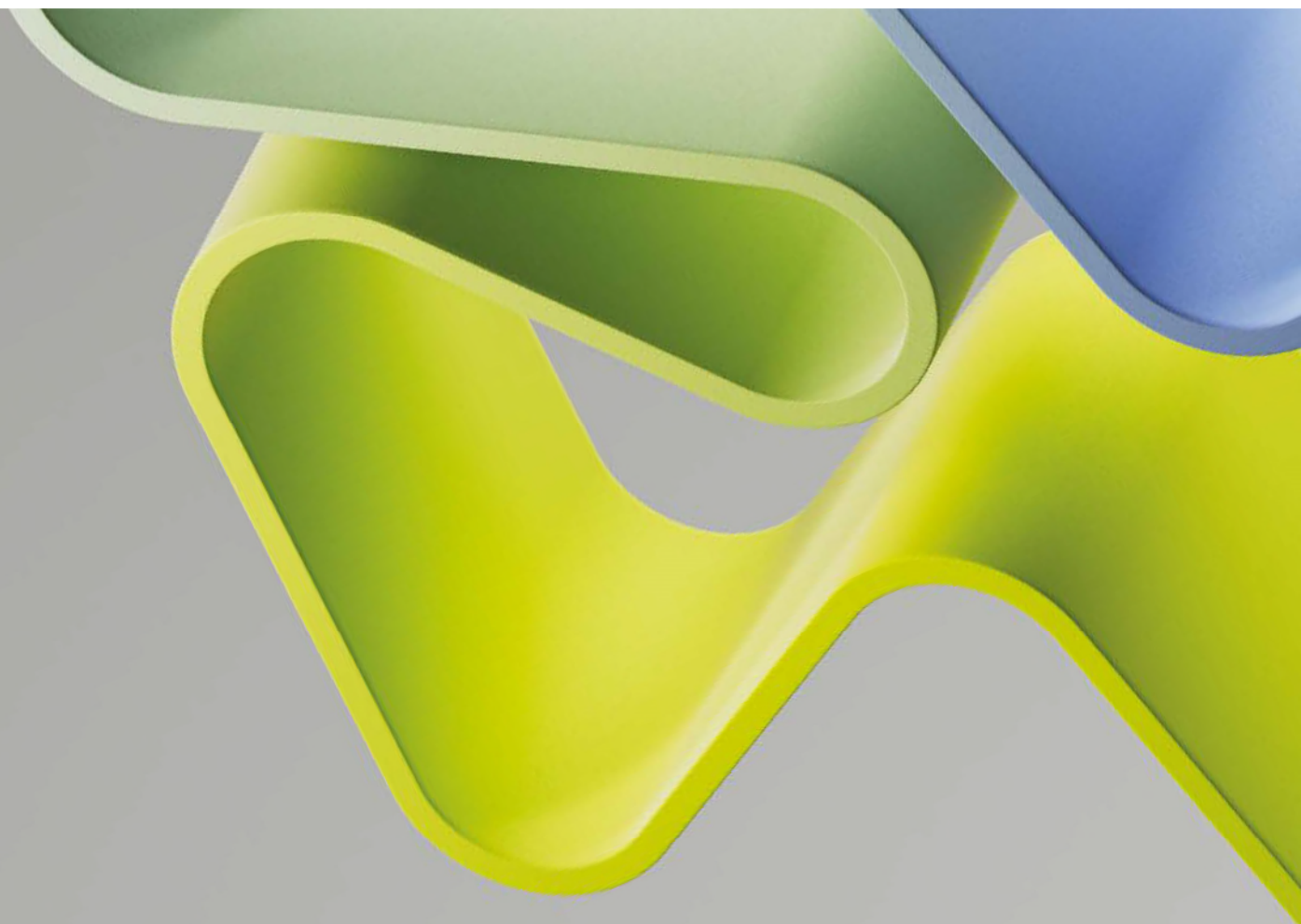


Evaluation of Natural Sciences 2022-2024

Evaluation report Department of Chemistry University of Bergen

January 2024



Contents

Statement from Evaluation Committee I	2
Description of the administrative unit	3
Overall assessment	4
Recommendations	4
1. Strategy, resources and organisation of research	5
1.1 Research Strategy	5
1.2 Organisation of research	6
1.3 Research funding	6
1.4 Use of infrastructures	7
1.5 National and international collaboration	7
1.6 Research staff	7
2. Research production, quality and integrity	8
2.1 Research quality and integrity	8
2.2 Open Science	10
3. Diversity and equality	10
4. Relevance to institutional and sectorial purposes	10
5. Relevance to society	11
List of administrative unit's research groups	12
Methods and limitations	13
Appendices	14
1. Description of the evaluation of EVALNAT	14
2. Invitation to the evaluation including address list	14
3. Evaluation protocol	14
4. Self-assessment administrative units	14
5. Grading scale for research groups	14

Statement from Evaluation Committee I

The members of this Evaluation Committee have evaluated the following administrative units at the higher education institutions within natural sciences in 2022-2023 and submitted a report for each administrative unit:

- Geophysical Institute, University of Bergen
- Department of Earth Sciences, University of Bergen
- Department of Physics and Technology, University of Bergen
- Department of Chemistry, University of Bergen
- Department of Theoretical Astrophysics, University of Oslo
- Department of Geosciences, University of Oslo
- Department of Physics, University of Oslo
- Department of Chemistry, University of Oslo

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

The Evaluation Committee has consisted of the following members:

Prof. James Kirchner (chair)
ETH Zurich, Switzerland

Prof. Florencia Canelli
University of Zurich, Switzerland

Prof. Thors Hans Hansson
University of Stockholm, Sweden

Prof. Gideon Henderson
University of Oxford, United Kingdom

Prof. Isobel Hook
University of Lancaster, United Kingdom

Prof. Nicola Hüsing
University of Salzburg, Austria

Prof. Dieter Schinzer
University of Magdeburg, Germany

Description of the administrative unit

Following a strategy process that was aimed at the build-up of competitive research groups within a few high-profile areas of importance to the university's own scientific priorities and its societal responsibility, the Department of Chemistry (KI) at the University of Bergen (UiB) has been reorganised recently (2022) into an administrative unit which is divided in the four following thematic groups:

