WeNMR Thematic Service AAI report

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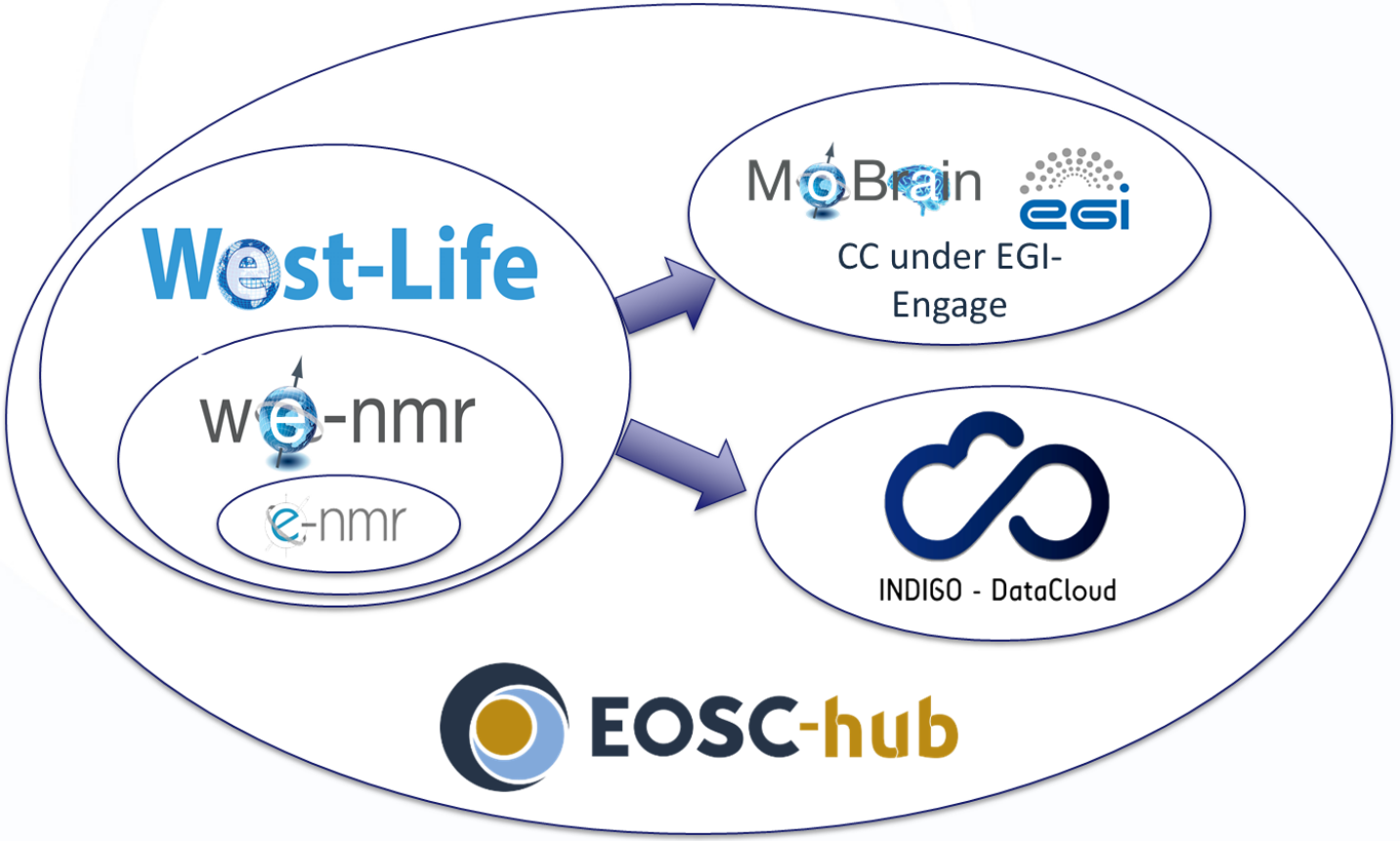
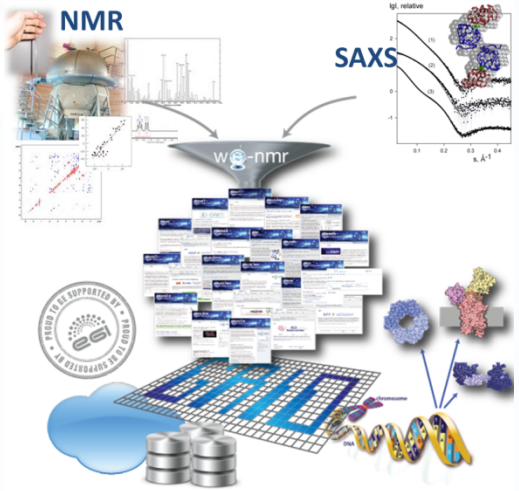
Structural biology e-Infrastructure ecosystem in the last decade

