

## INTRODUCTION

The **Data Center for Deep Geothermal Energy** (CDGP – Centre de Données de Géothermie Profonde, <https://cdgp.unstrasbg.fr>) was launched in 2016 by the LabEx G-EAU-THERMIE PROFONDE (<http://labex-geothermie.unistra.fr>) to preserve, archive and distribute data acquired on geothermal sites in Alsace. Since the beginning of the project, specific procedures are followed to respect international requirements for data management. In particular, FAIR recommendations are used to distribute Findable, Accessible, Interoperable and Reusable data.

## EPOS TCS-AH



The CDGP is a local node for the European Plate Observing System (EPOS) Anthropogenic Hazards platform (<https://tcs.ah-epos.eu>). The platform provides an environment and facilities (data, services, software) for research onto anthropogenic hazards, especially related to the exploration and exploitation of geo-resources. Metadata are pushed into TCS-AH catalogue, where data are only uploaded on demand.

## DATA INGESTION PROCEDURE

A specific workflow has been set up at the CDGP to ingest new data. Data are processed in order to follow FAIR recommendations. Standardized formats are used and each dataset is associated with its own metadata. A metadata creation tool was developed to generate metadata following recent standards. Metadata are uploaded on geOrchestra, which provides a metadata catalog and an environment to explore and search data. Data are gathered in episodes and each one has a DOI. Several quality controls ensure the good quality of data and metadata available on the CDGP.

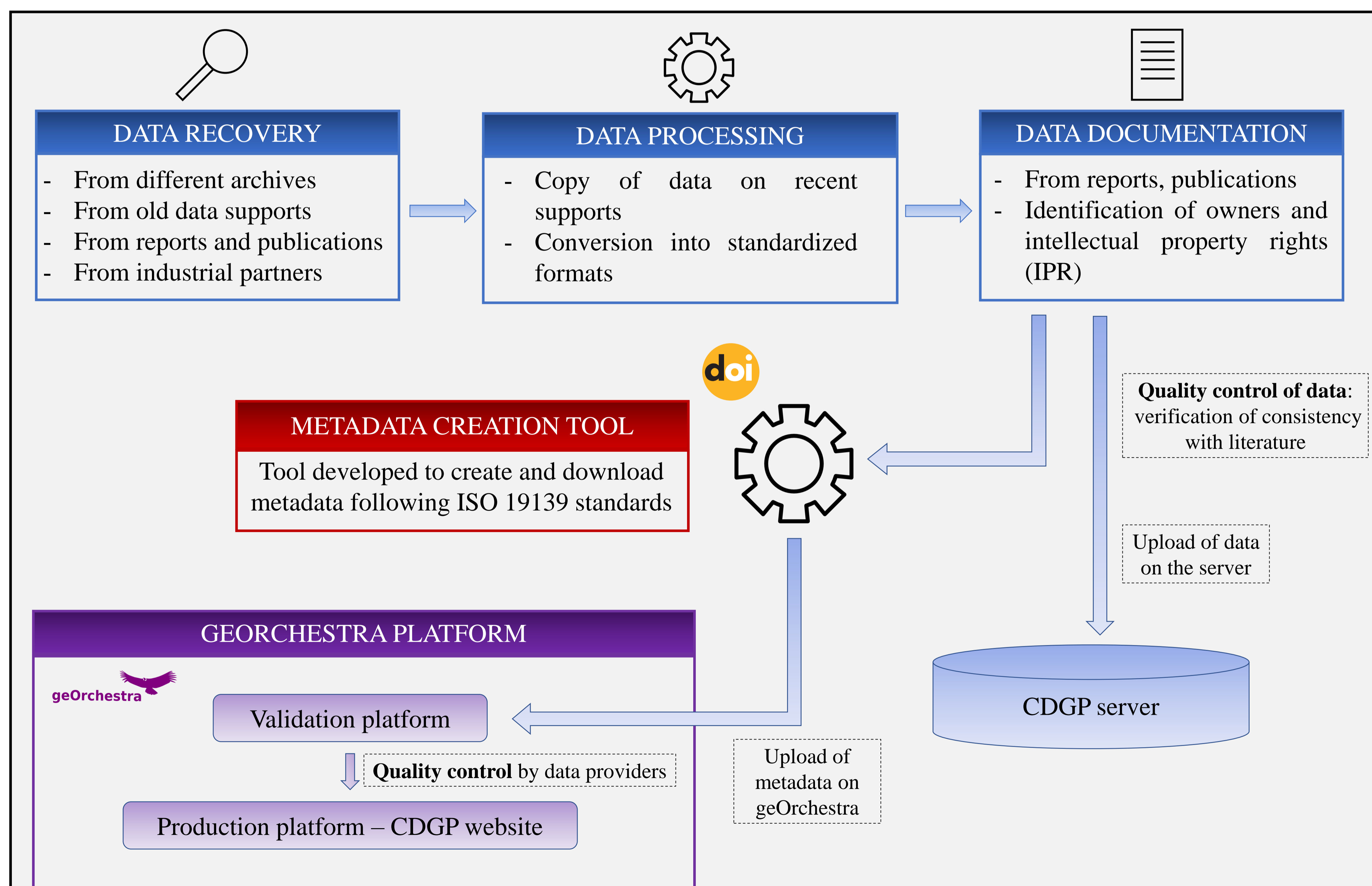


Figure 1: Functional diagram presenting the data ingestion procedure

## DATA ACCESS AND AAI

The CDGP website gives access to data through the geOrchestra platform. But some of the data are sensible and need a certain confidentiality. To secure the data access, an Authentication, Authorization and Accounting Infrastructure (AAAI) was established. Before querying data, users have to create an account on the CDGP website specifying their affiliation (i.e. academic, industrial, ...). The affiliation is manually checked by an administrator of the CDGP. The AAAI tool gives access to data depending to distribution rules of the data and the user's affiliation. For all demand, an explanation text on the use of data is needed. EULA are automatically sent to the user for each download of data.

