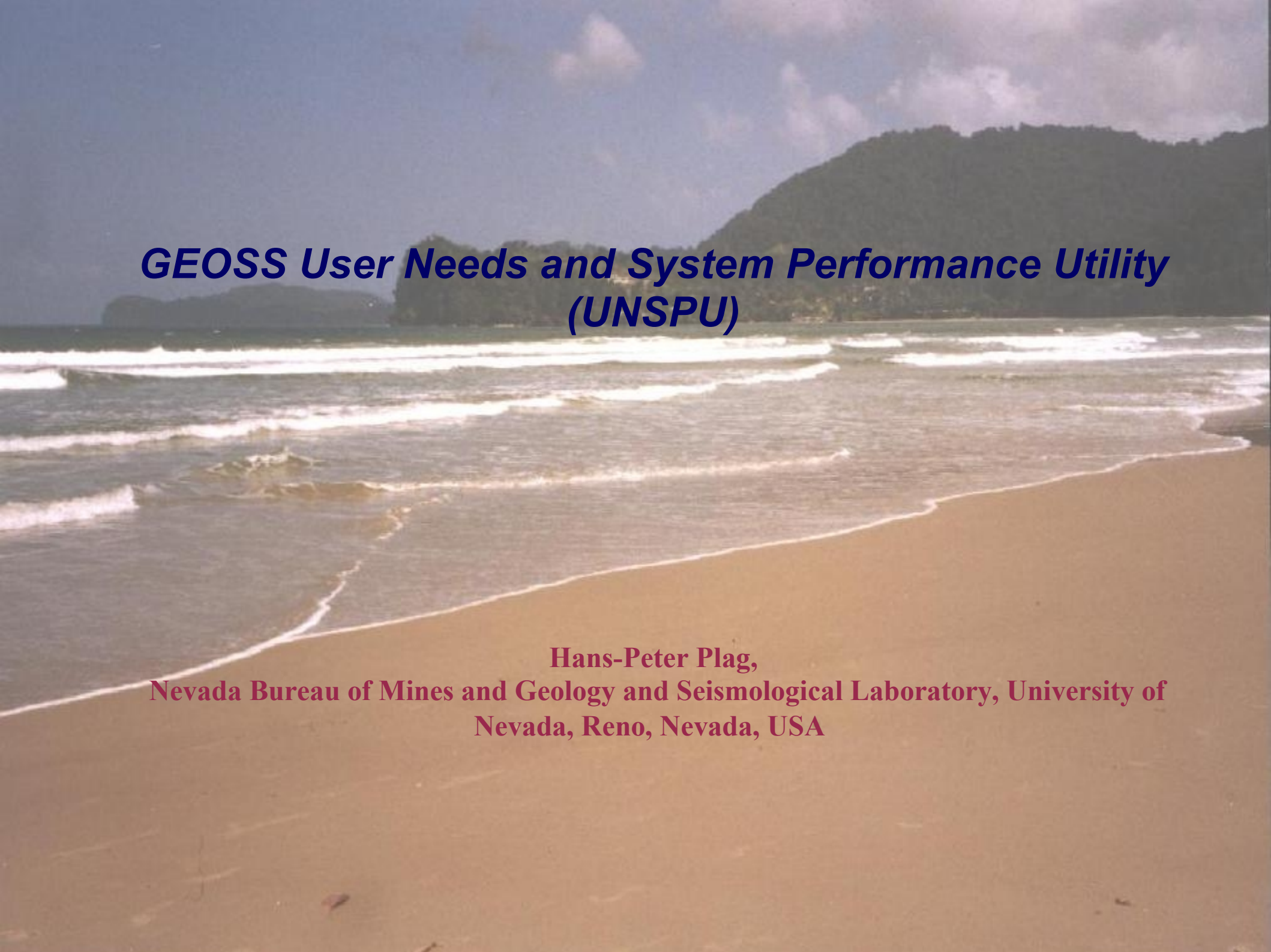

GEOSS User Needs and System Performance Utility (UNSPU)

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GEOSS User Needs and System Performance Utility (UNSPU)

- Motivation
- The US-06-01 Process
- Functional Specifications
- Architecture of then UNSPU
- Filling the User-Related Part of the UNSPU?

Motivation

The five functional components of GEOSS specified in the 10YIP include:

- To address identified common user requirements;
- To monitor performance against defined requirements and intended benefits.