2007 → 2010 → 2013 → 2015 → 2018



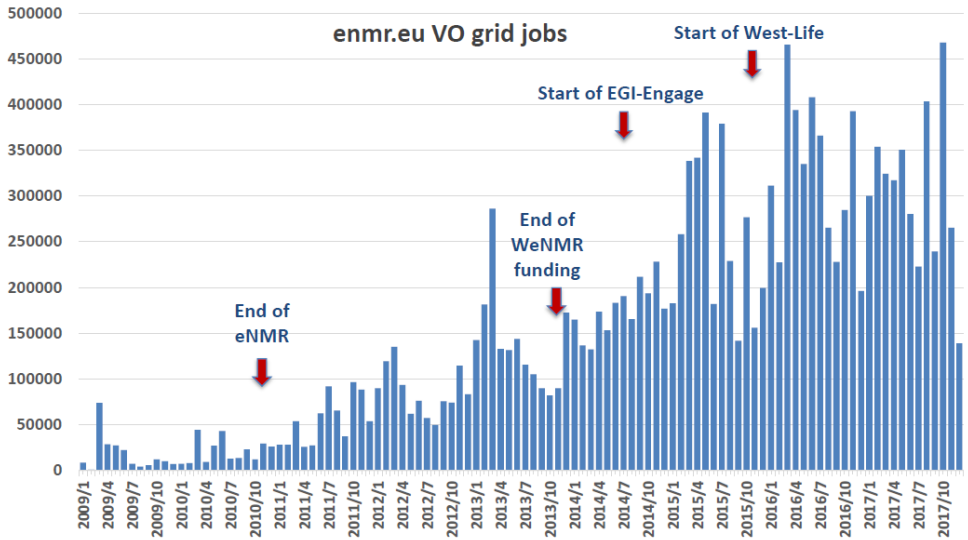
The WeNMR Thematic Services/1

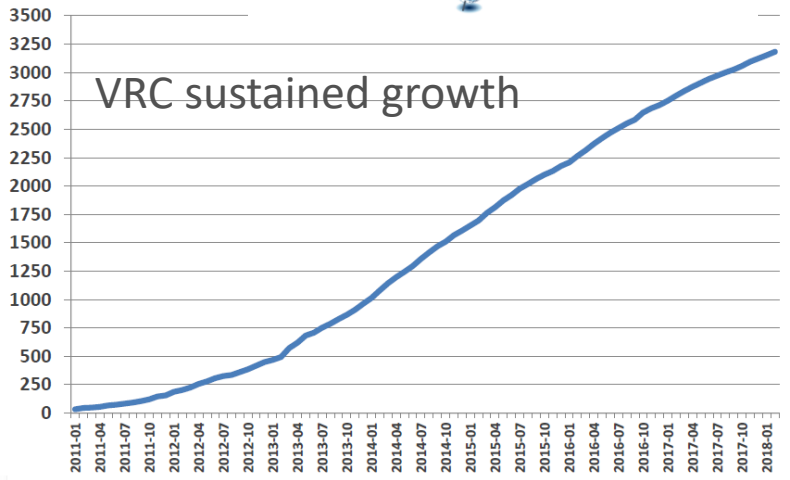
- Building on the strong legacy of the WeNMR project (FP7)
- enmr.eu: one of the largest (#users) VO in life sciences
- >830 users have registered so far (36% outside EU)
- Supported from >40 sites for >200'000 CPU cores via EGI
- User-friendly access to Grid via >30 web portals
- Supported by an SLA (updated in 2018) with EGI and NGIs



