

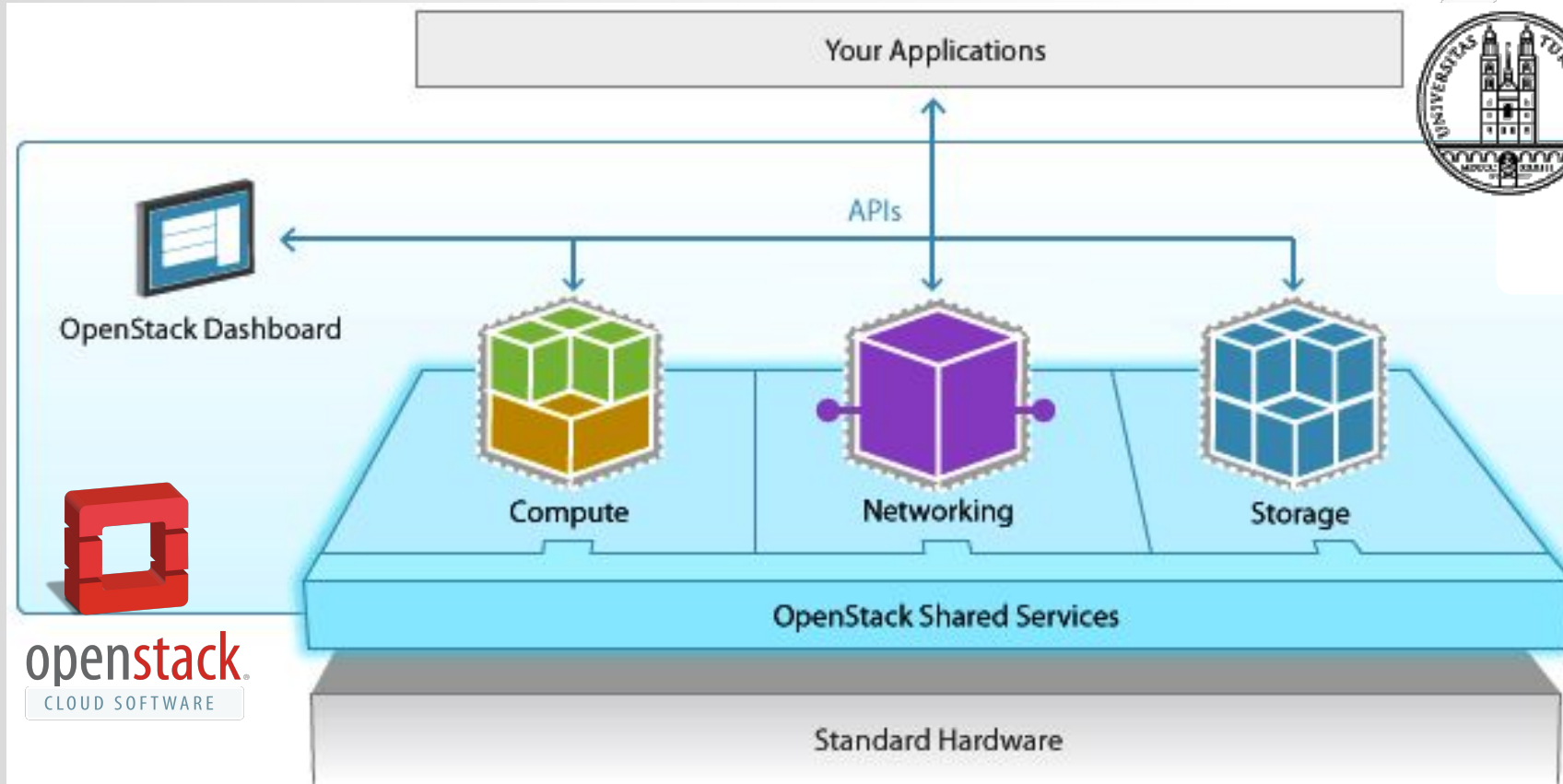
BIDS Apps in the ScienceCloud at the University of Zurich

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Driven by researchers for the benefit of researchers

- Expertise in
 - scientific computing
 - application engineering
 - Focus on
 - support for research
 - service provisioning for research
 - Forefront of technological innovation
- Proactive collaborations in research projects
 - Strengthen communication local, national, international
 - Monitor research IT and software developments
 - Advise governing body in science IT priorities

