



university of
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faculty of science
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board

Appendix 3: Career Path with a focus on Impact



Inhoud

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1 Brief introduction

These pages describe the steps of the academic career path with a focus on impact 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 impact, research and education. In addition, they will have to obtain results in the domain of 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 or [click here](#).



2 Associate Professor 2

2.1 Impact

Main criterion: Effective strategist with impact

The staff member shows leadership in executing an effective strategy leading to impact. They show to have one or more active and growing networks, and show results of their influence on societal change beyond their own research field. There is continuity in the staff member's activities and the impact they generate. Staff members demonstrate impact by using their contacts and network(s) for the greater good: not only for their own group but also for other organizational levels, e.g. their institute, the faculty or university, or (inter)national organizations. Using this strategy and based upon the output of their own research, staff members aim to influence change in behavior, relationships, actions and/or activities of private and public stakeholders, and/or to undertake entrepreneurial activities with the potential to have societal impact. In this they show independence and integrity, in accordance with the ethics and values of the university.

Staff members demonstrate their effectiveness and leadership in at least one of the following four types of impact and meet the associated more specific criteria:

Collaboration with industrial and other societal partners

- The staff member has realized impact through the collaboration with societal partners, e.g. companies, ministries or NGO's, leading to substantial knowledge transfer.
- In the five years preceding the appraisal, the staff member has acquired for these collaborations a substantial amount of external research funding for their own group as principal investigator (PI) or as co-PI, totalling at least EUR 225,000. (It is possible to diverge from the quantitative criterion in exceptional cases if the funds available in the staff member's academic field have been insufficient and the staff member has made sufficient and good attempts to acquire external funding, while the prospering of the research group has been ensured using a different strategy.)

Entrepreneurship

- The staff member has undertaken activities to (prepare the) start of a company based on their own research results or those of their research group. Preparational activities can include e.g. the writing and filing of one or more patents (partially) paid for by a societal partner, doing market surveys, writing a business plan, building prototypes or demonstrators, or attracting (the attention of) venture capitalists or other investors.

Influencing policy making

- The staff member has significantly influenced the agenda for the discourse within their field of expertise.
- The staff member has reached a specific goal regarding an audience like ministries, companies or NGOs (reports, policy papers, consultancy documents).
- The staff member's work is regularly referred to in policy documents and/or influential mass media outlets.

Public engagement

- The staff member undertakes public engagement activities to a diverse general audience that are demonstrably of a high quality and have a big impact.
- The staff member evaluates the impact of their public engagement activities systematically and uses this to optimize their strategy.



- On top of the scientific publications, the staff member has produced at least one form of output per year for a sizable general audience (e.g. newspapers, magazines, websites, podcast, exhibit).

How to substantiate

Collaboration with industrial and other societal partners

The staff member describes which funds have been (successfully) applied for involving societal partners. 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). Funds fully provided by the University of Groningen are excluded, meaning that included are only: indirect government funding (second cash flow, e.g. NWO) and third-party funding (third cash flow, e.g. companies contributing to consortia or directly to the research group through contractual research funding).

In case the staff member does not fully meet the quantitative funding criterion, they should also provide a brief overview of requests that were not awarded, including how they were assessed, to demonstrate that they have made sufficient efforts. In addition, the candidate should describe the funding limitations that apply to their field of research, and what alternative alternative/additional routes they chose to safeguard a viable group (e.g. PhD students/postdocs with own funding, double doctorate agreements, 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).

Entrepreneurship

The staff member provides evidence of their activities in a statement (max. 400 words), specifying a.o. the prospects and timeframe for the actual launch of the company.

Influencing policy making

The staff member provides evidence of their activities ("productive interactions with societal stakeholders") and their influence of change in a statement (max. 400 words). Examples of such interactions are roles in councils that advise a government and contributions to scientific reports prepared for policy makers. Evidence regarding contributions to the agenda may include reports, policy papers, consultancy documents, etcetera.

Reaching out to the general public.

The staff member provides evidence of their activities ("productive interactions with societal stakeholders") in a statement (max. 400 words). Examples of activities are invitations for (mass media) interviews, talk shows or other media outlets, lecturing or publishing about the research to a broad audience.

