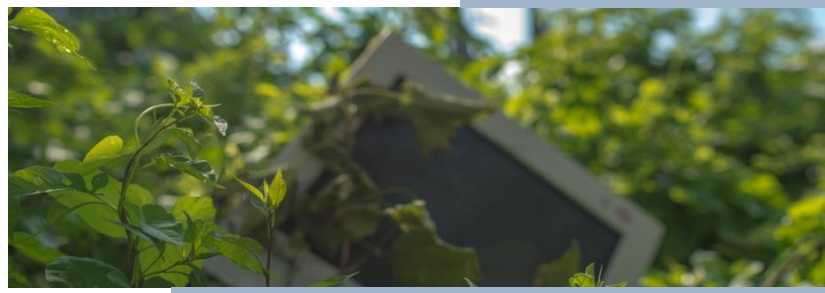
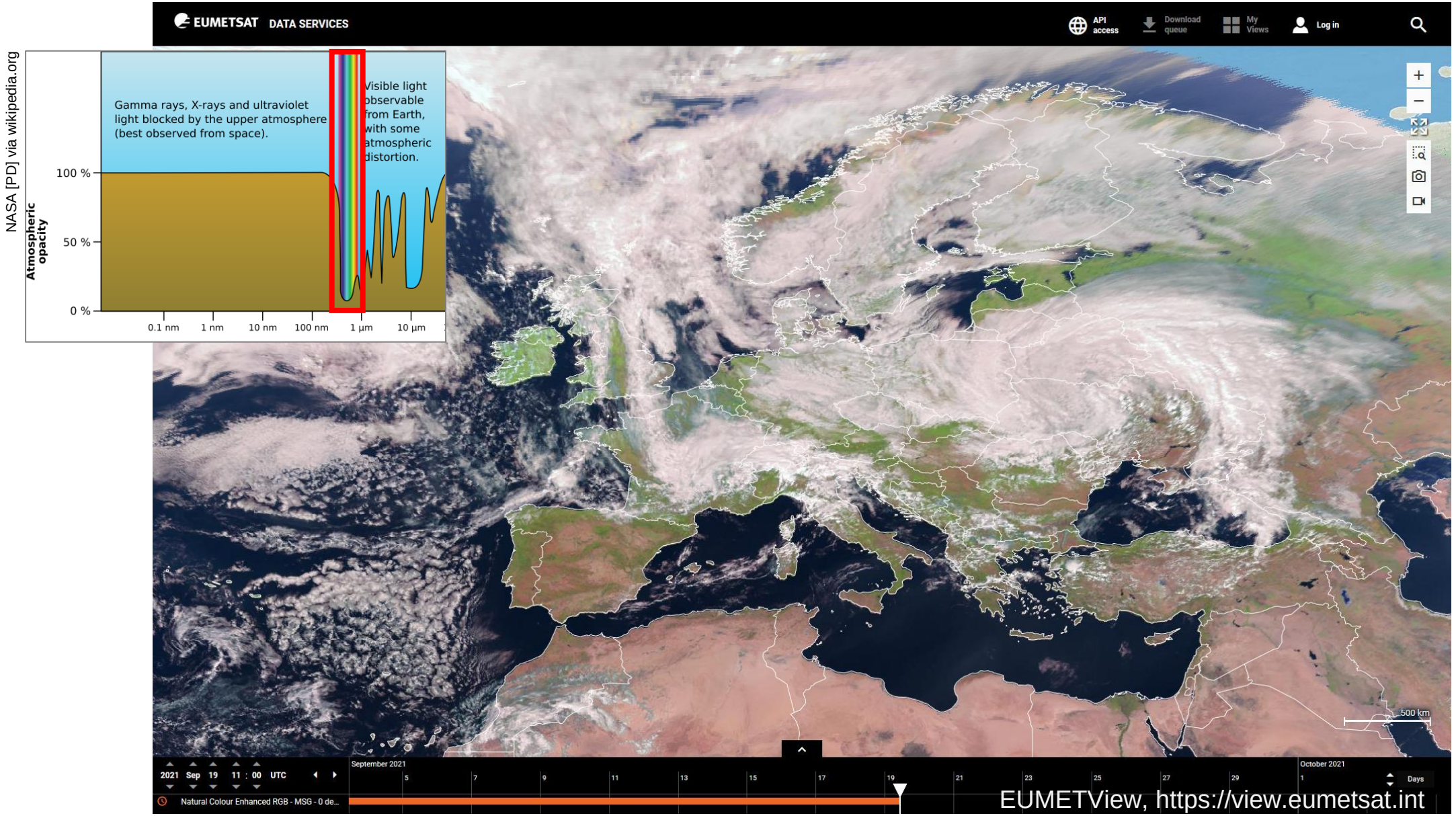
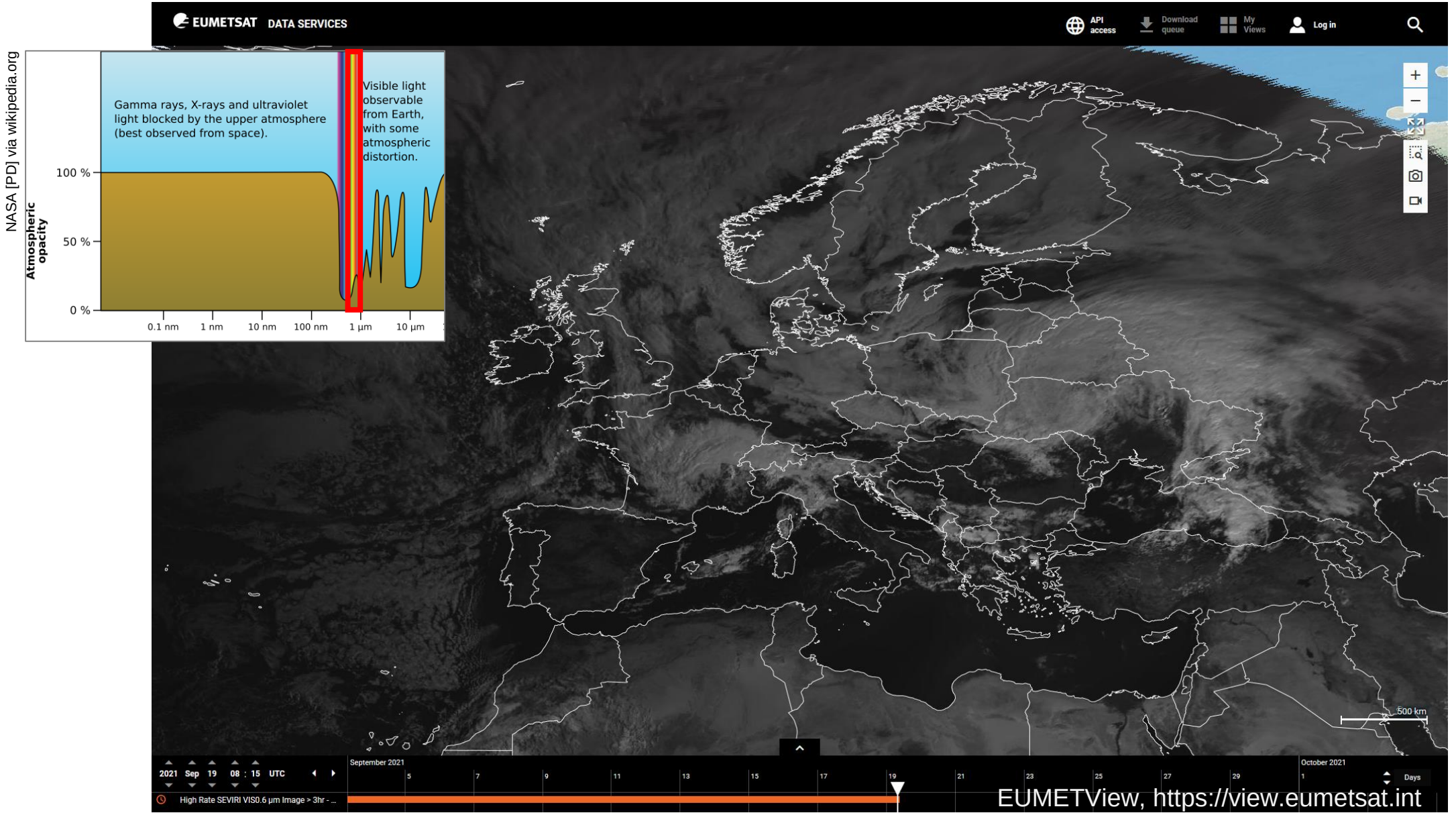
Using eyes, physics or AI in remote sensing



