



Government-App-Store Deutschland

Der zentrale Marketplace für Fachanwendungen der öffentlichen Verwaltung

GovApp Store DE

Katalog

Meine Anwendungen

Projekte

Organisation



Max Mustermann
Stadtverwaltung Musterstadt

FÜR WEN?



Bund
Bundesbehörden



Bundesländer
Landesbehörden



Landkreise
Kreisverwaltungen



Städte & Gemeinden
Kommunalverwaltungen

IHRE VORTEILE

- ✓ Zentrale Beschaffung & Freigabe geprüfter Apps
- ✓ Souveräne Cloud-Infrastruktur
- ✓ Schnelle Bereitstellung
- ✓ Skalierbar & sicher
- ✓ Transparente Kosten
- ✓ Wiederverwendbar & interoperabel

Kategorien

Fachanwendung suchen...

Suchen

Beliebte Fachanwendungen



Kfz-Anmeldung

Digitale Zulassung von Fahrzeugen

Mobilität

★★★★★ (142)

Bereitstellen



Pass-Ausgabe

Beantragung und Ausgabe von Reisepässen

Meldewesen

★★★★★ (98)

Bereitstellen



Hundesteuer

Verwaltung und Erhebung der Hundesteuer

Steuern & Abgaben

★★★★★ (64)

Bereitstellen



Parkraum-Überwachung

Überwachung und Bewirtschaftung von Parkräumen

Ordnungswesen

★★★★★ (87)

Bereitstellen



Gewerbeanmeldung

An-, Um- und Abmeldung von Gewerben

Wirtschaft

★★★★★ (73)



Baugenehmigung

Digitale Anträge und Genehmigungsprozesse

Bauen & Wohnen

★★★★★ (112)



Sozialleistungen

Anträge und Verwaltung von Sozialleistungen

Soziales

★★★★★ (95)



Fundbüro

Verwaltung von Fundsachen

Bürgerservice

★★★★★ (38)

Alle Anwendungen anzeigen →

WALDUR – Die Plattform für den Government-App-Store



Self-Service Portal
Katalog, Bestellung, Dashboards



Identity & Access
IAM, SSO, Rollen, Organisationen



Service Katalog
Anwendungen, Pläne, Versionen



Automatisierung
Provisionierung, Workflows, Genehmigungen



Abrechnung & Quotas
Kostenstellen, Budgets, Verbrauch



Monitoring & Support
Überwachung, Tickets, Benachrichtigungen

INFRASTRUKTUR & BETRIEB (SOVERÄN IN DEUTSCHLAND)



Compute
(OpenStack / KVM)



Container
(Kubernetes)



Datenbanken
(PostgreSQL, etc.)



Storage
(Objekt, Block, File)



Network
(SD-WAN, Firewall)



Backup & DR
(Standorte in DE)

W WALDUR

Waldur: Eine Plattform für Kommune und Supercomputer

Ilya Livenson
OpenNode OÜ



Introduction

WALDUR

Waldur is an open-source (MIT) cloud management platform with a marketplace. Used as a self-service platform by organizations for internal and external users.

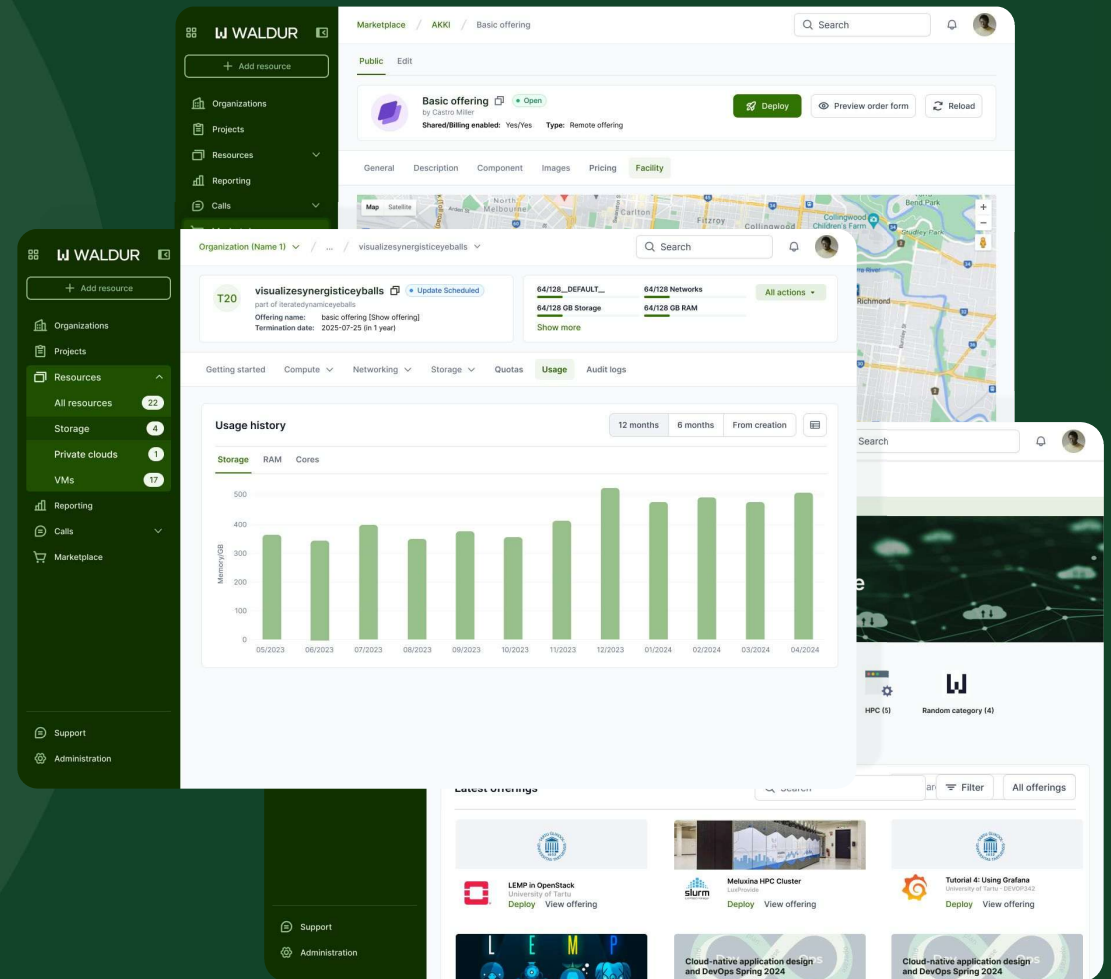
Generic in design, main accent has been on private clouds and HPC/AI services.

