

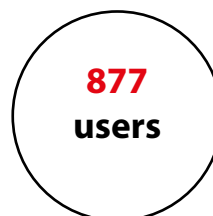
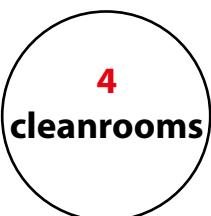


Realize your nano vision

Annual Report 2024

Myfab is Sweden's open-access micro- and nanotechnology research infrastructure, with cleanroom laboratories at Chalmers, KTH Royal Institute of Technology, Lund University and Uppsala University.

Myfab supports researchers and companies across diverse scientific and technological disciplines.



Myfab - the Swedish research infrastructure for micro- and nanofabrication



Myfab Annual Report 2024

Established in 2004, Myfab operates in multi-year funding cycles. The fifth cycle concludes with 2024.

Myfab has achieved significant progress through substantial investments in state-of-the-art equipment, expanded user support, and the development of advanced fabrication processes. The objectives outlined in the funding application have been fulfilled and in several key areas, even exceeded.

Myfab provides an outstanding environment for the development and fabrication of materials and device structures for advanced research in physics, materials science, nanoscience, chemistry, life sciences, nanoelectronics and semiconductors.

The user community includes a large number of top international researchers, with two peer-reviewed publications per day and one Ph.D. student per week emerging from the environment each year.

Myfab provides an innovation platform for industry and deep-tech start-ups and is a dynamic environment, where about a third of the users are replaced every year (academic). Myfab anticipates a growing demand from researchers in new and expanding areas targeting the global challenges and the UN Sustainable Development Goals.

Organizational Changes 2024

New Chairperson: Professor Anne Borg, NTNU, succeeded Professor Mikael Östling, KTH, as chairperson on November 1, 2024.

Staff Changes:

- Myfab Chalmers: Five new hires, including two retirement replacements.
- Myfab KTH: Two retirements, one new Director at Electrum Laboratory, and two new technical staff.
- Myfab Lund: One new hire, two departures.
- Myfab Uppsala: Stable organization.

Steering Committee's Work 2024

The Steering Group oversees Myfab's development, providing strategic guidance and making decisions on budget and strategies. In 2024, the group addressed evaluation by the Swedish Research Council (VR), participation in the European Chips Act pilot line, strategic recruitments and investments, and relationships with local labs.

Evaluation 2024

Myfab was evaluated by the Swedish Research Council (VR) during 2023–2024. The evaluation summary highlighted that Myfab performs exceptionally well, meeting the demands of a national, distributed research infrastructure. It plays a crucial role from a national perspective, adding significant value by coordinating the distributed national nodes under a unified mission. Some areas of improvement were identified by the evaluators such as professional communication, valuable recommendations were provided to further enhance Myfab's operations.

Key Numbers 2020-2024

• Publications	3,496
• PhD Students	251
• New Companies	35
• New Staff	10
• New Users	41
• New Investments (funded by VR)	16

Financial 2020-2024

Grants for operations funded by the Swedish Research Council (VR):
17 MSEK / year = 85 MSEK.

Myfab is cofunded by the universities and user fees.

Yearly turn over is more than 260 MSEK.



Myfab's cleanroom laboratories 2024

Myfab operates cleanroom laboratories at four universities, covering a total area of more than 5 000 m²— almost the size of a football field.

Each lab is equipped with a broad range of tools and processes, complemented by specialized expertise:

- Myfab Chalmers: Two strong areas in devices and circuits for microwave and photonics, and quantum technologies.
- Myfab KTH: Specializes in Si CMOS, MEMS, SiC process lines, and materials and devices for photonics integration, nanoscience based on new active nano and quantum materials.
- Myfab Lund: Offers extensive expertise in the growth and synthesis of compound semiconductor materials. The facility has also developed strong capabilities in wide bandgap materials technologies, supporting advancements crucial to the energy transition.
- Myfab Uppsala: Concentrates on materials science, thin film technology, biomedical engineering, power generation and storage, and Si nanoelectronics.

