Appendix 1: Career Path with a focus on Education

Inhoud

1 Introduction

These pages describe the steps of the academic career path with a focus on education within the Faculty of Science and Engineering's Career Paths in Science and Engineering. Each of the career steps is described in terms of a number of domains that each come with a set of criteria.
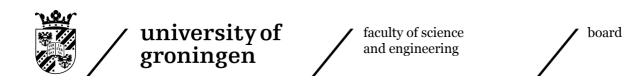
Domains

In order to proceed in the career path, a candidate must prove to have attained sufficient results in a number of domains. Candidates in this particular career path will make most of their efforts in the domains of education and research. In addition, they will have to obtain results in the domains of impact and organization. Candidates are also expected to actively develop themselves and improve their personal competences, which is what the supporting domains professionalization and competences are about.

Criteria

Each domain description starts with a main criterion, which describes in general terms what should be accomplished within that domain. This main criterion is subsequently elaborated into more specific criteria associated with particular aspects of the domain. Candidates are in principle expected to satisfy the main criterion as well as the more specific criteria. However, there are situations in which staff members do not need to (fully) satisfy the criteria as they are stated.

See the document 'Career Paths in Science and Engineering' for more information about the criteria and exceptions or click here.

2 Assistant Professor 2

This chapter describes the criteria a candidate must satisfy in order to be appointed as Assistant Professor 2 with a focus on education.

Criteria pertaining to all Assistant Professors 2
- The candidate holds a PhD degree.
- The candidate is a team player who can work well in an international, culturally diverse environment.
- The candidate has good organizational competences.
- The candidate has good communication skills.
- The candidate has good command of spoken and written English and (is willing to learn) Dutch.
- The candidate is able to speak the Dutch language or motivated to speak it within five years (B1 level in CEFR).
- The candidate has the ambition and the potential to pursue a career path leading to the position of Associate Professor.

Additional appointment criteria pertaining to Assistant Professors 2 that focus on education
- The candidate has a passion for teaching and education development.
- The candidate has excellent teaching qualities.
- The candidate is able inspire students and colleagues.
- The candidate has a good track record in research, as shown by publications in international peer-reviewed journals and proceedings of renowned conferences, appropriate for the career stage.
- The candidate has (at the time of appointment) at least two years of relevant work experience after their PhD.

3 Tenure and Assistant Professor 1

This chapter describes the criteria a candidate must satisfy in order to be appointed as Tenure and Assistant Professor 1 with a focus on education.

3.1 Education

> **Main criterion: Effective teacher**
> The staff member is an inspiring and effective teacher who provides and develops state-of-the art research-driven education. The staff member demonstrates a student-centered approach, communicating clearly about learning objectives and assessment, promoting interactions, and monitoring their learning experience. The staff member actively seeks to create positive conditions for student learning, initiates didactic improvements and is involved with the organization of education.

This main criterion is elaborated into the following more specific criteria:
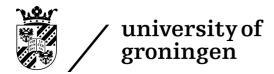
Teaching
- The staff member is able to inspire students and to provide research-driven education that is effective.
- The staff member is capable of teaching basic Bachelor and Master courses and has didactic knowledge that is relevant to these courses, including a good understanding of modes of instruction and modes of assessment.
- The staff member prepares and teaches the courses of the relevant degree programme assigned to them in a good manner, ensuring that the learning outcomes in terms of student knowledge, understanding, competences and skills are achieved.
- The staff member reflects on the effectiveness of their teaching and assessment, and, if necessary, makes adjustments during the execution of their courses to ensure that students are able to achieve the learning objectives.
- The staff member understands the relationship between the learning outcomes of the courses for which they are responsible and the learning objectives of the associated degree programme and communicates this to students and colleagues.
- The staff member proactively monitors the students' educational and learning experience and responds professionally and in a timely manner to concerns about the structure, context and implementation of teaching (at the course unit and degree programme level).
- The staff member uses learning material which places the discipline in its academic and social context.
- The staff member spends on average 60% of their working hours on teaching (including teaching development and professionalization), to be calculated according to FSE standards.

Education development
- The staff member updates and improves the teaching material and assessment of the courses assigned to them, accounting for important factors such as changes in the background and level of the students entering the course, developments in the field, societal needs and coherence with other courses.
- The staff member shares improvements in the teaching material or modes of instruction in their courses with colleagues.

Curriculum organization

- The staff member is knowledgeable about the faculty's policies for quality assurance and assessment and actively applies these to courses assigned to them.
- The staff member participates in discussions about the design of the curriculum of relevant degree programmes, and understands the position therein of the courses assigned to them.
- The staff member has a good understanding of the faculty's teaching organization structure and policies and contributes to the smooth running of teaching processes in which they are involved.