Mature, ~10 years, developed mostly by OpenNode OÜ and University of Tartu.

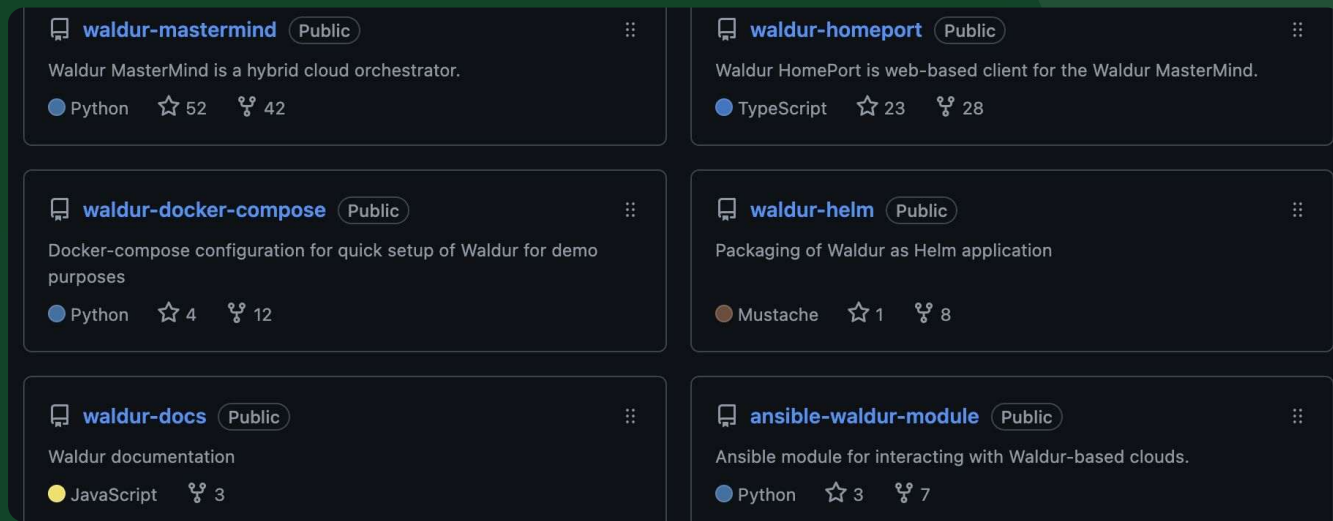


Main goals

- User onboarding
- Team and project management
- Service catalogue management
- Resource management
- Identity management (IAM)
- Helpdesk integration
- Reporting



Design principles



Open and flexible

Cultural choice. Crucial for collaboration. Non-viral licensing. Configurable, feature toggles, extension points.

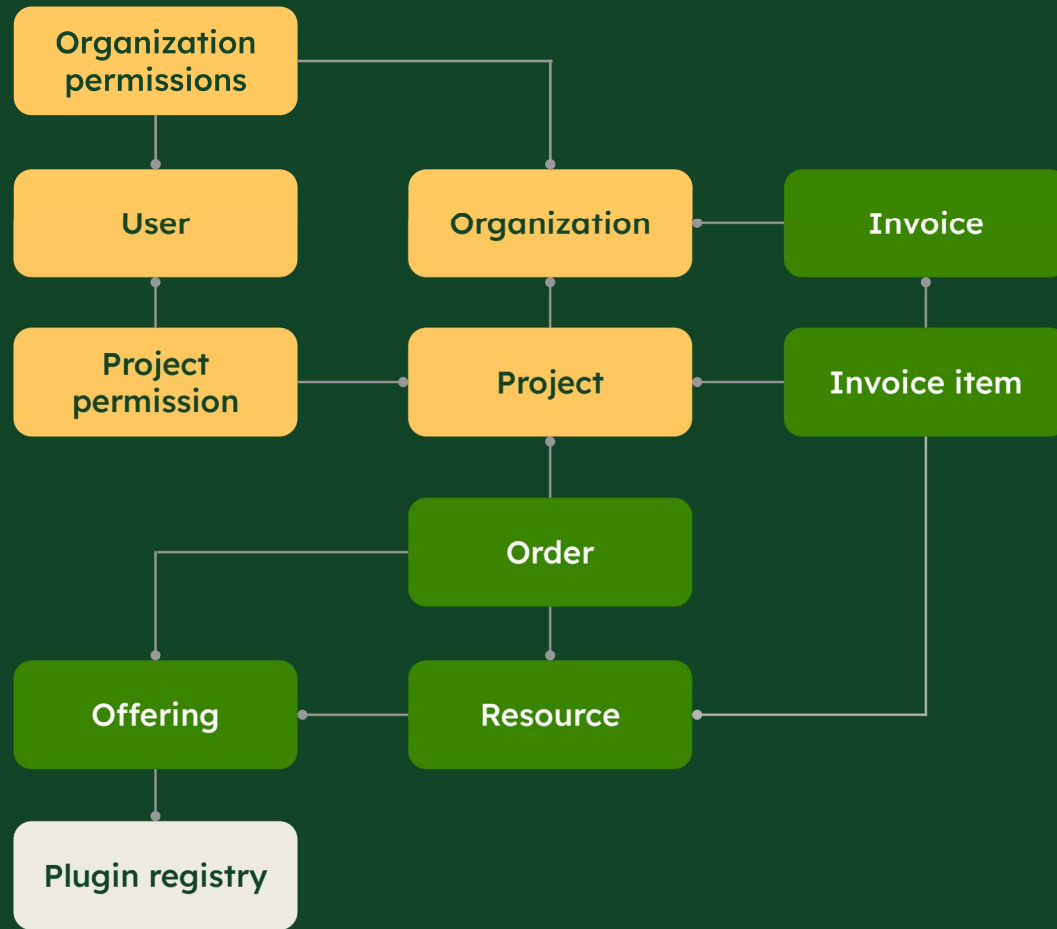
User friendly

Happy end-users = happy operators.
API-first with web-based GUI.
SDKs and configuration management modules.

