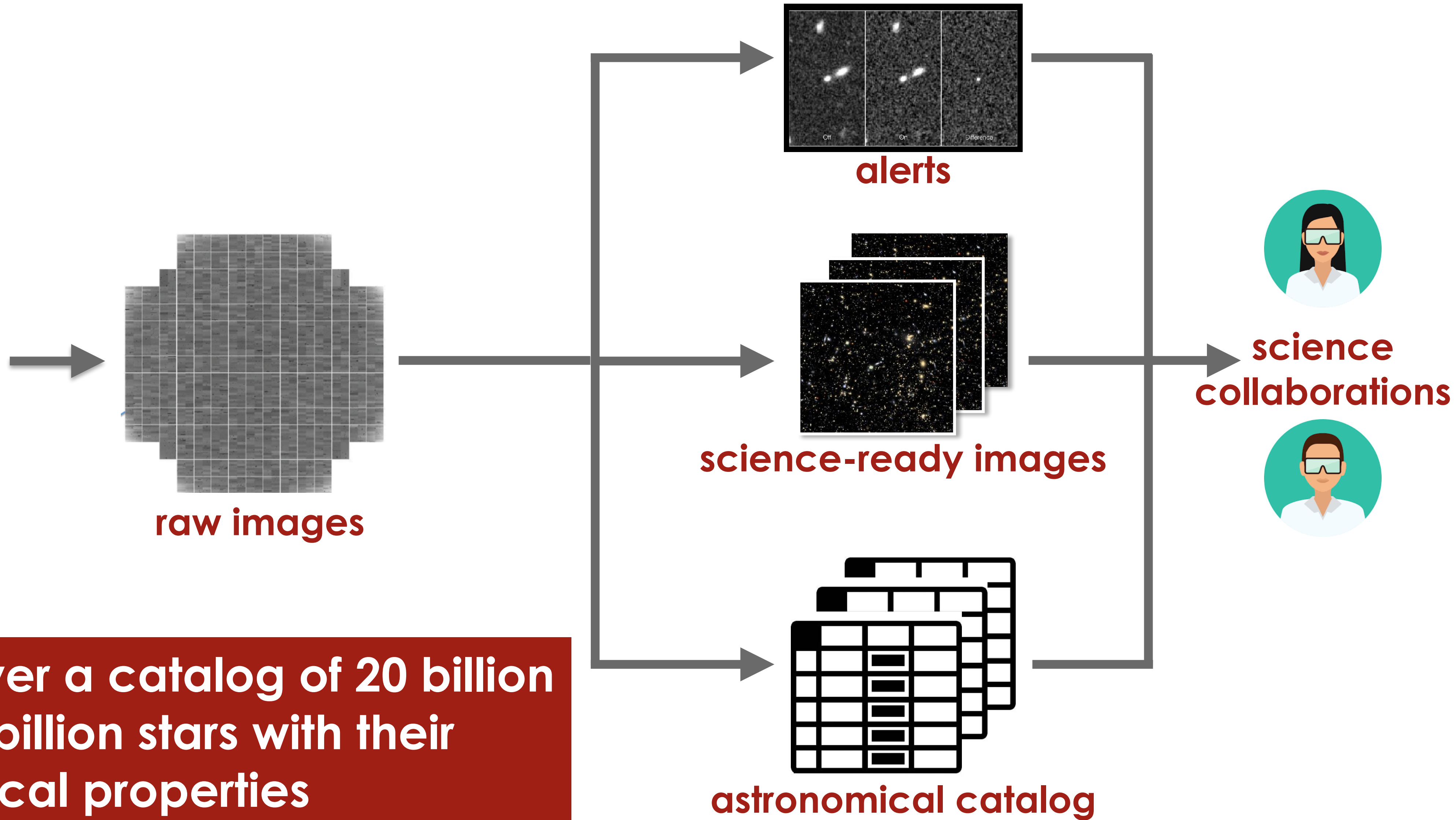
