

# Operational plan 2024

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Department of ecology and genetics

## 1. The department's measures in relation to the goals of the Faculty of Science and Technology

In the spring of 2021, the Faculty Board established the science area's vision and goals (TEKNAT 2020/31). The vision and goals have not specified detailed efforts for each goal. At the Faculty Board, it was therefore also decided that proposals for how the goals are to be achieved are developed together with departments (and in the work of relevant committees), in order to be established in operational plans at faculty and department level.

Comment under headings 1.1-1.7 in cases where the department implements or plans to implement initiatives linked to the respective goals, preferably in a three-year perspective. Please note that not all of the goals below are relevant to all institutions and each year. The report should include activities (initiatives and measures), any resources allocated and whether the department has formulated its own goal or target number in connection with the faculty's goals.

Assessment of the indicators stated in the Vision and goals document will begin before 2023. In addition, each department can add department specific indicators.

### 1.1 Goals related to research

#### Goal 1: Our research will be further developed based on recognized excellence

##### *Maintain and further develop research excellence*

The department of Ecology and Genetics (IEG) is organized in four research programs. Visions for research directions are mainly driven by active researchers in these programs. The vision of the department is to facilitate this bottom-up process and provide infrastructure and support that builds a strong scientific environment that benefits all employees. As an explicit principle, all teachers at IEG have a significant share, on average 50% over time, of faculty funding for research, and thus do not rely on external funding to have time for research. Instead, external grants can bring added value for instance by covering running costs or for new recruitments of PhD-students, post docs or assistants. We are convinced that this is critical to maintain successful research career paths and to invigorate teaching.

To further develop research excellence, it is important to provide opportunities for all our scholars to maintain a continuous research activity. The vast majority of permanent scientific personnel have external funding for research. For young researchers who secure an establishment grant from VR or similar, the department has a principal decision since 2021 to provide funding for them to recruit a post doc or PhD student. This year, four PhD students will be recruited in this program. During 2024 we will evaluate the program to determine if this is a good use of departmental funds also in the future. Another departmental strategy is to provide opportunities to apply for funding from the departmental resources for tenured employees at IEG who intermittently lack external funding ("bridge funding"). Further, for external grants that require co-financing

(“samfinansiering”) we have an established principle for splitting the costs equally between the program and the department.

At IEG we have strong research ranging from theoretical studies and bioinformatics to field studies and laboratory experimental studies. We see that the diversity of subjects studied at the department is essential for our teaching and research and we are convinced that our strong field and experimental expertise is a competitive advantage for our department.

*Coordinate and concentrate resources*

During the KOF process we will evaluate our organization into four research programs to determine if an alternative organization is likely to improve conditions for the bottom-up generated research. The process will be beneficial to avoid isolation and erosion of the scientific climate of interaction and connectivity. We also organize teacher dialogs on different topics to build a common understanding of resources and needs related to research and teaching at IEG. Over the last years, the discussion has revolved around i) resource allocation (i.e., an absolute minimum of 50% of salary for all permanent scientific personnel), ii) review of directions, content and structure of PhD specializations, iii) distribution of teaching load among personnel and between courses and iv) TUR seminars about teaching ethics in the PhD education. We have established a departmental teaching policy to increase transparency and improve communication within the department. In 2024, we will settle the core shared elements among our PhD specializations in line with the development of the Biology PhD school.

Over the last couple of years, we have developed and strengthened our lab based experimental research, by coordinating molecular lab facilities and profiling our climate lab. By organizing a common molecular lab at the department, we could decrease locality needs with 39%, develop a more transparent system for lab support and sharing of lab costs and decrease our environmental impact by making ordering and use of consumables more efficient. This work will continue during 2024.

Climate controlled experimental facilities at IEG are collected in the shared climate lab which is open to all IEG staff and external uses. By reorganizing the facility in 2023, we have reduced the space used with 35% and removed the facility from the shared rent model. The latter was possible thanks to financial support from TekNat (granted until 2025). During 2024, we will work to improve availability, use and funding of the climate facility.

*Quality assurance and enhancement*

Scientific rigor and integrity is fundamental to all research. During 2024, we will revisit our protocols for data management and storage. The department has purchased a common data storage on Lutra for archiving of raw data and the process of uploading data will continue during 2024. Sample storage in our new -70°C freezers with back-up electricity will also be organized. Courses on research and animal ethics are established and will continue to be developed by our coordinator for animal ethics in accordance with needs.

