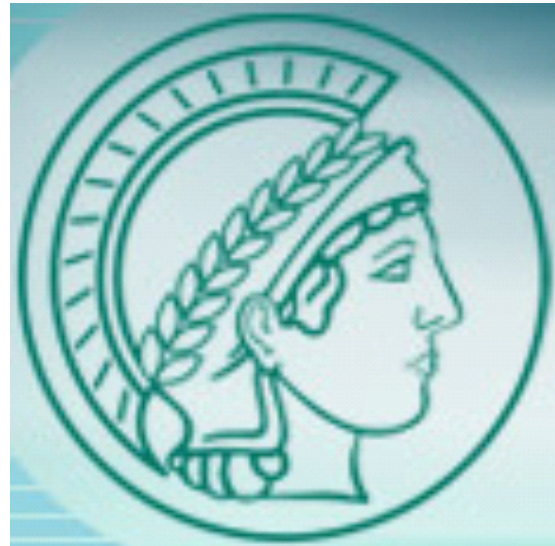
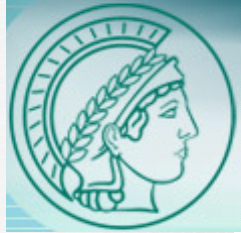
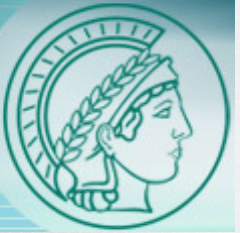


# E-iRODS

**Relevance for  
Institutes of the  
Max Planck Society**





# Max Planck Society

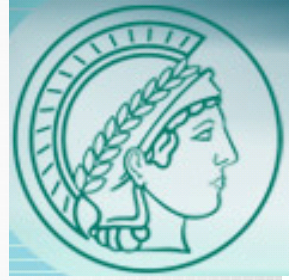
**Max Planck Society** The Max Planck Society for the Advancement of Science is an independent, non-profit research organization that primarily promotes and supports research at its own institutes.

The research institutes perform basic research in the interest of the general public in the natural sciences, life sciences, social sciences, and the humanities.

Currently the Max Planck Society maintains 80 institutes, research units, and working groups



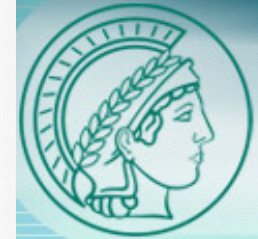
# Max Planck Society



Many institutes of the Max Planck Society are engaged in international collaborations with data involvements

This includes institutes from all three main areas of research within the MPS:

- Chemistry, Physics & Technology
- Biology and Medicine
- Humanities and Social Sciences



# Max Planck Society

## International Cooperation Research activities and Projects of the Max Planck Society

Max Planck institutes operate as a worldwide network based on international cooperations and projects. International cooperations promote scientific performance and productivity; they create a scientific added value, and in many research fields make it possible to actually achieve a critical mass.

The Max Planck Society has developed various instruments which are specifically tailored towards the advancement of international collaboration. Such instruments include the establishment of

- **Max Planck Institutes abroad**
- **Max Planck Center / Partner Institutes**
- **Partner Groups**





# MPS – Chemistry, Physics & Technology

## Data from fusion energy research - plasma physics

**Experiment data of Asdex Upgrade**, MPI for Plasma Physics  
Generated at Garching, Germany

**Experiment data of W7-X**, MPI for Plasma Physics,  
to be generated at Greifswald, Germany as of 2014

**Experiment data of ITER**,  
to be generated at Cadarache, France  
With involvement of MPI for Plasma Physics

**Supercomputing data of IFERC**,  
Rokkasho, Japan, with involvement of MPI for Plasma Physics



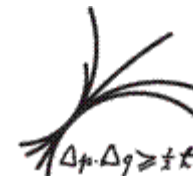


# MPS – Chemistry, Physics & Technology

## Magic Project – Data from Telescopes

Gamma Ray Astronomy

Involvement of MPI for Physics, Munich



**Pan-STARRS** -- the Panoramic Survey Telescope & Rapid Response System -- is an innovative design for a wide-field imaging facility developed at the University of Hawaii's Institute for Astronomy.

Involvement of

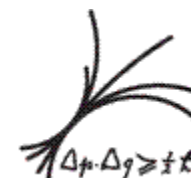
MPI for Extraterrestrial Physics, Garching

MPI for Astronomy, Heidelberg



## ATLAS Project, CERN

Involvement of MPI for Physics, Munich



# MPS – Chemistry, Physics & Technology

## **EUCLID Project** of ESA

Cosmic vision 2015-2025

Mapping the geometry of the dark Universe - Telescope data

Involvement of MPI for Extraterrestrial Physics, Garching



## **GALFORMOD Project**

**Galformod Portal - Web Services for Galaxy Formation Model**

Cosmology simulation data

MPI for Astrophysics, Garching

Max-Planck-Institut  
für Astrophysik



**LIGO LIGO Project** – Gravitational wave detection + simulations



Albert Einstein Institute  
Hannover

# MPS – Biology and Medicine

## Genome data

from several genome sequencing centers in the MPS, especially from

- MPI for Molecular Genetics, Berlin
- MPI for Biochemistry, Martinsried
- MPI für Plant Breeding Research, Köln



