

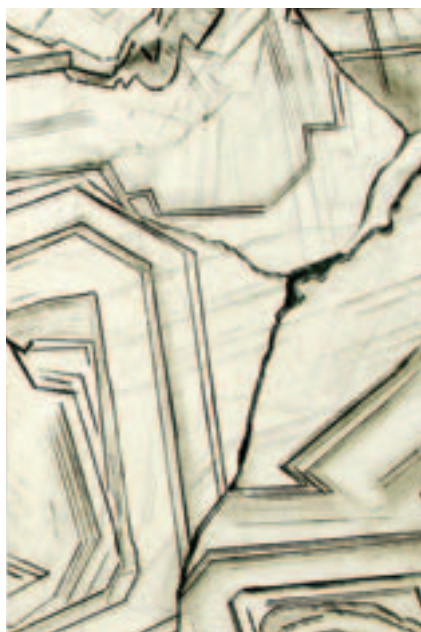
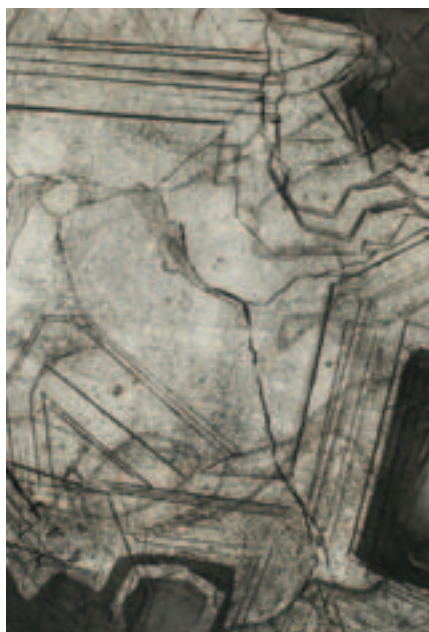