Secure



Stable technologies, security in development and operations.
Constant scanning, SBOMs, pentests.

Multi-tenancy and cost tracking



Data access logs

[Export](#)

<input type="checkbox"/>	Timestamp 	User	Accessor	Accessor type	IP address	Actions
<input type="checkbox"/>	May 19, 2026, 7:23 AM	William Allen	Admin new name Lastname	Platform administrator	217.239.243.50	

Accessed fields:

Username Full Name Native Name Job Title Email Phone Number Organization Civil Number Affiliations First Name
Last Name Birth Date Gender Personal Title Place Of Birth Address Country Of Residence Nationality Nationalities
Organization Country Organization Type Organization Registry Code Eduperson Assurance









Endpoint: GET /api/users/

Waldur supports fine-grained user attribute release policies to address GDPR requirements for multi-organizational marketplaces.

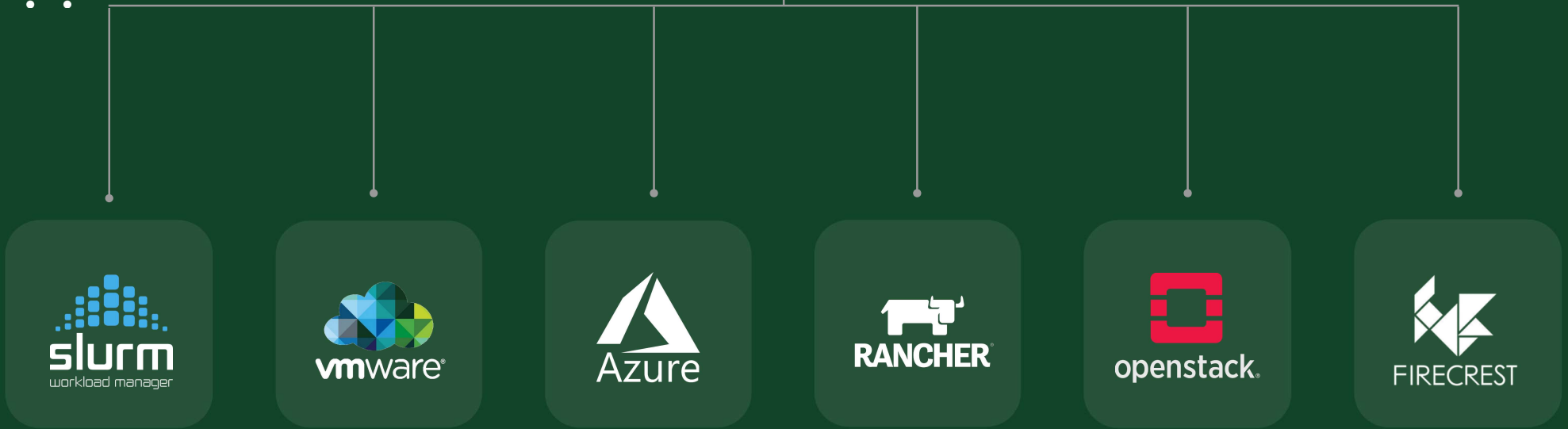
General **Integration** User input Resource options Roles ToS management Accounting

Configure which user profile attributes are exposed to this service provider when users are provisioned. Exposed attributes become visible in the OfferingUser API responses.

User attribute exposure

Username User's username	Enabled	 
Registration method How the user registered (e.g. eduTEAMS, local)	Disabled	 
Full name User's full name	Enabled	 
Email User's email address	Enabled	 