# MPS – Humanities and Social Sciences

- Video and audio documents of languages threatened by extinction,  
MPI for Psycholinguistics, Nijmegen
- Digitized data and photo archive of „  
„Kunsthistorische Institut in Florenz“
- Digitized documents of Biblioteca Hertziana  
in Rome
- Human Ethology Film Archive of the MPS  
in Andechs

# MPS – Climate Research

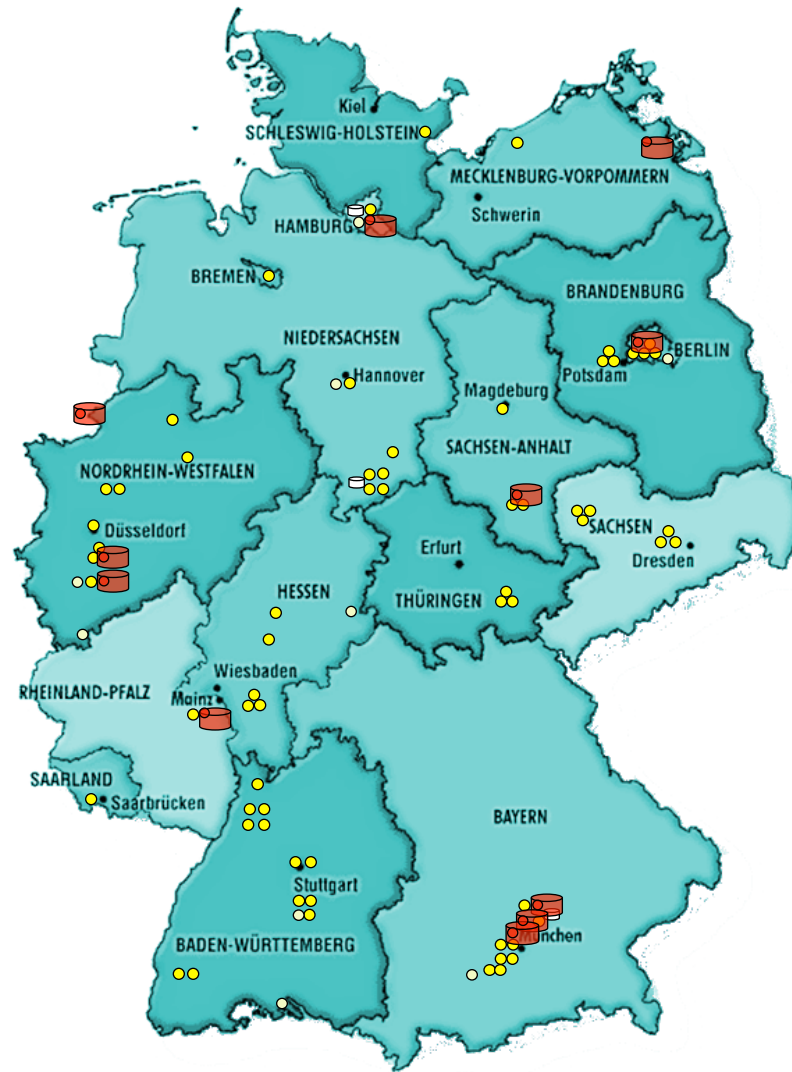
- MPI for Meteorology, Hamburg
- MPI for Chemistry, Mainz
- MPI for Bio-Geo-Chemistry, Jena

