

Career support for researchers in the early career stages:

A holistic and systematic approach

Report of 31.07.2019

Introduction and background

The need for support for career development has become clearer in line with an increasing number of researchers in temporary positions and intensified competition for permanent positions in academia. A high proportion of researchers must find relevant application for their qualifications outside the universities. At the same time have the needs of the knowledge society strengthened the university's role as a provider of top competence and innovation capacity for the whole society. In a knowledge society, it can no longer be taken for granted that academia always offers the most attractive jobs for researchers. The more talented researchers like prefers a career outside academia, the greater the research's need for cross-disciplinary collaboration of sectors.

These are insights that are shared by universities around the world and that require UiO to develop one ambitious and active career policy towards researchers in an early career phase (hereinafter referred to as younger) researchers). The forum for research deans therefore set up a working group in the autumn of 2018 prepare proposals for how a comprehensive system for career support for younger researchers at UiO could designed. The group was composed as follows:

Eivind Engebretsen, leader of the working group (MED, vice dean)
Olaug Kristine Bringager (LOS, FADM, senior adviser)
Ingrid Lossius Falkum (HF / AYF, researcher)
Finn-Erik Johansen (MN, then research dean)
Volodymyr Levchenko (MN / UiODoc, resigned in May 2019 due to completion of PhD degree)
Mathilde Skoie (HF, research dean)
Helge Ivar Strømsø (UV, Dean of Research)
Secretariat: Linn Bævre (MED) and Anna K. Buverud (LOS, FADM)

The proposals presented here is based on available reports and known examples of good practices, as well as experiences from postdoctoral programs and other initiatives at the faculties as well as UiO's interdisciplinary research leadership programs. An important source for the work has been the report from the KUPP project (Career Development Pilot Program) in the autumn of 2018. The KUPP project aimed to further develop and improve the SFF's career support for younger researchers and to contribute to developing one a comprehensive system in which the role and tasks of the professional environments were elucidated. The working group builds on and expands several of the recommendations in the KUPP report. For details, including the group's mandate, please refer it to attachments.

The working group's report is structured as follows:

In the first part, the group explains its view of the purpose of UiO's work with career support for young people researchers. Delimitations, premises and principles the group has found clarifying are also discussed here for the work and which the group itself has chosen to base its recommendations on.

In the second part, key dimensions of a systematic career support are presented. The group recommendations can be found [here](#).

In the third part, some short comments are linked to follow-up and further process.

1. The university's career support: Purpose, target groups and premises

Overall perspective and clarification of purpose

A comprehensive and systematic career support for younger researchers at UiO shall:

1. contribute to securing the world community and Norway future research, professional development and top-competent researchers in relevant and promising areas;
2. contribute to younger researchers being well prepared for various careers both in and outside academia;
3. Contribute to creating open channels between universities and working life that promote competence development, awareness of various career paths and facilitation of mobility
4. contribute to more dynamic and open research environments through better interaction between the university and other sectors of society

Although the primary target group for the career development measures are the younger researchers themselves, he believes the working group that the measures will also benefit the research environments these researchers are part of. Systematic career support for younger researchers will help build sustainable research environments such as is geared towards the societal challenges of the future and a more «open science». The future research requires dynamic exchanges between academic environments and other sectors of society. The university's work with career support should therefore be part of a strategic development in which the academic environments increasingly opens up to society and impulses from outside, with increased exchange and cooperation with other actors and stakeholders in society. In this perspective, UiO's work with career support is a part of the efforts to both increase the research's social influence and to create future-oriented ones research environments.

The target groups

The group referred to here as "younger researchers" has in common that they have a temporary employment conditions. The majority of these are researchers in qualifying positions, ie PhD fellows and postdocs affiliated with UiO. Researchers in temporary positions and researchers who are permanently employed, but with time-limited financing, may have many of the same needs for further support career development. We have therefore chosen to include permanent researchers with time-limited funding the target group, with the proviso that it will not always be possible or appropriate to offer the same support for researchers as well as for a postdoctoral fellow. Other permanent employees fall outside the mandate.

Qualifying positions: Different levels of expected competence

Career support measures must be defined on the basis of experienced needs in the target group, the field's career opportunities and competitive situation, labor market expectations and financing criteria. At the same time must the measures relate actively to the expected competence and overall benefit of a position period in this way this is described in the qualifications framework and other regulations.

The development of the European Research Area (ERA) is significant drives in the work of promoting the career opportunities of European researchers. «European Charter and Code »¹ shall contribute to creating better and more equal working conditions for employees in recruitment positions and

¹Europakommisjonen, 11. mars 2005: "The European Charter for Researchers [and] The Code of Conduct for the Recruitment of Researchers", see https://euraxess.ec.europa.eu/sites/default/files/am509774cee_en_e4.pdf (nedlastet 22. juni 2019).

a common, cross-sectoral understanding of what kind of competence can be expected and required at different levels. “European Framework for Research Careers”² operates with four levels, with different expectations for competence:

- R1: First Stage Researcher (up to the point of PhD)
- R2: Recognized Researcher (PhD holders or equivalent who are not yet fully independent)
- R3: Established Researcher (Researchers who have developed a level of independence)
- R4: Leading Researcher (researcher leading their research area or field).

