OSSR – technical discussion

OSSR Open Collaboration meeting, 15/03/2023
T. Vuillaume
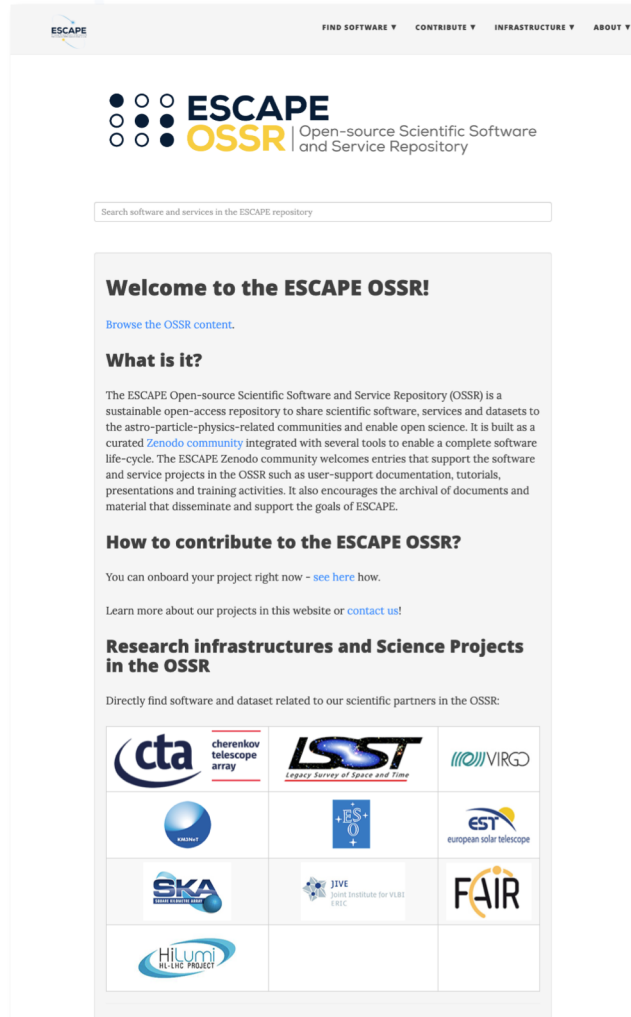
OSSR technical parts (a reminder)

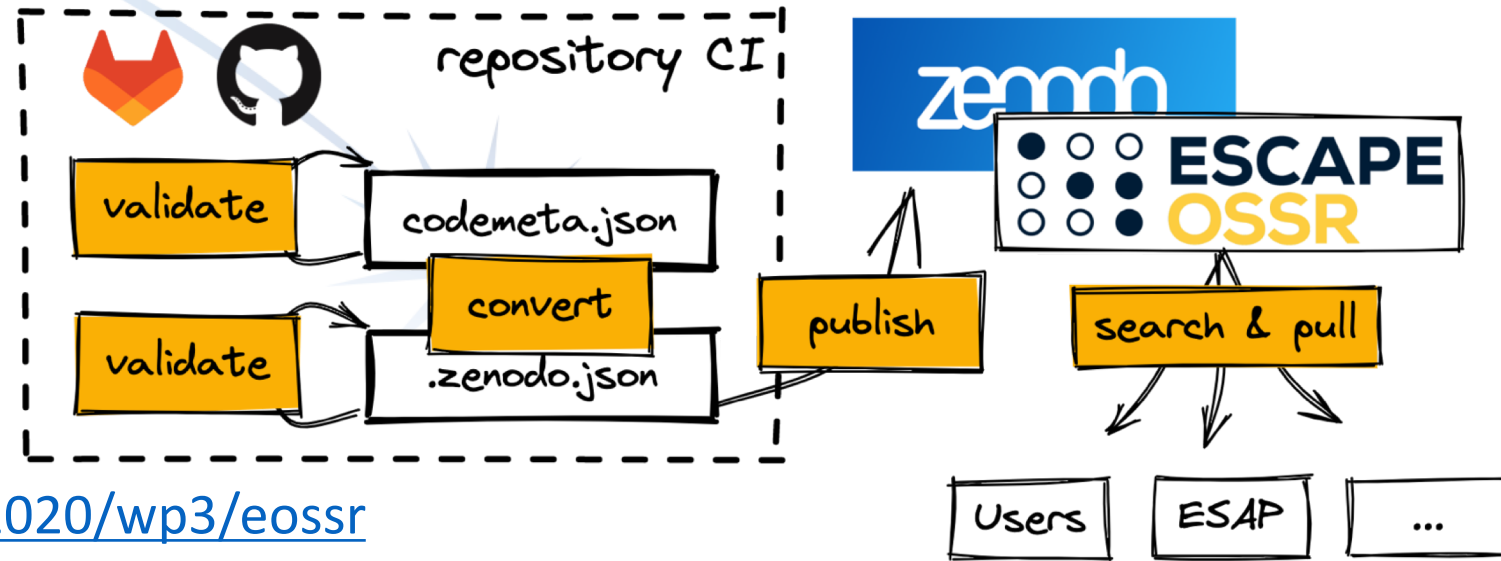# OSSR entry point: https://purl.org/escape/ossr