www.wenmr.eu

we-nmr





The WeNMR Thematic Services/2

- 8 grid-enabled application web portals were selected:
  - 6 hosted at University of Utrecht (DISVIS, POWERFIT, HADDOCK, GROMACS, CS-ROSETTA, UNIO)
  - 2 hosted at CIRMMP, Florence, Italy (FANTEN, AMPS-NMR)
- ~ 20M normalized CPU-hours/year on EGI HTC platform

WeNMR AAI requirements

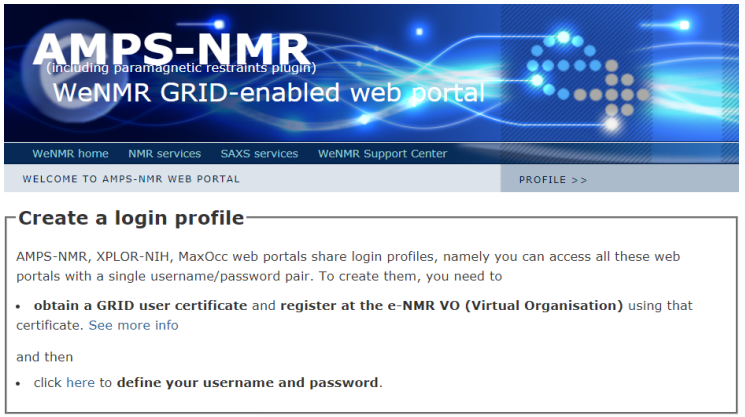
M. Van Dijk (UU) at EGI towards Horizon 2020 Workshop, **December 2013**
https://indico.egi.eu/indico/event/1893/session/2/contribution/36

Challenges for user authentication and authorization in the WeNMR ecosystem

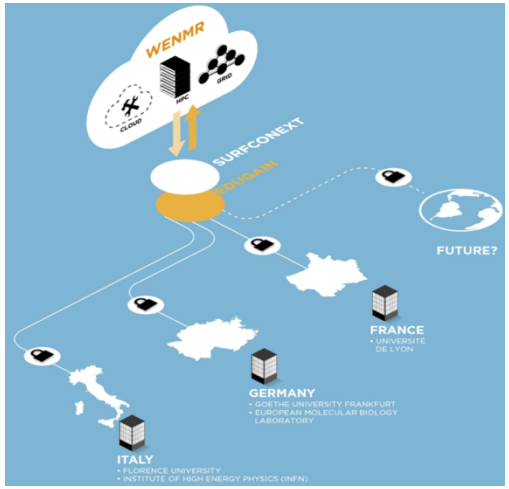
- **WeNMR users are diverse**
- **WeNMR portals are technically and geographically heterogeneous.**
- **WeNMR portals each have different requirements with respect to authorization**
- **WeNMR VRC functions as gateway to the ecosystem**

WeNMR SSO history

- At the start of WeNMR (2010) portals hosted e.g. at CIRMMP laboratory shared a common login profile