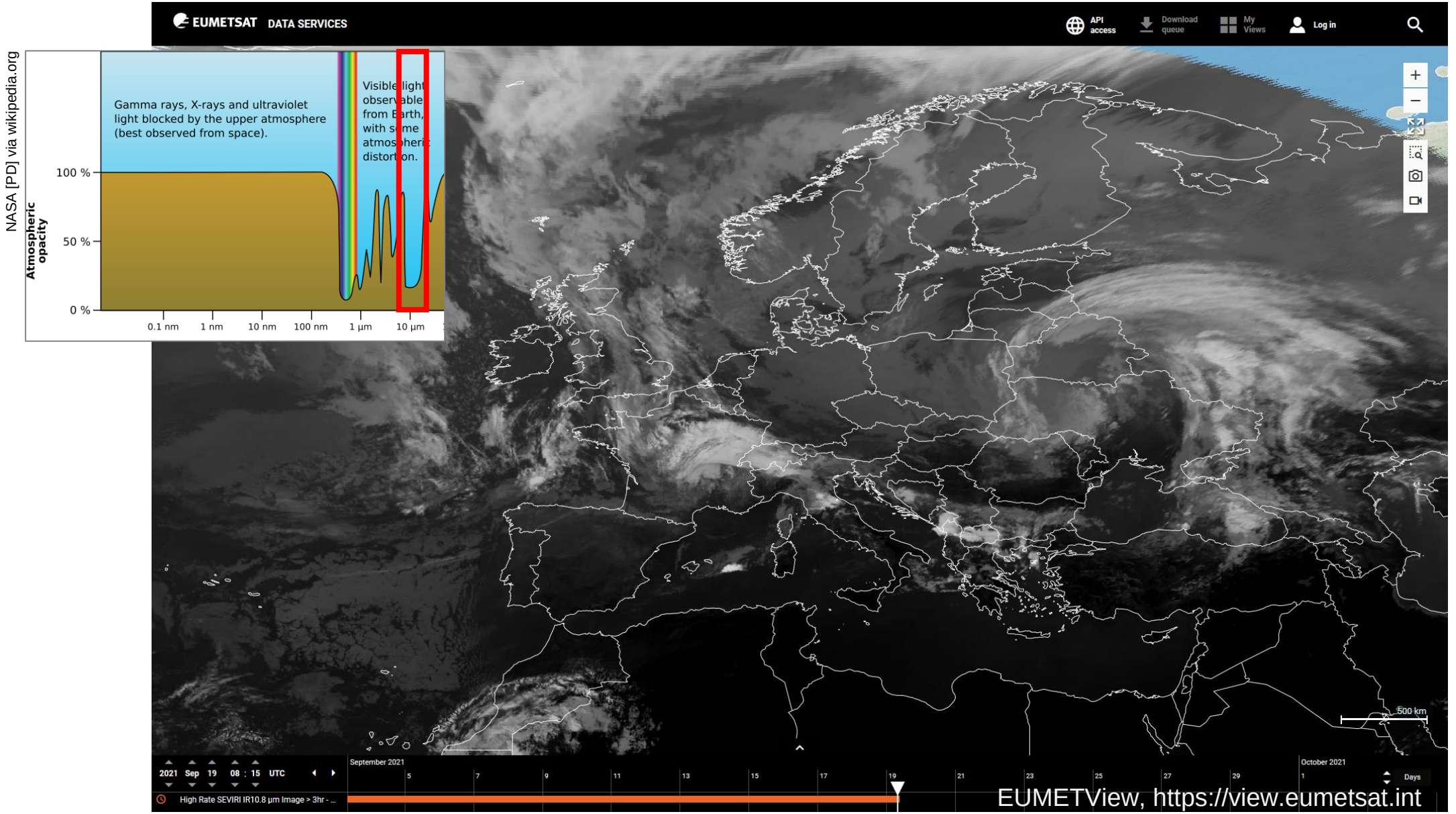


NASA [PD] via wikipedia.org



NASA [PD] via wikipedia.org

EUMETView, https://view.eumetsat.int


EUMETSAT DATA SERVICES
API access
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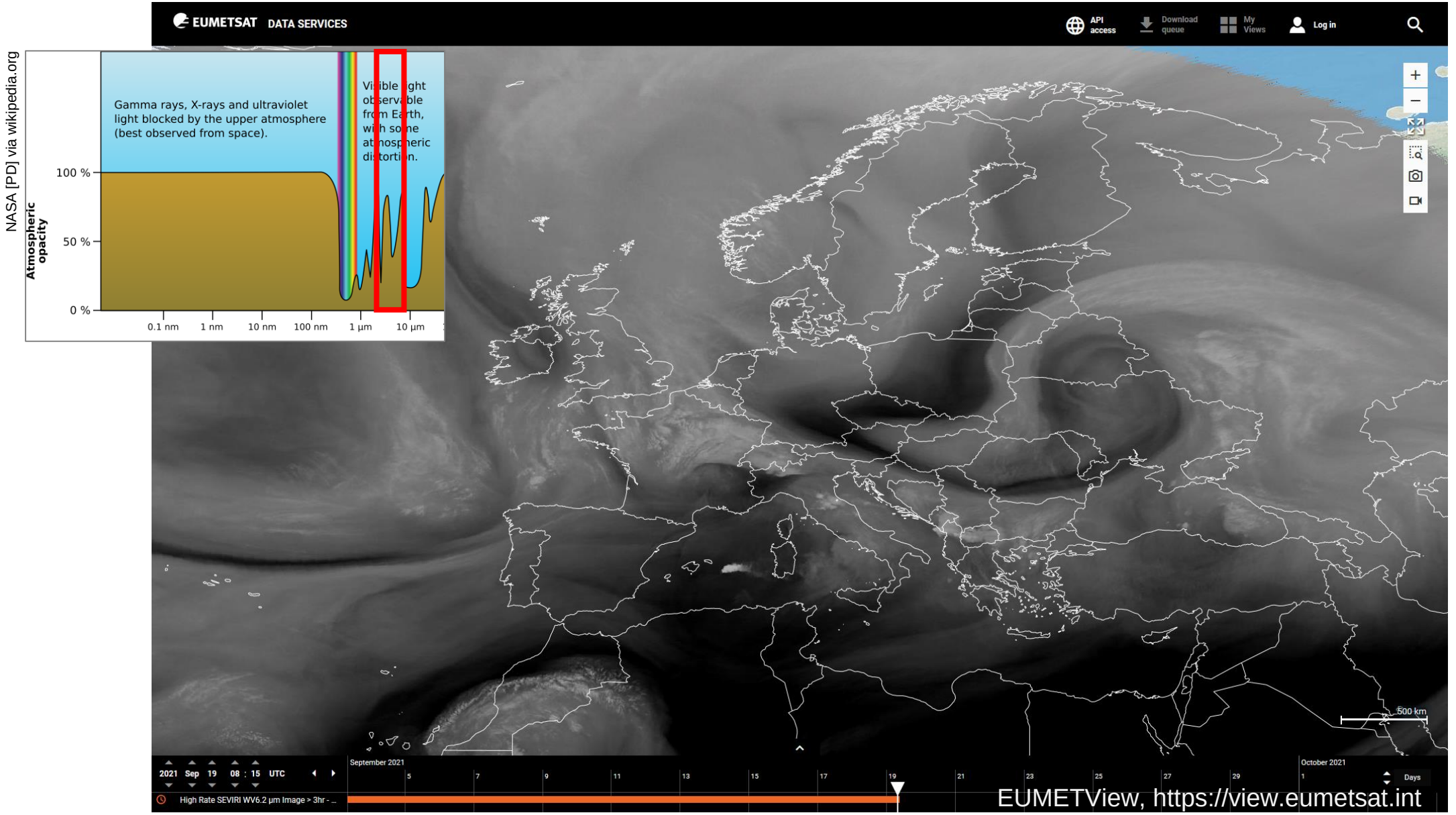
Gamma rays, X-rays and ultraviolet light blocked by the upper atmosphere (best observed from space).
Visible light observable from Earth, with some atmospheric distortion.
Atmospheric opacity
100 %
50 %
0 %
0.1 nm
1 nm
10 nm
100 nm
1 µm
10 µm
NASA [PD] via wikipedia.org
500 km
2021 Sep 19 08 : 15 UTC
September 2021
October 2021
Days
High Rate SEVIRI IR10.8 µm Image > 3hr - ...
EUMETView, https://view.eumetsat.int

