

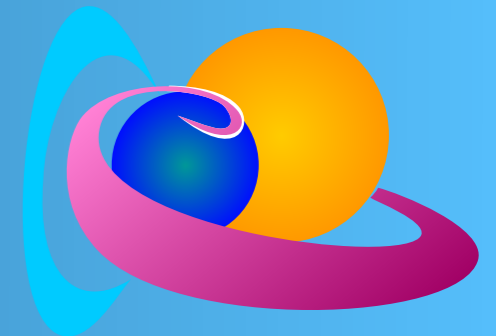
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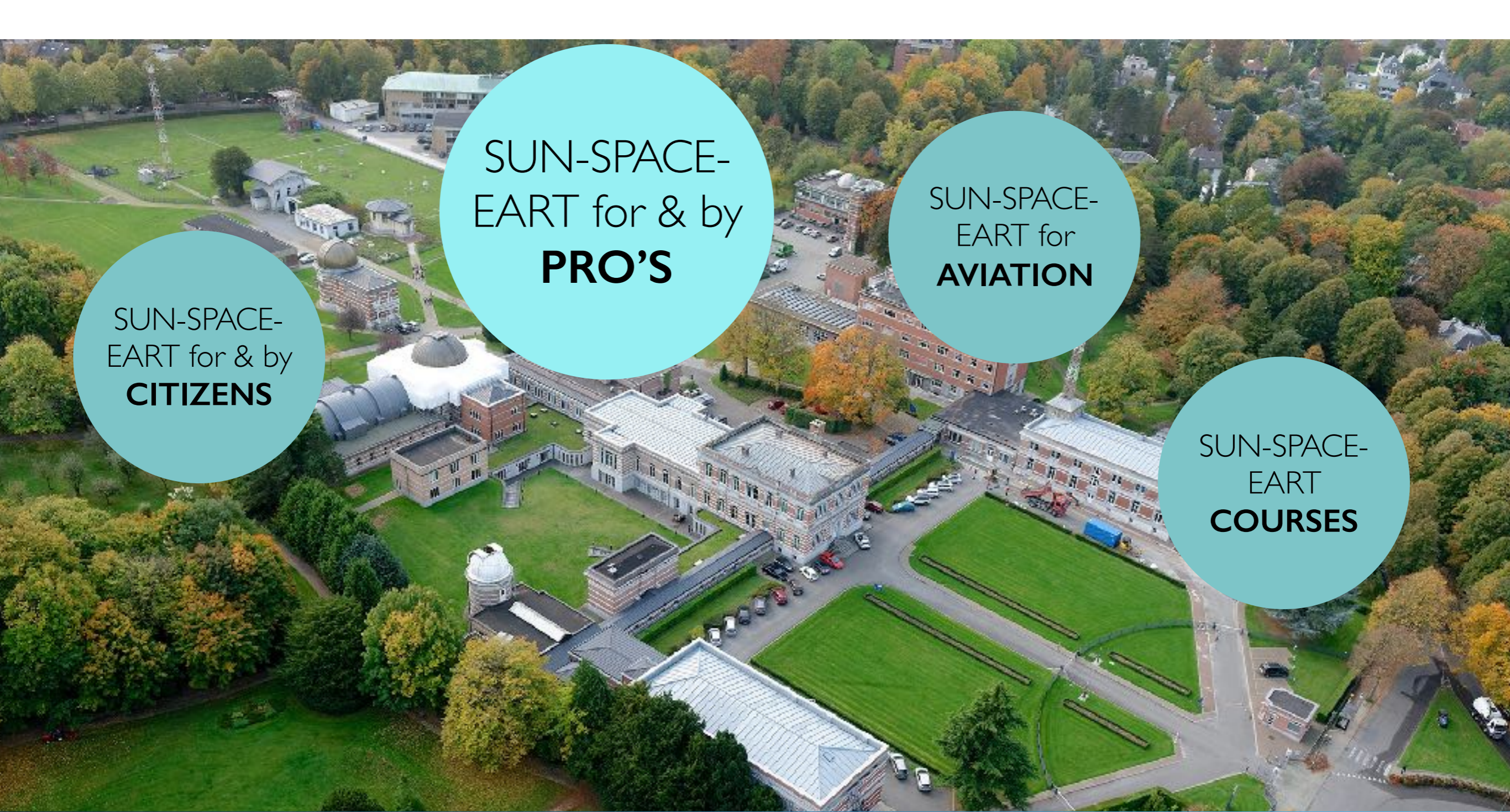
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