

Evaluation of Mathematics, ICT and Technology 2023-2024

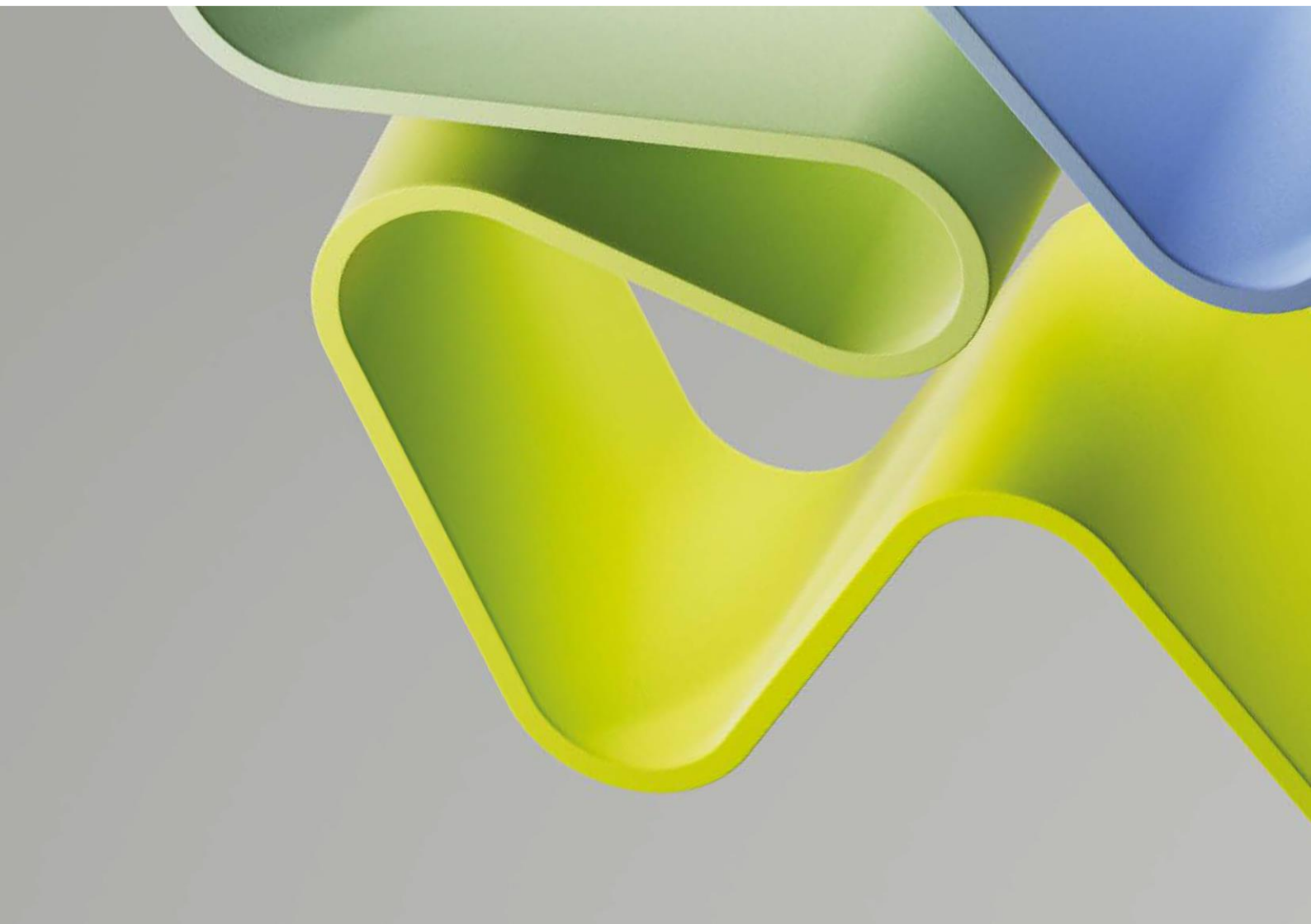
Evaluation Report for Administrative Unit