Using Waldur to Consolidate Access





Using Waldur to Share Access



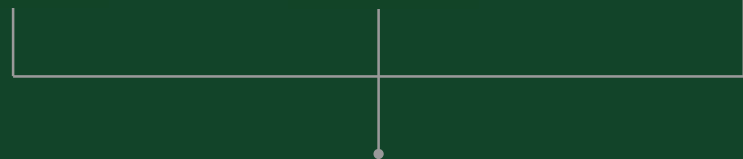
Remote
WALDUR
plugin



Remote
WALDUR
plugin



Custom API
integration



Used by



Showing deployments active in the last 12 months

45

Deployments

26.0K

Total Users

15

Countries

4.2K

Offerings

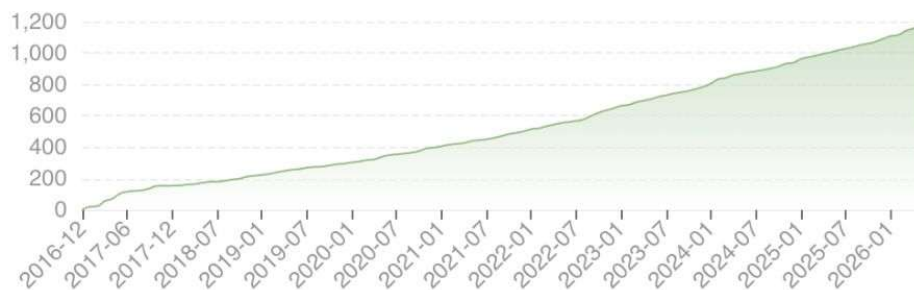
Global Deployment Distribution



Estonian GovCloud

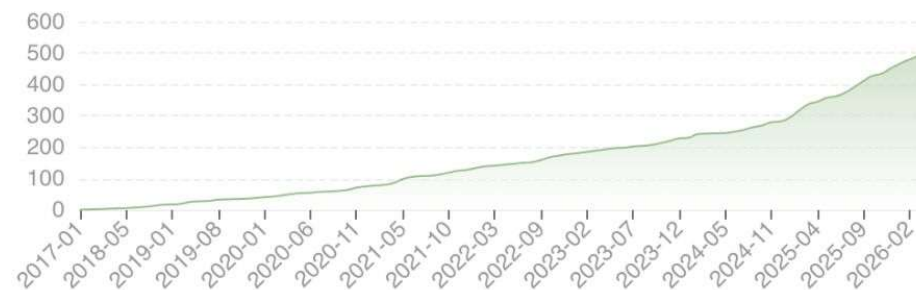
Users over time

Export



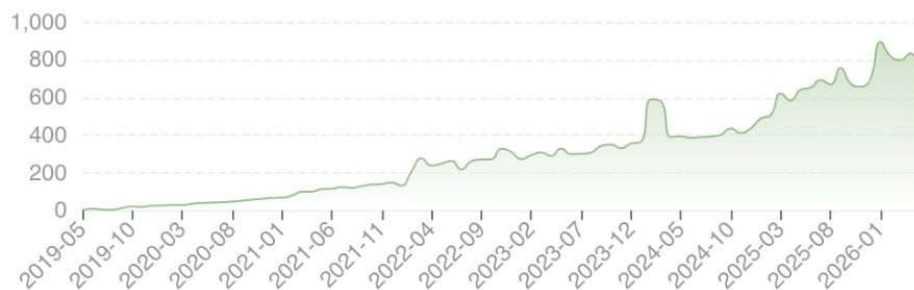
Projects over time

Export



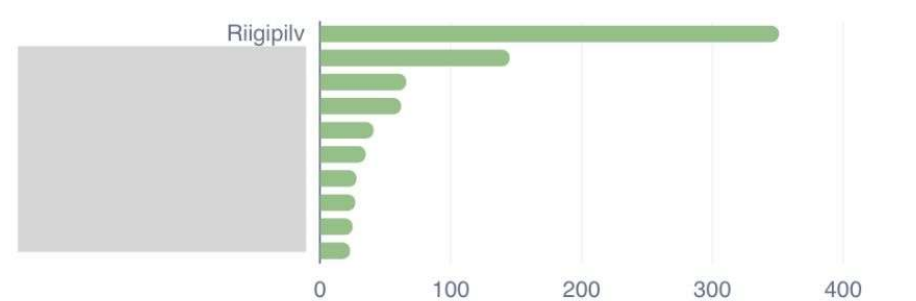
Resources over time

Export



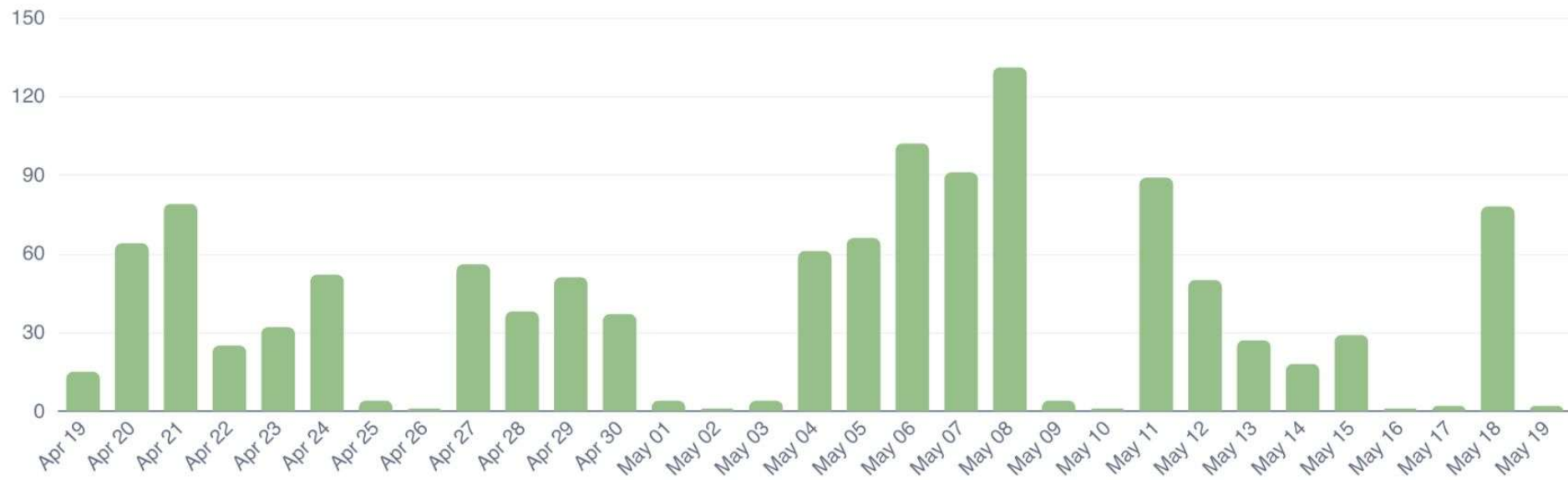
Active users per service provider

Export



Daily order volume

Export



Customer Service provider Edit



OpenNode OÜ

Beta testers @ info@opennodecloud.com # 12061352

Support

Organization dashboard Projects Resources Team My offerings Accounting Policy Audit logs

Cost (Current month's cost: €402.66)



