## Contents

1. Introduction  > 3
2. Career opportunities  > 5
3. Duration and extent of the appointment  > 9
4. The role of the supervisor  > 11
5. Hiring and career policies for female academic staff  > 15
6. Recruitment and promotion procedures  > 17
7. Ius promovendi  > 25
8. Associate Professors, Assistant Professors and Full Professors outside the Career Paths in Science programme  > 29
9. Starting date and transition scheme  > 33

Appendix 1  > 35
   Appointment criteria for Assistant Professors

Appendix 2  > 36
   Criteria for promotion to the rank of Associate Professor

Appendix 3  > 44
   Criteria for promotion to Full Professor 2

Appendix 4  > 52
   Alternative criteria for permanent staff entering the Career Paths in Science programme

Appendix 5  > 53
   Criteria for promotion to the rank of Full Professor 1

Appendix 6  > 55
   Main changes in Career Paths in Science, edition 4, compared to edition 3
\[
\begin{align*}
Z &= B_0^T \left( B_0^T B_0 + \Sigma \right) B_0^T \gamma = H_0 \gamma \\
B_0 &\sim \mathcal{N}(\mu, \Lambda) \\
S_x \text{ and } H \lambda &\Rightarrow S_y \text{ and } \lambda \\
H_0^2 &= H_0 \\
S_\lambda^2 &\leq S_x \\
\text{true}(H_0) &= \text{rej}.
\end{align*}
\]
Introduction

The mission of the Faculty of Science and Engineering (FSE) is to be a relevant global player in teaching and research by excelling in the broad range of disciplines offered at the Faculty as well as by seeking new academic challenges across disciplines. This mission can only succeed if young, talented staff members are attracted and retained.

To this end FSE introduced the Career Paths in Science tenure track in 2001. At the initiative of Dean Prof. D.A. Wiersma, a tenure track system was implemented that (a) focussed on open recruitment of academics at the level of Assistant Professor in international competition and (b) offered them the perspective of promotion to Associate Professor and ultimately Full Professor. Individual performance, rather than staffing configurations, thus became leading in a person’s career. The tenure track system has fully proven its value in recent years, so the heart of the system largely remains intact. This updated version of Career Paths in Science is a modernization of the policy, so as to suit our times and the academic landscape. The current document was created in accordance with the UG-wide Tenure Track Policy memorandum that became effective on 1 July 2017.
Career opportunities

It is of crucial importance to attract national and international top talent and stimulate this talent to further develop at FSE. Academic staff is, after all, responsible for the main Faculty duties of teaching, research but also management in order to ensure the connection between teaching and research at the substantive and policy levels. For this reason, FSE offers clear career opportunities to young and talented academics.

The Career Paths in Science tenure track is organized as follows: Academics are recruited for the position of Assistant Professor (UFO-profile Universitair Docent – UD). Staff members who meet the criteria within the terms specified will be promoted to the rank of Associate Professor (UFO-profile Universitair Hoofddocent – UHD), and ultimately to that of Full Professor.

Academics on the Career Paths in Science tenure track will ultimately become Full Professors if they meet the criteria. The guiding principle of the tenure track policy is ‘up or out’. Assistant Professor appointments are temporary and in principle for a maximum of seven years, based on a full-time position, with an appraisal after five years. The appraisal will take place within six years if a life event has occurred (see Section 3). If the appraisal is positive, the Assistant Professor will be promoted to Associate Professor and receive the ius promovendi, i.e. the right to act as the formal supervisor of PhD students. This is a tenured appointment. In accordance with the ‘up or out’ policy, the Faculty will offer an outplacement track to Assistant Professors who are found not to meet the criteria for a promotion to Associate Professor after five years, or after up to six years in case of a...
life event. These Assistant Professors will retain their appointments for up to one year to engage in outplacement activities and find a job elsewhere.

Associate Professors can choose their own time to be appraised for promotion to the position of Full Professor 2 (Hoogleraar 2) anywhere between four and seven years after their appointment as Associate Professor. There will only be one appraisal opportunity. Associate Professors who do not meet the requirements for full professorship at their chosen time of appraisal will formally retain their appointment as Associate Professor but will no longer be part of the Career Paths in Science tenure track. As stipulated in the University of Groningen Associate Professors regulations, associate professorship in this tenure track is linked with the *ius promovendi*. In accordance with these regulations, Associate Professors who are not promoted further will retain the right to act as first supervisors of PhD students whose supervision had already started before the time of the appraisal for a period of five years, so that any ongoing PhD projects can be completed. Please see Section 7 of this document for possibilities to extend the right to supervise to people not on the Career Paths in Science tenure track.
## Academic career in Career Paths in Science

<table>
<thead>
<tr>
<th>Position</th>
<th>Scale</th>
<th>Promotion to the next rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Professor 2 (UD 2)</td>
<td>11</td>
<td>R&amp;D+, 3 years after starting as Assistant Professor 2</td>
</tr>
<tr>
<td>Assistant Professor 1 (UD 1)</td>
<td>12</td>
<td>BC-1, 5 years after starting as Assistant Professor 2, unless there has been a life event, which may postpone promotion by up to 1 year</td>
</tr>
<tr>
<td>Associate Professor 2 (UHD 2)</td>
<td>13</td>
<td>R&amp;D+, 3 years after starting as Associate Professor 2</td>
</tr>
<tr>
<td>Associate Professor 1 (UHD 1)</td>
<td>14</td>
<td>BC-2, 4–7 years after starting as Associate Professor 2, unless there has been a life event, which may postpone promotion by up to 1 year</td>
</tr>
<tr>
<td>Full Professor 2</td>
<td>Full Professor 2</td>
<td>BC-3 (meets about once every 4 years), after nomination by the institute director</td>
</tr>
<tr>
<td>Full Professor 1</td>
<td>Full Professor 1</td>
<td></td>
</tr>
</tbody>
</table>

1 See Section 4 for more information. Supervisors can issue promotion requests based on the R&D+ interview.
Life events and work-life balance
The Career Paths in Science programme is an intensive tenure track that is typically offered as a full-time track requiring staff members’ full-time attention. Sometimes, however, it is not possible for staff members to work full time due to life events such as illness, pregnancy or maternity leave or the death of a loved one. These staff members may be able to devote less time to meeting the criteria. After an absence of more than 8 weeks, staff members may issue a request to the Faculty Board for adjusting, i.e. postponing, the originally agreed time of appraisal. This request must include a recommendation from the relevant supervisor. The Faculty Board decides whether postponement of the time of appraisal can reasonably be expected to contribute to meeting the criteria. The postponement of the appraisal is linked to the duration of the life event.

