

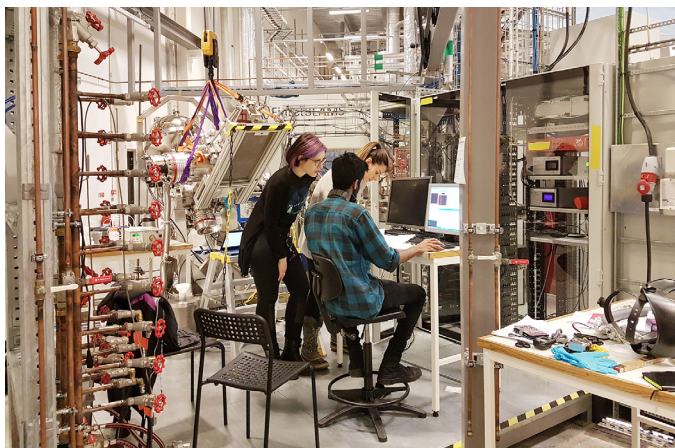
## FinEstBeAMS receiving users 2019

The first proposal call for regular users to FinEstBeAMS closed 19 December and MAX IV will welcome the users from April 2019 up to the summer shutdown of the accelerator.

Two end stations are operational: Gas-phase end station (GPES) and Photoluminescence end station (FinEstLUMI).

The GPES has been designed to detect coincidences between energy resolved electrons and positive ions (PEPICO), but single electron and ion time-of-flight spectra can of course be measured. All these operation modes have been verified to work.

FinEstLUMI can be used to measure fluorescence emission from different kinds of solids in the infra-red, visible and ultra-violet spectral ranges. The excitation functions of these emissions can be determined by scanning the incident photon energy. [www.maxiv.se/fineestbeams](http://www.maxiv.se/fineestbeams)



Researchers from Oulu University's Synchrotron-based Atmospheric Research group have been commissioning a liquid jet at the FinEstBeAMS gas-phase endstation. They are studying atmospheric model systems for improving climate models, as part of their ERC funded project SURFACE. Follow them on <http://www oulu.fi/nanomo/atmos> or through Twitter [@OuluBeamTeam](https://twitter.com/OuluBeamTeam).



Marco Kirm, professor at the University of Tartu and his group have been performing commissioning experiments at FinEstBeAMS to develop scintillators that operate using ultrafast intrinsic emissions. This novel concept may allow technological breakthroughs which would give millimetre resolution in the TOF PET scans compared to the centimetre resolution that exists today. [Read more here.](#)



## 2018 in a nutshell

MAX IV has reached the design stored current (500 mA) in beamline delivery mode on the 1.5 GeV ring, and demonstrating very short, < 30 fs RMS, pulses with the linear accelerator. In the 3 GeV ring, the design current (500 mA) was demonstrated during dedicated accelerator studies and two new undulators were installed.

As for the beamlines, progress is now well underway and some examples of this is the following:

- Sample changer in operation at BioMAX
- Very stable and high quality focused beam at NanoMAX
- Two environmental cells in operation at HIPPIE
- First ARPES data from Bloch
- First expert users at FemtoMAX
- First spectra from Balder and Veritas

## Coming up 2019

A call for experts to help with commissioning is planned for January 2019 for Veritas, MAXPEEM and FemtoMAX. These beamlines are in different project stages and commissioning activities with experts may take place during all of 2019 or even beyond.

A call for beamtime in the August 2019 – January 2020 period is planned for mid-February for these beamlines:

- BioMAX – macromolecular crystallography
- FinEstBeAMS – photoemission in gas-phase and photoluminescence spectroscopy
- HIPPIE – ambient pressure X-ray photoemission spectroscopy
- NanoMAX – hard X-ray nano-diffraction and imaging
- Balder – hard X-ray absorption
- Veritas – side branch
- MAXPEEM – photoelectron microscopy
- Bloch – angle-resolved photoemission spectroscopy

Detailed information about these calls will be available [at the website](#) by mid-January and early February.

## User Meeting 2019

The 2019 MAX IV user meeting, jointly organized with FASM, will take place 23-25 September at Scandic Star Hotel in Lund. [More information here.](#)

