

## The Dutch node in the ESDC current status and plans

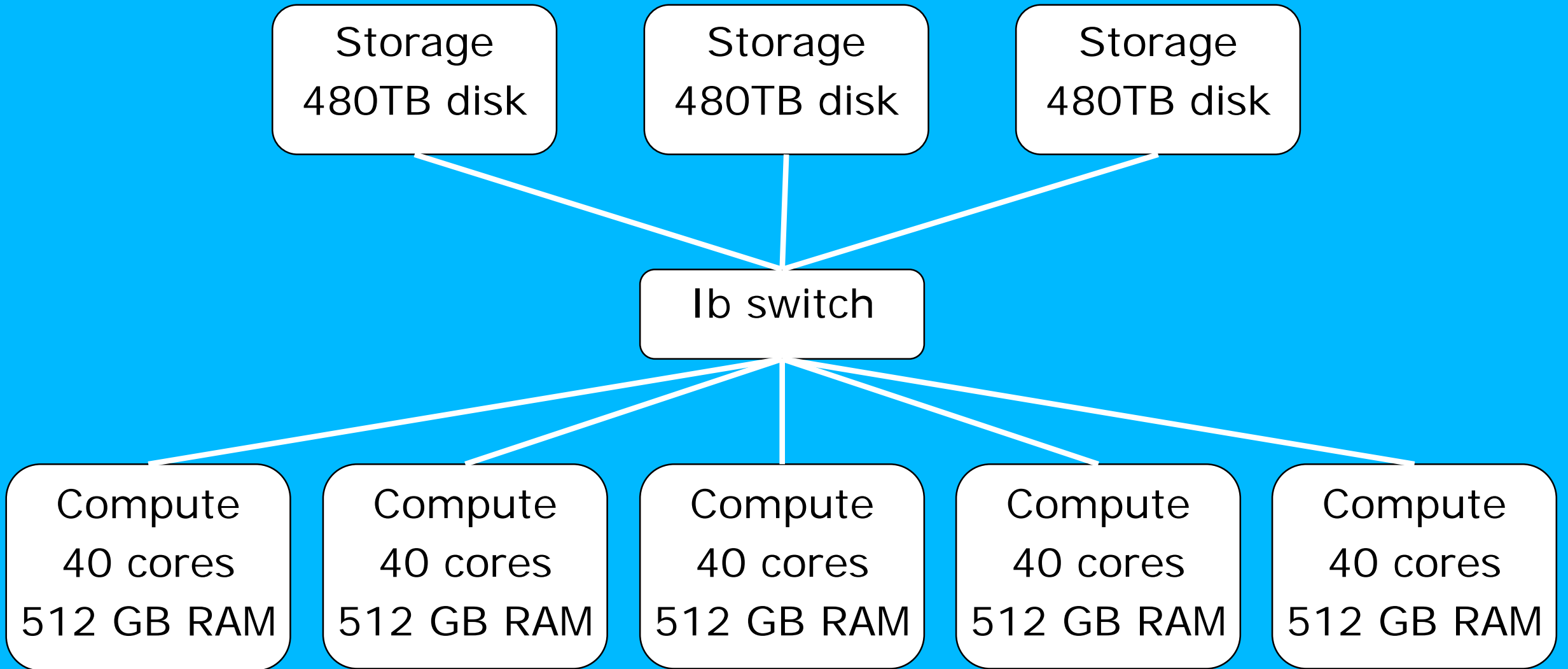
**Yan Grange, Zheng Meyer-Zhao and Michael Wise**