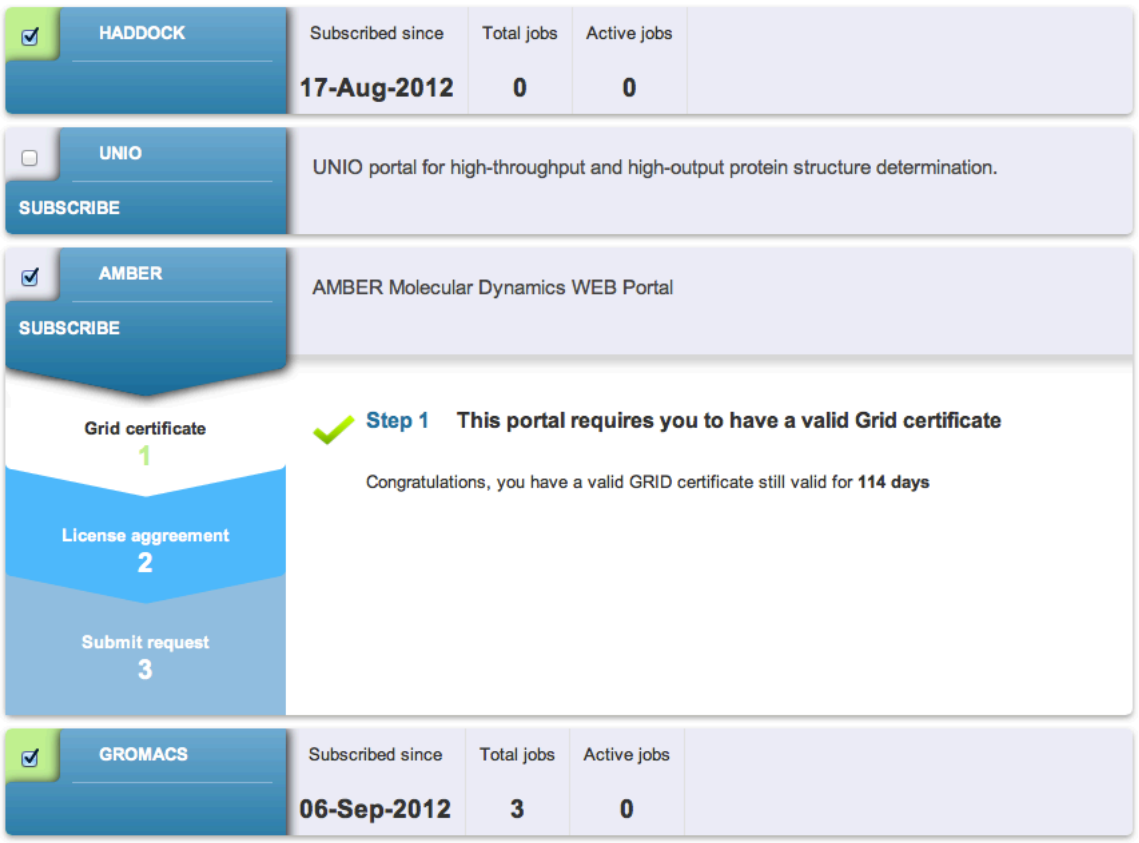


- A the end of the project (2013) a WeNMR SSO system was implemented as Drupal module in the VRC portal



WeNMR SSO: the user perspective

- Subscribe to portals and manage submissions all from one page



- Access Control List
- Portal specific Step-by-Step signup
- Grid certificate validation
- Portal submission management