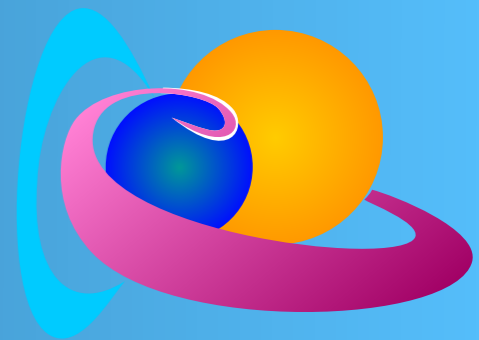
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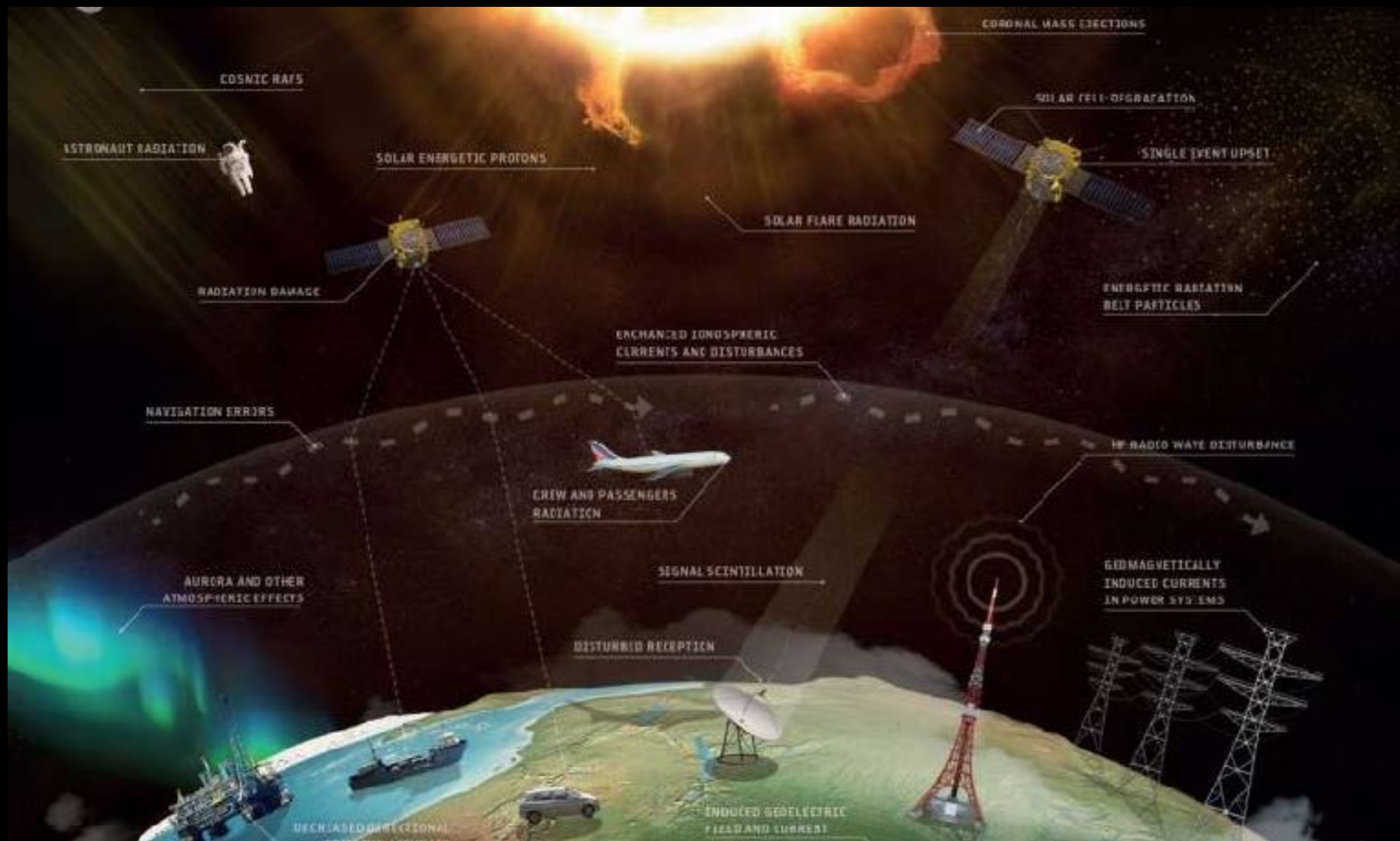
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# SPACE WEATHER



