisfactory
2	Poor
1	Very poor

An 8 is considered a high grade. The vast majority of grades lies between 6 and 8, with 6 (or rather, 5.5) being the threshold that allows students to pass an exam or a course. 1-3 are hardly ever awarded, and 9-10 are very rare (<3%). The distinction *cum laude* can be awarded to excellent students (around 10%). Universities may have their own requirements but generally want to see an average grade of 8 or higher. There is much talk about the propensity of students to 'scrape by on a six' (*zesjescultuur*).

'There is the zesjesmentaliteit, "sixes mentality" - six being the lowest passing grade. You will rarely have discussions about why you awarded a 9 and not a 10, but they will fight tooth and nail to get that 6 in.'

For a comparison of the national grading systems in the Netherlands, the UK, and the US, see the website of NUFFIC, the Dutch organisation for internationalisation in education, which provides the following conversion table:

Netherlands	US	UK
10	A+	A* (first)
9.5	A+	A* (first)
9	A+	A* (first)
8.5	A+	A* (first)
8	A	A (first)
7.5	A	A-(upper 2nd)
7	B+	B (upper 2nd)
6.5	В	C (lower 2nd)
6	С	D (lower 2nd)
5.5	D	E (third)
5	F	F
4	F	F
3	F	F
2	F	F
1	F	F

In very special circumstances (< 5%), a PhD may be awarded the distinction *cum laude*. The *cum laude* procedure is complicated, university-specific, and usually involves additional external assessment.

3.5 Teaching formats

Teaching formats include lecture courses (*hoorcolleges*) as well as seminars and tutorials (*werkcolleges*). Dutch higher education institutions are known for a teaching style that involves a lot of teacher-student interaction and students working together in teams. Instructors in higher education tend to be seen as facilitators of knowledge and skill acquisition and as guides on a shared journey of scholarly discovery, rather than simply as conveyors of knowledge.

'Something I was not aware of is the separation between hoorcolleges and werkcolleges in the bachelor programme, which sets the mood for the students during their masters as well. As a result, you really need to encourage participation, at least at the beginning. Students are quite used to having all bibliographies one click away, and to downloading all PowerPoints, but they're not very used to finding their own material. Bachelor theses are quite basic in my opinion, so you need to double check the requirements with your coordinator.'

'Teaching can be challenging from a cultural point of view. I would advise newcomers to ask colleagues for basic tips to start with (especially colleagues from abroad who have been teaching for some time in the Netherlands and can give them an idea of how teaching is organised and how to interact with Dutch students), even before you start teaching if possible, in order to avoid conflict situations.'

3.6 Teaching load

Teaching load at Dutch universities can be heavy, as it is in more teaching-intensive higher education institutions in the US, the UK, or Germany. This is especially true for *universitair docenten* (university lecturers/assistant professors) in the Social Sciences and Humanities, who often spend 70% of their time on teaching and only 30% on research. The situation is compounded by long semesters (or trimesters or quarters, depending on the university), which give them a little more than two months of summer break. In Dutch higher education, the academic year begins officially on 1 September and ends on 31 August of the following year, with teaching often continuing into the first weeks of July. Note also that the Dutch are known for their summer holiday routine, which means that most people are away for two or three consecutive weeks in July or August.

'I have found that Dutch students see university as an extension of secondary school and expect a lot of structure and clear instructions. The students tend to have part-time jobs to support their studies and this means that in many cases, they will not be able or willing to do a lot of extra work. They are often quite pragmatic about their studies and they are not necessarily studying because they care deeply about a certain topic.'

'Dutch students usually have very good verbal skills and not afraid to ask difficult questions.'

4. HOW DO I PAY FOR MY RESEARCH? FUNDING OPPORTUNITIES IN THE NETHERLANDS

4.1 Funding streams

The Dutch world of academic research can be disorienting even for Dutch nationals, let alone for foreign researchers unfamiliar with local institutions and protocols. Yet most Dutch funding schemes are open to non-nationals, and it is therefore definitely worth exploring the possibilities.

Dutch research funding is allocated through three 'funding streams' (*geld-stromen*). The first funding stream consists of the block grant that universities receive directly from the government to pay for their teaching and research activities.⁸ By international standards, the first funding stream in the Netherlands is relatively large compared to the second or third/fourth funding stream. The second funding stream consists of government funds allocated through competitive grants for research projects and programmes. The Netherlands Organisation for Scientific Research (NWO, see sections 2.3 and 4.2) manages the allocation of this funding stream. The third stream concerns project-related funding by government ministries, international bodies such as the European Union, charities or the private sector.⁹

As is the case in many other European countries, the first funding stream is under pressure in the Netherlands, and external grants and programmes (the second and third funding streams) are playing an increasingly significant role. Apart from enabling academics to set up their own research lines, such grants and programmes are crucial to furthering an academic career. In the Netherlands, getting a PhD position, receiving tenure or being promoted often depends on one's success in acquiring funding.

