



EO College – The EO Education platform

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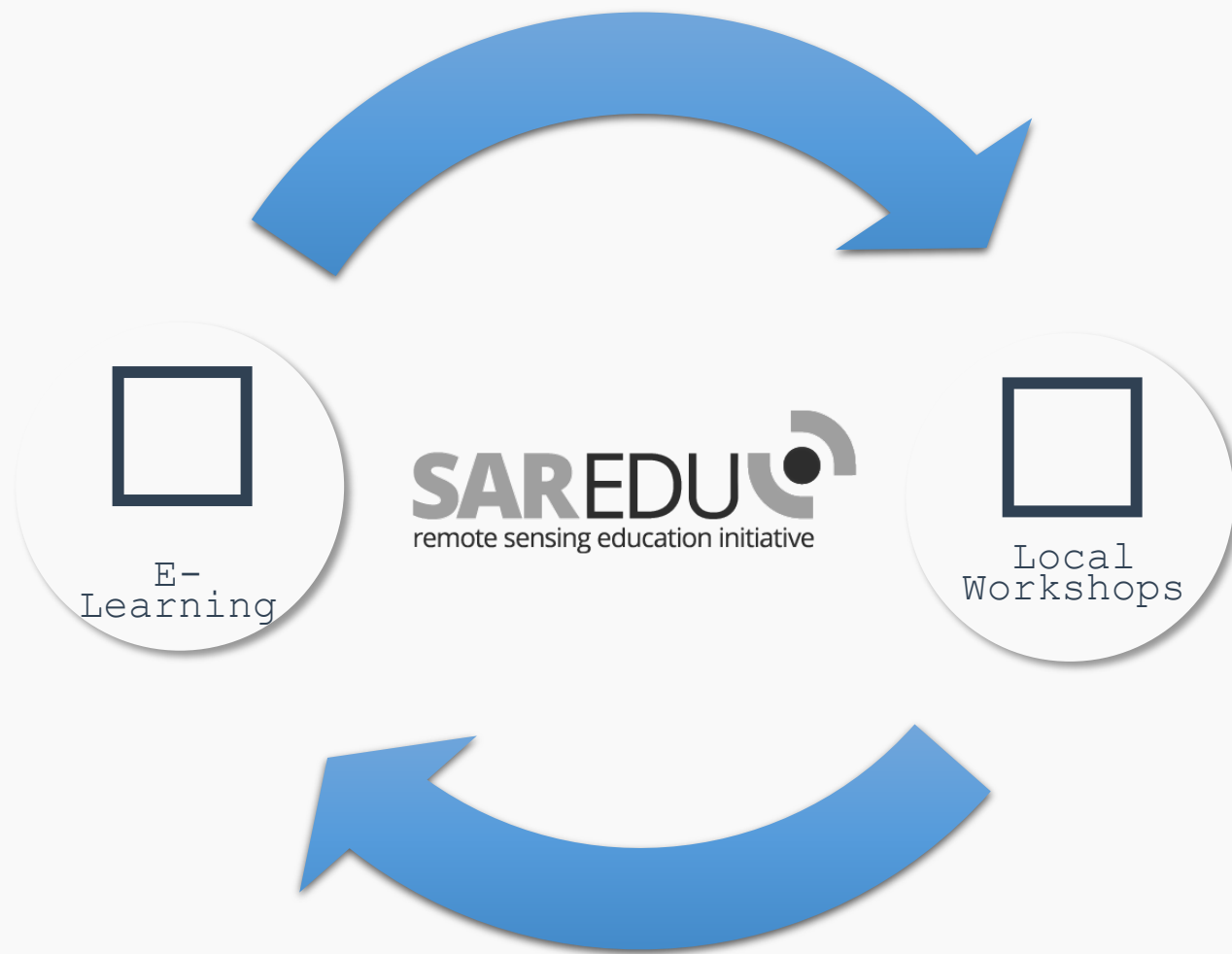
Christian Thiel,

Christiane
Schmullius



EIOIS









Local
Traini
ng



SAREDU
remote sensing education initiative

eo college

Local
Traini
ng



SAREDU
remote sensing education initiative

SARbia
n

eo college

Local
Traini
ng



ACTIVITIES

Local training



Participants of the Summer School 2013 @ Dornburg Castle, Jena.

- o Established in 2013

- o Yearly events

- o Focus on Applications

- o Interdisciplinary exchange



SRSE37
7-10 FEBRUARY 2017

04.-07.
May 2017

SAR Training

presented by:
Working Group on Capacity Building
and Data Democracy

Registration:
saredu.dlr.de/saredu-ceos-summerschool/

Image courtesy of ESA

CEOS

SAR Training Workshop

10 - 14 October 2016
University of Zambia
Presented By:

The CEOS Working Group on Capacity Building & Data Democracy

Copernicus@work

Nationales Forum für Fernerkundung
und Copernicus vom 14.-16. März 2017 in Berlin

www.d-copernicus.de



Date	Location	Event
2013	Jena, Germany	I. SAR-EDU Summer School
2014	Berlin, Germany	National Copernicus Forum
2014	Jena, Germany	II. SAR-EDU Summer School
2014	Toluca, Mexico	AEXA Workshop
2015	Jena, Germany	III. SAR-EDU Summer School
2016	Lusaka, Zambia	CEOS Workshop
2016	Jena, Germany	IV. SAR-EDU Summer School
2017	Libreville, Gabon	CEOS Workshop
2017	Tshwane, South Africa	SAR Workshop @ISRSE
2017	San Jose, Costa Rica	SAR Workshop
2017	Jena, Germany	V. SAR-EDU Summer School
2017	Stellenbosch, South Africa	SAR-EDU Workshop
2018	Jena, Germany	VI. SAR-EDU Summer School

In service of:



Working Group on Capacity Building
& Data Democracy



ACTIVITIES

SARbian



eo-college.org/sarbian



- ESA SNAP
- ASF MapReady
- pyroSAR

GENERAL

- DORIS
- SNAPHU
- PyRAT

InSAR

- PolSARPro 5.0

PolSAR



- ESA SNAP
- ASF MapReady
- pyroSAR

GENERAL

- QGIS
- GRASS GIS
- GDAL

GIS



- DORIS
- SNAPHU
- PyRAT

InSAR

- R (r-base)
- RStudio
- abind
- jpeg
- mapproj
- raster
- rgdal
- rgeos
- shiny
- sp

R

- PolSARPro 5.0

PolSAR



- ESA SNAP
- ASF MapReady
- pyroSAR

GENERAL

- DORIS
- SNAPHU
- PyRAT

InSAR

- PolSARPro 5.0

PolSAR



- QGIS
- GRASS GIS
- GDAL

GIS

- R (r-base)
- RStudio
- abind
- jpeg
- mapproj
- raster
- rgdal
- rgeos
- shiny
- sp

R



- Python 2 and 3
- matplotlib
- numpy
- PyRAT
- pyroSAR
- scipy
- spatialist

PYTHON

- Octave
- Computational Geometry
- Image Processing
- Linear algebra
- Mapping Functions
- netcdf
- The NaN-toolbox