- Probably all know who we are



[www.alamy.com](http://www.alamy.com) - BB295Y

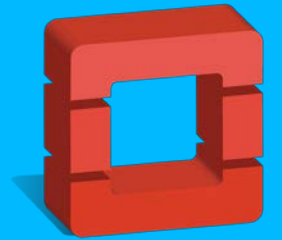




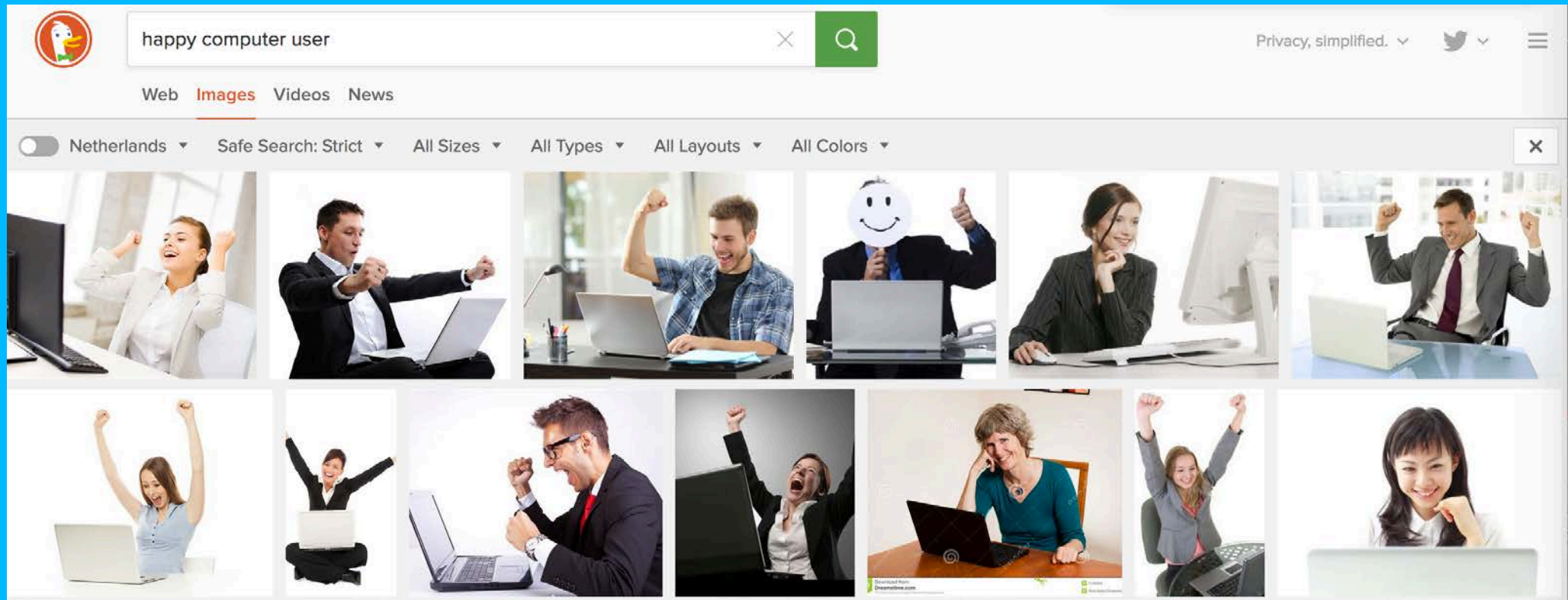
# OpenStack cluster



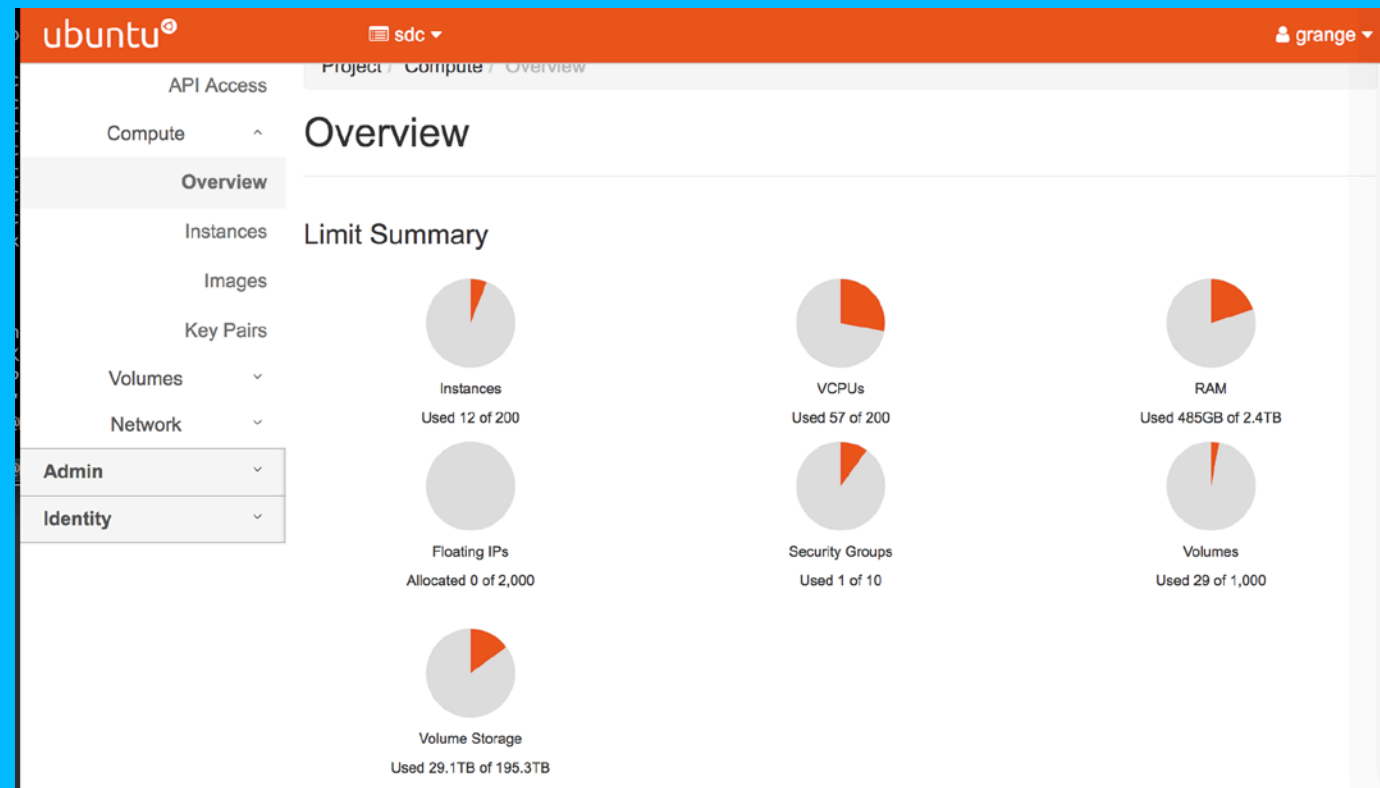
- Single cluster for astronomical processing
  - Flexible scaling
- Prototyping activity with MeerKAT (later more)



openstack.



- OpenStack cluster up and running
  - Several images created (LOFAR, CASA, ...)
  - Interactive access via ssh
    - MeerKAT pipelines using Jupyter interface
- Letting the first users loose on the cluster
  - Performance and functional testing