 $^{8\,\,\,\,\,\,\,\,}$ The first funding stream is also used to match funding obtained through the second and third streams.

⁹ In the medical sciences, the third funding stream is generally divided into European Union, health funds and foundations (third stream) and business and private funding (fourth stream).

Some funding schemes offer individual grants or fellowships, which allow researchers to choose the institution (within but sometimes also outside of the Netherlands) at which they wish to carry out their research. This also means that when researchers with individual grants move between universities or research institutes, they are allowed to take the grant with them. Other schemes, however, allocate the grant or fellowship to the university. In those cases, a researcher moving to another institution loses the grant, while the university can use the funds to hire someone else.

It would be impossible to list all existing grant schemes available in the Netherlands in this guide. They number in their hundreds and are constantly being adapted and redesigned. What we offer here is an overview of the broad outlines per funding agency. For more detail, check the website of EURAXESS—the Netherlands, which collects up-to-date information on Dutch grants and fellowships. Your university may also have a subscription to the bi-weekly magazine *Onderzoek Nederland*, which lists all open research calls available to Dutch researchers.

4.2 Netherlands Organisation for Scientific Research

NWO is the national research council of the Netherlands and operates under the auspices of the Dutch Ministry of Education, Culture and Science (see section 2.3 above). It is the foremost sponsor of research at Dutch universities and research institutes. An overview of the existing schemes can be found on its website

Overall, NWO's research instruments fall under various categories. Traditionally, the focus has been on 'curiosity-driven' or basic research (fundamenteel onderzoek). Increasingly, however, NWO also invests in what it describes as 'thematic research', that is, research geared towards finding solutions for social, economic and cultural issues and set up partly in consultation with private or civil society partners. NWO also invests in research programmes aimed at international collaboration and exchange or at knowledge dissemination and open access publication of research results. Whether a grant proposal will have a societal impact and thereby promote valorisation (kennisbenutting or valorisatie) is an increasingly important assessment criterion.

The frequency of the funding round depends on the instrument and varies from once or several times per year to continuous submission. A selection committee or jury assesses the research proposals. In most instances, the committee consults external specialists, who act as peer reviewers.

'I was surprised at how pragmatic the applications were expected to be and how narrowly defined the specific research questions. Avoid jargon at all costs, the clearer and more basic the language, the better: formulate one or two central research questions that you aim to answer during your study. Ideally, you should also have a pretty good idea of the results you're expecting to get.'

'There is also the issue of societal impact: you are expected to describe in detail how your research can be of use to society outside academia and how you will make your results accessible and usable. This is a way of thinking about my research that was alien to me, coming from the US, and it would have been extremely useful if I had had examples of the sorts of societal impact that a humanities application can present.'

NWO offers four grant types: individual grants, programmatic grants, grants for cooperation and exchange, and investments in big facilities. Here we list only a few of the more common ones. NWO, however, runs several dozens of very specific schemes. It is therefore worth checking the NWO website to see whether the organisation offers grants that match your specific research interests. Note also that in the years to come, NWO is aiming to make funding schemes more uniform across domains in order to stimulate interdisciplinary collaboration.

4.2.1 INDIVIDUAL GRANTS

PhD grants

Overall, there are relatively few grant programmes specifically for individual PhD candidates in the Netherlands. Particularly in the exact sciences, PhD research usually forms part of a bigger project headed by more senior academic staff. NWO, however, does award several grants that support independent PhDs. These include PhDs in the Humanities, Doctoral Grants for Teachers, and the Research Talent scheme (in the social and behavioural sciences).

Rubicon

The goal of the Rubicon programme is to encourage talented researchers to pursue a career in postdoctoral research. The Rubicon grant offers researchers who have completed their doctorates in the past year the chance to gain experience at a top research institution abroad (for a maximum period of two years).