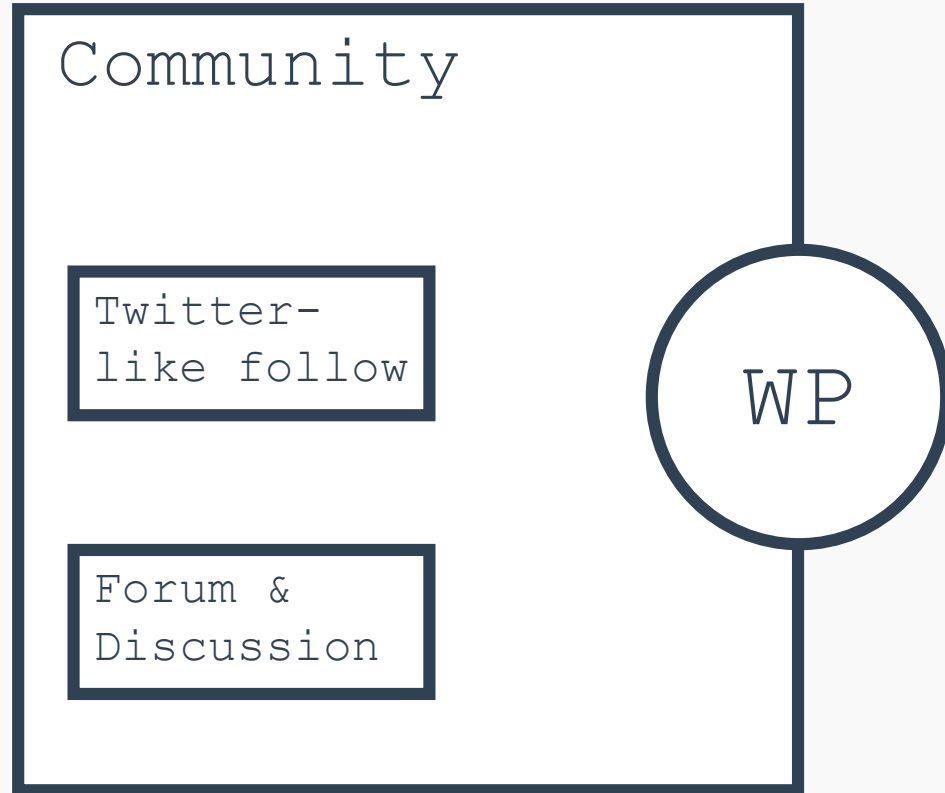
OCTAVE

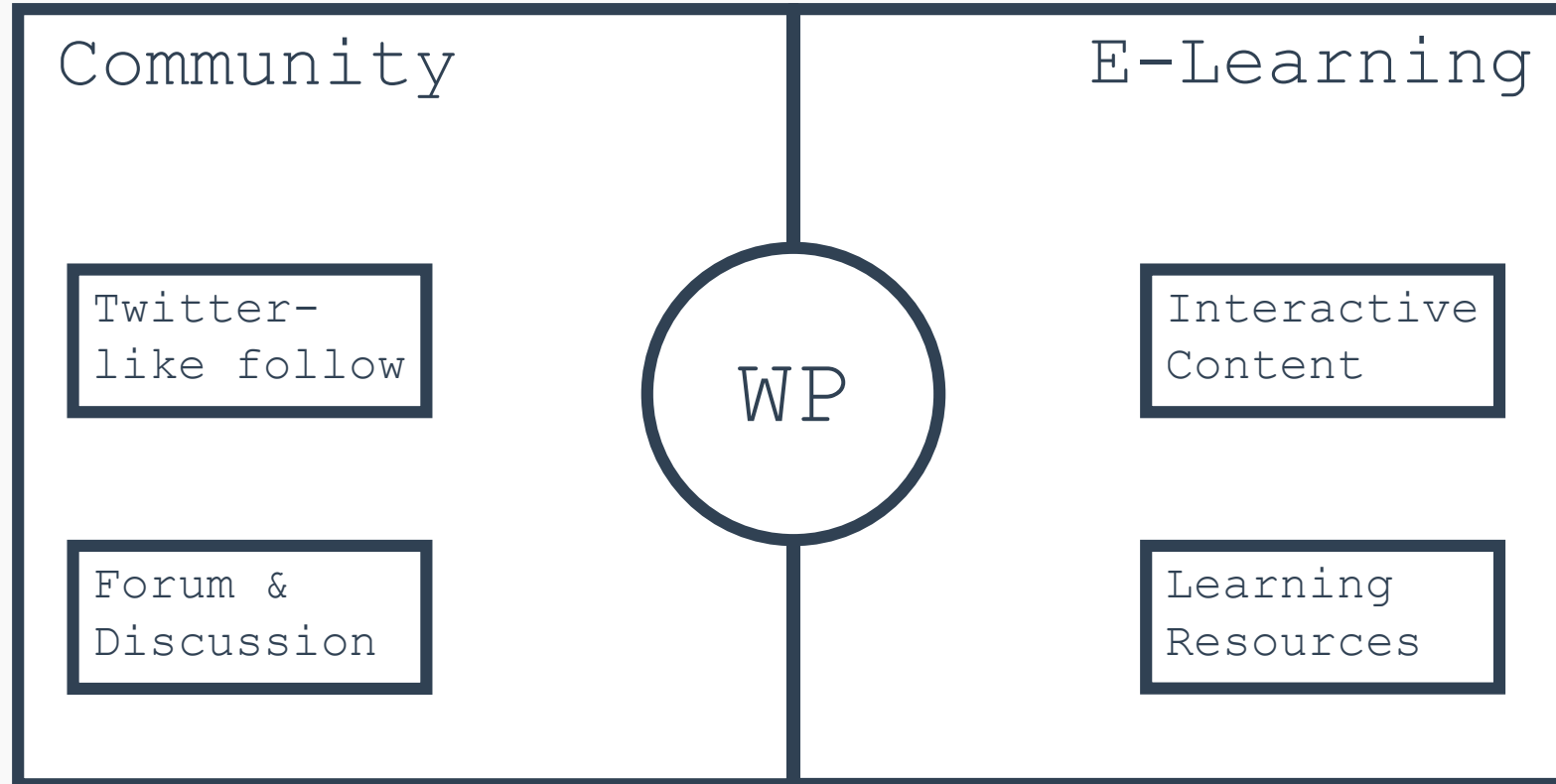


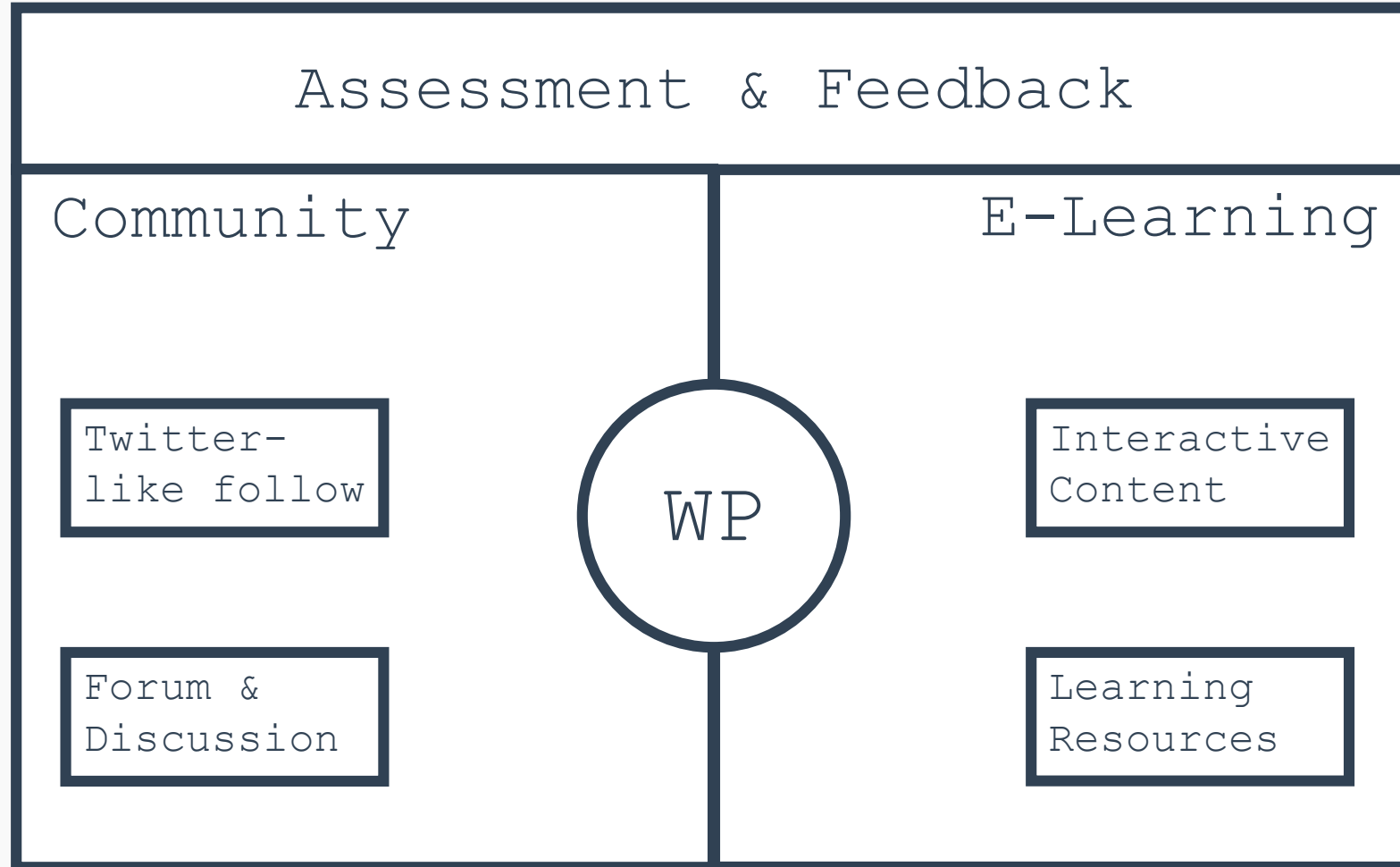