Postponements can be granted for appraisals prior to promotion to the rank of Associate Professor as well as to that of Full Professor. The promotion criteria will be maintained in such situations.

Part-time
Staff members who are starting a tenure track can choose a 90% or 80% part-time appointment instead of a full-time appointment. In such cases, the duration of the appointment will be extended, and the appraisal times will be adjusted accordingly. The time path for Assistant Professors is as follows:
The role of the supervisor

The supervisor, usually the Chair of a basic unit, plays an important role throughout the trajectory of the academic in Career Paths in Science. The supervisor offers the staff member advice on anything related to the development of an individual research line and teaching portfolio, on his/her role in the basic unit, the research institute and the degree programme, as well as on anything that will help make his/her stay and academic development in Groningen successful. The supervisor supervises the staff member at the start of his/her appointment when recording objectives and agreements with regard to teaching, research, management and professionalization. The staff member must describe these objectives and agreements in a personal development plan as well as a funding plan. They are also recorded during the first Results and Development (R&D) Interview. The supervisor also offers advice and support in building a national and international research network to increase visibility and fundraising.

Results and Development Interviews

Result and Development (R&D) interviews are annual interviews between staff members and their respective supervisors. They are conducted to review the previous year: have last year’s objectives been achieved and are staff members on their way to meeting the Career Paths in Science criteria at the agreed time of appraisal? In addition, agreements are laid down for the next year. Staff members’ personal development plans and the role of their supervisors are also addressed. Supervisors in addition express their opinions about the performance of the respective staff members.
The R&D interviews are prepared by the Scientific Director of the research institute, the Education Director of the institute, several supervisors of academics participating in the Career Paths in Science tenure track and the HR Advisor. This leads to a comprehensive overview of staff and their level, which makes it possible to include the scientific quality of staff members and the institute's opinions about these qualities in the appraisal process.

The supervisor typically conducts the R&D interviews, supported by the HR Advisor. The Scientific Director and/or the Education Director of the research institute can also participate in the R&D interview at the request of the staff member, his or her direct supervisor, the Scientific Director or the Education Director. The form is signed by the supervisor, the staff member, both directors (regardless of their presence during the interview), the HR Advisor and any others present.

Extensive R&D interviews take place halfway through the trajectory of the Assistant Professor 2 or Associate Professor 2, i.e. typically after 3 years. These are known as the R&D+ interviews as more people attend these interviews than the regular R&D interviews and because these R&D interviews form the basis for requests by supervisors to the Faculty Board for the promotion of the staff members involved to the ranks of either Assistant Professor 1 or Associate Professor 1. Alongside the relevant supervisor and the Scientific Director of the research institute, the R&D+ interview is always attended by the institute's Education Director and the HR Advisor.

**Mentor**

In addition to receiving supervision by a supervisor, each academic in the Career Paths in Science trajectory must have a mentor, preferably from outside his or her research institute. The Director of the institute ensures that new staff members receive a mentor within 6 months. HR can mediate in finding a mentor if desired, i.e. in establishing a good match between

---

2 While staff members outside Career Paths in Science are also advised to find a mentor, they are not obliged to do so.
mentor and mentee. A good match implies that both mentor and mentee look forward to the mentorship. The relationship between mentors and mentees is not hierarchical, so mentors cannot simultaneously be supervisors or supervisors of mentees, nor can they be direct co-workers. Mentors are typically one or two steps ahead of mentees on their career paths. Conversations between mentors and mentees are confidential and allow more experienced academics to share their knowledge and skills with less experienced academics. Mentors can advise on the development of research skills, teaching, leadership, outreach and management. In addition, mentors can address topics that the mentee considers important. Mentors can also offer an attentive ear, a fresh perspective, feedback and advice based on personal experience. In short, mentors are the sounding boards of the mentees.

Training and education
Academics in the Career Paths in Science trajectory have many training courses at their disposal to help develop themselves and properly do their jobs. Assistant Professors can, for example, follow training courses in supervising PhD students, project management, writing and presentation skills geared towards fundraising, leadership and management skills for young team leaders as well as University Teaching Qualification (UTQ) courses. Associate Professors can, for example, follow training courses in conducting R&D interviews, professional recruitment and selection, academic leadership, media skills, generating attention for the social relevance of research, intercultural competences, lifelong learning after the UTQ, such as the Senior Teaching Qualification (STQ) and the course Educational Leadership.

The HR Advisor supports staff members and their supervisors in drafting suitable individual training plans. The expectations regarding the training courses that promotion candidates must have followed are further refined in the promotion criteria in Appendices 2 and 3.
Like many other universities in Europe, the UG as a whole and FSE in particular are facing acute shortages of female academic staff, despite a long-standing and active policy to increase the percentage of female academic staff. While this policy has indeed led to an increase of female academic staff, the desired level has not yet been attained.

FSE regularly reserves special tenure track positions for women with great academic potential under the Rosalind Franklin programme. Women appointed under this programme follow the regular Career Paths in Science tenure track, which ultimately leads to the rank of Full Professor if they perform well.

The Faculty Board requires Selection Committees within the Faculty to actively search for female candidates and in principle to shortlist at least 40% female candidates for interviews. Members of these Committees are expected to have had special training to minimize the role of gender-related preconceptions and judgements in selection procedures. Female candidates for academic positions are given preference over male candidates with equivalent qualifications.
This section outlines the procedures for appointing new academics as described in the Faculty Regulations, as well as the appraisal and promotion of academics in the Career Paths in Science trajectory.