ScienceCloud



ScienceCloud

15'000 compute vcores
60TB aggregated RAM
7 PB storage

226 groups enabled
2-3K instances running daily

Introducing gbids

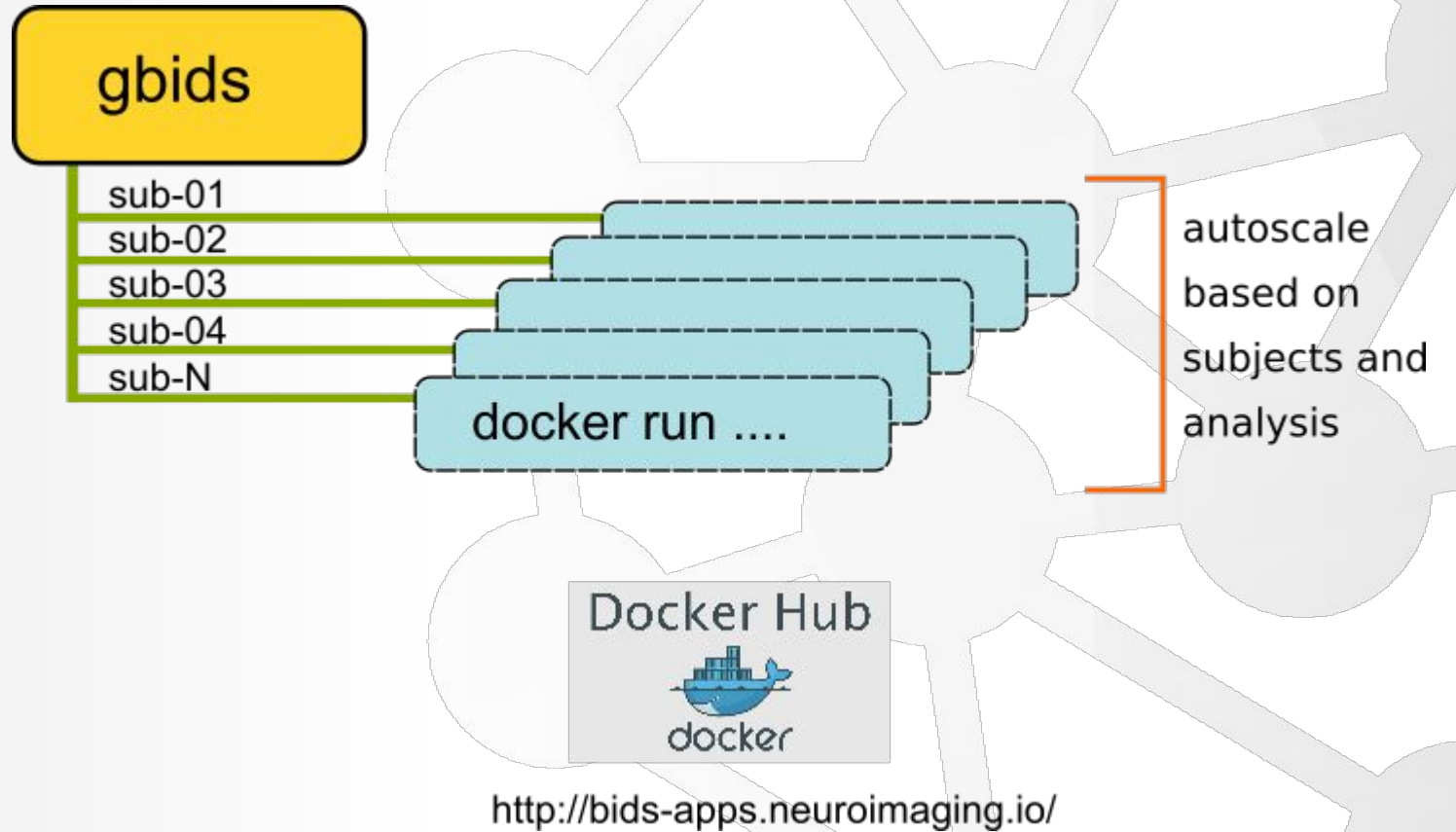
```
Usage: gbids [Options] bids_app bids_input_folder  
output_folder analysis_level  
$ gbids poldracklab/fmriprep ./data/ ./output participant
```

