



Integrating Capacities & Building Capabilities

Introduction to Project Status (3rd AHM, 22nd September 2020)

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Building Capacity

WP2: Capacity Expansion @Infrastructure level



Milestones and Deliverables of WP2

September 2019

September 2020



→ Milestones achieved

M2.1 Roadmap for infrastructure integration (M3)

M2.2 Team for Policy Gap analysis created (M4)

M2.3 First service analysed (M6)

M2.4 First service integrated into EOOSC (M12)

M2.5 Internal status update on progress of the Integration Plan (M12)

→ Deliverables presented

D2.1 “Roadmap for integration of national capacities into the EOOSC and Policy Gap Analysis” (M7)

D2.2 “Infrasrtructure Integration status and plans” (31st Dec. 2020)

Upcoming Deliverables and Milestones

- D2.3 Intermediate report on integr. efforts | M15 | Lead: CSIC
- D2.4 Final report on EOSC integration | M29 | Lead: IISAS

- M2.6 Additional services analysed | M18
- M2.7 Internal status report | M24

Goals of WP 2 -- in terms of WP2

A few words on Sustainability:

- Sustainable throughout the project's lifetime
 - All dependencies can be run by the project

=> EASY

- Sustainable throughout 5-10 years
 - Dependencies must be covered by self-interest of the computer centres
 - Integrate infrastructures with existing initiatives

=> HARD

WP2 builds only on existing initiatives, driven by site-requirements

Goals of WP2 -- in terms of management:

KPIs to which WP2 can contribute

KPI	Description	Baseline	Stretched	WP2 Contribution
1	Number of new data centres federated into EOSC	7	12	9: (BIFI, CETA, CSIC/IFCA, CESGA, CESNET, IISAS, BIFI, LIP, PSNC) 2 more waiting*: KIT, CYFRONET
2	Number of non-European resources added to EOSC	3	5	LAGO, SAPS thematic services data
3	Number of services integrated with the EOSC Portal	5	8	WP2 visible via Federated cloud Additional services may be started via IM and may be visible there.

* These centres didn't commit resources in the proposal

Goals of WP2 -- in terms of WP4 and WP6

- Provide and infrastructure that
 - is **sustainable** to carry on after the project ends
 - is large enough to **support*** all of the use cases
 - is easily usable for the tutorials
- ...and extended by WP2:
 - is well documented and easy to install
 - is operated in a professional manner (SLAs, Tickets, Change Mgmt, ...)
- ...and all with just 7.2 people (out of which ~4 contribute)...

Successes of WP2 -- Cloud

- Integration of our sites with Federated Cloud
 - AAI, Monitoring, Accounting, AppDB, GocDB, Virtual Organisations
 - Sustainable infrastructure
- Interfaces
 - Standard Openstack
 - Extended with Federated Cloud
- Enables 3rd party software
 - Infrastructure Manager (“IM”): <https://appsgrycap.i3m.upv.es:31443/im-dashboard>
 - Submit complex services into our infrastructure (Kubernetes, Galaxy, ... [all our thematic services])
 - Enhanced Openstack Dashboard: <https://dashboard.fedcloud.eosc-synergy.eu/login.html>
 - Direct access to all sites, for classic Openstack usage
- **All Integrated into a single AAI**

Cloud: Next Steps

- Tight collaboration with UPV's Infrastructure Manager ("IM")
- Kubernetes / Mesos on all sites
 - either inside Openstack or natively (site policy)
- Site storage integration
 - Ceph, NFS, GPFS, WebDAV, Lustre, Onedata
- Extensive integration focussed on Thematic Services' needs

Successes of WP2 -- Repositories

- Feasibility study of DSpace
 - on VM: works
 - on Kubernetes: Not yet tested
- Feasibility Study of Dataverse
 - on VM: works
 - on Kubernetes: Persistent storage integration is still open

Successes of WP2 -- HPC Integration

- HPC integration into AAI:
 - Technically: **The holy grail**: ssh with Openid **Connect** (OIDC)
 - Historically: Support the good old **pooled-accounts** of the grid
 - Management: Make HPC available for thematic services
- HPC integration into Accounting and Monitoring
 - Work in progress

Other Points

- Communication in WP2....
 - The Mailinglist is rather silent
 - Not much discussion in the calls
 - However: Great contribution the googledoc [WP2 Bratislava Agenda](#)
- Online coffee for WP2
 - We need more communication
 - We have lots of things to discuss
 - Most discussions take place during the coffeebreaks
 - Let's just be in a call in the breaks, and continue discussions