

ACTION PLAN FOR THE IE FACULTY 2018



Faculty of Information Technology
and Electrical Engineering



ACTION PLAN (ANNUAL PLAN) FOR THE IE FACULTY 2018

Final version approved by the Faculty Board at a meeting in Røros on 12 January 2018

The plan is organized according to the following areas of activity: Education and Learning Environment; Research and Organized Research Training; Innovation, Creativity and Collaboration with the Industry; Communication, Dissemination and Outreach, and Organization, Leadership and Resources (including Finance and Strategy Work).

The plan focuses on actions representing a clear and strategically important development in relation to the current situation, and does not include actions where the main purpose is to maintain the status quo and “business as usual”.

The Dean has been granted authority from the Faculty Board to provide further detail and substance as well as the allocation of responsibility and resources within the framework of the Faculty Board’s decision.

The Faculty’s main challenges at the beginning of 2018

- Develop effective processes for overall strategy development, culture building and academic integration at the Faculty
- Administrative capacity and coordination after cutbacks in the administrative allocations
- Academic capacity (“How to handle the success of and the demand for IE” ...!)
- Quality and availability in support systems and the underlying data related to finances/budget, application submission processes, project execution, educational activities
- The co-location project

IE areas of focus 01.01.2018 – 31.12.2018

1. New main strategy for the Faculty of Information Technology and Electrical Engineering (IE): Decisions and initial follow-up/implementation
2. One faculty: Identity building and culture building, cooperation, quality and a strengthened commitment to research across the breadth of our activities, and synergies across IE’s environments
3. Renewal of the education offered by NTNU and IE (digitalization and other aspects): Content, teaching methods, forms of evaluation, organization/portfolio integration, learning spaces, portfolio renewal, continuing and further education (EUV), PhD of the Future, etc.
4. EU research: Participation in H2020 and preparations for FP9
5. Capacity increase: Academic, administrative, and management
6. Digitalization: Expert help in digitalizing society (research, education and innovation) - as well as digitalization for greater efficiency and modernization of our own activities and organization

NTNU’s main priorities in 2018

1. One unified NTNU
2. National policy contributor
3. Strong, internationally oriented academic environments

EDUCATION AND LEARNING ENVIRONMENT

1. Academic integration

- a. Develop and approve the new portfolio of study programmes from 2019/20 (deadline 1 May 2018)
- b. Prepare transition to a common course size (multiple of 7.5 credits)
- c. Develop the use of courses across programmes of study and campuses (pilot projects)

2. Development of premises for teaching purposes

- a. Further development of student workplaces in IE's premises (especially regarding co-location)
- b. Innovative design of the learning environment ("learning spaces")
- c. Assess increasing shared use of laboratory resources

3. Strengthen skills in university teaching and subject didactics, and increase the capacity for change

- a. Establish an inter-faculty centre for Science and Engineering Education (SEED)
- b. Establish a project for the transition to electronic examinations and alternative forms of assessment (2018-2021)
- c. Develop the peer-based supervision scheme further
- d. Follow up and take advantage of NTNU's recently established scheme for recognition of teaching merit
- e. Improvement in the quality of the learning assistant scheme (better application processes, better feedback, etc.)

4. Continuing and further education (EVU)

- a. Establish a project team to develop sustainable and relevant offerings in continuing and further education at IE
- b. Follow up NTNU's central commitment to developing the activities in continuing and further education
- c. Pilot project in continuing and further education in cooperation with TrønderEnergi and the Centre for Continuing and Professional Development (NTNU Videre). Evaluate webinars as a form

5. Follow-up and funding of important education projects

- a. Centre for Excellence in Higher Education (SFU) ExclTed

- b. Approved “small projects” in innovative education (at the Department of Computer and Information Science (IDI) and the Department of ICT and Natural Sciences (IIR))
- c. Approved “large project” in innovative education (Active learning for Core Technology education – ACT! at the Department of Mathematical Sciences (IMF))
- d. Application for “large project” that did not get Rector approval (“Praksisløypa” practical training track at the Department of Electronic Systems (IES))

6. Internal re-accreditation of IE programmes of study in accordance with requirements in the new regulations from the Norwegian Agency for Quality Assurance in Education (NOKUT)

- a. Document the quality of our programmes of study in accordance with the requirements of the new regulations by the end of 2018

7. Analysis and follow-up of “Studiebarometeret.no” 2018, the national student survey

- a. Initiatives with a special focus on programmes of study with unacceptably poor results.
- b. Measures to link students and academic environments more closely, and to encourage clearer interaction between students and the academic environment outside organized teaching.