ACTIVITIES

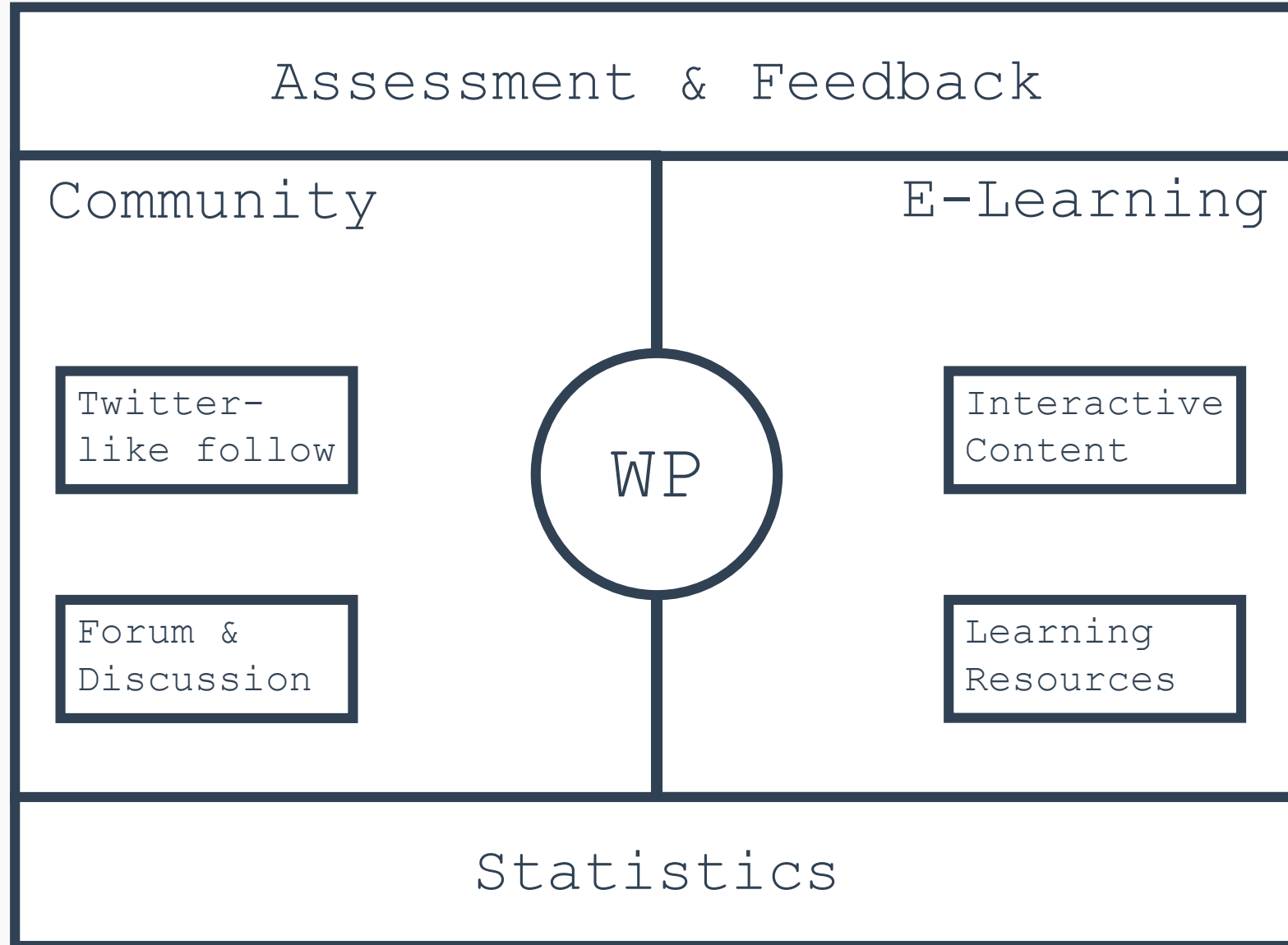
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ECHOES IN SPACE