Recruitment procedure
New academics typically enter the Career Paths in Science trajectory as Assistant Professor, although the direct recruitment of Associate Professors or Full Professors is possible as well.

Assistant Professors are recruited as follows: The Faculty Board appoints a Profile Report Committee based on nominations by the Director of the institute that has a vacancy for an Assistant Professor. This Committee is tasked with writing the profile report, which outlines the position of the candidate and what is expected of him or her.

The Profile Report Committee consists of 5 – 7 academic staff members, with the following composition:
- Scientific Director of the institute with the vacancy (Committee Chair)
- Education Director of the institute with the vacancy
- Several women
- The majority must be Full Professors

The Faculty Board subsequently creates an Selection Committee based on nominations by the Profile Report Committee. The Selection Committee is tasked with recruiting an Assistant Professor, based on the profile report.

The Selection Committee consists of 7 members, with the following composition:
- Director of the institute with the vacancy (Committee Chair)
Recruitment of Associate and Full Professors

The procedure for the recruitment of Associate or Full Professors is largely similar to that for recruiting Assistant Professors, the difference being that decisions to appoint Associate or Full Professors are made by the Board of the University rather than the Faculty Board. After approving a nomination for appointment, the Faculty Board advises the Board of the University, adding the profile report and the Selection Committee’s nomination to its advice. Also included are recommendations from sister faculties (that is, other science and engineering faculties in the Netherlands) when appointing Full Professors or recommendations from three national or international references when appointing Associate Professors.

Promotion to Associate or Full Professor in permanent employment

Assistant Professors on a tenure track can be promoted to the rank of Associate Professor after 5 years, or up to 6 years after a life event. Associate
Professors can choose their own time to apply for a promotion to Full Professor anywhere between 4 to 7 years after their appointment, or up to 8 years after a life event. In both cases, the Faculty Board will ask for the advice of the Promotion Committee (BC). The Faculty Board will subsequently issue advice to the Board of the University about the promotion, adding the candidate's complete file, including letters of reference, the BC advice, the profile report as updated by the Director of the institute and the recommendations by the sister faculties if a Full Professor is to be appointed. The Board of the University decides on promotions to Associate Professor and Full Professor. 

There is only one appraisal opportunity in both cases. The working method and composition of the BC are outlined below.

**Promotion Committees 1 and 2**
The permanent Promotion Committee BC-1 advises the Faculty Board on decisions on the nomination for promotion to Associate Professor; Promotion Committee BC-2 does so on decisions on the nomination for promotion to Full Professor. Although composed of different members, the composition method is identical for BC-1 and BC-2. BC-1 and BC-2 consist of no more than 6 permanent members, preferably including international staff, all of whom are FSE Full Professors and at least 2 of whom are women. The six permanent members accurately reflect the breadth of the Faculty. The 7th member, a student member, is appointed annually. In addition, an external expert in the candidate’s field, i.e. a Full Professor not appointed at the UG, will join the BC for each candidate; this expert is selected and approached by the Chair of the BC, in consultation with the Director of the research institute if desired. Like the Chair, the permanent members are appointed by the Faculty Board for a 3-year term, on the understanding that 2 members must be replaced every year. This term can be extended.

The BC is supported by an HR advisor and a minute taker. In no event will the staff member’s direct supervisor, i.e. the Chair of the basic unit or the Director of the
research institute, be on the BC. If one of the BC members is also the supervisor of a candidate under appraisal, he or she will withdraw as a member of the BC for the appraisal of this candidate to be replaced by a former BC member if possible. The supervisor will be heard as an informant, however.

BC-1 meets 3 times per year on the first Tuesdays of December, March and June. BC-2 meets 3 times per year on the third Wednesdays of November, February and May.

**Portfolio**
Candidates must ensure that the BC receives a complete file at least 2 months before the day of the meeting. The file must include:
1. A complete Curriculum Vitae.
2. A concise self-evaluation of achievements in teaching, research, management and valorization since the candidate’s start in his or her current position. Candidates need to clarify in the file to what extent they meet the criteria for a promotion to the rank of Associate Professor in keeping with Appendix 2 or to that of Full Professor in keeping with Appendix 3.
3. The grant letters for external grants received. If the grant was not received as Principal Investigator (PI) but as co-PI or as part of a consortium, the documents explaining the candidate’s role as co-PI or in the consortium must also be included, as well as those showing the funds specifically allocated to the candidate’s research.
4. An overview of training activities.
5. A citation analysis, based on Web of Science, Google Scholar or other internationally recognized literature databases in the relevant field of research.

The BCs will also take into account how candidates developed in the period up to the appraisal. The advisory HR member of the Committee has access to reports of the R&D interviews and will be able to point out any major discrepancies between the R&D interviews and the findings of the BC. In such cases, the R&D interview reports may still be added to the file with the
candidate’s permission, so as to give the BC access.

**References and external BC member**
The candidate and the Director of the research institute where the candidate works must independently provide the Chair of the BC with the names and addresses of potential references at least 2 months before the BC meeting. The Director must provide at least 6 names in consultation with the candidate’s supervisor; the candidate must provide at least 10. The references must be able to give an opinion on the candidate’s academic work. Both the Director and the candidate must ensure that at least 30% of the references provided are women and that the majority are international. In addition, at least half of the references must be people who have never worked with the candidate. Any prior working relationships with the candidate must be reported. The comments of the references approached are added to the file. If the references do not respond despite repeated requests by the HR Secretariat, the procedure will continue without their information.

In addition, the Director of the research institute, in consultation with the candidate’s supervisor, must provide at least 4 names of potential external experts who might participate in the BC. External experts must be Full Professors in the candidate’s field who have not worked with the candidate. At least one of the potential external experts must be a woman.

**Procedure**
The Chair of the BC and the HR Advisor check the submitted file for completeness, after which the BC will discuss the file in the first meeting after its completion. This session includes extensive consultation of the candidate, the candidate’s direct supervisor, the Scientific Director and the Education Director of the institute. Files are assessed according to the criteria.

