



# Teacher's Attitude towards EO

Benefits and Barriers of different EO  
Approaches and Applications in Schools

J. Keller, M. Petersen, C. Plass & A. Siegmund



## Spatial

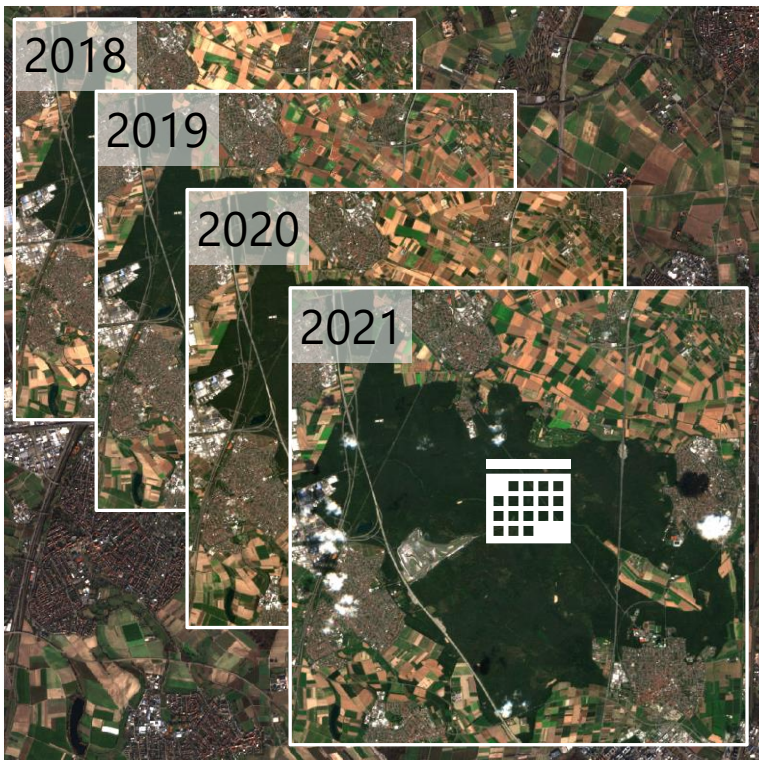
from coarse to fine



Background: Contains modified Copernicus Sentinel data 2023  
Foreground: [openaerialmap.org](https://openaerialmap.org) Sascha Seidel [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/)

## Temporal

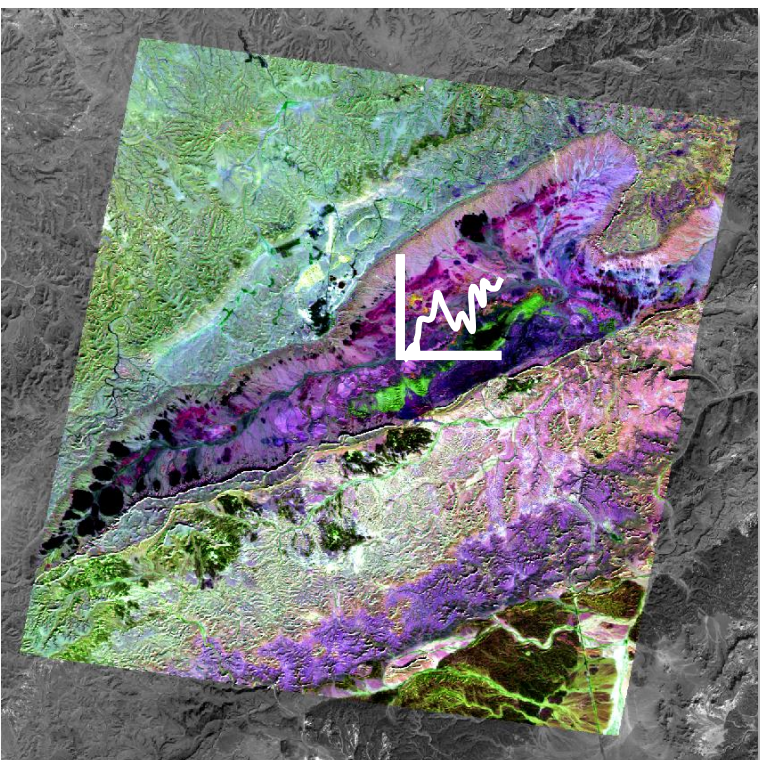
from one point in time to time span



Contains modified Copernicus Sentinel data  
2024, 2021, 2020, 2019, 2018

## Spectral

make the invisible visible



Background: Source: GloVis-USGS Landsat data  
Foreground: EnMAP data ©DLR [2024] All rights reserved