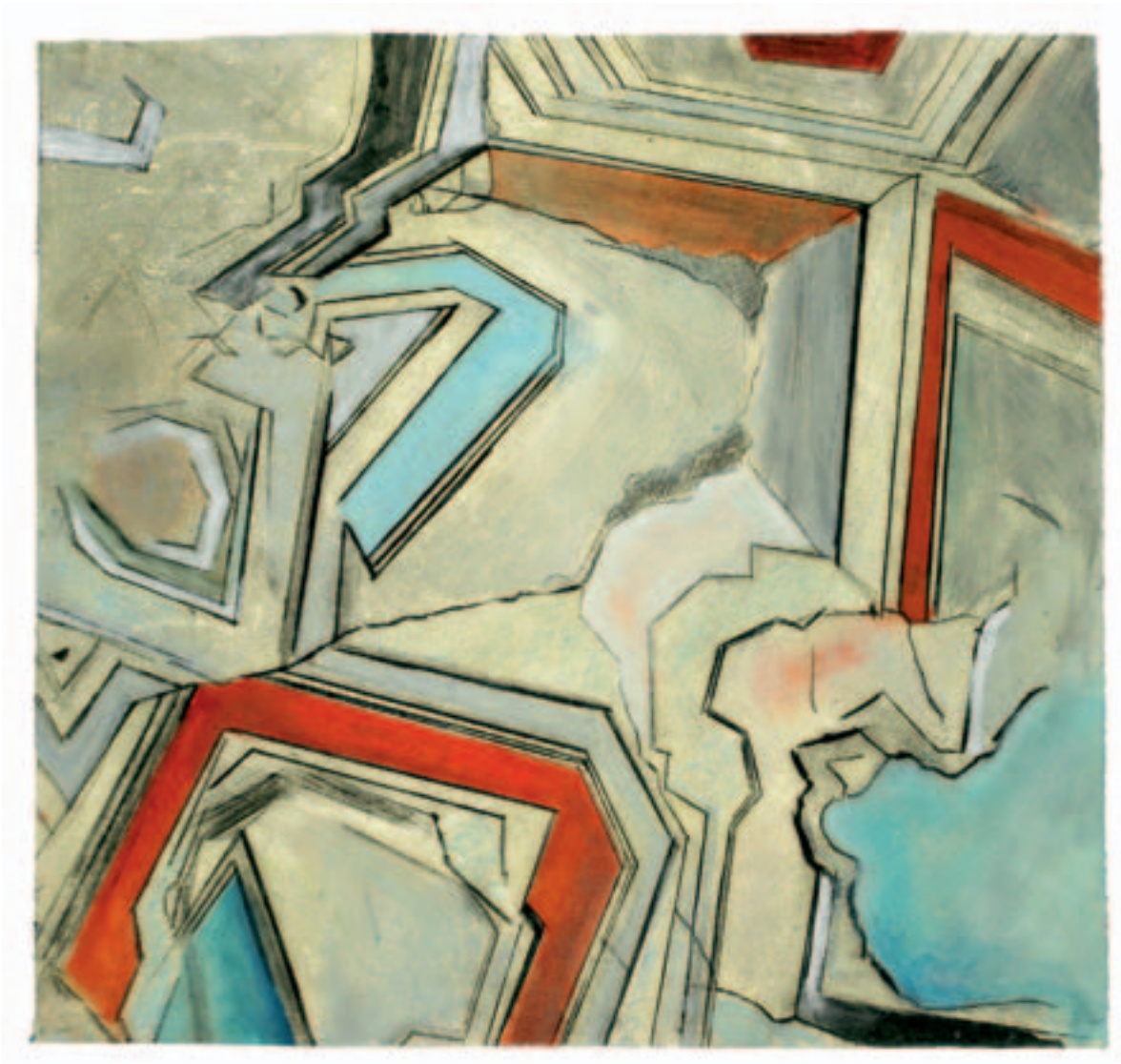
UNIVERSITY OF OSLO
FACULTY OF MATHEMATICS AND NATURAL SCIENCES

Strategic plan

Faculty of Mathematics and Natural Sciences, University of Oslo

2005–2009





All pictures are made by artist Ellen Karin Mæhlum in co-operation with one of the faculty's Centers of Excellence, PGP (Physics of Geological Processes). The images are inspired by microphotographs of garnet crystals. Photos: Kjell Ove Storvik

Vision

*The Faculty of Mathematics and Natural Sciences
– Norway's key to the knowledge society of the future*

Vision

It is Norway's expressed aim to be in the lead internationally when it comes to new technology, knowledge and competence. [Report to the Storting, No. 20, The Will to Research]. If we as a nation are going to achieve this aim, we must be able to identify the problems of tomorrow and the tools necessary to solve them. It will not be sufficient just to develop further and improve the disciplines in which we are good already. Tomorrow's problems will be multi-disciplinary and global; they will require new methods of co-operation, networks and not least researchers who can apply new knowledge in this sort of connection.

Norway will not be able to achieve its ambitions in the field of research without recruiting both in quality and breadth from the up-coming generations of young people. Those who are going to solve tomorrow's problems must feel at home at the top level of an international research society. This calls for a thorough, top quality education and in addition an education that prepares students in the application of their knowledge in a global research arena. More than anything else, the recruitment and nurturing of capable researchers for tomorrow's knowledge society is emerging as the most important task for the universities.

The Faculty of Mathematics and Natural Sciences at the University of Oslo is especially well positioned to meet these challenges, both as a research actor and an educational establishment. The Faculty represents Norway's largest and widest research community in basic disciplines of mathematics and the natural sciences. The research staff of the Faculty have a wide range of international contacts through co-operation and networks. This gives the Faculty a unique opportunity to provide a research-based, high quality education, adapted to the global research activity that the next generation of students will encounter. At the same time, the Faculty with its wide selection of subjects offered is the national actor, in the best position to develop inter-disciplinary research areas. Environmental research is one such field; others can be located in the interface between physics, chemistry, health-care, bio- and geo-subjects. Not least, the Faculty is strongly positioned to meet the challenge of using modern information technology and simulation in a wide range of new and traditional research areas.



Activity

The main activity of the Faculty of Mathematics and Natural Sciences shall be basic research, research-based teaching and research training in order to bring forth new knowledge and strengthened capacity for innovation and to promote the role of the natural sciences as bearers of cultural activity.