How to substantiate

The staff member writes a statement on their education approach (max 750 words) to demonstrate that they satisfy the main and the specific criteria. In the statement, the staff member reflects on how their approach supports effective student learning. Topics to address include:

how the students educational and learning experience is monitored
how feedback from students and colleagues influenced the staff member's approach
why and how course improvements were made to course content, objectives and/or teaching materials
in what way the staff member contributed to discussions about the design of the curriculum
how they have contributed to the smooth running of the teaching processes.

The statement should be supported with details of the courses taught (teaching methods, assessment methods, student numbers, pass rates, etc.). The staff member may use formal student evaluation surveys as well as informal and unsolicited feedback from students or colleagues to substantiate their arguments. A record from Timeless may be used to demonstrate the working hours spent on teaching. Additionally, the staff member could add examples from their course content, objectives and materials.

Note that the examples of evidence listed above is neither prescriptive nor exhaustive; it offers guidance on the types of evidence that could be used to demonstrate achievement but the evidence selected will depend on each individual case.

3.2 Research

Main criterion: Good researcher
The candidate is actively involved in the research carried out in their research group.

This main criterion is elaborated into the following more specific criteria:

Conducting research
- The staff member is well integrated in the research group and institute.
- The staff member's research activities contribute to the profile of the research group and the institute.
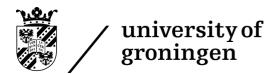
PhD students
- The staff member is contributing to the supervision of at least one PhD student.

Fundraising
- The staff member is familiar with appropriate funding schemes and has made a realistic funding plan for the coming years.

Academic publications and evidence of recognition
- The staff member has a clear strategy for sharing research results and has produced publications and/or has acquired other evidence of recognition since their start as Assistant Professor.

- The staff member has taken steps to extend their local, national and/or international network.

How to substantiate
Conducting research
The staff member writes a statement (max 500 words) to demonstrate that they satisfy the main criterion and the specific criteria under this heading. The statement should concentrate on the staff member's research vision and steps they have taken and will take to realize their plans. Topics to address include:

which research activities have been set up, what are plans for the future, and how do these contribute to the profile of the group and the institute
how the staff members develops and participates within their group and institute (e.g. Did they suggest new activities that lead to cohesion or stimulate discussion? Are there internal collaborations based on shared interests?)

PhD students
The staff member elaborates briefly on their involvement in the supervision of PhD students.

Fundraising
A funding plan is set up that frames a vision when to apply for which grant schemes and why this prioritization is chosen. Ideally, a first proposal is submitted. In case of (planned) participation in a collaborative grant proposal, the role of the staff member in the consortium is briefly elaborated (co-applicant or lead, plus work package description in one sentence).

Academic publications and evidence of recognition
The staff describes their vision and strategy for sharing research results and for extending their network. How will their research be made available to others, and for what and how do they want to be recognised? The staff member gives an overview of publications and/or other evidence of recognition, such as invited talks, prizes, fellowships, network meetings, conference (co-)organization, committee membership.

3.3 Impact

Main criterion: An eye for impact
The staff member is able to design and plan for impact.

How to substantiate
The staff member provides at least one example of their effort, e.g. an application with an impact paragraph or active participation in outreach activities or interaction with a commercial party, aiming for collaboration and knowledge transfer.
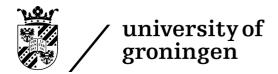
3.4 Organization

Main criterion: Committed and responsible colleague
The staff member works well with others and is committed to the interests of the research institute and the faculty. The staff member shows initiative, takes responsibility and reflects on their own impact on others and on the organization.

This main criterion is elaborated into the following more specific criteria:

Contribution to the organization
The staff member contributes to an open, safe and inclusive working and learning environment.

The staff member contributes to administrative and coordinating tasks within the research unit.

Leadership and collaboration
The staff member coaches (less experienced) colleagues and promotes their development. The staff member conducts annual Results and Development (R&D) interviews with staff members they supervise, if applicable.

How to substantiate
The staff member describes briefly how their behaviour shows that they satisfy the main criterion and each of the specific criteria, by providing examples.

3.5 Professionalization

> **Main criterion:**
> The staff member is taking steps to develop into a broadly deployable and competent academic teacher and researcher.

This main criterion is elaborated into the following more specific criteria:

- The staff member has a personal development plan.
- The staff member has followed workshops in order to further develop skills and competences relevant to this career path.
- The staff member has obtained the UTQ certificate.
- The staff member has sufficient knowledge of English (at least level C1) to teach properly in this language.

How to substantiate
The staff member adds copies of their UTQ and their personal development plan to their tenure file as well as an overview of the workshops (training, courses, etcetera) that they have taken. They do not need to provide evidence about their English level, unless specific agreements were made in the context of their appointment or an R&D interview.