Talent Scheme

The Talent Scheme (*Vernieuwingsimpuls*) is an appealing and highly competitive programme that encourages individual researchers to conduct their own research project independently. It offers individual grants that are also meant to encourage mobility between research institutes. The programme is divided into three parts: Veni (a maximum of \in 250,000 for researchers up to three years after receiving their PhD), Vidi (a maximum of \in 600,000 for mid-career researchers up to eight years after receiving their PhD and who want to develop their own line of research and appoint one or more co-researchers) and Vici (a maximum of \in 1.5 million for senior researchers up to fifteen years after receiving their PhD, to establish their own research group). Note that these eligibility windows may be extended due to maternity leave, parental leave, long-term illness and training as a clinical specialist. In recent years, the success rate for these grants has been around 10-15%.

'More academics in this country will know the Veni, Vidi, Vici funding programmes than the exact circumstances of Caesar's quip - it's considered almost a sine qua non for an academic career to have had one of these grants, or at least to have given them a serious shot. Aspiring international researchers who come to the Netherlands should be ready to launch themselves!'

4.2.2 PROGRAMMATIC GRANTS

Free Competition

The Free Competition (*Vrije competitie*) programme encourages research that is not linked to a particular theme. After a period in which funding in the Free Competition was somewhat limited, NWO increased the programme budget by 30% in 2018. Several NWO divisions organise such open competitions: the Humanities (for curiosity-driven research), the Physical Sciences (for riskladen, application-oriented and multidisciplinary research) and the Earth and Life Sciences (for new, daring ideas). The programmes fund the cost of research as well as the staffing costs of PhD candidates or postdocs.

'I do interdisciplinary work and get plenty of funding, but many of my proposals die undeserved deaths due to "turf thinking", e.g. how can X even imagine that he's competent in this? ... I'm sure that in a large interdisciplinary group, the question would not arise.'

4.2.3. DIRECT GOVERNMENT RESEARCH FUNDING

Gravitation

The Gravitation (*Zwaartekracht*) programme is intended for consortia of excellent researchers who conduct innovative and influential research within their discipline. The purpose is to encourage research that ranks among the world's top to achieve a genuine international breakthrough. These major grants are examples of a clear trend towards concentrating funding.

4.3 Royal Netherlands Academy of Arts and Sciences

The Royal Netherlands Academy of Arts and Sciences (KNAW) is dedicated to the advancement of science, scholarship and the arts in the Netherlands (see section 2.4 above). In addition to its various advisory and administrative functions, the Academy also manages a number of specific funding programmes and awards, for example in Indian languages (Gonda Fund), mathematical logic (Arend Heyting Foundation) and ecology (Academy Ecology Fund). For a general overview, see: https://www.knaw.nl/en/awards/subsidies.

4.4 European Union (Horizon 2020 and FP9)

Horizon 2020 is a large-scale funding programme set up by the European Union to sustain research carried out in the European Research Area (ERA). It runs from 2014 to 2020 and will be succeeded by a new framework programme (FP9) that will have the same general divisions and aims. Horizon 2020 consists of three 'pillars':

Excellent Science

In the EU's own terms, the aim of the 'Excellent Science' pillar is 'to reinforce and extend the excellence of the Union's science base and to consolidate the European Research Area'. Unlike the two other pillars, Excellent Science focuses particularly on basic research. See: https://ec.europa.eu/programmes/horizon2020/en/h2020-section/excellent-science

ERC GRANTS

The ERC programme offers individual grants for innovative research that is described as 'high risk – high gain'. These highly competitive grants can be used to fund the staffing and research costs of the Principal Investigators as well as several PhD candidates and postdocs. The most important funding instruments, all of which sponsor five-year projects, are the ERC Starting Grant for young,

early-career researchers (2-7 years after PhD, up to \in 1.5 million), the ERC Consolidator Grant for independent researchers (7-12 years after PhD, up to \in 2 million), and the ERC Advanced Grant for senior research leaders (no age limit, up to \in 2.5 million).

MARIE SKŁODOWSKA-CURIE ACTIONS (MSCA)

The MSCA are designed to support transnational, intersectoral and interdisciplinary mobility. They include funding for short-term research mobility, individual fellowships for experienced researchers (for two-year research stays abroad) and grants for setting up joint doctoral programmes.

FUTURE AND EMERGING TECHNOLOGIES (FET)

FET actions are meant to encourage new lines of technology through novel collaborations between science and engineering. The FET programmes range from grants sponsoring a small group who want to develop radical early-stage ideas to grants for ten-year initiatives that coordinate the work of hundreds of researchers around specific scientific and technological challenges.

RESEARCH INFRASTRUCTURE

This scheme supports the development of new research infrastructures, optimisation of the use of national facilities by integrating them into networks, and the development of IT-based e-infrastructures.