The target audience for this report includes the middle two of these four levels. «R1: First Stage Researcher »describes the skills that a PhD candidate is expected to have during research qualification (or a researcher without a doctorate) holds, ie prior to the report's target groups. «R2: Recognized Researcher »describes the competence a researcher is expected to have acquired by having passed doctoral degree (corresponding to the learning outcomes of a doctoral program). R3: Established Researchers describes the expectations for competence and independence of researchers a few years after graduation doctorate. No corresponding description has been developed for use in Norway or at UiO.³

This framework and the associated expectations are actively used by European institutions and financiers. The working group believes it is important that UiO develops a framework for researchers at an early stage career phase that mainly corresponds to the European, so that the university can maintain and further develop awareness and competitiveness adapted to the levels of expectations in the common European research area.

The working group sees a need to emphasize that qualifying positions involve a significant educational responsibility for both the academic environments the researchers are employed in and for the university itself. Today employed the postdocs at the university who are not given the opportunity to qualify for a first place in the race of the employment period. For a university with high ambitions for research-based education should it be a requirement that everyone who is employed in qualifying positions has teaching experience, and a goal that all researchers contribute to teaching.

The following matrix provides an overview of expected competence according to completed doctoral degree (as described in the Norwegian qualifications framework) and a proposal for expected competence for postdocs after termination of employment. In the opinion of the working group, younger researchers in permanent and temporary positions are mainly covered by what is described for postdocs. For all levels it is important to clarify expectations between the professional environment and the candidate / employee.

²Europakommisjonen, 21. juli 2011: “Towards a European Framework for Research Careers”, se https://cdn5.euraxess.org/sites/default/files/policy_library/towards_a_european_framework_for_research_careers_final.pdf (nedlastet 22. juni 2019).

³For en fullstendig beskrivelse av de tre første nivåene henvises det til vedlegg.

Table 1

Expected competence after completed doctorate	Expected competence after completion postdoctoral position
- Is in the knowledge front within his subject area and masters the subject area scientific theory and / or artistic issues and methods - Can assess the appropriateness and the application of different methods and processes in research and academic and / or artistic development projects - Can contribute to the development of new knowledge, new theories, methods, interpretations and forms of documentation within the subject area - Can formulate issues for, plan and conduct research and academic and / or artistic development work Can conduct research and academic and / or artistic development work on high international level - Can handle complex professional questions and challenge established knowledge and practice the subject area - Can identify new relevant ethics issues and conduct their research with professional integrity - Can manage complex interdisciplinary tasks and projects - Can convey research and development work through reputable national and international channels - Can participate in debates within the subject area in international forums - Can assess the need for, take the initiative to and drive innovation	- Can lead research projects, including projects with several (possibly international) partners and interdisciplinary projects there this is relevant. - Sees opportunities for how research can funded and can take advantage of these opportunities. - Can guide less experienced researchers, including master's and PhD candidates, in their researcher training. - Can plan and teach professional topics closely own research competence, possibly as a part of broader topics. - Can convey own and others research results in relevant subject areas to a wide audience including decision makers and other social actors. - Can participate in debates and the like. with a background in his own professional knowledge also where such debates span more subjects, sectors or involves different social actors. Can translate research results into applied solutions and further develop innovations (where it is relevant). - Can take ownership of and manage their own career development, define realistic and achievable career goals and adapt to different work contexts.

Phases as a unifying perspective

The KUPP participants found it useful to systematize the environments' career support around three critical phases (transitions) during a term of office and emphasized the importance of providing support for the mastery of demanding transitions. These are also the basis for the working group's discussion and recommendations:

- The start-up phase: Support aimed at the researcher becoming an integral part of the environment, few ownership of the environment's common tasks and ambitions but get started well and quickly with their own work.
- Implementation phase: Support aimed at the researcher's success in his or her position and their tasks in the environment.
- Closing phase: Support aimed at making the researcher attractive and well prepared for the next phase of your career, outside or within academia.

The phases must be understood as a coherent whole. For example, the planning of a successful termination phase begin early in the employment period. It is a premise for the working group that career support includes all three phases, and - if to varying degrees - both measures implemented within the framework of the individual academic environment and measures organized at department, faculty or institutional level. In addition, is the working group's opinion that the package of measures must include both individual career guidance measures and collectively organized career support measures.

