



# SPACE CENTER EPFL

## MISSION OF THE SPACE CENTER EPFL

The mission of the Space Center EPFL is to promote and develop space activities by involving Swiss education, science and industries on the following themes:

- Triggering students' interest with new projects and lectures related to space
- Strongly encouraging space R&D by opening up new research areas and reinforcing ongoing activities
- Fostering cooperation with Swiss space industries to increase competitiveness and yield through improved collaboration with academic laboratories

## THE KEY OBJECTIVES OF THE SPACE CENTER EPFL ARE:

- To federate and promote R&D for space applications
- To assist units and laboratories to prepare and carry out space projects
- To facilitate the design of scientific and technological projects linked to space in collaboration with the Swiss industry and other R&D centers
- To strengthen R&D capacities in order to reach a critical mass and to become a privileged partner on both the Swiss and international levels
- To enhance R&D initiatives undertaken in the space sector

More information at:

- [Space Center: http://space.epfl.ch/](http://space.epfl.ch/)
- [SwissCube: http://swisscube.epfl.ch/page11149.html](http://swisscube.epfl.ch/page11149.html)
- [Dr Maurice Borgeaud: http://people.epfl.ch/maurice.borgeaud](http://people.epfl.ch/maurice.borgeaud)

ITU AND THE EPFL SPACE CENTER

ANNOUNCE THE PRESENTATION ON

## THE SWISSCUBE AND SATELLITE REMOTE SENSING PRINCIPLES

BY DR MAURICE BORGEAUD AND MRS MURIEL NOCA  
OF THE EPFL SPACE CENTER

TUESDAY 17 JUNE 2008, ITU HEADQUARTERS  
10H00–12H00 (SALLE H)

### PROGRAMME

- The Space Center EPFL (15 minutes):  
Dr Maurice BORGEAUD
- The SwissCube project (60 minutes):  
Mrs Muriel NOCA
- Introduction to satellite remote sensing instruments (30 minutes):  
Dr Maurice BORGEAUD
- Q&A (15 minutes)

### THE SWISSCUBE PROJECT

The EPFL Microsystems for Space Technologies Laboratory, in partnership with the EPFL Space Center, is leading the development of a small amateur satellite, to be launched end 2008. This satellite follows the CubeSat standard (1-kg cube with a 1-litre volume), which provides fast and affordable access to space. The project also envisages the possibility of collaboration with other universities developing their own CubeSats.

Developing a satellite requires a vast range of engineering skills, which makes it an excellent project for the EPFL and its partners. The development of the SwissCube is distributed across the laboratories that wish to share their expertise. Currently, 10 laboratories at the Ecole polytechnique fédérale de Lausanne – EPFL, three at the University of Neuchâtel, and four sites of the University of Applied Sciences Western Switzerland, HES-SO (Sion, Yverdon, St Imier and Fribourg) are participating.

The SwissCube will be designed and built by students, mostly in the framework of semester and master projects. Students will learn system engineering and concurrent design, and will be responsible for delivering, on time and on budget, complex sub-systems whose correct operation is essential to the success of the mission.

### REMOTE SENSING OF THE EARTH BY SATELLITES

The main objective of the presentation is to introduce the participants to the general concepts of remote sensing of the Earth by satellites. Several examples of existing or planned remote sensing satellites will be given, as well as the description of the main instruments used. The principal applications of data collected by such satellites for environment monitoring, meteorology, and retrieval of bio- and geophysical information will be detailed.

Committed to connecting the world



International  
Telecommunication  
Union