SeaDataCloud

# WP10 – Virtual Research Environment –

# Progress of VRE development

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# Outline

1. SDC VRE – progress summary
2. Demo of individual components
3. Outlook and discussion

# 1. VRE – Progress summary

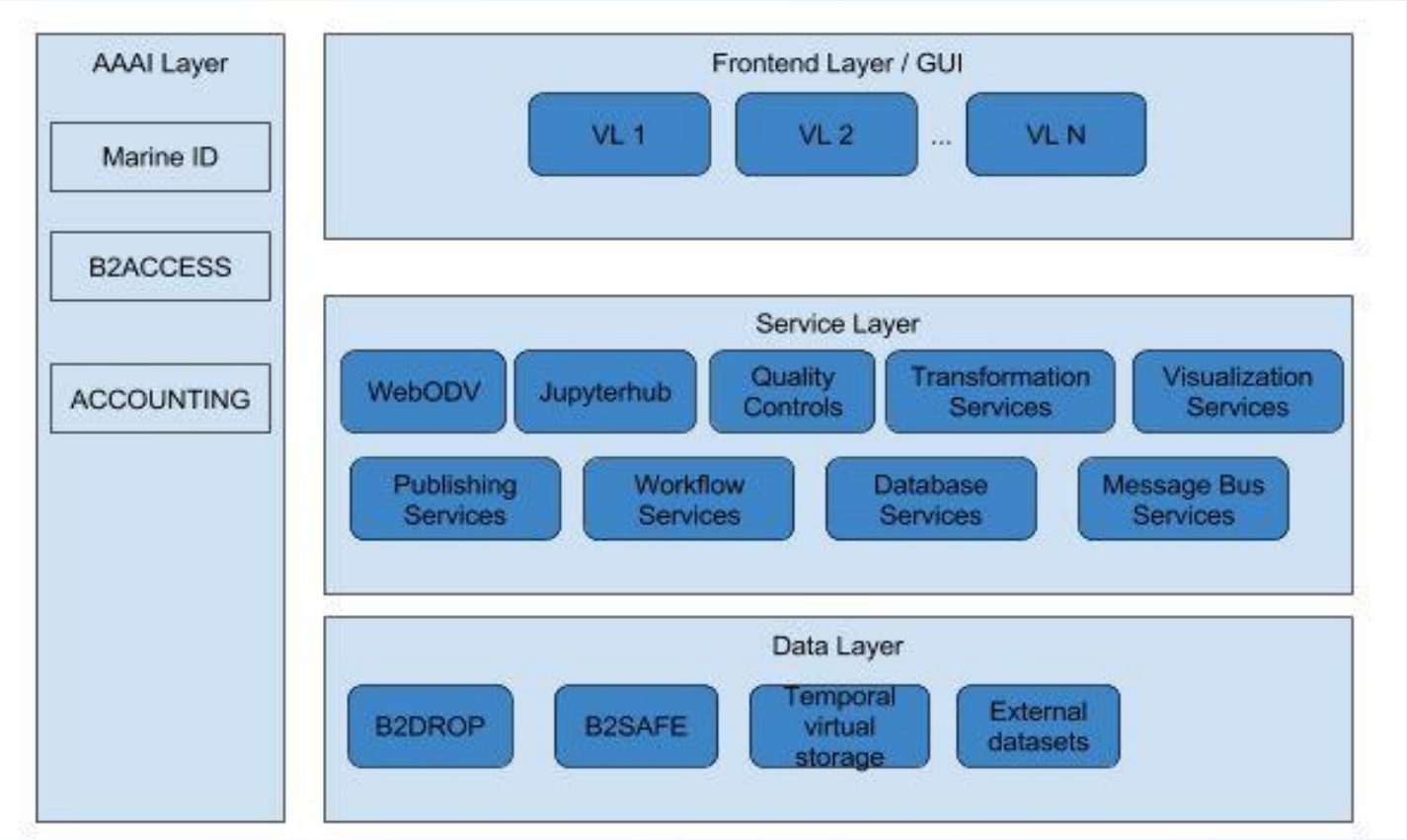
# VRE aim is to support 5 versatile use cases:

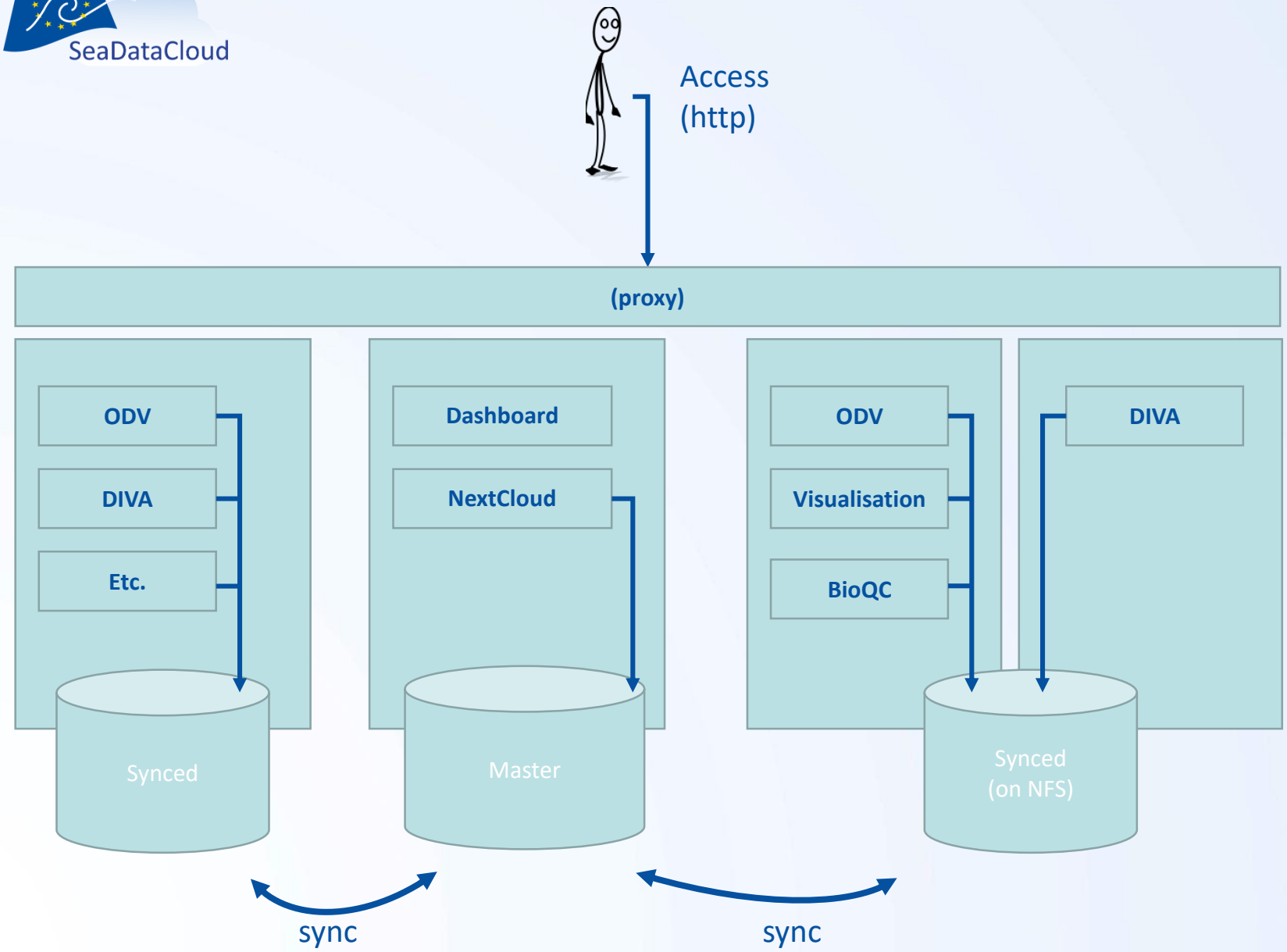
1. **SeaDataNet Temperature and Salinity** water column analysis
2. **EMODNET - Chemistry**, same for bio-geo-chemistry
3. **SeaDataNet Biology Quality Assessment**
4. **EMODNET - HRSM**, DTM processing
5. **Processing and visualising data sets**