Principles for career support work

The working group has used the following principles as a basis for establishing a systematic career support:

- Career support must include measures that are relevant and comprehensive for all three critics the phases of an addition ratio.
- The support must be a broad offer for the target groups, and not an offer that only includes one selective group.
- The support must be available to all PhD candidates at UiO's PhD programs and for postdocs and researchers who have a work or work-like relationship with UiO.
- The support offer must be sufficiently differentiated to ensure relevance in relation to the situation of the target groups and different needs.

Typical forms of career support

In our work, we have chosen to distinguish between 5 different forms of career support that are often used by universities. At UiO, support measures are offered that fall into these categories to varying degrees, and we refers to some examples. As of today, these measures are to a small extent coordinated and systematized. Following categories of measures can be identified:

- Supervision and mentoring of younger researchers
 - o This includes organized and formalized supervision or mentoring schemes for professional guidance, and offers of career guidance - either individually or in groups
 - o Formalized academic supervision is part of all UiO's PhD programs. For postdocs and temporary researchers, there are some scattered offers. Examples of such are UiO's mentoring program for female postdocs and peer mentoring the postdoctoral scheme at MED.
- Online resource pages

- o This can be about web portals with tailored information and resources such as are relevant to the career development of younger researchers. In addition, it includes frameworks and tools for self-assessment of competence needs, as well as handbooks, descriptions of merit criteria, etc.
 - o UiO has to a small extent adapted and tailored information of this type and lacks a single web portal for career support. Some resources, such as e.g. templates for career plans and staff interviews or handbooks for researchers, are available on the individual units' websites.
- Career programs
 - o This is about systematic and structured support offers that extend across all or part of a vacancy, such as talent programs, postdoctoral programs and management programs.
 - o At UiO, several such programs are offered, both at some faculties and centrally level, including the postdoctoral programs at MED and MN, talent programs at HF and UV and UiO's education and research leadership programs.
- Competence development offers
 - o This is especially about various courses and workshops for education and training in generic skills for younger researchers, e.g. project management, research ethics, research communication, team development, mastery of external research funding
 - o At UiO, some training is offered integrated in the PhD / postdoctoral program and leadership development program. Some separate courses in generic skills are also offered which are not specifically tailored to the target groups
- Networks and arenas for and with younger researchers
 - o This is about arenas and networks for and with younger researchers with activity especially aimed at career clarification, working life contact, etc.
 - o At UiO, examples can be mentioned such as career day, breakfast meetings for the target group, alumni network, organization of permanent meeting arena for younger researchers etc.

Generic skills

UiO's career support will contribute to younger researchers being well prepared for various future careers both inside and outside academia. It is thus important that UiO takes a position on how it should be arranged for education, training and awareness in generic skills ("transferable skills"): Which skills that are the most relevant in terms of expected competence after the career phase, whichever is most important for the target groups and how these are best acquired.

The European Science Foundation (ESF) has been an important joint actor and bridge builder for the universities in the development of a common framework for understanding important phases and measures in researchers' career development. The report "Research Careers in Europe - Landscape and Horizons" (2009) remains important reference document for work with generic skills in career development for younger researchers.⁴

The working group finds it useful to use the report's definition and overview of relevant skills at PhD and postdoctoral level:

Transferable skills are skills learned in one context (for example research) that are useful in another (for example future employment whether that is in research, business etc). They enable subject- and research-related skills to be applied and developed effectively. Transferable skills may be acquired through training or through work experience.

There are several alternative overviews and categorizations of generic skills. ESF report recommends that the following list, prepared on the basis of a major study, be used as a basis work with career support measures in academia:

- *Working with others / team working*
- *Communication / presentation skills, both written and oral*
- *Communication / dialogue with non-technical audiences (public engagement)*
- *Project and time management skills*
- *Research management and research leadership*
- *Creativity and the ability for abstract thought*
- *Knowledge of research methods and technologies beyond the Doctoral project*
- *Teaching skills*
- *Mentoring and supervisory skills*
- *Enterprise skills (entrepreneurship, commercialization, innovation, patenting and knowledge o transfer)*
- *Research ethics and research integrity*
- *Use of science in policy making*
- *Problem solving*
- *Negotiation skills*
- *Networking skills*
- *Grant application writing skills*
- *Career planning skills*

Younger researchers acquire generic skills partly as an integral part of the research work, the guidance and research collaboration in the academic environment and partly through adapted education and training in own courses and workshops on specific themes. According to the working group's assessment, UiO has needs for improvement in all these areas.

Minimum standards for career support offers

The content of a career support for younger researchers will depend on both field and level. A holistic system for career support - as UiO now wants to establish - still requires that someone is put in place minimum standards that ensure everyone in the target groups an equal basic offer. The working group has built this in their recommendations in part 2 of the report.