The Sun drives our planet's weather & climate. The exposure of regions on Earth to sunlight is a key component in weather & climate. It changes on a daily and seasonal basis. Solar energy is pumped into our atmosphere and drives the weather, potentially causing storms.

Similar to this, we have space weather and space climate. Besides sunlight entering our atmosphere, solar mass continuously flows along the magnetic shield surrounding Earth. Our atmosphere and magnetosphere can respond in a dramatic way to abrupt changes in the continuous emittance of solar light and mass. A solar storm initiates space weather processes which impact satellites, navigation, radio communication and can cause an increase of radiation levels. Solar storms can interfere with long-distance pipelines and electric cables.

# EUROPEAN SPACE WEATHER WEEK



Scientists need to talk to other scientists, work together and show their research results to each other. These conversations help them to adjust their research and get new insights. The methods to collect data and observations are usually not standardised and can be almost never just taken from the shelf. Innovative and 'out of the box' ideas are often necessary. Interaction between scientists is crucial. A next step is to valorise our research by building a bridge between science and applications & services.

The place where scientists meet are conferences. During the annual European Space Weather Week (ESWW), people discuss how to deal with space weather in science, observations, services and technology.

The STCE is a key player in the organisation of ESWW.



# 16TH EUROPEAN SPACE WEATHER WEEK

18 - 22 November 2019, Liège - Belgium

All About Space Weather  
Science - Services - Technology

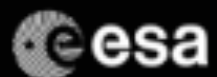


#### Programme Committee

P. Vanlommel (Chair, STCE), M. Bisi (Vice Chair, STFC), R. Van der Linden (LOC-Chair, STCE), L. Barnard (Univ of Reading), A. Belhaki (NOA), P. Beck (RAS), V. Bothmer (UGOE), E. Clarke (BGS), A. Glover (ESA), D. Heynderickx (DH Consultancy), D. Jackson (Metoffice), P. Jiggins (ESA), G. Lawrence (RHEA), J. Liliensten (CNRS-IPAG), J.-P. Luntama (ESA), D. Pitchford (SES), V. Pierrard (BIRA-IASB, UCL), S. Poedts (KU Leuven), N. Vilmer (OBSPM).

#### Local Organisation

STCE - Anne, Bram, Elke, Katinka, Kevin, Koen, Laurence, Olivier, Olivier, Petra, Ronald, Sarah