WeNMR SSO: portal registration, management and accounting

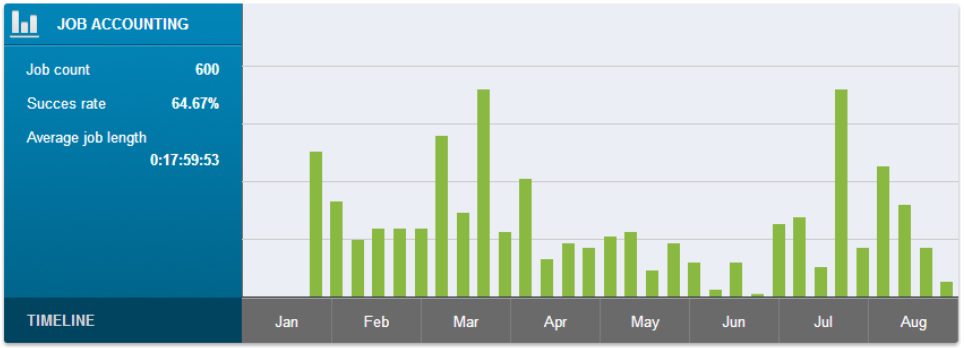
List | Add service | Maintenance

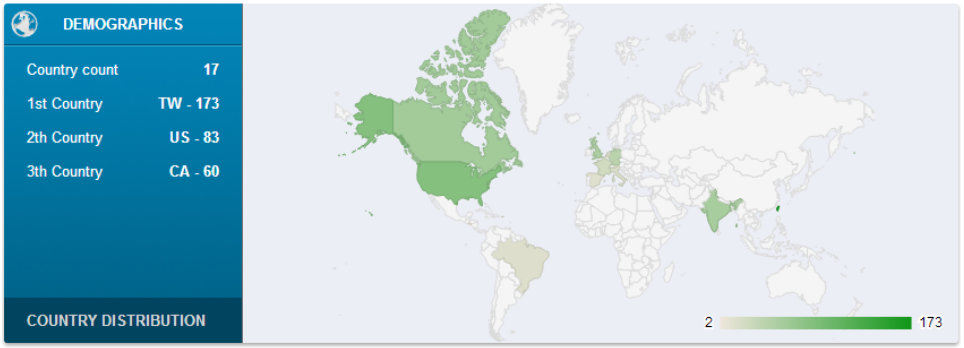
Home » Administer » Site configuration

Single Sign On for eXternal Services

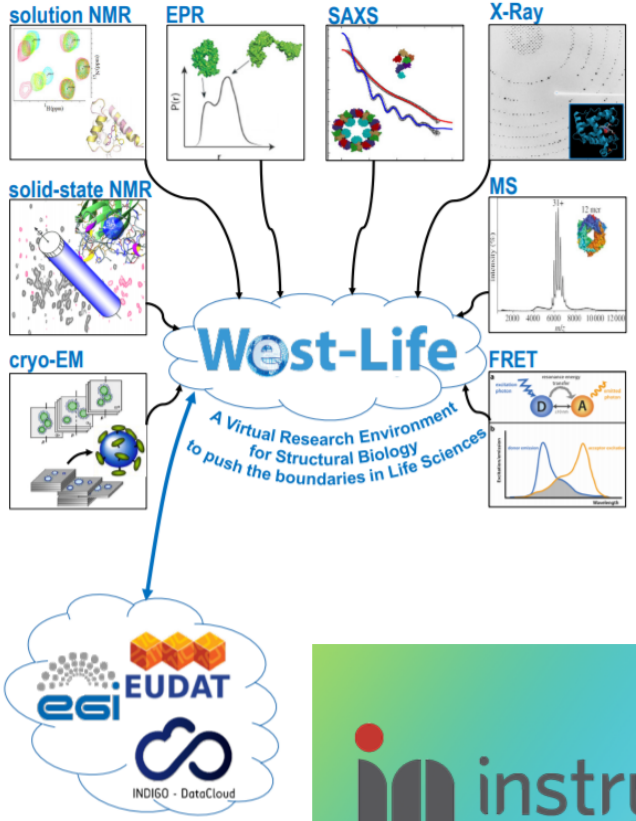
This page provides an overview of all external services registered to make use of the Single Sign On and accounting facility. *service* to register a new service. The *Operations* icons provide links to various administration pages of each service allowing registered users, view statistics and unregister the service respectively.

ID	URL	Status	Registration date	Administrator	Users	Operations
1	HADDOCK	active	19 Jul 2012	amjjbonvin	30	
2	UNIO	active	20 Jul 2012	amjjbonvin	17	
3	3D-DART	active	14 Jun 2010	weAdmin	-	
4	FANDAS	active	01 Jan 2012	weAdmin	-	
11	AMBER	active	21 Aug 2012	Andrea Giachetti	30	
12	GROMACS	active	06 Sep 2012	amjjbonvin	42	
13	ATSAS	active	10 Oct 2012	Al Kikhney	25	
14	TALOS	active	11 Feb 2013	weAdmin	-	
16	XPLOR-NIH	active	14 Mar 2013	Andrea Giachetti	17	
17	MAXOCC	active	18 Mar 2013	Andrea Giachetti	11	
18	CS-ROSETTA	active	27 Jun 2013	weAdmin	5	