Introduction to Radar Remote Sensing

FREE OF CHARGE

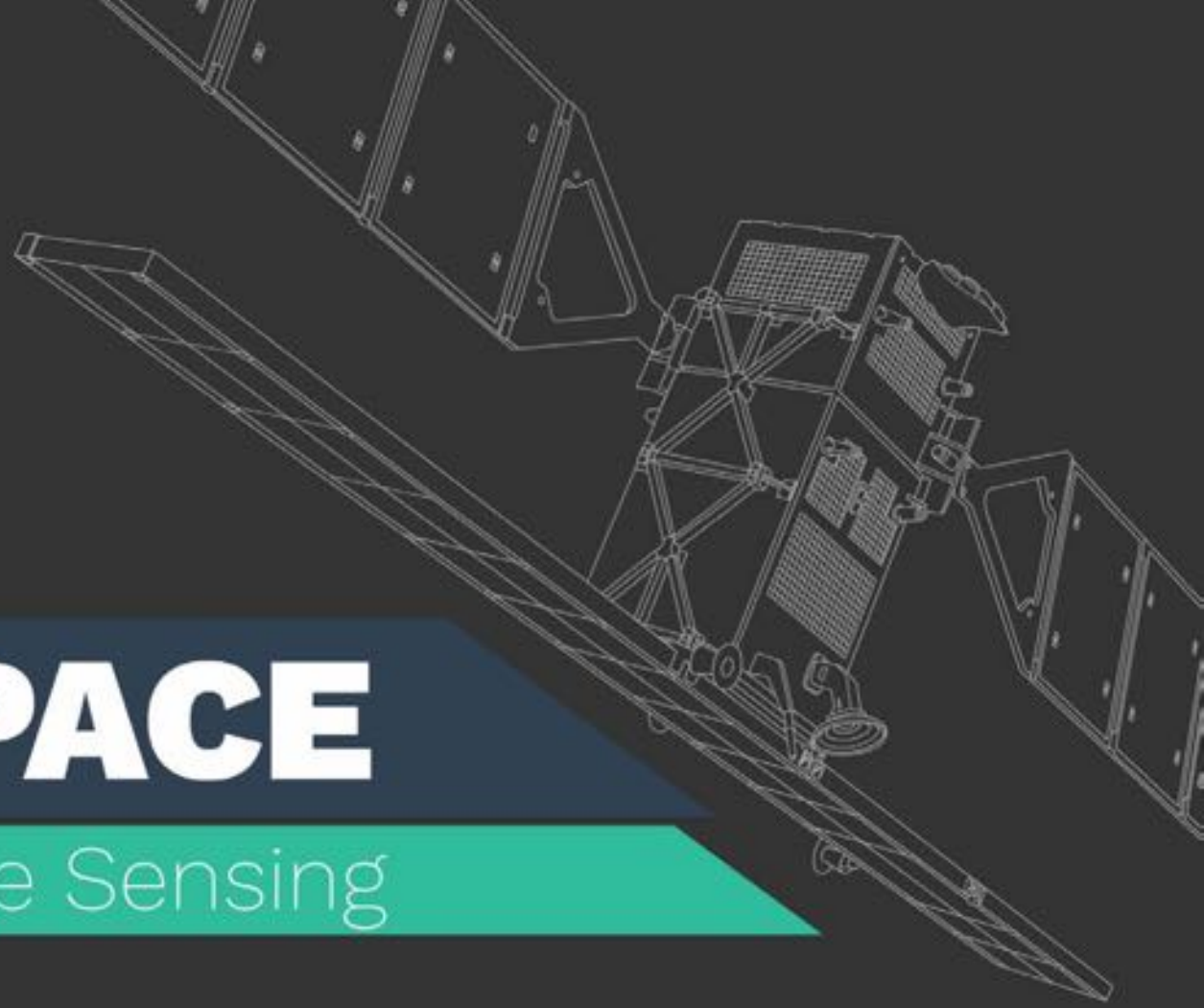
OPEN TO ANYBODY

SELF-PACED LEARNING

START: February 2019

5 LESSONS

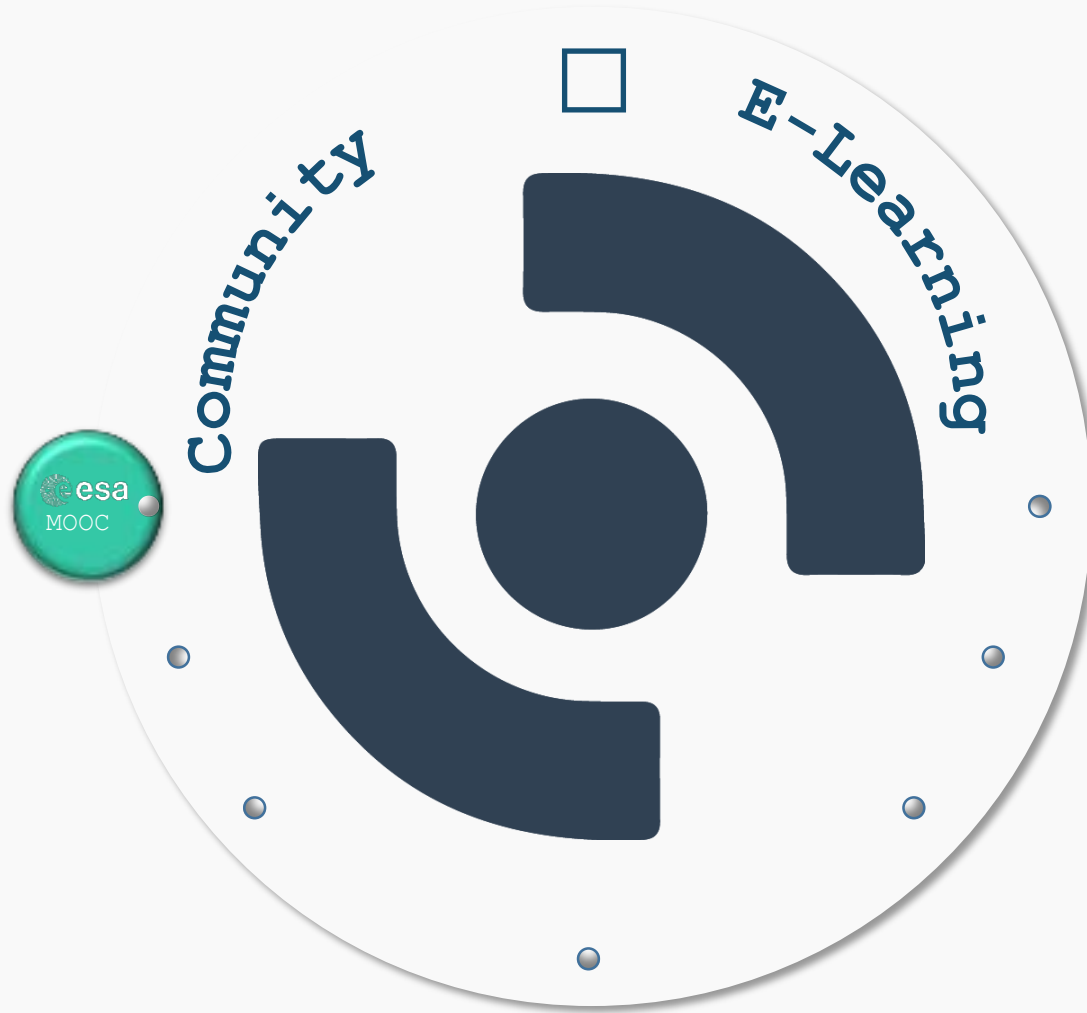
CERTIFICATE FOR COMPLETION



ECHOES IN SPACE

Introduction to Radar Remote Sensing

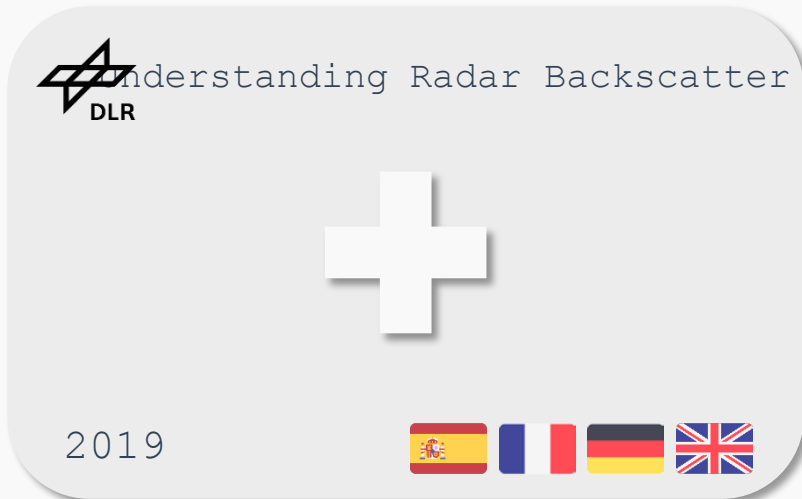
eo-college.org








FUTURE PLANS

EO College





Massive Open Online Courses

-  Basic **Radar** Course
-  Advanced Radar Courses
-  Courses on SDGs ,**Zero Hunger**‘ & ,**Climate Action**‘
-  Courses on **Land** applications



-  Available
-  In Production
-  Proposed

Learning resources

-  Radar remote sensing
-  **Hyperspectral** remote sensing