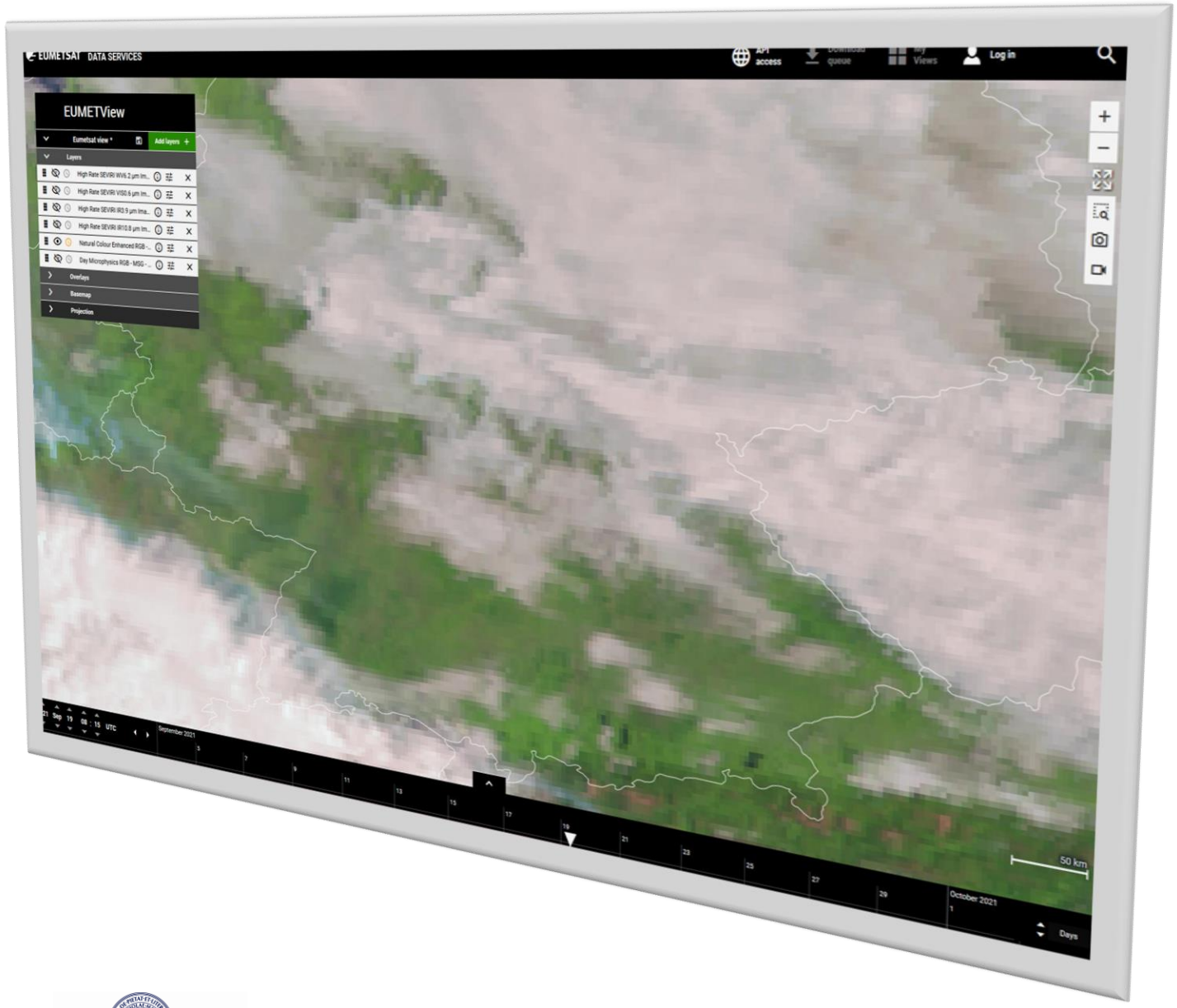


NASA [PD] via wikipedia.org

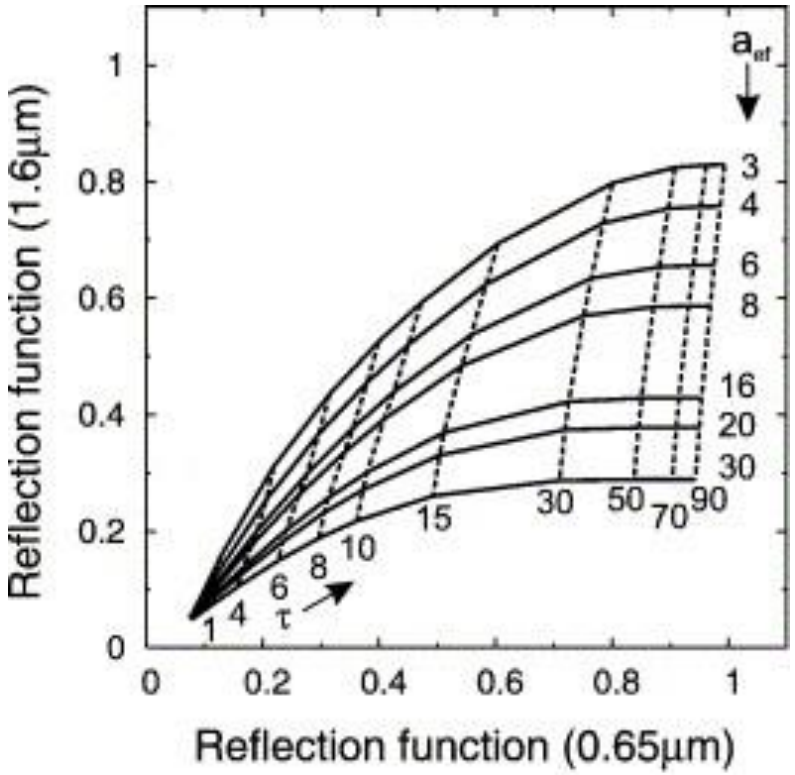
The visible question: Where are clouds?

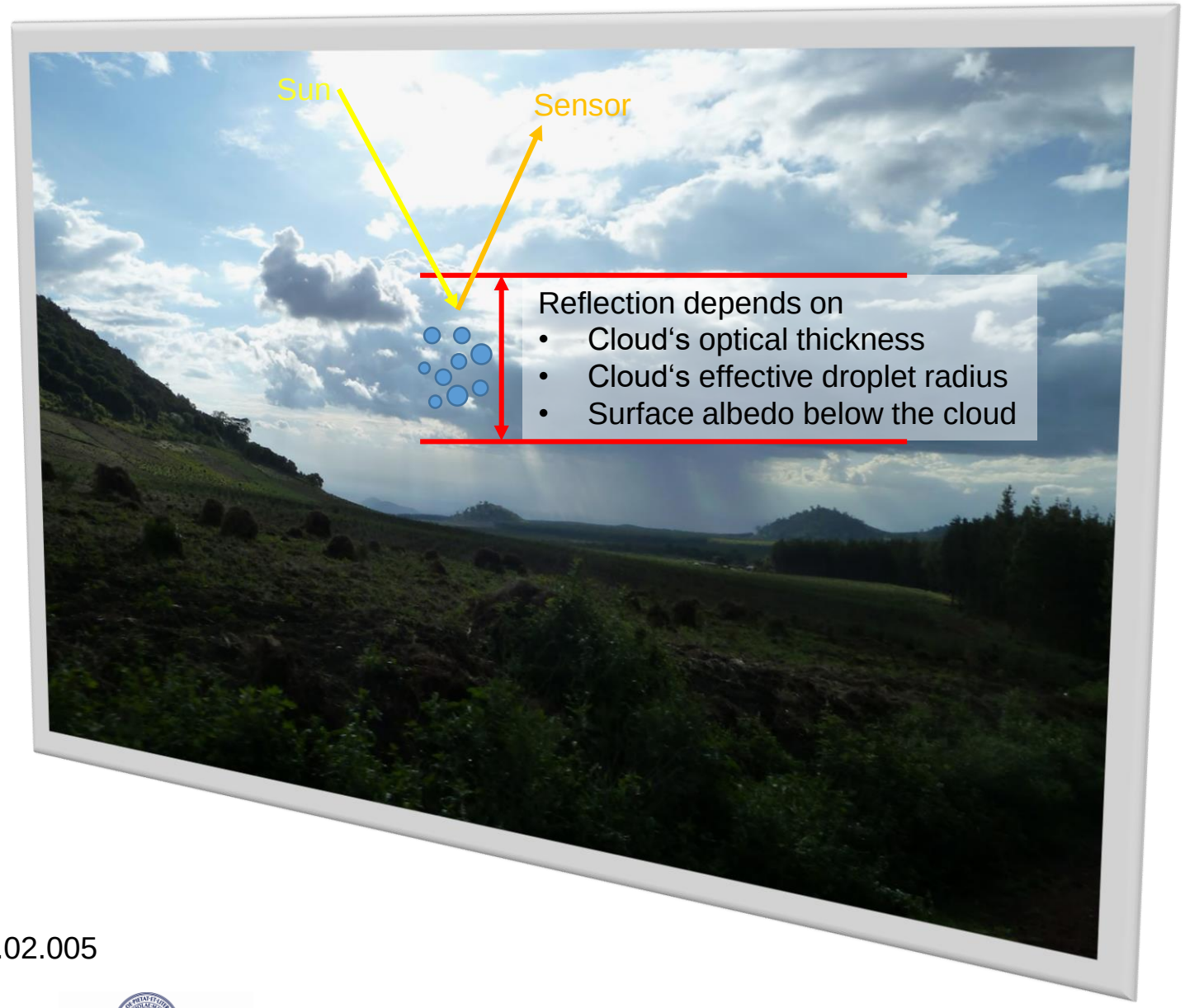
