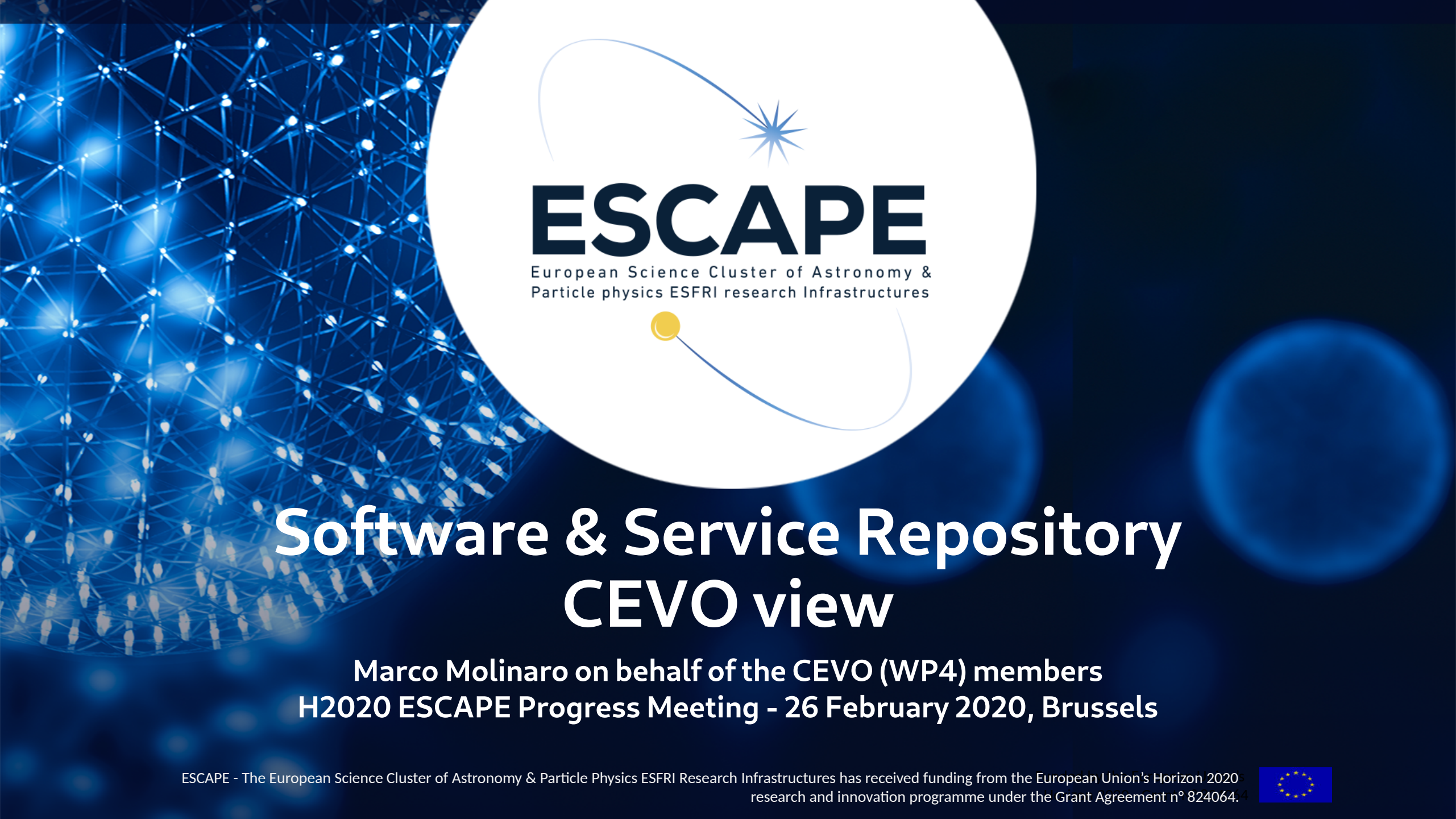

Software & Service Repository
CEVO view

Marco Molinaro on behalf of the CEVO (WP4) members

H2020 ESCAPE Progress Meeting - 26 February 2020, Brussels

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WP4: C E Virtual Observatory

“Connecting ESFRI projects to EOSC through VO framework”

CEVO activities that could be related to the ESCAPE Software & Service Repository

- Task-4.1: integration of the VO architecture within EOSC
  - Registry integration
  - Containerization of software (client applications)
  - (“out of the box”) Service tool integration
  - Vocabulary integration?
- Task-4.2: FAIRness through VO
  - Protocols and standards
  - Resources implementing them are meant to end up in the Registry
- Task-4.3: ML for added value to archives
  - Enhance metadata techniques for repository resources

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IVOA & EOSC

- The IVOA has a starting point for discovery: the Registry
  - Domain specific
  - A repository of all VO known resources: data collections, services, …
  - It has an harvestable interface (OAI-PMH based, DataCite compatible), already harvested by EUDAT B2-FIND
  - It is a distributed ecosystem: one Registry, multiple syncronized distributed locations, a larger set of “publishing” contributors
  - Machine actionable
- EOSC portal has a Catalogue
  - General purpose
  - Heterogeneous content
  - (human) Browse-able

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ESCAPE Repository (requirements overview)

- Will it be the place for (?)
  - ESAP to search (software, data resources, computing resources, storage solutions …)
  - DIOS, CEVO, ESCAPE in general to provide resources
- Could it turn out to be a duplication of (some) efforts?
  - ESCAPE Repository
  - EOSC Portal Catalogue
  - Domain specific repositories
- If it is limited to ESCAPE Project specific content
  - What happens after the end of the project
- Services in the repo:
  - We need a clear definition
  - Metadata description should be defined
    - Should we go for machine actionability (at least part of it?)
- Software
  - Metadata for discovery
  - Metadata for data resource linking

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Use Case (resource providing)

- Suppose you have containers to run
  - a TAP service
  - a Registry with API
    - These two can be a DaCHS instance, e.g.
  - a simple VOSpace
    - Maybe capable of using RUCIO as a back end
- Put those as software/services available in the repository
- Users find them
  - And run them in some cloud or local system
    - ESCAPE cloud? EOSC? ESFRI/RI one?
- And use them to provide their data resource and services
  - Which in turn can be pushed to a repository for discovery

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Use Case (consumer)

- Discover a useful resource (for your research)
  - e.g. the one developed by the previous use case
- Discover a client tool to access the resource with
  - e.g. a containerised VO tool
  - A Jupyter notebook
- Discover a computing resource to run the above
- Do your research connecting them

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Use Case (nesting repositories)

- (e.g.) The IVOA registry
  - Can be 1 service/resource in the ESCAPE repository
  - Can be harvested and its reources exposed through the ESCAPE repo interface
- The former is limited in scope
- The latter would require metadata schema definitions to work properly
  - And will duplicate the EUDAT B2-FIND work

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CEVO potential contribution

- CEVO can provide …
  - Technology and definitions learned used in the Registry and its resource types
  - Containerised client tools of common usage
  - Containerised tools for service providing
- … but kindly requests (at least discussion on)
  - Metadata for discovery
  - Metadata to link sofware tools to data resources
  - Actionability on resources
  - AAI integration

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Thank you for your attention!

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