JSWSC



SWWT

KU LEUVEN

417 participants  
From 40 countries  
worldwide

17 sessions  
on Science &  
Services

21  
Interactive  
Poster

21 Topical  
Discussion  
Meetings

Tutorial  
User Guide  
to SWx  
services

Private  
Business  
meetings

13 Fair stands

Casino  
Dinner

Live Space  
Weather  
Forecast

Contributions  
online

Business  
Excursion

Keynote  
Lecture

Science  
& Beer

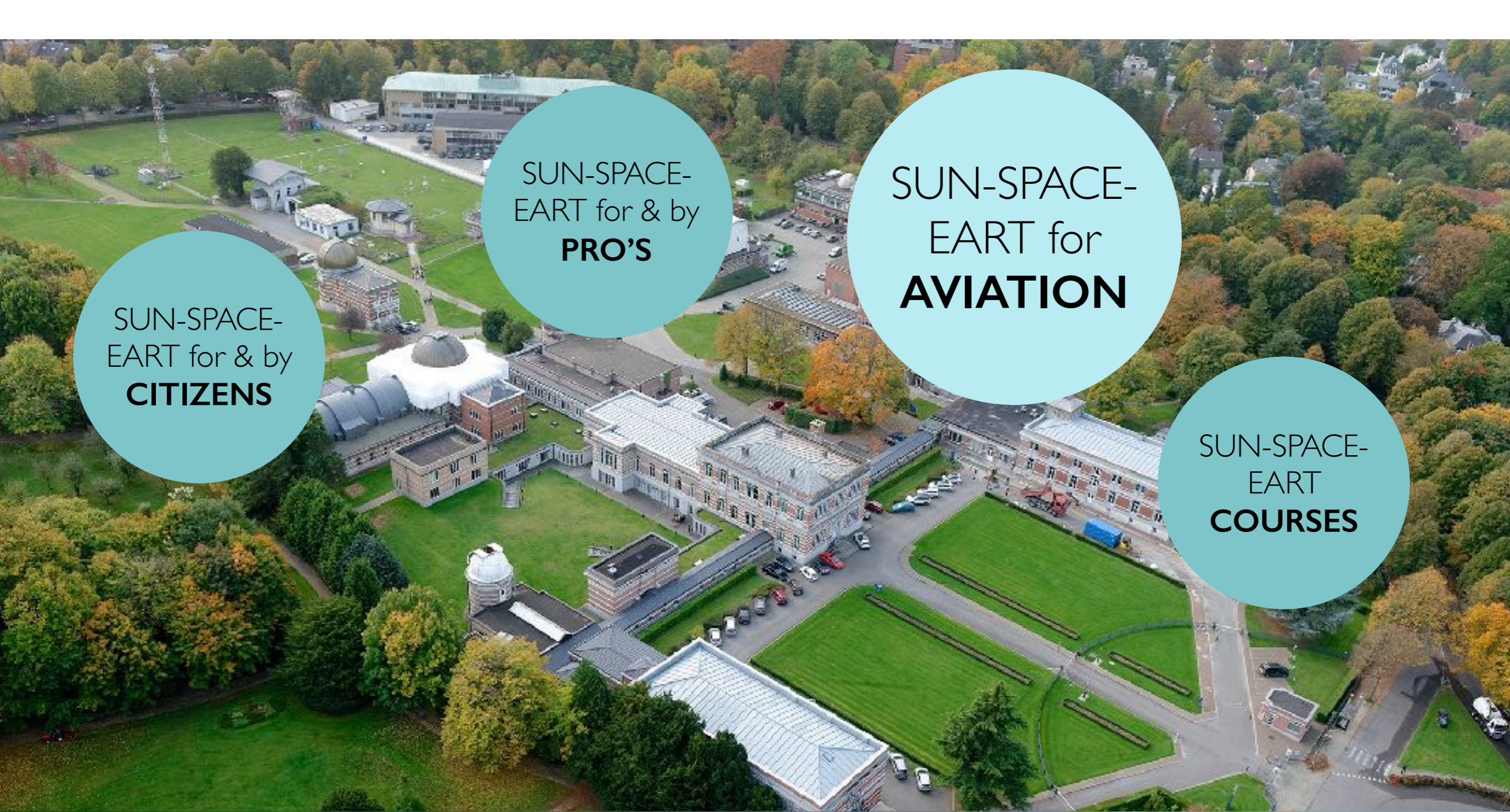
ESWW Medals

Contest  
Design 4 a  
Ticket

> 20 000  
animals  
watching at the  
welcome  
reception

Music  
after  
Work

Image by Anastasiia Kaufman



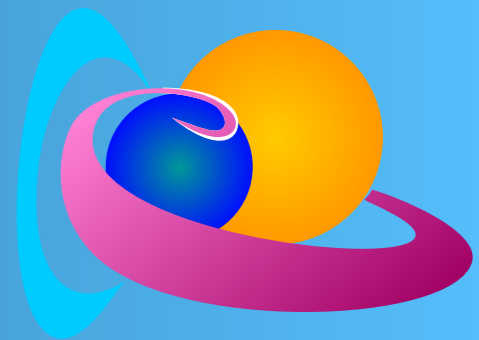
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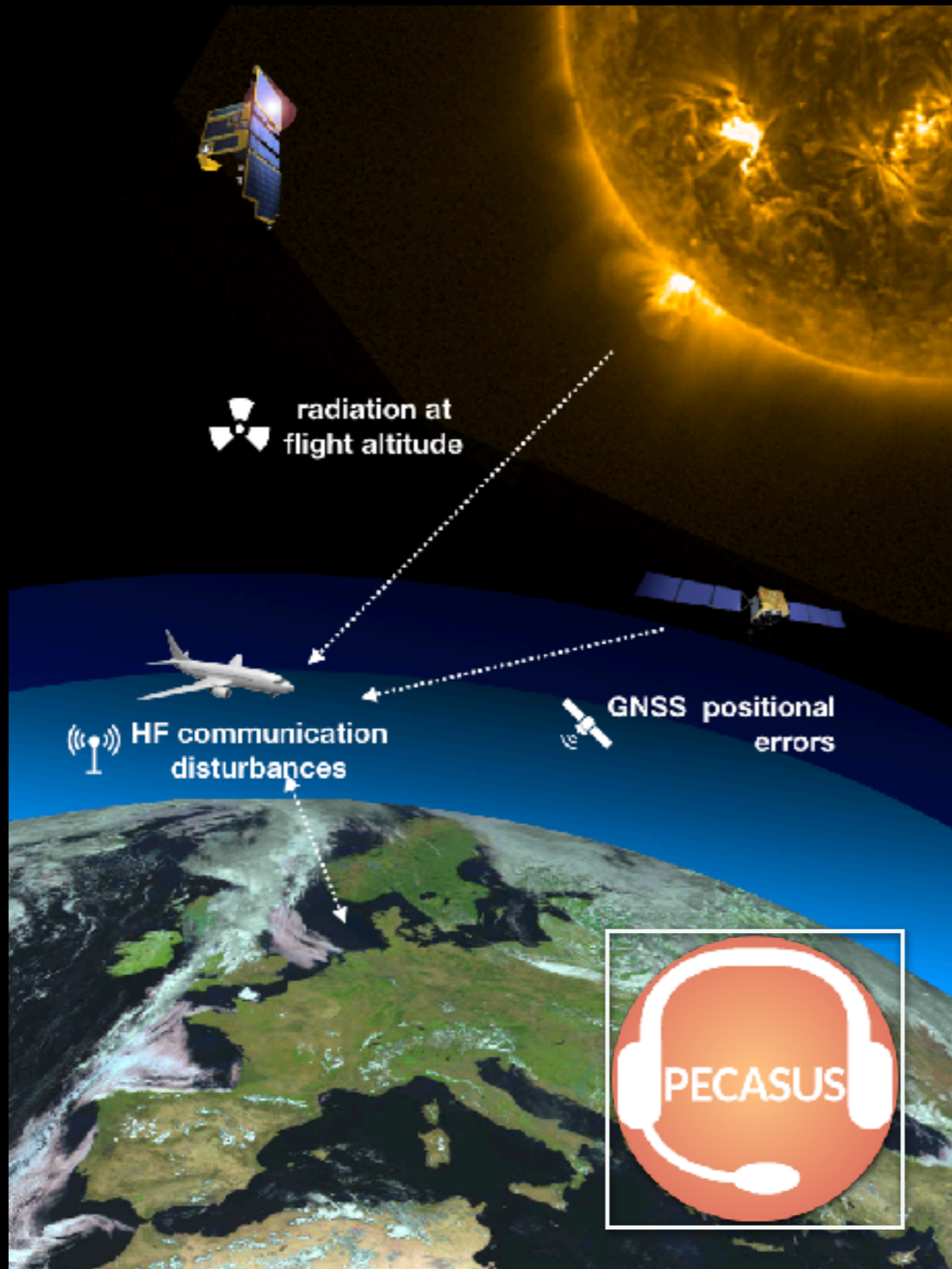
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# SERVICES for AVIATION