# Some Bumps?!



Use EO in Schools

Teachers

EO Data

Applications & Materials

Curriculum & Benefits







Use in Schools

Teachers Attitude/Beliefs

Benefit

Normative Pressure

Competency



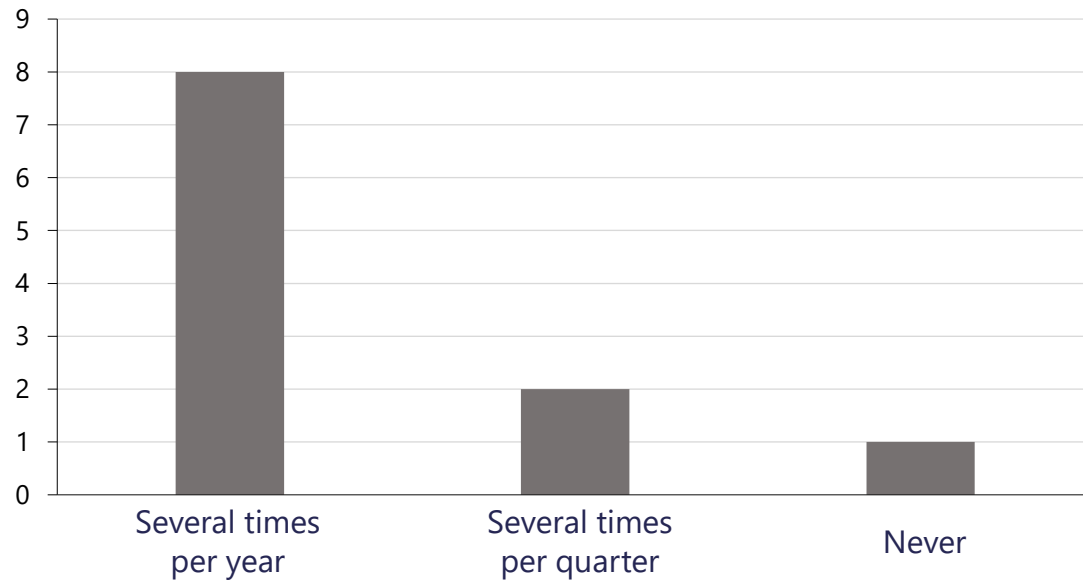
Interviews with 11 teachers



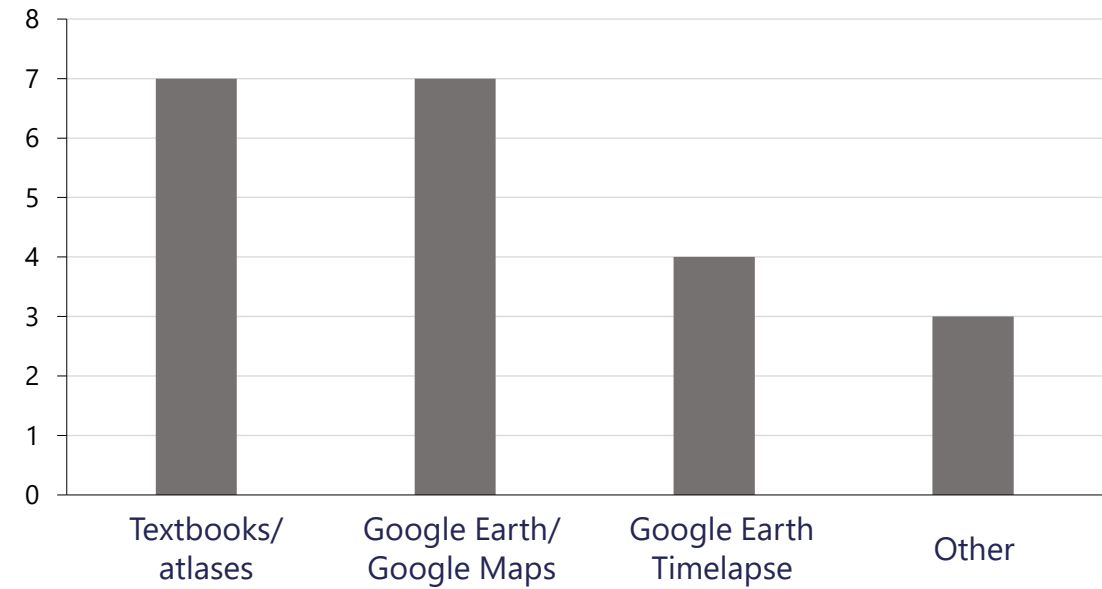
Qualitative content analysis according to Kuckartz & Rädiker (2022)