# First functions targeted of T/S (narrow abstract of total use case!)

| | |
|---|---|
| log in with single sign on | B2ACCESS + Marine-ID |
| integration GUI development | Javascript library |
| apply water column obs quality control with friendly data editor and save result, | webODV |
| advise data centre of the regional quality control | |
| be advised of quality control result (email of log of changes/anomalies sorted per DC) | email |
| configure DIVA interpolation | Jupyter + DIVA library |
| apply DIVA interpolation, send notification (email) when processing is completed | |
| visualize interpolation result together with original observations of other observations | |
| extract and view profiles, time series, hovmuller out of the interpolation result | |
| publish dataset results (metadata and data), get a DOI | oceanBrowser+oceanotron+sextant-dataCite |

# SDC VRE Architecture – level 1




Access
(http)
(proxy)
ODV
DIVA
Etc.
Dashboard
NextCloud
ODV
Visualisation
BioQC
DIVA
Synced
Master
Synced
(on NFS)
sync
sync

# Deployment status

- Prototype version running on Orca- DKRZ https://vre.seadata.org
- In progress: Deployment at GRNET and STFC
- Succesful user tests done in training sessions Oostende June/July 2019
- Focus on the internal user sofar but with one eye on the later use by wider Scientific user!

# 2. Progress per component

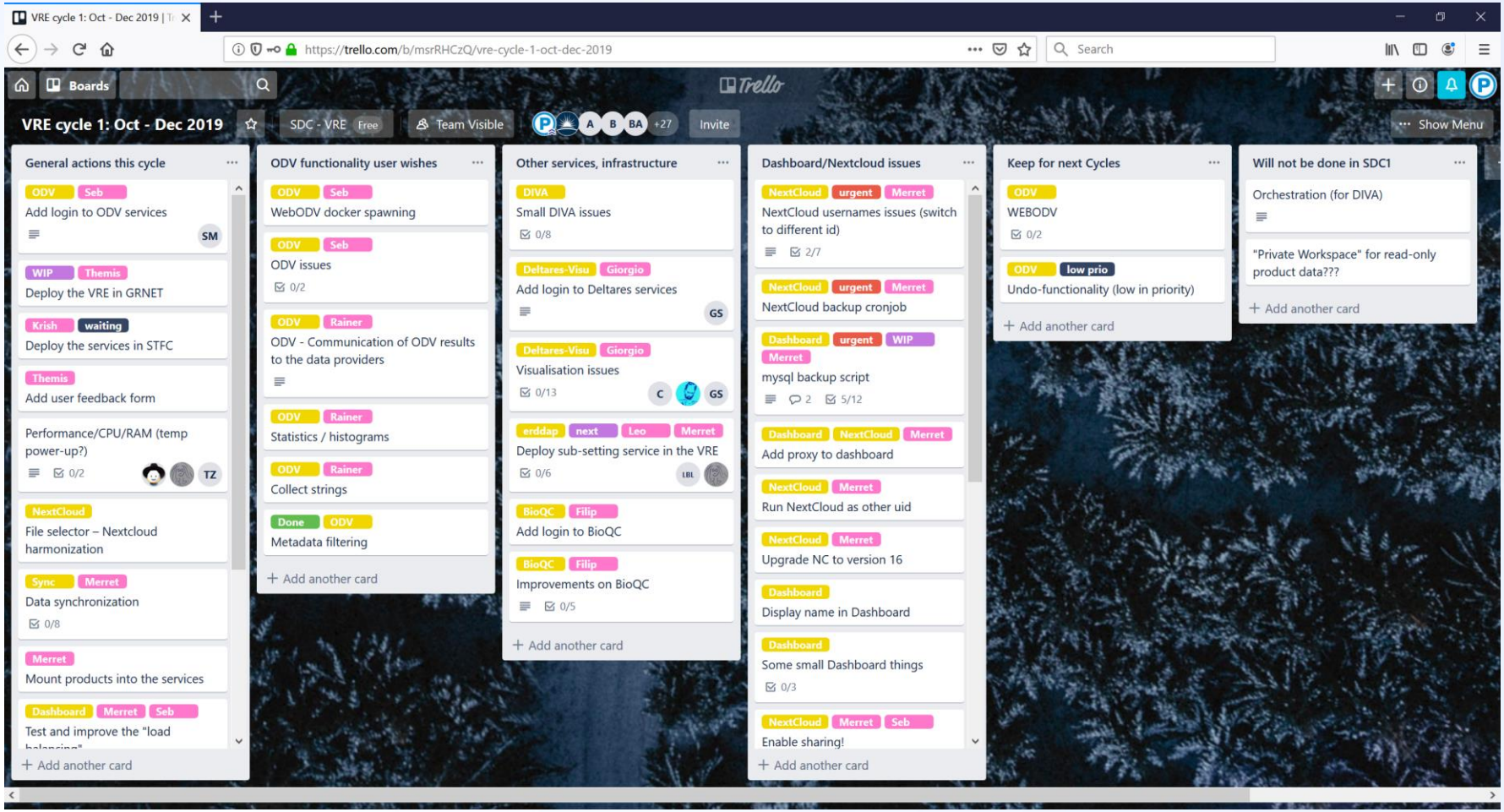
## Demo and highlights

# 3. VRE outlook and discussion

# Where are we now?

- Components have been integrated in first prototype
- Open for tests with the internal users
  - WP11 data product group
  - Other internal users
  - Feedback will be used to improve the VRE in 3 development cycles in final year
- Ideas for user consultation with scientific users outside of SDC 2020

# Overview Cycle 1 on Trello board



# Deliverable deadlines

| Project month | Component | remark |
|---|---|---|
| PM12 | VRE specification document | This document |