- Bioresources and Pharmaceutical Chemistry (2022)
- Sustainable Energy Carriers, Chemicals, and Materials (2022)
- Chemistry in Medical Technology (2022)
- In Silico Molecular Exploration and Design (2022).

The department is headed by one person and each of these four research groups has a leading person. This group meets every two weeks to discuss priorities, initiatives, and evaluations, resulting in a departmental strategy for the period 2023-2030. With 16 professors, nine associate professors, nine researchers and postdocs, 22 PhDs, 10 technicians and five administrative staff members, KI at UoB is a smaller chemistry department.

KI research is focused on two thematic lines:

1. Sustainable Energy and Chemical Production;
2. Molecular Life Sciences

Both of these thematic areas are sustained by basic research in the main chemical disciplines.

The strategy of the department is therefore aligned to the overarching UiB research priorities: Climate and Energy Transition/ Global Challenges, and Marine Research.

Further synergies between the research programme and the educational responsibilities are being considered. According to the administrative unit's self-assessment, the activities of the department match its strategic goals.

The department has secured external funding from different funding agencies (mainly national) and considers its research performance to be on a high level.

The societal impact of KI is manifested in research-based education of students, long-term effects of research results, and direct effects of research-based innovations. The administrative unit highlights its provision of well-educated students to the job market. Focus areas with considerable interest for commercialisation, which is also supported by patents and a spin-off company, include catalyst development in different areas and early drug discovery. The department contributes to dissemination to the public by various measures, such as events, seminars, and podcasts.

Overall, the reorganisation of the department of chemistry at UiB is seen by the administrative unit itself as timely. The administrative unit plans new recruitments over the next couple of years and looks quite positively into the future.

Overall assessment

The department of chemistry at the University of Bergen has initiated a substantial transformation within the last years. With the upcoming and necessary recruitments ongoing, this administrative unit has a promising future prospect. The strategy document provides the necessary framework for this transformation in terms of scientific topics in timely research areas such as “sustainable energy and chemical production” and “molecular life sciences”.

