Laboratoire d'Annecy-le-Vieux de Physique des Particules

French Data Access Center

LSST-France _ Grenoble June 8th - 9th

D. Boutigny

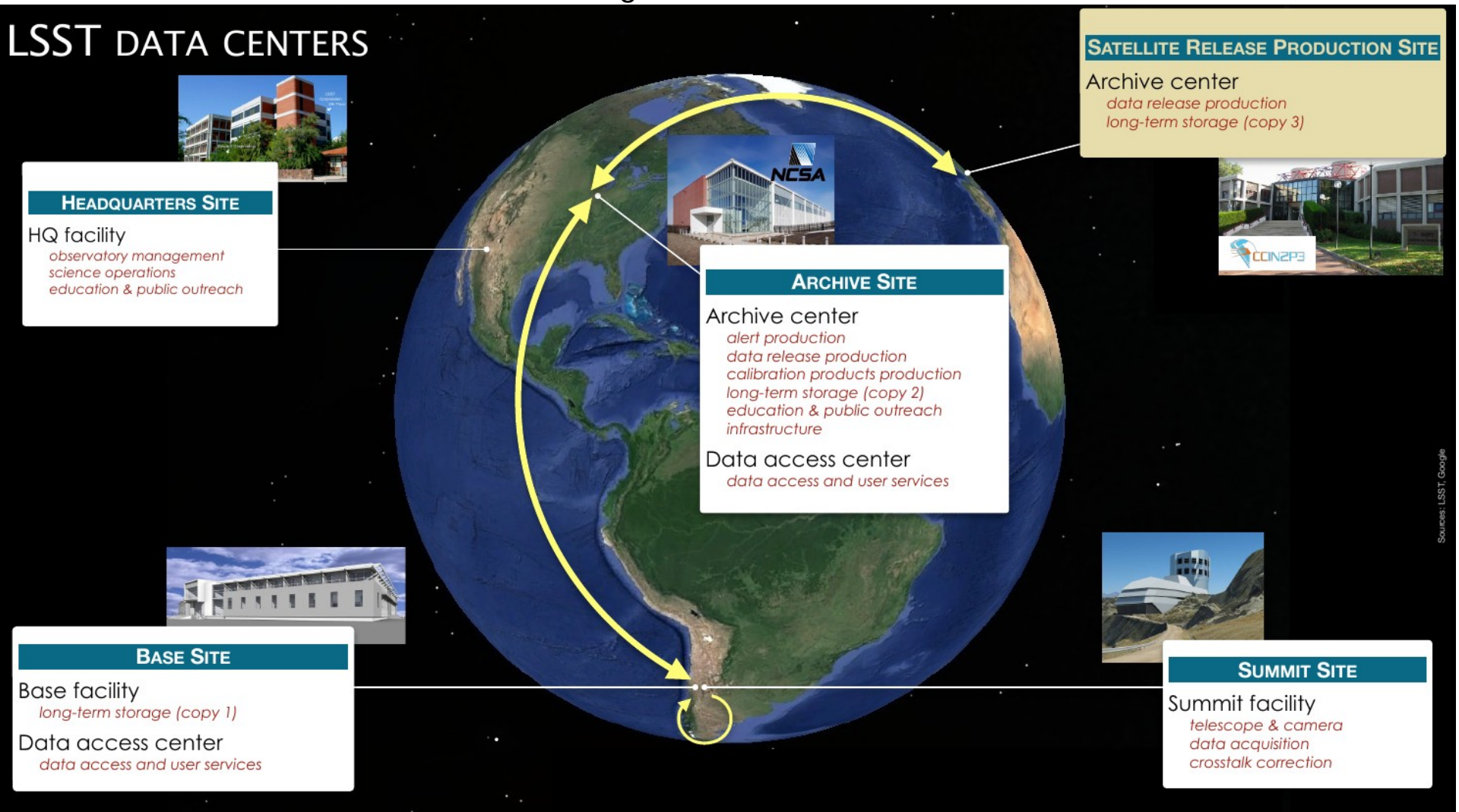
Large Synoptic Survey Telescope

cnrs

UNIVERSITÉ SAVOIE MONT BLANC

MOA signed in 2015 :

- CC-IN2P3 will process 50% of the level-2 data : Satellite Data Release Processing
- Active collaboration between CC-IN2P3 and NCSA (JCC)
  - Some R&D starting (including partenership with vendors)
  - 20 Gb/s dedicated bandwidth being commisionned



- Need to think about the next steps
  - We will have the data but how do we provide access to them ?
  - Which infrastucture do we set up for science / analysis ?
- Such an infrastructure will have a cost ($ and human)
- Some important political aspects
  - Invited talk at the Belgrade meeting
    - Perhaps a good time to start talking with other European LSST partners
  - Need to reach an agreement with IN2P3 / CC-IN2P3

⇒ need to plan things now

- The French DAC will be a combination of
  - The LSST DAC as decribed in LDM-230
  - The DESC computing infrastructure as defined by the CI1-CI2 working groups
    - Relies heavily on facilities at NERSC
  - + some other requirements form the French / European LSST community
    - May include non DESC functionnalities

Scope of the DAC

3 options :

- DAC restricted to IN2P3 community
  - Minimum option to guarantee the scientific return
- Open to a French wider community
  - Include INSU and CEA
- Open to the international LSST community
  - In-kind contribution to DESC
  - Set up something collaborative at the European level
    - Are we able to reach an agreement other European LSST partners and especially with the UK ?
    - Are there other potentially interested countries ?
    - Apply for EC funds ?

DAC Components

- Data repository
  - Store and serve level-2 / level 3 data + user data
- Catalog of Astronomical Objects a.k.a. Qserv
- HTC farm
- Parallel / large memory farm
  - Large cosmological fits
- User Interface and vizualization
    - Will mainly rely on the services developped at IPAC
- Data distribution system
    - To download datasets to local facilities / laptop
- Also need to specify the communication channels to be set up between all the components

- We need input from the user community in order to specify and to size more precisely each component