



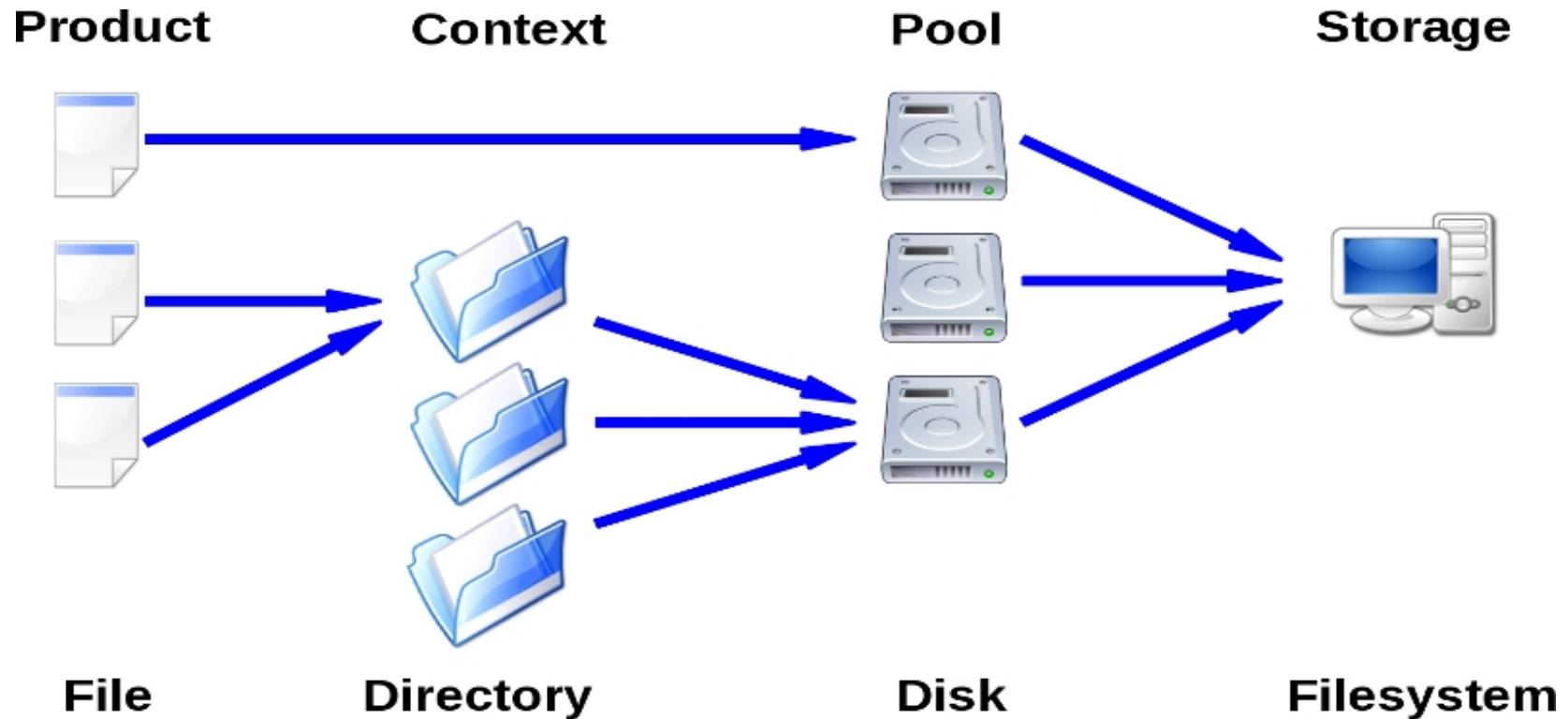
Accessing the HSA Data Storage in HIPE

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HIPE Data Storage

HIPE works with Herschel data stored in *object oriented databases*, called '**storages**'. In practice, these are many fits files organized in a directory structure. The storage on your own computer is called '**lstore**'. A storage can contain many user-defined **pools**. Each pool can contain 1 or many **observations**.



HIPE Data Storage

- The **lstore fits files** cannot be read by other packages than HIPE. They can be **exported** to standard **FITS**, to **CLASS**, and to **ASCII** formats, however, and also sent from HIPE to plugins and VO tools. *See talk/demo on data export tomorrow..*

- Data in the lstore directory can be read as follows:

```
HIPE> obs=getObservation("obsid", poolName="poolname")
```

- A **single pool** ("poolname") can contain **multiple observations** identified with different obsids.
- If "obsid" is the same as "poolname" and it contains only one observations, it is simply:

```
HIPE> obs=getObservation("obsid")
```

- Writing data to the local store is done as follows:

```
saveProduct(product=obs, pool='poolname', tag='obs')
```

Accessing the HSA

- Users will download compressed tar files from the **HSA User Interface**. It can be started in 2 ways:
 - From a **web browser**:
herschel.esac.esa.int/Science_Archive.shtml
 - From HIPE **HSA Perspective**
- The HSA query will deliver tar files which can be downloaded after email notification (next slide). The observation can also be sent directly to a running HIPE session.
- Note that reprocessing with latest pipeline can be requested from HSA GUI (reprocessing of ALL Herschel observations with a new HIPE version is only done every couple of months).
- Alternatively, the HSA GUI can be bypassed:
`obs=getObservation(obsid, useHsa=True)`