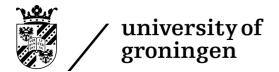### 3.6 Competences

> **Main criterion:**
> The staff member possesses the competences needed for succeeding in the career path.

The following competences receive special attention at this career stage:

Specific criteria
The following competences receive special attention at this career stage:

- **Integrity:** The staff member is honest, reliable and takes responsibility and accountability for their actions. The staff member adheres to the principles of scientific integrity and sets an example for their group members and students.

- **Self- and situational awareness**: The staff member reflects on their actions and various roles and how these affect others and the organization. The staff member is open to and invites feedback from others. The staff member has insight into how the institute and the faculty are organized and uses this knowledge for their benefit and that of the organization.

- **Communicative skills**: The staff member is able to transfer ideas and information in a clear and intelligible way, both in writing and verbally. The staff member communicates and provides feedback in a respectful, constructive and effective way.

How to substantiate
The staff member describes briefly how their behaviour shows that they satisfy the main criterion and each of the specific criteria, by providing examples.

4 Associate Professor 2

This chapter describes the criteria a candidate must satisfy in order to be appointed as Associate Professor 2 with a focus on education.

4.1 Education

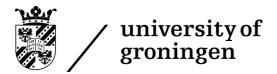> **Main criterion: Skilled and collegial teacher**
> The staff member is a skilled teacher who demonstrates a student-centered approach and effectively uses a diverse range of evidence-informed teaching and assessment forms to enhance student learning and engagement. The staff member initiates educational innovations in their own courses and beyond the course level. The staff member knows the faculty's teaching system inside out, contributes to the organization of teaching and inspires and helps colleagues to improve their teaching. The staff member's sphere of impact encompasses the educational environment at their research institute school/faculty as well as academic peers and students.

This main criterion is elaborated into the following more specific criteria:

Teaching
- The staff member has a substantiated vision of good teaching and assessment, is familiar with current developments in didactics within their own discipline and applies a broad repertoire of proven modes of teaching and assessment.
- The staff member has a clear vision of the relationship between the learning objectives of the courses for which they are responsible and the learning outcomes of the degree programme and communicates about this to students and colleagues.
- The staff member prepares and teaches the courses of the relevant degree programme assigned to themr in an excellent manner, ensuring that the learning outcomes in terms of student knowledge, understanding, competences and skills are achieved.
- The staff member uses state-of-the-art and varied learning materials which explicitly place the discipline in its academic and social context.
- The staff member proactively monitors the students' learning experience and responds professionally and in a timely manner to concerns about the structure, context and implementation of teaching, at the course and the degree programme level.
- The staff member spends on average 60% of their working hours on teaching (including teaching development), to be calculated according to FSE standards.

Education development
- The staff member develops didactically effective teaching that is innovative in terms of content.
- The staff member studies the (potential) effects of improvements to the curriculum and assessments and makes substantiated choices regarding their design or redesign, either individually or as part of a team.
- The staff member makes a significant contribution to cross-curricular activities at the degree programme level.
- The staff member has led a successful teaching innovation project (e.g. in the context of STQ).
- The staff member actively shares materials or teaching methods that can be used in the teaching of colleagues in the degree programme or Faculty, for example through presentations at staff lunches.
- In the period following their appointment as Assistant Professor, the staff member has made demonstrable efforts to obtain external (non-FSE) funding for education innovation. In case there was no relevant funding available that suited the needs of the

FSE degree programmes, the staff member has a clear strategy on what funding to pursue in the future.

Curriculum organization
- The staff member contributes to the quality of the implementation and assessment of teaching at the degree programme level.
- The staff member actively exchanges experiences and ideas with colleagues and the wider teaching staff community, including through participation in Faculty committees and/or projects.

How to substantiate

The staff member writes a statement on their education approach (max 750 words) to demonstrate that they satisfy the main and the specific criteria. In the statement, the staff member reflects on how their approach supports effective student learning. Topics to address include:

- how the students educational and learning experience is monitored
- how feedback from students and colleagues influenced the staff member's approach
- why and how course improvements were made to course content, objectives and/or teaching materials
- in what way the staff member contributed to discussions about the design of the curriculum
- how they have contributed to the smooth running of the teaching processes.

The statement should be supported with details of the courses taught (teaching methods, assessment methods, student numbers, pass rates, etc.). The staff member may use formal student evaluation surveys as well as informal and unsolicited feedback from students or colleagues to substantiate their arguments. A record from Timeless may be used to demonstrate the working hours spent on teaching. Additionally, the staff member could add examples from their course content, objectives and materials.