The invisible question: What is the size of the cloud drops?

The invisible question: What is the size of the cloud drops?



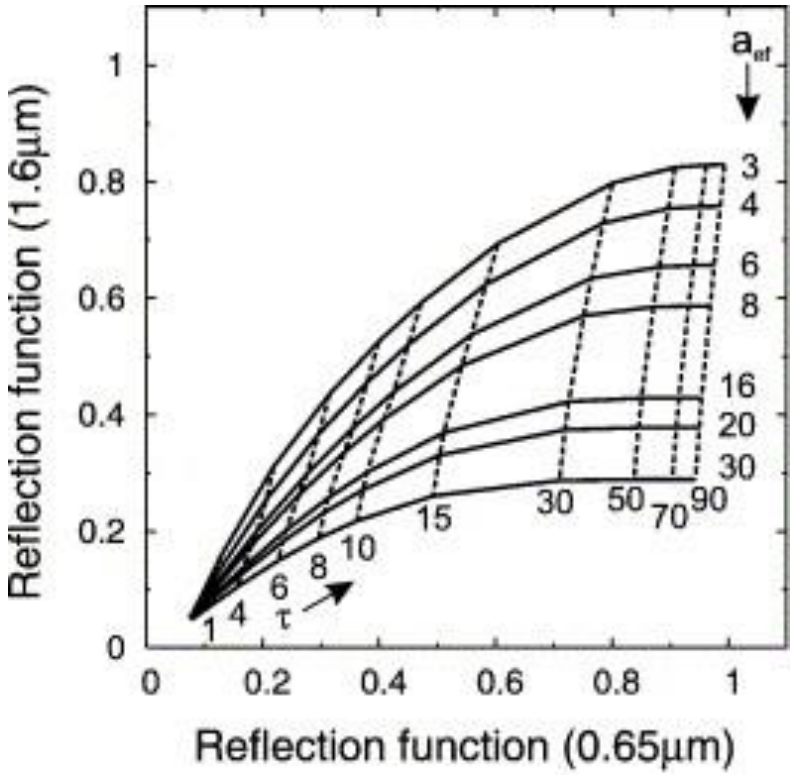
The invisible question: What is the size of the cloud drops?

