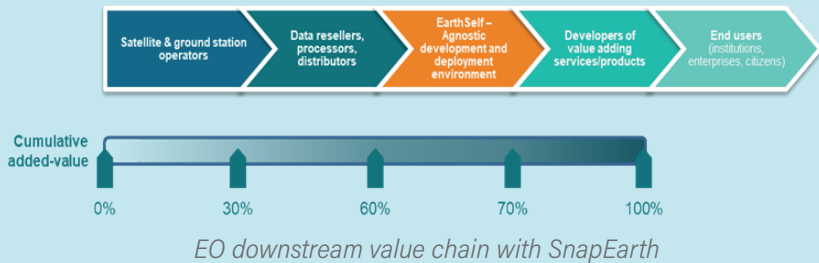


# EarthSelf

## ASSUMPTION

[www.snapearth.eu](http://www.snapearth.eu)

Earth Observation (EO) satellite missions provide an unprecedented increase volume of data production leading to new capabilities to monitor & analyze the health of our planet. However, these massive volumes of data are complex to analyze and are not accessible. Faced with the tremendous volumes of data produced (dozens of Petabytes), the network capacities required for their dissemination and the amount of processing required to valorise them, the use of Big Data and Cloud technologies appears to be a natural solution. In this context, several programmes have been launched, including the DIAS initiative launched by the European Commission. The remaining problem is the heterogeneity of the proposed solutions. The processing services offered on these environments are different in terms of processing framework, data management systems, scientific libraries, EO processing libraries, machine learning libraries, etc. This is why SnapEarth offers EarthSelf service, a cloud agnostic solution, enabling this holistic access through a system-of-systems approach to Big Data processing.



## WHO IS THE SERVICE DEDICATED TO?

EarthSelf addresses all Value-Added-Service (VAS) developers. They can be divided in 4 categories:

- Academics (National space agencies, Space research institutions and laboratories etc.)
- Major EO-based service providers
- EO start-ups and SMEs
- Data science departments of major firms

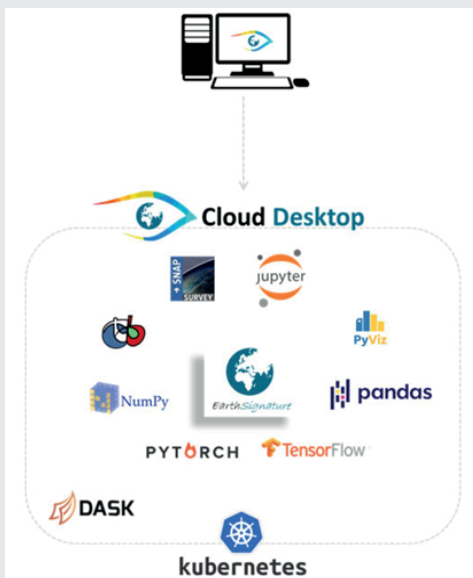
## FUNCTIONALITY

EarthSelf is composed of **4 main components**:

1. **A Cloud comparator** that enables any VAS developer to benchmark the Cloud offers in few minutes, and select the one offering the best value-for-money compared to its specific needs.
2. **A Cloud environment configuration and deployment service** based on SafeScale solution that drastically eases the access of Cloud technologies to VAS developers. It enables the VAS developers to benefit from public Clouds with no need to have specific skills in IT infrastructure or cyber-security. These environments can be fine-tuned to perfectly fit each VAS developer needs and optimise the related costs. The Cloud-based environments are designed to provide all necessary tools to develop new Proves-of-concept and service while ensuring the ramp-up and large-scale production in one place.
3. **An access to EarthSignature database** through a built-in API, to exploit the results of the database and combining it with their own data or other data to create added value.
4. **Helpdesk portal and support**, to help service creators to configure their Cloud environment and manipulate EO data to develop new services.

## SERVICE DEVELOPMENT

EarthSelf service is used in the frame of SnapeEarth project to deploy and operate the SnapEarth platforms on the cloud. EarthSelf offers optional Cloud Desktop service (if agreements) to provide users with a graphical environment allowing them to prototype and fine-tune various parameters of their projects. It provides all tools involved in the analysis of EO data and the development of added value services. It is based on web technologies for a fluid, ergonomic and intuitive user experience without any deployment on the user infrastructure.



<https://snapearth.csgroup.space/>