Note that the examples of evidence listed above is neither prescriptive nor exhaustive; it offers guidance on the types of evidence that could be used to demonstrate achievement but the evidence selected will depend on each individual case.

4.2 Research

Main criterion: Significant contribution to the research group
The candidate is actively involved in the research carried out in the research group; they have either set up their own line of research or contribute substantially to the group's lines of research.
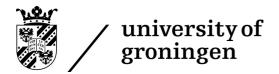
This main criterion is elaborated into the following more specific criteria:

Conducting research
- The staff member has developed their own line of research or contributes substantially to the group's research.
- The staff member's research contributes to the profile of the research institute and to finding solutions to relevant questions in the research field.

PhD students
- In the previous five years, the staff member has made a substantial and regular contribution to the supervision of at least one PhD student.
- The staff member has made or contributed to attempts to acquire additional PhD students for their research group.

Fundraising
- The staff member was (co-)applicant on one or more grant applications.

Academic publications and evidence of recognition
- The staff member has produced on average one or more publications per year in journals/proceedings that are leading in their field (including on education innovation). The significant contribution of the staff member can be demonstrated.

How to substantiate

Conducting research
The staff member writes a statement (max 500 words) to demonstrate that they satisfy the main criterion and the specific criteria under this heading. The statement should concentrate on the staff member's research vision and steps they have taken and will take to realize their plans.

PhD students
The staff member gives an overview of the PhD students they have (helped) to recruit and co-supervise. The staff member briefly elaborates on the status of each of the projects, including stage of completion and examples for successes of projects (e.g. evidence of recognition such as conferences, poster presentations, publications, outreach activities, thesis defenses). In case of shared supervision (e.g. in the context of double-doctorates, interdisciplinary collaboration etc.), the amount of supervision is weighed by the percentage contribution of the supervisor. This must be included in the staff member's promotion file, accompanied by a brief statement on the individual roles of the involved supervisors.

Fundraising
The staff member describes which funds have been (successfully) applied for. 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 their own research (only this part of the application must be included when calculating the total amount of research grants received by the candidate).

Academic publications and evidence of recognition
The staff member provides an overview of publications and evidence of recognition of themselves and their group (invited talks, prizes and awards, membership of consortia, etc). In case of collaborations, the staff member briefly elaborates on their role in the resulting scientific work. The significant contribution of the staff member can be demonstrated. The quantitative criterion for publications can be overruled when the evidence of recognition demonstrates that the staff member has outstanding impact in their field.
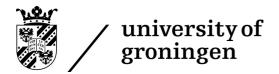
4.3 Impact

Main criterion: Strategy for impact
The staff member has developed a strategy to highlight the relevance of their research beyond their scientific community. Using this strategy and based upon their research, the staff member aims to influence changes in behavior, relationships, actions and/or activities of private and public stakeholders.

This main criterion is elaborated into the following more specific criterion:

The staff member shows to have or have had a number "productive interactions", i.e. exchanges with stakeholders outside of their own scientific field resulting in actual or potential collaboration in research or education.

How to substantiate

The staff member provides narrative evidence of their "productive interactions" with societal stakeholders. Examples are:

- lecturing or publishing about the research to a broad audience;
- collaboration with companies, governments, NGOs or other stakeholders to make the insights gained applicable in those organizations, e.g. preparing and/or writing a joint grant application;
- writing and filing a patent (partially) paid for by a societal partner.

4.4 Organization

> **Main criterion: Evolving leader**
> The staff member is evolving into a flexible leader who guides, inspires, and facilitates others to get the best out of themselves. The staff member is committed to and contributes significantly to the common goals of the research institute and the faculty.

This main criterion is elaborated into the following more specific criteria:

Contribution to the organization
- The staff member contributes to an open, safe and inclusive working and learning environment.
- The staff member spends at least 10% of their working time on academic community service (i.e. organizational roles within the university that transcend their own research and teaching interests).

Leadership and collaboration
- The staff member coaches colleagues and promotes their development, particularly with respect to education.
- The staff member conducts annual Results and Development (R&D) interviews with staff members they supervise.
- The staff member has insight in their preferred leadership style and can effectively employ it to motivate others.
- The staff member operates successfully when different interests and perspectives are at play and can effectively deal with resistance.
- The staff member contributes to national and/or international communities.
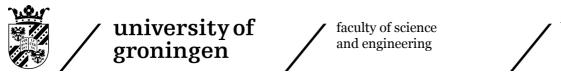
How to substantiate

The staff member describes how their behavior shows that they satisfy the main criterion and each of the specific criteria. In particular:

Contribution to the organization

The staff member gives an overview of activities that fall under academic community service, such as roles in working groups, committees, boards, at events of the degree programmes or the research institutes, etcetera.