Administrative Unit: **Department of Automation and Process Engineering (IAP)**

Institution: **UiT the Arctic University of Norway**

Evaluation Committee Higher Education Institutions 2

December 2024



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Statement from Evaluation Committee Higher Education Institutions 2

The members of this Evaluation Committee have evaluated the following administrative units at the higher education institutions within Mathematics, ICT and Technology 2023-2024 and have submitted a report for each administrative unit:

- Department of Computer Technology and Computational Engineering (IDBI), UiT The Arctic University of Norway
- Department of Automation and Process Engineering (IAP), UiT The Arctic University of Norway
- Department of Electronic Systems (IES), Norwegian University of Science and Technology (NTNU)
- Department of ICT and Natural Sciences, Norwegian University of Science and Technology (NTNU)
- Department of Information Security and Communication Technology (IIK), Norwegian University of Science and Technology (NTNU)
- Department of Engineering Cybernetics (ITK), Norwegian University of Science and Technology (NTNU)
- Department of Information Systems (IIS), University of Agder (UiA)
- Department of Computer Science, Oslo Metropolitan University (OsloMet)
- Faculty of Science and Technology (REALTEK), Norwegian University of Life Sciences (NMBU)
- Department of Science and Industry Systems (IRI), University of South-Eastern Norway (USN)
- School of Economics, Innovation and Technology (SEIT), Kristiania University College

The conclusions and recommendations in this report are based on information from the administrative units (self-assessment), digital meetings with representatives from the administrative units, bibliometric analysis and personnel statistics from the Nordic Institute for Studies of Innovation, Research, and Education (NIFU) and Statistics Norway (SSB), and selected data from the National survey for academic staff in Norwegian higher education and the National student survey (NOKUT). The digital interviews took place in the autumn 2024.

The members of the Evaluation Committee are in collective agreement with the assessments, conclusions and recommendations presented in this report. None of the committee members has declared any conflict of interest.

The Evaluation Committee consisted of the following members:

Professor Jan Canbäck Ljungberg University of Gothenburg	Professor Bo Wahlberg (Chair) KTH Royal Institute of Technology
Professor Nancy Pouloudi Athens Univ. of Economics and Business	Professor Alessandra Costanzo University of Bologna
Professor Torsten Braun Universität Bern	Professor Stefan Wermter University of Hamburg

Description of the Administrative Unit

The Department of Automation and Process Engineering (IAP) is an administrative unit within the Arctic University of Norway (UiT). The research at IAP is centred around marine instrumentation, new applications for drones, technology in cold climate and image analyses in many areas. The unit has 11 associate professors, three assistant professors, one technician and three PhD students (and no professors), with three women in total.

IAP has one research group named “IR, Spectroscopy and Numerical Modelling Research Group”. The research group originates from the process engineering team but now acts more like an umbrella for most of the research activities at IAP. Two of the staff members are full members of the machine learning research group at the Department of Physics. The research group does not play a role in the externally funded projects of IAP, these are run individually by each project manager, and they report directly to the department. A small amount of money is allocated to the IR research group each year. The organisation of research groups is informal, with each staff member at IAP free to associate with any research group; they may be associated with several groups, or they may act outside any research group.

The unit's research strategy complies with UiT's 2030 strategy, and is centred around three areas: the Arctic High North (capitalising on UiT's position as the world's northernmost university to lead on studies in this area), major societal challenges (developing innovative, democratic, and sustainable solutions), and talent development and diversity (helping students and staff to reach their potential, and using competence and diversity as a resource).

