

# DRIVER VRE

The DRIVER Virtual Research Environment (VRE) employs the interoperability capacities of gCube system in order to allow the D4Science and DRIVER infrastructures to mutually exploit resources that lie outside their administrative domain and functional capacity. Data sets, services, storage and computational power are among the resources integrated to the benefit of scientific communities of several disciplines.

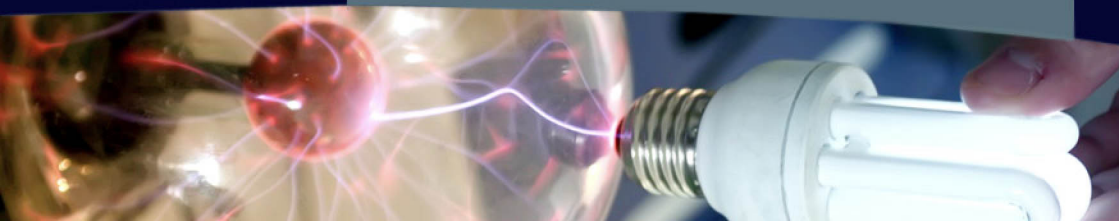
## D-Net enabled Data Infrastructures:

- The DRIVER Repository: An infrastructure that harvests aggregates and curates more than two million documents in 260 repositories from 36 countries.
- The OpenAIRE Repository: A pilot infrastructure that aims to promote and strengthen Open Access initiative.

## Objectives of the VRE:

- Functional enhancement of D-Net Installations via advanced services operating on computational and storage resources that reside on D4Science infrastructure, and are managed by the gCube system.
- Mutual exposition of content hosted on gCube / D-Net enabled Data Infrastructures to the benefit of the respective infrastructure's users.

Indirect beneficiaries of DRIVER VRE are: scientists across several disciplines (humanities, earth observation, physics, informatics etc), researchers, and even web users and other information systems that can access and exploit the data and services exposed by the VRE in various ways.



The DRIVER VRE is a programmatically accessible aggregation of resources (data and services). By addressing a multitude of interoperability challenges, it exposes to D-Net powered Data Infrastructures the following facilities:

- **Content transformation** capability provided by the gCube Data Transformation Service.
- **gCube content access** via a multitude of means:
  - Harvesting of gCube hosted collections
  - URL-based referencing of content
  - Information retrieval integration, via both gCube-native and standard OpenSearch specification interfaces, followed by metadata alignment
- **Bibliometric analysis** of data sets.
- Access to context-free processing over grid and cloud computing, offered through the Process Execution Engine of gCube.

Symmetrically, D-Net managed content resources are exposed to gCube powered Data Infrastructures and transitively to other interoperating infrastructures, both ways contributing to an Ecosystem of Data and Services.



OpenAIRE aims to support the implementation of Open Access in Europe by establishing and operating an eInfrastructure, consisting of portal and services, for handling peer-reviewed articles and other important forms of publications. Additionally the project builds the support and outreach means to embrace the system operation, by the establishment of a dedicated Pan-European Help Desk for Researchers to deposit their documents on the infrastructure and the operation and collaboration of 27 National Open Access Liaison Offices.

URL: <http://www.openaire.eu/>



DRIVER has established a network of experts and Open Access repositories aiming to optimise the way the e-Infrastructure is used to store knowledge. Gradually it has evolved into a fully functional, state-of-the-art, system and a large confederation of repositories, facilitating access to millions of documents for a broad and large audience. Based on the D-Net software suite it builds a scalable robust eInfrastructure that offers advanced integration, retrieval and user-centric services around the repositories it confederates, promoting interoperability and facilitating Open Access to European research material.

URL: <http://www.driver-community.eu/>