Research

Aim: The Faculty of Mathematics and Natural Sciences is to:

- *Further develop the Faculty as a leading international research faculty*
- *Lay the foundation for tomorrow's research through purposeful recruiting and initiation of new fields and activities*
- *Have at least one internationally top-level community in each subject area.*
All established research communities are to be at the national forefront

Action: The Faculty will, following suggestions from the departments, identify a number of research communities which may be given the status of strategic areas of commitment. These will be given priority when strategic funding is allocated. These commitment areas may be top-level research communities, areas of development or new developments.

Action: The Faculty will continually re-allocate recruitment positions (UFD) in accordance with the Faculty's priorities and strategic areas of commitment.

Action: The Faculty will utilise its centres in order to profile certain research areas in co-operation with related departments.

Action: The Faculty will develop an internal model for the allocation of publication-based incentive funding, taking into account of the distinctive character of the Faculty's research activity.

Action: The Faculty will support and give priority to the inauguration and maintenance of larger, academically strong international networks and areas of co-operation.

Education

Aim: The Faculty of Mathematics and Natural Sciences is to:

- *Recruit more students to the sciences*
- *Give students the academic foundation necessary to cope with tomorrow's challenges in research and education*
- *Make contact between student and teacher central in the teaching process*

Action: The Faculty will in co-operation with schools and with the business world identify areas and measures for recruiting the science students of the future and put in place selected stimulants to recruitment based on these.

Action: The Faculty will work towards the strengthening of science subjects in the Teacher Training Programme and arrange that students from this faculty's programmes can go into teaching.

Action: The Faculty will, in dialogue between students and staff, develop and improve the quality of studies in academic terms. Today's requirements for quality assurance and evaluation will be met with simple and robust systems.

Action: The Faculty will integrate central, modern aids and techniques in order to expand and modernise science education. Numerical computations and modelling have an important place here.

Action: The Faculty will follow up its approved strategy of internationalisation with special emphasis on the further development of studies offered in English and facilitate access to these studies for students from abroad, at the same time increasing and facilitating the option of studying abroad for its own students who wish to take part of their degrees abroad.

Applied knowledge

Aim: The Faculty of Mathematics and Natural Sciences is to:

- *Make a substantial contribution to society through research and innovation*
- *Play a central role in developing the Oslo region as leading in knowledge and competence in Norway*
- *Communicate understanding of the importance of science in our common culture*

Action: The Faculty will promote contact and co-operation with businesses and public administration in order to meet new academic challenges, gain inspiration for education and teaching, as well as lay the foundation for future co-operation.

Action: The Faculty will actively co-operate with the University's bodies for entrepreneurship and innovation.

Action: The Faculty will pursue common academic interests with contract research companies and other research and educational institutions through formalised co-operation constellations.

Action: The Faculty will develop a dynamic plan of action for work with the media and establish permanent systems of communication in order to become more visible in the public eye. This includes support to popular science arrangements and the development of incentive mechanisms to encourage the exposure of science subjects in various media channels: TV, newspapers, the Internet etc.

Administration and infrastructure

Aim: The Faculty of Mathematics and Natural Sciences is to:

- *Have a management and administration that gives maximum support to the three core activities – research, education and publicising*
- *Have an active personnel policy which aims at the best possible use of personnel resources in relation to the individual member of staff's competence and potential*
- *Make research equipment and laboratories of good international standard available to researchers*
- *Have a Safety, Health & Environment resource in order to ensure a high level of safety and a secure working environment*

Action: The Faculty will strengthen its financial steering and establish systems which give the management at Faculty and Department level an overview of available resources and make it possible to develop budgets and plans with a longer perspective.

Action: The Faculty will together with its departments work hard to strengthen the competence of its technical and administrative staff so that the Faculty and its departments can meet the new academic challenges and effectively utilise modern instrumentation and administrative aids.

Action: The Faculty will work hard to enable its academic staff to meet a workload corresponding to their capacity and interests.