West-Life SSO solutions

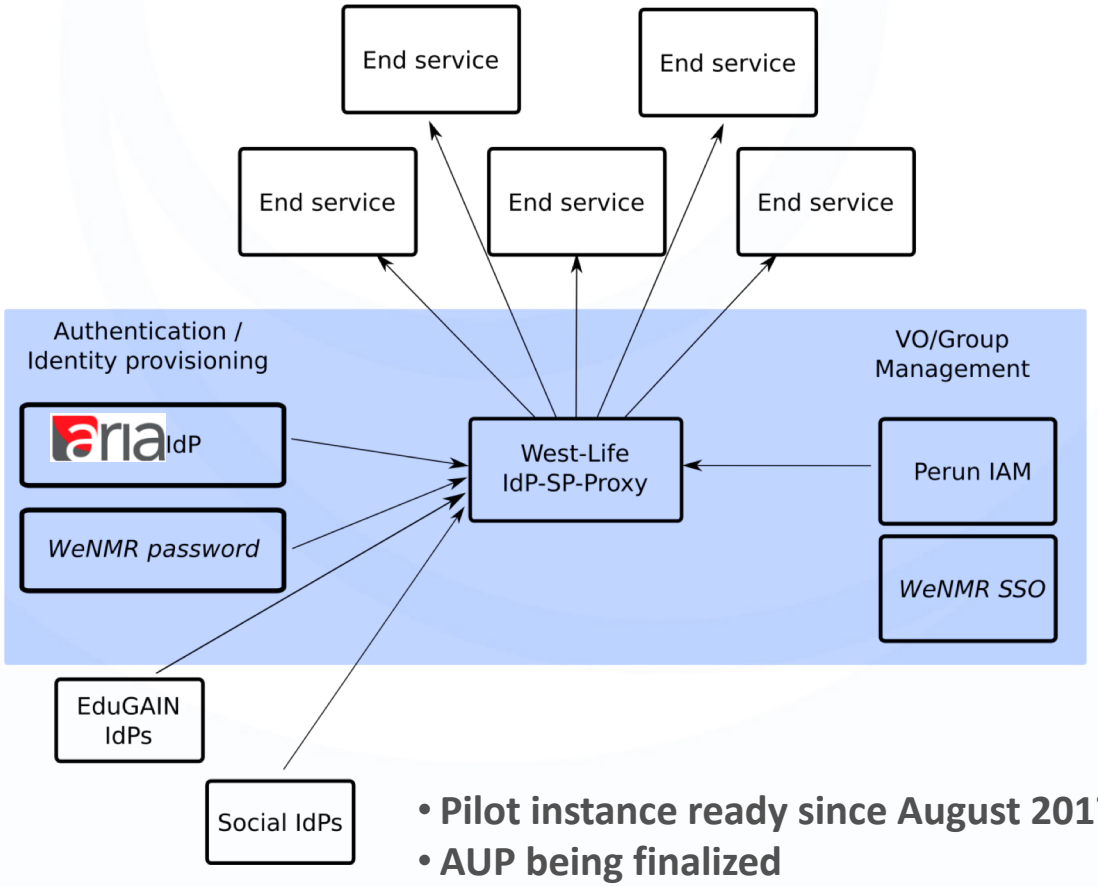


- West-Life (2015-2018) extends WeNMR by including X-Ray, Cryo-EM, etc.
- VRE portal hosted by Instruct-ERIC and powered by aria (Access to Research Infrastructure Administration)

