

Research data management: let's do it FAIR!

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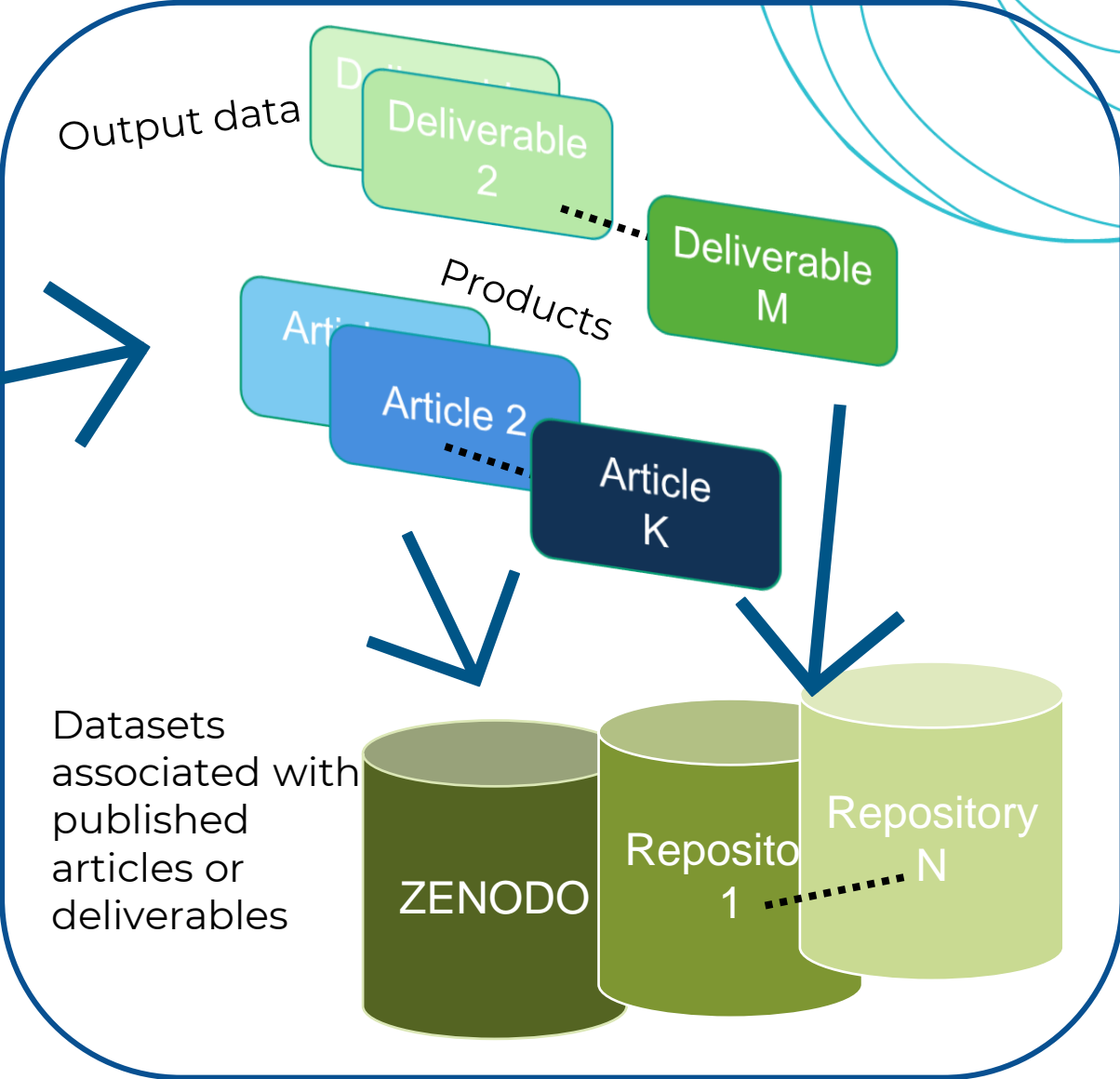