Key Developments:

- Myfab Lund: Planning a new NanoLab at Science Village (NLSV), with a design project initiated in November 2024.
- Myfab Chalmers: 11 new processing tools and infrastructure upgrades with new ULPA filters and gas alarm system.
- Myfab KTH: Produced a fully automatic chemical tool and installed a direct write lithography tool, etc.
- Myfab Uppsala: Initiated major facility upgrades, including new ventilation, DIW production and gas flow meters.

Collaborative Projects:

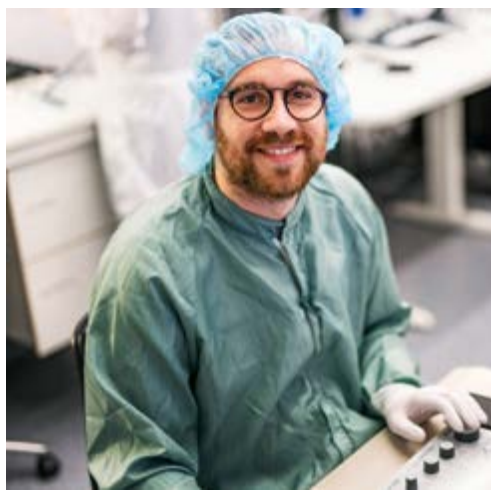
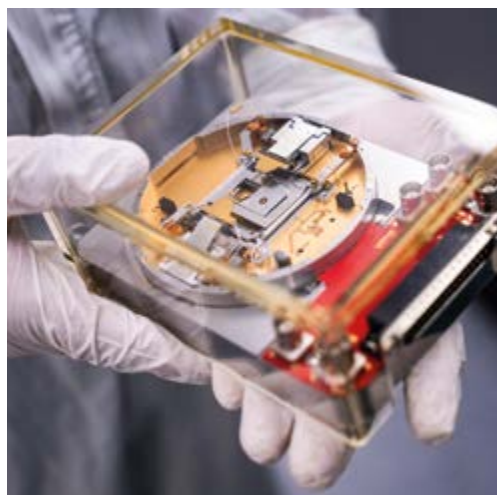
- European WBG Pilot Line 4: Myfab laboratories at Lund, KTH and Chalmers are part of this initiative to fabricate silicon carbide power devices and gallium nitride high power and RF devices.
- Swedish Agency for Economic and Regional Growth Grants: Myfab laboratories applied for funding for a four-year project (2025-2028) to enhance accessibility and relevance for industrial users, improve user support, and introduce new tools for lithography, etch, and backend processing. Four projects start 2025.

Educational Initiatives, Outreach, User Support 2024

Myfab hosts courses for around 500 students annually, many completed diploma theses and 47 PhD theses in 2024. degrees in 2024. 268 new users received introduction training, emphasizing the importance of skilled staff. A communication network with university representatives was established, and a new user-friendly homepage was initiated in December. Myfab LIMS development includes an improved electronic logbook, process manager module, and a ticket system for fault reports.

Scientific Highlights 2020-2024

www.myfab.se/about/annual-reports



International networking, user meetings and expert groups 2024

Nordic Nanolab Network (NNN)

The Nordic Nanolab Network (NNN) is a collective of 12 research infrastructures across the Nordic countries, collaborating at management, expert, and user levels. The latest Nordic Nanolab User Meeting (NNUM) was held in Oslo on June 3-4, 2024, with 300 participants. Two management meetings were held in 2024: May 21-22 in Fredensborg, Denmark, and October 22-23 in Horten, Norway. Myfab's expert staff participate in five thematic groups within the Nordic Nanolab Expert Network (NNEN), organizing tutorial sessions at NNUM.

EuroNanoLab and ENRIS

Myfab is a member of EuroNanoLab (ENL), contributing to its formation and inspired by Myfab's user-fee based open access model. ENL organizes the biennial European Nanofabrication Research Infrastructure Symposium (ENRIS). 2025 years meeting took place on May 13-15, 2025, in Bologna. Thomas Swahn chaired the ENRIS 2025 program committee.



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Thomas Swahn, Myfab Director

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