West-Life AAI architecture

D. Kouril (Masaryk University) at DI4R Conference, **December 2017**

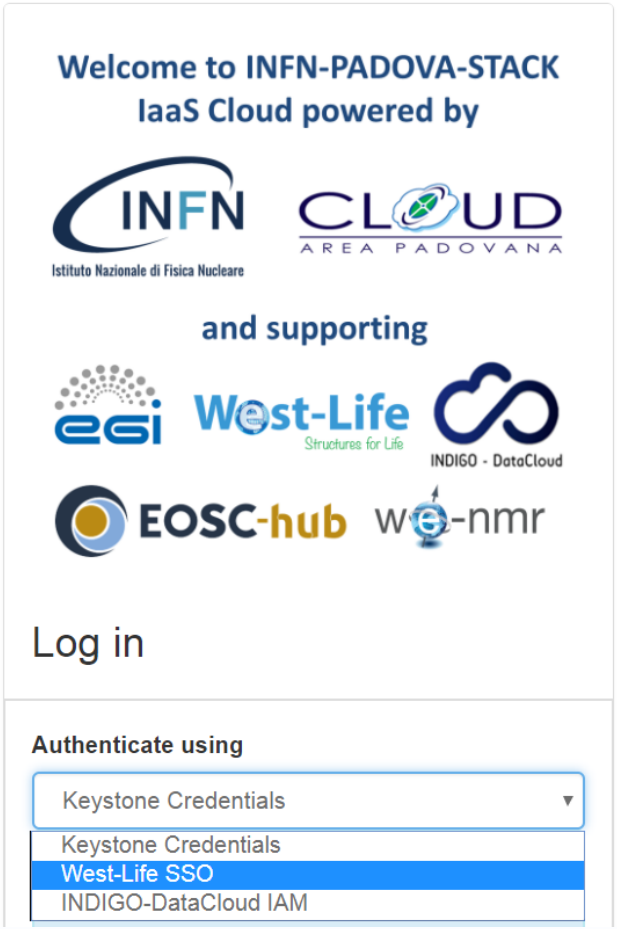
https://indico.egi.eu/indico/event/3455/session/12/contribution/115



- **Pilot instance ready since August 2017**
- **AUP being finalized**

- Follows the recommendations of AARC2 Blueprint
- Based on components used in ELIXIR and BBMRI AAIs
  - compatible with the planned **Life Science AAI** specified by CORBEL and jointly proposed by EGI, EUDAT and GEANT to be deployed as pilot in AARC2 e-infrastructure
- Identity consolidation provided
- Group management via Perun IAM, WeNMR groups inherited for the transition period

West-Life SSO in EGI Federated Cloud/1

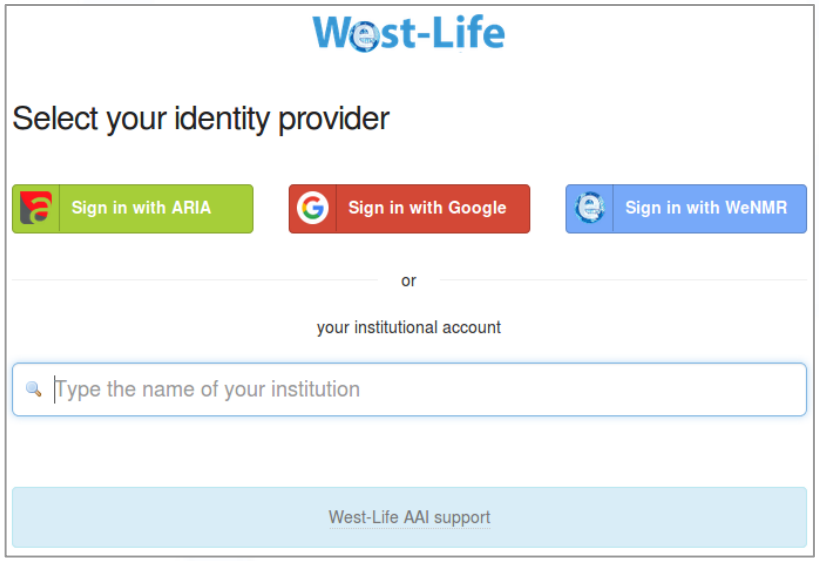


- The EGI Fed-Cloud site in Padova supports many authentication systems: Openstack native, Indigo IAM, West-Life SSO
- The West-Life SSO pilot service is based on Secure Assertion Markup Language v.2 (SAML)
- The Openstack Federated Identity API (OS-Federation) is used for both Indigo IAM and West-Life SSO
- The configuration of the Openstack Identity Service (Keystone) has been changed in order to be compliant with the requirements from West-Life:

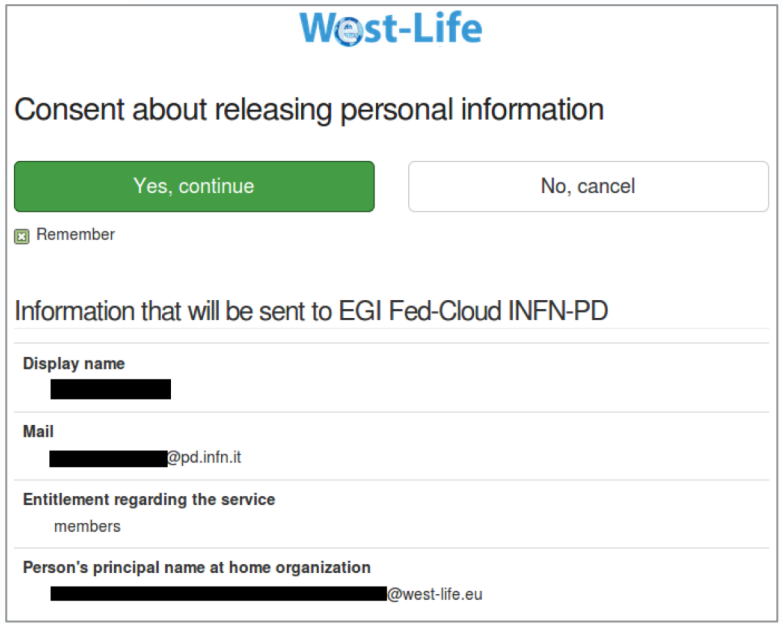
http://internal-wiki.west-life.eu/index.php/Enabling_SAML2_for_end_services

- The framework Shibboleth is used for dealing with SAML handshake

West-Life SSO in EGI Federated Cloud/2

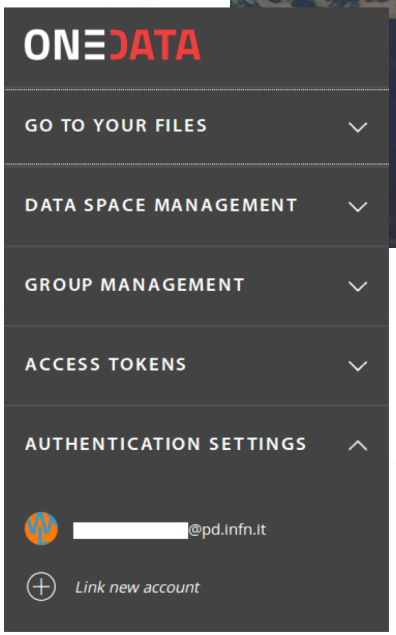


- The West-Life SSO service is a gateway for different federated authentication systems:
  - SAML v.2 based (ARIA, eduGAIN)
  - OpenId Connect based (Google)
  - Drupal/XML-RPC technology (WeNMR SSO), to be discontinued



- The Keystone service creates a volatile user for any federated user logged in, according to a set of attributes retrieved from the Identity Provider and an attribute-mapping schema
- The attributes required for the mapping are:
  - EduPersonPrincipalName
  - full name
  - email address

West-Life SSO in Onedata



- Federated login in Onezone is based on OpenId Connect (OIDC)
- The West-Life SSO team makes available a pilot OIDC endpoint:

  https://auth.west-life.eu/oidc
- A pre-production installation of Onezone with the support to West-Life SSO is available at CNAF-INFN (Bologna)

Steps required for the integration:

- Developed a West-Life SSO plugin for the business logic of Onezone (Erlang)
- Updated the front-end (Ember.js) of Onezone with West-Life specific definitions (style-sheet, logo)
- Details at https://issues.infn.it/jira/browse/EOSCHUBPD-7

Conclusions

- Currently the WeNMR TS portals have their own separate registration system and/or rely on the WeNMR SSO, to be discontinued (old version of Drupal)
- Utrecht partner plans to implement a new management system/database for user registration covering all UU services, to be linked with West-Life/EGI/ARIA AAIs
- West-Life AAI long-term sustainability not clear, West-Life funds ending in Oct. 2018
  - but probably “merging” with the future Life Science AAI

Thank you for your attention!

Questions?

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