The overall research output (measured on the contribution and quality of the research output) is rather low in an international comparison. It is also differing between the four research groups. The research groups “Sustainable Energy Carriers, Chemicals and Materials” as well as “In Silico Molecular Exploitation and Design” seem to exploit the synergies within the group and show a higher research output. The “Chemistry in Medical Technology” and “Chemistry in Bioresources and Pharmaceutical Chemistry” groups, on the other hand, need further improvement with special emphasis on increasing coherence between the group members and topics. All groups could generally increase their scientific output and increase their participation in research projects funded by Horizon Europe.

In the strategy paper 2023-2030, the department prioritises the development of synergies between the research program and their main educational responsibilities, i.e. the disciplinary program in Chemistry (BSc, MSc, PhD) and multi-disciplinary programs in Nanoscience and -technology (BSc, MSc), Pharmacy (integrated master/professional degree), Medical Technology (integrated master), and Energy (integrated master). This is an important point that should be followed to increase coherence.

The Evaluation Committee considered the points raised by the administrative unit in their Terms-of-Reference document and have commented on many of the issues raised in that document. Where no comments are provided, this generally reflects a lack of relevant information in the Self-Assessment to allow the Evaluation Committee to reach a view.

Recommendations

The Evaluation Committee has a number of recommendations, which are presented below:

1. The institute has a strategy, however the current document mostly just describes the institute's research areas, infrastructure situation and teaching load. What is needed instead is a clear-eyed view of the challenges and opportunities that the institute is likely to face in the coming years, and a plan for handling them. The SWOT analysis may provide a good place to start but should be complemented with concrete initiatives to address the issues that are raised there. The truly strategic part of a strategy involves figuring out how it will be implemented.
2. The restructuring and transformation of the administrative unit is evaluated positively, and the research performance is good but has the potential to improve. Therefore, it is necessary to closely monitor the ongoing transformation, especially with respect to the scientific development of the two research lines.
3. The upcoming recruitments are very important for the further development. The administrative unit and the research groups should have a strong focus on excellence of the applicants and future synergies and coherence. In addition, mechanisms to recruit young talents need to be installed.
4. To further increase research quality, output and international visibility, the members of the administrative unit are strongly encouraged to gain EU (Horizon Europe, ERC) funding. As

rightly pointed out in the self-assessment, acquisition of funding from the EC is underexploited. Supportive measures and incentives for researchers participating in or coordinating EC projects could help.

5. In Norway, faculties pay rent for their used resources. Bergen seems to be special in this respect since these costs are passed down to the departmental level. The current policy disadvantages the administrative unit, and the lower budget is resulting in lower productivity. This points to the need for clarification with the faculty or the university. With respect to open science activities, measures for data curation services and support should be developed.
6. The department is aware of the imbalance in genders. However, a more balanced view on culture and mindset to avoid any kind of discrimination on all levels is highly recommended.

1. Strategy, resources and organisation of research

In 2022, the department of chemistry (KI) at UiO was completely reorganised following a strategy process that was aiming at the build-up of competitive research groups within a few, high profile areas. In this strategy, the two thematic research lines are well chosen, and the four newly composed research groups build on existing synergies with well-fitting compositions. Overall, the new structure is now implemented and well accepted by the members of the department and also shows interesting implications in teaching and study programs that will be followed in the future. Overall, the department seems to be very well organised. Strategic plans for the future, such as recruitment plans, are discussed between the four groups and the department leader, and synergies between the topics are identified. This is very important for the upcoming recruitments; these new professors are opportunities to get excellent new expertise in Bergen with potential to increase the synergies within the thematic areas. The department is aware of this fact. Overall, the strategy document is clear and shows lines that are being followed. However, there are major challenges coming up, such as how to overcome failing recruitments of students, being more attractive for recruiting talents on all levels, being more effective in acquisition of funding, etc. Clear and measurable goals in terms of research funding, development of study programs or upcoming recruiting processes are missing.

Overall, the research quality and the output could be improved; however, it differs between research groups. The research groups are well connected on a national and international level. The visibility internationally could be increased by participating more actively in Horizon Europe projects.

1.1 Research Strategy

The Department of Chemistry (KI) has been reorganised and a strategy document for the department from 2023-2030 is provided. KI, along with its four thematic research groups, is part of the faculty of Mathematics and Natural Sciences. Following the Strategy 2023-2030 document, KI research is focused on two thematic lines:

1. Sustainable Energy and Chemical Production;
2. Molecular Life Sciences – including basic research in the main chemical disciplines.

