



EOX & Python

9.11.2019, PyLadies Vienna workshop #1

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@EOX-A

@eoxserver



@eox_a



@lubojr



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- Founded in 2008
- Team of 14 people
- Geospatial engineering and services
- Earth observation data = center of our day
- Main client European Space Agency (ESA)
- Focus on getting most value out of those petabytes

- FOSS Usage + Development
- Modular development approach
 - allow to use and evolve components through projects
- Committed to comply to and improve Open Standards
 - particularly those of Open Geospatial Consortium (OGC) - 2010
- 'EOX' in every piece of SW, we make (a bit cheesy?)

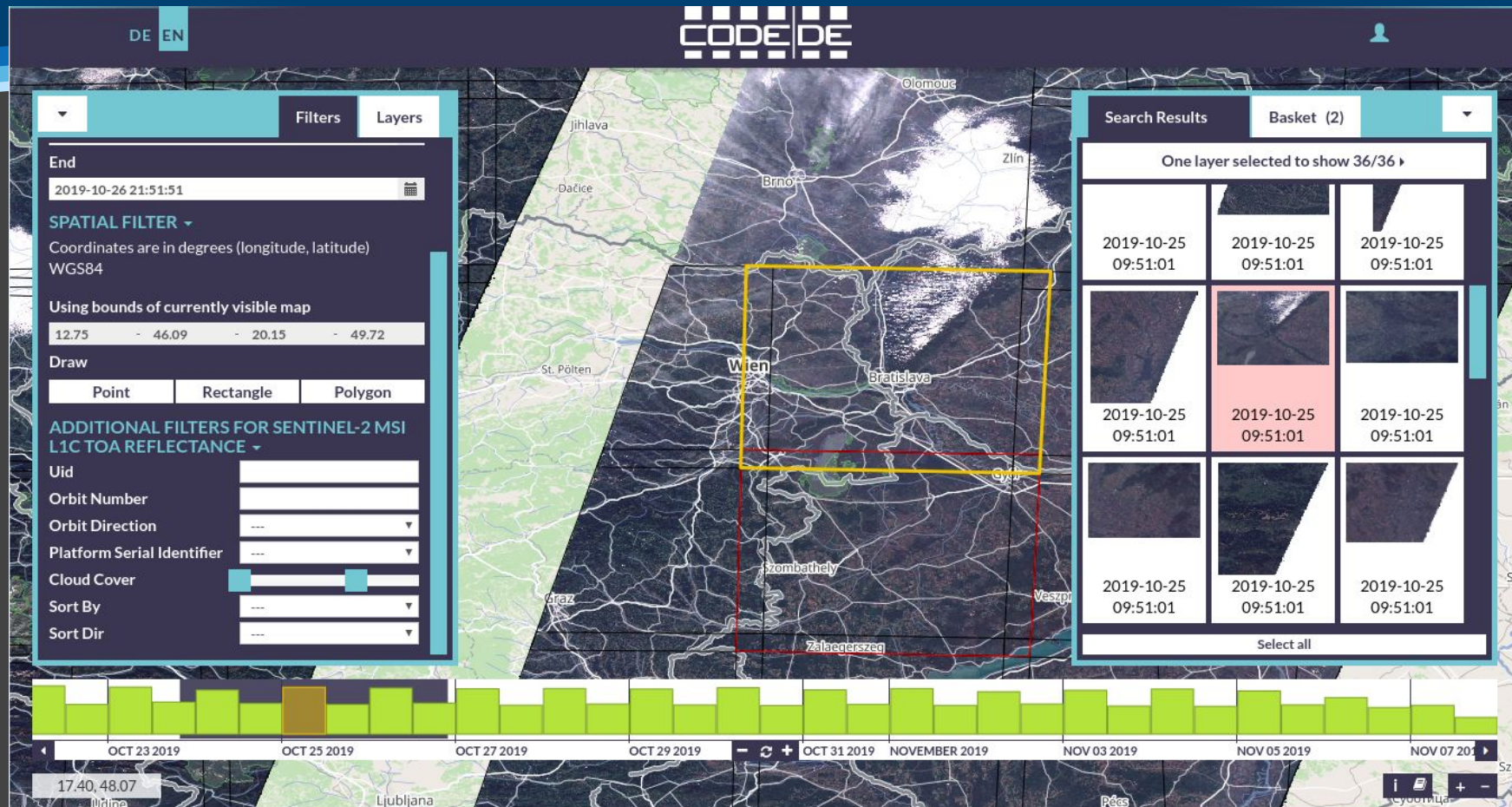