- **Participant:**
 - for each valid subject from BIDS structure,
 - run selected BIDS App in parallel
 - oversee all execution steps
 - restart failed jos when possible - e.g. memory and/or walltime allocation
 - collect and group results per BIDS App
- **Group:**
 - run selected BIDS App on all subjects from BIDS structure at once

Introducing gbids

```

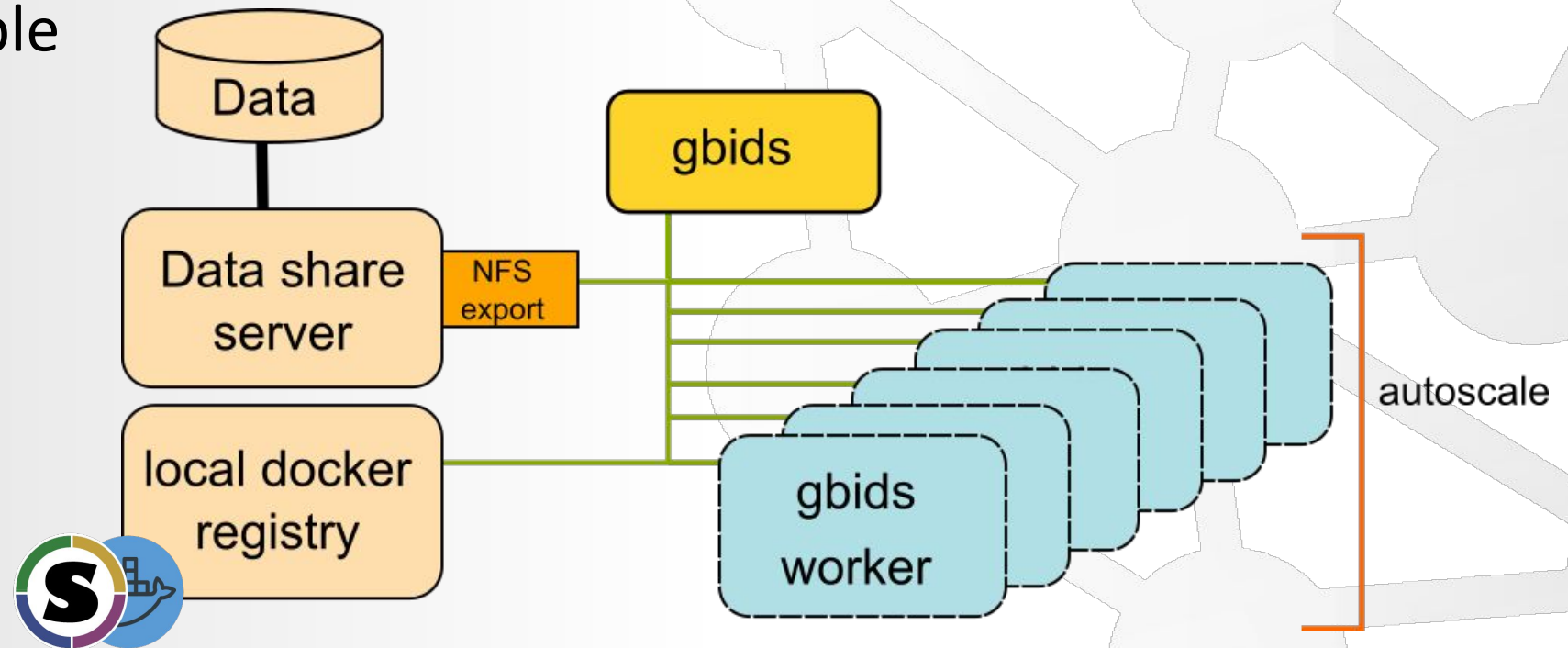
my_dataset/
├── participants.tsv
├── sub-01/
│   ├── anat/
│   │   └── sub-01_T1w.nii.gz
│   ├── func/
│   │   ├── sub-01_task-rest_bold.nii.gz
│   │   └── sub-01_task-rest_bold.json
│   └── dwi/
│       ├── sub-01_dwi.nii.gz
│       ├── sub-01_dwi.json
│       ├── sub-01_dwi.bval
│       └── sub-01_dwi.bvec
├── sub-02/
├── sub-03/
└── sub-04/
    
```



<https://gitlab.com/smaffiol/gc3apps/tree/master/bids>

Running gbids on ScienceCloud

- dedicated exec environment
- shared FS for data access
- local docker repo
- gbids available



What comes next ?