**Advice BC-1**
If the BC finds that an Assistant Professor meets the promotion criteria (see Appendix 2), it will advise the Dean to permanently appoint the candidate and to nominate him or her to the Board of the University for appointment as Associate Professor.
Assessment of Competencies
In their decision-making, the Selection Committee and the Promotion Committees take into account the evaluation of the required competencies as set out in the criteria. The Faculty Board may request that candidates undergo a competency assessment to obtain an accurate impression of their competencies. Candidates who apply for a promotion or a job agree to comply with this request if relevant.

Advice BC-1
for a period of 7 years as part of the Career Paths in Science trajectory. If the BC-1 finds that an Assistant Professor does not meet the promotion criteria, it will advise against granting him or her tenure, after which the candidate will be coached in seeking a career outside FSE. The BC reports to the Faculty Board on the applicable criteria for each candidate. The Faculty Board decides whether candidates are nominated to the Board of the University, informs the candidates and sets the nomination procedure in motion if relevant.

Advice BC-2
If the BC finds that an Associate Professor meets the promotion criteria (see Appendix 3), it will advise the Dean to nominate him or her to the Board of the University for appointment as Full Professor 2. If the BC finds that an Associate Professor does not meet the criteria for promotion to the rank of Full Professor, it will advise against promotion and recommend the continuation of his or her associate professorship outside the Career Paths in Science trajectory.
The *ius promovendi*, i.e. the right to act as formal supervisor of PhD students, is reserved for Associate Professors in the Career Paths in Science trajectory and Full Professors. If the appointment to the rank of Full Professor 2 is rejected, the Associate Professor in the Career Paths in Science trajectory will be demoted to Associate Professor outside this trajectory, retaining the *ius promovendi* for PhD students in progress for 5 years (in accordance with the 2010 University of Groningen Associate Professor Regulations).

Associate Professors outside the Career Paths in Science trajectory can receive the *ius promovendi* for periods of 5 years (in accordance with the Higher education and Research Act). This applies to Associate Professors who used to be part of the Career Paths in Science trajectory as well as Associate Professors who did not. The Act stipulates that the Dean can nominate academics who are not professors for the *ius promovendi* to the PhD Board prior to the start of a PhD project.

The following procedure must be followed:
1. Associate professors who believe that they meet the criteria (see below) can send a request to the Dean to be nominated for the *ius promovendi*. The request for obtaining the *ius promovendi* can be issued by the Associate Professor's supervisor as well. The Dean him or herself can also ask the Associate Professor to submit a file.
2. The Associate Professor must underpin this request with documentation, including a CV, a list of publications, an overview of research projects granted and completed, as well as an overview of PhD projects supervised and completed.
3. Based on this request, the Dean will
study the documentation and consult the Director of the research institute, the (other) supervisors of the PhD trajectories previously supervised by the Associate Professor and the Director of the Graduate School of Science and Engineering.

4. If the Dean believes that the criteria for the *ius promovendi* are satisfied based on the documentation and consultations, he or she must issue a written request to the PhD Board, including the information provided by the Associate Professor and the outcomes of the consultations.

5. Based on the information submitted, the PhD Board will assess whether the applicant is ‘sufficiently competent’ in accordance with the requirements set out.

6. The PhD Board will inform the Dean, the Associate Professor and his or her supervisor of its decision in writing.

The relevant FSE criteria for receiving the *ius promovendi* are the research criteria for promotion to the rank of Associate Professor in the Career Paths in Science trajectory, subject to the alternative condition that the candidate has supervised at least 2 PhD students in the previous 5 years as daily and *de facto* primary supervisor *until the completion* of their PhD theses and without incurring unreasonable delays.
Most Assistant and Associate Professors at FSE have been appointed under the Career Paths in Science programme. A small number of Assistant or Associate Professors are appointed outside this programme, and these are typically Assistant or Associate Professors who were appointed before 2004, i.e. before the introduction of Career Paths in Science. These staff members can issue a one-time request to join the Career Paths in Science programme as Associate Professor. This request can be made starting 5 years after an appointment as Assistant or Associate Professor at FSE. The Promotion Committee will treat their files in the same way as those of academics who are part of the Career Paths in Science programme. The appraisal criteria for permanent staff differ from those for Assistant Professors appointed within the Career Paths in Science programme in a number of areas due to the different start-up phases for both. This is further explained in Appendix 4.

**Full Professor 1**

Full professors constitute the highest echelon of the Faculty’s academic staff. They are partly recruited from the ranks of Associate Professors promoted through the tenure track system and partly in open, international competition for Chairs. They bear the final responsibility for a substantial teaching and research programme and will, in many cases, act as Chair of their own basic unit.

Within this framework, FSE distinguishes Full Professors of level 1 and 2. A Full Professor 1 is a Professor who is known to be outstanding at research and teaching and who has a strong international reputation. They have often also been of
significant service in the management of teaching and research.

Promotions to the rank of Full Professor 1 do not depend on individual merit alone; they take place in competition between the incumbent Full Professors 2. FSE aims for a ratio of 2:1 in the number of Full Professors 2 to the number of Full Professors 1. An increase in Full Professors 2 due to tenure track promotions, together with the retirement of Full Professors 1, may temporarily skew this ratio to a level where the appointment of a number of new Full Professors 1 will become desirable again. In this event, the Faculty Board will appoint an ad hoc Promotion Committee (BC-3) tasked with promoting a number of Full Professors 2 to the rank of Full Professor 1.

According to the relevant procedure, the institute directors and Full Professors 2 who have been in this position for at least 5 years will be informed in writing. The institute directors will be asked to nominate Full Professors 2 for promotion to the rank of Full Professor 1, naturally in consultation with the relevant Full Professor 2, who will have been informed about the procedure in the letter. The Directors must submit comprehensive files, compiled by the individual Full Professors 2. Based on these files, the BC-3 will create a prioritized list with no more candidates than necessary to restore the desired 2:1 ratio and following the criteria set out in Appendix 5. The Faculty Board will use this list to nominate a number of Full Professors 2 to the Board of the University for promotion to the rank of Full Professor 1.