RESEARCH AND ORGANIZED RESEARCH TRAINING

1. Renewal initiatives for the PhD programmes, such as follow-up of the in-depth evaluation from 2016 and recommendations from the internal working group.

- a. Carry out the “PhD Programmes of the Future” project according to the revised plan after comments from the Faculty Board at their meeting on 15 December 2017.

2. Increased professionalization and capacity increase regarding research activity, application submission processes, input to research policy (national and international) and external relations

- a. Culture-related initiatives to increase cooperation in and across academic environments
 - Launch pilot linked with the AI Lab

- b. Early initiation and identification of application submission processes - establish strategy and roadmap in relation to calls and facilitate good applications, conscious networking, positioning, etc. Examples:
 - Establish roadmap for EU calls for proposals
 - Revitalize the procedure for external projects
 - Conduct internal review for applications (pilot FRIPRO 2018)
 - Debrief after external evaluation (pilot FRIPRO 2017)
 - "Grant Application School" (pilot Fripro 2018)

3. Decide which measures we should use strategically to achieve our research strategy, and start implementing them

- a. Fyrtårn ("Beacons" – discipline-specific research initiatives): Decide which, if any, existing Fyrtårn initiatives should be continued beyond 2018. Determine the criteria to be used for any new strategic areas of focus from 2019.
- b. Skills enhancement in research and education: Decide whether we want to commit resources to provide up to 50% research time for permanent academic staff with less research time (possibly with requirements for cooperation between campuses, and tailored needs for competence) in order to:
 - i. Take a PhD., ii. Conduct more research, iii. Qualify for promotion (professor or the "docent" track).
 Decision and any applicable criteria by: April 2017
- c. Restructuring professorships ("donated" by the Faculty): Develop criteria, decide on the framework, and implement the application process (for possible support) when the departments' strategic staffing plans are available. Deadline call for proposals: June 2018.

4. Support NTNU's thematic and technological strategic areas of focus, especially NTNU Digital

- a. Contribute to the management teams and the steering committees for the initiatives
- b. Contribute strategic and restructuring positions, communication resources, operating and reorganization funds from the Dean's resources
- c. Pilot projects across faculties within NTNU Digital

Comment on follow-up of the "Postdoc Action" at NTNU: *The activity is already well under way, and the Dean's assessment is that it does not require an additional focus through a dedicated action in this action plan. The Faculty Board will - at its own request - be regularly informed about progress in the follow-up.*

INNOVATION, CREATIVITY AND COLLABORATION WITH THE WORKING WORLD

1. Implement NTNU's overarching policy for collaboration with the working world at IE

- a. Map the arenas available for collaboration with the working world at IE – at faculty level/at department level at the various campus levels
- b. Clarify which elements of NTNU's approved policy should be managed at faculty level/department level at IE
- c. Structure the allocation of work and responsibility for putting the policy into operation among IE's Vice-Deans. (The policy has sub-goals for education, research and innovation)
- d. Develop IE's arrangements for implementation of NTNU's policy

2. Further develop collaboration with NTNU's system of instruments for innovation through our own action plan

- a. Dialogue with innovation agencies (TTO, ACCEL, other incubators, Discovery, Spark, the NTNU Entrepreneurship Center, Fram....) – clarify the opportunity space and expectations
- b. Dialogue with Centres of Excellence (SFF), Centres for Research-based Innovation (SFI), Environment-friendly Energy Research (FME)....
- c. Develop our own action plan based on results from a) and b).
- d. Take advantage of the opportunities in NTNU's agreement with the Municipality of Trondheim (University Municipality 3.0)
- e. Consider reestablishment of the "ITOvation" series of events in renewed form.

3. Support new central measures for increased innovation activities in the academic environments (innovation agents and innovation grants)

- a. Ensure that the measures are well-known at I
- b. Ensure a sufficient number of applications of high quality from IE
- c. Support good applications that were not supported by the Rector.

4. Establish local Innovation Forums at IE, based on the model of the central Innovation Forum from the Pro-Rector for Innovation

In principle, the Innovation Forum is intended to function as a link between IE's departments and campuses and NTNU's central initiatives in innovation, including those connected with NTNU's Innovation Forum.