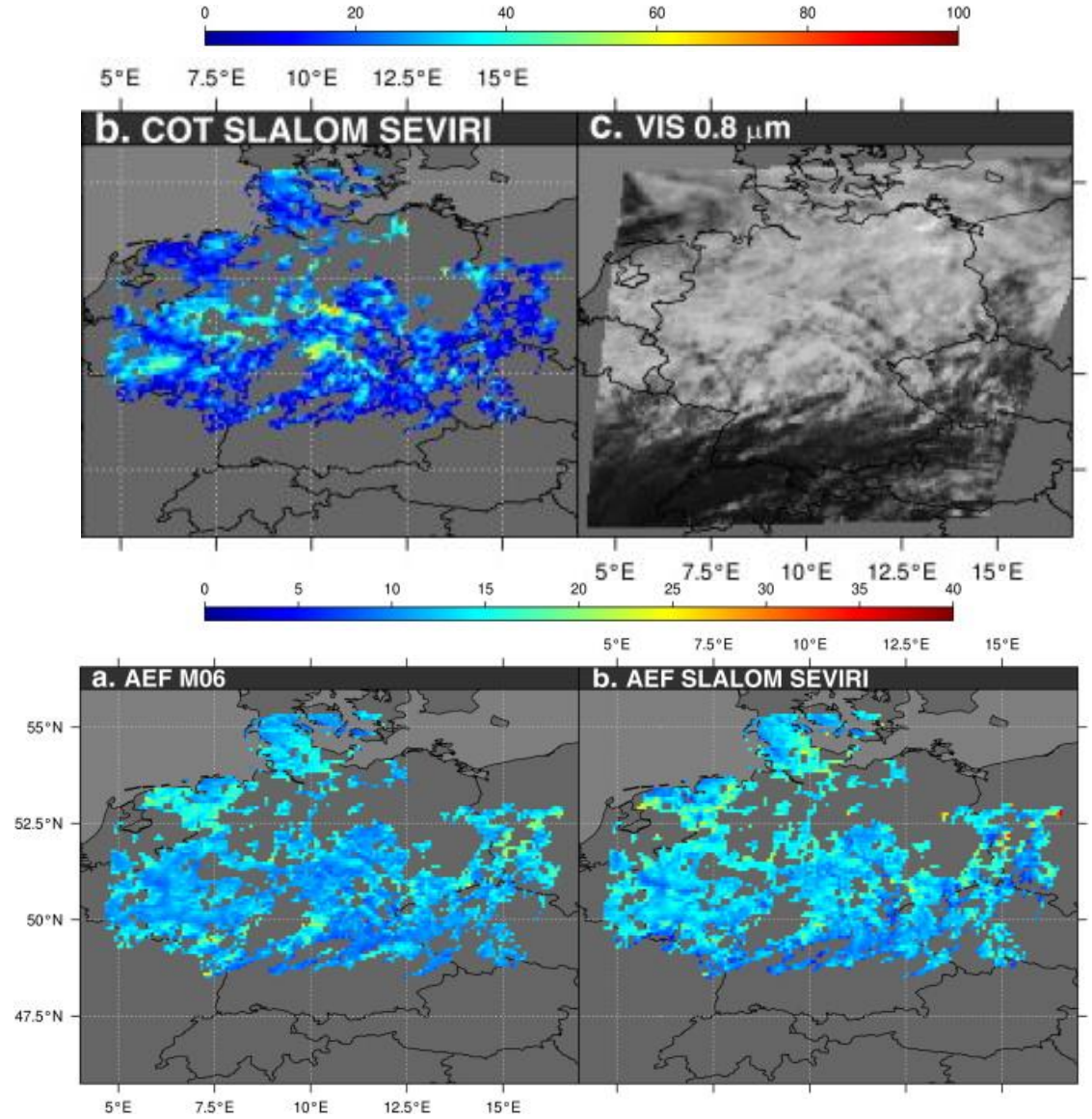




Nauss et al. 2005, https://doi.org/10.1016/j.atmosres.2005.02.005

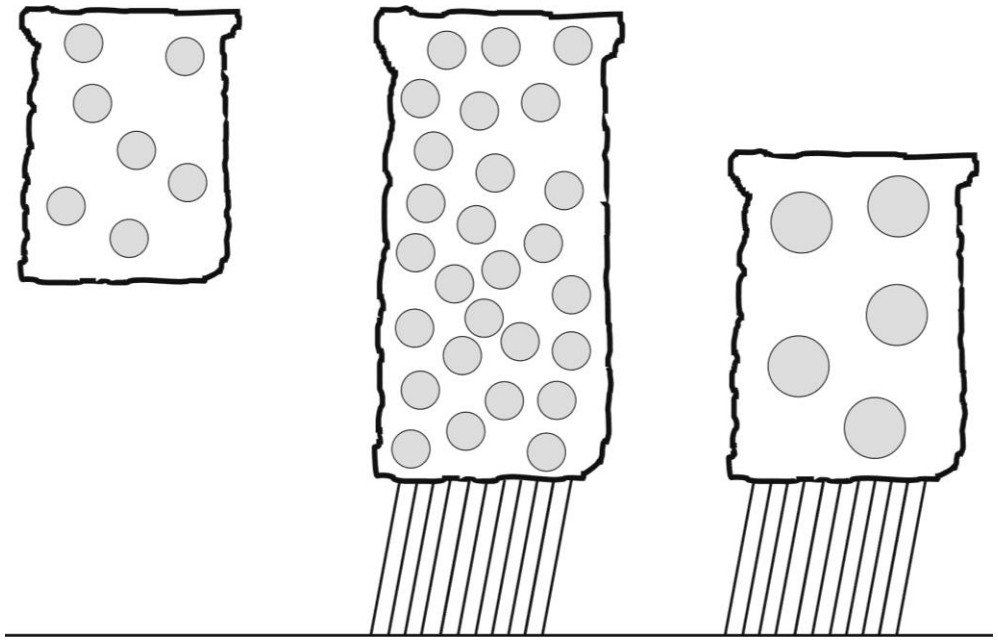
The invisible question: What is the size of the cloud drops?