IAP is multi-disciplinary and has many focus areas within engineering: Image analysis by the use of machine learning methods in a wide range of applications; Mathematical modelling of refrigeration processes; Modelling of the dispersion of viruses and infection prevention by optimised ventilation; Carbon capture in cold climate; Prediction of sea spray icing based on meteorological data; Distributed control of electrical power grid in rural areas; Development of humane methods for killing of marine species in the food industry; and Minimising the effect of underwater blasting on marine life. The unit's main contributions to society are through journal articles and the training of PhD students, relating specifically to the development of new techniques that can be utilised by relevant industries. As part of UiT, IAP's goals are to contribute to research-based knowledge in society, and to make all academic publications accessible in open-access journals or repositories. To this end, 88% of the department's publications are archived or gold open access.

Regarding their sectoral work, IAP aims to provide knowledge to a few industries that are present in Northern Norway particularly, and Norway in general. Engineering companies and contractors in civil, electrical and process industry are the main recipients of IAP's knowledge development, but they also wish to be a part of the new drone industry. Most of the research at IAP may be categorised as applied engineering science and has the potential to be commercialised, and the scientific staff are generally encouraged to commercialise the outcome of their applied research. The unit is a partner in several industry projects where the aim is to solve practical problems, mainly in the marine food industry. IAP does not have any formal academic partners, nationally or internationally, but collaboration is generally encouraged. The collaboration is typically founded on personal relations among individuals at other universities, in institutes or in industry. IAP has particularly good collaboration with local industry, e.g. PTG, Kvitebjørn Varmer, JM Hansen and Troms Kraft and marine industries on the West Coast, e.g. Optimar and Askvik Aqua.

IAP has some self-funding PhD students, though no master's program of its own. However, the department cooperates with the NT faculty on their master's program for Technology and Safety in the High North. Associate professors from IAP have supervised many master's theses in this program, which typically leads to journal articles. The supervision of master students is considered very valuable for own research at the department.

The unit has identified an opportunity to build on their existing relationships with Nofima and the Norwegian Institute of Marine Research. Together, their collaboration could yield more research funding from the Norwegian Seafood Research Fund. IAP is also seeking closer collaboration with ZHAW University in Switzerland for future projects.

Overall Assessment

The research objectives of the Department for Automation and Process Engineering (IAP) are in line with the 2030 vision of the Arctic University of Norway (UiT). The research at IAP is very relevant to the Sustainable Development Goals of UN on affordable and clean energy, climate action, and life below water.

The research focus is on optics, refrigeration processes, drone operations, multi-physics and process simulation, language in engineering studies, hydroacoustic, animal welfare in marine processing, image analysis and control of the power grid.

These are all very important topics, but the scope is too broad for a rather small department. The research on infrared technology and numerical analysis with applications, is successful. The department faces challenges due to its multidisciplinary nature and fragmentation across fields, complicating efforts to establish a strong identity and secure funding. To overcome funding struggles, the department should focus on collaborating with successful partners when applying for grants for joint projects.

The name of the department does not reflect its current research areas. Therefore, the department should consider updating its name so that it is in line with its current research areas.

Teaching takes priority over research, but associate professors typically allocate 50% of their time to research, which is a good distribution. A weakness, that is mentioned several times in the self-assessment report, is that IAP does not have its own master's program. There is a need to align with a master's program, which has been hindered by another department's closure. This should be resolved at the UiT level.

The organisation of IAP on the level of faculty members is rather informal. Unfortunately, there seems to be a lack of academic leadership at the department level. The Evaluation Committee recognises the challenges involved in transitioning from an education-centered unit to a more research-focused one. The research production and quality are in general very good, especially given the local conditions and constraints. The department currently has a budget that consists of 95% teaching funds and only 5% for research. This is of course not acceptable from a research perspective.

Expectations for publications vary widely among associate professors, with some contributing significantly while others do not publish at all; the goal should be to have all faculty members actively publish and participate in conferences.

IAP follows the diversity and equality policy of UiT. The gender balance among the faculty members needs to be improved. To conclude, the administrative unit needs to develop a more cohesive strategy for its research activities, recruitment, career opportunities, mobility opportunities and internationalisation.