2. Establishment and further development of career support for younger researchers at UiO:

System elements

The working group has been asked to discuss alternatives for the establishment of a comprehensive, institutional system. The differences between the alternatives are mainly affected by the following dimensions:

- Facility for the various target groups
- Ambition level for the various target groups
- Organization and placement of responsibilities within different levels at UiO
- Involved roles / functions

Below is an overview of the working group's considerations related to the mentioned dimensions where we differentiate between two levels: Ph.d. and postdoctoral / temporary researchers (cf. Table 2 below).

In the following, we will summarize our overall assessments and recommendations.

The career support's structure and level of ambition

PhD level

For the PhD level, the group recommends the following structure and level of ambition:

- The main emphasis is - as in today's doctoral programs - on ensuring that the individual good support for the implementation of the researcher qualification and understanding of the researcher role. This happens through
- individual and group academic supervision as part of the doctoral program and through the programme's professional joint activities adapted routines for quick start-up and good integration in the environment, including clear belonging to a professional environment.
- Beyond this, the support should have a limited ambition and be primarily geared towards activating one general career awareness of different career paths and insight into one's own generic skills. This happens through
- offer of education and training in relevant generic skills access to a group offer of career guidance, as well as an offer of an individual conversation about future plans and opportunities during employment tailored online information and access to tools for self-assessment of skills.

If this is to be a stable and standardized offer for all PhD candidates, it is required improvements and standardizations of routines for the start-up phase, clearer integration of generic skills in the doctoral programs, the establishment of basic offers for career awareness and career guidance, adapted online information, and available tools for self-development of skills.

As a minimum standard for UiO's offerings at this level, the following is proposed:

All PhD candidates at UiO are offered:

- i. Professional guidance in the implementation of the doctoral thesis as well as knowledge, skills and generic skills in accordance with the requirements of the national qualifications framework for ph.d.
- ii. Information about various career paths a completed doctoral degree in the field lays the foundation. This can be done in different ways depending on the structure of the individual PhD program.
- iii. Introduction to career-enhancing generic competencies such as analytical thinking, academic writing and knowledge transfer / dissemination to a larger audience.
- iv. Adapted routines for conversations and information that support good start-up and termination of employment with perspectives on future career opportunities.

Postdocs and temporary researchers

For this level, in the group's assessment, the support should primarily be geared towards the following:

- To promote individual career planning and clarification of a personal career plan. This takes place through organized, group awareness and exchange of experience and through individual conversations. Employees in qualifying positions must be offered teaching experience and other career-building work.
- To support personal and targeted career building with a view to different career paths. Competence development in generic skills should also be provided at this level, but at a more advanced level format than at the PhD level. Relevant topics for further career, within as well as outside academia, can be external earnings, interdisciplinary collaboration, management, innovation, as well as network development and partnerships.
- Offer of support for professional and research development with emphasis on independence, clarification of research profile in relation to professional development and quality assurance of own research.

A publicly available offer with this level of ambition will require several improvements to the current offer at UiO, i.e. organized program offerings, expansion of the supervision and mentoring offer, and stable and sophisticated offerings within relevant generic skills for this target group.

As a minimum standard for UiO's offerings at this level, the following is proposed:

All postdocs and researchers (temporary or permanent on external funding) are offered:

- i. Academic guidance / mentoring in the implementation of the research work and support for independence and professional further development.
- ii. Participation in organized program activity, which consists of gatherings or a combination of collection and self-work. Topics should include career planning, work-leisure balance, management (self-management and group management), networking, application writing and popular science communication.
- iii. Annual career development interviews. This can be included as part of employee interviews or other follow-up. The career development interview should not be held with the nearest

professional supervisor, but with someone who knows the professional environment and the external professional landscape and the job opportunities there.

- iv. A career plan that forms the basis for the career interviews. This must include a plan for research and other qualifying work.
- v. Adapted routines for conversations and information that support good start-up and termination of employment with perspectives on future career opportunities.

Organization and distribution of roles, responsibilities and tasks at different levels

In this section, the group promotes views on two issues: The organization of activities such as is included in the career support, and the division of tasks and responsibilities between the levels. Both are important to ensure a comprehensive offer in relation to UiO's goals, for a comprehensive and institutionally binding offers and for clarity in the functions that must be filled.

Organization of career support activities

- At the PhD level, the doctoral degree program is the most important framework for researcher qualification. Which The field you work in is of great importance for the variation in further career opportunities. The working group therefore recommends that the faculties' PhD programs themselves decide how basic career guidance and relevant generic skills are included in the training.
- The working group recommends that UiO chooses a program organization for career support postdoctoral level. The advantages of such an organization are i.a. that learning and awareness raising can be supported and strengthened by the exchange of experience from several subject areas, and that the offer is more binding on the institution. Program organization can be added to individual faculties, such as be done at MED and MN today, or it can be prepared by several faculties in collaboration.
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Participation and distribution of responsibilities and tasks between the levels

Below is a proposal for the placement of responsibilities for the most important roles, functions and tasks within the career support at the levels.