Industrial Leadership

This pillar focuses on technological innovations, particularly those that could help European small and medium-sized enterprises (SMEs) to grow. The focus is on applied research that can help enable industrial technologies in particular fields (such as nanotechnology and biotech), on the development of venture capital for R&D, and on SME-tailored funds for implementing innovative ideas. See: https://ec.europa.eu/programmes/horizon2020/en/h2020-section/industrial-leadership

Societal Challenges

This pillar funds large-scale, interdisciplinary and multi-partner projects that focus on tackling social and economic challenges. Seven sub-programmes have been designed that address issues ranging from food security to climate change to terrorism threats. See: https://ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges

4.5 Country-specific collaborative funding schemes

There are various funding schemes that aim to encourage exchange and collaboration between research carried out in the Netherlands and other specific countries or regions. Countries and regions for which such schemes exist include France (Van Gogh Programme), Latin America (ALFA), Japan (Canon Foundation in Europe), South Africa (Mandela Scholarship Fund of Leiden University), the United Kingdom (British Council Netherlands) and the United States (Fulbright Fellowships). See for more information: https://www.euraxess.nl/funding/search and http://www.vsnu.nl/en_GB/funding-of-universities.html.

5. WHAT'S THE LONG-TERM PICTURE? HIGHER EDUCATION AND RESEARCH POLICY

5.1 Governmental research policy

In 2014, the government issued a report on research policy (2025 - Vision for Science, Choices for the future, *Wetenschapsvisie 2025*). It described its ambitions as follows: 1) It wants Dutch science to be of worldwide significance, 2) It wants Dutch science to have even closer ties with society and the private sector, with maximum impact, 3) It wants Dutch science to continue being an incubator for top talent.

The Netherlands is one of the few countries in the world in which nearly all of the universities are listed in international rankings. The website of the VSNU provides updated information.

5.2 Top sectors

There has been a strong push in the Netherlands to streamline research towards addressing real-world challenges. This is the main thrust of the 'top sectors policy' (topsectorenbeleid), which aims to take state-of-the-art research to the private sector as well as to government and civil society organisations, thereby promoting what is referred to as the 'knowledge economy' (kenniseconomie). The Dutch government invests millions of euros annually in private-public partnerships geared towards knowledge generation and innovation with the aim of finding solutions to the challenges facing society. Researchers who come to the Netherlands should be aware that NWO allocates quite a lot of funding to research that contributes to the top sectors policy.

Nine top sectors are currently receiving strategic funding through this channel: Agriculture & Food, Chemistry, Creative Industry, Sustainable Energy, High Tech, Logistics, Life Sciences & Health, Horticulture & Propagation Materials, and Water and Climate. To qualify for funding, researchers need to form consortia with businesses, industrial, government or civil society

organisations, which must commit 'in kind' by allocating staff and/or by making actual financial contributions. You can check the top sectors website for details about the specific questions and problems per sector (https://www.topsectoren.nl/, in Dutch), as well as the NWO website pages dedicated to the top sectors (http://www.nwo.nl/en/policies/top+sectors).

5.3 Dutch National Research Agenda

The Netherlands has gained recognition in recent decades for its effective approach to capitalising on society-driven investment. In line with these efforts, the government launched a unique initiative in 2015 by inviting the general Dutch public as well as research and education organisations to formulate major research questions, with the idea that these questions should drive the Dutch research agenda in years to come. Based on the results of this national consultation, a 'knowledge coalition' (*Kenniscoalitie*)¹⁰ prepared the Dutch National Research Agenda (*Nationale wetenschapsagenda*, NWA), which features 140 cluster questions and 25 'routes'.

While the Dutch National Research Agenda is a direct initiative by the government, NWO was involved in its design and development, alongside other participants in the knowledge coalition. Close links have been established between NWO as an organisation and the NWA as a guideline for research policy. In late 2017, the government allocated additional funding (investeringsimpuls) for research, and all policies regarding the redistribution of this incentive within the NWA's routes will be implemented under the auspices of the new and unified NWO. In the coming years, a significant amount of additional government funding will be tied to the NWA in one way or another, and it is in any case expected that funding requests and long-term research strategies should refer to one of these overarching research questions.

"The need for reform is not only felt at the policy level. Bottom-up-initiatives such as "Science in Transition" * showed that there is a widely felt need among academics to rethink the checks and balances of the current science system.'