- gbids on HPC - with singularity support (in testing at ETH) - and other public cloud providers
- Neuroimaging and reproducible research: inspired by <http://reproducibility.stanford.edu/>

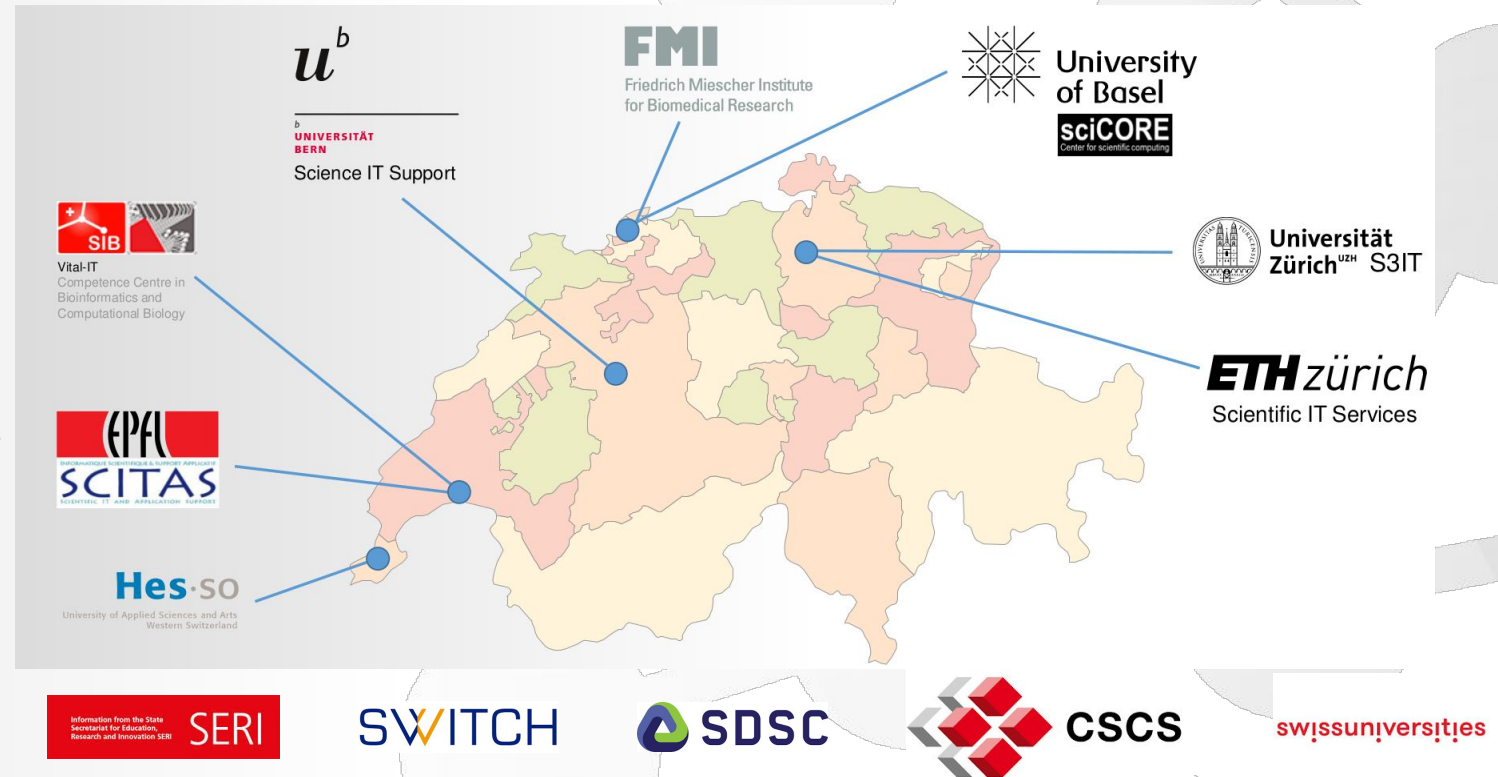


OpenNEURO^{BETA}

A free and open platform for analyzing and sharing neuroimaging data

EnhanceR: enhancing Research through IT expertise

- A federation of Research IT specialists in Switzerland
- Offer consulting and technical services to research groups
- Knowledge transfer to researchers
- Work with other national services and networks



Contact us at: hello@enhancer.ch