Named Chairs
A select number of eminent academics, world leaders in terms of research, teaching and organization, can be appointed to Named Chairs. An appointment to a Named Chair includes a performance bonus and extra material budget for research. The Faculty Board decides on nominations to the Board of the University, either at its own initiative or after consultation with a committee to be convened by the Dean. There are no quota per discipline. The name of the Named Chair will be chosen in consultation with the incumbent.

---

This includes any appointment as Full Professor 2 at another institution immediately prior to the appointment in Groningen.
Career Paths in Science, edition 4, will become effective for all FSE academics on 1 September 2018. Academics who started the Career Paths in Science programme before 1 September 2018 will receive a one-time opportunity to have their next promotion take place under the old regulations, i.e. Career Paths in Science 2004 or 2010. The (possible) next promotion will in anyway take place according to Career Paths in Science 2018.
Appointment criteria for Assistant Professors

Appendix

1

The candidate must hold a PhD degree.

The candidate must have authored at least 5 publications in international, peer-reviewed journals or proceedings of renowned international conferences.

The candidate must have gained international experience, i.e. must have spent two or more years as a postdoc at a research institute outside of the Netherlands, preferably in a different country than where the candidate received his or her PhD, in no more than two spells and achieved success in those years, demonstrable, among other things, by publications. International experience contributes to positioning oneself in an international network and leads to a broader view of the international academic world. In addition, international experience can foster desirable competences in academics, such as courage, self-confidence and communicative skills. Other experiences leading to these competences may fully or partially compensate for a lack of sufficient international experience, at the discretion of the Faculty Board.

Teaching experience, appropriate for the career stage, is necessary. A teaching certificate is an advantage.

The candidate must have good command of spoken and written English.

The candidate must have demonstrable organizational qualities and excellent communication skills.
Introduction
Candidates are appraised in the following result areas: Teaching, Research, Organization, Professionalization and Competences. The areas Teaching, Research and Organization have been divided into subareas. Candidates must have sufficient results in all areas and subareas to be nominated for promotion. Candidates whose results in one of the three areas Teaching, Research and Organization are not entirely sufficient may compensate this by exceptional performance in another one of these areas, so that they can be nominated for promotion after all. In such cases, the Promotion Committee (BC) must provide comprehensive substantiation of what makes this performance exceptional.

Result area Research
Main criterion: Strong research group
Candidates must have built up a strong research group based on their own research line that clearly contributes to the profile of the research institute, where ‘strong’ stands for: high-quality, productive, viable and lively. This must be demonstrable through important original research outcomes leading to publications in prominent peer-reviewed journals and peer-reviewed conference proceedings, invitations to speak at international conferences and other tokens of recognition. Another sign of the strength of the group is the supervision of PhD students and the acquisition of funds. There must be consistent attention to the societal relevance of the candidate’s research. The promotion criteria regarding these aspects are further outlined below.
Conducting research

Criterion
› The staff member must have developed a recognizable research line of their own that contributes to the profile of the research institute, addressing relevant questions in the field and answering these questions in an original way.

Supervision of PhD students

Criterion
› The staff member must have independently supervised at least 2 PhD students in the past 5 years, whereby ‘independent’ means that the candidate is the daily supervisor and determines the direction of the research together with the PhD student. Ideally the PhD students involved have already completed their PhD theses. If not, publications by the PhD student, based on research supervised by the candidate, must show sufficient progress to be able to complete the PhD programme in time.

Fundraising

Criterion
› The staff member must have received one or more substantial research grants from external sources, totalling at least EUR 200,000, since his or her appointment as Assistant Professor.

Research grants are subject to the following rules:
› They include grants received for independently written applications with the staff member acting as principal investigator (PI), as well as grants received as a co-PI and received as part of consortia. For funding received jointly (as part of a consortium) it must be clear that the candidate played a significant role in the acquisition of this funding as well as which part of the total funding the candidate received through the application for his or her own research. Only this part of the application is included when calculating the total amount of research grants received by the candidate.
These publications must include a substantial contribution by the staff member, i.e. the author contribution, which for instance may be apparent from first or last authorship, and be the result of the research line initiated by the staff member. At least two out of three publications must have been published in international peer-reviewed journals or conference proceedings of renowned international, peer-reviewed conferences. Publications in top journals in the staff member’s field may compensate for failure to meet the minimum number.

The importance of the staff member’s research must be recognized by his or her peers, as apparent from, for instance, invitations as a guest speaker at international conferences, participation in international committees, awards, distinctions or seats on editorial boards of journals.

Academic publications and tokens of recognition

Criteria

> The staff member must produce at least three publications per year in academic journals or conference proceedings.

Societal relevance

Criteria

> The staff member must have developed a strategy to highlight the societal
improve the course units of the relevant degree programme assigned to him or her, accounting for important factors such as changes in the level of students, developments in the field, societal needs and coherence with other course units. The candidate must contribute to the Faculty curricula and teaching quality assurance process, both in terms of achieving coherence between the individual course units and in terms of covering administrative and staffing aspects.

Result area Teaching

Main criterion: a passionate and inspiring lecturer
The candidate must be a passionate and inspiring lecturer who provides and develops excellent teaching. He or she must use innovative teaching methods and know the educational system. The candidate must prepare and teach the course units of the relevant degree programme assigned to him or her to ensure that the learning outcomes in terms of student knowledge, understanding, competences and skills are achieved. The candidate must update and improve the course units of the relevant degree programme assigned to him or her, accounting for important factors such as changes in the level of students, developments in the field, societal needs and coherence with other course units. The candidate must contribute to the Faculty curricula and teaching quality assurance process, both in terms of achieving coherence between the individual course units and in terms of covering administrative and staffing aspects.