We acknowledge the importance of informal and formal bench marking, resulting from interactions with external partners (opponents, visiting scholars, in- and outgoing sabbaticals and participation in evaluation of research and research institutions elsewhere, etc.). We will thus continue to foster mobility. The outcome of our work includes our direct scientific output from permanent employees, but also from scientists who continue their careers elsewhere. Our ambition is to be the first-hand choice for the best in our research fields. In 2024 we will revisit our support for early career scientists to ensure that they are given opportunities to develop their skills set and merits to be competitive for future positions at our department and elsewhere. We promote diversity of personnel by always striving to ensure equal opportunity irrespective of personal background (e.g., gender, ethnicity, and social background). This effort is ensured by supporting an active equal opportunities group and encouraging dialog in the department. We aim to increase diversity in research, and “cross-fertilization” with other disciplines outside of those represented at IEG - research across disciplinary borders is documented to favor research impact. This is exemplified by our involvement in the faculty area of strength Evolution and Biodiversity in a changing world.

Sabbatical leave for our scholars as well as hosting scholars on sabbatical from outside feeds back very positively on the development of our research. For example, two of our former guest professors have been awarded project funding from VR and continue their research at the department. We encourage our permanent staff to include external sabbaticals in their future plans.

Goal 2: Broad research initiatives will be developed proactively

*Strengthen transdisciplinary and challenge-driven research*

Our research is and should remain predominantly curiosity-driven. However, the expertise at IEG lend itself to also tackle specific challenge-driven research and we should aim to strengthen our impact on societal issues (e.g., biodiversity conservation, organismal, population, community and ecosystems responses to climate change and greenhouse gas sinks and sources). IEG (and EBC at large) hosts internationally leading research on the evolutionary and ecological drivers of biodiversity and on its functions at all levels, from base pairs to biosphere. Moreover, most ongoing research is transdisciplinary in that it integrates approaches from several fields. During 2024 we will use the KOF process to evaluate how we can best maintain our internationally leading position. We will also take advantage of the transition to new homepages to promote a lively scientific discussion to identify shared research areas across the four research programs as well as with other departments and institutions. For this it is important with active seminar series, journal clubs and workshop that creates a common meeting place.

We aim to increase awareness of the relevance of ongoing research at IEG for meeting urgent problems related to global change and biodiversity crisis. The faculty area of strength in Evolution and Biodiversity in a Changing world can develop into an important platform for this. Accordingly, we also develop the departmental homepage.

*Exploit the potential of Campus Gotland*

The field station Ar is a resource where the large project ReCod is running experimental studies of cod, funded by Baltic2030 and resources from UU and IEG. The ReCod initiative engages two of our PhD students working on Campus Gotland. Since 2023, IEG is responsible for the administration of the field station Ar. During 2024 we will further explore possible long-term use of Ar. ReCod and our PhD students on Gotland highlights the need of long-term perspectives for ecology and environmental science on Campus Gotland. To be able to develop and expand our long-term presence on Campus Gotland, we need long term block funding at a level that guarantees a meaningful academic culture (i.e. a core group of researchers and teachers) on site. In 2024 we will work towards a recruitment on Gotland that is designed to ensure synergy with the department for Earth Sciences and emphasizing the trans disciplinary nature of research at Campus Gotland. IEG see the potential for recruitments of both BUL and lecturer at Gotland if long-term faculty funding is guaranteed. For IEG to be able to contribute to the development of Campus Gotland, it is crucial to get clear information from the faculty leadership on the long term resources available.

Goal 3: Research funding will be broadened

Over many years, we have had a high success rate in terms of securing competitive funds from the Swedish research councils (project grants from VR, FORMAS, and similar) with an average success rate of 50% over the last five years. Of our permanent scientific staff (professors, lecturers, senior researchers and BUL) around 70% currently have at least one ongoing grant from VR or FORMAS. Our aim is to further improve this high rate, in particular through increasing applications to other relevant calls.