* The initiators of Science in Transition believe that the science system must change. Science must be judged on its merits and the added value it provides for society, with stakeholders in civil society deciding on knowledge production. See: http://scienceintransition.nl/en/.

¹⁰ Partners in the *kenniscoalitie* are: VSNU, VNO-NCW, TO2, MKB Nederland, KNAW, Vereniging Hogescholen, NFU and NWO.

5.4 Research and teaching assessments

Every research group and centre at Dutch universities and Academy institutes is subject to an assessment (*onderzoekvisitatie*) every six years. This happens according to the research quality criteria listed in the national Standard Evaluation Protocol (SEP). VSNU, NWO and the Academy regularly update the SEP. External review committees are asked to use the methods and criteria listed in the SEP, which also sets the agenda for internal assessments of faculties, units, groups, labs, centres and individual researchers at Dutch universities and research institutes.

The SEP serves as an instrument for measuring the academic quality of research conducted at Dutch universities and research institutes, and for assessing its societal relevance, usually over the past six years. An external committee consisting of independent experts in a particular field assesses the unit's performance and its research strategy, usually based on a research report produced by the unit and a site visit or interview with representatives of the same unit. The committee makes both a quantitative and a qualitative evaluation of (1) the quality of research, (2) its relevance to society, and (3) the viability of the research strategy going forward. In addition, the unit is judged on its PhD programme, research integrity and diversity.

There is a similar cycle of teaching assessments (*onderwijsvisitatie*) in which a panel of independent experts assesses a unit's teaching performance. The panel is assembled by the Accreditation Organisation of the Netherlands and Flanders (*Nederlands-Vlaamse Accreditatie Organisatie*, NVAO, see section 3.3 above), which has the power to renew or cancel a programme's accreditation. Because government funding and accreditation depend on both the research assessment and the teaching assessment, they are important milestones for academic research and teaching units in the Netherlands. Academic staff are expected to contribute actively to the success of these assessment exercises.

6. WHAT'S IN IT FOR US? DIVERSITY AND FAMILY SUPPORT

6.1 Bringing your partner and children to the Netherlands

Most Dutch universities do not have a 'double career' policy. Partners and spouses cannot expect to receive more help than a general introduction to the job market. Although the need for job security, especially among international academic staff, has sparked a number of tenure-track programmes at various universities in recent years, so far there are no uniform regulations.

One important financial benefit of moving to the Netherlands as an academic is the '30% rule' (30%-regel), a special tax exemption on 30% of one's salary. Foreign researchers must apply for this tax exemption together with the institution at which they are employed. More information can be found on the website of the Dutch Tax and Customs Administration (Belastingdienst).

'My husband and I had two sets of job offers: one in the USA and one in the Netherlands. We actually chose the Netherlands because the Dutch system offers a much more balanced career path, permitting both partners to pursue their ambitions. We both wanted to pursue our own academic careers and have children. And you can easily do that here. Maternity and parental leave is much longer than in the US, and you have the freedom to choose how many hours you want to work per week and when to return to full time. You get to choose! Importantly, funding agencies respect the right to have this break, so you actually do not "lose" this time off work. I love this flexibility.'

6.2 Parental leave and childcare

All Dutch funding procedures take parental leave into account in their eligibility criteria. Women are usually allowed an 18-month extension on their eligibility for major grants for each child, up to a maximum of three children. Since May 2018, NWO also allows the other parent a six month extension per child, with a

maximum of five years. This applies for the major NWO grants. However, at the time of writing, there is no national consensus on how parental leave should be factored into tenure-track procedures.

'For a place in day care (opvang) or a primary school, you must reserve months or even a year in advance, so it is advisable to look for a place as soon as you know that you will be living here. But there are also child minders (also subsidised by the state), and this might be a better way for you and the child to settle into the new situation.'

Generally speaking, there are three childcare¹¹ options for kids from 0-4 years: a day care centre (*kinderdagverblijf*, usually a group of 10 to 30 children), a child minder (*gastouder*), or one of the above combined with part-time work (e.g. 0.8 FTE) (note that Dutch employees often rely on grandparents to fill in the remaining hours, a luxury not usually afforded to international staff). To the best of our knowledge, there is currently no dedicated funding in support of childcare at Dutch universities, with the exception of the University of Groningen, where a partnership with the Elsevier Fund supports some expenses related to flexible childcare. It is not unusual, and not frowned upon, for young researchers to work for four days per week temporarily, the fifth being colloquially referred to as 'mama day' or 'papa day'.

Once children are in school, parents have the option of paying for 'afterschool care' (*buitenschoolse opvang*, BSO), often organised on the school premises and consisting of supervised play.