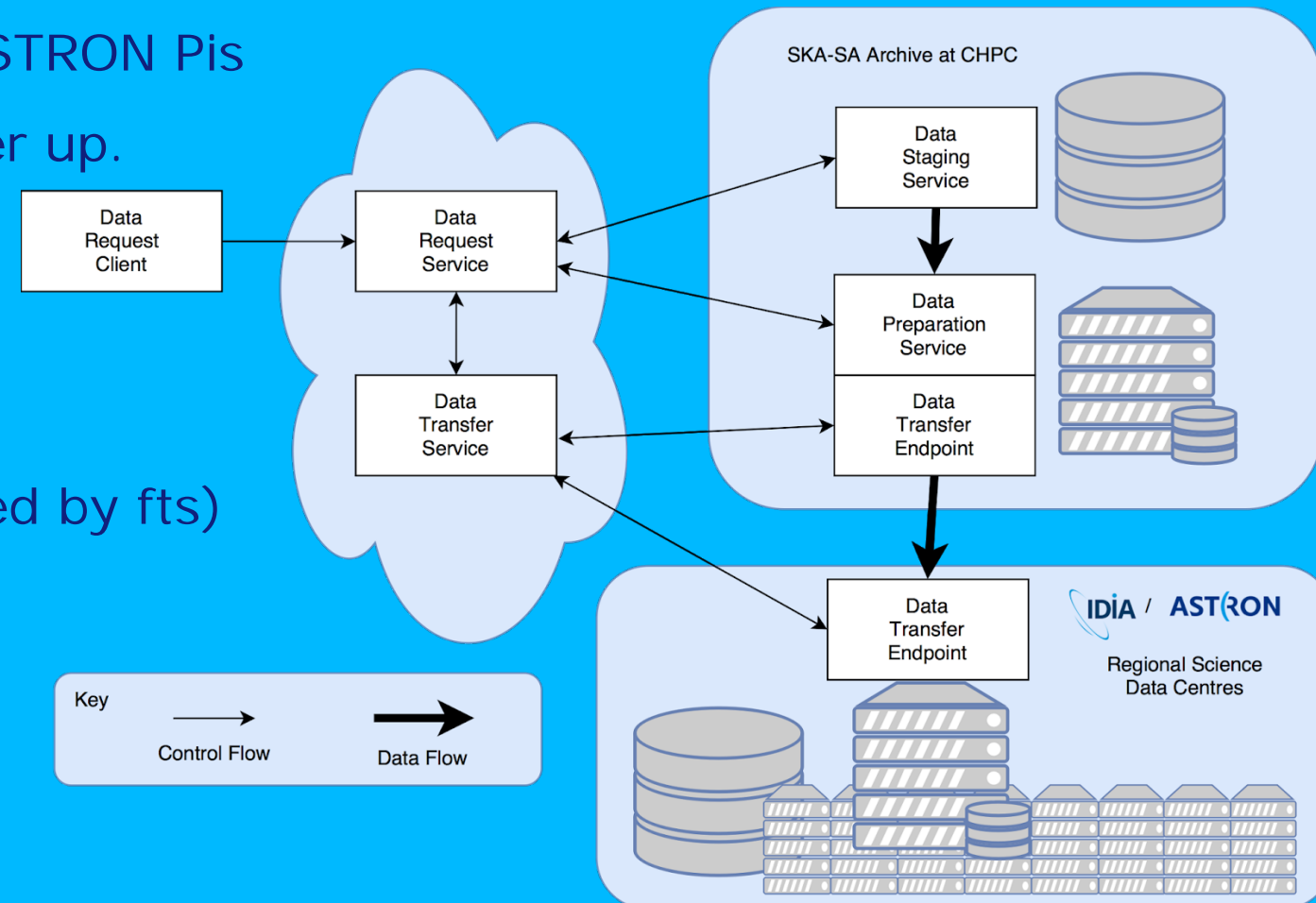
- Now, we create the base images, virtual block storage devices and the VMs, the users focus on processing
- Future plan is to investigate granting resources, giving projects freedom to create nodes and storage, managing (and possibly sharing) their local images
- Use Docker/singularity (via OpenStack plugin)
  - Right now we compile the software
    - Huge Docker images (partly due to layered FS)
  - Binary packages save a lot of space
    - KERNsuite (debian packages)
    - Fixed sw versions



# DOME-SA project



- With MeerKAT, transfer of data from SA to DWL
- Starting with MeerKAT data from ASTRON Pis
- gridftp server and OpenStack cluster up.
  - Still public 1Gbit/s connection
  - 20 Gbit/s CT – AMS
  - Next step(s): ramp up
- Still very manual (transfers managed by fts)