| PM15 | Start actual developments VRE | Kickoff to be decided |
| PM18 | D10.3: Specification of sub-setting application and development plan | Led by IFREMER |
| PM18 | D10.5: Specification of Ocean Data View online and development plan | Led by AWI |
| PM18 | D10.7: Specification of DIVA online and development plan | Led by ULiege |
| PM18 | D10.9: Specification of Biology Data QC online and development plan | Led by VLIZ |
| PM18 | D10.13: Specification of visualisation services and development plan | Led by Deltares |
| PM18 | D10.19: Specification of MySeaDataCloud and development plan | Led by EUDAT |
| PM24 | D10.10: Phase 1 of Biology Data QC online operational | Led by VLIZ |
| PM24 | D10.17: Specification of SOS viewing services and development plan | Led by 52N |
| PM26 | D10.15: Specification of Oceanotron services and development plan | Led by IFREMER |
| *PM30 => 34* | *D10.2 First version Virtual Research Environment (VRE) in the cloud operational* | *For internal users, related to selected use cases* |
| *PM30 => 34* | *D10.4: Sub-setting application operational in VRE* | *Led by IFREMER* |
| *PM30 => 34* | *D10.6: Ocean Data View online operational in VRE* | *Led by AWI* |
| *PM30 => 34* | *D10.8: DIVA online operational in VRE* | *Led by ULiege* |
| *PM30 => 34* | *D10.14: Visualisation services operational in VRE* | *Led by Deltares* |
| PM30 => 34 | D10.20: MySeaDataCloud operational | Led by EUDAT |
| PM31 | D10.18: SOS viewing services for data streams operational | Led by 52N |
| PM36 | D10.11: Phase 2 of Biology Data QC online operational | Led by VLIZ |
| PM40 | D10.16: Upgraded Oceanotron services operational for SeaDataNet WP11 data products | Led by IFREMER |
| PM42 | D10.12: Phase 3 of Biology Data QC online operational | Led by VLIZ |
| PM42 | VRE operational for internal (and some public?) users | New: No official deliverable |

# Questions, or suggestions?