The administrative unit has high relevance for the local society and regional development, as well as for its institutional and sectoral purposes. Teaching is the main activity.

The strength of IAP is in education and local research and development. The research areas of IAP are all highly relevant for Norway, and, in particular, to the northern part of Norway.

The main weaknesses are in no leadership on the professor level, the number of PhD students and the lack of research strategy and funding on the department level. The main recommendation is to identify novel focused research areas where it is possible to contribute on international research.

The Terms of Reference for the administrative unit is attached to the report.

Recommendations

The main recommendations from the Evaluation Committee to the Department for Automation and Process Engineering (IAP) are to:

- 1. Develop a Research Strategy:**
 - Formulate a forward-looking research strategy at the department level.
 - Include measurable performance indicators to track progress.
- 2. Consider the Local Context:**
 - Incorporate local constraints and opportunities into the research strategy.
 - Continue leveraging local conditions to strengthen strategic planning.
- 3. Enhance International Collaboration:**
 - Develop a comprehensive community engagement strategy to attract international participation.
 - Actively pursue involvement in European funding programs to expand the project portfolio.
- 4. Expand and Improve PhD Education:**
 - Collaborate with other departments to strengthen PhD education.
 - Increase the number of PhD students to achieve a critical mass, with a target of at least two PhD students per research-active associate professor.
- 5. Adjust Department Structure:**
 - Reassess the current departmental organisation, which may be suitable for undergraduate teaching but less so for research.
 - Explore structural changes to better support research activities.
- 6. Balance Education and Research:**
 - We acknowledge the transition challenges from a teaching-focused university to a research-active academic unit. The most important strategy is to expand collaborations with local industry while increasing international partnerships.
- 7. Adopt Data Management Practices:**
 - Collaborate with other UiT departments to implement best practices in data management and adopt FAIR principles.
- 8. Strengthen Collaboration:**
 - Develop a proactive strategy to further expand the collaborative project portfolio. Increase efforts to establish partnerships within and beyond the university.
- 9. Improve Promotions and Leadership:**
 - Create a strategy and process for promoting associate and assistant professors to full professor positions. If promotions are not feasible, consider hiring a research leader or professor to head the department.

These recommendations aim to support IAP in enhancing its research capabilities, fostering collaborations, and aligning its structure to achieve long-term success.

1. Strategy, Resources, and Organisation of Research

The Department for Automation and Process Engineering (IAP) is one out of five departments at the Faculty of Science and Technology, the Arctic University of Norway (UiT). It consists of one research group named “The IR, Spectroscopy and Numerical Modelling Research Group”. Hence, the evaluation of the department will be close to the evolution of the research group. However, the self-assessment report states that the organisation of research groups is informal. Each staff member at IAP can choose a research group on their

own; they may be associated with several groups, or they may act outside any research group. The department currently comprises 11 associate professors (2 women), 3 assistant professors, one technician, and 3 PhD students. There is no full professor in the department. There seems to be a lack of academic leadership at the department level, and faculty members act independently. At the same time, the report states that the department is organised into teams where researchers with similar interests can collaborate. Young researchers are prioritised as PhD supervisors to gain experience. Associate professors are encouraged to take research terms/leaves according to the rules of UiT, and assistant professors seeking PhD degree are supported with up to four years of leave. Researchers are encouraged to attend supervision training, and the department regularly hosts seminars on research and development.

1.1 Research Strategy

The faculty's research strategy aligns well with UiT's 2030 vision, focusing on the three main areas:

- *The Arctic and High North*: UiT aims to be a global leader in knowledge and competence related to the Arctic and High North.
- *Major Societal Challenges*: The focus is on addressing global issues like climate change, food security, and health through innovative and sustainable solutions.
- *Talent Development and Diversity*: Emphasising the development of students and staff, with diversity as a key resource.