 - Material under **Creative Commons** License

Aim

- Creation of a **central hub** for EO eLearning
- Creation of an **ecosystem** of EO MOOCs



-  Launch 2017
-  > 8.500 registered users
-  > 25.000 h spent on page
-  > 750.000 pageviews



RESEARCH & VISION eLearning in the context of EO



Questions:

- How can the quality of MOOCs be measured?
- Which web tools make learning most effective?
- How can MOOCs be used sustainably within the EO context?

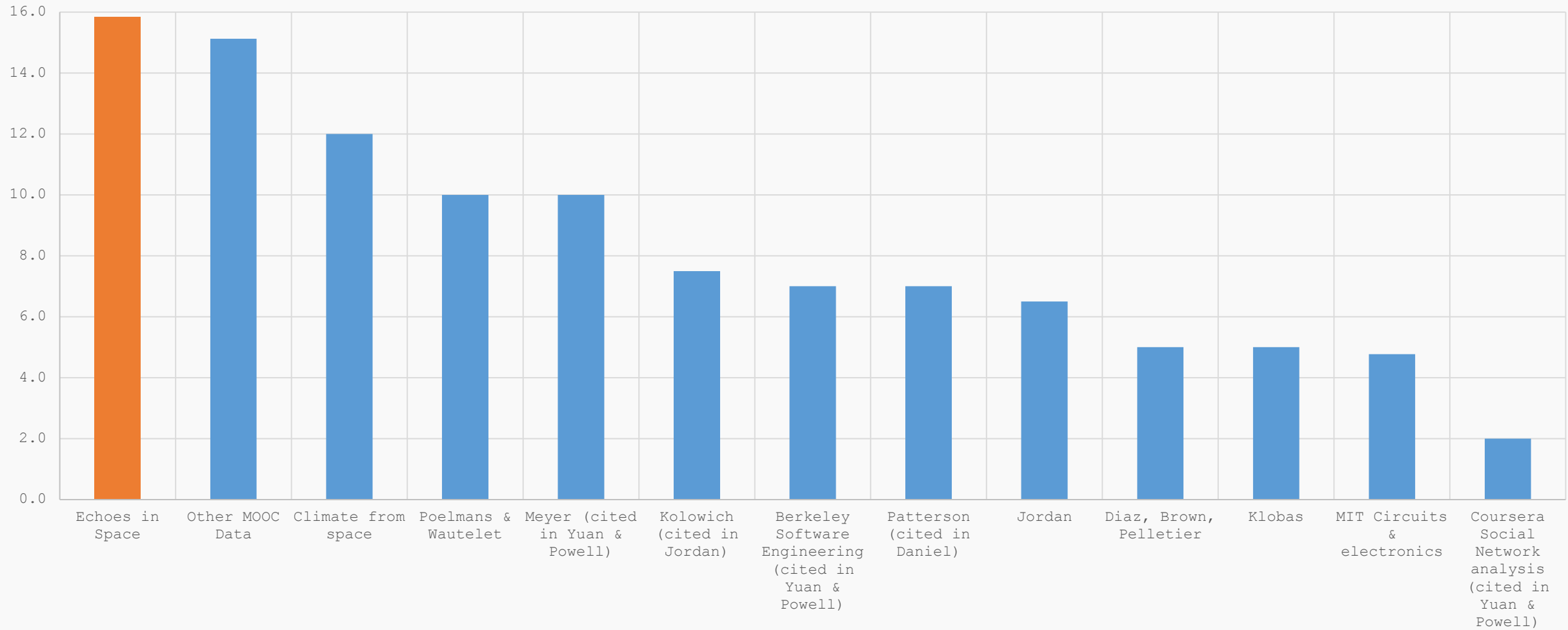


Questions:

- How can the quality of MOOCs be measured?
- Which web tools make learning most effective?
- How can MOOCs be used sustainably within the EO context?