Since 2015, IEG have had a declining economic turnaround, because multiple larger grants (from funding bodies like ERC and KAW) have come to an end, and new ones have not been granted at the same rate as before. For the last couple of year, the economy has been stable with external funding at about 47% for research. In line with ambition to diversify our funding portfolio we secured two larger FORMAS grants in special calls during 2023. To improve our success to attract external research funding, we run grant writing workshops within programs and get advice from faculty research support unit. During 2024 we will explore strategies for how to encourage and support co-workers to apply for larger funds (IEG submitted one KAW project, two ERC starting and one ERC advanced grant applications during 2023)

Goal 4: Access to advanced research infrastructure will be ensured

*Infrastructure*

We have a very productive collaboration with UPPMAX (Uppsala Multidisciplinary Centre for Advanced Computational Science), including personnel physically at IEG. We aim to foster and develop this collaboration further and hope to link these activities to ongoing investments in a new data center developing around the Wallenberg DDLS investment where three positions will be placed at UU as well as with the SciLife lab Planetary Biology node. It is important for IEG to further develop the local bioinformatic support.

IEG runs shared molecular lab and a climate lab. While we have a model for funding the molecular lab there is an urgent need to settle a sustainable system for how to fund the climate lab. We also have advanced labs for biogeochemical analysis and several study system specific facilities where safety and quality are coordinated across these functions by qualified lab engineers. Since 2023 we also host a competence center for hidden diversity run together with IOB on a private donation.

The field station at Erken will continue to be a node in the national infrastructure for ecosystem Science (SITES) for which funding is now secured until 2028. The station now includes terrestrial biodiversity monitoring in collaboration with the ERC Synergy Grant LifePlan, a flux tower in collaboration with the department of Earth Sciences as well as the continued development and integration of the long-term lake monitoring program and experimental infrastructure into European Infrastructures and Networks. During 2024 we will make some upgrades to the accommodation facilities and further develop an action plan for the maintenance and upgrading of the localities and the future visions for the field station at large and initiate a dialogue with UAF and the University leadership about this. Molecular biodiversity data collected within Erkens monitoring program is being incorporated into the ASV portal of the VR funded Swedish Biodiversity Infrastructure (SBDI) where the UU node is coordinated from IEG.

#### Goal 5: We will adapt the research support to current needs

Coordination of the laboratories including both localities, functions and support is an adaption to current needs and is important for quality assurance and enhancement as described above. The administrative function at IEG is constantly reviewing its tasks in order to adapt them to possible changes regarding system development, digitization and other changing requirements.

## **1.2 Goals related to education**

#### Goal 1: Our educations will be further developed based on recognized excellence and demand

Undergraduate teaching in biology is currently coordinated via IBG (Biology Education Centre). Based on a recent report (2023) from a working group that evaluated the organization of Biology teaching it is clear that teachers are generally satisfied with the current organization and support. One recommendation from that evaluation is that a teaching group is established at each department to ensure continuous dialog between head of department, directors of studies and the IBG board representatives. Starting in 2024 such group will be established at IEG and meet prior to each IBG board meeting.

During 2024, the supporting education (aka STÖK) in BSc and MSc Biology educations is being evaluated to better match current needs. The teaching economy is challenging and the coming years we aim to evaluate the student turnover and economy of the new initiatives towards cross-disciplinary education that have been co-organized with researchers/teachers from other disciplines and faculties of UU (e.g. ecosystems in the

Anthropocene, Sex in biology and gender science, human security and sustainable development, and perspectives on sustainability from ecology, technology, and art). To stimulate our teaching staff and ensure increased pedagogical competence, we will organize pedagogical and didactical initiatives (with the assistance of IBG and TUR) and also offer teachers at IEG the possibility to discuss pedagogic issues during the pedagogical fika.

An important goal for the department is to ensure a long-term balance in the teaching economy. After a considerable deficiency in the teaching economy 4-5 years ago, actions were taken to reduce the teaching costs. The economy has slowly improved until this year when the deficiency grew again. To ensure that we have resources to spend on course development in the future, we have engaged in a department wide discussing of our teaching commitment and established a teaching policy in 2023.

#### Goal 2: Our education will be linked to research

Teaching staff at IEG are active researchers. Hence, connection to research is a natural part of all teaching. This is confirmed by course evaluations where students regularly evaluate the connection to research as high and of high quality, something that is further confirmed by evaluations (2019-20) of the biology education at BSc and MSc level. Maintaining this interaction is of outmost importance. To uphold the strong connection between education and research, all teachers should have a substantial level of activity in both research and teaching and knowledge of current pedagogic and didactical research. We aim to adapt recruitment and use of resources to keep this balance. All planning of allocation of resources (work time) to teaching, research, and other tasks is done transparently and in dialogue between steering group, department board, directors of studies and teachers and assistants.