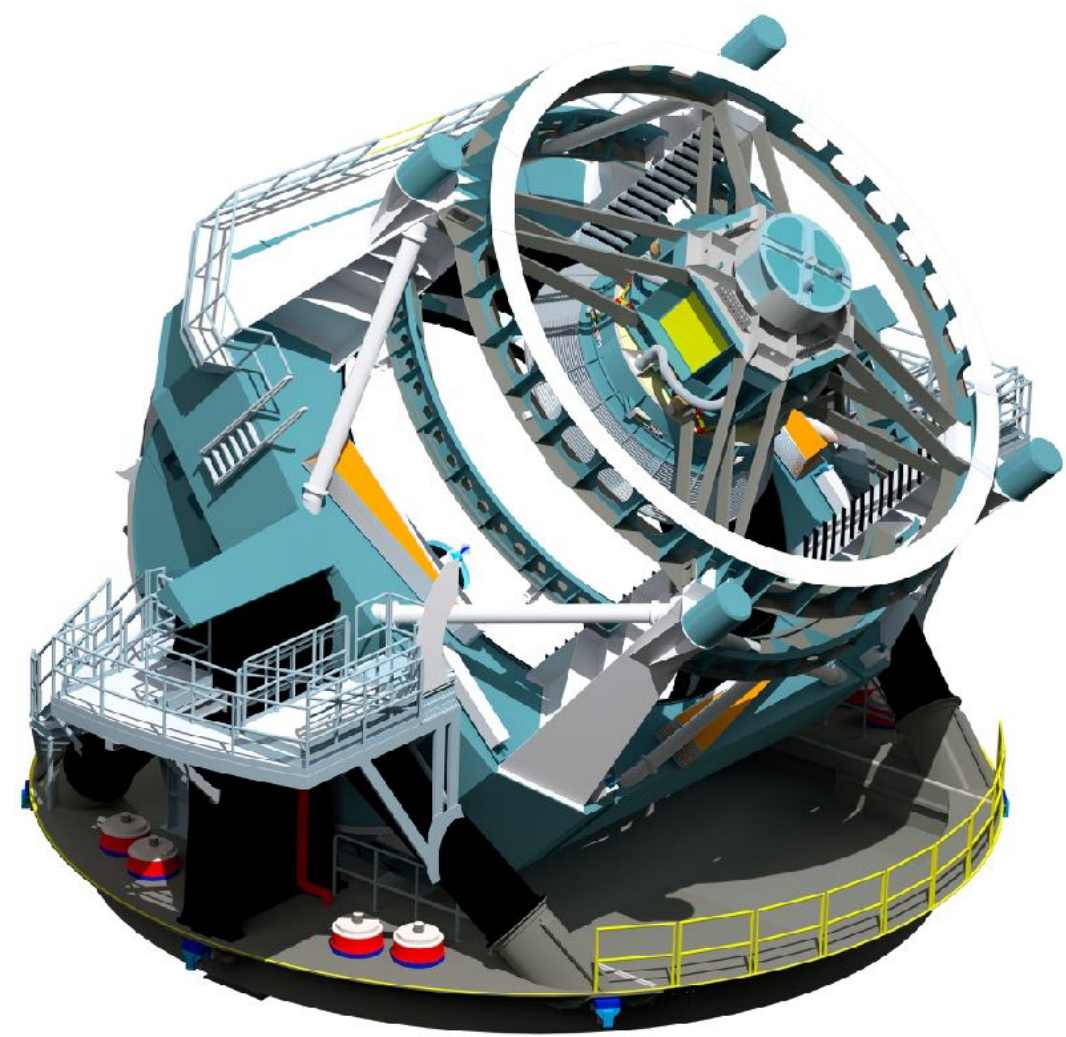