The professional environment

The academic environment, where the younger researcher carries out his daily work, is the main arena for the support that to be given, and also the training arena for the skills that the researcher acquires at other levels. In line with the experiences and recommendations given in the KUPP project, the working group believes that the following tasks and responsibilities should be at the professional environment level:

- To create the conditions for the candidates to feel a sense of belonging to the environment, including work to organize the business so that it facilitates such affiliation
- To establish routines for information about the environment, introduction of colleagues, start-up interviews, etc., which gives the candidate a good and quick start
- To be a basic environment for researcher qualification where the most important relationships for professional development are taken care of - regardless of whether the researcher participates in the program
- To ensure individual follow-up, both professionally and with regard to career building and planning
- To be a training arena for competence development (teaching, presentation, limited leadership tasks, etc.)

What constitutes the professional environment level may vary. The important thing is to define the local environment and its organizational affiliation broad enough that the collective of senior researchers / PI involved and have co-responsibility is more extensive than a single PI and research group / project.

The academic community provides PhD candidates with supervisors and is also responsible for appointing an academic supervisor / mentor for postdocs. In addition, the professional community will arrange organized employee interviews with all younger researchers.

The department level

In the working group's opinion, the role and responsibility of the institutes in career support will be particularly important in the following areas:

- Responsibility for internal structure that facilitates clear belonging to the professional environment
- Responsibility for knowledge of and contact with relevant working life / market
- Organization of alumni contact and activities, including an overview of where own researchers get work ("tracking")
- Dissemination of information about the faculty's and institutional level's offer of career support

The faculty level

The faculties' responsibility is to organize program offers for PhD candidates and postdocs. Such a thing program should:

- Provide a structured and tailored qualification offer to PhD candidates and postdoctoral fellows (in
- compliance with the differentiated standards described above)
- Prepare the candidates to perform complex work tasks both inside and outside academia
- Be a creative and stimulating learning environment for candidates in a qualifying race

The responsibility for the programs - including the organization of career support measures - should lie with one or several professional coordinators.

The institutional level

Comprehensive career support across UiO requires that some coordinating measures be developed at central level. The working group recommends that this should include a common web portal where offers to the target groups are presented together. In addition, the central level should be responsible for maintenance and further development of quality standards for career support. A well-functioning and sustainable career development system also requires training of potential mentors and «train-the-trainer» schemes where scientific and administrative staff at the faculties earn qualifications to run courses and other career support measures. It is recommended that such train-the-trainer programs are organized at a central level.

The working group believes that it is necessary that responsibility for work with career support is clearly anchored in UiO's top management, and that the Forum for Research Deans serves as a reference group for the work. It is recommended that a person with research competence and insight into career development be appointed, who is given responsibility for the central organization of the university's career offer. Administrative responsibility for the work should be submitted to the research administration.

Table 2: A comprehensive, institutional system for career support The table below presents an overview of the working group's considerations related to those above mentioned the system dimensions where we differentiate between two levels: Ph.d. and postdoctoral fellow / temporary researchers.

OVERALL / COMPLETE SYSTEM OVERVIEW	PhD	Postdoc / temporary staff
Career support facility / profile Indicates what dimensions are the support is particularly aimed at: • Research qualification (the craft) • Career awareness, incl. insight into career paths, success criteria, generic skills • Career planning • Career guidance	The support is primarily aimed at: • Research qualification • General career awareness • Selected generics skills (e.g. communication, self-management, project work) Activities to promote this: • Individual professional guidance of the PhD project • The training part of the PhD the program • Career days • Individual conversation in the last period of employment	The support is primarily aimed at: • Career planning • Career building • Competence development within specific areas of generic skills • Support professionally independence and professional achievements Activities to promote this: • Supervisor and / or mentor offer, • Individual career plan - mechanism of establishment and follow-up • Career programs
Ambition level for the various the target groups Differences in level of ambition appears in the weighting or the balance between eg: • Group follow-up vs. individual follow-up • In-house development offer - resources (e.g. tools) vs. organized arenas (program, courses etc.) • E-learning vs. physical learning arenas	PhD program, incl .: • Individual follow-up of PhD project • In addition, group offers are given in selected generic skills. The offer should also include: • Individual employee interviews • Organized, tailored information for younger people researchers (resource bank) • Annual group offer / gathering development of career awareness (career day) • Adapted start-up in groups	Postdoctoral Program - program-organized activity with group meetings, incl .: - Progression in the development of generic skills - e.g.emphasis on leadership, team development, interdisciplinary cooperation, individual mentoring and career planning The offer should also include: • Individual employee interviews • Organized, tailored information for younger people researchers (resource bank) • Facilitation arrangements:

		affiliation with alumni activity
Involved roles and features needed to fill (supervisor, research leader, career counselor, unit manager etc.)	- Professional supervisor must have main responsibility for the support to the researcher qualification. - Program manager for PhD program is responsible for ensure that generic skills and career awareness is maintained in the program. - Unit leader (possibly delegated to a professional other than supervisor) is responsible for development talks.	- Professional supervisor / mentor - Mentor outside the professional environment - Postdoctoral Program Manager program - Role for alumni contact and - activity (administrative employee can take care of the role) - Function / role with responsibility for conclusion and follow-up of individual career plan and employee interview (should be a unit leader at level 4 - section leader or equivalent)
Organization and responsibilities and division of tasks on different levels	Professional environment: Main arena for career support with a focus on belonging, research qualification, guidance and networking Institute: Alumni activity, contact to and knowledge of working life - inside and outside academia Faculty: Program-organized Activity Institution level: Common information (Ph.D. and postdoctoral portal(s)) Train the trainers: offers for supervisors and mentors (possibly faculty level) E-learning tools and infrastructure System responsibility for UiO's support	Professional environment: Main arena for career support with a focus on belonging, research qualification, supervision and networking Institute: Alumni activity, contact to and knowledge of working life – within and outside academia Faculty: Program-organized activity (a faculty or faculties in collaboration) Institution level: Common information (Ph.D. and postdoctoral portal(s)) Train the trainers: offers for supervisors and mentors (possibly faculty level) E-learning tools and infrastructure System responsibility for UiO's support

	All levels: partial responsibility for information adapted for younger people researchers	All levels: partial responsibility for information adapted for younger people researchers
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Summary of recommendations

- 1) It is recommended that UiO adopts minimum standards for career development work for younger researchers, following the pattern of the European framework in the field. Including:
 - a. All younger researchers shall be offered career support and the development of generic skills relevant level.
 - b. All younger researchers must have a professional supervisor or mentor, and a plan for the employment relationship and further career.
 - c. All PhD fellows and postdocs shall have annual development interviews with someone other than professional supervisor / mentor.
 - d. All faculties should offer an organized postdoctoral program, either alone or in collaboration with one or more other faculties.
 - e. Postdoctoral fellows shall have a real opportunity to qualify for first positions. Working group recommends a norm for appointment of three years with 10% set aside time for career advancement additional work.
- 2) It is recommended that responsibility for career development work is clearly placed in the university's top management, and with strong professional roots at all levels of the institution. Including:
 - a. It is recommended that a separate position be created for career development work, with requirements for research competence and insight into career development.
 - b. Administrative support for career development is added to research administration.
 - c. It is recommended that the faculties have an advisory body for all researcher training and that this added to the PhD program council.
- 3) It is recommended that UiO develops a common online resource for career support that is operated at a central level.

3. The way forward - some advice on the next step in the work

No matter what decisions are made for a future system for career support at UiO, these must be followed up with specific choices and development of measures. Even if it is outside the group's mandate, we will finally link some comments to further process.

The following further process is recommended:

1. The report is discussed in the Forum for Research Deans
2. The report is sent for consultation to faculties and other relevant units, civil servants' organizations and UiODoc.
3. The Rectorate processes the report and consultation statements.
 - a) The report is considered by the University Board together with a plan for implementation and further development of measures.

The working group will also recommend that an ambitious plan be drawn up for further development of measures starting point in the system description both at UiO centrally and at the individual units.

Attachments

1. Mandate for the working group (appointed by the Forum for Research Deans)

The need for better and clearer support for «Career clarification and development» for researchers at an early stage is documented by the Forum for Research Deans (FFD), through the SAB follow-up, as well as through the pilot project «Comprehensive career policy for academic staff». Further work on the development of support has been adopted in UiO's annual plan and the Career Policy Action Plan 2018-20 adopted by the board on 06.02.2018.

The overall objectives are the basis for the work:

- 1) The target groups' need for informed and realistic career development / planning*
- 2) The university's own need for a strong recruitment base and talent development*
- 3) The social mission - need for better facilitation and cooperation on knowledge exchange outside its own sector.*

A working group is set up under FFD which is tasked with clarifying the purpose of the support and prepare proposals for main models.

Purpose and tasks

The group is asked to clarify and elaborate on the purpose of UiO's "Career clarification and development" for the various the target groups PhD, Postdoc and researchers in an early career phase.

The group is given a mandate to prepare proposals for alternative main models for UiO's overall and holistic support for «Career clarification and development». The models are clarified and described with regard to:

- Facility / profile and level of ambition in relation to the various target groups. Example of topic like must be clarified:
 - o Broadband for all alternative selective talent development for the few.*
 - o Ambition level for the various target groups.**
- Clarification of various roles involved in the career support (eg professional supervisor, mentor, career counselor, managers). The group is asked to place special emphasis on clarification and delimitation of the role of supervisors beyond the professional supervision.*
- Appropriate organization and distribution of responsibilities for tasks at different levels at UiO. Topics to be discussed:
 - o What tasks should be left to the faculty / department and what can / should be assigned to the researchers' own professional environment*
 - o What should possibly be offered and organized as common and cross-faculty.**

The working group will base its work on:

- Good knowledge of the faculties' various offerings and the experiences gained through these.*
- Knowledge of frameworks and elements related to «Career clarification and development» that are in use at European universities*
- Knowledge of frameworks and elements that are used as a basis in financing programs.*
- Good knowledge of the target groups' own assessments of the need for support.*
- Results, input and decisions in adjacent work related to position structure, system for merit of teaching, temporary positions, gender equality etc.*

The working group's assessments and proposals are presented to FFD, which provides advice and recommendations to UiOs leadership on the way forward.