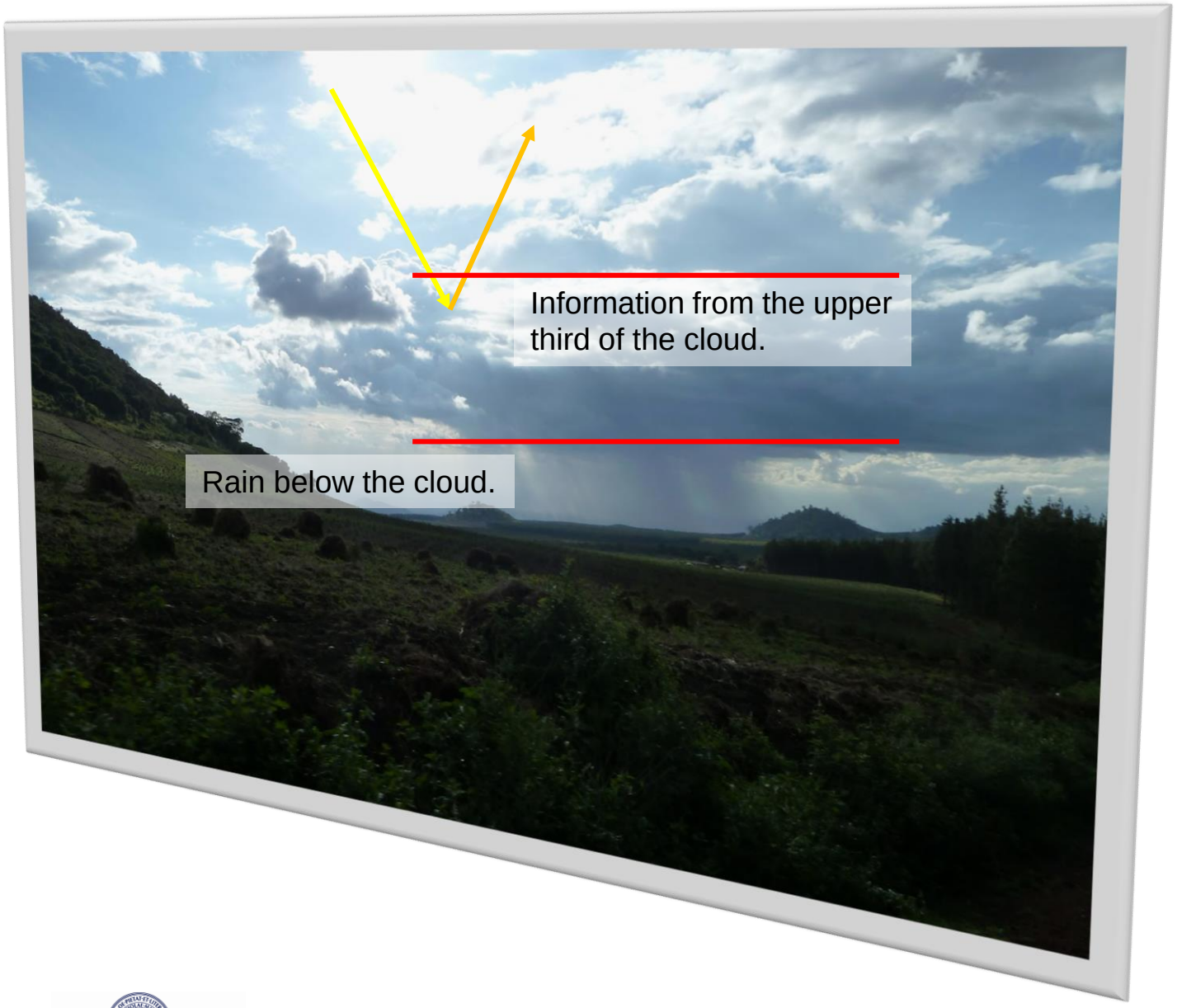




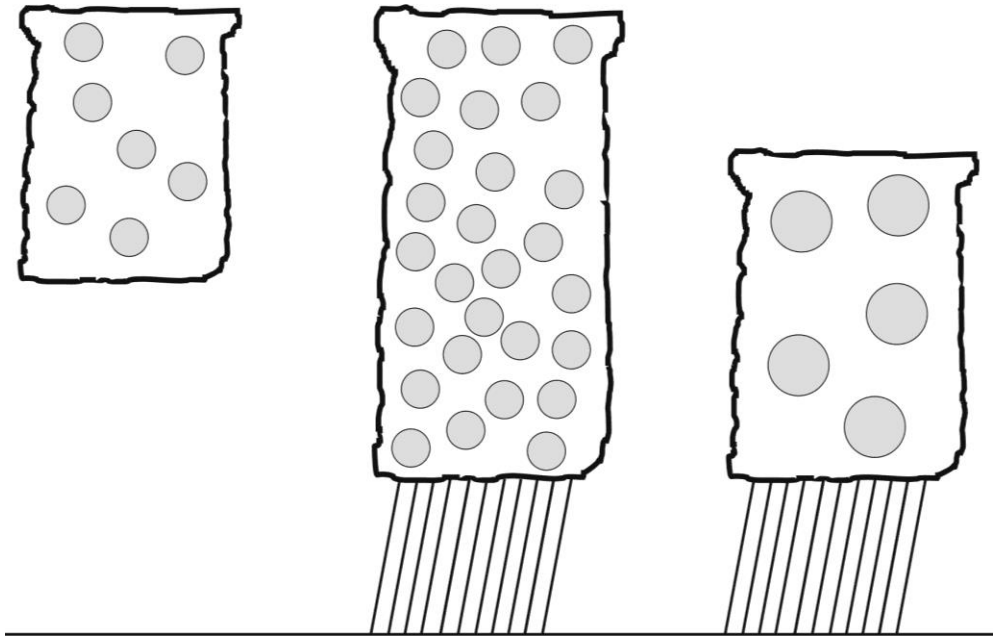
Kühnlein et al. 2013, https://doi.org/10.1016/j.atmosres.2012.10.029