- Browse the OSSR

- Guidelines & policy

- Tutorials and tools

- Contact

- Developed as static pages hosted on gitlab pages
https://gitlab.in2p3.fr/escape2020/wp3/ossr-pages

OSSR core: Zenodo
& the *escape2020* community

- *eOSSR* library
  - Dev: https://gitlab.in2p3.fr/escape2020/wp3/eossr
  - Doc: https://escape2020.pages.in2p3.fr/wp3/eossr/
  - OSSR: https://doi.org/10.5281/zenodo.6826881
  - **Gathers all OSSR developments and technical definitions**
    - **OSSR API:** send request to the OSSR, find and filter software and services, upload new entries, update existing entries
    - **CI**: automated upload / update using gitlab CI
    - **Metadata**: schema definition, crosswalk between CodeMeta and Zenodo, validation

MetaData generator and validator

Run online

Curation: ossr-curation

- Issue: Zenodo currently supports a single community maintainer and reviewer

- OSSR curation: a solution to collaboratively and openly review requests in a Zenodo community. Note that it might become obsolete in a future version of Zenodo built on Invenio RDM
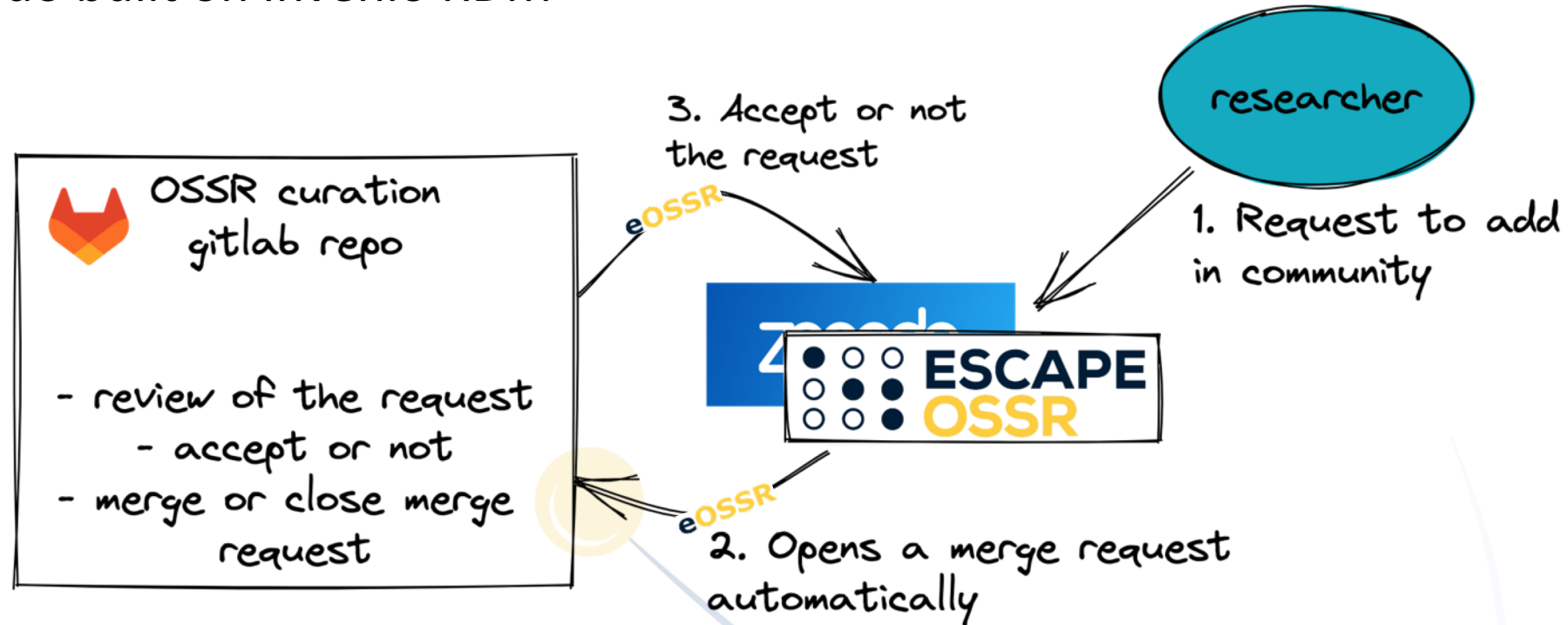
Participation and organization

- All developments are open ! – we gratefully accept all contributions ;-)
  - See anything that could be improved (as little as spelling mistakes on the website) ?
    - [See the contributing section of eOSSR](#)
    - Open an issue in the concerned repository
    - Send us an email (contacts in the ossr pages)
    - Open a pull request