Leadership and collaboration
- The staff member briefly reflects in writing on their preferred leadership style, explaining why you prefer it and how it helps you to motivate others.
- The staff member describes to which national or international communities they are contributing, such as the organization of conferences, memberships of panels, initiating consortia, roles in scientific organisation (e.g. NWO, ERC), etcetera.

4.5   Professionalization

> **Main criterion:**
> The staff member has made demonstrable efforts to improve their skills and competences, in line with their personal development plan.

This main criterion is elaborated into the following more specific criteria:

- The staff member has participated in education professionalization activities such as workshops and courses, and has obtained the Senior Teaching Qualification (STQ/SKO)
- The staff member has completed relevant leadership and management courses, including Coaching PhD students and Academic Leadership.
- The staff member has made demonstrable efforts to attain sufficient command of the Dutch language to be able to understand it well.

How to substantiate

The staff member describes to what extent they have executed their personal development plan. They give an overview of the professionalization activities that they have undertaken. Satisfaction of the Dutch language criteria should be demonstrated by means of a certificate (not needed if you can show the committee that you can converse well in Dutch).

4.6   Competences

> **Main criterion:**
> The staff member possesses the competences needed for being a successful Associate Professor.

The following competences receive special attention at this career stage:

- **Inspirational leadership**: The staff member is able to stimulate and support colleagues to develop themselves and obtain good results, providing autonomy as well as clear expectations.

- **Strategic vision**: The staff member has a well-articulated long-term vision, can translate this vision into concrete objectives, and is able to realize these objectives by guiding and steering others.

- **Empathy**: The staff member is accessible, available and attentive to their team members. The staff member stimulates an open atmosphere in which team members are encouraged to voice opinions and share concerns. The staff member ensures others feel recognised in their contributions.

How to substantiate

The staff member describes how their behavior shows that they have each of the competences, by providing examples.

5 Associate Professor 1

The staff member satisfies the criteria for promotion to Associate Professor 2 as well as the following:

Education
The staff member spends on average at least 50% of their working hours on teaching (including education development), to be calculated according to FSE standards. (This criterion overrides the criterion regarding teaching time associated with the promotion to Associate Professor 2.)

Research
The staff member is the principal investigator of a viable and independent research programme. In the five years preceding the appraisal, the staff member was responsible for the supervision of at least 1 PhD student in their own research programme, which includes acting as (co-)supervisor at the PhD student's defence.

Organization
The staff member is successfully fulfilling a leadership/management role within the faculty or the university, beyond their own research unit.

How to substantiate

Education
The candidate demonstrates having spent 50% or more time on teaching and teaching innovation in the previous years. This criterion overrides the criterion regarding teaching time associated with the promotion to Associate Professor 2, which was that the staff member spends on average 60% of their working hours on teaching.

Research
The staff member describes the research programme and their role in its design, execution, and further development. The staff member also describes who else are involved in the research programme and how it connects to other activities in their group and institute. The staff member demonstrates the viability of the research programme via indicators such as incoming students (BSc/MSc), PhD students, postdocs and visiting scientists who are producing a continuous stream of output recognized by peers.

The staff member gives an overview of the number of recruited and supervised PhD students. The staff member briefly elaborates on the status of each of the projects briefly elaborates on the number of recruited and supervised PhD students, including stage of completion and examples for successes of projects (e.g. evidence of recognition such as conferences, poster presentations, publications, outreach activities, thesis defenses). The staff member also clarifies their role in the PhD trajectories: to satisfy the criterion, the staff member must have been the primary supervisor of at least one PhD student that worked in the staff member's research programme. The completed trajectories should include one or more PhD students that were not yet counted for the promotion to Associate Professor 2.

Organization
The staff member provides a description as well as a brief self-evaluation of the leadership and management roles that they have fulfilled in the previous years. Examples of such roles are the chairpersonship of working groups or committees on the level of the faculty of the university.

6 Full Professor 2

6.1 Education

> **Main criterion: Educational leader**
> The staff member plays a leadership role in improving the environment for excellence in teaching and learning within and beyond the faculty. The staff member is an authority on education development, as demonstrated by effectively implemented innovations in curricula of FSE programmes, and an expert on student learning and engagement. The sphere of impact of the staff member is at the level of programme boards in the SSE, locally within the UG, and in national networks.