Teaching

Criteria

› The staff member must spend an average 30% of his or her working time on teaching, to be calculated according to FSE standards.
› The teaching activities must be good, as apparent from student evaluations and assessments by the relevant education institutes.
› The staff member must be an enthusiastic and effective lecturer with didactic knowledge relevant to the subject,
Curriculum organization

Criterion
> The staff member must have a good understanding of the curriculum organization and regulations of the Faculty. The staff member must contribute to the smooth running of the teaching processes in which he or she is involved in an enthusiastic, committed and effective way. This must be apparent from, for example, membership of one of the relevant Faculty committees, such as the Programme Committee, the Board of Examiners or the Curriculum Committee, or from structural contributions to activities such as recruitment, matching, or the admission or selection of students.

Curriculum development

Criteria
> The staff member must use state-of-the-art and varied teaching material that explicitly puts the field in its academic and societal context.

> The staff member must have sufficient command of English to teach properly, i.e. a level of at least C1.

understanding of modes of instruction and modes of assessment and insight in applications.

> The staff member must have made demonstrable improvements to, for example, the teaching material or the modes of instruction, or must have concluded that this was not relevant for the period concerned based on a thorough analysis, verifiable by others, such as the Programme Committee or the Programme Board.

> The staff member must have made efforts to share improvements in the teaching material or modes of instruction in courses that he or she taught with others in the degree programme or Faculty.
Result area Organization

Main criterion: devotion and commitment to the organization and its staff members

The candidate must be a dedicated and collegial staff member committed to the common interest of the research institute, the teaching organization and the Faculty. This must be apparent from membership of committees that ensure the smooth running of Faculty processes. The candidate must be an inspiring supervisor who in a clear way stimulates his or her group members through coaching to get the best out of themselves and achieve good results.

Contribution to the organization

Criteria

◦ The staff member must have sufficient command of Dutch to speak and understand the language (speaking and listening at no less than B1 level according to the European Framework of Reference).

◦ The staff member must spend at least 10% of his or her working time on organizational duties that transcend the staff member’s own research and teaching interests.

Management

Criteria

◦ The staff member must conduct annual Results and Development (R&D) interviews with his or her subordinates and explore their career prospects.

◦ The staff member must contribute to a good atmosphere and team spirit, as well as to consultation and coordination.
Result area Competences
The competences cover all facets of the candidate’s performance, i.e. in terms of teaching, research and organization.

Criteria
› Vision: The staff member must have a clear vision of the future. He or she must be able to step back from daily practice and focus on essentials and long-term policy.
› Guiding and inspiring leadership: the staff member must guide and steer a group of individual staff members, among other things by setting objectives, creating and maintaining effective collaborations and properly allocating and transferring responsibilities and powers. The staff member must stimulate and instruct others to assume these responsibilities and to properly perform the relevant duties. The staff member must explore the development needs of staff and make an effort to raise their professional skills to a higher level.
› Strategic action: the staff member must translate the long-term vision into...
concrete objectives and realize these objectives by guiding and steering the organization.

› Creativity: the staff member must be able to devise original solutions for academic and other problems and to combine several lines of approach/insights into something new.

› Communicative skills: the staff member must be able to transfer ideas and information in a clear and intelligible way, both in writing and verbally. The staff member must be able to communicate in a pleasant and effective way, receive feedback and give feedback to colleagues, scientific staff, support staff and students, endeavouring to improve in these areas; the staff member must evaluate his or her own behaviour and points of view critically and be open to other people.
Criteria for promotion to
Full Professor 2

Introduction
Candidates are appraised in the following result areas: Teaching, Research, Organization, Professionalization and Competences. The areas Teaching, Research and Organization have been divided into subareas. Candidates must have sufficient results in all areas and subareas to be nominated for promotion. Candidates whose results in one of the three areas Teaching, Research and Organization are not entirely sufficient may compensate this by exceptional performance in another one of these areas, so that they can be nominated for promotion after all. In such cases, the Promotion Committee (BC) must provide comprehensive substantiation of what makes this performance exceptional.

Result area Research
Main criterion: being an inspirational leader and influential academic
The candidate must be clearly visible in his or her field, at home and abroad, and be able to influence the field as well as the academic agenda. High academic quality is essential in meeting this criterion. The candidate must have a strong research group, where ‘strong’ stands for high-quality, productive, viable and lively. Considerable emphasis will be placed on competences, in particular the competence of ‘guiding and inspiring leadership’. Commitment and dedication to national and international networks, the university and the faculty, for example in the form of administrative activities, are important aspects for appraisal as well.
Conducting and coordinating research

Criteria
› The staff member must have developed a clear and productive individual research line within the research programme of the basic unit or research institute.
› The staff member must show dedication and commitment to the basic unit and the research institute and make a significant contribution to the implementation and coherence of the research programme and the organizational duties of the basic unit and the research institute.
› The staff member must maintain international contacts and collaborations, apparent from joint publications and work visits, among other things.

Supervision of PhD students

Criterion
› In the 5 years preceding the appraisal, the staff member must have independently supervised at least four PhD students within his or her own research line until they gained their PhD degrees.

Fundraising

Criterion
› In the 10 years preceding the appraisal, the staff member must have acquired multiple substantial research grants of at least EUR 200,000 each and totalling at least EUR 800,000. The acquisition of grants must show continuity, i.e. cannot have taken place in a relatively short period of time, followed by many years without any grant acquisition.

Research grants are subject to the following conditions:
› They include funds received for independently written applications with the staff member acting as principal investigator (PI), as well as funds received in consortia. Any funding received jointly as part of a consortium must include a clear overview of the candidate’s own role in the acquisition of this funding as well as which part of the total funding the candidate received through the application for his or her own research. Only this part of the application that must be included when calculating the total...
amount of research grants received by the candidate.

- Funds provided by the University of Groningen are excluded, meaning that only indirect government funding, third-party funding and contractual research funding are included.

It is possible to diverge from this criterion in exceptional cases, i.e. if the full amount of EUR 800,000 has not been raised and the funds available in the candidate’s academic field could reasonably be considered to have been insufficient in previous years, whereby the candidate has demonstrably made sufficient attempts, assessed as very good, to acquire these funds and has ensured the prospering of his or her research group in another way.