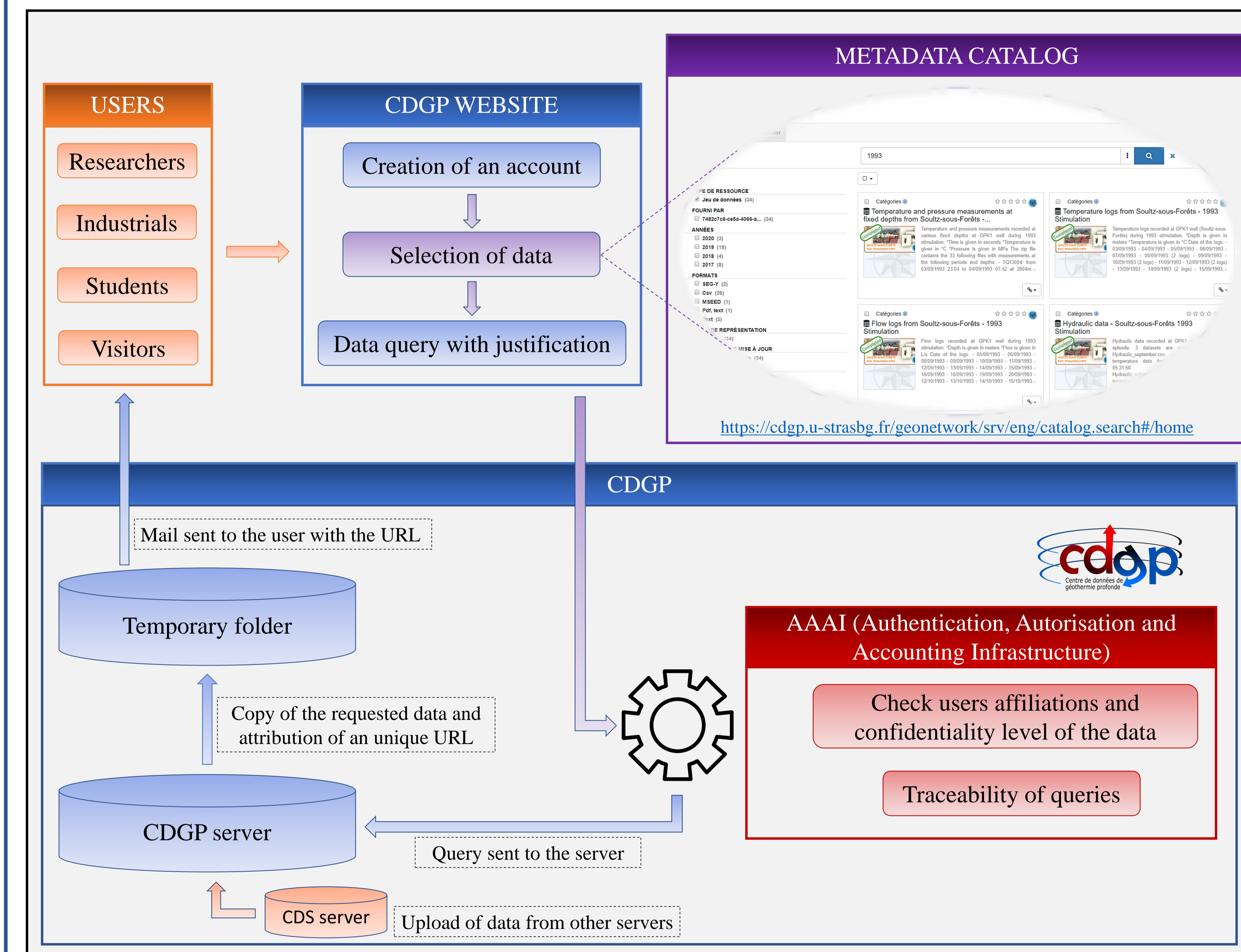


Figure 2: Functional diagram presenting the data access

## NEW DATA ADDED

Episodes 1994, 1995, 1996 and 2010 from the Soutz-sous-Forêts pilot project were recently added to the episodes already available on the CDGP (1988, 1991, 1993, 2000, 2003, 2004 and 2005). Recently added waveforms are accessible too and add up to those of the 1993 episode.

## NEXT STEPS FOR THE CDGP

The next step for the CDGP is first to complete data from Soultz-sous-Forêts. Then, data from the other geothermal sites in Alsace (Rittershoffen, Illkirch, Vendenheim) need to be collected in order to be distributed. Finally, with other French data centers, we are on track to apply the CoreTrustSeal certification (ANR Cedre).