This main criterion is elaborated into the following more specific criteria:

Teaching
- The staff member provides inspiring and effective teaching on the basis of a convincing vision of good teaching and assessment and substantial knowledge of didactics within their own discipline.
- The staff member guides the students' learning experience and provides regular feedback to the students about their progress, by formative assessment or otherwise.
- The staff member spends at least 50% of their working hours on teaching (including teaching development), to be calculated according to the norms of the FSE.
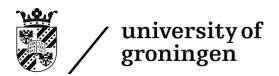
Education development
- The staff member plays a leading role in driving educational innovation, reform and/or support that has a sustained and positive impact on student learning and/or engagement. This includes succesfully leading at least one large educational project and offering substantial contributions to the revision/renewal of the curriculum of a degree programmes since the last programme audit.
- The staff member actively shares materials or teaching methods that can be used in the teaching of colleagues in the degree programme or Faculty, for example through presentations at staff lunches or education events.
- The staff member has been successful in obtaining external (non-FSE) funding for education innovation.

Curriculum organization
- The staff member has successfully played a leadership role in educational programmes, in the role of chair of a Board of Examiners, a Programme Director, or Education Director of a research institute.
- The staff member has played a leading role in the development, management, and review of FSE teaching and learning and assessment policies, including quality assurance and accreditation processes.
- The staff member demonstrates a leadership role in exchanging experiences and ideas with colleagues and the wider teaching community, including through participation in Faculty committees and/or projects.
- The staff member has an excellent understanding of the Dutch higher-education framework and participates actively in working groups on the university, national or international level.

How to substantiate
The staff member writes a statement on their education approach (max 750 words) to demonstrate that they satisfy the main and the specific criteria. In this statement, the staff member has particular

attention for their education leadership, by describing their impact on the level of the programme, the level of the faculty, the level of the university, and nationally. To support this, the staff member provides an overview of the various leadership roles that they have had (e.g. in education innovation projects, curriculum renewal, policy development, programme management, in national/international committees, as external reviewer/trainer/advisor, as invited speaker at key events in teaching and learning, etcetera) and how they have sought to improve their leadership skills (e.g. via peer mentoring, professionalization activities, etcetera).

The statement should be supported with details of the courses taught (teaching methods, assessment methods, student numbers, pass rates, etc.). The staff member may use formal student evaluation surveys as well as informal and unsolicited feedback from students or colleagues to substantiate their arguments. A record from Timeless may be used to demonstrate the working hours spent on teaching. Additionally, the staff member could add examples from their course content, objectives and materials. The staff member should provide a brief overview of grants for teaching and learning development projects that have been requested including those that were not awarded.

Note that the examples of evidence listed above is neither prescriptive nor exhaustive; it offers guidance on the types of evidence that could be used to demonstrate achievement but the evidence selected will depend on each individual case.

6.2 Research

> **Main criterion: Viable research line**
> The staff member makes a substantial contribution to the research group based on their own research profile, where 'substantial' stands for: original, visible, high-quality, productive, viable and lively. The staff member plays a leading role in the supervision of PhD students and the acquisition of funding for their own research line.

This main criterion is elaborated into the following more specific criteria:

Conducting and coordinating research
- The staff member has developed their own research line that contributes to the profile of the research institute, addressing scientific questions that are relevant to their field and researching these questions by developing original techniques or strategies.
- The staff makes a significant contribution to the implementation and coherence of the research programme of the basic unit.
- The staff member maintains international contacts and collaborations, apparent from joint publications and work visits, among other things.

PhD students
- In the 5 years preceding the appraisal, the staff member was responsible for the supervision of at least 2 PhD students, whereby 'responsible' means that the staff member has taken the lead in designing, guiding, and finalizing PhD projects, acts as the daily supervisor and determines the direction of the research jointly with the PhD student. The PhD students have either completed their thesis or show sufficient progress to be able to complete it in a short time.
- The staff member has in the past 5 years recruited at least one new PhD student for their own research group.

Fundraising
Since their appointment as Associate Professor, the staff member has acquired a substantial amount of external research funding for their own group as principal investigator (PI) or as co-PI, totaling at least EUR 225,000. This includes grants received for research on teaching innovation.

Academic publications and evidence of recognition

The staff member has produced on average two or more high-quality publications per year (this may also concern education innovation).* The significant contribution of the staff member can be demonstrated, and the work is clearly embedded in their own research line.

The staff member's scientific contributions are demonstrably recognized by their peers.

A different frequency is acceptable if it is in line with the standards of the field.

How to substantiate

Conducting research

The staff member writes a statement (max 750 words) to demonstrate that they satisfy the main criterion and the specific criteria under this heading. The statement should concentrate on the staff member's research vision and steps they have taken and will take to realize their plans. Indicators for a viable group are incoming students (BSc/MSc), PhD students, postdocs and visiting scientists who are producing a continuous stream of outputthat is recognized by peers. In line with most research activities at FSE the main route for demonstrating original work of high quality is through publications in prominent peer-reviewed journals or peer-reviewed conference proceedings, invitations to speak at national or international conferences and other evidence of scientific recognition (posters, visits, networks, partnerships etc.).