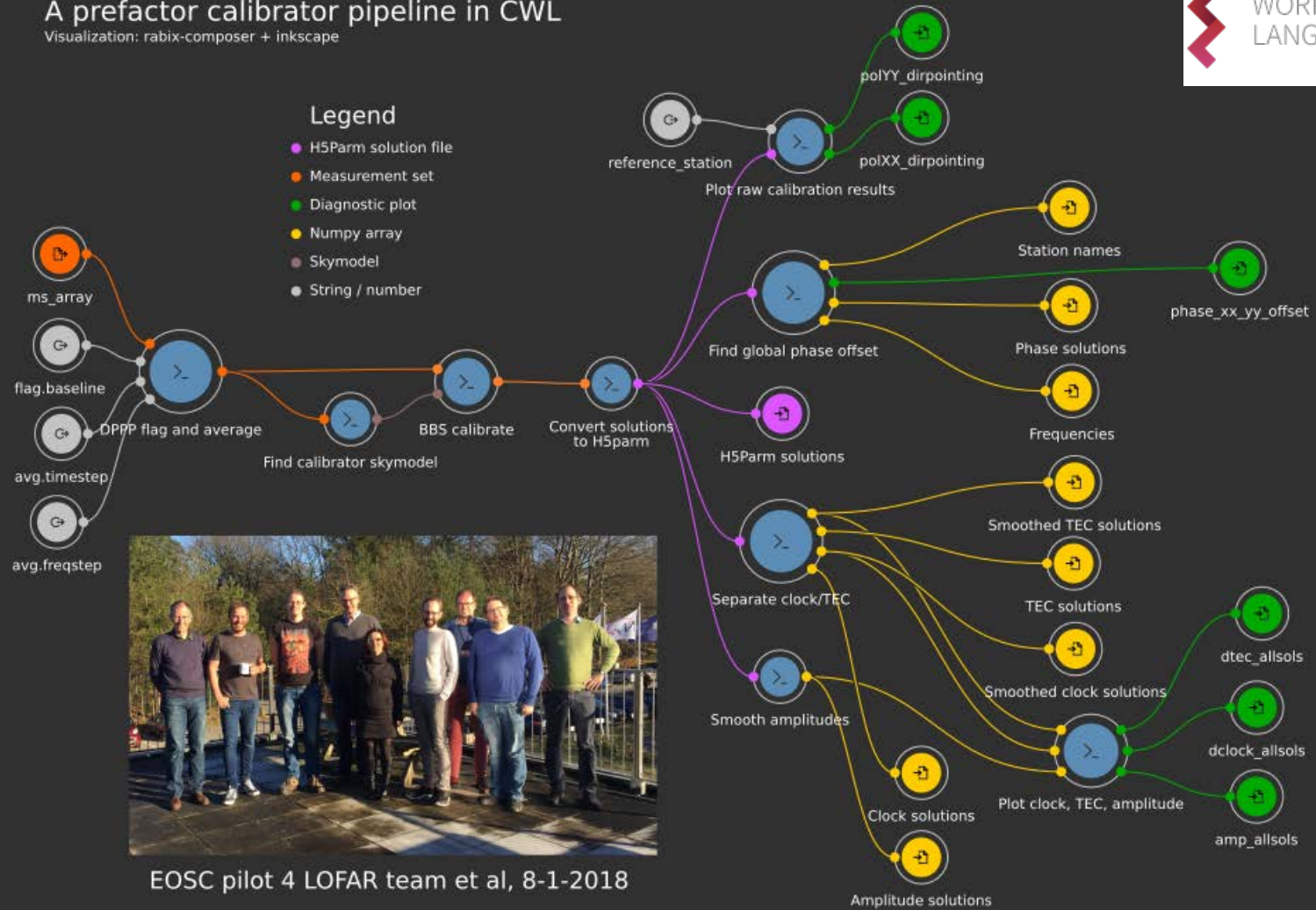


(from: Aikema et al. poster at ADASS 2017. See also yesterdays talk by Rob Simmonds)

COMMON  
WORKFLOW  
LANGUAGE

## A prefactor calibrator pipeline in CWL

Visualization: rabix-composer + inkscape





**swagger** /doc/swagger.json

## FAIR Data Point <sup>0.5.1</sup>

[ Base URL: / ]  
/doc/swagger.json

Provides machine-readable descriptions (metadata) about available data sets.