## PECASUS

Partnership for Excellence in Civil Aviation SWx User Services

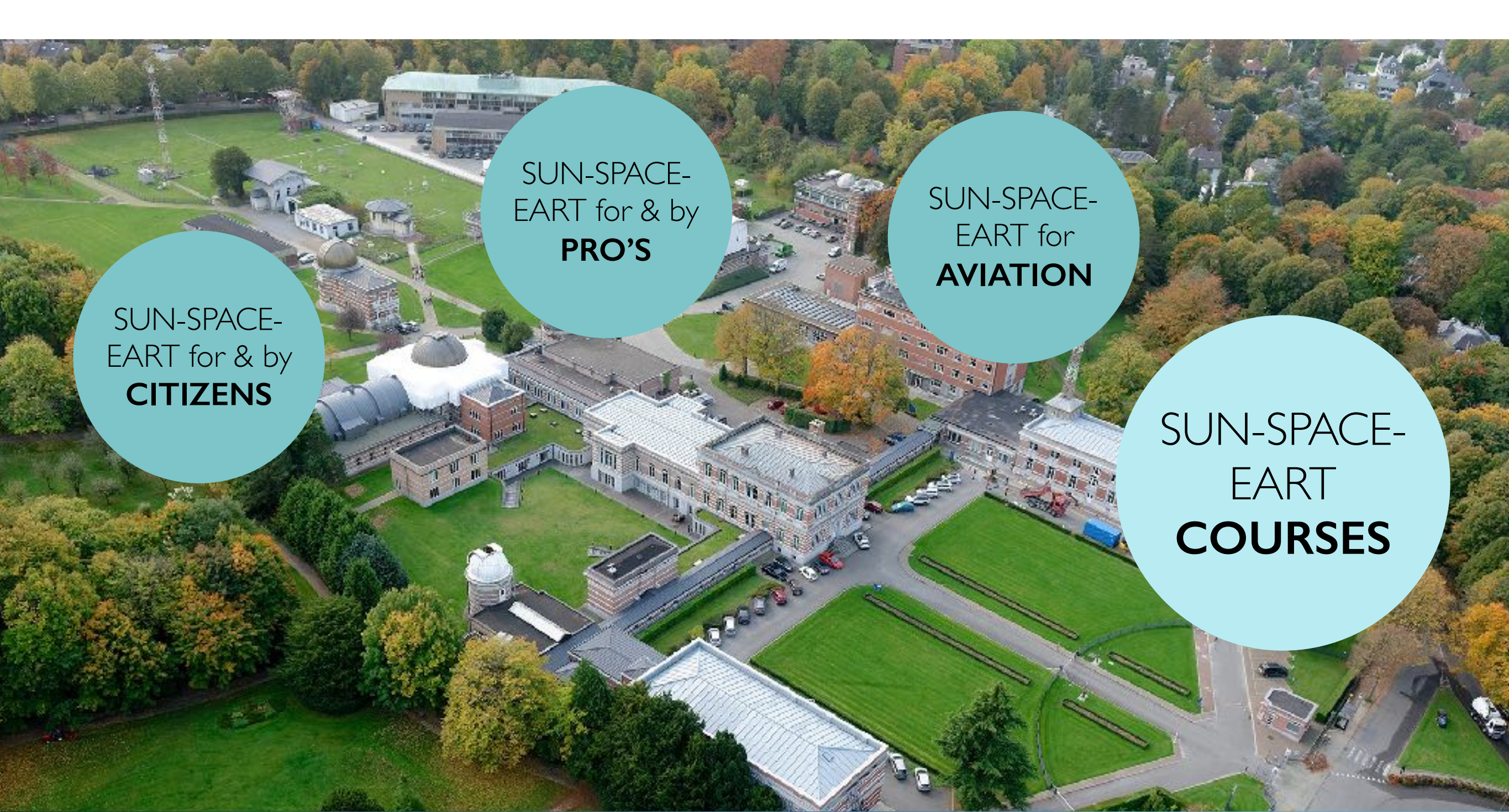
Safety is an important concern in aviation. Planes need a well functioning navigation and communication system and avoid radiation impacting the health of people onboard.