Engaged in several international climate research projects, as

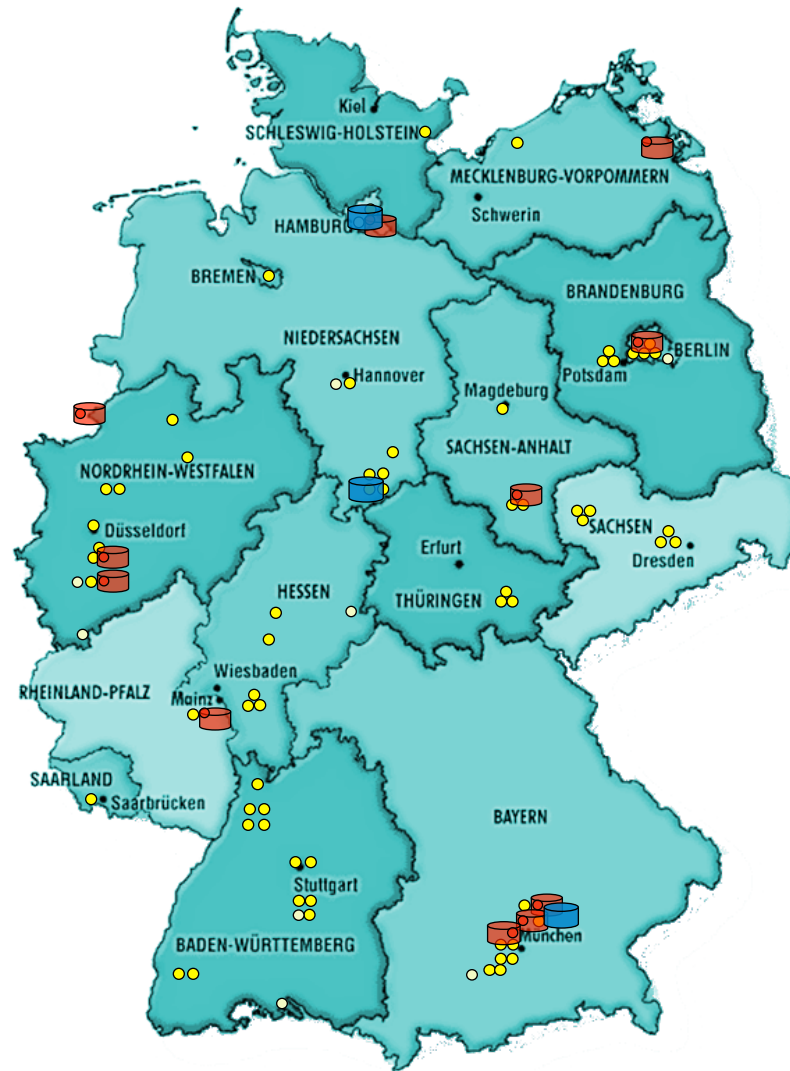
- IS-ENES
- IPCC

**Leading Data & Computing