6.3 Women in Dutch academia

Women remain underrepresented at all higher levels of Dutch academia, in spite of a general awareness of this issue. The reasons for this underrepresentation are complex. Not only are there a limited number of female role models but discrimination and gender stereotyping also play a part (for facts and analysis, see e.g. https://www.athenasangels.nl/en/). Young parents usually work four days per week in the Netherlands, and some researchers feel that part-time work is not compatible with a successful academic career – in any case, it is certainly an additional strain.

Potential role models are being showcased by dedicated awards for outstanding women: the Athena award for chemists, the Minerva award for physicists, the Professor de Winter award at the University of Twente, and

¹¹ Parents in the Netherlands can apply for childcare benefit covering child-minding expenses. See: https://www.belastingdienst.nl/wps/wcm/connect/bldcontenten/belastingdienst/individuals/benefits/moving_to_the_netherlands/.

others. An affirmative action programme was initiated by the Academy in 2017. In both 2017 and 2018, it organised women-only elections to install sixteen new female members of the Academy. These two special rounds came in addition to the regular rounds that are held annually. In 2017, the Minister of OCW, Jet Bussemaker, obligated Dutch universities to create an additional one hundred chairs for female professors, called the 'Westerdijk chairs' (known colloquially as the 'Bussemaker chairs') in honour of the first female professor in the Netherlands, the Dutch biologist Johanna Westerdijk (1883-1961).

Other affirmative action initiatives include the nationwide implementation of tenure tracks dedicated to outstanding women academics. The tenure-track positions that are offered under these initiatives are usually very competitive, but also very attractive – they are prestigious and offer a good starting salary and benefits, which is not always the case at Dutch universities. The Rosalind Franklin Fellowships were created first (UG), soon followed by the McGillavry Fellowship (UVA), the Fenna Diemer-Lindeboom Fellowship (VU), the U-Twist Fellowship (UT).

Remaining challenges include what is often referred to as a dysfunctional 'pipeline' of women, starting with young female students at the start of their studies all the way up to the top of the academic ranks (Figure 6). This loss of talent has resulted in the dramatic underrepresentation of women at the professorial level (19.3% professors in the Netherlands in 2017 as opposed to 30% at the top universities in the Shanghai ranking). The Dutch Network of Women Professors (*Landelijk Netwerk Vrouwelijke Hoogleraren*, LNVH) monitors progress on an annual basis and updated information can be found on its website.

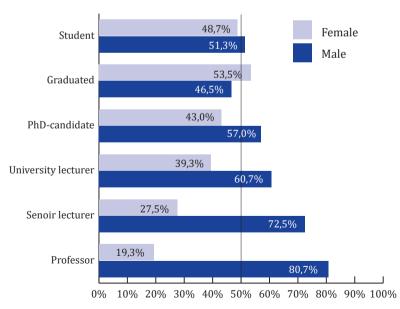


Fig. 6: Gender distribution in Dutch academic ranks (2016; excluding Medical Sciences). Source: LNVH.

'It's been heartening to see recent initiatives, such as the Bussemaker chairs, that aim to rectify the gender imbalance in the academic professions. The Dutch 1994 General Equal Treatment Act may sound like a brilliant idea, but the reality at Dutch universities does not always live up to this ideal.'

6.4 International staff in Dutch academia

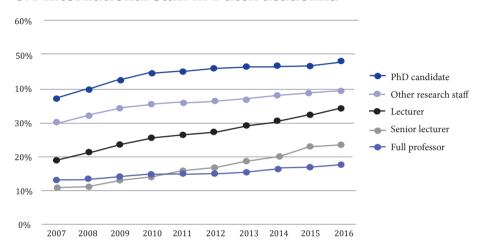


Fig. 7: Academic staff with a non-Dutch nationality at Dutch universities, per job title, 2007-2016 (%). Source: VSNU.

The proportion of foreign academics in the Netherlands is growing. According to a 2013 Rathenau Instituut report, in 2003, 23% of all academics were international; in 2011, this was 30% (Figure 7). The increase in international PhD candidates is likewise noticeable (2003: 36%, 2011: 43%).

While it seems fair to say that most foreign academics in the Netherlands are satisfied with their working conditions, there are a few recurring issues that they highlight: the fact that, despite appearances, Dutch universities can be quite hierarchical; that, despite assurances to the contrary, learning the language remains essential to advancing one's career; and that the Dutch cultivate a frankness in their professional relationships to which foreigners can find it difficult to adapt.