High quality in postgraduate studies depends on a critical mass of interacting PhD students and other researchers. To further improve our graduate programs, our long-term ambition is to increase funding for PhD students from faculty block funding and in particular in combination with external sources.

#### Goal 3: Our education will be linked to working life

In postgraduate studies our aim is to provide ability training for the next generation of PhD-students in ecology and genetics and to supply academia and the wider society (government agencies, industry, consultant companies, etc.) with excellent personnel. We aim to continue to strengthen our postgraduate education in our PhD education programs at the department by increasing integration across PhD specializations within the Biology subject. This is achieved largely through the Biology PhD school that really took off with several activities during 2023, including the First Biology PhD Symposium, Science fika for PhD students, co-teaching opportunities with local high school students, PhD student newsletter, and the AI workshop in computer vision, among others. IEG continues to

support this initiative that in 2024 will include inter-university workshops, symposia, science presentations, and opportunities for interacting with the wider society.

Goal 4: We will ensure pedagogical development

Ensuring that we provide excellent education requires that our teachers have opportunities for pedagogical training and other interactions involving pedagogics. The teaching atmosphere at IEG benefits from an increased dialogue about teaching styles, approaches, and tools. To this end, IEG will continue with the informal ‘pedagogical fika’ as an opportunity to discuss a wide range of topics in teaching. Teacher participation in pedagogical training opportunities will continue to be monitored. The IEG pedagogical study director aims to meet individually with teachers at all career stages (including PhD students) to discuss specific issues and general pedagogical development.

Goal 5: We will offer lifelong learning

As a direct response to the governmental instructions (2020) to provide opportunities for life-long learning (LLL), IEG has initiated several new courses designed to attract students also from outside academia. Examples of courses include species identification for conservation purposes, and conservation genetics. We encourage teachers to discuss with the director of studies if they have ideas for starting new LLL courses. Since adding courses leads to increased teaching load, we have to maintain a good balance between program courses, advanced master courses and free-standing courses (e.g. LLL-courses).

### **1.3 Goals related to cooperation and collaboration**

Goal 1: Our cooperation internally and with other higher education institutions universities will be developed

*Develop collaboration*

A substantial share of the research and teaching at IEG is of relevance to two major long-term societal challenges of humanity, i.e., the climate and biodiversity crises and many of our staff and students are actively engaged in and we will continue to promote outreach from our department. With this in mind, we aim to further develop our efforts in public outreach, and in making our research available for, e.g., government agencies. Taking advantage of the migration to a new home page system to improve communication and information at our homepage. The field station at Erken has an ambitious program for outreach primarily to schools, annually providing hands-on field experience to more than 1,000 students (pre-school to high school). Thanks to funding from the faculty for the “Collaboration around Water” initiative we continue to develop this activity during 2024 based on our visions and the through feedback from the schools that visit us. Within the same initiative we have also recently appointed a Coordinator that will organize cross-disciplinary outreach activities aiming to increase interactions with stakeholders and the general public concerning topics related to water and sustainability



Collaboration within the faculty will increase thanks to the faculty area of strength in Evolution and Biodiversity in a changing world where an interdisciplinary project will be launched during 2024.

Goal 2: Our collaboration with external actors will be developed

IEG has ongoing collaborations with several county administrators on topics related to conservation and environmental monitoring. We have recently compiled a homepage with these outreach efforts to increase visibility.

#### **1.4 Goals related to the faculty as a workplace**

Goal 1: A good working environment with equal opportunities will be offered

*Support and environment*

Our environment should be characterized by daily attendance and social interaction, and we champion trust, diversity, inclusion, a collaborative working culture, and care. We promote equal opportunity in all aspects, including, e.g., gender, ethnicity, and social background. Ambitious and coordinated plans for work environment and equal opportunities exist with systematic yearly actions and follow-up.

We aim to balance the number of staff and the available resources to allow optimal support (e.g., time for research, lab space and support, basic facilities and field work). We encourage transparency and dialogue in the distribution of duties in research, teaching, administration, and leadership.