2.2 Research

Main criterion:

The staff member has built up a strong research group based on their own research line that clearly contributes to the profile of the research institute. The staff member is publishing in leading journals and is invited to speak at national or international conferences of renown. The staff member is successful in acquiring external funding for research and in recruiting and supervising PhD students as well as other group members, such as postdocs and MSc students.

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

Conducting research

- The staff member has a viable and productive research group that produces original work of a high quality.



- The staff member has developed a recognizable research line of their own 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.

PhD students

- In the five years preceding the appraisal, the staff member was responsible for the supervision of at least 2 PhD students in the staff member's own research line who have either completed their thesis or show sufficient progress to be able to complete it in a short time.
- In the five years preceding the appraisal, the staff member has recruited at least one new PhD student for the staff member's own research group (not including PhD students funded from the staff member's start-up package).

Fundraising

- In the five years preceding the appraisal, the staff member has acquired a substantial amount of external research funding for their own group as principal investigator (PI) or as co-PI, totalling at least EUR 225,000. (It is possible to diverge from the quantitative criterion in exceptional cases if the funds available in the staff member's academic field have been insufficient and the staff member has made sufficient and good attempts to acquire external funding, while the prospering of the research group has been ensured using a different strategy.)

Academic publications and evidence of recognition

- The staff member has produced on average two or more high-quality publications per year.* The significant contribution of the staff member can be demonstrated, and the work is clearly embedded in their original and personal 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 output that 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.

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 acquired with societal partners are included (i.e. any funds reported under Impact / Collaboration with industrial and other societal partners). 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).

In case the staff member does not meet the quantitative funding criterion, they should also provide a brief overview of grant applications that were not awarded, including how they were assessed, to demonstrate that they have made sufficient efforts. In addition, the candidate should describe the funding limitations that apply to their field of research, and what alternative alternative/additional routes they chose to safeguard a viable group (e.g. scholarship students, double doctorate agreements, interdisciplinary projects, MSC Fellows).

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, 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.

2.3 Education

Main criterion: Effective teacher

The staff member is an inspiring and effective teacher who provides and develops state-of-the-art research-driven teaching. 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 reflects on the effectiveness of their teaching and methods of 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 30% of their working hours on teaching (including teaching development), 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 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.
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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 are 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.

2.4 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).
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Leadership and collaboration

- The staff member coaches colleagues and promotes their development, particularly with respect to research.
- 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.

2.5 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.
- The staff member has completed relevant leadership and management courses, including Coaching PhD students and Academic Leadership 1.
- 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).

2.6 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.



3 Associate Professor 1

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

Impact

- In the five years preceding the appraisal, the staff member has achieved substantial results in at least one of the aforementioned four types of impact that go beyond the criteria for Associate Professor 2.

Research

- In the five years preceding the appraisal, the staff member was responsible for the supervision of at least 2 PhD students in the staff member's own research line who have completed their theses.
- 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 since their appointment as Associate Professor 2 or EUR 450,000 in the past five years. (It is possible to diverge from the quantitative criterion in exceptional cases if the funds available in the staff member's academic field have been insufficient and the staff member has made sufficient and good attempts to acquire external funding, while the prospering of the research group has been ensured using a different strategy, and the candidate has at an earlier stage proven to be able to acquire substantial amounts of external funding.)

Education

- The staff member spends on average 40% of their working hours on teaching (including teaching development), to be calculated according to FSE standards. (This criterion overrides the criterion regarding teaching time associated with the promotion to Associate Professor 2.)

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

Impact

The staff member describes the successes for the relevant type of impact in a similar way as required for the promotion to Associate Professor 2.

Research

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 overview should include one or more PhD students that were not yet counted for the promotion to Associate Professor 2.

The staff member describes which grants 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 his or her own research (only this part of the application must be included when calculating the total amount of research funds received by the candidate).



Education

The candidate demonstrates having spent 40% 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 30% of their working hours on teaching.

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 or the university.