'Because many of my Dutch colleagues commute, it is not easy to arrange after-work gatherings, which also has social implications. This is something most expats (who move to the city where they will work) don't realise and the limited social interaction therefore comes as a surprise.'

'One of the most bewildering aspects of university culture in the Netherlands is that for the most part, even if there are clear rules, no one seems to abide by them. This means that almost all of the rules and practices are unwritten, which makes it very difficult for an outsider to understand what is actually expected.'

'Yes, the Dutch academic system has its quirks, inequalities and dubious "programmatic" aspects, but on the positive side, it's a system that is transparent and self-critical, and that provides a friendly, informal but professional and above all, an innovation-driven atmosphere. Overall, I feel working here is a great privilege!'

7. SOME USEFUL LINKS AND READING FOR NEWCOMERS TO DUTCH ACADEMIA

7.1 Websites for foreign academics

Euraxess - Researchers in motion:

http://www.euraxess.nl/

App Welcome2NLResearch - helps international researchers. The app is meant for potential employees abroad and explains Dutch immigration and residency procedures. https://www.vsnu.nl/en_GB/welcome2nlresearch.html

Factcards - All about a career in academia, research and science in the Netherlands:

http://www.factcards.nl

IamExpat:

http://www.iamexpat.nl/

XPat.nl - Essential information on living, working and studying in the Netherlands:

http://www.xpat.nl/netherlands-info/

7.2 Student websites

NUFFIC - Dutch organisation for internationalisation in education:

https://www.nuffic.nl/en

Dutch network of PhD students:

http://www.hetpnn.nl/en/

Study in Holland:

https://www.studyinholland.nl/

7.3 Country reports and policy advice

European Commission's report on the higher education system in the Netherlands:

https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Netherlands:Higher_Education

Rathenau Instituut report, 'Facts and Figures: academic careers in the Netherlands'

https://www.rathenau.nl/nl/publicatie/facts-and-figures-academic-careers-netherlands

Rathenau Instituut reports and factsheets: https://www.rathenau.nl/en/science-figures

Royal Netherlands Academy of Arts and Sciences, 2018: 'The Netherlands' appeal as a research hub' – discusses how the Netherlands can maintain or improve its appeal and how it can attract foreign researchers:

https://www.knaw.nl/en/advisory-work/current-advisory-projects/thenetherlands-appeal-as-a-research-hub

Royal Netherlands Academy of Arts and Sciences, 2018: 'Dutch and/or English?' on language choice and language policy in Dutch higher education: https://www.knaw.nl/en/news/publications/nederlands-en-of-engels?set_language=en

Van Dijck, J.F.T.M. & van Saarloos, W., 2017: *The Dutch polder model in science and research*. Royal Netherlands Academy of Arts and Sciences publication exploring the success of the Netherlands in research and how to maintain it: https://www.knaw.nl/en/news/publications/the-dutch-polder-model-in-science-and-research

7.4 Other relevant literature

Stephanie Dijkstra, *The Holland Handbook* (many editions).

FOM (Stichting voor Fundamenteel Onderzoek der Materie)/NWO. *Learning the ropes of the Dutch physics community*. Houten 2014. www.nwo-i.nl/en/news/2014/05/27/learning-the-ropes-of-the-dutch-physics-community-2/Marilyn Warman. *What!?? Aspects of Dutch culture that can cause friction*. NUFFIC 2005.

8. LIST OF ABBREVIATIONS AND ACRONYMS

List of abbreviations and acronyms frequently encountered in Dutch academia:

4TU	Federatie van de vier technische universiteiten in Nederland	Federation of the four universities of technology in the Netherlands
AID	Algemene Introductie Dagen	Annual Introduction Days
AWTI	Adviesraad voor wetenschap, technologie en innovatie	The Advisory council for science, technology and innovation
BSA	Bindend studieadvies	Binding study recommendation
CAO	Collectieve arbeidsovereenkomst	Collective Labour Agreement
СРВ	Centraal Planbureau	Netherlands Bureau for Economic Policy Analysis
CvB	College van Bestuur	Executive board
DO	Directeurenoverleg	Meeting or council of directors
Dra.	Doctoranda	Female 'doctorandus'
Drs.	Doctorandus	'Doctorandus'
Dr.	Doctor	Doctor
ECTS	European credit transfer system	European credit transfer system
ERC EUR	Europese onderzoeksraad Erasmus Universiteit Rotterdam	European Research Council Erasmus University Rotterdam
EZK	Ministerie van Economische Zaken en Klimaat	Ministry of Economic Affairs and Climate Policy
FB	Faculteitsbestuur	Faculty board
FES	Fonds Economische Structuurversterking	Economic Structure Enhancing Fund
	Fonds Economische	•