- a. Recruit participants, draw up a mandate for and run the forum

5. Other measures for increased collaboration with the business community and the public sector

- a. Increase academic-administrative capacity for coordination, follow-up, processes related to external activities.
- b. Proactively initiate dialogue with selected key companies and agencies with the aim of strengthening strategic relationships and establishing binding collaborative agreements.

6. Follow-up of the Bedre sammen (Better Together) project

- a. Coordination of the SFI process to strengthen and take advantage of NTNU-SINTEF collaboration
- b. Communication of a joint external message with SINTEF wherever this is appropriate
- c. Together with SINTEF, develop a strategy for better coordination of the use of institute PhD candidates from SINTEF and strategic and restructuring ("SO") PhD candidates from IE.

COMMUNICATION, DISSEMINATION AND OUTREACH

1. Dissemination of research

- a. Initiatives to strengthen communication, dissemination and outreach in connection with large research projects (H2020, large Research Council of Norway projects, centres...)
- b. Initiatives to strengthen communication, dissemination and outreach related to NTNU Digital
- c. Initiatives to strengthen communication, dissemination and outreach related to the Telenor-NTNU AI Lab
- d. Measures to strengthen dissemination of results from IE's PhD projects

2. Communication initiatives related to the co-location project

- a. Aimed at employees, students and the outside world.

3. Reputation communication and dissemination related to the digitalization of society

- a. Communication, dissemination and outreach related to participation of NTNU and IE in the Arendalsuka forum for informal meetings between business, politics and higher education
- b. In cooperation with other stakeholders, arrange a national conference/event addressing ethical issues and creating ethical awareness related to digitalization and developments in ICT

- c. Initiatives to strengthen IE's reputation as the leading national player in higher education within digitalization: Communication training and practice for the management team, assessment of strengthened incentives for dissemination, strategic collaboration in communication with NTNU Digital and SINTEF, etc.

ORGANIZATION, LEADERSHIP AND RESOURCES (including STRATEGY and FINANCE)

1. Strategy work

- a. Develop and approve the main strategy for IE for 2018 – 2025 as a basis for more detailed development of department strategies, communication strategy, strategic staffing plans, areas of focus, budget allocation and strategic areas of focus in subject areas
 - i. Conduct a strategy seminar for the Faculty Board and management group 11-12 January
 - ii. Travel related to implementation of being new strategy (study tours, trips to establish or re-establish cooperation...)
- b. Develop and approve department strategies, strategic staffing plans, communication strategy, areas of focus, budget allocation and strategic areas of focus in subject areas, etc., from 2019. Deadline December 2018.

2. Increase in technical and administrative capacity, skills development and career development

- a. Establish schemes for temporary transfers/job rotation among technical and administrative employees across units, to strengthen skills and knowledge of the organization across boundaries
- b. Establish/support courses to improve skills for technical and administrative employees
- c. Assess the need for increased capacity related to various functions in and new tasks for the technical and administrative support services, in terms of early advertisements of positions that are regarded as especially critical in the short term.

3. Co-location and campus development

- a. Contribute to the completion of approved solutions in the co-location project and to ensuring that relocations can take place according to the overall time schedule and in line with the overview of objectives for IE's internal co-location project.

- b. Contribute actively to ensuring that the campus development project is completed on schedule, emphasizing integration of effective solutions for localization of subject areas, flexible and suitable learning spaces with adequate capacity, and appropriate solutions for employees' workplaces in the plans for long-term campus development
- c. Develop initiatives for management support and development related to challenges in the co-location project.

4. Work and study environment

- a. Follow-up of Work Environment Survey (ARK) 2017
- b. Gender balance and diversity: Help to extend The Girl Project Ada to an inter-faculty project (IE + Faculty of Engineering (IV) + Faculty of Natural Sciences (NV))
- c. Review of procedures, information work, initiatives and attitude campaign related to combating sexual harassment in academia
- d. Student welfare – assess new initiatives and start implementation.

5. Rationalization, organization (across sections/staffs/departments where necessary) **and digitalization of workflow** to improve service quality and productivity.

6. Coordination of procedures and processes in finance across the IE Faculty: Further follow-up of research infrastructure resources.

7.7. Evaluation and possible adjustment of IE's internal allocation model (VFM) for distribution of funds (RD), based on experience from the first year's effects.







NTNU

Faculty of Information Technology
and Electrical Engineering