Center: DKRZ, Hamburg**

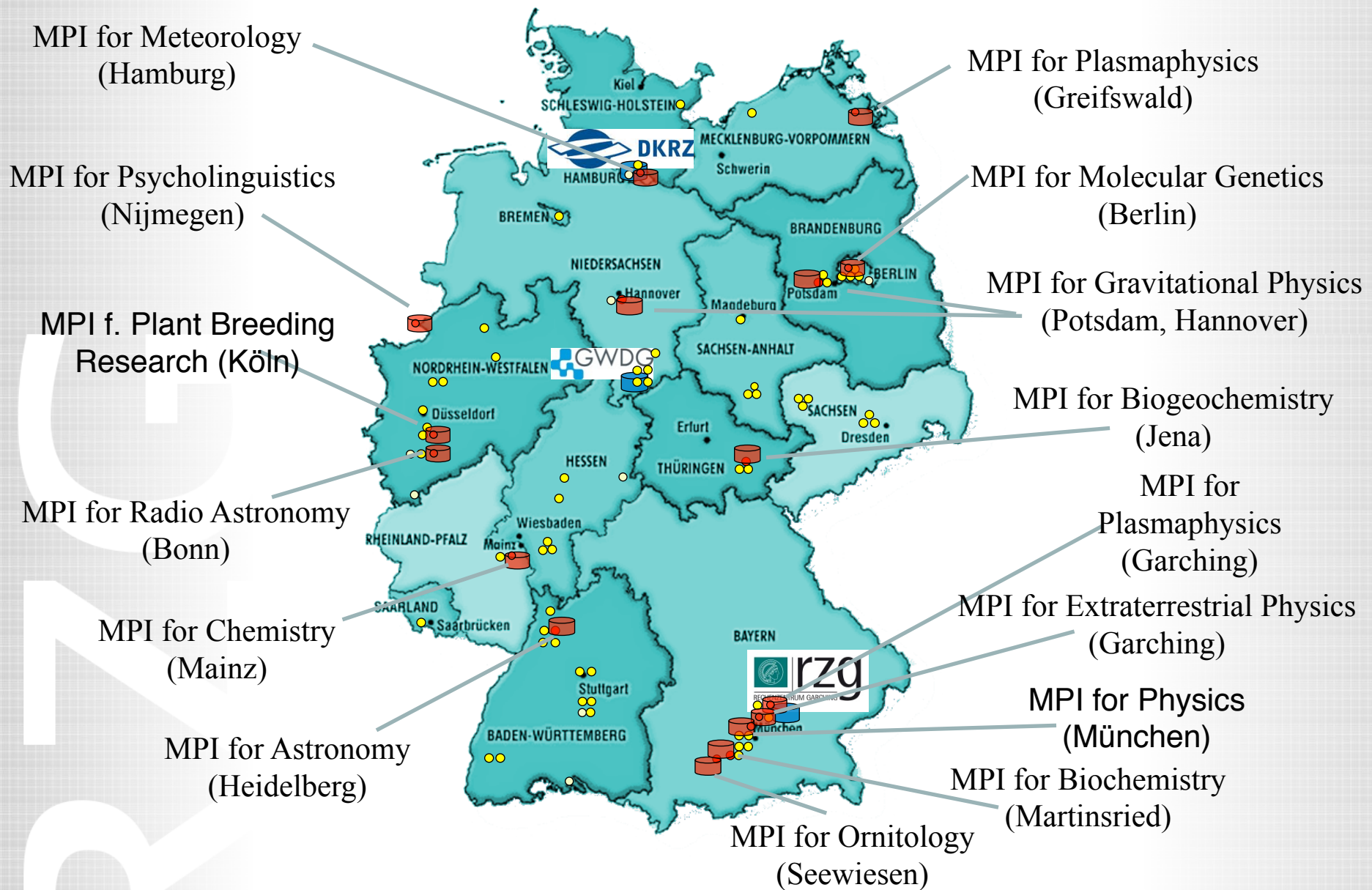




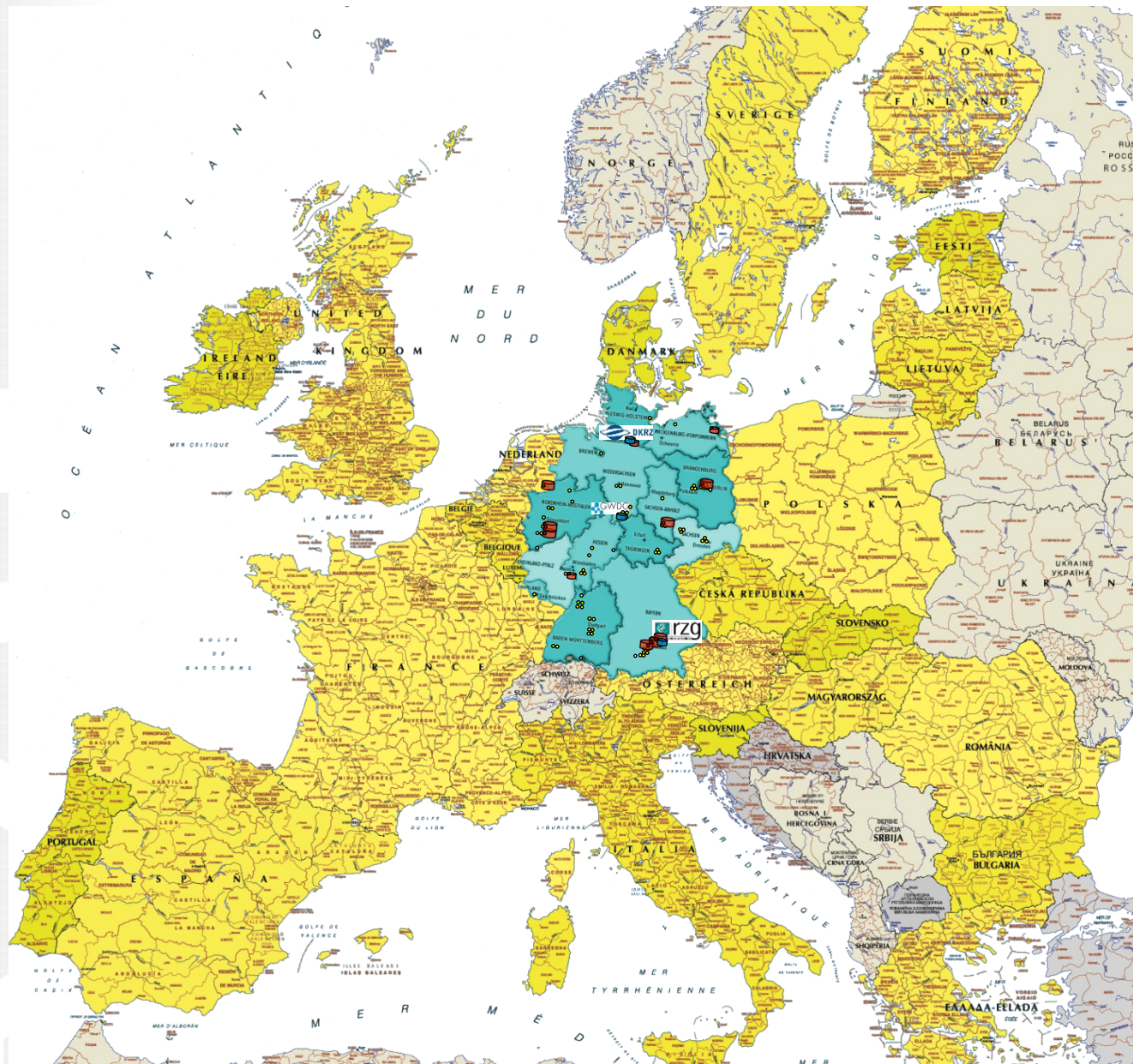




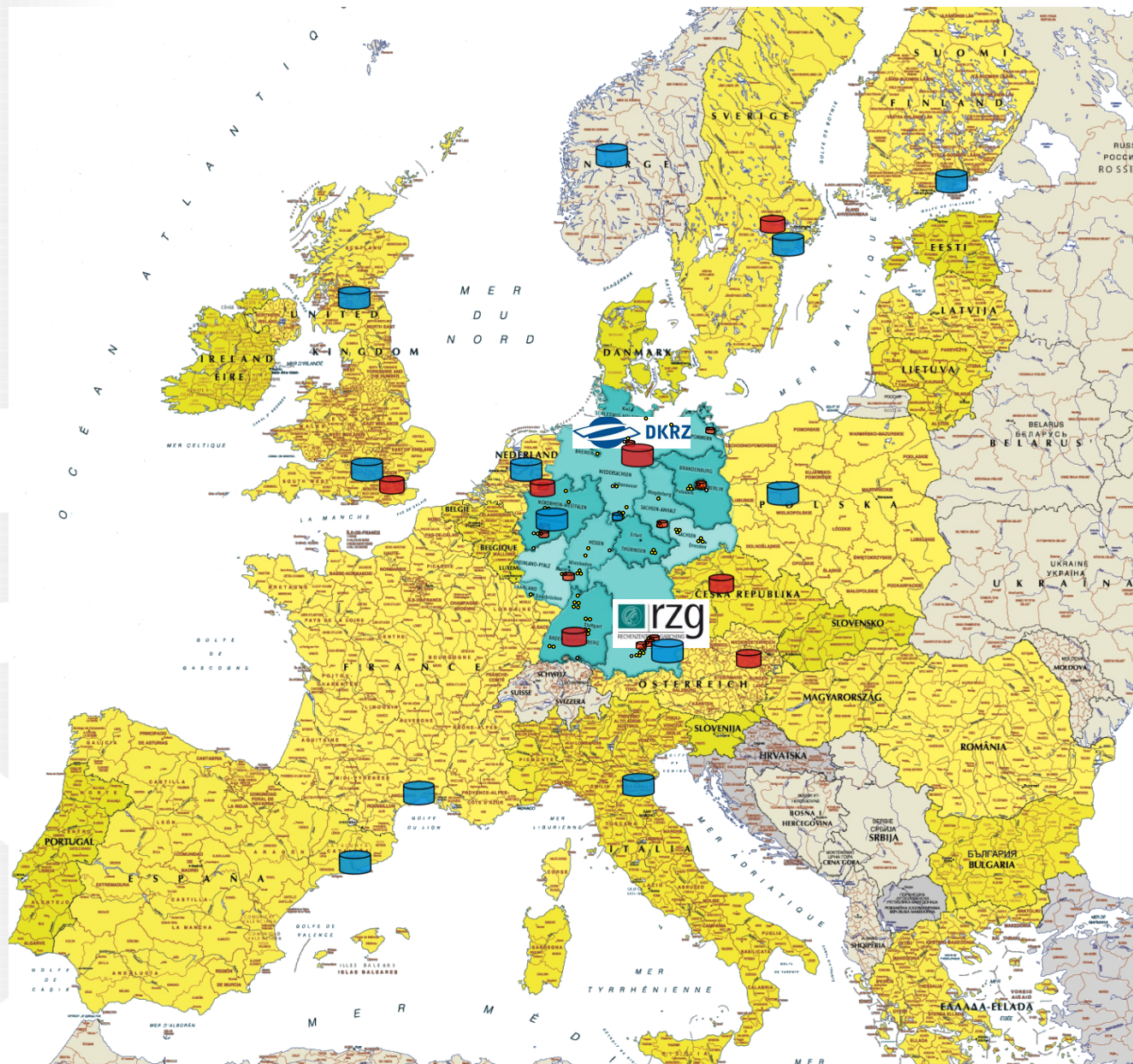