The strategy of the department is therefore well aligned to the overarching UiB research priorities: Climate and Energy Transition/ Global Challenges, and Marine Research.

Further synergies between the research program and the educational responsibilities are considered. In addition, the department follows the Research Council's shift from disciplinary to more thematic science.

KI provided a detailed SWOT analysis that shows a clear internal view on the strength, weaknesses, opportunities, and threats. The reorganisation seems to result in very good spirit among the staff and they rightly point out that the upcoming new recruitments (planned by a joint recruitment strategy) are a great opportunity for the future development of the department. However, presently, the groups still seem a bit heterogeneous and strong collaborations within the research groups are not visible. This might change with the upcoming recruitments, however the description of future actions is rather superficial.

1.2 Organisation of research

The chemistry department is organised into four groups, all recently reorganised or established after an extensive process. These four groups are:

- Bioresources and Pharmaceutical Chemistry
- Sustainable Energy Carriers, Chemicals, and Materials
- Chemistry in Medical Technology
- In Silico Molecular Exploration and Design

The department is headed by one person and each of the four research groups has a leading person. These people meet every two weeks to discuss priorities, initiatives, and evaluations. The infrastructure is organised on a department level with access for all research groups. Overall, the reorganisation seems to have led to better communication and joint strategic goals.

With 16 professors, nine associate professors, nine researchers and postdocs, 22 PhDs and 15 technicians KI at UoB is a rather small department. Eight adjunct professors (20%) are hired to create momentum, however it remains unclear how these people are identified and selected.

With the upcoming retirements, a window of opportunity opens for excellent and strategic new recruitments, which is well perceived by the department.

1.3 Research funding

The department has received relatively little funding on the national and international level (about 13,5 million NOK 2021 from RCN). Basic funding is based on past indicators, productivity parameters and the number of PhD positions. In addition, the institutional funding contains strategic elements, e.g. funds for medium sized infrastructure which is subject to internal competition. One quarter of the research funding is provided by external competitive sources (mainly RCN, and in addition to that the private Trond Mohn Foundation, Horizon Europe, and industry); The amount of external funding is below average for a chemistry department, however a small increase is observed over the last years. In addition, KI is participating in thematic RCN areas such as energy-oriented programs and life-science programs, matching very well to the strategic restructuring of the department. Compared to other chemistry departments, the staff reports spending a lot of time teaching. In addition, success rates for proposals are rather low.

As rightly pointed out in the self-assessment, acquisition of funding from the EC is underexploited. Supportive measures and incentives for researchers participating in or coordinating EC projects could help. The Evaluation Committee notes that the administrative unit's competitiveness needs to be increased, however, other than new recruitments, no other strategic actions to improve competitiveness were specified.

1.4 Use of infrastructures

KI is well equipped for chemical sciences in basic and specialized labs. As a matter of strategic priority, the department is in the process of establishing state-of-the-art facilities for high-throughput experimentation (HTE@UiB) in both batch and flow modes, through strategic funding from UiB and the MN-faculty. KI @UiB hosts the Bergen node of the Norwegian NMR platform. The department also participates in Sigma2 and is critically dependent on HPC resources.

KI is also a co-host in the Aquafeed Technology Centre (ATC) and contributes to ELIXIR Norway and NOR-Openscreen (ERIC). Researchers also use the international synchrotron facilities at ESRF (REXS). However, due to the very good national infrastructures, a strong focus is on national cooperation.

1.5 National and international collaboration

Owing to the rather small size of the administrative unit, national and international collaboration are very important and significant for the administrative unit. Of all the administrative units considered in the publication statistics provided, publications involving national and international co-authors are in the mid fraction with 34% and 65%, respectively.

National collaboration relies on participation in / hosting of national infrastructures. Most KI scientists also have national and international cooperation partners on an individual level. Young researchers are encouraged to spend time abroad, however, no institutional financial support is provided.

Researchers at KI / UiB regularly use and collaborate with researchers at the synchrotron facilities at ESRF.

Overall, the Evaluation Committee believes that national and international collaborations still have some room for improvement.