**Centre de Calcul**  
de l'Institut National de Physique Nucléaire  
et de Physique des Particules

# What LSST data products do you need for your research?

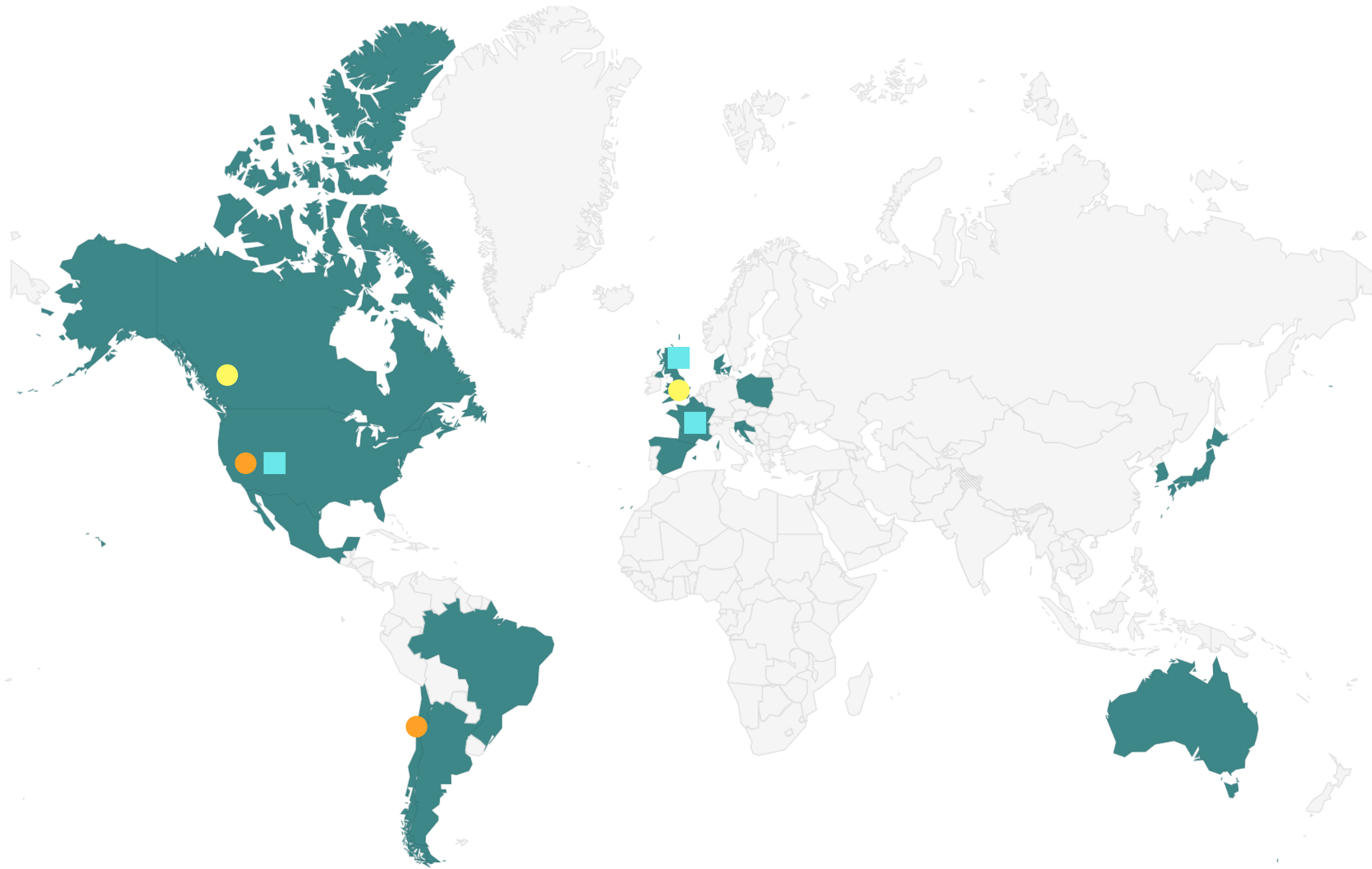
**fabio hernandez, quentin le boulc'h, gabriele mainetti**

# RUBIN OBSERVATORY LEGACY SURVEY OF SPACE AND TIME



**LSST aims to deliver a catalog of 20 billion galaxies and 17 billion stars with their associated physical properties**

# RUBIN DATA ACCESS CENTERS



Data Access Centers	●	Chile, US
Full Independent DACs	●	Canada, UK
Lite Independent DACs		Argentina, Australia, Brazil, Canada, Denmark, Japan (x2), Mexico, Poland, Slovenia, South Korea, Spain
Scientific Processing Center		Croatia
Data Facilities	■	France, UK, US

details in [Rubin In-kind Program](#)

# RUBIN DATA ACCESS CENTERS (CONT.)

- Excerpts\* from [RTN-003](#) “*Guidelines for Rubin Independent Data Access Centers*”

*“Access to Rubin Observatory data products for any users will be possible through a DAC”*

*“Any DAC will have to support authentication according to Rubin Observatory access rules. ...**any user with access rights should be allowed access to the IDAC**”*

*“The United States’s DAC ... is where registered Rubin Observatory users will perform scientific queries. Most users will have access to a default set of resources at the DAC **sufficient for basic queries and analysis**. Users who require more resources will be able to apply for them”*

*\* emphases ours*

# LSST DATA PRODUCTS IN FRANCE?

- IN2P3 committed to contribute equipment and labor for processing 40% of the raw dataset to produce the annual data releases  
*for the 10 year-long survey*  
*processing to be performed at CC-IN2P3*  
*budget for this contribution is almost secured, at least for the foreseeable future*
- In addition, a copy of the full raw image dataset will be stored at CC-IN2P3  
*included in the budget for DRP*

# LSST DATA PRODUCTS IN FRANCE? (CONT.)

- We established a forecast budget covering several scenarios for keeping released data products at CC-IN2P3, e.g.
  - keep a full copy of two most recent data releases*
  - keep a full copy of the single most recent data release*
- The budget required is beyond what IN2P3 management expected

# WHAT IS NEXT?

- We need to understand what data products LSST France research groups really need for their research

*we want you to ask yourselves why is it necessary / better / more convenient / more effective to have those products at CC-IN2P3?*

*how your research would be negatively impacted if you cannot have those products at CC-IN2P3?*

- Total size of LSST data releases  
*13 PB (year 1) → 110 PB (year 10)*

# WHAT IS NEXT? (CONT.)

- What **data products** will be included in the annual data releases?

*we will very briefly present the image products and the contents of the astronomical catalog that you can expect to find in the LSST data releases*

*we will also provide the reference documents about those products*

- What **tools and services** Rubin is preparing for science analysis?

*we will present how you can get familiar with those tools and several of those data products today*