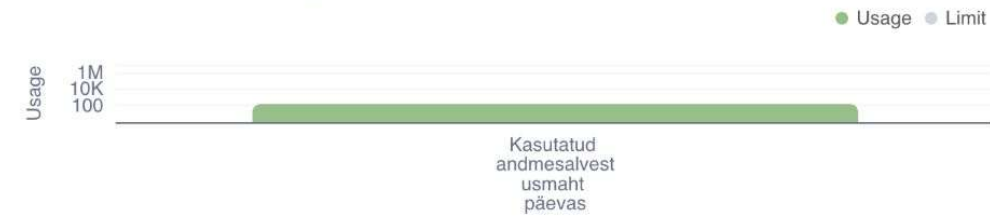
Team

4 members

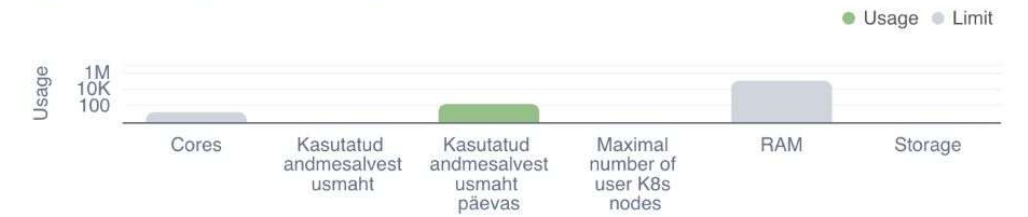
AS AT IL OA +



Current month's usage



Aggregate usage and limits



UK AIRR Portal

Supercomputing in the Age of AI (UK AIRR) Federation → Empowering all stakeholders



Communities of users
(research, academia and
industry)



Capacity and demand
management



Computing and storage
capacities and services
providers

- Communities
 - Research councils
 - Government
 - Industry
- Capacity & demand managers
 - UK government e.g. DSIT
 - UKRI (research councils)
- AI infrastructure and services
 - Bristol (Isambard-AI & AIDF)
 - Cambridge (Dawn)
 - AIRR Cloud (CSPs)
 - EPCC TBC (AIDF)

Guidance

AIRR Portal: how to apply (UKRI guidance)

Updated 7 November 2025

- Contents
- [Portal login](#)
- [Proposal submission](#)
- [Call: further details](#)
- [Call: application](#)
- [Contact details](#)

Guidance from UKRI on how to use the AIRRPortal. For any questions not covered in this guidance, please contact airr@ukri.org.

<https://www.gov.uk/government/publications/ai-research-resource/airr-portal-how-to-apply-ukri-guidance>

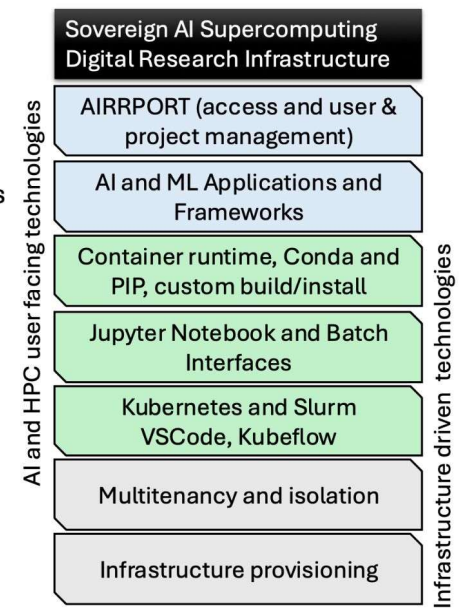
Courtesy of Sadaf Alam, University of Bristol's Director of Advanced Computing Strategy.

NFCS NetworkPlus 3rd National Conference, Feb 26-27, 2026

AIRRPORT Status

Towards Sovereign AI Supercomputing DRI

- ✓ **In operation**
 - ✓ Access calls (academia, research, govt. & industry)
 - ✓ On-demand accounting and reporting for all stakeholders
 - ✓ Compliance workflows & auditing (compute access)
 - ✓ Federated Identity & Access Management (IAM)
- ☐ **In progress**
 - ☐ AI Data Facilities and Services
 - ☐ AIRRCloud services integration
 - ☐ Compliance workflows (data and trusted/sensitive data platforms)
- **Under development**
 - AIRRSupport federation
 - Service/helpdesk
 - Training and outreach
 - Startup/SMEs engagement
 - Specific platforms support like AIDF, AIRRCloud and TREs/SDEs





EuroHPC
Joint Undertaking

ABOUT THE EUROHPC JOINT UNDERTAKING



 An EU body and funding entity based in Luxembourg, established in 2018 and autonomous since 2020

 Governed by a Board composed of the European Commission, 36 Participating States and 3 Private Members

Digital Europe Programme

1.98B EUR

- Infrastructure
- Federation of supercomputing services
- Widening usage and skills

Horizon Europe Programme

900 M EUR

- Technology
- Applications
- International Cooperation

Connecting Europe Facility

200 M EUR

- Hyperconnectivity
- Data Connectivity



- ❖ Procure, deploy and maintain **High Performance Computing, AI Factories and Quantum infrastructure** in Europe
- ❖ **Fund innovative Research and Innovation projects**, to develop European skills, applications, software and hardware and foster a European supply chain
- ❖ Provide **access to High Performance Computing, AI Factories and Quantum resources** across Europe and user support



Exascale-Systeme

-  **JUPITER | Jülich Supercomputing Centre, Jülich**
1 exaFLOP/s
-  **Alice Recoque | CEA/GENCI, Bruyères-le-Châtel**