## How often do you use EO in your classes?



## Which applications/tools do you use in your classes?



# Benefits? Yes, but...

## Spatial

from coarse to fine



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## Temporal

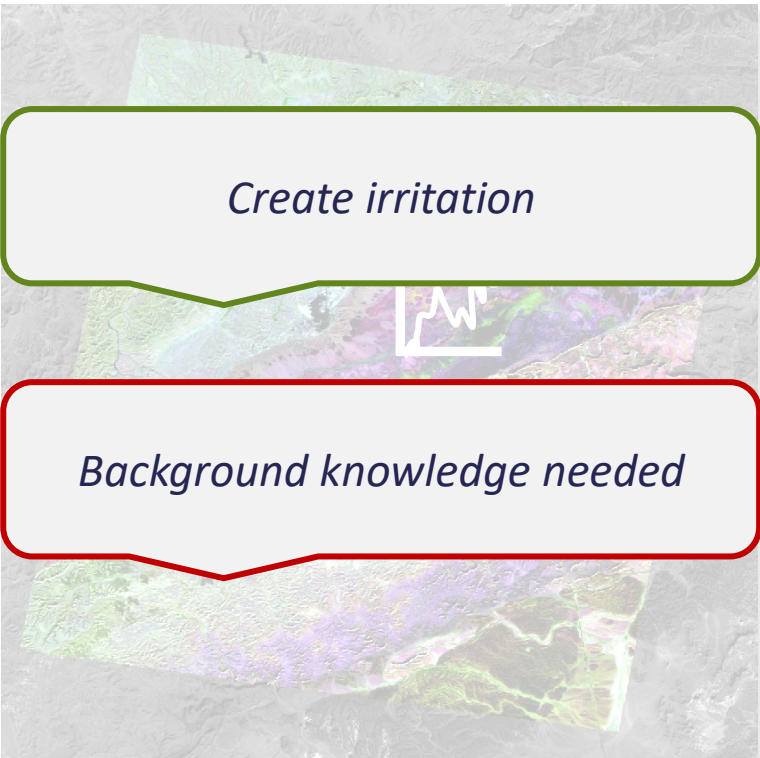
from one point in time to time span



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## Spectral

make the invisible visible



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*[EO data is] closer to reality than just looking at maps, and is therefore more accessible for the students.*

*Because it's a geographical method or medium they need to work with at some point.*

*Because of the simplicity and also because you can see the results so nicely, Timelapse is probably the easiest.*

*I think if I were to present this to an average geography teacher, two of three would say, wow, no, I won't use that.*

*It's simply due to the time approach. And I think that's unfortunately a problem for all teachers.*

*I wondered why a satellite image is first displayed in black and white, so I can't recognize anything. What is the didactic purpose of this?*



Use in Schools

Teachers Attitude/Beliefs

TIME =(

Benefit



Normative Pressure



Competency



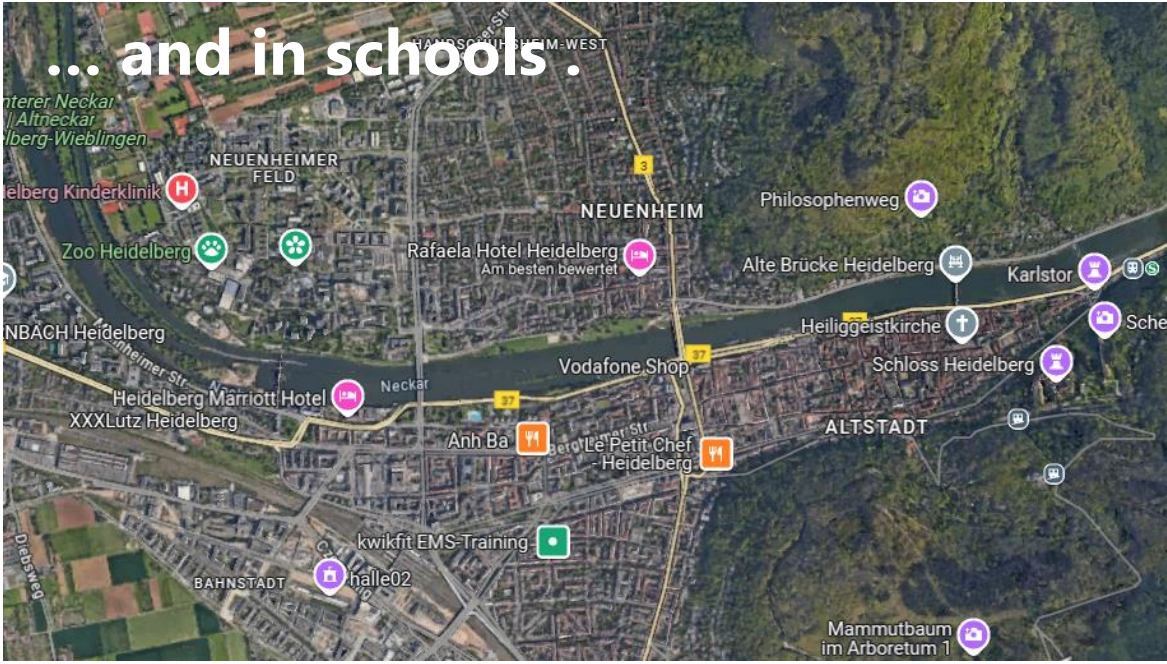


# Difference between reality... and reality!

## How EO is used in science ...



## ... and in schools.







**Thank You!**

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