At IAP, the research focus is on marine instrumentation, drone applications, technology in cold climates, and image analysis. The department prioritises investment in marine instrumentation due to its high return on investment. IAP, a small department with a broad engineering portfolio, focuses primarily on providing quality bachelor-level education. Teaching duties take precedence over research, but associate professors are allowed to pursue their research interests for 50% of their time. Due to its limited external funding, the department supports all research initiatives and funding applications, regardless of size or topic.

The Evaluation Committee understands the difficulty for a small department to have its own research strategy, with corresponding strategic goals, that contribute to developing the research environment and promoting high quality and productivity in research and its contribution to innovation. The research group evaluation report is quite positive, with some good recommendations stressing the need to decide on a research strategy and direction and where their strengths should be. Combining infrared technology and numerical analysis has allowed them to participate in several nationally important projects. If the group wishes to recruit more senior talent, then the group needs a more coherent research policy that ties together the group members.

The recommendation to the administrative unit

- The Evaluation Committee recommends IAP to develop a forward-looking research strategy at the department level. Here it is important to have measurable performance indicators to measure progress.
- The Evaluation Committee agrees with the importance of taking local constraints and possibilities into account when formulating the research strategy and encourage IAP to continue this direction of strategy.
- The Evaluation Committee recommends enhancing international collaboration, and that IAP consider developing a comprehensive community engagement strategy that

encourages international participation. Additionally, actively pursuing involvement in European funding programs would support and scale the IAP project portfolio.

1.2 Organisation of Research

The self-assessment report states that the staff have flexibility in their work, with recent emphasis on project applications to improve department finances. Education is research-based, and staff often include their research in lectures. PhD students are increasingly involved in teaching, though research dissemination has received less focus recently.

The research organisation seems to be on a project basis with rather independent faculty members. Academic freedom is most important, but the administrative unit still needs a cohesive and adequate strategy for its research activities. The administrative unit needs to develop a more cohesive strategy for its research activities, recruitment, career opportunities, mobility opportunities and internationalisation.

Recommendations to the administrative unit:

- The Evaluation Committee recommend IAP to join forces with some other UiT departments, particularly, when it comes to PhD education.
- The current number of three PhD students is not a critical mass for a full department. The organisation of the department may be suitable for undergraduate teaching but less for research.
- The Evaluation Committee recommends IAP to set up a realistic goal for the number of PhD students for every research active faculty member, for example, two per associate professor.

1.3 Research Funding

The main source for external funding is from “Norwegian Seafood Research Fund, Humane Slaughter Association and the Research Council of Norway”. IAP also receives some project funding from internal schemes at UiT. The self-assessment report shows that the average yearly funding for research is 303 800 NOK.

In the interview, it was clarified that IAP currently has a budget that consists of 95% teaching funds and only 5% for research. Plans are in place to increase external funding on the overall UiT level to 50% by 2026, though current external funding stands at 11.5%. Actions include the establishment of a new administrative support unit to help researchers with funding applications.

Given the quality of the group’s research and its relevance in an international context, the group should continue trying to attract EU funding. The group could also prioritise applying for individual grants such as FRIPRO and ERC to develop individual members of the groups.

Recommendations to the administrative unit:

- The Evaluation Committee acknowledges the difficulty of transforming a university with a focus on education to also include academic research on an international level. The plan to expand collaboration with local industry is strongly encouraged. At the same time, international collaborations should be increased to be a competitive partner.

1.4 Research Infrastructures

The self-assessment report states that IAP does not participate in any of the national infrastructures of Norway nor in Europe and that they have not taken any initiative to make research data more accessible. The report and interview lack adequate details, leaving the information provided insufficient to form a more meaningful conclusion and recommendations.

Recommendations to the administrative unit:

The Evaluation Committee recommends IAP to join forces with other departments in UiT to adopt good practices on data management and FAIR principles.