PhD students

The staff member gives an overview of recruited and supervised PhD students. The staff member briefly elaborates on the status of each of the projects, including stage of completion and examples for successes of projects (e.g. evidence of recognition such as conferences, poster presentations, publications, outreach activities, thesis defenses). In case of shared supervision (e.g. in the context of double-doctorates, interdisciplinary collaboration etc.), the amount of supervision is weighed by the percentage contribution of the supervisor. This must be included in the staff member's promotion file, accompanied by a brief statement on the individual roles of the involved supervisors.

Fundraising

The staff member describes which funds have been (successfully) applied for. Funds provided by the University of Groningen are excluded. 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 must be included when calculating the total amount of research grants received by the candidate).
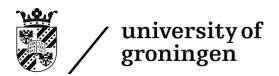
Academic publications and tokens of recognition

The staff member provides an overview of publications and evidence of recognition of themselves and their group (invited talks, prizes and awards, membership of consortia, etc). In case of collaborations, the staff member briefly elaborates on their role in the resulting scientific work. The significant contribution of the staff member can be demonstrated, and the work is clearly embedded in their original and personal research line. The quantitative criterion for publications can be overruled when the evidence of recognition demonstrates that the staff member has outstanding impact in their field.

6.3 Impact

Main criterion: Research with impact

The staff member shows development in having and executing a strategy to highlight the societal relevance of their research and/or the research of their group and/or another unit they belong to (e.g. institute, theme, faculty) beyond their scientific community. They show support for impact or outreach activities of their group members or others with whom they collaborate. Using this strategy and based upon the output of their own research, staff members aim to

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influence change in behavior, relationships, actions and/or activities of private and public stakeholders.

This main criterion is elaborated into the following more specific criterion:

- The staff member shows to have a growing number "productive interactions", i.e. exchanges with stakeholders outside of their own scientific field resulting in actual or potential collaboration in research or education.

How to substantiate
The staff member provides a narrative with evidence of their own "productive interactions" with societal stakeholders and those of their group members or other collaborators whom they have supported. Examples are:

lecturing or publishing about the research to a broad audience;
collaboration with companies, governments, NGOs or other stakeholders to make the insights gained applicable in those organizations, e.g. preparing and/or writing a joint grant application;
writing and filing a patent (partially).

6.4 Organization

Main criterion: Inspiring leader
The staff member is an inspiring leader who effectively stimulates their group members to get the best out of themselves and achieve good results. The staff member is committed to the common goals of their research institute and the faculty and contributes substantially to their realization, among other things by inspiring others to do so.

This main criterion is elaborated into the following more specific criteria:

Contribution to the organization
- The staff member actively promotes an open, safe and inclusive working environment.
- The staff member spends at least 10% of their working time on academic community service (i.e. organizational roles within the university that transcend their own research and teaching interests).
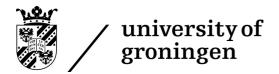
Leadership and collaboration
- The staff member effectively uses various leadership styles, depending on the requirements of the situation.
- The staff member has participated in Selection Committees or committees regarding the organization of teaching and research at Faculty or institute level.
- The staff member has successfully (had) a leadership/management role in the research institute (e.g. leader base unit, board institute) or in degree programmes (i.e. programme director, chairperson programme board, chairperson board of examiners).
- The staff member contributes substantially to dialogues about education and advances collaboration and partnerships within FSE, at the UG, and nationally.

How to substantiate
The staff member describes how their behavior shows that they satisfy the main criterion and each of the specific criteria. They include an overview of activities they have undertaken and the (leadership) roles they have had that show tthey satisfy the specific criteria.

Contribution to the organization

The staff member gives an overview of activities that fall under academic community service, such as roles in working groups, committees, boards, at events of the degree programmes or the research institutes, etcetera.

Leadership and collaboration
The staff member provides a reflection on the leadership styles they employ and how it helps them to navigate different types of situations.

6.5 Professionalization

> **Main criterion:**
> The staff member has in the last five years made demonstrable efforts to improve their skills and competences, in line with their personal development plan.

This main criterion is elaborated into the following more specific criteria:

- The staff member has completed leadership and/or management courses, including the Educational Leadership Programme (Leergang Onderwijskundig Leiderschap), or an equivalent programme.
- The staff member has a sufficient command of the Dutch language to be able to speak and understand it well (speaking and listening at least level B2 of the European Framework of Reference).

How to substantiate
The staff member describes to what extent they have executed their personal development plan. They give an overview of the professionalization activities that they have undertaken. Satisfaction of the Dutch language criteria should be demonstrated by means of a certificate (not needed if you can show the committee that you can converse well in Dutch).
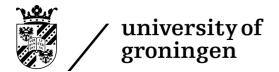
6.6 Competences

> **Main criterion:**
> The staff member possesses the competences needed for being a successful Full Professor.