Belgium and 9 other countries joined together to form PECASUS, a Space Weather Service Centre that alerts the International Civil Aviation Organization (ICAO) in case of nefast impact on planes in flight due to solar storms, 24/7.

The STCE collects data & measurements, analyses and interprets them. In case of an impact on the aviation systems or health, the STCE operator gives an advise following a strict protocol.

The STCE stands for the high quality technical and scientific support.

At your service!



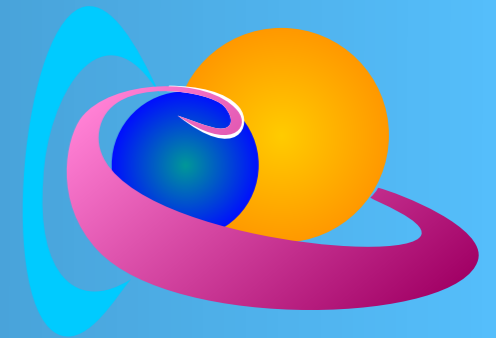
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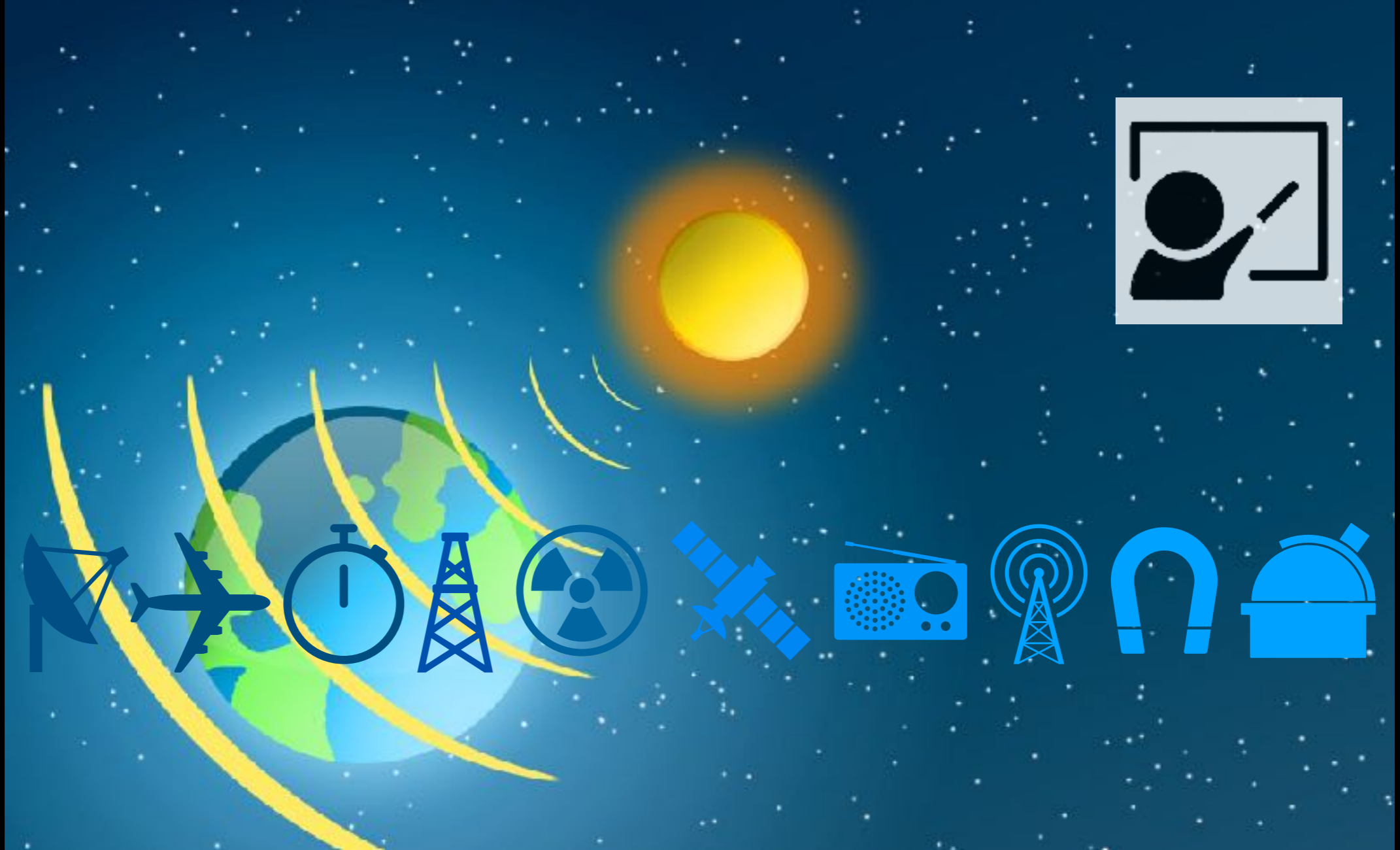
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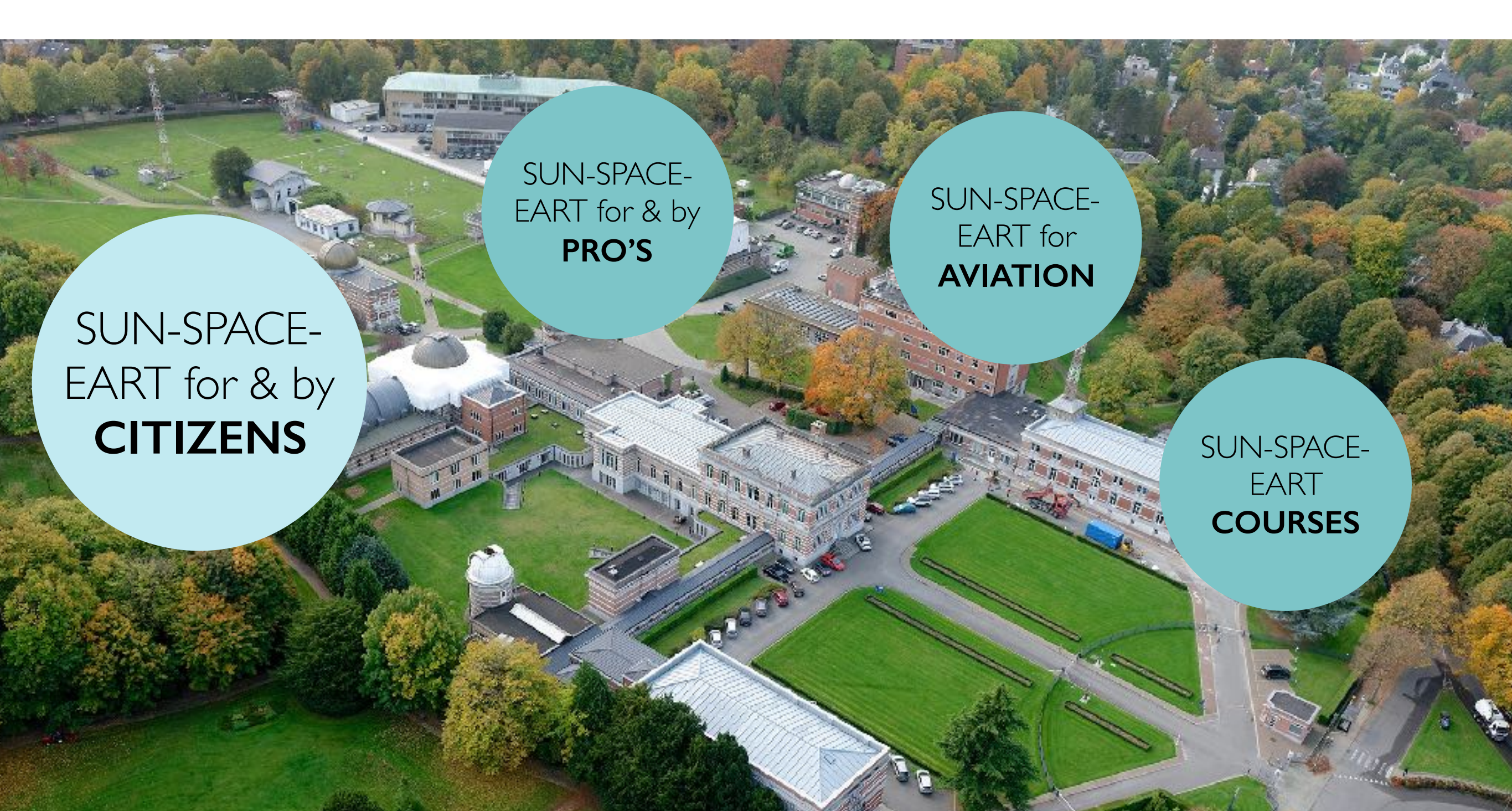
# SPACE WEATHER COURSES