1.5 National and international collaboration

The self-assessment report states that IAP does not have any formal partners, nationally nor internationally. The collaboration is typically based on personal contacts among researchers at other universities, in institutes or in industry.

It also states that IAP has particularly good collaboration with local industry, and the marine industries on the Norwegian West Coast.

The report and interview lack adequate details, leaving the information provided insufficient to form a more concrete conclusion and recommendations.

The recommendation to the administrative unit:

- The Evaluation Committee encourages IAP to form a more proactive strategy for collaboration, in particular to further increase the collaborative project portfolio.

1.6 Research staff

The self-assessment report contains little information about the unit's recruitment policy and meeting the requirements for gender balance, age distribution and future needs for recruitment. In the interview with the Evaluation Committee, the unit staff explained that achieving gender balance is difficult in view of the challenges that their location (isolation, weather conditions) presents. Additionally, it was stated that the department aims to balance teaching and research obligations by maintaining a 50/50 split; while ensuring they have the time and financial support to attend conferences. Senior colleagues are involved in evaluating promotions through a local committee, with plans to clarify criteria using the Norwegian career assessment matrix.

The Personal section of the NIFU report confirms the information in the self-assessment report. It also shows that IAP has rather young faculty members (average age around 42).

Recommendations to the administrative unit:

The Evaluation Committee recommends, given that the department only has associate and assistant professors, IAP to develop a strategy and process for promotions to full professors. In case this is not possible, the recommendation is to hire a research leader/professor as the department head.

1.7 Open Science

The reported policy for open science is in line with the one for UiT. The goals are to contribute to research-based knowledge in the wider society and to make all academic publications accessible in open-access journals or repositories. UiT has a portal that provides information about important requirements and support services for publishing and

open access. Around 90% of the publications by the Department is open access (archived or Gold Open Access). This is an impressive percentage and can support the unit in showcasing the impact of their research (given the emphasis of their work on collaboration with industry and local relevance) and thus attract research collaborators. This can be an opportunity in the longer-term to increase research collaborations and, consequently, research impact.

Recommendations to the administrative unit:

- The Evaluation Committee recommends that IAP continue their practice of making their publications open access and that they use this as an opportunity for making their research better known and attract research collaborators.

2. Research production, quality and integrity

The Department for Automation and Process Engineering has an informal research organisation. The externally funded projects of IAP are managed by their project managers, who report directly to the department. Each faculty member at IAP is free to choose a research group on their own, and they may be associated with several groups, or they may act outside any research group.

The only IAP research group that was evaluated on the research group level is the IR, Spectroscopy and Numerical Modelling Research Group, and the self-assessment report states that this research group acts more like an umbrella for most of the research activities at IAP.

Policies for research integrity in the administrative unit are handled on the university level, and are based on approved research ethical norms, as presented in national and international guidelines for research ethics shall be used as a basis to ensure good research practice.

The NIFU report shows that rather low relative citation indicators, with average mean normalised citation score of 57 for the period 2019-2021. Here 100 is the world average. The share of publications with national and international coauthors has increased to a rather high number in the last years.

2.1 Research quality and integrity

Research group IR, Spectroscopy and Numerical Modelling Research Group (IRSNM) overall assessment

The group produces high-quality research at an international level. The members of the group have very different types of expertise, and this has been used as a virtue in order to pursue societally important research inspired by particular problems arising from the Arctic Region. The group's research often requires significant investment in specialised equipment, and this is supported by the institution. The group has a commitment to research-based teaching at all levels and has graduated a steady stream of PhD students. The group has the ambition to develop more internationally and to increase mobility. Given its track record of securing national funding, it is likely that the group will be able to secure EU-funding. Given the groups contacts and participation in national interdisciplinary research it is likely that the group continue to produce high-quality research.