4 Full Professor 2

4.1 Impact

Main criterion: Impactful leader

The staff member is a leader in realizing impact. They show deepening or extending their active networks, and show results of their influence on societal change beyond their own research field. There is continuity in the staff member's activities and the impact they generate. The staff member demonstrates impact by using their contacts and network(s) for the greater good: not only for their own group but also for other organizational levels, e.g. their institute, the faculty or university, or (inter)national organizations. Using this strategy and based upon the output of their own research, the staff member influences change in behavior, relationships, actions and/or activities of private and public stakeholders, and/or they undertake entrepreneurial activities with the potential to have societal impact. In this they show independence and integrity, in accordance with the ethics and values of the university.

Staff members demonstrate their effectiveness and leadership **in at least two of the following four** types of impact and meet the associated more specific criteria:

Collaboration with industrial and other societal partners

- The staff member has realized impact through the collaboration with societal partners, e.g. companies, ministries or NGO's, leading to substantial knowledge transfer.
- In the 10 years preceding the appraisal, the staff member has acquired multiple substantial external research funds for their own group as principal investigator (PI) or as co-PI, totalling at least EUR 900,000. (It is possible to diverge from the quantitative criterion in exceptional cases if the funds available in the staff member's academic field have been insufficient and the staff member has made sufficient and good attempts to acquire external funding, while the prospering of the research group has been ensured using a different strategy.)

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Entrepreneurship

- The staff member has started a promising company based on their own research results or those of their research group.

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Influencing policy making

- The staff member demonstrates to be a leader in setting the agenda for the discourse within their field of expertise.
- The staff member has reached a specific goal regarding an audience like ministries, companies or NGOs.
- The staff member's work is regularly referred to in policy documents and/or influential mass media outlets.

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Public engagement

- The staff member demonstrates to be a leader by inspiring and educating their peers and/or group members in developing public engagement activities.
- The staff member evaluates the impact of their public engagement activities systematically and uses this to optimize their strategy.
- The staff member undertakes public engagement activities to a diverse general audience that are demonstrably of a very high quality and have a big impact.
- On top of the scientific publications, the staff member has produced at least two forms of output per year for a sizable general audience (e.g. newspapers, magazines, websites, podcasts, exhibits).



How to substantiate

Collaboration with industrial and other societal partners

The staff member describes which funds have been (successfully) applied for involving societal partners. 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). Funds fully provided by the University of Groningen are excluded, meaning that included are only: indirect government funding (second cash flow, e.g. NWO) and third-party funding (third cash flow, e.g. companies contributing to consortia or directly to the research group through contractual research funding).

In case the staff member does not fully meet the quantitative funding criterion, they should also provide a brief overview of requests that were not awarded, including how they were assessed, to demonstrate that they have made sufficient efforts. In addition, the candidate should describe the funding limitations that apply to their field of research, and what alternative alternative/additional routes they chose to safeguard a viable group (e.g. PhD students/postdocs with own funding, double doctorate agreements, 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).

Entrepreneurship

The staff member details in a statement (max. 400 words) the steps taken and the results obtained (e.g. patents obtained, products developed, financial results).

Influencing policy making

The staff member provides evidence of their activities ("productive interactions with societal stakeholders") and their influence of change in a statement (max. 400 words). Examples contributions to scientific reports prepared for policy makers and roles in councils that advice a government. Evidence regarding contributions to the agenda may include reports, policy papers, consultancy documents, etcetera.

Reaching out to the general public.

The staff member provides evidence of demonstrable results of their activities ("productive interactions with societal stakeholders") in a statement (max. 400 words), e.g. a popular science book or documentary based on scientific research leading to a public debate and even policy changes.

4.2 Research

Main criterion: Leading researcher

The staff member conducts leading research that contributes to the development or positioning of the institute, the faculty and the university. The staff member must have a strong research group, where 'strong' stands for high-quality, productive, viable and lively. The staff member is clearly visible in their field and demonstrably contributes to setting the research agenda in their field, nationwide and internationally.

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

Conducting and coordinating research

- The staff member has developed a clear and productive individual research line within the research programme of the basic unit or research institute.
- The staff member has a leading role in the implementation and coherence of the research programme of the basic unit and contributes significantly to the profile of the research institute.



- The staff member maintains extensive 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 and contributed substantially to the supervision of at least three PhD students within their own research line until their PhD theses were approved by the PhD Assessment Committee and without incurring unreasonable delays.
- In the 5 years preceding the appraisal, the staff member has recruited at least two new PhD students for their own research group.

