

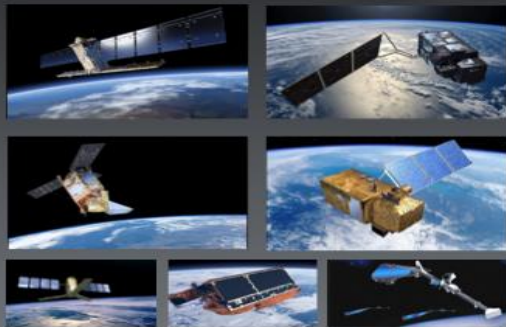
EISC – “Big data: Development of Value-Added Downstream Services and Applications”

Session 2: Issues for the Big Data Value Chain: “Data to the User – User to the Data”

Brussels – 16-October 2018

Dr. Nicolaus Hanowski
European Space Agency – nicolaus.hanowski@esa.int

Sentinels & Earth Explorer Satellites operated by ESA



Contributing Satellites operated by Member States & Industry



Collect - Process - Validate - Fuse - Complement - Update - Archive

Distribute

**150 Terabytes
each day !**

(corresponds to 500 million books or 150.000 HD Hollywood movies)

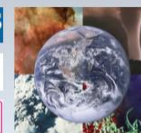
**Copernicus
Services**



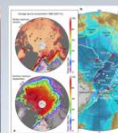
**Commercial
IT- Products**



**Earth & Climate
Science**



**Public
Services**

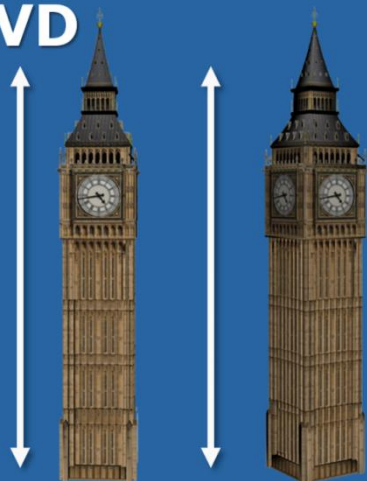


**Start-Ups
& SMEs**



150.000 DVD

**2x height
Big Ben**



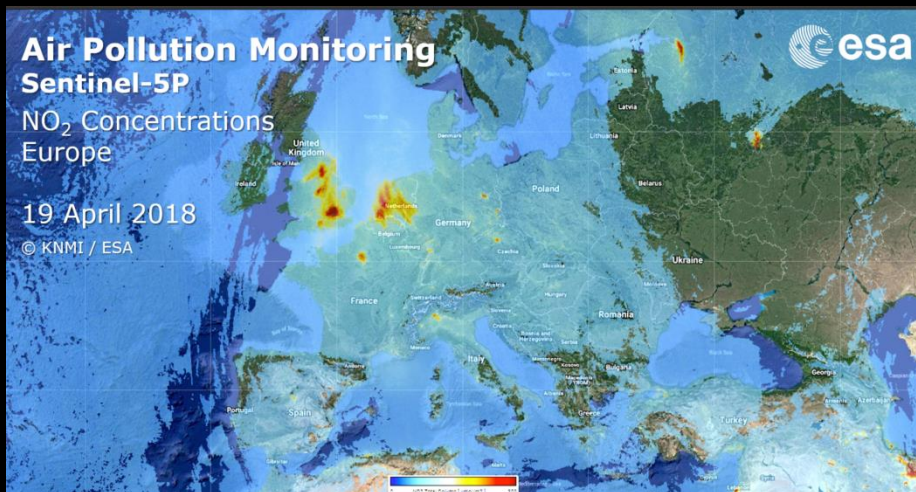
each day !