3. Diversity and equality

The Department for Automation and Process Engineering has an international environment where all colleagues are provided equal opportunities, adhering to Norwegian anti-discrimination regulations. Apart from this statement, the self-assessment's description of IAP's diversity and equality status and initiatives is too limited for the Committee to evaluate. As noted in the self-assessment report, gender balance is weak. Indeed, according to NIFU, 22% of associate professors are female and there are no other female researchers.

The Evaluation Committee understands that IAP follows the diversity and equality policy of UiT.

4. Relevance to institutional and sectorial purposes

The administrative unit places emphasis on applied research and aims to provide knowledge, in particular, to engineering companies and contractors in civil, electrical and process industry in Northern Norway. According to the self-assessment report the scientific staff is generally encouraged in commercialising the outcome of their applied research. Innovation and commercialisation are also included in the learning outcomes of all engineering programmes taught at the university. IAP does not have its own master's program but contributes to the master's program Technology and Safety in the High North. IAP researchers supervise many master theses in this program, and, according to the self-assessment report, these works typically lead to journal articles. The self-assessment report provides very little other information on training and mentoring of research staff.

5. Relevance to society

The primary goal of the Department for Automation and Process Engineering is to provide expertise to key industries in Northern Norway, as well as across the country. Most research at IAP falls under applied engineering science. IAP is a partner in several industry projects aimed at solving practical challenges, primarily in the marine food industry. UiT has implemented an action plan for innovation and entrepreneurship, which includes fostering management awareness and creating a forum for collaboration with regional businesses. The university has established procedures for managing Disclosures of Invention, which is important for protecting the university's IPR.

5.1 Impact cases

IAP has presented two relevant and important impact cases that are detailed below.

Comments to impact case 1: Bridging Theory with Practice-Multiphysics Inspired Viscosity-Density Sensor

The viscosity-density sensor, a result of multi-physics innovation, was developed through collaboration between UiT–The Arctic University of Norway, ZHAW–Zurich University of Applied Sciences, and Rheonics GmbH. This advanced technology has transformed fluid flow and control across industries by enabling precise, real-time in-line process monitoring and optimisation. Its applications span oil and gas, food processing, pharmaceuticals, and petrochemicals.

The impact of the research collaboration between IAP-IVT, Rheonics GmbH, and Zurich University of Applied Sciences (ZHAW) has continued to grow since 2020. The industrial impact within Norway is not described.

The Evaluation Committee finds that this is a relevant and important impact case.

Comments to impact case 2: Blue Technology

Research at IAP in Blue Tech has had significant impacts beyond academia, particularly in public policy, environmental management, food quality, and industrial animal welfare. The focus includes industrial seafood production and marine noise pollution, addressing issues like ammunition and explosive residues in water. These areas, closely tied to aquaculture and fisheries, play a crucial role in Norwegian economy. The research has affected national regulations and addressed key industry issues like blood spots in salmon fillets. IAP's investment in advanced equipment has reduced the need for live animal testing.

The Evaluation Committee finds that this is a relevant and important impact case.

Methods and limitations

Methods

The evaluation is based on documentary evidence and online interviews with the representatives of Administrative Unit.

The documentary inputs to the evaluation were:

- Evaluation Protocol that guided the process
- Terms of Reference
- Administrative Unit's self-assessment report
- Administrative Unit's impact cases
- Administrative Unit's research groups evaluation reports
- Bibliometric data
- Personnel and funding data
- Data from Norwegian student and teacher surveys (only for HEIs)

After the documentary review, the Committee held a meeting and discussed an initial assessment against the assessment criteria and defined questions for the interview with the Administrative Unit. The Committee shared the interview questions with the Administrative Unit two weeks before the interview.

Following the documentary review, the Committee interviewed the Administrative Unit in an hour-long virtual meeting to fact-check the Committee's understanding and refine perceptions. The Administrative Unit presented answers to the Committee's questions and addressed other follow-up questions.

After the online interview, the Committee attended the final meeting to review the initial assessment in light of the interview and make any final adjustments.