1.6 Research staff

The administrative unit has 16 full and nine associate professors, nine postdocs/researchers, eight adjoint professors (1.6 FTEs), 15 people in admin & technical staff and 22 PhD students. A critical point for the administrative unit is the low number of technical staff members, which is compensated by scientific staff at cost of their research time.

The number of female scientists is rather low. However, with upcoming retirements (mostly male in the category professor, 10 out of 11), there is an opportunity to shift the balance.

The department has a strategic recruitment plan rooted in subject areas, which has been approved by the faculty board. For open positions, the department has a search committee, actively seeking potential candidates and announcements are made nationally and internationally. A strong desire to increase the number of female scientists / and avoiding gender discrimination is observed. However other diversity aspects (e.g. ethnicity, disability) are not addressed and awareness seems a bit underexploited.

The administrative unit supports sabbaticals, however other career support or training initiatives for young researchers are missing.

2. Research production, quality and integrity

The research groups have different scorings regarding the research quality dimension

- Bioresources and Pharmaceutical Chemistry (3/3)
- Sustainable Energy Carriers, Chemicals, and Materials (4/4)
- Chemistry in Medical Technology (3/3)
- In Silico Molecular Exploration and Design (5/5)

The research groups in the department show a different performance. While the Research Group “In Silico Molecular Exploration and Design” and “Sustainable Energy Carriers, Chemicals, and Materials” are productive and impactful administrative units with a good international network, top quality articles and high visibility, the other two Research Groups could improve their performance. This is also reflected in the breadth of topics covered.

The overall productivity of the publication of IFT has remained stable until the year 2020 followed by a significant decrease in 2021. The author-share per FTE seems also to be decreasing in the past years – these trends should be monitored. Interestingly the productivity indicator shows an almost equal distribution between men (for 2021 0.55) and women (0.46) in the last years – despite fewer female researchers at the department. However, it is concerning that the number of publications per full-time equivalent researcher work year is very low, not only compared to other chemistry departments, but also to other disciplines.

In the field distribution many publications in Chemistry and materials science are listed, while the other categories, such as biomedicine, biosciences, energy, geosciences, and pharmacology & toxicology are underrepresented. This is also reflected in the chosen journals.

The impact of the publications is somewhat below the average (using the normalized citation index MNCS) with scores of around 90 in the last years. The publications coming from KI at UiB demonstrate a strong international collaboration, with 65% having international co-authors, national collaborations are less pronounced with 33 %.

The overall productivity is good, keeping in mind that the research groups range differently in the scoring. Some examples for pioneering research such as theoretical understanding chemical interactions, or MOF catalyst design are given.

Awareness for research integrity and data treatment is given and communicated not only within the department, but also via the institution University of Bergen and is in line with international standards.

2.1 Research quality and integrity

Chemistry in Bioresources and Pharmaceutical Chemistry research group overall assessment

The Bioresources and Pharmaceutical Chemistry group is well embedded at the University of Bergen and its research topics are highly relevant. The group is well organised, especially as it was just established in 2022. Although the Bioresources and Pharmaceutical Chemistry group has set-up common research goals and a solid organisation, collaborative research interactions should be further improved, and joint topics strengthened. The research output of the Bioresources and

Pharmaceutical Chemistry group ranges from good to very good depending on its members. Whereas national funding is on the good level, the research group should apply more efficiently for international funding. Furthermore, cross-member projects would improve its output. The Bioresources and Pharmaceutical Chemistry group has a strong societal impact, both, on the level of research topics and in the field of translation, including training of scientists for industry, method development for valuable applications as well as the available industrial projects that lead to patents and demonstrators.

Chemistry in Medical Technology research group overall assessment

The research group for Chemistry in Medical Technology was established in 2022 at the University of Bergen, Department of Chemistry. The group consists of seven full professors, two associate professors, as well as three adjunct associate professors. A core area of research relates to radionuclides and radiopharmaceuticals. In addition, the group covers a broad range of topics, including synthetic chemistry; biologically active molecules; radionuclides and radiopharmaceuticals for medicine; NMR microscopy and MRI; analytical and chemometrics. Overall, the group has a good strategy and good focus. Some of the group members are internationally visible. There appears to be good synergy between the research activities in the group and the Integrated Master's program in Medical Technology (MT). However, the group appears to be heterogenous, also in their scientific achievements. This may in part be due to a low level of external funding and only limited international collaborations.