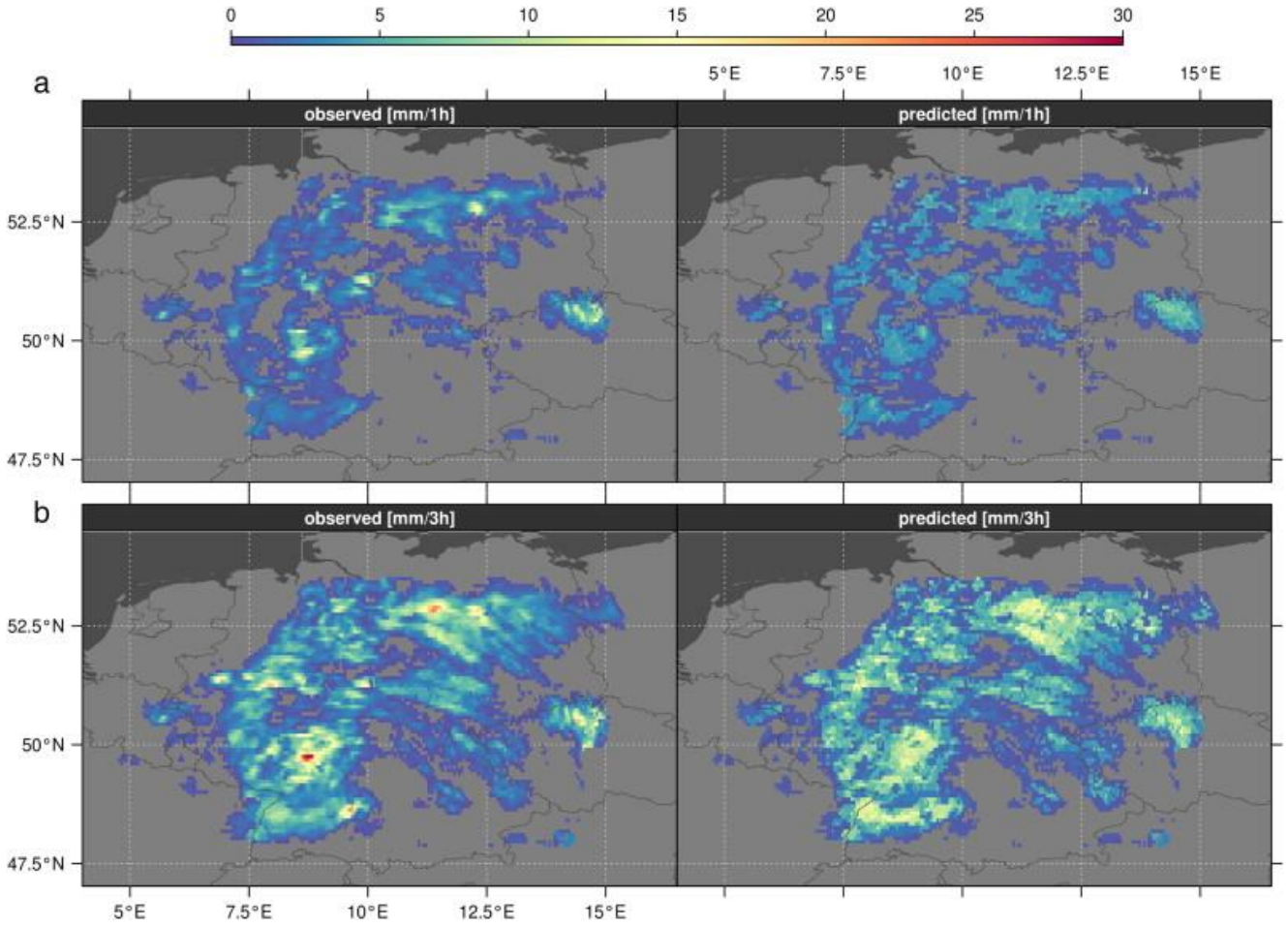
The completely invisible question: Is it raining?





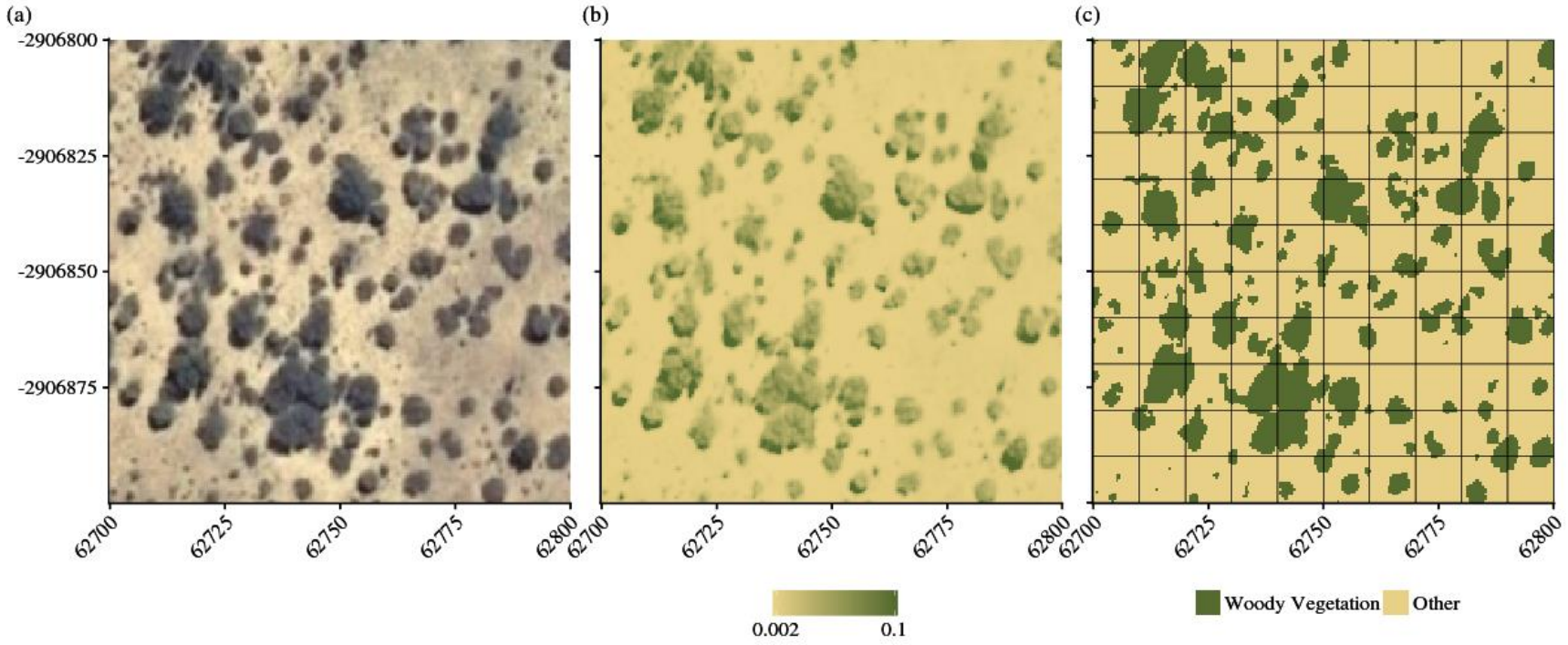
The completely invisible question: Is it raining?