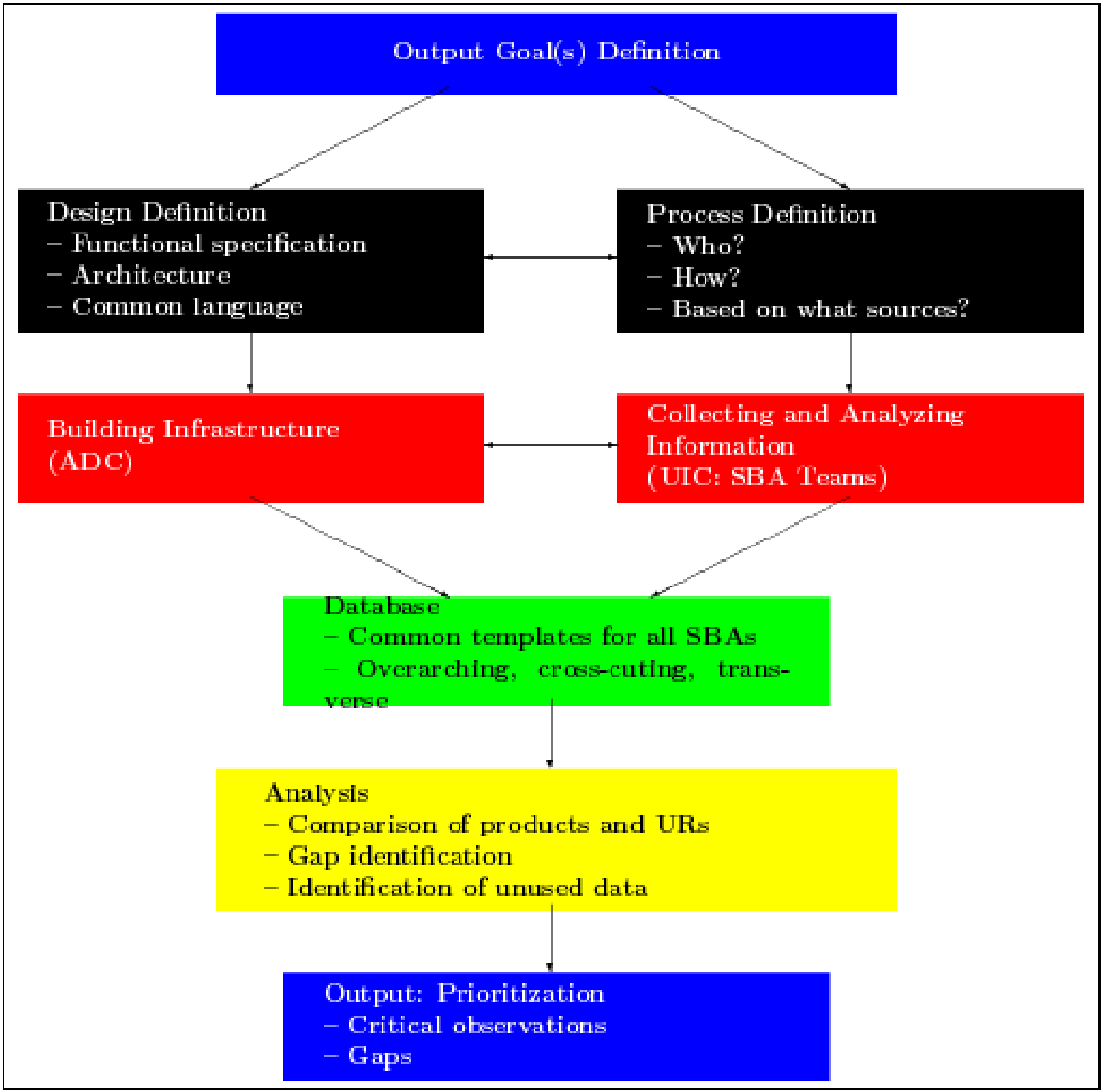
The 10YIP requests:

- to regularly review and assess the needs and requirements for Earth Observation data;
- to involve users in reviewing and assessing requirements for Earth Observation data, products and services;
- to track the performance of observational networks and identify and fix problems.

Meeting this requires:

- A process to gather and review information
- A utility to store and analyse information

User Requirements in Support of System Design



Functional Specifications (1)

The UNSPU shall have the following **database components**:

Earth-system related:

· Objects: registry of objects (variables, properties, states, trends);

User-related:

· Users: registry of GEOSS users groups and classes;
· Applications: applications benefiting from Earth observations and derived products;
· Requirements: quantitative requirements in terms of objects;

Observing System-related:

· Specifications: specifications of system performance in terms of products and their characteristics;
· Techniques: observation techniques, including observed variables, accuracy, resolution, latency, reliability, availability, and status (research, operational);
· Observation: observations available to GEOSS;
· Products: products (may include observations) made available through GEOSS services, including a quantitative characterization.

Functional Specifications (2)

The UNSPU shall provide the following **Links:**

- LINK AU: Users to applications and applications to users;
- LINK RA: Applications to requirements and requirements to applications;
- LINK PO: Observations to products and products to observations;

Functional Specifications (3)

The UNSPU shall provide the following **edit functions for GEO members**:

· Users;
· Applications;
· Techniques.
· Observations;
· Products.