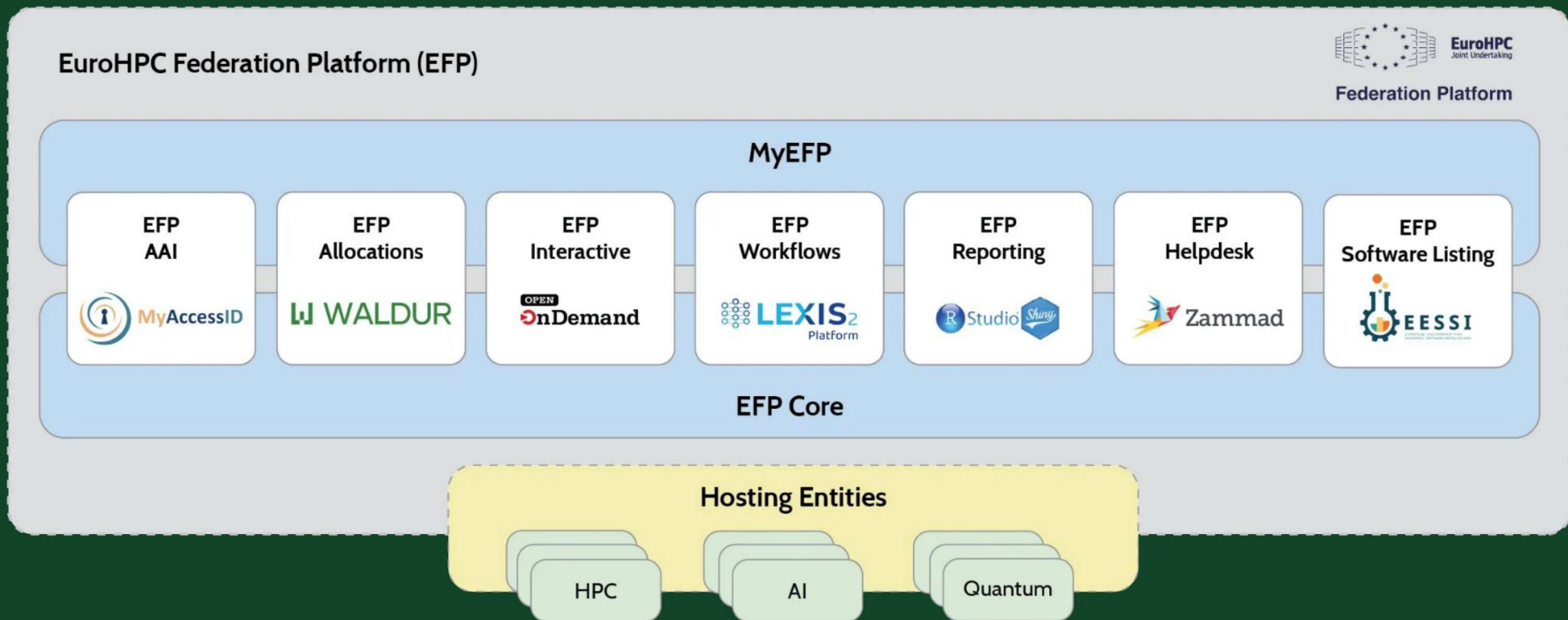
Pre-Exascale-Systeme

-  **LUMI | CSC, Kajaani**
~0,54 exaFLOP/s
-  **Leonardo | CINECA, Bologna**
~0,32 exaFLOP/s
-  **MareNostrum 5 | Barcelona Supercomputing Centre, Barcelona**
~0,3 exaFLOP/s

Petascale-Systeme

-  **MeluXina | LuxProvide, Bissen**
~0,02 exaFLOP/s
-  **Karolina | IT4Innovations National Supercomputing Center, Ostrava**
-  **Discoverer | Sofia Tech Park, Sofia**
-  **Vega | IZUM, Maribor**
-  **Deucalion | Univ. Minho, Riba de Ave**

EuroHPC Federation Platform



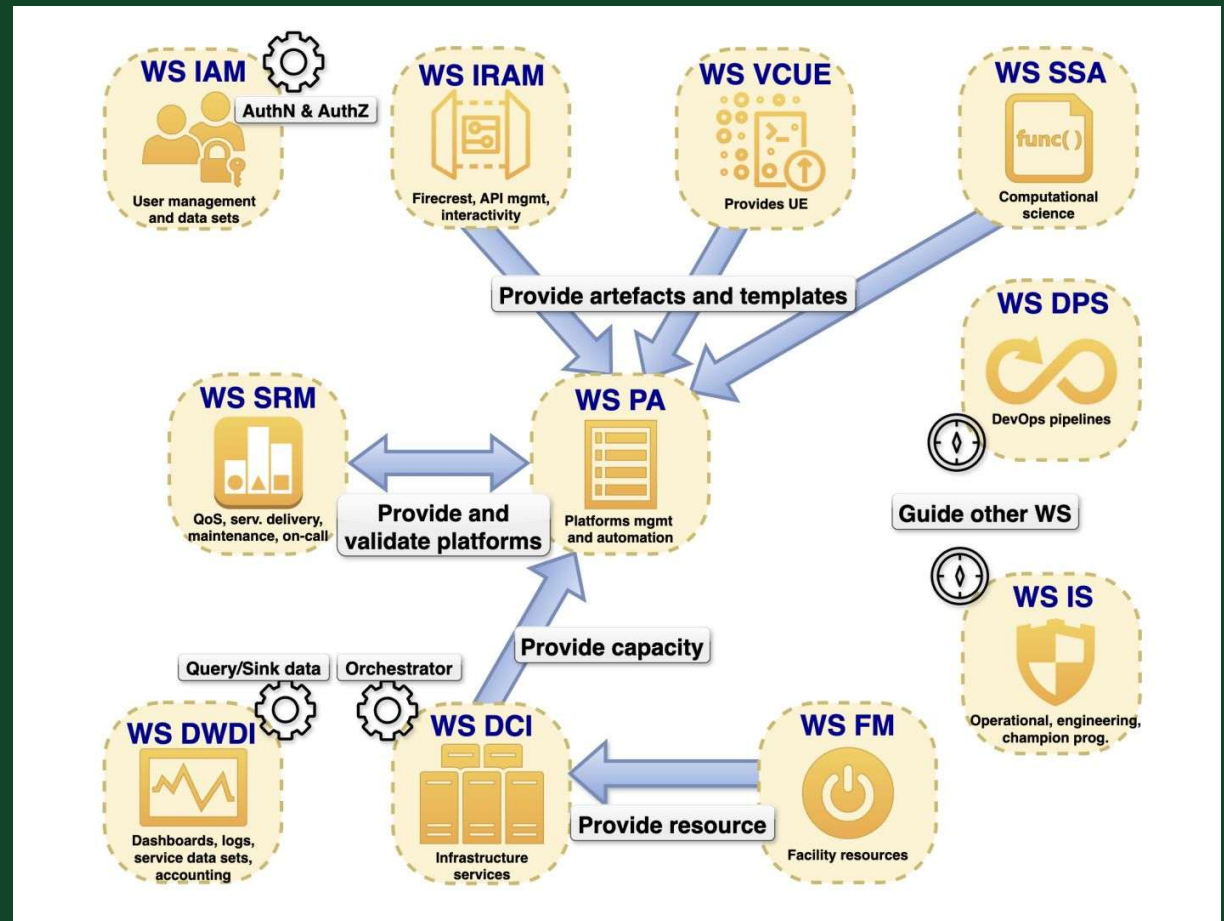
<https://my-eurohpc.eu/>



CSCS

Centro Svizzero di Calcolo Scientifico
Swiss National Supercomputing Centre

A highly advanced and automated organization. Deployment of Waldur took over a year and was done in parallel with integrations with a number of teams.