We will maintain and develop efficient administrative (economy and HR) support, that allows teachers/researchers to focus on their core activities. This means that overhead costs should be used to enhance our efficiency but also not be allowed to grow beyond what is necessary to achieve this goal. We continuously review our OH costs and maintain a dialogue with higher levels of the university about this, considering that most of the overhead costs are at levels above the internal IEG administration. Positions in leadership and other types of service should be rotated and contributing to such positions is an expected component of an academic career at the department. We aim to continue and develop internal information at the department, including the newsletter 3-4 times per semester and as we transition from mp to the new internal page we take the opportunity to develop it into an appropriate channel of information and dialogue within department and the programs. The university has recently developed an environmental plan to minimize the negative impact of our operation. Accordingly, at IEG we develop our ambitions on how to minimize our negative environmental impact, and importantly, specify and develop our positive environmental impact from teaching, research, and outreach. Our efforts to minimize negative environmental impact include effective use of localities and facilities, choose vegetarian meals for departmental activities, economic support for colleagues who choose to travel by train instead of flying, monitoring of energy use and effective use of materials needing to be kept frozen. Communication and decision-making

processes related to these efforts are facilitated by regular meetings between the environmental officer and the head of department. In 2024, an environmental group is formed and we will increase our efforts to minimize the environmental impact of our actions.

Goal 2: Recruitment will target prominent research and teaching staff

Positions at all levels are announced openly and widely, to secure recruitment of the best possible candidates. Within this strategy, we should actively promote applications from talented scholars. This involves encouraging such candidates to apply for open positions, but also to recruit talent to dedicated calls by external funders (e.g., the Wallenberg Fellow program). To ensure that multiple perspectives are reflected in the evaluation of applicants we have adopted the practice to include a student representative and our equal opportunities representative in addition to leadership and academic representation in the local recruitment committee. We have also established that potential internal candidates should not participate in preparatory meetings or board meetings when future recruitments are discussed and decided on.

Goal 3: Good career opportunities will be available for our research and teaching staff

Talent attraction and career systems are inherent in developing excellence in research and teaching, and hence covered also in our development goals above. We aim to balance the number of staff and the available resources to allow optimal support (e.g., time for research, lab space and support, basic facilities), as also expressed under previous headings. This includes continuously monitoring OH costs and department resources used to cover localities vs. other strategies initiatives. Mentoring of early career scientists is crucial. Hence, we encourage all experienced teachers as well as potential mentees to engage in mentor programs within and outside of the university (e.g., the faculty funded program for BUL mentoring, and the program of the Wallenberg Foundation to mentor their Fellows). Importantly, career support has to address colleagues at all levels and prepare junior colleagues for careers in academia at UU and also at other universities, as well as outside of academia. We also encourage established teachers to develop in their career by joining mentor programs and networks.

## **1.5 Goals related to internationalization**

Goal 1: The forms of internationalization will be further developed

*Internationalization*

IEG is a highly international department and our working language is English. We aim to stay this way, while also continuing to supply national academic and non-academic employers (e.g., national and regional authorities) with personnel. Covering our teaching needs is sometimes challenging when teaching is to be held in Swedish for instance at BSc level.

Goal 2: Conditions for international employees and students will be improved

To facilitate communication for our international employees with Migrationsverket, our HR strive to stay updated on regulations and requirements for visa and work permits. They maintain an active dialog with authorities and aim to help our international staff as much as possible.

Goal 3: Language barriers will be reduced

To support international staff in this respect, we offer and encourage participation in Swedish courses. (IEG language policy, decided by the IEG Board 2016-10-18). We have steady inflow of new international recruits and therefore use English as the working language. We thus aim to provide all administrative documentation and information in English to facilitate participation in departmental decision making for all.

**1.6 Goals related to the faculty in the world**

Goal 1: The faculty will keep pace with relevant global and local goals

Faculty at IEG are part of the international scientific community as manifested in participation in and organization of collaborations, international meetings, peer review and editorial assignments.

Goal 2: The faculty will take advantage of the possibilities of digitalization

IEG information meetings are organized 3 times per semester and given on zoom to allow all colleges to participate. During the pandemic we offered seminars online. Following a survey and discussions with seminar hosts we found shows preference for in person meetings but online seminars remain suitable in some instances and can be offered in the seminar series. Giving students and young researchers the opportunity to interact in person with our seminar speakers is greatly appreciated and strengthens our scientific discussion and networks. We continuously monitor and evaluate the relative ratio of on-site versus online seminars.