**Academic publications and tokens of recognition**

**Criteria**

- The staff member must produce at least three publications per year in academic journals or conference proceedings. These publications must include a substantial contribution by the staff member, i.e. the author contribution, which for instance may be apparent from first or last authorship, and be the result of the individual research line initiated by the staff member. At least two of three publications must have been published in international, peer-reviewed journals or proceedings of renowned international, peer-reviewed conferences. Publications in top-tier journals in the staff member’s field may compensate for failure to meet the minimum number of publications.

- The importance of the staff member's research must be recognized by his or her peers, which must be apparent from, for instance, awards, rewards, seats on editorial boards of journals, invitations as a guest speaker at international conferences or participation in international committees.

**Societal relevance**

**Criteria**

- The staff member must have developed a strategy to highlight the societal relevance of his or her research in a structural way.
The staff member must promote the societal relevance of his or her own research by, for example, lecturing or publishing about the research to a broad audience, or by collaborating with companies, governments or NGOs to make the insights gained applicable in those organizations or by registering patents.

Result area Teaching

Main criterion: being a passionate and inspiring lecturer
The candidate must be a passionate and inspiring lecturer who provides and develops excellent teaching. He or she must use innovative teaching methods and have an understanding of the educational system. The candidate must initiate educational innovations beyond course unit level. The candidate must prepare and teach the course units of the relevant degree programme assigned to him or her to ensure that the learning outcomes in terms of student knowledge, understanding, competences and skills are achieved. The candidate must update and improve the course units of the relevant degree programme assigned to him or her, accounting for important guiding factors such as changes in the level of students, developments in the field, societal needs and coherence with other course units. The candidate must contribute to the Faculty curricula and teaching quality assurance process, both in terms of achieving coherence between the individual course units and in terms of covering administrative and staffing aspects.

Teaching

Criteria

- The staff member must devote at least 40% of his or her working time to teaching, to be calculated according to FSE standards.
- The teaching activities must be good, as apparent from student evaluations and assessments by the relevant education institutes.
- The staff member must be an enthusiastic and effective lecturer with didactic knowledge relevant to the subject, understanding of modes of instruction.
Curriculum organization

Criteria

› The staff member must contribute efficiently and effectively to the smooth running of the teaching processes in which he or she is involved.
› The staff member must have actively stimulated the teaching activities of his or her colleagues.
› The staff member must have successfully contributed to education management, as apparent from, for instance, membership of a Programme Committee or Curriculum Committee or responsibility for successfully designing and implementing an educational innovation project.

Curriculum development

Criteria

› The staff member must have made demonstrable improvements to, for example, the teaching material or the modes of instruction, or must have concluded that this was not relevant for the period concerned based on a thorough analysis, verifiable by others, such as the Programme Committee or the Programme Board.
› The staff member must have made demonstrable contributions to activities on the level of the degree programme (learning line or variant), such as in educational innovation projects.

and modes of assessment and insight in applications.
› The staff member must use state-of-the-art and varied teaching material that explicitly puts the field in its academic and social context.
› The staff member must have sufficient command of English to teach properly, i.e. at a level of at least C1.
Result area Organization

Main criterion: devotion and commitment to the organization and being an inspiring manager
The candidate must be a dedicated and collegial staff member committed to the common interest of the research institute, the teaching organization and the Faculty and the University. This must be apparent from memberships of committees that are important to the smooth running of Faculty processes. The candidate must be an inspiring supervisor who stimulates his or her group members through coaching and in a clear way to get the best out of themselves and achieve good results. This must be apparent from, among other things, discussing professional and academic development with staff members, conducting Results and Development interviews, engaging in recruitment and selection, implementing the HR policies adopted by the Faculty Board in accordance with the collective labour agreement (CAO) and central guidelines, keeping staff informed of matters discussed in relevant meetings and participating in or chairing committee and working group meetings.

Organization

Criteria
› The staff member must make a positive and significant contribution to the organization of the general duties of one or more of the following units: the Faculty, the research institute, the School of Science and Engineering or the Graduate School of Science and Engineering.
› The staff member must have sufficient command of Dutch to speak and understand the language (speaking and listening at no less than B2 level of the European Framework of Reference).
› The staff member must spend at least 20% of his or her working time on organizational duties that transcend the staff member’s own research and teaching.
Management

Criteria

› The staff member must conduct annual Results and Development (R&D) interviews with his or her subordinates and explore their career prospects.
› The staff member must participate in Selection Committees or committees regarding the organization of teaching and research at Faculty or institute level.
› The staff member must contribute to a good atmosphere, as well as to meetings and the coordination of duties in the department that he or she manages or co-manages.

Result areas for Professionalization

Main criterion: becoming a broadly deployable, competent Full Professor

Criteria

› The staff member must have participated in professionalization activities regarding teaching, research and management.

In terms of research, the staff member must have participated in training courses such as project management, writing or presentation skills for fundraising or media skills. In terms of teaching, the staff member must, in consultation with the institute’s Education Director, have participated in professionalization activities such as workshops and seminars on teaching or Faculty Education Days. In terms of management, the staff member must in any event have participated in a management course (e.g. Academic Leadership), as well as other training courses, for example in conducting Results and Development interviews, professional recruitment and selection or inclusive/intercultural competences.

› The staff member must have the UTQ certificate.
Result area Competences

The competences cover all facets of the candidate’s performance, i.e. in terms of teaching, research and organization. In addition, these competences are judged according to the staff member’s career stage. At this stage, staff members are expected to increasingly broaden their horizon and to have developed an eye for the big picture (from the individual group and the institute to the Faculty, the University, and the international position).

Criteria

› Vision: The staff member must have a clear vision of the future of the field and his or her role in that field. He or she can step back from daily practice and focus on the essentials and long-term policy.