FR	Faculteitsraad	Faculty staff council
fte	Fulltime equivalent	Full-time equivalent
НО	Hoger onderwijs	Higher education
IBO	Interdepartementaal beleidsonderzoek	Policy evaluation
ICT	Informatie- en communicatietechnologie	eInformation Technology
IND	Immigration and Naturalization Service	Immigration and Naturalization Service
IO	International office	International office
KNAW	Koninklijke Nederlandse Akademie van Wetenschappen	Royal Netherlands Academy of Arts and Sciences
KNMI	Koninklijk Nederlands Meteorologisch Instituut	Royal Netherlands Meteorological Institute
LOWI	Landelijk Orgaan Wetenschappelijke Integriteit	Netherlands Board on Research Integrity
LNVH	Landelijk Netwerk Vrouwelijke Hoogleraren	Dutch Network of Women Professors
MKB	Midden- en Kleinbedrijf	Small and medium-sized enterprises
NFU	Nederlandse Federatie van Universitair Medische Centra	Netherlands Federation of University Medical Centres
NWA	Nationale Wetenschapsagenda	Dutch National Research Agenda
NWO	Nederlandse Organisatie voor Wetenschappelijk Onderzoek	Netherlands Organisation for Scientific Research
NWP	Niet-wetenschappelijk personeel	Non-academic staff
NVAO	Nederlands-Vlaamse Accreditatie Organisatie	Accreditation Organisation of the Netherlands and Flanders
OBP	Ondersteunend en beheerspersoneel	Support and management staff
OCW	Ministerie van Onderwijs, Cultuur en Wetenschap	Ministry of Education, Culture and Science
OER	Onderwijs- en examenregeling	Teaching and Examination Regulations
OESO	Organisatie voor Economische Samenwerking en Ontwikkeling	Organisation for Economic Co-operation and Development (OECD)
OLC/OC	Opleidingscommissie	Programme Committee
OU	Open Universiteit	Open University of the Netherlands
R&D	Research and Development	Research and Development
RIVM	Rijksinstituut voor Volksgezondheid en Milieu	Dutch National Institute for Public Health and the Environment
RU	Radboud Universiteit Nijmegen	Radboud University Nijmegen

SEP	Standaard Evaluatie Protocol	Standard Evaluation Protocol
SKO	Seniorkwalificatie onderwijs	Advanced University Teaching Qualification (Advanced UTQ)
SSC	Student Service Center	Student Service Centre
STW	Stichting voor de Technische Wetenschappen	Technology Foundation (now: NWO Domain Applied and Engineering Sciences, AES)
SZ	Studentenzaken	Student Affairs
TiU	Tilburg University	Tilburg University
TKI	Topconsortia voor Kennis en Innovatie	Top consortia for Knowledge and Innovation
TO2	Samenwerkingsverband Toegepaste Onderzoek Organisaties	Federation of applied research organisations
TU/e	Technische Universiteit Eindhoven	Eindhoven University of Technology
TU Delft/ TUD	Technische Universiteit Delft	Delft University of Technology
UD	Universitair docent	Assistant professor (US) / university lecturer (UK)
UG	Rijksuniversiteit Groningen (RUG)	University of Groningen
UHD	Universitair hoofddocent	Associate professor (US)/ senior university lecturer (UK)
UL	Universiteit Leiden	Leiden University
UM	Universiteit Maastricht	Maastricht University
UR/U-raad	Universiteitsraad	University Council
UT/ UTwente	Universiteit Twente	University of Twente
UU	Universiteit Utrecht	Utrecht University
UvA	Universiteit van Amsterdam	University of Amsterdam
VSNU	Vereniging van samenwerkende Nederlandse universiteiten	Association of Universities in the Netherlands
VU	Vrije Universiteit Amsterdam	VU Amsterdam
WHW	Wet op hoger onderwijs en het wetenschappelijk onderzoek	Higher Education and Research Act (WHW)
WP	Wetenschappelijk personeel	Academic staff
WRR	Wetenschappelijke Raad voor het Regeringsbeleid	Netherlands Scientific Council for Government Policy
WUR	Wageningen University and Research	Wageningen University and Research

The Young Academy is an independent part of the Royal Netherlands Academy of Arts and Sciences