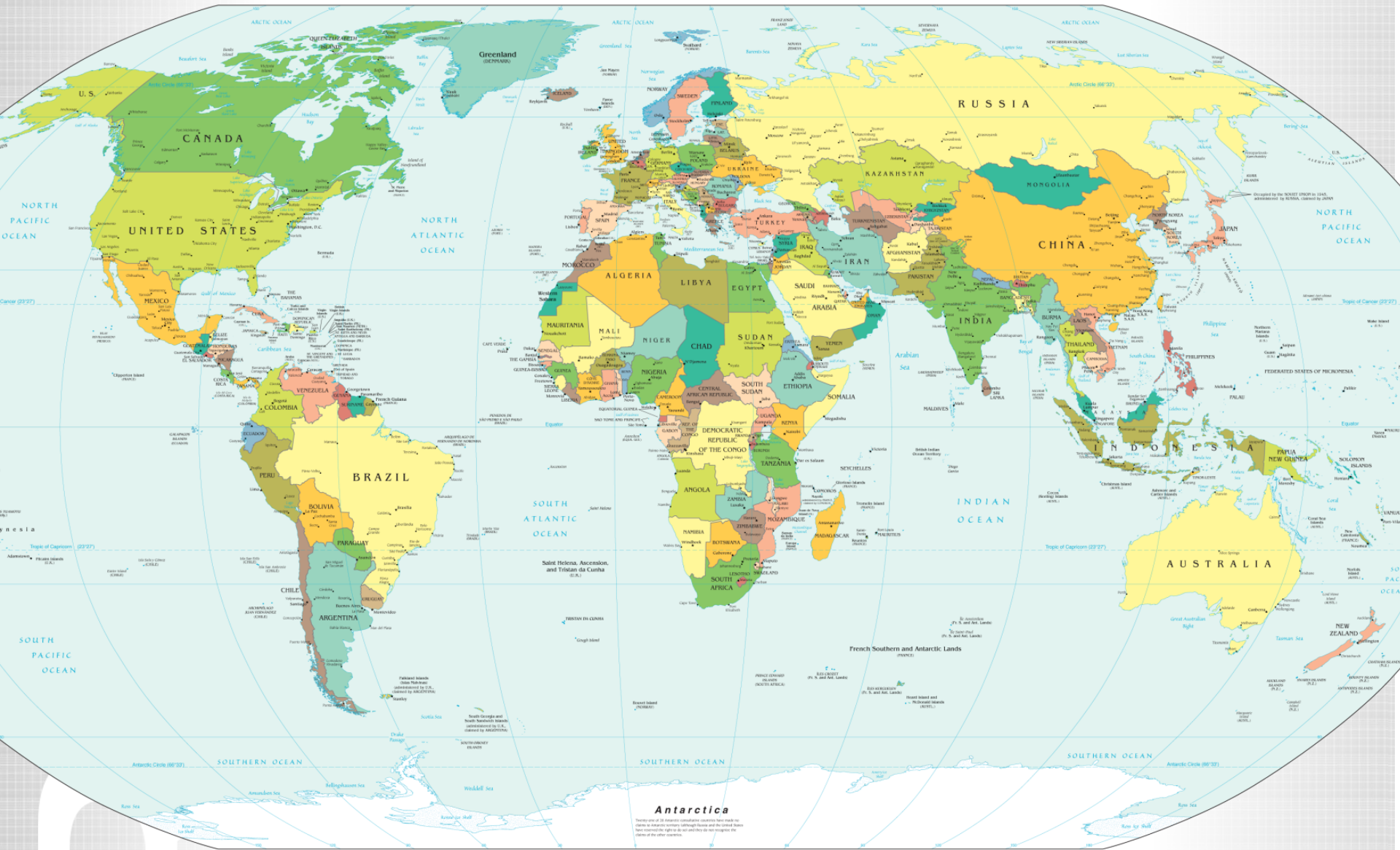






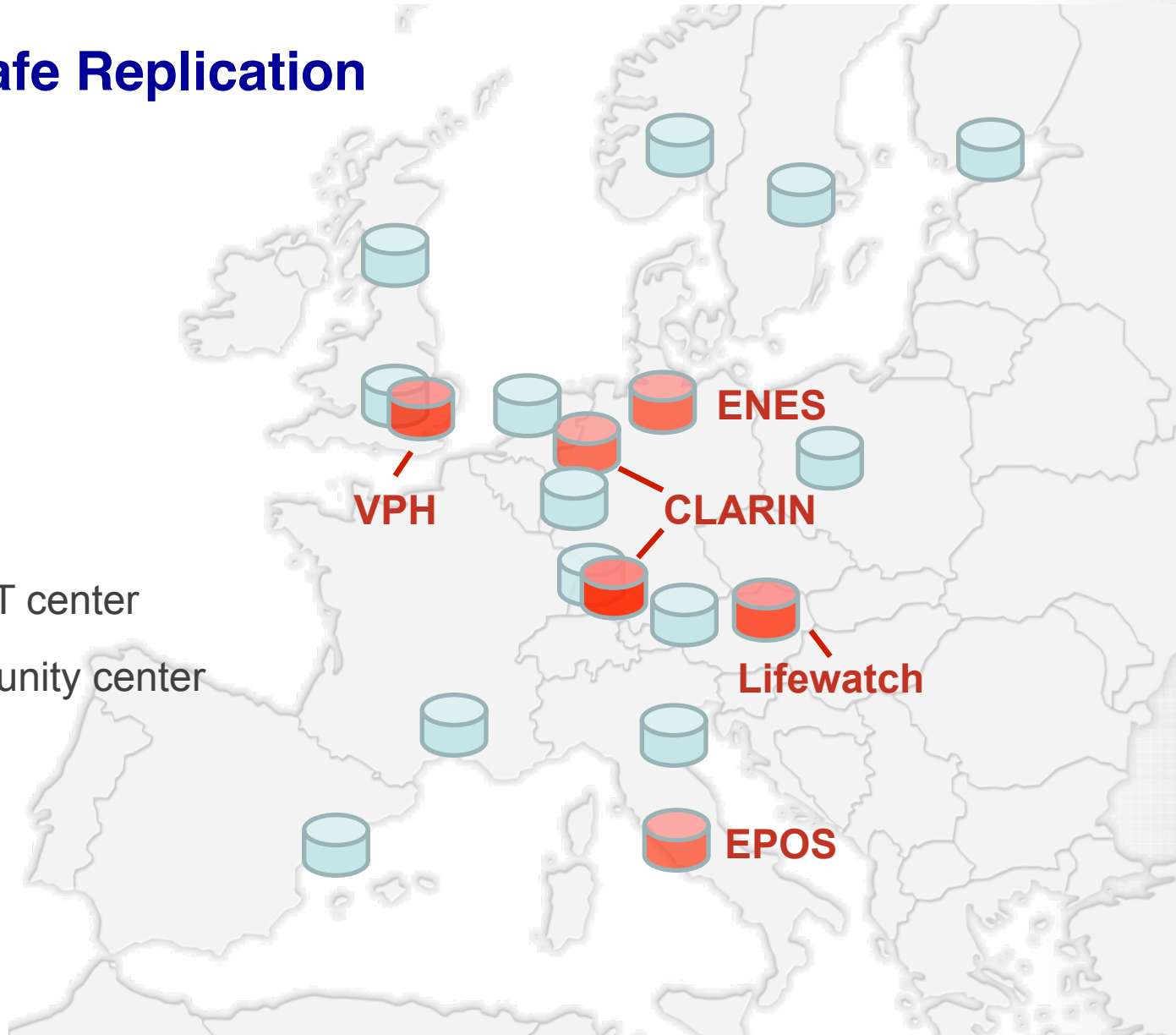


# Also world-wide collaborations





# Towards Safe