In Silico Molecular Exploration and Design research group overall assessment

The Research Group Design at the UiB, reorganised in 2022, comprises a team of extremely creative and active PIs. The group is a highly productive and impactful agent that contributes significantly to advancing the state of the art in its discipline in Norway and internationally. The group has developed computational methods and models that are used for applied research to address societal challenges, such as drug design and sustainable chemical production. They are well-positioned to take advantage of the growth of computing power and high-resolution experimental data, and to develop interdisciplinary approaches with other fields such as visual data science and informatics. The group is well supported by its institution (UiB) and by the Norwegian science community. It has successfully secured external research funding and computer time from a variety of national sources. The research performance of the past years is extremely compelling: top-quality articles in renowned international journals, participation at numerous important international meetings, and an excellent network of collaborators. In terms of education, the group has a significant impact through its teaching activities and participation in educational programs at various levels. It provides candidates for the job market, including international pharmaceutical companies, and contributes to popular science dissemination through events, seminars, articles, videos, and podcasts. Additionally, the recent introduction of educational programs attracting students with strong physics and mathematics backgrounds offers opportunities for future recruitments of master's and PhD students. The group also engages in knowledge transfer through the development of user-oriented products, such as software packages and tools, which are open-source and used by researchers worldwide. Its collaborations with the industry and participation in advisory groups at the national and international levels demonstrate its ability to work effectively with a range of stakeholders. Overall, the performance of the research group is evaluated as outstanding. Its activities match its strategic goals and the developments and restructuring of the past years can be seen as very promising for future achievements.

Sustainable Energy Carriers, Chemicals and Materials research group overall assessment

The Research Group is a strong, recently formed, group undertaking work of high quality in key areas of current chemical sciences. They have an appropriate structure, with good coherence between the different themes. The group members have strong scientific track records, working in a broad range of areas in sustainable chemistry. The PIs have expertise in preparative molecular and materials chemistry, homogenous and heterogenous catalysis, experimental and computational mechanistic work, supramolecular chemistry and electrocatalysis. The group has worked successfully on CO₂ chemistry, lignin liquification and electrocatalytic ammonia synthesis. The group is well supported and funded using both internal and external sources; it has good and appropriate resources and infrastructure. Its work is highly relevant to the Institution; it has a strong range of national and international collaborations and effective engagement with other academic and industrial partners. The group is training both master's and PhD students effectively in key areas of current science. Overall, the Evaluation Committee believes them to be a strong and coherent team, performing at a high level whose impact can be expected to grow.

2.2 Open Science

The KI actions follow the policy of UiB and are appropriate for Norwegian and international standards. Researchers are strongly encouraged to choose open access publications, resulting in 100% OA, with 44% gold standard publications. Compared to other institutions this is above average.

All projects are required to have a data management plan that is consistent with the FAIR principles. The research groups strive to provide the experimental data in computer readable formats upon dissemination either as supporting information or in a repository. UiB provides an Open Research Data repository for data that are archived and made accessible for others; sensitive data can be collected and archived using SAFE – an UiB service. UiB also offers a digital platform for sharing open and quality assured educational resources. However, KI has no service for data curation.

3. Diversity and equality

In the self-assessment the department states that KI is actively promoting equality and diversity. Regarding the underlying actions and policies, they seem to be in line with international best practices. Gender issues are a high priority in the strategic recruitment plan; the department addresses gender issues actively in recruiting procedures and tries to increase awareness on all levels within the department. Other diversity aspects, however, are so far rather neglected. A more balanced view on culture and mindset to avoid any kind of discrimination on all levels is highly recommended.

4. Relevance to institutional and sectorial purposes

In the self-assessment KI is rather general regarding the scientific output, which they state is at a high international level, thereby forwarding the chemical discipline. In addition, innovation in important areas such as health, renewable resources, and sustainable energy (to name just a few) is an important outcome and impact of research at KI. Since many resources are devoted to education, students (ca. 30 MSc students and six or seven PhD candidates per year) are considered a real asset in research and innovation. The department focuses on educational aspects, such as the various study program, highlighting the Erasmus-Mundus Master in Quality in Analytical Labs. In addition, they are actively engaged in outreach and popular science dissemination using regular channels.

