

WLCG topics

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Scientific Computing Forum

CERN, 20 September 2018



DUNE and WLCG

- Discussion recently on DUNE computing
 - DUNE and FNAL management
- Encouragement that majority of computing for DUNE should be a collaborative effort along the lines of WLCG
- Ideas presented here 18 months ago gain some momentum and look like a reasonable way forward
 - Encouraged by the discussion participants
 - <https://zenodo.org/record/291943#.W6JEjZNLjUI>

A model for HEP?

- Propose to factorise the WLCG model:
 - Lower level potentially common technical infrastructure
 - Higher level functions e.g. resource allocation and management for specific sectors (LHC, neutrinos, astro/particle)
- → broader HEP effort on common projects but with separate MoU's for large non-LHC projects (SKA, DUNE, LSST, etc.)

How to proceed?

- Short term:
 - Propose these ideas as input to ESPP in Europe
 - Already see synergies with SKA (ESCAPE project), others
 - DUNE continues to work to integrate international resources
- Medium term:
 - Work with HSF and large collaborations to propose:
 - extended common infrastructure projects,
 - E.g. integrate existing WLCG infrastructure into neutrino expts, and dev of mutually beneficial HEP-wide initiatives for the future (Rucio efforts are a good example)
 - and,
 - an international structure to support them
- Long term goal
 - To have a formal world-wide effort on common HEP infrastructure, and collaboration/experiment-specific negotiated resource contributions/processes where needed

ESFRI Science Projects

HL-LHC	SKA
FAIR	CTA
KM3Net	JIVE-ERIC
ELT	EST
EURO-VO (LSST)	EGO-VIRGO (CERN,ESO)

ESCAPE

European Science Cluster of Astronomy & Particle physics
ESFRI research infrastructures

Funding approved
Likely start Jan 2019

Goals:

Prototype an infrastructure for the EOSC that is adapted to the Exabyte-scale needs of the large ESFRI science projects.

Ensure that the science communities drive the development of the EOSC.

Has to address *FAIR* data management, long term preservation, open access, open science, and contribute to the EOSC catalogue of services.

Work Packages

WP2 – Data Infrastructure for Open Science

WP3 – Open-source scientific Software and Service Repository

WP4 – Connecting ESFRI projects to EOSC through VO framework

WP5 – ESFRI Science Analysis Platform

Task 2.2 Content Delivering and Caching

Task 2.2 Storage Orchestration Service

Task 2.1 Storage Services

Task 2.1 Data transfer services

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Task 2.3 Efficient Access to Compute

HTC/Grid

HPC

Cloud/
commercial

citizen

Task 2.4 Networking

Task 2.5 AAI

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Data centres (funded in WP2)

CERN, INFN, DESY, GSI, Nikhef, SURFSara, RUG, CCIN2P3, PIC, LAPP, INAF