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Goals and Strategies

Department of Information Technology

ADVANCE IT

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Mission

The Department of Information Technology sets out to be an outstanding department in all aspects within our core subjects. We do so by targeting our work and study environment, our activities in education and research as well as our work with collaboration and outreach. In this document we set up three goals with associated strategies and tactics that are aimed to achieve this. The first goal is intended to capture how we work with our work- and study-environment, the second one how we work with education and research, and the third one how we work with the world outside.

Associated with this we set up department metrics in a separate document. We will monitor these metrics to see how we develop through the process. In the annual production of the operational plan, activities for the upcoming year for each strategy and tactic will be produced. The metrics will be computed at least yearly in this annual report.

The goals, strategies, and tactics in this document will be evaluated and revised after three years of validity.

How to read and understand this document

This document outlines an ambitious plan for the department. However, it should rather be seen as a direction of our development and not as much as a comprehensive description of things we have to do at all times. It should serve as an inspiration and guideline for our future work and not feel like a heavy duty to accomplish.

There are three levels in this document describing how we will work with this: Goals, Strategies and Tactics. For each goal we define several strategies to reach this goal, and for each strategy we define several tactics to implement this strategy. Each year we will for some of these tactics describe in our operational plan which activities we will carry out with respect to these tactics to advance toward the goals in question. This means that we will in fact work also with a fourth level to reach our goals: Activities that will materialise in our yearly operational plans.

The Goals and strategies described in this document should be seen as a high level description of how we should work together and what we should aim for. They can very well be supplemented with more detailed goals and plans for eg what research subjects we should prioritize, what new educational programmes we should develop etc.

List of abbreviations

UPPMAX	Uppsala Multidisciplinary Center for Advanced Computational Science
TekNat	Disciplinary Domain of Science and Technology

UU	Uppsala University
T&A	Technical and administrative staff
UGA	Undergraduate education
SR	Director of studies
TUFF	Pedagogical funding from TekNat
PUMA	Pedagogical funding from UU
CER	Computing Education Research

Goal 1 We are an attractive place for work and study

This goal is intended to capture how we work with our work/study-environment. The department sees its environment as essential for its achievements. Although we already work seriously with our work environment and equal opportunities, we believe that we can further strengthen and sharpen this work. We also see our work and study environment as crucial for attracting and retaining talented staff.

❖ Strategy 1.1 The wellbeing of students and staff is an essential part of the department's work

Tactics:

- Arrange joint department activities, such as invitation to floor x for coffee/quiz/ etc (compare with the zoom-presentations each division held during covid but now irl and with more people involved)
- Organise information meetings from Previa/Falck
- Organise retreats, seminars and courses for all staff on mental health, stress, effectiveness and personal development
- Organise social events for students on our educational programmes
- Perform regular surveys concerning wellbeing of students and staff
- Clarify responsibilities and expectations from employees using the UU staff policy

❖ Strategy 1.2 All staff should have enough time to carry out their duties

Tactics:

- Clarify what is expected in baseline activities for research (e.g., grant writing, discussions with others), teaching (e.g., updating courses, discussions with colleagues) and outreach
- Introduce a department common baseline teacher funding for engaging in teaching discussion, attending teacher days for programmes, attending pedagogic lunches, writing distinguished teacher applications, attending test lectures, etc
- Work towards being slightly overstaffed, with e.g. plan-B teachers
- Work towards giving out higher %-ages for teaching
- Work towards having more teachers involved in each course in order to decrease vulnerability
- Design a department-wide policy document on how faculty funding is allocated with a baseline research funding
- Work towards more flexible ways to work for T&A staff
- Work towards being slightly overstaffed in T&A staff
- Give PhD students conditions to plan their work by providing information well in advance about what work is expected of them, primarily concerning efforts within teaching

❖ Strategy 1.3 We strive for gender balance in a diverse and inclusive environment where everyone feels a part of the department

Tactics:

- Make sure that we have and keep transparent recruitment processes
- Stop overusing the underrepresented gender on committees and tasks; provide a time percentage for involvement in committees and tasks above a certain threshold e.g. by using equal opportunities funding
- Keep focus on improving gender balance and diversity
- Identify areas for new recruitments also by taking into account the likelihood of attracting a diverse set of candidates when it comes to gender
- Organise training in equal opportunities, code of conduct, and how to work against harassment and discrimination, at all staff levels

❖ Strategy 1.4 We foster inter-divisional collaboration and build on each other's competencies

Tactics:

- Continue to support the existing Arena structure by encouraging the organisation of events and/or the application for research funding from the departmental strategic research funding and elsewhere
- Encourage collaborative research by decreasing the barriers for inter-divisional collaboration via transparently available default agreements on co-funding, sharing of compensation for PhD exams, etc
- Organise regular information meetings between UPPMAX staff and, especially new, teaching and research staff, and PhD students
- Organise regular events to discuss the needs for infrastructure to do high-quality research and education, and act on the outcome of these discussions
- Clarify for PhD students how they can do collaborative work and all count it towards their degrees to encourage inter-PhD student collaboration

❖ Strategy 1.5 We attract, recruit and retain talents in both core and support activities

Tactics:

- Expect search groups (for the creation of faculty positions) to be even more proactive after the publication of an opening, in order to make sure prominent people apply and understand up-front what it means to work in Sweden and at our department
- Strive to parallelise and otherwise speed up the recruitment process as much as possible
- Budget for internationally competitive starting packages (in initial research time if not also a bundled PhD/postdoc position) for our teacher openings at all levels
- Announce positions on LinkedIn to attract applicants from non-academic and international institutions
- Review periodically how faculty funding is allocated within the research programmes, so as to share best practices and strive to create equal opportunities for research,

independently of which division or programme one is recruited to: the minimum research time should be predictable

- Perform exit interviews to understand why people leave

Goal 2: We are the leading department in IT in the Nordic countries

This goal is intended to capture how we work with education and research. These are our core activities where we are mostly evaluated by e.g. tentative students and research councils.