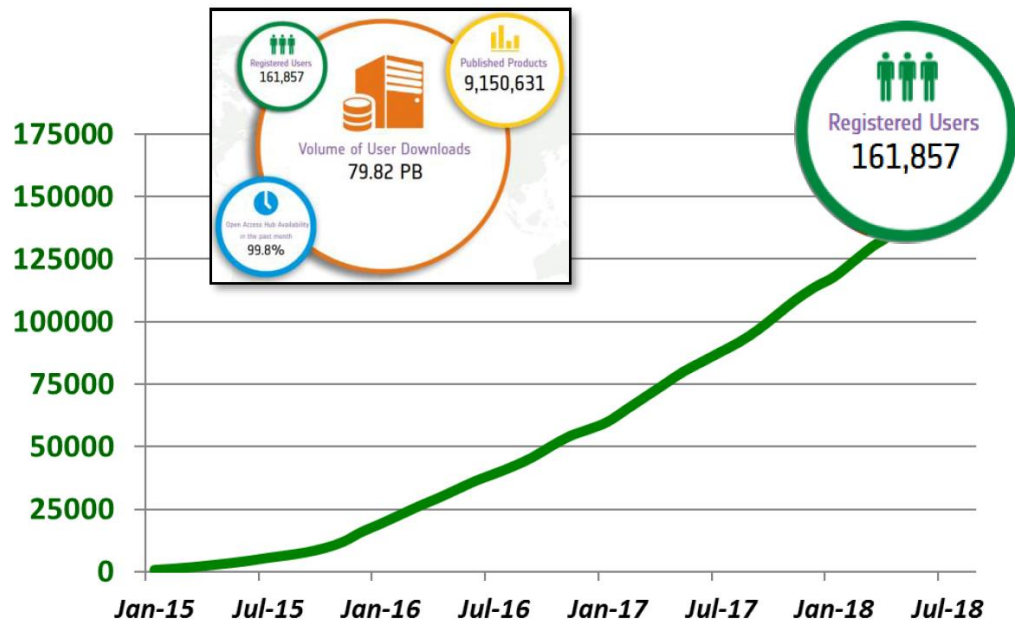
Air Pollution Monitoring Sentinel-5P

NO₂ Concentrations
Europe

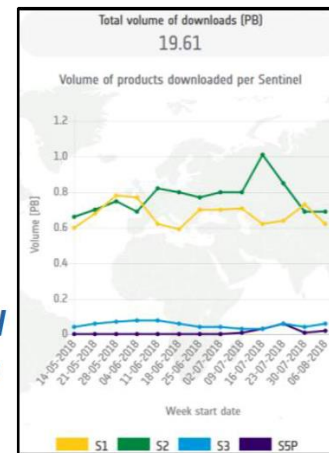
19 April 2018

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**20 PB
downloaded
in 3 months**



**Users can also download
Sentinel data through :**

- Partners within national collaborative ground segment (in Europe)
- Partners within international ground segment (e.g. US or Australia)

"Am I using the latest version of the dataset?"

"My computation takes too much time!"

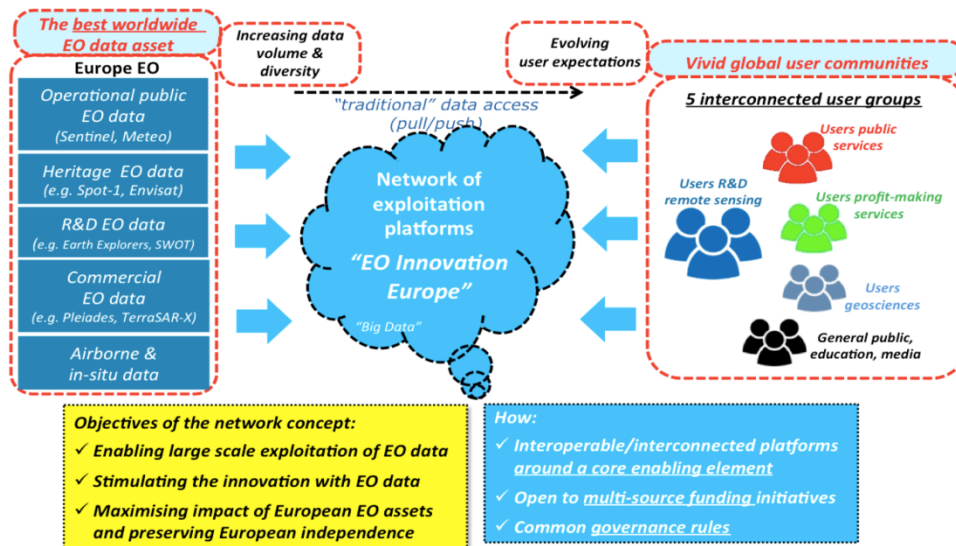
"I don't like the official dataset but I have a good idea for improving it."

"I cannot do all what I want with the tool box."

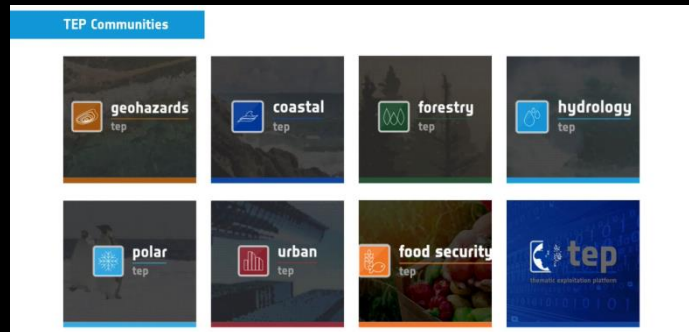
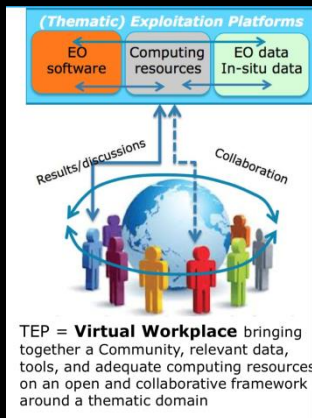
"I don't have enough space to store all my TB data."

"How to share my results (few GB of data) with my peers?"

"Where do I find in-situ data to validate my results?"



TEPs



DIAS