Replication



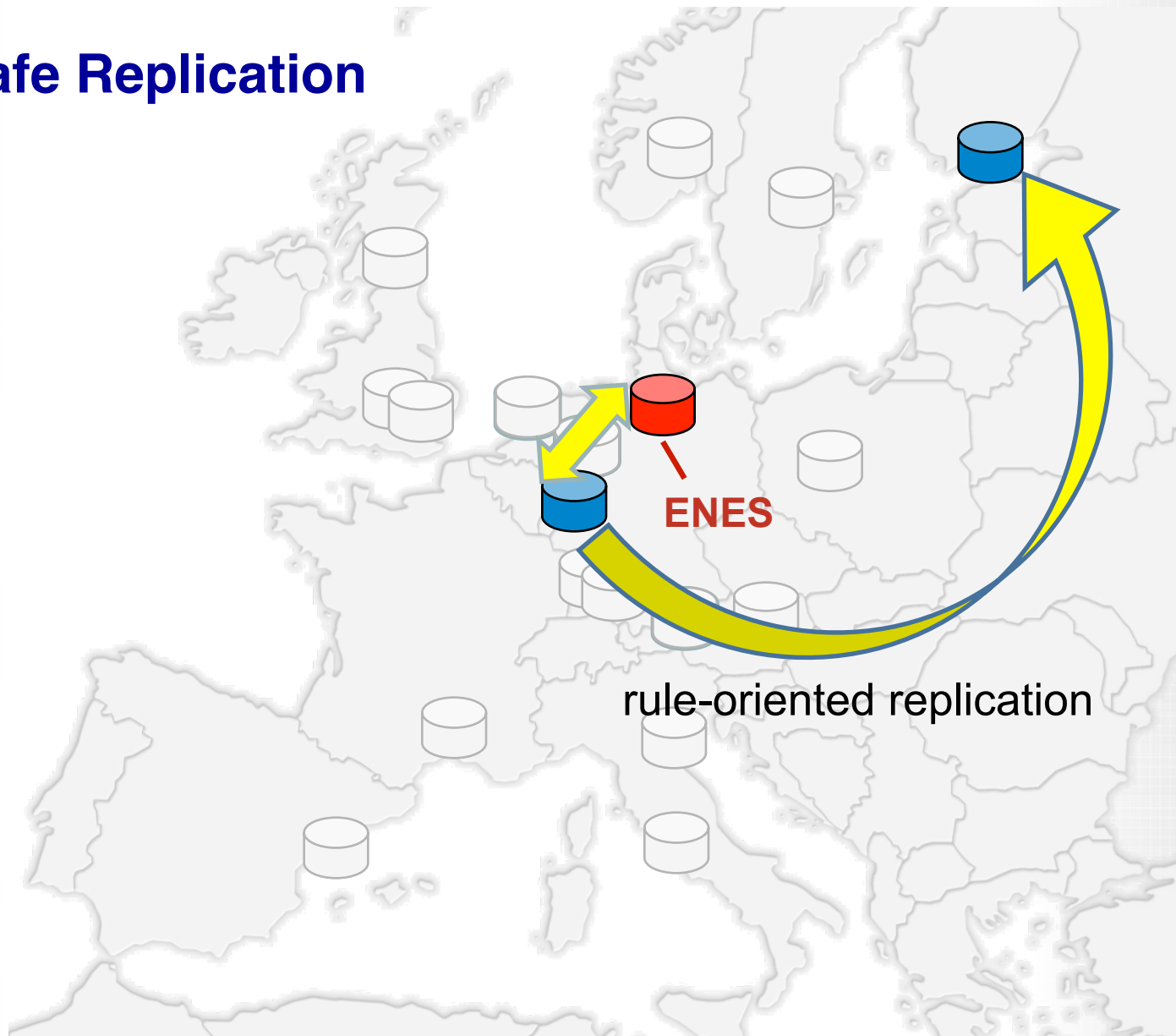
EUDAT center



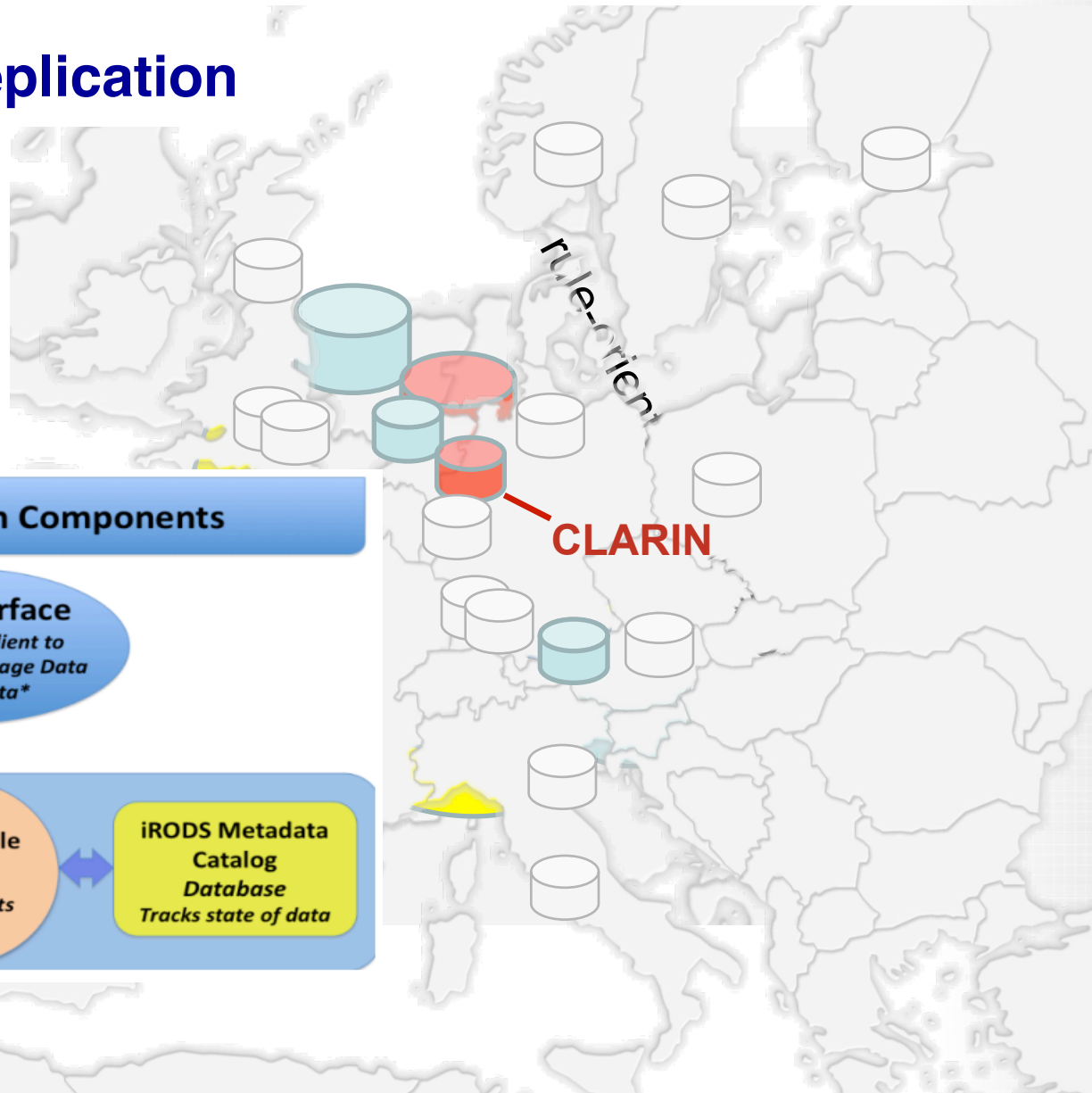
Community center



# Towards Safe Replication



# Towards Safe Replication



## iRODS Data System Components

### User Interface

*Web or GUI Client to  
Access and Manage Data  
& Metadata\**

### iRODS Server

*Data on Disk*

**iRODS Rule  
Engine**  
*Implements  
Policies*

**iRODS Metadata  
Catalog  
Database**  
*Tracks state of data*