**1.7 Goals related to the future and continuous development**

Goal 1: We will have a current analysis of the surrounding world

Much of our research and teaching relates to the larger topic of responses of biological systems to climate change and the ongoing biodiversity crisis yet we have previously failed to communicate climate change as a larger contextual framework in which to understand the basic scientific questions addressed at our department. Reflecting on the increasing politization of research funding and emphasis on research that is directly applicable towards societal needs has motivated us to work towards increasing the visibility of basic research addressing larger societal challenges. We find that responses of organisms, populations and communities to changing climatic conditions is an overarching theme that captures several of the curiosity driven tracks of research

successfully performed at IEG and we will strive to communicate this to the surrounding world to promote the significance of basic science.

### Goal 2: We will regularly reassess our activities

As a research and teaching institution we are continuedly evaluated by funding agencies, in peer-review processes and in our national and international collaboration projects as well as in teaching. Efforts to bring the evaluation of individuals to a syntheses evaluation of all our activities include efforts with application writing workshops to improve external funding. Organizational evaluations have identified a common molecular lab as a way to strengthen our scientific quality and capacity for the future. Similarly, we have consolidated our climate controlled experimental facilities to established a common Climate lab.

## 2 The department's goals

Nothing to add that's not already covered under existing headings

## 3 Talent management at IEG

There are about 196 active people at the department, of which 112 are employees. The table below shows the number of employees in different staff categories.

The gender distribution among merit-based positions and researchers falls within the gender equality range, 60-40 percent, this also applies to doctoral students. For professors and lecturers, there is a slight overrepresentation of men, but the gap has narrowed compared to 2017, when the proportion of professors was 25% women and 75% men. There is an over-representation of women in technical and administrative staff.

Category	Number of employees	Average age	Women	Men	Proportion of women (%)	Proportion of men (%)
Professors	20	57	7	13	35,0	65,0
Senior lecturers	6	51	2	4	33,3	66,7
university lecturer	1	46		1		100,0
Researchers and research assistants	27	43	15	12	55,6	44,4
Merit employments (BUL, Forass, postdocs)	13	35	6	7	46,2	53,8
PhD students employed	29	30	16	13	55,2	44,8
Technical staff	9	48	6	3	66,7	33,3
Administrative staff	7	46	7		100,0	
Total	112	42	59	53	52,7	47,3

### 3.1 Competence supply plan

The competence supply plan for the department is based on a continuous and systematic analysis of what competence is needed in the short and long term to meet current and future goals. The plan includes all positions, including competence development for future management- and teaching assignments within the department and the university. The competence supply plan also observes aspects relating to gender equality and equal opportunities.

1) Main strengths and challenges:

*a) Main strengths*

The main strengths identified at IEG are:

- Successful recruitment of prominent teachers and researchers at various career levels- contributes to that research programs are developed.
- Coordinated efforts to develop a modern common infrastructure with competent technical staff as support.
- Strong administration supporting IEG core activities
- Solid and visionary academic leadership over a long period of time that aims at a transparent and inclusive decision-making process is part of the organizational culture.
- The department and the research programs help to co-finance overheads costs for grants without full overhead allowance
- Strong applications to national funding agencies with an average of 50% at VR over 5 years.
- The department has developed a policy for temporary bridge-funding for teachers in situations where teachers have applied for but not received external research grants.
- The department has taken a principal decision to support young establishing researchers with funding to recruit a PhD student.
- Internationally recognized master program and PhD educations

*b) Main challenges*

- Future retirements if assuming a retirement age of 65 years, but it varies between 63 and 69 years. Of the department's 20 professors, 7 have reached or will turn 65 within a period of 5 years. Long-term recruitment plans are discussed within programs and increasingly so within the departmental leadership group and will be discussed in the new Teaching group. To maintain our broad profile and competence in teaching we currently foresee a need to recruit broadly in the field of ecology.
- Among technical and administrative staff, the challenge is to remain an attractive employer in competition with other local employers, primarily in terms of salary. Skills development and salaries for administrative and technical staff will continue to be reviewed.
- Decreasing number of PhD student as a consequence of a strained funding situation.
- Costly facilities including high quality experimental and field facilities and disproportionately high rent in house 20.
- Bioinformatic support with strong links to ongoing research in biodiversity and evolution needs to be increased

2) Development areas

The development areas that have been identified at IEG are:

- Career support for younger teachers and researchers
- Increased coordination and use of climate-controlled experimental facilities
- Integration of our PhD education with the UU graduate school in biology

### 3) Strategy for long-term competence supply

#### *a) Career paths and skills development*

Competence needs includes core competence, the competences on which the operation is based, and support competence, which consists of administrative, operational and management support. The department's short- and long-term competence needs are identified through ongoing discussions in programs, in department leadership including head administration.