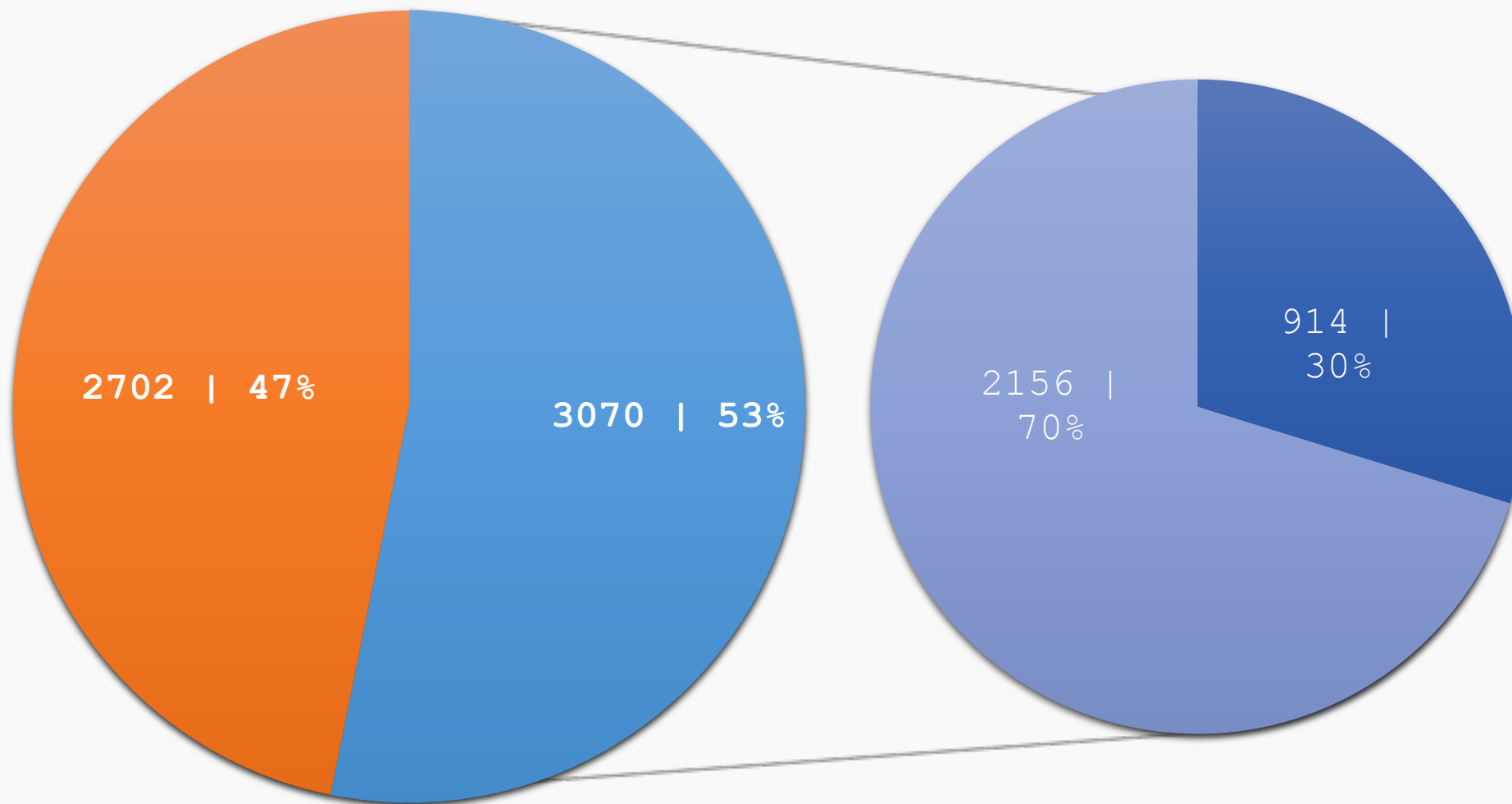


MOOC Completion Rates (% of enrolled users)





User completion rates



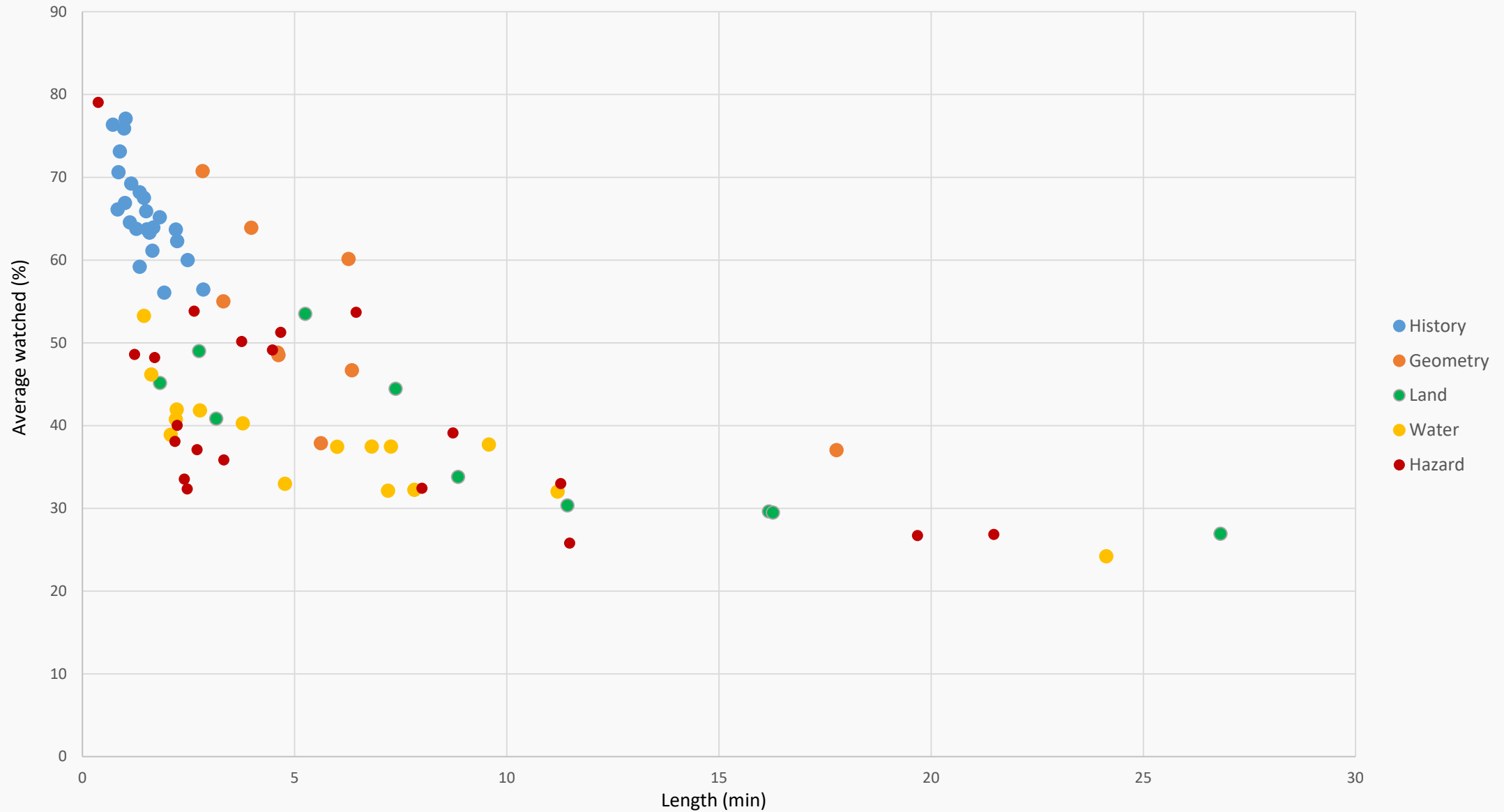
Registered Users	5771
Started Course	3070
Not started Course	2702
Finished Course	914
Not finished course	2156

Not started

Started

Not finished

Finished





Questions:

- How can the quality of MOOCs be measured?
- **Which web tools make learning most effective?**
- How can MOOCs be used sustainably within the EO context?