2. Midlertidig ansatte på UiO, fordelt på stilling og fakultet/museum/senter (Tall hentet fra SAP 1.2.2019)

	Stipendiat (1017)	Forsker (1109)	Postdoktor (1352)	Stipendiat (1378)	Spes.kand. (1476)	Total, midl.
TF	17	1	4	-	-	22
JF	48	2	16	2	-	68
MF	168	110	143	71	-	492
HF	158	17	68	-	-	243
MN	438	127	193	-	-	758
OD	49	-	9	-	13	71
SV	164	16	70	1	-	251
UV	61	4	15	-	-	80
KHM	8	3	2	-	-	13
NHM	15	10	4	-	-	29
STK	3	-	2	-	-	5
SUM	7	2	4	-	-	13
Total, SKO	1136	292	530	74	13	2045

Note that around half of UiO's PhD candidates are employed elsewhere than UiO. These will in essentially have the same need for career support measures as those employed at UiO. Same numerical basis stated 221 1. amanuensis in a temporary position (these are assumed to be employed in a small position fraction, etc. professor II) and 87 temporary employees in position code «Researcher 1108» (these are assumed to only have a master's degree). We have not extracted data for teaching positions (1109 senior lecturer, 1198 associate professor and 1532 lecturer), where the proportion of temporary man-years in 2017 and 2018 was in excess of 30%.

3. Relevant documents and websites

[Ayf-UngeForskereiNorge2018.pdf \(akademietforyngreforskere.no\)](#)

[404 - Page not found - Akademiet for yngre forskere](#)

[Ugyldig lenke til dokument i vitenarkiv | Unit](#)

[Delivering talent: Careers of researchers inside and outside academia | LERU](#)

[2016-karrieredokumentetuhr.pdf](#)

[What do research staff do next? — Vitae Website](#)

[1 \(euraxess.org\)](#)

[am509774CEE EN E4 \(europa.eu\)](#)

4. Relevant measures at UiO

Institutional backdrop, last 5 years:

- SAB's council 2014, including: UiO is recommended to provide better support to younger researchers

FFD: UiO's goal for supporting younger researchers: informed and realistic career planning

- Project 2015/16: Comprehensive career policy for scientific staff

Mapping: several measures underway / planned, but lack of comprehensive, systematic and stable offers to support career development, and weak progress in relation to decision

Identified challenges discussed and endorsed: in Forum for Research Deans December 2016, in the University Board 14.3.2017 - based on a career policy action plan

- UiO's budget 2016:
 - 2 positions earmarked career guidance to stimulate progress - not used.
- UiO's annual plan for 2018-2020
 - Career policy adopted as one of the business-wide measures
- Career policy action plan 2018-20 - decision by the University Board 06.02.18
 - Career guidance adopted as one of 3 priority action areas in the plan
- Autumn 2018: working group will be launched under the Forum for Research Deans
 - Facility and level of ambition in relation to the target groups, clarification of roles, division of responsibilities between levels

5. Main findings, CUP 2018

Eight of the active / current Centers of Excellence (SFFs) at UiO completed in the autumn of 2018, the collaborative project KUPP (Career Development Pilot Program) with the aim of further develop and improve the SFF's own career support for younger researchers.

The following three tools / models were used:

1. *Three critical transitions in need of customized support*

- Onboarding: support aimed at the researcher must become an integral part of the environment, gain ownership center and get started well and quickly with your own work
- Ongoing: support aimed at the researcher succeeding in his position and his tasks in the environment
- Outgoing: support aimed at making the researcher attractive for and well prepared for the next phase in the career, outside or within academia