#### Professors

Of the department's 20 professors, 7 have reached or will turn 65 within a period of 5 years. In 2023 one promoted professor was installed. We estimate that one out of six senior lecturers may be promoted to professor in 2024. We currently see no need to recruit at the level of professors.

#### Senior lecturers

At IEG, there are currently 6 senior lecturers. One at Campus Gotland is expected to retire at the end of 2024 and one is expected to be promoted to professor in 2024. We are currently in the process of recruiting 4 senior lecturers in 2024, one in each research program.

#### Associate senior lecturers (BUL)

The department currently has one associate senior lecturer funded by SciLifeLab and is expected to be promoted in 2024 (application submitted in 2023). A BUL in Genomic adaptation to climate change also funded by SciLifeLab has been recruited and will start in the autumn 2024, placed at the animal ecology program.

The fact that the time required from the doctoral degree to an Associate senior lecturer's position has been shortened from seven to five years makes it more difficult to recruit as candidates have had such a short time to develop their own research before employment. This applies in particular to international recruitments, as the postdoc period abroad is usually longer than in Sweden.

In addition to the BULs, the department will continue to support the promotion of researchers who have received major grants in external competition (eg ERC, KAW-WAF) as a career path towards senior lectureships and professorships.

Data driven life science (DDLS) is a large national research initiative with funding from the Knut and Alice Wallenberg Foundation in collaboration with SciLifeLabs. In the second phase of the program, one BUL position in the subject Evolution and biodiversity have been announced at TekNat. IEG is a possible host for this recruitment during 2024.

#### Researchers

We recruit researchers both to work in other group leaders research groups similar to an extended post doc position (currently about 6 persons) and group leaders (currently 12

persons) who are qualified and have received external funding in competition. To support career development for group leaders with research positions we provide them with teaching opportunities and encourage them to complete the requirements to apply to become docent. Of these, 8 have reached docent title. We have three researcher group leader recruitments in 2024 since they obtained a VR young researcher grant to establishment their research at IEG, with a PhD student each funded by the department.

#### Post doctors

The mobility in this group is high and recruitments are made mainly internationally or from other universities. Even though the funding is limited, we encourage research programs to host post doctors with grants from the Swedish Research Council and other funding agencies who support postdoctoral programs where an international postdoctoral period is combined with a "return grant".

Moreover, we are hosting 12 postdoctoral scholars financed by various stipends, for example by the Carl Tryggers and the Birgitta Sintring foundation founded to specifically fund excellent young researchers connected to IEG.

#### Doctoral students

IEG examines on average 10 PhD students per year. At present, IEG has 37 registered doctoral students. The number of employed doctoral students has decreased over the period 2016-2023. Doctoral students are recruited primarily on external funding based on the needs of the projects and the available budget. Decreasing grants from national funding agencies limits our ability to recruit PhD students on external grants. We identify a need for increasing the number of PhD students and are exploring ways to promote such development, when possible, the programs can fund up to one year of the PhD student salary to complement external grants.

#### Technical staff

It is important to work proactively with measures to ensure skills needs in line with changes in the operation. Retaining technical staff means that strategically important knowledge and experience in the core operation is ensured. Since 2021, the department funds 10% of a fulltime lab engineer to coordinate laboratory activities across programs.

#### Administrative staff

The support activities are intended to support and promote the needs of the core activities. It is important that the administrative competence develops in line with changes in the activities at the department and the university as a whole. For continuity in the administration, it is important to retain and develop existing skills. To ensure the overall competence within the administrative activities, continued competence development efforts and team-building activities are necessary.

#### *b) Key priorities*

##### **Attractive workplace**

IEG strive to be an attractive workplace, free from harassment, sexual harassment and abusive discrimination. To achieve this, it is necessary to ensure a good working environment, physical as well as organizational and social work environment, as well as

active work with an equal opportunities perspective. IEG is constantly working to be an efficient and responsive organization.

**Activities:**

- Maintain an international and creative atmosphere at the department, by continuing to recruit students and staff from around the world.
- Promote personal and professional development, by reflective discussion with closest manager, such as group leader, head of program or head of department.
- Offer pedagogical development, work led by a university lecturer with a special assignment for pedagogic development. Activities include personal mentoring and informal pedagogic seminar on different topics.
- Conduct a systematic work environment, - and equal opportunities work, which ensures that problems related to work environment and/or equal opportunities are identified and resolved.
- Maintain a well-functioning administration that supports the core activities.