Hypothesis:

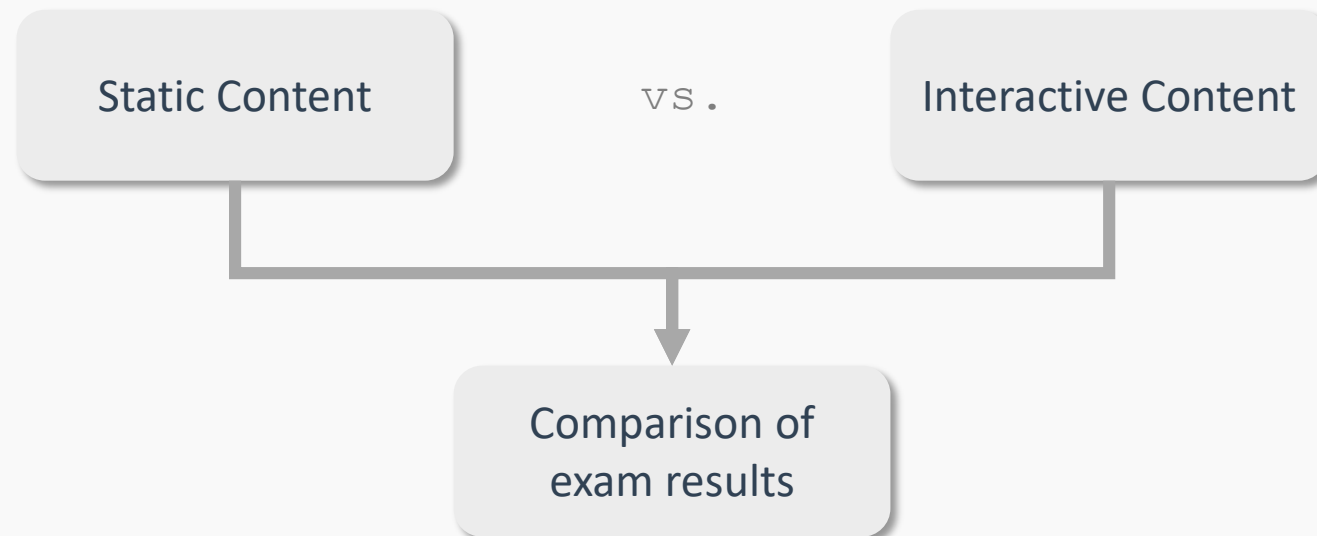
Interactive tools increase learning potential compared to static content.



Hypothesis:

Interactive tools increase learning potential compared to static content.

Experiment:





Questions:

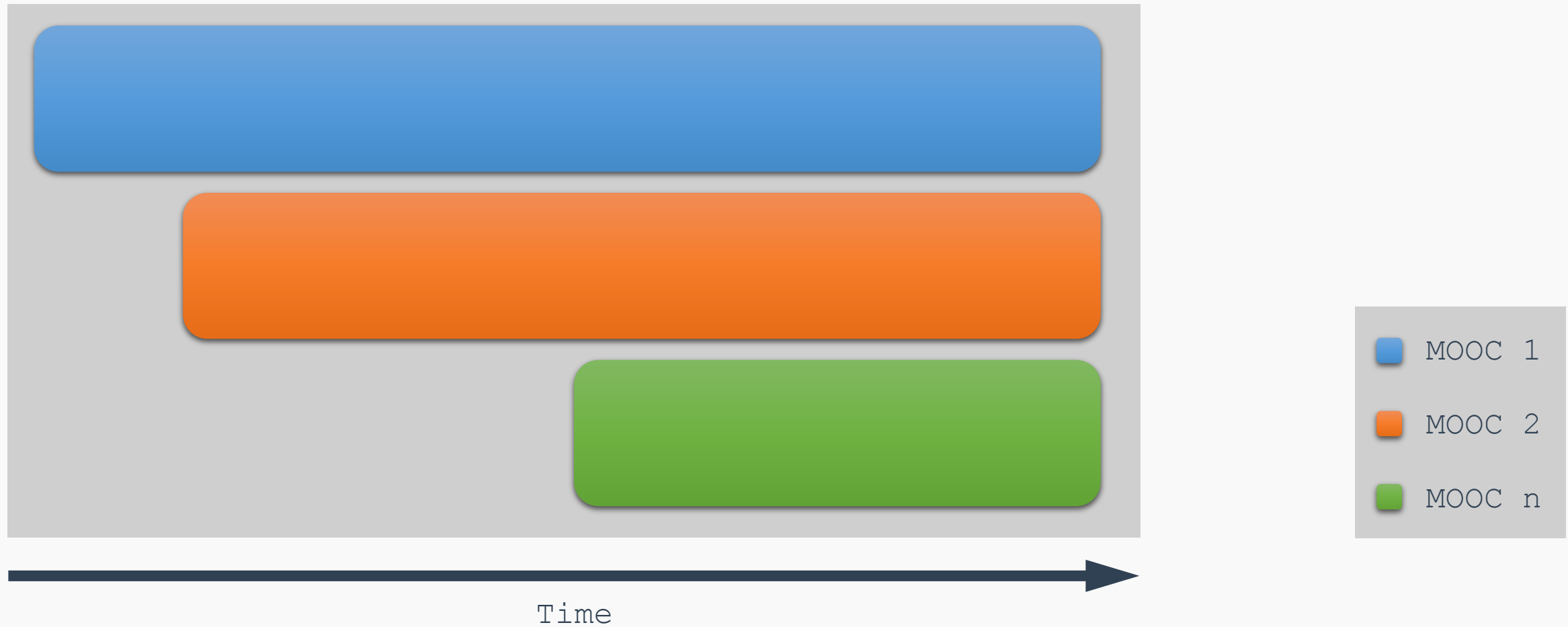
- How can the quality of MOOCs be measured?
- Which web tools make learning most effective?
- How can MOOCs be used sustainably within the EO context?



How can MOOCs be used sustainably within the EO context?