Netherlands eScience Center - Website  
Send email to Netherlands eScience Center  
Apache 2.0

Schemes  
**HTTP** ▾

### default

<b>GET</b>	/fdp FDP metadata
<b>GET</b>	/catalog/{catalogID} Catalog metadata
<b>GET</b>	/dataset/{datasetID} Dataset metadata
<b>GET</b>	/distribution/{distributionID} Distribution metadata

**OPEN LINK SOFTWARE**

**About: LOFAR LTA DBView** [Goto](#) [Sponge](#) [NotDistinct](#) [Permalink](#)  
An Entity of Type : <http://www.w3.org/ns/dcat#Dataset>, within Data Space : [lofar-id.lofarpipelines-astron.surf-hosted.nl:8080](http://www.w3.org/ns/dcat#Dataset) associated with source [document\(s\)](#)

Type: <http://www.w3.org/ns/dcat#Dataset> Command: [Start New Facet](#) [Go](#)

Attributes	Values
<a href="#">type</a>	<a href="http://www.w3.org/ns/dcat#Dataset">dctype_Dataset</a> <a href="http://www.w3.org/ns/dcat#Dataset">http://www.w3.org/ns/dcat#Dataset</a>
<a href="#">dct:modified</a>	2018-06-27( <a href="#">xsd:dateTime</a> )
<a href="#">label</a>	LOFAR LTA DBView
<a href="#">seeAlso</a>	<a href="#">CSV dump of the LOFAR DBView data</a> <a href="#">RDF dump of the LOFAR DBView data</a> <a href="#">SPARQL endpoint of the LOFAR DBView data</a> <a href="#">SQL dump of the LOFAR DBView data</a>
<a href="#">dct:title</a>	LOFAR LTA DBView
<a href="#">described by</a>	<a href="http://www.w3.org/ns/dcat#Dataset">proxy:entity/http/lofar-id.lofarpipelines-astron.surf-hosted.nl:8080/dataset/lofar-lta-dbview</a>
<a href="#">dct:description</a>	LOFAR (metadata) database related to the Long Term Archive.
<a href="#">dct:identifier</a>	lofar-lta-dbview
<a href="#">dct:language</a>	<a href="http://id.loc.gov/vocabulary/iso639-1/en">http://id.loc.gov/vocabulary/iso639-1/en</a>
<a href="#">dct:publisher</a>	<a href="http://orcid.org/0000-0003-1711-7961">http://orcid.org/0000-0003-1711-7961</a> <a href="https://orcid.org/0000-0002-9834-1756">https://orcid.org/0000-0002-9834-1756</a>
<a href="#">dct:issued</a>	2018-06-27( <a href="#">xsd:dateTime</a> )
<a href="#">dct:hasVersion</a>	0.1
<a href="http://www.w3.org/ns/dcat#distribution">http://www.w3.org/ns/dcat#distribution</a>	<a href="#">CSV dump of the LOFAR DBView data</a> <a href="#">RDF dump of the LOFAR DBView data</a> <a href="#">SPARQL endpoint of the LOFAR DBView data</a> <a href="#">SQL dump of the LOFAR DBView data</a>
<a href="http://www.w3.org/ns/dcat#keyword">http://www.w3.org/ns/dcat#keyword</a>	ASTRON Astronomy LOFAR LTA Long Term Archive

## Other projects



- Astron Data Portal
- Science DMZ
  
- *AENEAS*
- *ESCAPE*