Handling HSA Tar Balls

The HSA tar balls are not the same as the gzipped pools that were provided for this workshop! They need to be imported into HIPE in a special way, which will guarantee a proper conversion to lstore format:

- Unpack and uncompress the tar file. Load it into the session using:

```
obs=getObservation(path='pathname')
```

- Then save 'obs' to local pool in lstore directory:

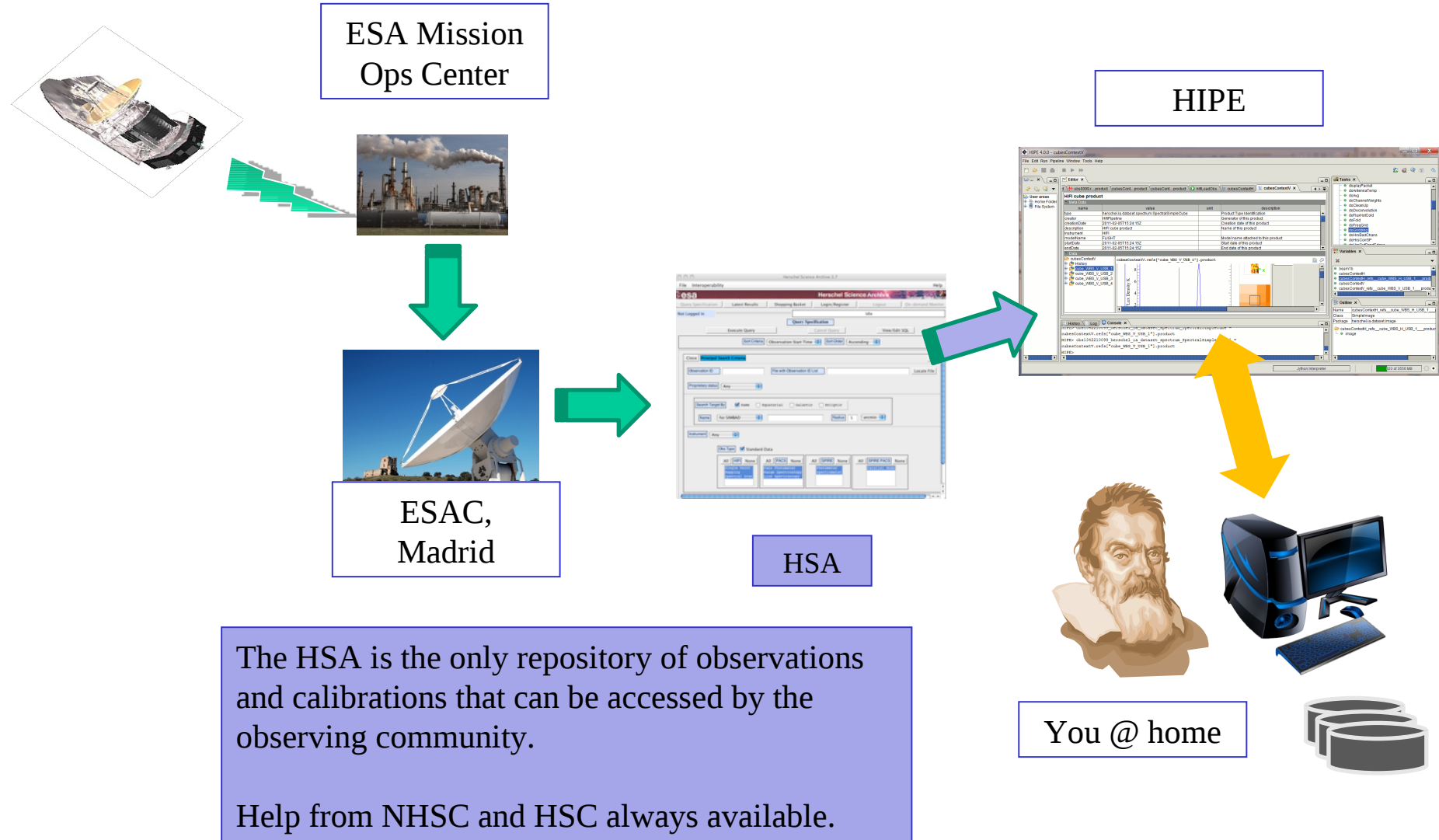
```
saveProduct(product=obs, pool='poolname', tag='obs')
```

If HSA tar file has multiple observations, it may be easier to use the GUI: [Window-->Show View-->Data Access-->Import Herschel Data to HIPE](#). It will show list of observations in tar file and one can indicate which one goes to which pool.



Backup Slides

Data access at $t >$ this week



The HSA is the only repository of observations and calibrations that can be accessed by the observing community.

Help from NHSC and HSC always available.

Data access this week