- We use



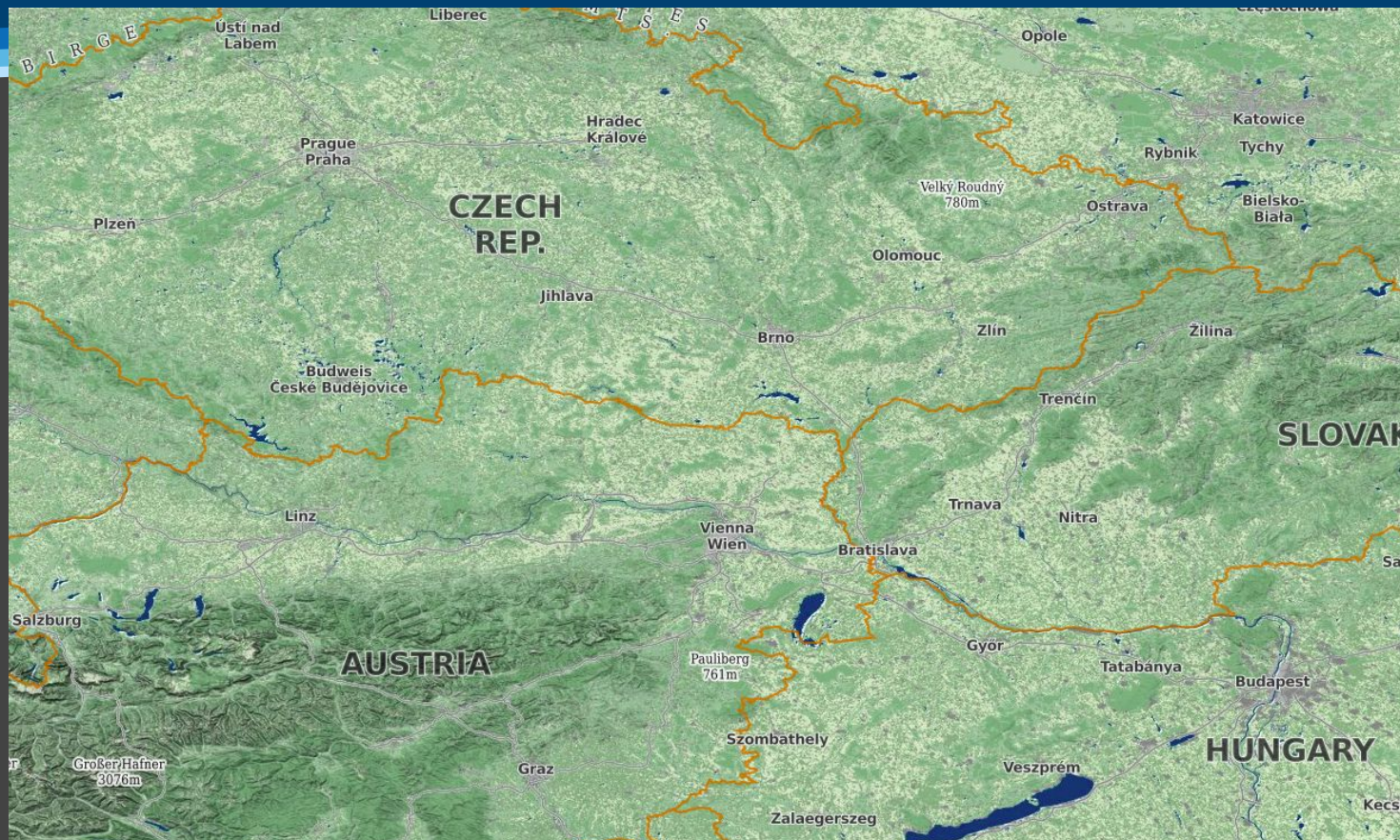
A lot. Honestly.

- 2009 - EOxServer development started
- Python framework for bridging gap between geospatial data archives, metadata and Web applications
- Entirely based on Open source software like MapServer, Django, GDAL, SpatiaLite, PostGIS
- Version 1.0 to be released Soon™
- Data registration, standard APIs for download, viewing, processing, discovery

- 2010 - Web Graphical User Interface (GUI) block for EOxServer in good old JavaScript
- Discovery, view, filter and download tool for Earth observation data
- Now used internally and as a catalog client for CODE-DE, LSA Data Center, Mundi Web Services
- Who wants to click in web browser these days? Well...