<https://arxiv.org/pdf/2507.02404>



Common patterns that worked #1

01

Reasonable configurability

Confirmation logic, ordering data, lifecycle events, role names, branding, integration with existing systems.

02

APIs / SDK / Ansible / Terraform

Advanced users that prefer APIs over graphical interfaces were promoting wider adoption of Waldur.

03

Flexibility of service integration

Customers learn one flow - but backend is flexible, e.g. full event-based integration / lightweight custom scripts / helpdesk ticket. Gradual maturity.



Common patterns that worked #2

01

Openness

Being transparent about how things are and what is working - and what is not working. Constructive criticism and working together on improvements.

02

Quick adjustments

Working closely with development team to tune Waldur as needed. No need to wait months for the next release.

03

Support of federations

Autonomy and clear separation of responsibilities allowed to progress faster in complicated governance scenarios.



Aggregation of service catalogues into a common gateway

Remote offering sync

Export

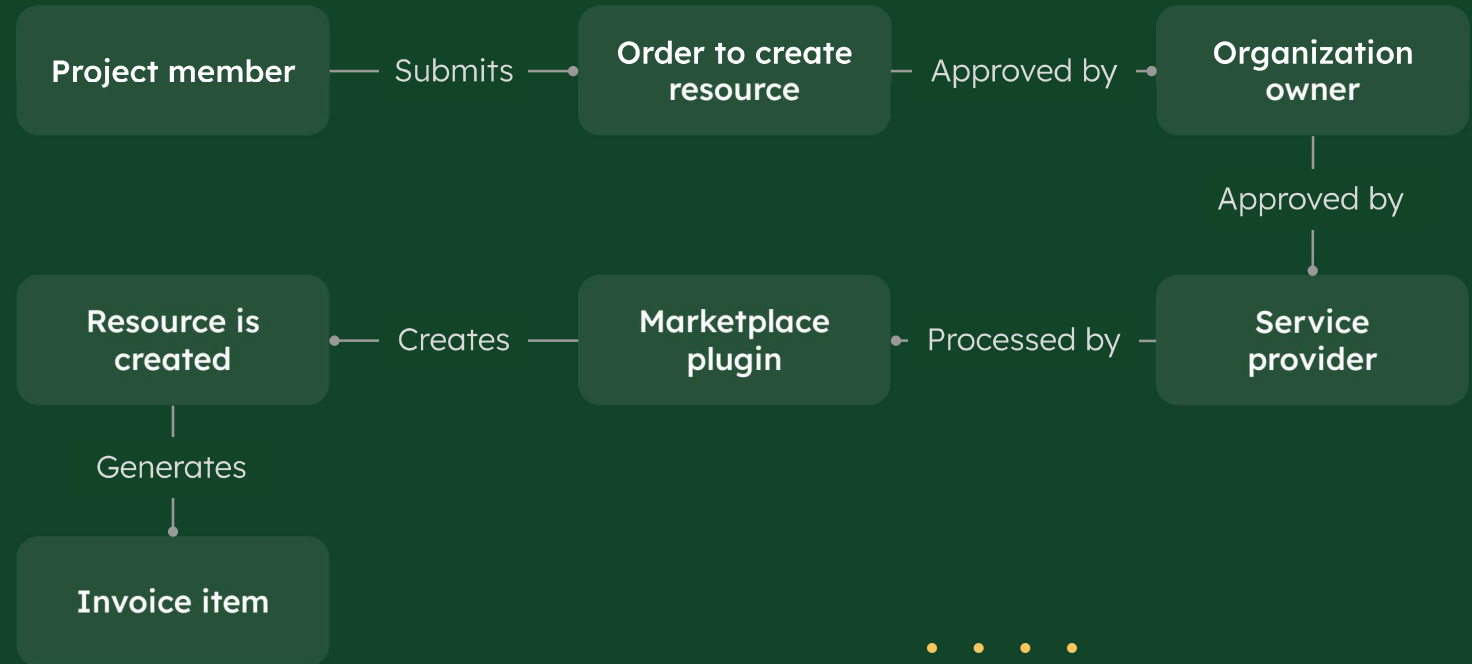
Add

Remote server URL	Remote organization	Last execution	State	Enabled	Actions																				
▼ https://ncc-germany.hpcservicehub.eu/api/	EuroCC HPC Service Hub	2025-02-18 19:58	OK	Yes	⋮																				
▼ https://portal.enccs.se/api	NCC-Sweden	2025-02-18 19:58	OK	Yes	⋮																				
▲ https://sky.sigma2.no/api	NCC-Norway	2025-02-18 19:58	OK	Yes	⋮																				
<table border="1"><thead><tr><th>Remote category name</th><th>Local category name</th><th>Remote category UUID</th><th>Local category UUID</th></tr></thead><tbody><tr><td>International HPC Infrastructure </td><td>Infrastructure </td><td>bf129e94-a9b4-4a73-ba13-b67aae4ee50f </td><td>ea1cee0036014d9cb1d3df271e3742b4 </td></tr><tr><td>Consultancy algorithms </td><td>Consultancy and Expertise </td><td>1cfd0006-62e4-417a-8e4f-ced89ba5c864 </td><td>65d45cc6739e4b448c01f70e6f36786f </td></tr><tr><td>Content Management Systems </td><td>Applications </td><td>cb03ce73-7e4c-4504-a97d-edb99774caad </td><td>6129c94c41f24ccbcb768417df161236 </td></tr><tr><td>Technical consultancy HPC </td><td>Application Support </td><td>df70c3e2-1574-4e7b-aab6-bf91fa944db0 </td><td>84e44e00fb5c465f8e493a418815a82c </td></tr></tbody></table>						Remote category name	Local category name	Remote category UUID	Local category UUID	International HPC