A one-page summary of the Administrative Unit was developed based on the information from the self-assessment, the research groups' evaluation reports, and the interview. The Administrative Unit had the opportunity to fact-check this summary. The Administrative Unit approved the summary without adjustments.

Limitations

The Committee judged that the Administrative Unit self-assessment report was insufficient to assess all evaluation criteria fully. However, the interview with the Administrative Unit filled gaps in the Committee's understanding, and the information was sufficient to complete the evaluation.

List of administrative unit's research groups

Institution	Administrative Unit	Research Groups
The Arctic University of Norway	The Department of Automation and Process Engineering	Spectroscopy and Numerical Modelling Research group

Terms of Reference (ToR) for the administrative unit

The board of Faculty of Engineering science and technology at UiT - The Arctic University of Norway mandates the evaluation committee appointed by the Research Council of Norway (RCN) to assess the Department of automation and process technology based on the following Terms of Reference.

Assessment

You are asked to assess the organisation, quality and diversity of research conducted by the Department of automation and process technology as well as its relevance to institutional and sectoral purposes, and to society at large. You should do so by judging the unit's performance based on the following five assessment criteria (a. to e.). Be sure to take current international trends and developments in science and society into account in your analysis.

- a) Strategy, resources and organisation
- b) Research production, quality and integrity
- c) Diversity and equality
- d) Relevance to institutional and sectoral purposes
- e) Relevance to society

For a description of these criteria, see Chapter 2 of the mathematics, ICT and technology evaluation protocol. Please provide a written assessment for each of the five criteria. Please also provide recommendations for improvement. We ask you to pay special attention to the following 3 aspects in your assessment:

1. Relevance to UN's sustainable goals
2. Diversity and equality
3. Relevance to society and regional development

In addition, we would like your report to provide a qualitative assessment of the Department of automation and process technology as a whole in relation to its strategic targets. The committee assesses the strategy that the administrative unit intends to pursue in the years ahead and the extent to which it will be capable of meeting its targets for research and society during this period based on available resources and competence. The committee is also invited to make recommendations concerning these two subjects.

Documentation

The necessary documentation will be made available by the mathematics, ICT and technology secretariat at Technopolis Group.

The documents will include the following:

- a report on research personnel and publications within mathematics, ICT and technology commissioned by RCN
- a self-assessment based on a template provided by the mathematics, ICT and technology secretariat.

Interviews with representatives from the evaluated units

Interviews with the Department of automation and process technology will be organised by the evaluation secretariat. Such interviews can be organised as a site visit, in another specified location in Norway or as a video conference.

Statement on impartiality and confidence

The assessment should be carried out in accordance with the *Regulations on Impartiality and Confidence in the Research Council of Norway*. A statement on the impartiality of the committee members has been recorded by the RCN as a part of the appointment process. The impartiality and confidence of committee and panel members should be confirmed when evaluation data from the Department of automation and process technology are made available to the committee and the panels, and before any assessments are made based on these data. The RCN should be notified if questions concerning impartiality and confidence are raised by committee members during the evaluation process.

Assessment report We ask you to report your findings in an assessment report drawn up in accordance with a format specified by the mathematics, ICT and technology secretariat. The committee may suggest adjustments to this format at its first meeting. A draft report should be sent to the Department of automation and process technology and RCT]. The Department of automation and process technology should be allowed to check the report for factual inaccuracies; if such inaccuracies are found, they should be reported to the mathematics, ICT and technology secretariat within the deadline given by the secretariat. After the committee has made the amendments judged necessary, a corrected version of the assessment report should be sent to the board of the Faculty of engineering science and technology and the RCN no later than two weeks after all feedback on inaccuracies has been received from the Department of automation and process technology.

Appendices

1. Description of the evaluation of EVALMIT
2. Invitation letter to the administrative unit including address list
3. Evaluation protocol
4. Template of self-assessment for administrative unit (short-version)

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