

GÉANT Cloud Flow platform

Introduction

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CSC**

GÉANT-EUNIS workshop, 29 October 2021

www.geant.org

Description of the GÉANT Cloud Flow

GÉANT Cloud Flow (GCF) is an integrated cloud platform for

- defining and implementing compute resources & workflows
- within a single, unified and easy-to-use dashboard

GCF is an open source collection of tools

- Supporting a broad spectrum of scientific services by **containers**.
- Delivering **large scale workflow analysis across** international boundaries
- Based on technology developed by the Global Alliance for Genomics and Health (**GA4GH**) and **ELIXIR**

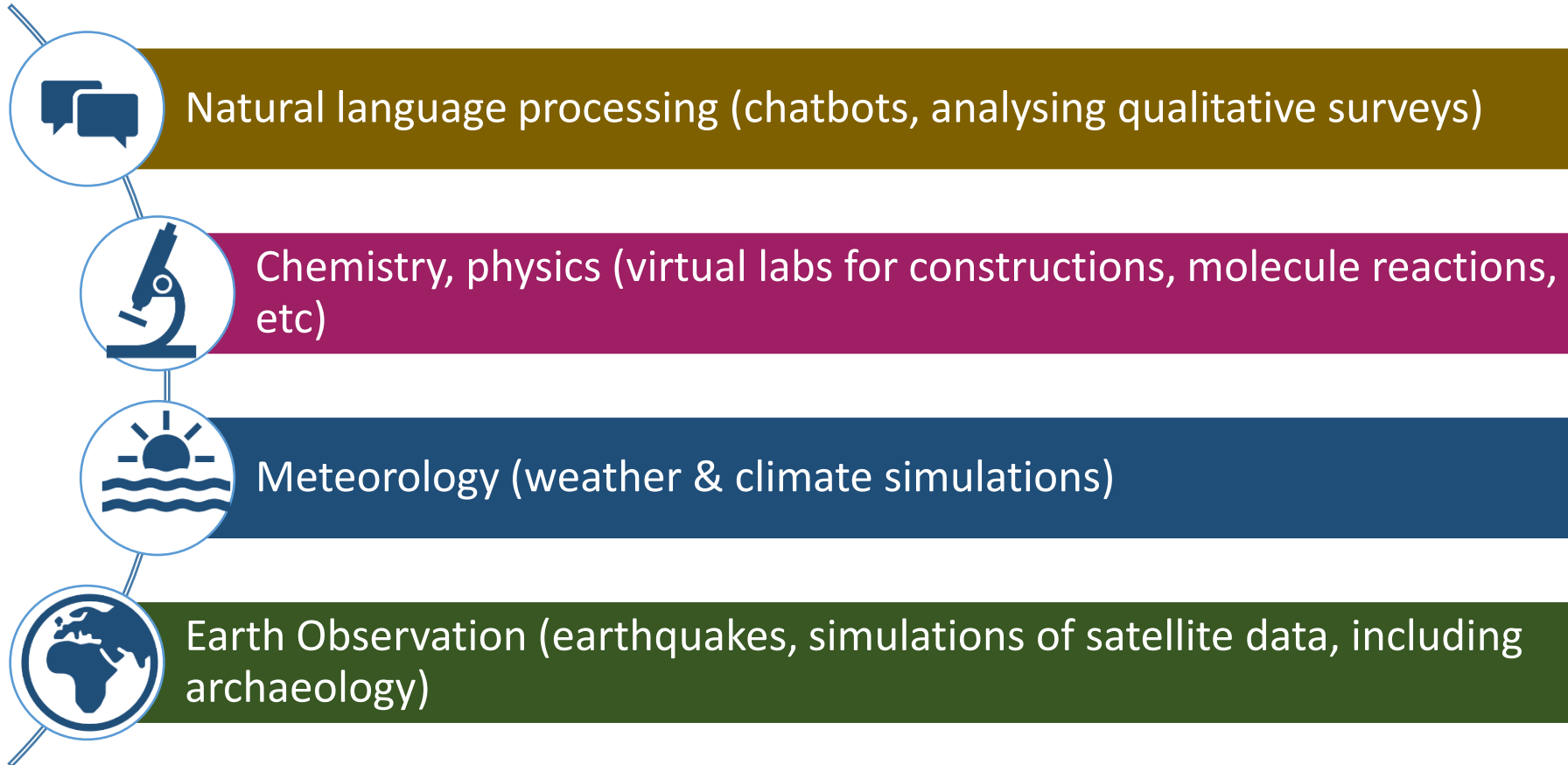


Working Together to Provide Hybrid Cloud Services for Research and Education

The GÉANT Community Cloud Framework is now available as a beta program.

