OSSR containerisation guidelines
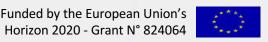
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FG2 call – 15/09/2021

Containerisation guidelines

- The Gitlab-Zenodo connection supports the building and addition of containers into OSSR entries.
  - https://gitlab.in2p3.fr/escape2020/wp3/eossr/-/tree/master/examples/CI_code_snippets

- Guidelines don't make any reference to containerisation.
  - Already discussed within WP3 and raised in the template project (Issue 11).

Open   Created 20 hours ago by   Dave Morris   Close issue   ⋮

Dockerfile is not reproducible ✎

Using an unversioned 3rd party image as the base for this container makes the resulting container image dependent on what the upstream 3rd party put in the latest version of their container.

```
FROM continuumio/miniconda3
```

The OSSR should publish a policy for creating reproducible containers.

1. The FROM statement should include the full registry URL

   ```
   FROM docker.io/continuumio/miniconda3
   ```

2. The FROM statement should reference a specific version of the base container

   ```
   FROM docker.io/continuumio/miniconda3:4.10.3p0
   ```

3. The FROM statement should reference base container in a repository maintained by an EU funded provider, not a commercial organization

Should the OSSR maintain a registry of base container images for participants to use ?

Proposal: Start extending OSSR guidelines

🟡 With a specific section about containerisation:

Guidelines and rules of participation to the ESCAPE OSSR.

(...)

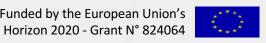**Containerisation**

1. *Provide reproducible recipe files.*
    1. *The base image from which the container/image initialises should:*
        1. *Include the full registry URL.*
        2. *Reference a specific version of the base container.*

    Ex:

    Correct: `FROM docker.io/continuumio/miniconda3:4.10.3p0`

    Incorrect: `FROM continuumio/miniconda3`

Ongoing discussion: Container's metadata

● Neither Codemeta nor schema.org have clear schema/properties to describe containers.

  ● An attempt of extending Schema.org (Sep 2018);
    https://github.com/schemaorg/suggestions-questions-brainstorming/issues/114

  ● OSSR discussion/WIP on how to extend the codemeta schema:

    ● https://gitlab.in2p3.fr/escape2020/wp3/eossr/-/issues/36

  ● and how to add container information to the metadata file

    ● https://gitlab.in2p3.fr/escape2020/wp3/eossr/-/issues/34