Businesses possibly impacted by Space Weather want to learn on this natural hazard and increase as such their resilience. More and more nations started to build a special Space Weather room, similar like a weather room. All the people working in these Space Weather related environment need specific competences and skills.

The STCE offers 'Space Weather Courses'. The course is tailored to the needs and level of the participants. Space weather imposes different impacts on aviation, telecommunication, solar researchers, space weather forecasters, space weather operators.

The STCE has to running examples: SWIC for Space Weather Introductory Course and a very specific PECASUS training.



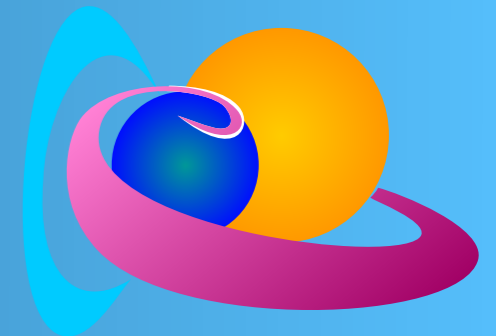
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# CITIZENS

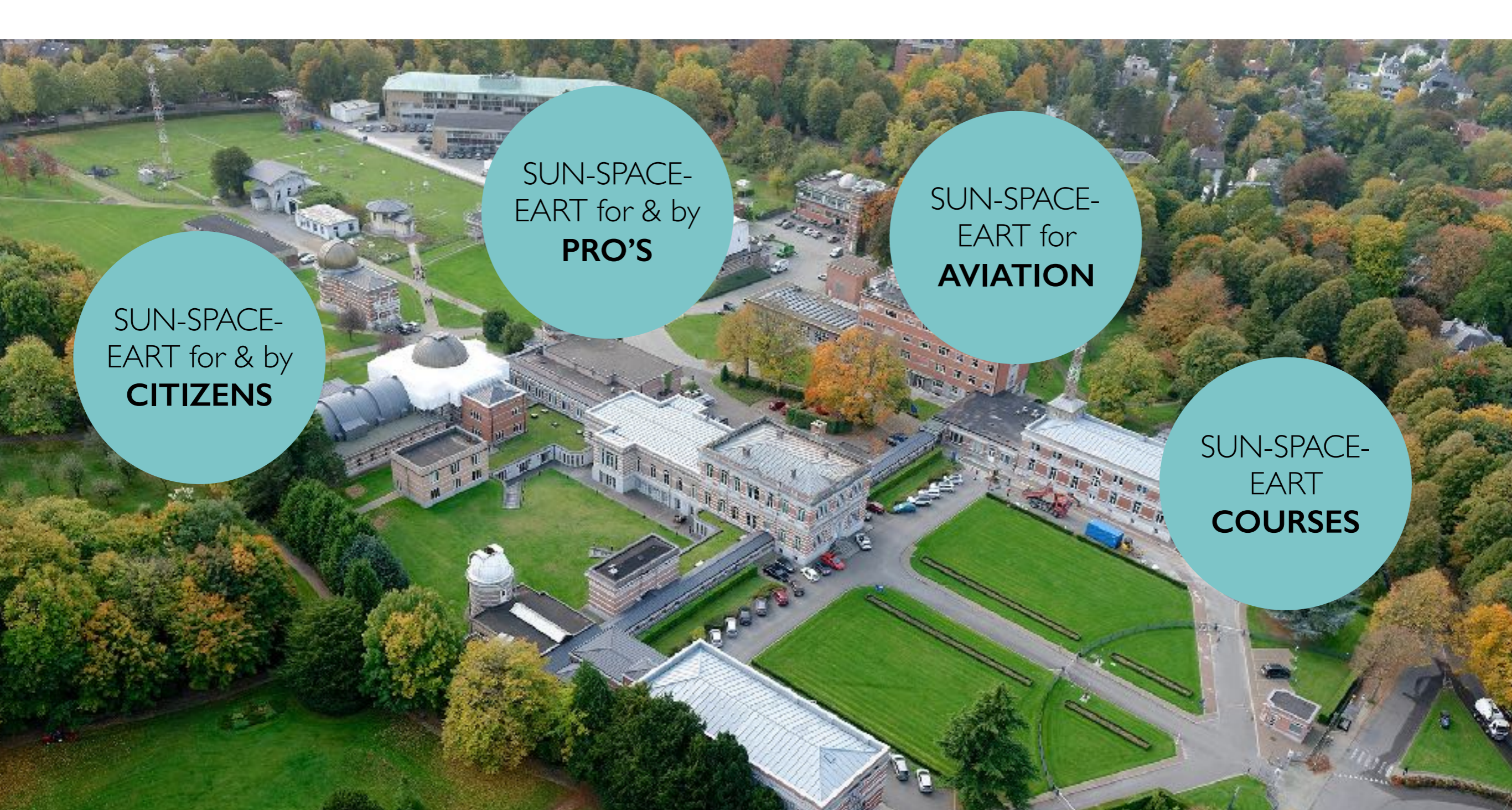


Connecting to people with a touch of science

Help us counting Sunspots - Our satellite PROBA2 10 years in space and in good health - Preparing for a trip to the Sun: getting our EUI camera ready

People want to understand what happens around them, what they see, why things are happening. Understanding is the first step in getting a grip on situations and lives. Humans like to be in control. Finally, we want to improve and make things better.

The STCE wants to spread the sun-space-earth story that its researchers are looking for every day. It is a story that impacts our daily lives. Our researchers are enthusiastic to share the knowledge and beauty hidden in the STCE research.



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