Infrastructure	Infrastructure	bf129e94-a9b4-4a73-ba13-b67aae4ee50f	ea1cee0036014d9cb1d3df271e3742b4	Consultancy algorithms	Consultancy and Expertise	1cfd0006-62e4-417a-8e4f-ced89ba5c864	65d45cc6739e4b448c01f70e6f36786f	Content Management Systems	Applications	cb03ce73-7e4c-4504-a97d-edb99774caad	6129c94c41f24ccbcb768417df161236	Technical consultancy HPC	Application Support	df70c3e2-1574-4e7b-aab6-bf91fa944db0	84e44e00fb5c465f8e493a418815a82c
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Technical consultancy HPC	Application Support	df70c3e2-1574-4e7b-aab6-bf91fa944db0	84e44e00fb5c465f8e493a418815a82c																						
▼ https://waldur.it.auth.gr/api	EuroCC HPC Service Hub	2025-02-18 19:58	Erred	Yes	⋮																				
▼ https://minu.etais.ee/api/	EuroCC HPC Service Hub	2025-02-18 19:58	OK	Yes	⋮																				
▼ https://ncc-slovenia.hpcservicehub.eu/api	EuroCC HPC Service Hub	2025-02-18 19:58	OK	Yes	⋮																				
▼ https://ncc-belgium.hpcservicehub.eu/api	EuroCC HPC Service Hub	2025-02-18 19:58	Erred	Yes	⋮																				

Vielen Dank für Ihre Aufmerksamkeit!

<https://docs.waldur.com>
ilja@opennodecloud.com

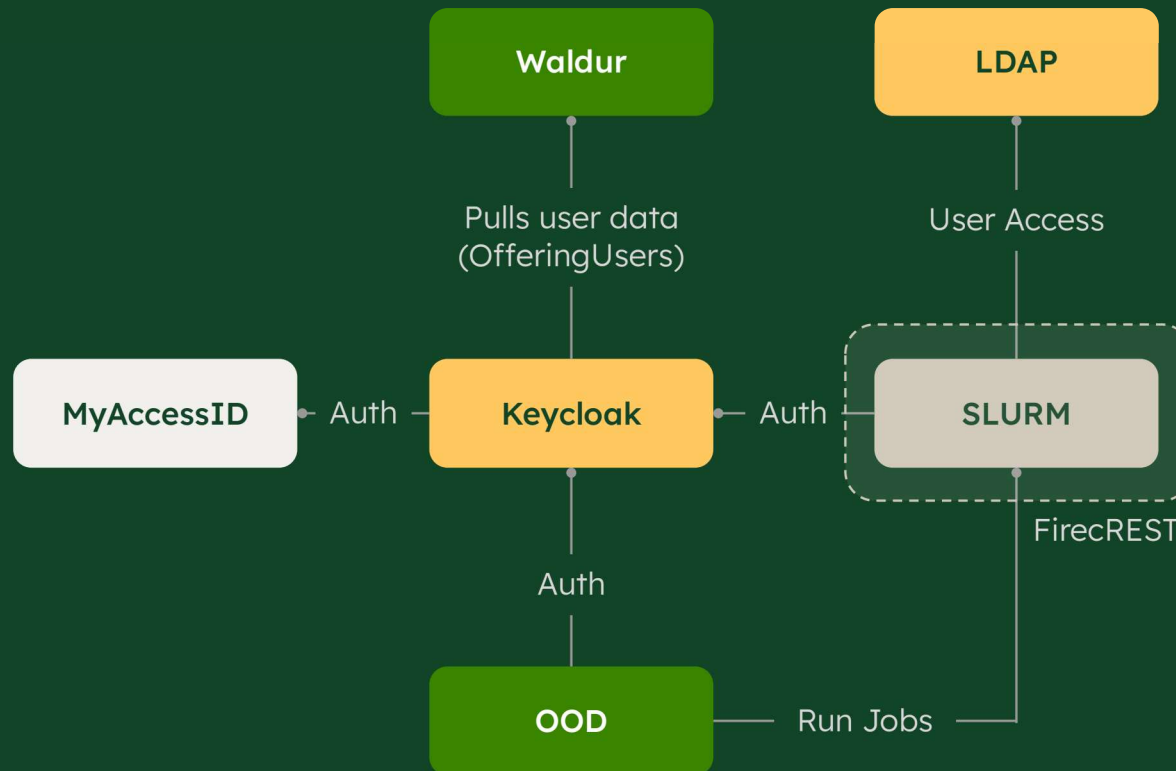
Marketplace Resource Provisioning



Zero-trust architecture

Several access interfaces to HPC infrastructure could be integrated behind a common IAM with Waldur providing user group / access management.

Example with OOD, SLURM and Firecrest.





Publishing new offerings

Getting a new offering published means defining several parameters.

Minimal information - name and type of delivery.

Export offering

Configure export parameters for offering "K8s2".

Core Components

- Include components
Include offering components in export
- Include plans
Include pricing plans in export
- Include screenshots
Include offering screenshots in export
- Include files
Include offering files in export
- Include access endpoints
Include offering access endpoints in export
- Include organization groups
Include organization groups associations in export

Advanced Options

- Include terms of service
Include terms of service configurations in export
- Include plugin options
Include plugin options in export
- Include secret options
WARNING: Include secret options in export (sensitive data)
- Include attributes
Include offering attributes in export
- Include options
Include offering options in export
- Include resource options
Include resource options in export

Cancel

Export