Kühnlein et al. 2014, https://doi.org/10.1016/j.rse.2013.10.026

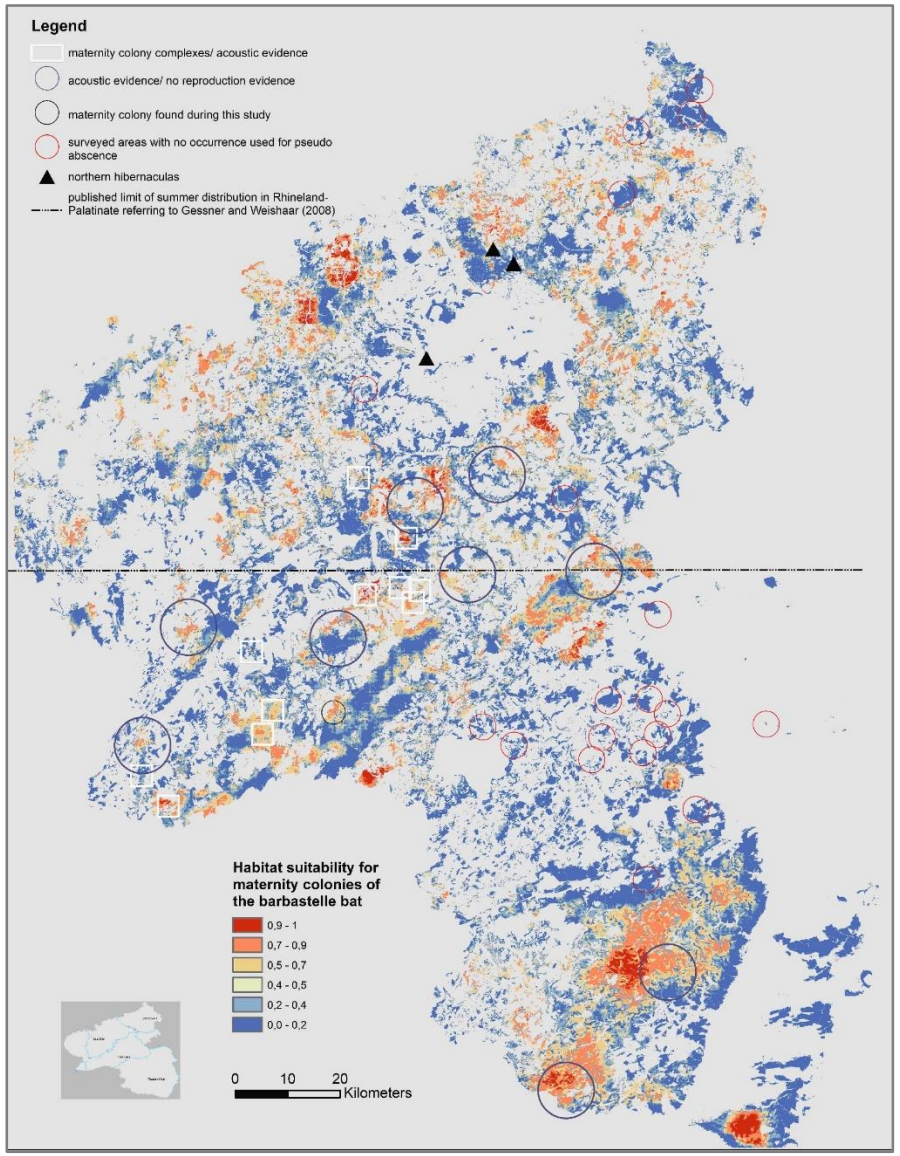
All this applies not only to clouds, but also to other applications.



Ludwig et al. 2016, https://doi.org/10.1016/j.jag.2016.03.003

(Gottwald et al. 2017)

All this applies not only to clouds, but also to other applications.

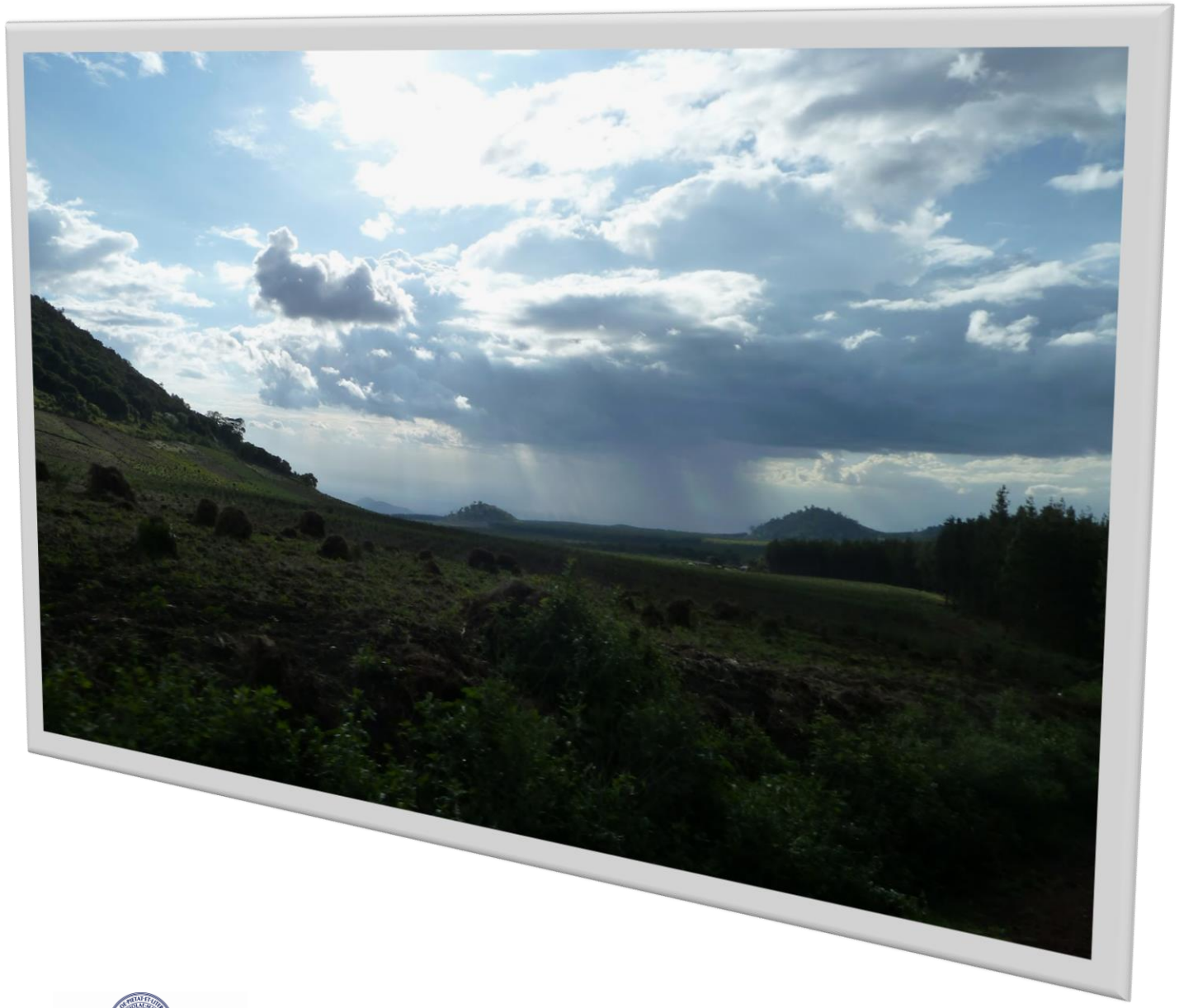


Gottwald et al. 2017, https://doi.org/10.3161/15081109ACC2017.19.2.015

(Gottwald et al. 2017)

In a Nutshell

Use physical models for physical relationships, AI for the “invisible” stuff beyond.



See you next time!