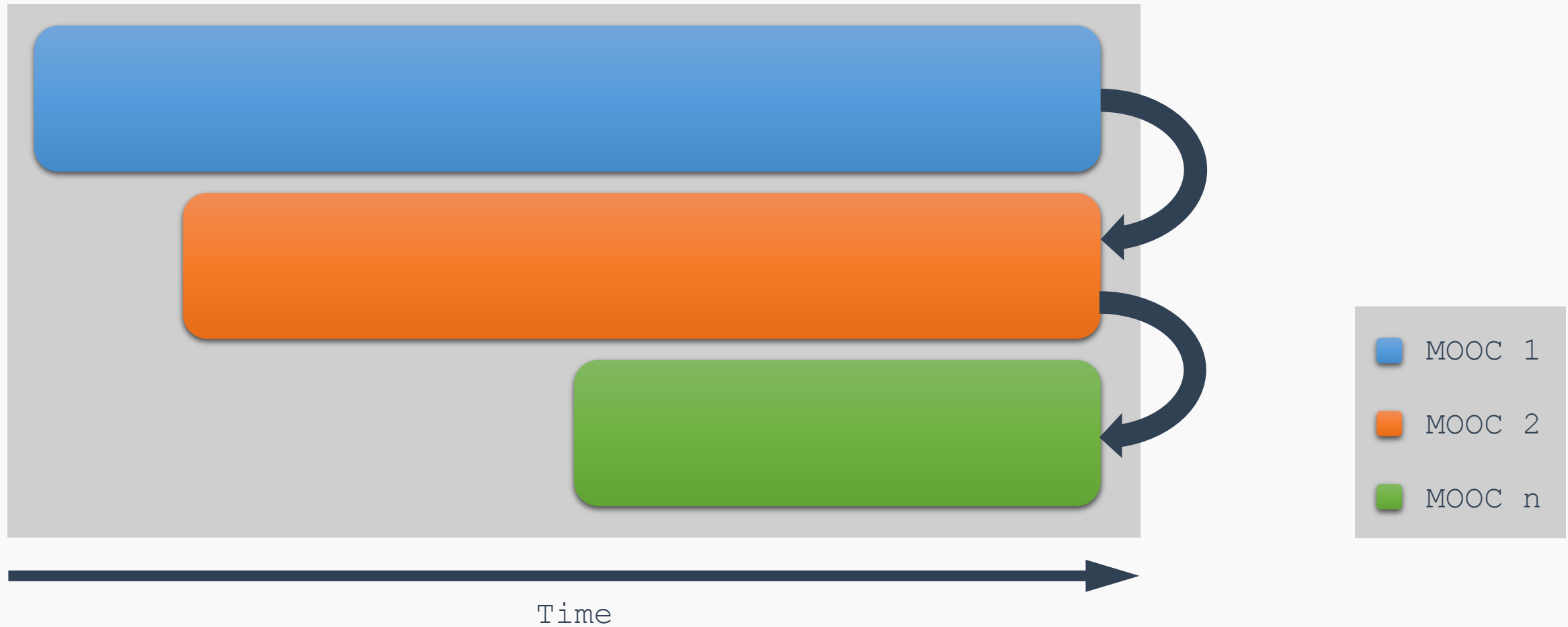


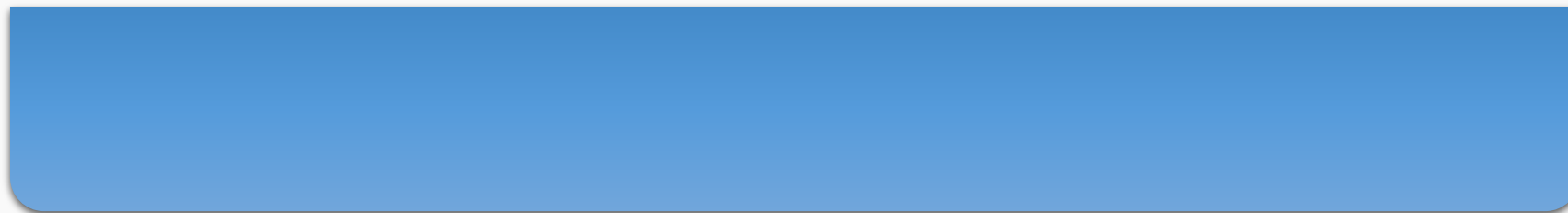
- MOOC 1
- MOOC 2
- MOOC n








How can MOOCs be used sustainably within the EO context?





-  MOOC 1
-  MOOC 2
-  MOOC n



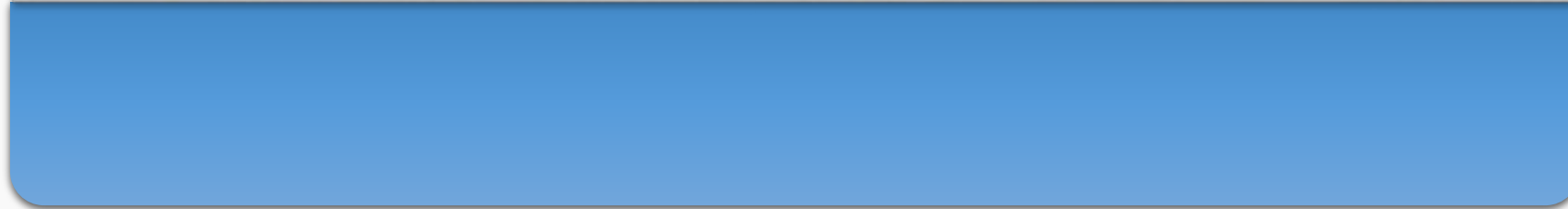
How can MOOCs be used sustainably within the EO context?




-  MOOC 1
-  MOOC 2
-  MOOC n



How can MOOCs be used sustainably within the EO context?



-  MOOC 1
-  MOOC 2
-  MOOC n



Get in touch



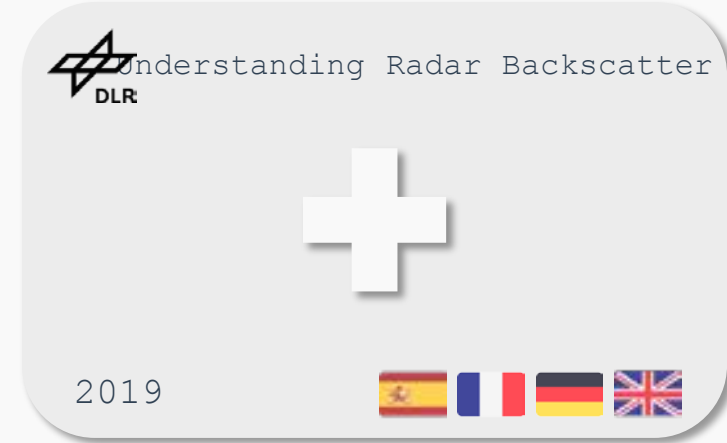
Register now: eo-college.org



Register now: eo-college.org

Your MOOC
on
EO College
[eo-college@uni-](mailto:eo-college@uni-jena.de)

jena.de



Register now: eo-college.org



[jena.de](mailto:eo-college@uni-jena.de)



github.com/EO-College/sarblan



eo-

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Department for Earth Observation

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