Fundraising

- In the 10 years preceding the appraisal, the staff member has acquired multiple substantial external research funds for their own group as principal investigator (PI) or as co-PI, totalling at least EUR 675,000.* (It is possible to diverge from this criterion in exceptional cases if the funds available in the staff member's academic field have been insufficient and the staff member has made sufficient and good attempts to acquire external funding, while the prospering of the research group has been ensured using a different strategy.)

Academic publications and evidence of recognition

- The staff member has produced on average two or more high-quality publications per year.** The significant contribution of the staff member can be demonstrated, and the work is clearly embedded in their original and personal research line.
- The staff member's excellent scientific contributions are demonstrably recognized by their peers.

* EUR 900,00 in case the staff member achieves impact by collaborating with industrial partners or other societal partners; see specific criteria associated with impact.

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

How to substantiate

Conducting research

The staff member provides a statement (max 500 words) by means of which they demonstrate to meet the criteria. Topics to address:

- What are you known for and how this links/discriminates you from other players in your field nationally and internationally?
- How is your work embedded in the institute and are there links to other groups within your institute or beyond?
- Which collaborations do you maintain and what makes these particular collaborations fruitful?

If applicable provide examples supporting your statements (e.g. awards, fellowships, publications, keynotes, collaborative publications/grants).

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 acquired with societal partners are included (i.e. any funds reported under Impact / Collaboration with industrial and other societal partners). 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).

In case the staff member does not meet the quantitative funding criterion, they should also provide a brief overview of requests that were not awarded, including how they were assessed, to demonstrate that they have made sufficient efforts. In addition, the candidate should describe the funding limitations that apply to their field of research, and what alternative alternative/additional routes they chose to safeguard a viable group (e.g. scholarship students, double doctorate agreements, interdisciplinary projects, MSC Fellows).

Academic publications and evidence of recognition

The staff member provides an overview of evidence of recognitions of themselves and their group (publications, conference presentations (oral/poster), prizes and awards, consortia etc.). In case of collaborations, the staff member briefly elaborates on their role in the resulting scientific work (e.g. which experiments were part of their package and what did they provide to the full story presented, how do they link to their original and personal research line). 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.

4.3 Education

Main criterion: Skilled teacher

The staff member is an inspiring, effective and skilled teacher who provides and develops state-of-the-art research-driven teaching and who can effectively apply a variety of teaching and assessment methods. The staff member demonstrates a student-centered approach and uses evidence-informed approaches to enhance student learning and engagement. The staff member continuously seeks to improve their teaching and learning practice and initiates educational innovations beyond course unit level. The staff member has a good understanding of the broader context in which they teach, both content-wise and organizationally.

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

Teaching

- The staff member is an inspiring, effective and skilled teacher.
- The staff member uses a diverse range of modes of instruction and assessment that are based on knowledge about effective teaching and learning.
- 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 unit and degree programme level).
- The staff member uses state-of-the-art and varied learning material which explicitly places the discipline in its academic and social context.
- The staff member spends on average 40% of their working hours on teaching (including teaching development), to be calculated according to FSE standards.
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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 contributes demonstrably and successfully to activities on the level of the degree programme (learning line or variant), such as in educational innovation projects, and/or to education management, including committees in the education organization.

Curriculum organization

- The staff member actively inspires and supports colleagues to develop and improve their teaching, including PhD students in their group, and stimulates them to be informed about faculty's teaching and assessment policies.

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
- the staff member's vision and activities regarding education development on the level of the degree programme
- what the staff member has done to inspire and support colleagues to develop and improve their teaching.

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.

4.4 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 significantly to relevant national and international networks and introduces colleagues and group members to these networks.

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 they 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.

4.5 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 participated in professionalization that concern education activities such as courses, workshops, and seminars.
- The staff member has completed leadership and management courses.
- 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).

4.6 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 behavior shows that they have each of the competences, by providing examples.



5 Full Professor 1

5.1 Profile of the 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.

5.2 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.

5.3 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:

- 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.

5.4 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:

- 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.

5.5 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:

- 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.