The GÉANT Community Cloud Framework allows NRENs and institutions to aggregate their cloud infrastructures to manage them as a secure, robust and flexible integrated cloud platform for use by NRENs and their institutions. The platform allows researchers to define and implement compute resources and workflows within a single, unified dashboard. clouds.geant.org/wp-content/uploads/2020/10/community-clouds-scaled.jpg

Envisioned interest in the service



Key Components and Features

Interpretation and scheduling of CWL workflows

Move computation closer to the data

Integrated user federation into local compute and data deployments

AAI and federated access

Secure transmission of information between parties

- [RFC 7519](#) JSON Web Token (JWT)

Leverage GÉANT Trust and Identity management IdM systems

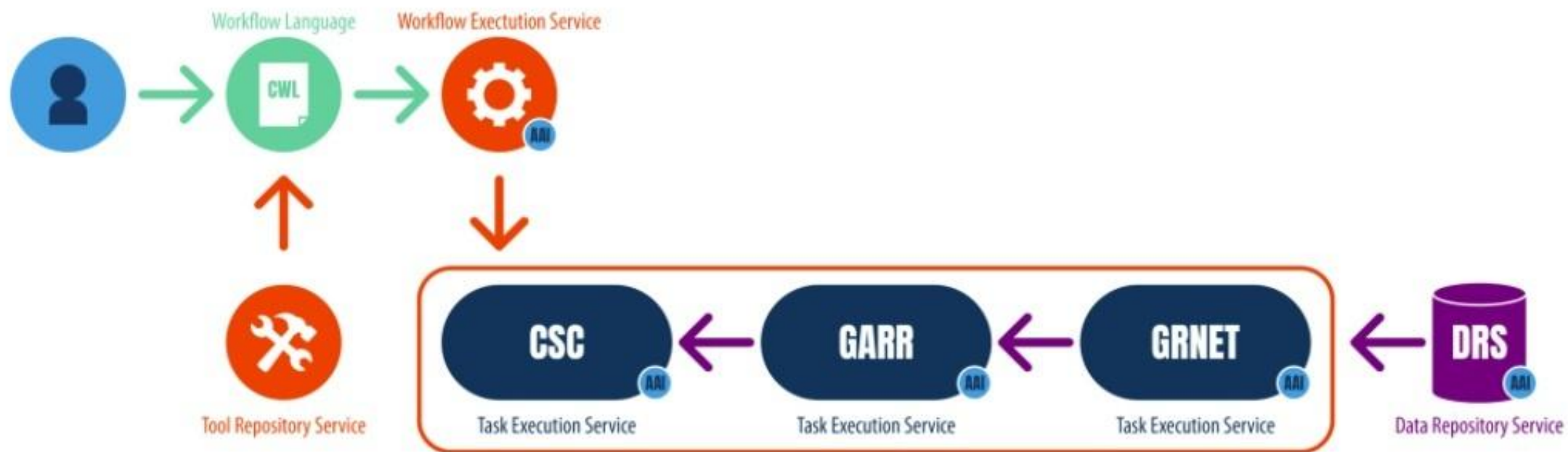
Benefits

Delivering **large scale workflow analysis** across international boundaries

Containers are the future carrier of reusable scientific software contents

- The **user-friendly web interface** – no need for programming skills.
- Importing the **CWL document** profits from **publicly available workflows and tools**.
- Input for **large sample batches** specified by a simple HTML form or spreadsheet.
- Fully compatible with the standard (**GA4GH WES**).
- **Input abstraction model** enables implementation of **additional workflow languages**.

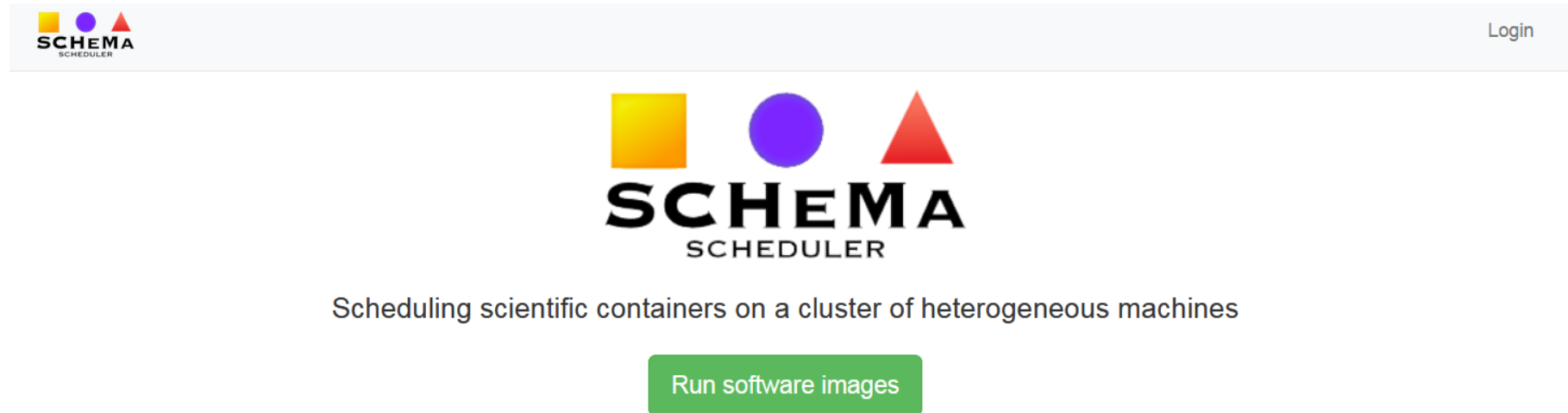
Architecture



Demonstration

Video at:

<https://drive.google.com/file/d/1-7IsACOW3y12uhdbnLLMCRoPgiEnexsE/view>



Development Team

NRENs in the GN4-3 Project Community Clouds Team



<https://clouds.geant.org/community-cloud/>

Access to the Community Cloud Beta Programme for approved, on-boarded users: <https://ui.gcf.cloud.grnet.gr>

Thank you

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As part of the GÉANT 2020 Framework Partnership Agreement (FPA),
the project receives funding from the European Union's Horizon 2020
research and innovation programme under Grant Agreement No.
856726 (GN4-3).