- 2013 - Open Data topographic map cartographically optimized for Web applications
- Split background from overlay layers to enable embedding satellite products properly in between

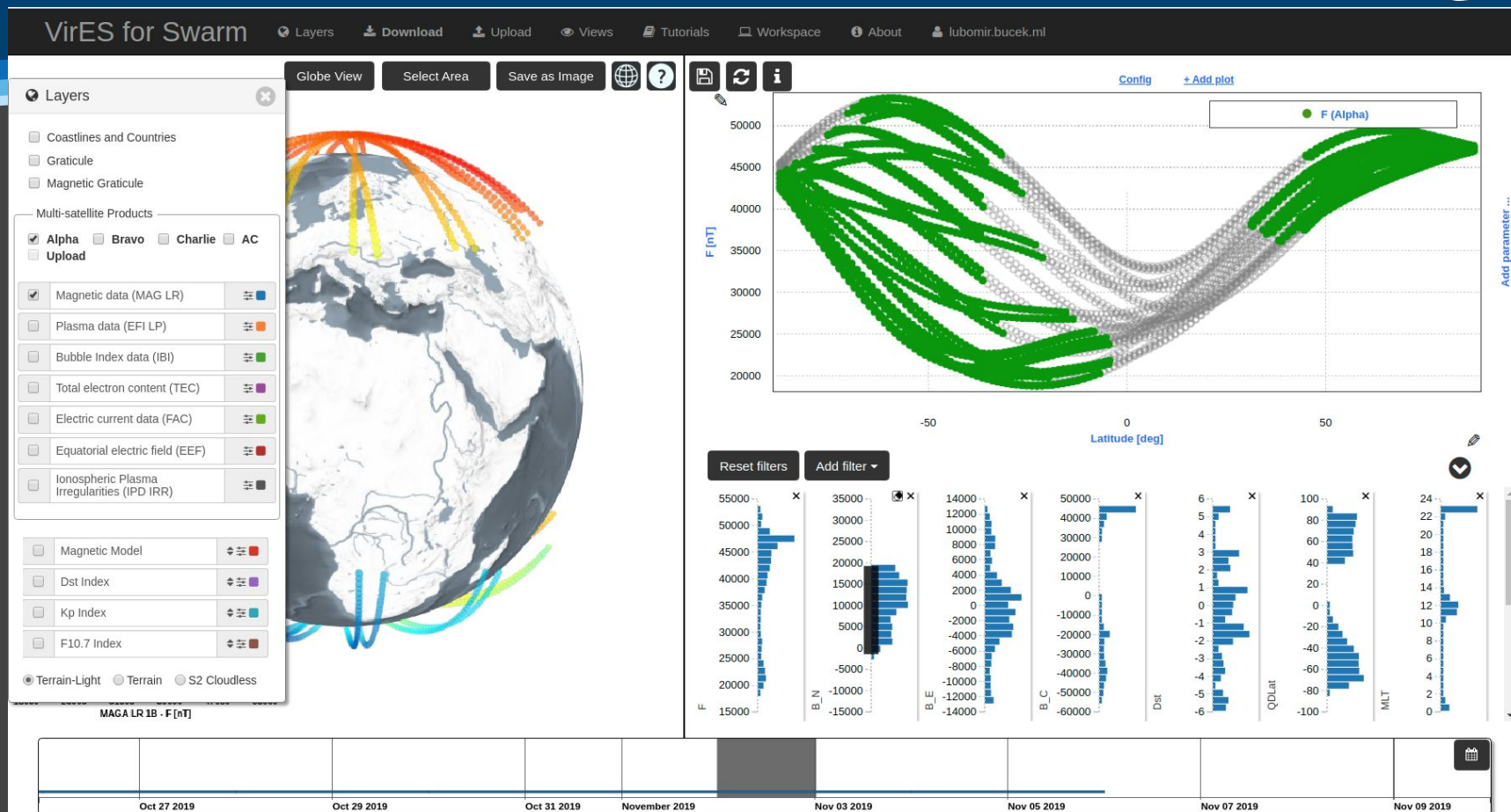


- cloud-enabled workflow management and satellite data processing tool **mapchete** (Python & C)
- used for creation of world's first-ever global cloudless Sentinel-2 map (non-commercial use for free)
- 2018, **EOxCloudless** - pre-canned and on-demand Sentinel-1 and Sentinel-2 map products for sale



- 2014 ESA Earth Explorer Missions SWARM and Aeolus
- interactive 3D globe, time lapse and analytics viewers
- server backend holding missions data archives (EOxServer & EOxClient)
- Jupyter Virtual Research Environment - bring your own code to the data (Python) - trendy

What we do? - VirES for Swarm



Thank you !



- Introduction into geospatial Python could be a topic for one of future meetups