UiB has a Transfer Office (VIS) and a set of policies for transfer including IP questions.

All research groups are engaged in innovation projects – and KI is in a regular exchange with VIS. Early drug discovery as well as the Bergen lignin-to-liquid process are just two given examples. The research groups cooperate with a variety of other institutions covering groups from academia to industry. In addition, cooperation aligns study programs and research priorities.

KI collaborates closely with Norwegian and international universities and research institutes on important and timely research questions and higher education. PhD and master students are per se involved in research. KI also involves BSc students via ten ETCS research project in research and provides training in scientific skills. However, in surveys the students are not highlighting this aspect. In comparison to other universities, the students score the R&D impact in the study program rather low.

Cooperation with industry or commercialisation of products could be improved. On a local level the support and the interactions seem to be in place, however there is also no underlying strategy. The department would benefit from a national strategy or a technology platform for industry/academia cooperation.

5. Relevance to society

The societal impact dimension of the administrative unit was scored

- Bioresources and Pharmaceutical Chemistry (4/4)
- Sustainable Energy Carriers, Chemicals, and Materials (4/4)
- Chemistry in Medical Technology (4/3)
- In Silico Molecular Exploration and Design (4/3)

The societal impact of KI is manifested in research-based education of students, long-term effects of research results, and direct effects of research-based innovations. Focus areas with considerable interest for commercialisation which is also supported by patents and a spin-off company include catalyst development in different areas and early drug discovery. Two impact cases are given below.

Comments to impact case 1: Investigations of intermediates and by-products formed in industrial production of iohexol

Impact case 1 describes a PhD project cooperation with industry that was facilitated by the industrial PhD program launched by RCN in 2008. In a cooperation with GE HealthCare Lindesnes two PhD theses were successfully defended (2014 and 2022), both aiming at an improved and more cost-effective process of iohexol production. The outcomes are these two theses and three patent applications, which resulted in a process development in the production of iohexol.

The beneficial outcome of this case is manifold, ranging from an improved process in the company and therefore an increase in the competence level of a Norwegian company, to getting students in contact with industrial research and broadening the research competences of the research group.

On the other hand, tax money is invested in supporting a single company, and the return on investment for the university is not fully clear.

Comments to impact case 2: ArbaOne biorefinery development

Based on the analytical competences at the Department of Chemistry/UoB several projects have been funded (Horizon, RCN) on research on the thermochemical conversion of biomass in cooperation with Arbaflame AS. References given for this collaborative research are one publication and some reports and presentations. Regarding the number of funded projects, the number of references given seems to be rather low, however, the cooperation seems to be beneficial for the Department and the industrial partner.

List of administrative unit's research groups

Institution	Administrative Unit	Research Groups
University of Bergen - Faculty of Mathematics and Natural Sciences	Department of Chemistry	In Silico Molecular Exploration and Design
		Chemistry in Medical Technology
		Bioresources and
		Sustainable Energy Carriers, Chemicals and Materials

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 (see appendix 3 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

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

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

After the online interview, the Evaluation 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 group assessment, and the interview. The administrative unit had the opportunity to fact-check this summary. The administrative unit approved the summary with minimal adjustments.

Limitations

- (1) The Evaluation Committee judged the information received through documentary inputs and the interview with the administrative unit generally sufficient to complete the evaluation.

Appendices (link to website)

1. Description of the evaluation of EVALNAT
2. Invitation to the evaluation including address list
3. Evaluation protocol
4. Self-assessment administrative units
5. Grading scale for research groups

Website: <https://www.forskningsradet.no/tall-analyse/evalueringer/fag-tema/naturvitenskap/>

Norges forskningsråd

Besøksadresse: Drammensveien 288
Postboks 564
1327 Lysaker

Telefon: 22 03 70 00
Telefaks: 22 03 70 01

post@forskningsradet.no
www.forskningsradet.no

Publikasjonen kan lastes ned fra
www.forskningsradet.no/publikasjoner

Design: [design]

Foto/ill. omslagsside: [fotokreditt]

ISBN 978-82-12-04010-6 (PDF)