The following competences receive special attention at this career stage:

- **Connecting leadership**: The staff member can create common ground and inspire others to collaborate on common goals, in their own research group as well as more broadly in the organization.

- **Courage:** The staff member dares to take risks and take responsibility for unpopular decisions. They intervene when it is needed and do not avoid difficult conversations. They are open to alternative viewpoints and criticism and dare to discuss their own weaknesses and be vulnerable.

- **Integrity**: The staff member is trustworthy and transparent in their goals and decision-making and promotes these values to others. The staff member stimulates an atmosphere in which questions about integrity are raised and discussed.

How to substantiate
The staff member describes how their behaviour shows that they have each of the competences, by providing examples.

7   Full Professor 1

The Full Professor 1 is a role model and figurehead within the Faculty of Science and Engineering and the University more broadly and is recognised as such by others, as evidenced by positions, appointments, and roles. The Full Professor 1 has a major impact on the position of the Faculty and the University in terms of research, education, impact and organization. For at least one of the domains the candidate meets the criterion described below, while the candidate has also made substantial and demonstrable contributions to the other domains, which go beyond what is expected of a Full Professor 2 with the candidate's focus domain.

7.1   Education

The candidate meets the criteria regarding education associated with the level of Full Professor 2 in the career path with a focus on education. In addition, the candidate meets the following criterion:

The staff member is a national or global leader in teaching and learning with substantial impact on educational practice and/or pedagogical knowledge on the level of the university and beyond.

Indicators that the candidate meets this criterion are:

- The candidate visibly shapes and informs teaching and learning strategies or policies at the university, national and international levels.
- The candidate initiates and leads national and international collaborations on education.
- The candidate demonstrates sustained, high-impact contribution to pedagogical research and knowledge, with impact across their field of expertise.
- The candidate plays leading roles in (inter)national educational society/organizations.
- The candidate is frequently invited as a (key-note) speaker at important national and international conferences on developments in academic education.
- The candidate has received funding, national and international awards or other distinctions that demonstrate their leadership in education.
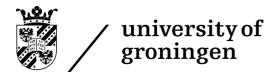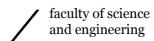
7.2   Research

The candidate meets the criteria regarding research associated with the level of Full Professor 2 in the career path with a focus on research. In addition, the candidate meets the following criterion:

The staff member is an international authority in their field and a visible leader who exerts substantial influence on their field of research.

Indicators that the candidate meets this criterion are:

- The candidate has a demonstrable impact on the national and international research agenda in their field.
- The candidate has initiated and leads large national and international research collaborations.
- The candidate publishes continuously in leading journals in their field and is highly cited, i.e. well above the standard in the field.
- The candidate plays leading roles in an (inter)national research society/organization.
- The candidate is frequently invited as (key-note) speaker at important national and international science/technology conferences.

- The candidate has received prizes, honorary doctorates, national and international awards or other distinctions.

7.3 Impact

The candidate meets the criteria regarding impact associated with the level of Full Professor 2 in the career path with a focus on impact. In addition, the candidate meets the following criterion:

The staff member is an exceptionally successful leader in the area of knowledge exchange and societal impact.

Indicators that the candidate meets this criterion are:

- The candidate has achieved exceptional successes (i.e. that go well beyond the criteria for Full Professor 2 with a focus on impact) in one or more of the following areas of societal impact: collaboration with industrial and other societal partners, entrepreneurship, influence on policy-making, outreach to the general public.
- The candidate maintains an extensive network of societal partners from which their institute, the faculty and the university benefit.
- The candidate plays leading roles in an (inter)national society/organization.
- The candidate receives (inter)national recognition for their societal impact, as evidenced by invitations for important national and international conferences.
- The candidate has received funding, national and international awards or other distinctions that demonstrate their leadership in societal impact.

7.4 Organization

The candidate meets the specific criteria regarding organization associated with the level of Full Professor 2 in one of the career paths, as well as the following criterion:

The staff member is an exemplary and visionary leader who contributes substantially to the academic organization and community, within the faculty and the university as well as beyond.

Indicators that the candidate meets this criterion are:

- The candidate has a clear and convincing vision of teaching, research, and/or impact that goes beyond their own field, can propagate this within and outside the institute, can translate this into demonstrable strategic actions and initiates large-scale movements on the basis of their vision.
- The staff member is heavily involved in attracting, retaining and developing talent for the organization and acts as role model and mentor to less experienced colleagues.
- The staff member has successfully managed or is successfully managing large organizational entities within the university, such as an institute or school.
- The staff member leads and is a member of prominent and influential national and international councils, committees and (advisory) bodies.