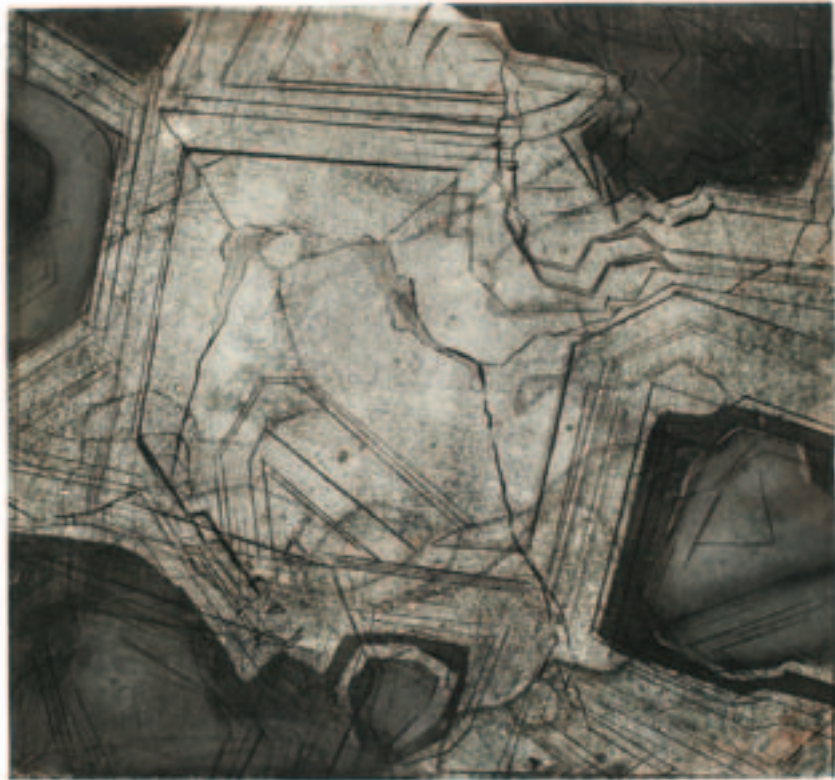
Action: The Faculty will work hard to increase allocations for advanced scientific equipment, and support international co-operation giving access to equipment that is not available in Norway, or which is in short supply in Norway.

Action: The Faculty seeks increased female participation at all levels, and will follow up the approved plan for equality from 2005 and continue to develop this in accordance with the University's plan of action.

Action: The Faculty will ensure a safe working environment for students by actively following safety rules and introducing its own guidelines where necessary.

Action: The Faculty will follow up the recommendations from the enquiry into the working environment. In 2008 a new enquiry into the working environment will be carried out.

Action: The Faculty will analyse the need for resources and give priority to which buildings and specialised laboratories need up-grading with a view to the best possible utilisation of space. A special effort must be made to demonstrate the need for a new location for the Department of Chemistry and the Department of Pharmacy so that these departments reflect the standard expected in a modern working environment.



Facts about MNF

- *Established as a part of the Faculty of Philosophy in 1811*
- *Became a separate faculty in 1861*
- *2 Nobel prizes, Odd Hassel in chemistry (1969) and Ivar Giæver in physics (1973)*
- *About 4000 students (fall -05)*
- *Approximately 1100 man-years*
- *Budget: About 1 billion NOK a year*
- *9 Young Outstanding Investigators (OYI's)*
- *1 European Young Investigator (EURYI)*
- *12 Bachelor's Degree Programs*
- *16 2-year Master's Degree Programs*
- *2 5-year Master's Degree Programs*

Departments:

Department of Theoretical Astrophysics
Department of Molecular Biosciences
Department of Biology
School of Pharmacy
Department of Physics
Department of Geosciences
Department of Informatics
Department of Chemistry
Department of Mathematics

The faculty's centres:

PGP (Physics of Geological Processes) SFF
CMA (Centre of Mathematics for Applications) SFF
CEES (Centre for Ecological and Evolutionary Synthesis) NCoE
CMN (Centre for Materials Science and Nanotechnology)
Senteret SAFE (Centre for Acceleratorbased Research and Energy Physics)
SFE (Center for Entrepreneurship)
Naturfagsenteret (Norwegian Centre for Science Education)



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Postboks 1032 Blindern
N-0315 OSLO

www.matnat.uio.no