› Guiding and inspiring leadership: the staff member must guide and steer a group and individual staff members, among other things by setting objectives, creating and upholding effective collaborations and properly allocating and transferring responsibilities and powers. The staff member must stimulate and instruct others to assume these responsibilities and to properly perform the relevant duties. The staff member must explore the development needs of staff and make an effort to raise their professional skills to a higher level.

› Strategic action: the staff member must translate the long-term vision into concrete objectives and realize these objectives by guiding and steering the organization.

› Creativity: the staff member must be able to devise original solutions for academic and other problems and to combine several lines of approach/insights into something new.

› Communicative skills: the staff member must be able to transfer ideas and information in a clear and intelligible way, both in writing and verbally. The staff member must be able to communicate in a pleasant and effective way, receive feedback from and give feedback to colleagues, support staff and (technical) academic staff and students, endeavouring to improve in these areas; the staff member must evaluate his or her own behaviour and points of view critically and be open to other people.
Permanent staff may enter the Career Paths in Science trajectory after having been employed as Assistant Professor or Associate Professor outside this programme. Specifically, they may apply for admittance to the rank of Associate Professor within the Career Paths in Science program. They may do so only once, implying that after a negative decision, no renewed application can be submitted. As permanent staff have typically been academics for a longer time than those who started their academic careers in the Career Paths in Science program, they are subject to a number of additional or alternative criteria in certain areas, alongside the usual criteria for promotion listed in appendix 2.

The following criteria apply for promotion to the rank of Associate Professor:

- The staff member must have at least 1 year of international experience, as opposed to 2 years.
- In the 5 years preceding the promotion request, the staff member must have independently supervised at least 3 PhD students, as opposed to 2 PhD students, up to the completion of their PhD theses and without incurring unreasonable delays.
- The staff member must have acquired research grants from external sources totalling at least EUR 400,000 in the past 5 years. These grants must include one grant of at least EUR 400,000 or two grants of at least EUR 200,000 each.
- The staff member must spend an average 40% of his or her working time on teaching, to be calculated according to FSE standards.
Criteria for promotion to the rank of Full Professor 1

Main criterion: The candidate must have a major influence on the position of the Faculty and the University in terms of research or teaching+organization

There are essentially two domains: research and teaching+organization. Candidates who without any doubt meet the requirements in one of these domains are eligible for a promotion; candidates will typically meet the requirements in both domains, however.

Research

- The candidate must be an international authority in his or her field and exert influence on the field of research. Candidates must at least meet the following criteria:
  - The candidate must co-set the national and international research agenda in his or her field;
  - The candidate’s research must be relevant for and visible in academia, society, government and business;
  - The candidate must have led a large research group by the standards of the field, with structural and substantial external funding;
  - The candidate must initiate and lead national and international research collaborations;
  - The candidate must have published in excellent, highly selective journals with high impact factors by the standards of the field;
  - The candidate must be cited abundantly, i.e. well above the standard in the field;
  - The candidate must be involved in the organization of renowned conferences;
The candidate must demonstrably have achieved high-impact and innovative results with the organizational unit under his or her supervision.

Teaching+organization

The candidate must be an authority in the fields of university administration and/or education, who determines and propagates to a large extent the organisation's vision on education as well as on administration and organization. Candidates must at least meet the following criteria:

› The candidate must head a large organizational unit, i.e. a basic unit of 10+ FTE in academic staff or one of the schools;
› The candidate must have chaired important national and international committees;
› The candidate must contribute to developing an appealing vision for education, research and organization and promote this vision in a stimulating way within his or her own institution and nationally;
Main changes in Career Paths in Science, edition 4, compared to edition 3

Appendix 6

- Assistant Professors are appointed for 7 years. This period includes the 5 regular years to meet the criteria, 1 year to compensate for any life events and 1 year for outplacement if necessary.
- Part-time appointments are now possible, whereby the moment of appraisal is postponed.
- The institute’s Results and Development interviews are prepared in conjunction with the Scientific Director, Education Director and a number of managers. This creates a shared vision on the academics participating in Career Paths in Science.
- It is now possible to request that the *ius promovendi* be granted to Associate Professors outside the Career Paths in Science trajectory for periods of 5 years each.
- Every academic who participates in Career Paths in Science is assigned a mentor, who will be the mentee’s sounding board.
- The three result areas teaching, research and organization are approached as umbrella terms covering several subareas, including a new one: societal relevance. Commitment and dedication to the organization are now also explicitly listed as a subareas.
- Dutch language skills have explicitly been included as a condition for promotion within the Career Paths in Science trajectory.
- The requirement that an Assistant Professor must have supervised at least 2 PhD students, up to and including the completion of their PhD theses, now includes the alternative option of demonstrating sufficient progress towards the timely completion of the PhD project if the PhD thesis has not been completed yet.
Fundraising has undergone a number of changes:

1. The total amount in Euros required for a promotion has been defined, while the requirement regarding the number of separate funds has been relaxed to a certain extent;

2. Alongside funds raised as Principal investigator, funds raised in consortia are now also included in the calculation; and

3. In exceptional cases, it can be taken into consideration whether the fundraising target was realistic within the candidate’s field during the relevant period.
Colophon

Text:
Prof. Jasper Knoester, Dean of the Faculty of Science and Engineering and Marlies Lodewegens LLM, head of HR Advice Zernike.

On 16 July 2018, Career Paths in Science, edition 4, was approved by the University Board.

Photography:
› Front page, page 8, 14 (smaller photo), 16 and 24: Elmer Spaargaren
› Page 6 and 10: Sylvia Germes
› Page 8 (smaller photo) and 23: Gerard Kingma
› Page 28 and 32 (smaller photo): Michel de Groot

Graphic design:
www.inontwerp.nl

Printing:
Zalsman, Groningen
September 2018

Faculty of Science and Engineering
University of Groningen

www.rug.nl/fse/careerpathsinscience
This is a publication of the Faculty of Science and Engineering, University of Groningen. All information published in this brochure is subject to change. No legal rights may be derived from this brochure. While the University of Groningen makes every endeavor to ensure the accuracy of the information presented in this brochure, it cannot be held liable for any errors or inaccuracies you may find.