4) Planned measures

*a) Action plan based on the answers in points 1-3*

The section describes the measures needed to ensure the skills needs identified in the core and support activities, how the department will attract, recruit and retain and develop the right skills.

General measures of core competences

IEG works actively with work environment and equal opportunities. Surveys are conducted regularly that allows us to follow trends and developments regarding the work environment, and equal opportunities at IEG over time and to take actions accordingly. The last result from 2022, was slightly better compared to the previous, from 2018. This means that the department is at an even and high level in terms of how our employees perceive the work environment.

The department has received funding from the faculty for Equal Opportunities Seminars that will be held in 2024. In 2023 the equal opportunity project "Inclusive evaluation for flourishing research" was implemented also with funding from the faculty.

The equal opportunity representative is a member of each local evaluation group for teacher positions.

Gender equality is encouraged when identifying search groups.

Leadership training is offered, and encouraged, all employees with leadership responsibilities such as head of department, deputy head of department, professors responsible for the programs, directors of studies, administrative manager and research group leaders.

Employee dialogues are offered annually.

A number of other activities contribute to supporting a good academic environment. This includes, for example:



- The department's seminar series, which regularly invites leading researchers to the IEG. In addition, there are seminars within the research programs and other networks.
- An annual IEG day with invited speakers and a presentation of IEG's research is aimed at all employees.
- All newly admitted doctoral students at IEG, take the introductory course and activities within the graduate school in biology.
- Individual discussions are held with the teaching staff about pedagogical development

*b) Possible need for support from the central units of the university*

The need for support identified at IEG is:

IEG is an international workplace with researchers and students from a large number of countries around the world. We have a stated ambition to enhance international research contacts. Centrally from UU, translation of e.g. guidelines and other documents to English should be to a greater extent. There has been an improvement the past years but a lot is still available in Swedish only. The fact that many documents are missing in English counteracts the inclusion of our international employees. This also applies to information on the employee portal. The documentation related to KOF is an excellent example of how communication addressing the whole faculty should be managed.

We are in the process of developing an integrated experimental organization for climate-controlled experiments under the working name “the Climate lab” to strengthen our research profile under the overarching theme responses of organisms, populations, communities and ecosystems to changing climatic conditions. With such profile lab we hope to attract external and internal collaborators and increasing external funding. However, maintaining high quality experimental and field facilities is costly and we greatly appreciate the financial support that we have been granted from the faculty for 2024-25 while we evaluate different financial models for running the Climate lab efficiently.

We strongly support that the faculty allocates funds for outgoing sabbaticals, and encourage our teachers to apply when suitable.

We find that disproportional differences in localities costs between different buildings at campus EBC is a source of great frustration and leads to unnecessary discussions and conflicts within and between departments. We end up making organizational decisions based on locality costs per m<sup>2</sup> instead of our needs. Some of the ways we have adapted have no effect on overall costs, but only move costs away from our specific department. This, and the amount of time spent in discussions about rent over the years is ridiculous and erodes trust in the overall system. To counteract this waste of time and resources we strongly encourage the faculty to establish flat rate locality costs at the highest possible organizational level.

### 3.2 Upcoming teacher recruitments

In this plan, we only have planned recruitments for 2024. It is difficult to forecast the recruitment needs for the years 2025-26 as the dates for future retirements have not yet

been decided and partly also depends on external assignment. A long-term recruitment plan exists, but it cannot be timed at the moment.

Evolutionary biology

A lecturer recruitment is ongoing for 2024.

Limnology

A lecturer recruitment is ongoing for 2024.

Plant ecology and evolution

A lecturer recruitment is ongoing for 2024.

Animal ecology

A lecturer recruitment was planned for 2024, but due to the challenging economy of our teaching we have decided to postpone this recruitment to late in the year or 2025.

Department wide recruitment

A BUL in Genomic adaptation to climate change has been recruited to the animal ecology program with funding from SciLifeLab. To start autumn 2024.

If stable funding for recruitments at Campus Gotland is available, we foresee one or two recruitments with a research profile that is complementary to other staff at Campus Gotland. Strong outreach profile would be encouraged and possible research profiles linked to the long-term monitoring of flycatcher or coastal landscapes or the Biology of the Baltic sea has been suggested.

Staffing needs change continually and it is difficult to predict exact timing of retirements and external assignments. Thus, the timing of recruitments can change during the year.