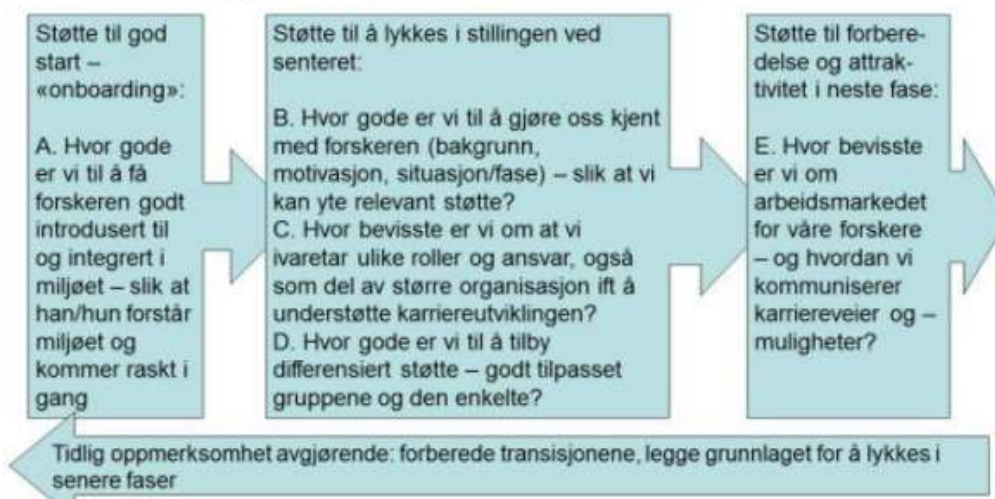
2. *The professional environment's role and tasks in career support - five main dimensions*

- **Dimension A: Onboarding.** Reflection question: How good are we at getting the researcher good introduced to and integrated into the environment - so that he / she understands the environment and gets started quickly?
- **Dimension B: Person-specific insight.** Reflection question: How good are we at doing ourselves familiar with the researcher (background, motivation, situation / phase) - so that we can provide relevant support?
- **Dimension C: Role clarity.** Reflection questions: How aware are we that we take care of different roles and responsibilities internally in the center, and that we are part of a larger organization in relation to support career development?
- **Dimension D: Support differentiation.** Reflection question: How good are we at offering differentiated support - well adapted to the groups and the individual?
- **Dimension E: Career awareness.** Reflection question: How aware are we of the labor market for our researchers - and how we communicate career paths and -possibilities?

The image below shows a simplified representation of the dimensions related to the transitions:

UIO University of Oslo

Transisjoner og dimensjoner– systematikk i karrierestøtten



3. Fem modenhetsnivåer mht organisatorisk atferd, reflektert praksis og bredde i karrierestøtten

UiO University of Oslo

Modenhetsnivåer



The learning outcomes were summarized in the following main points:

- The need for planning and systematics - the usefulness of a common framework
- The importance of seeing the individual young researcher - use of motivational interview
- Investment in support for good «onboarding»
- Involvement and influence on the career support from the young people
- The SFF's "mission" and support for successful "outgoing" in various career paths
- Use of the Scientific Advisory Committee
- The center and the university organization - division of labor and collaboration with regard to career support

6. Competence overview from the European Framework for Research Careers

First Stage Researcher (R1) Doctoral candidates - doing research under supervision	Recognised Researcher (R2) PhD-holders/researchers who have not yet established a significant level of independence	Established Researcher (R3) Researchers who have developed a level of independence
Profile: - Carry out research under supervision - Have the ambition to develop knowledge of research methodologies and discipline - Have demonstrated a good understanding of a field of study - Have demonstrated the ability to produce data under supervision - Capable of critical analysis, evaluation and synthesis of new and complex ideas - Able to explain the outcome of research and value thereof to research colleagues Desirable competences: - Develops integrated language, communication and environment skills, especially in an international context	All competences of R1 plus Necessary competences: - Has demonstrated a systematic understanding of a field of study and mastery of research associated with that field - Has demonstrated the ability to conceive, design, implement and adapt a substantial programme of research with integrity - Has made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, innovation or application. This could merit national/international refereed publication or patent - Demonstrates critical analysis, evaluation and synthesis of new and complex ideas - Can communicate with their peers – able to explain the outcome of their research and value thereof to the research community - Takes ownership for and manages own career progression, sets realistic and achievable goals, identifies and develops ways to improve employability - Co-authors papers at workshops and conferences Desirable competences: - Understands the agenda of industry and other related employment sectors - Understands the value of their research work in the context of products and services from industry and other related employment sectors - Can communicate with the wider community, and with society generally, about their areas of expertise - Can be expected to promote, within professional contexts, technological, social or cultural advancement in a knowledge based society - Can mentor First Stage researchers, helping them to be more effective and successful in their R&D trajectory	All necessary and most desirable competences of R2 plus: Necessary competences: - Has an established reputation based on research in their field - Makes a positive contribution to the development of knowledge, research and development through co-operations and collaborations - Identifies research problems and opportunities within their area of expertise - Identifies appropriate research methodologies and approaches - Conducts research independently which advances a research agenda - Can take the lead in executing collaborative research projects in cooperation with colleagues and project partners - Publishes papers as lead author, organises workshops or conference sessions Desirable competences: - Establishes collaborative relationships with the relevant industry research or development groups - Communicates their research effectively to the research community and wider society - Is innovative in their approach to research - Can form research consortia and secure research funding - Is committed to professional development of their own career and acts as mentor for others