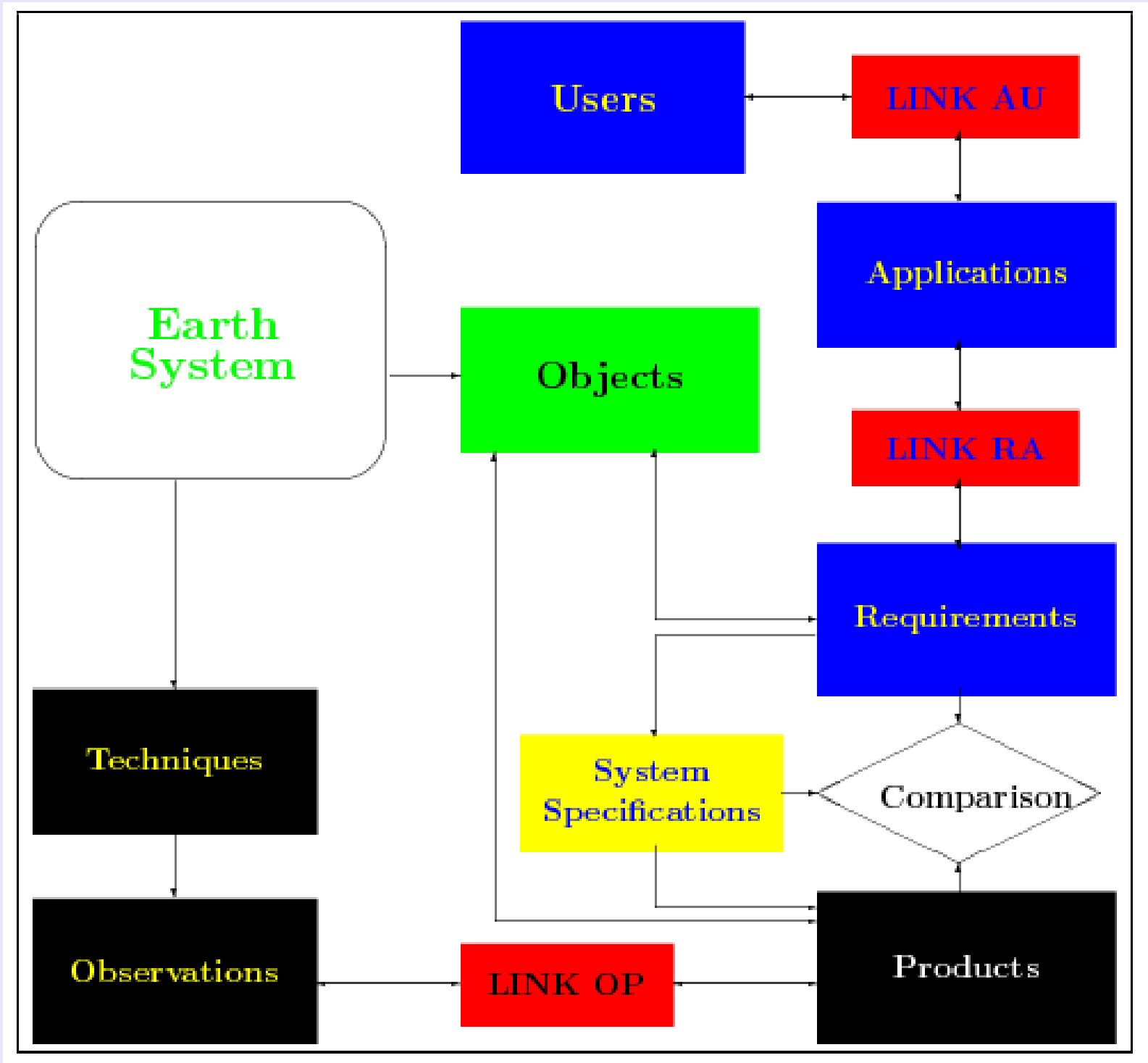
The UNSPU shall provide for **authorized administrators edit functions** for the following components:

· Objects;
· Requirements;
· Specifications.

The UNSPU shall provide the following **analysis functions**:

· Deviations of products from specifications (performance);
· Applications not being severed as needed (gaps analysis);
· Users not getting the full benefit of Earth observations (gap analysis);.
· Observations and products not used (redundancy);

Architecture



Populating and Updating the UNSPU

Consider the User-related Part of UNSPU:

- GEO UIC: *Ad hoc* SBA Teams and Communities of Practice provide the user needs. *Is this really broadly user-driven?*
- GEO STC: Considering the need for comprehensive monitoring, the spatial and temporal characteristics of the quantities determine the necessary monitoring system. *Specific user group driven, science-based..*
- GEO ADC: Looking from GEOSS to the user needs in the SBAs. *Provider-drive?*

Transition:
Provider-Active to Customer-Active
Offer-Based to Demand-Based