  - Want to be more actively involved ?
    - Join our tech group ([write me](#))
    - Meetings once a month to discuss developments and assign tasks
    - Organisation through milestones and issues
    - Hackatons on the side of general meetings

- Developments will move from gitlab.in2p3.fr to gitlab.com (TBD just after)

OSSR future developments

OSSR improvements and direction

Motivations

- Increase the incentive for researchers and research software developers to contribute

- Lower the barrier to contribute

Increasing the incentive

- **More appealing website**
  - More appealing display of onboarded software and analysis
    - One page per project
    - Enriched information (going beyond Zenodo display): Contact point, onboarding recorded talk, badges …

  - Dynamic website
    - Interactive search and display
    - Integrate with our backend onboarding workflow (see after)
    - Techno: Flask?, need a server to host it

Increasing the incentive

- Targeting more clearly and distinctively workflows/analysis (vs software libraries)
  - Make clear distinction between software and analysis (*workflow* in Zenodo metadata type, *applicationCategory* in CodeMeta)
  - Display this type in the record page
  - Raise the requirements for workflows enrivonments => reproductible analysis and runnable in ESAP-like platforms
    - Technically, we could auto-accept [environments files supported by mybinder](#)
    - Curate others
  - Display a link to mybinder in record page
  - Integration with the VRE – ease the publication of complete analysis with environment and REANA workflow in the OSSR

Increasing the incentive

- **Badges**
  - OSSR badge `OSSR accepted ✓` `OSSR onboarding ⏳`
  - OSSR reproductible analysis badge `OSSR reproductible ♻`
  - Integrate with other services to get other levels and types of validations (fairness level, code quality…). If accepted, can be further developed in the framework of the INRA-EOSC-01-02 call.

Increasing the incentive

- Make the onboarding talks as *discovery series*
  - Regular days (monthly?) of onboarding talks (see it as mini-conferences)
  - Communicate about it in advances in our communities
  - A rendez-vous for people to share their tools / software / analysis and to discover others

Lowering the barrier

- **Easier and clearer onboarding**
  - Single onboarding platform → gitlab.com
    - Registering for the onboarding process (better: through dynamic website, otherwise on gitlab.com)
    - Curation on gitlab.com
    - Process detail in next slide
  - Display onboarding status
    - Should also be more clear internally !

- **Easier contributions to devs → gitlab.com**

Integrate onboarding to gitlab.com / ossr-curation

- Record owner opens an issue in the repo to start the onboarding process following a template. It gets a tag *onboarding.*
- A date is assigned for a talk (how ? TBD)
- Onboarding manager communicates with authors in the issue
- A request to be added to the escape2020 community is done in Zenodo → merge request gets opened automatically
- Onboarding manager links to the opened issue by commenting in the description *Fixes #000*
- Curation happens as usual
- Merge request is accepted and merged
  - Issue gets closed
  - The record is added to our database (in a table file or adding a full markdown page in a directory)

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  → gitlab.com

Discussion from our last OSSR workshop

	GitHub	GitLab.com
+	• Most widely used • Better online edition and workflow management • GitHub discussions	• 0 changes in code: project transfer • Keep all branches, MRs... smooth transition • Platform widely used (under other instances) in research institutes
-	• Can import git history and branches but not the rest • Work to be done to adapt current tools	

Test examples:
- https://github.com/escape2020/ossr-curation
- https://gitlab.com/escape-ossr/
  - https://escape-ossr.gitlab.io/ossr-pages/

Lowering the barrier

- Easier metadata management
  - CodeMeta generation
    - GitLab to CodeMeta
    - GitHub to CodeMeta
  - CodeMeta maintenance
    - CodeMeta template
    - CodeMeta update through command lines

→ Will hopefully get better with Zenodo accepting CodeMeta ! (end of 2023?)

Future of Zenodo with InvenioRDM

- https://blog.zenodo.org/2022/12/07/2022-12-07-zenodo-on-inveniordm/
- in the coming 6-12 months
- Demo site: https://zenodo-rdm.web.cern.ch/

- What's new
  - InvenioRDM supports having members with different roles:
    - Multiple curators, community managers, etc…
  - Submission to communities now enable the curator and uploader to have a conversation directly on the platform
  - → depending on the setup, the curation might migrate entirely to Zenodo
  - Upload form
  - APIs backward compatible

Priorities order

- Establishement of the OSSR tech group

- Moving from gitlab.in2p3 to gitlab.com
  - See tasks https://gitlab.com/escape-ossr/transfer/-/boards
  - pages
  - eossr
  - codemeta generator
  - ossr-curation

- Add a clearer CONTRIBUTING section

- Integrate onboarding to gitlab.com / ossr-curation

- Youtube playlist for onboarding talks

- CodeMeta templating, improved updating tool and instructions

- Dynamic website