

LUXEMBOURG EARTH OBSERVATION AND INTEGRATED SPACE APPLICATIONS DAY

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SHORT HISTORY



Centre de Recherche Public
Gabriel Lippmann

1. 2008: Bourglinster
2. 2010: Bourglinster
3. 2012: Mondorf
4. 2018: Mondorf

Typology of presentations

Technological evolution

Number of participants/
companies

Big data



Deputy Prime Minister
Etienne Schneider

“For Luxembourg, the diversification of its economy is an everyday challenge. The **space sector is one of the priority sectors** that Luxembourg has constantly promoted since its entry into space business more than 25 years ago. The efforts to put in place the necessary measures to support the continued strengthening of its space sector clearly demonstrate the longlasting commitment of the Government”

SMART SPACE

New and innovative business opportunities



THE GLOBAL EARTH OBSERVATION SYSTEM OF SYSTEMS



**FUSION OF DATA FROM MULTI SOURCES FOR
INTEGRATED SPACE APPLICATIONS**

LIST & SMART SPACE

Harvesting
data

IT
infrastructure,
networks, IoT,
telecomm.

Transforming
data into
useful
information

Integrated Space
applications

collect

connect

communicate

LIST & SMART SPACE



Data analytics
image analysis
statistics, data-mining,
AI, ML, GIS, visualization



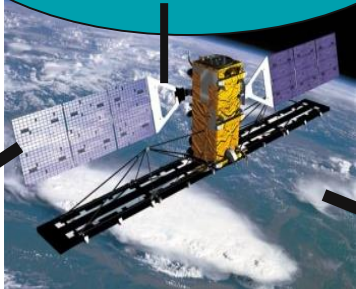
**Extraction of
variable of interest**



**Environment/
Civil security
applications**



Remote sensing
Hyperspectral, microwave
Active/passive



GNSS

telecom

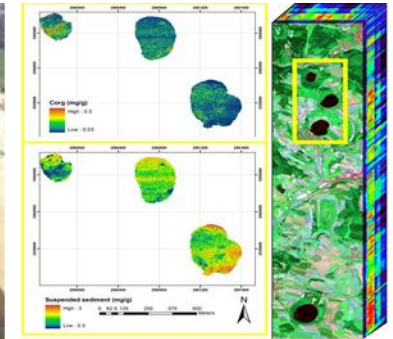
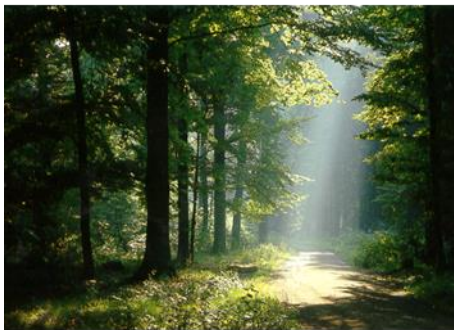
**Environmental
Modelling**

OBJECTIVES OF TODAY

- ❑ increase the awareness among users of the potential that space technologies offer
- ❑ provide a meeting platform to bring together researchers, service providers and users
- ❑ enhance the collaboration between Luxembourg's and the Grande Région's Earth observation community
- ❑ give an overview of ESA and EU Copernicus programmes
- ❑ present the Luxembourgish Copernicus Collaborative Ground Segment

OBJECTIVES

- demonstrate space applications in
 - environmental monitoring and management
 - crisis management
 - precision agriculture



OBJECTIVES

- demonstrate new technological approaches
 - satellite constellations
 - drones
 - (big) data analytics



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