- ❖ Strategy 2.1 We want to reach out with our high-quality education and research to a larger audience

Tactics:

- Arrange open lectures with distinguished speakers from academia and non-academic institutions (for example, when anyway they are coming for a PhD defence)
- Share high-quality open-source (a) teaching materials and (b) software for research and teaching purposes
- Show high-quality popular-science descriptions of our research and outreach

- ❖ Strategy 2.2 We want to understand different rankings to find out what we can and want to do to climb in these

Tactics:

- We target different rankings and appoint a task force to unpack how to get well-ranked according to these schemes
- Identify which rankings the people we want to attract look at
- Discuss and decide to what extent we should make the necessary changes to get well-ranked according to the scheme(s)

- ❖ Strategy 2.3 We strive for a tighter connection between research and teaching

Tactics:

- Make research connection clearer even in basic courses by instructing teachers to spend time on that subject rather than “just the basics” and to talk about how their research connects to their teaching
- Increase involvement of CER in educational development to ensure that teaching is founded in relevant research
- Organise courses around teacher teams led by professors who are responsible for linking research and teaching for their subjects

- ❖ Strategy 2.4 We work for a continued high status of teaching

Tactics:

- Continue to report teaching successes (e.g. TUFF and PUMA grants, teaching awards, distinguished teachers) at department level as we do with research successes
- All distinguished teachers should give a pedagogic lunch seminar about their work

- Strive for an increased attendance at test lectures and docent lectures by making attending these expected and explain why
- The head of education should regularly attend all division management group meetings and division meetings
- Formalise expectation with respect to UGA to control people's workload and performance (in both ways)
- Create a departmental process for auscultation, peer review, etc

❖ *Strategy 2.5 We strive for an education aimed at students' needs and to have better processes for renewals and revisions in education*

Tactics:

- Develop courses that are aimed towards the students' needs rather than built upon our divisional structure
- Introduce an expected life-time for courses when started to make sure that renewal and possibly shut-down actually take place
- Create better processes for teaching, e.g. to streamline updating of teaching material, identify overlap in courses, perform quality assurance etc
- Formalise resources given for revising course material

❖ *Strategy 2.6 We prepare our PhD students for their next career step regardless if it is in academia or in a non-academic environment*

Tactics:

- Encourage PhD students to spend up to six months in another environment (internships and other visits) by decreasing the barriers through information and support regarding the possibilities for such visits and by adding this into the progression matrix for PhD students
- Organise a yearly event targeted for the final-year PhD students but open to all PhD students where they meet with PhD alumni from both industry and academia
- Towards the end of the PhD studies, add a question for the ISP revision and the progression matrix for PhD students regarding plans after PhD

Goal 3 We foster communication with society and industry

This goal is intended to capture how we work with the world outside. In IT there is a huge potential to collaborate with actors outside the department. With our competence we want to reach out to help both society and industry, aiming at a healthy society.

❖ Strategy 3.1 We increase administrative support for communication and outreach

Tactics:

- Increase administrative staff for outreach activities, such as information, bookings etc in outreach and alumni activities
- Increase administrative staff for communication, visibility, and the development of a social media strategy

❖ Strategy 3.2 We take the lead in developing IT engineers and scientists for tackling sustainable-development goals

Tactics:

- Identify research questions from sustainable-development goals by e.g. inviting other entities to discuss possible areas of collaboration
- Make *Social Consequences of Technology and Trustworthy IT* a part of the core curriculum for PhD education at our department

❖ Strategy 3.3 We develop a more systematic way of following former students' (both undergraduate and PhD students) careers and improving interactions with them

Tactics:

- Establish and maintain alumni list of employment for past PhD students
- Establish and maintain alumni list of employment for past students
- Organise activities for and by alumni

❖ Strategy 3.4 We strengthen our collaboration with industry

Tactics:

- Organise and send call for expressions of interest in thesis projects to collaboration partners as well as alumni in non-academic partners every October
- Invite company representatives for dialogue
- Create a seminar series with invited (industry) partners

- Create a series of guest lectures from industry that are open for all our students
- Have representatives from industry in all educational programme councils

❖ Strategy 3.5 We improve visibility in research, education, and outreach

Tactics:

- Develop a social media strategy, possibly including a department Youtube channel, Twitter account and blog.
- Create a presentation slide for all interested staff for information screens and web
- Give popular-science presentations to the general public and schools
- Reach out to kids age 10-18 and spark interest in IT: organise lab visits and seminars at the Department coordinated by PhD students funded by equal opportunities funding as part of their annual 20% that is not devoted to research