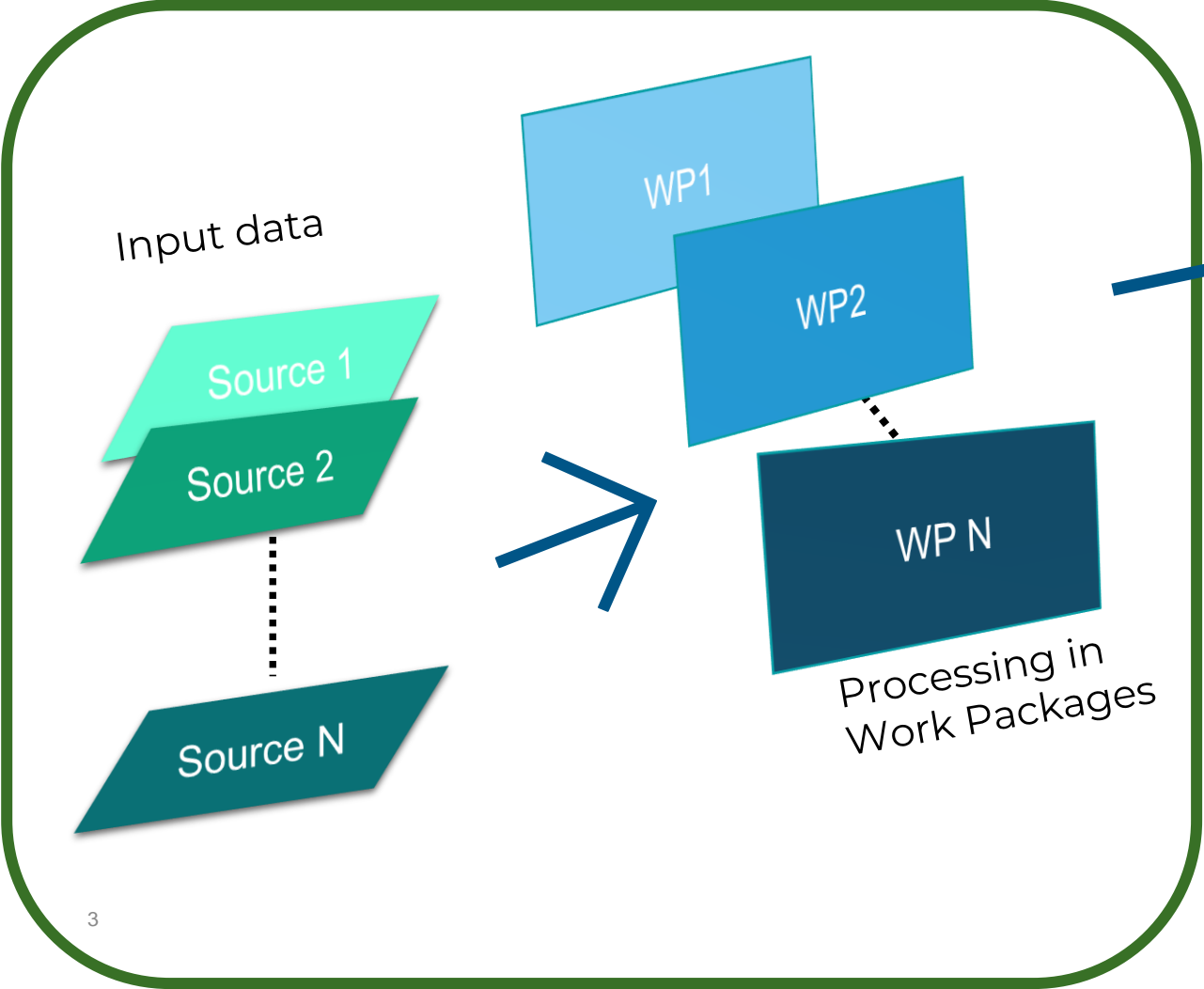
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101003534

Data Management Plan

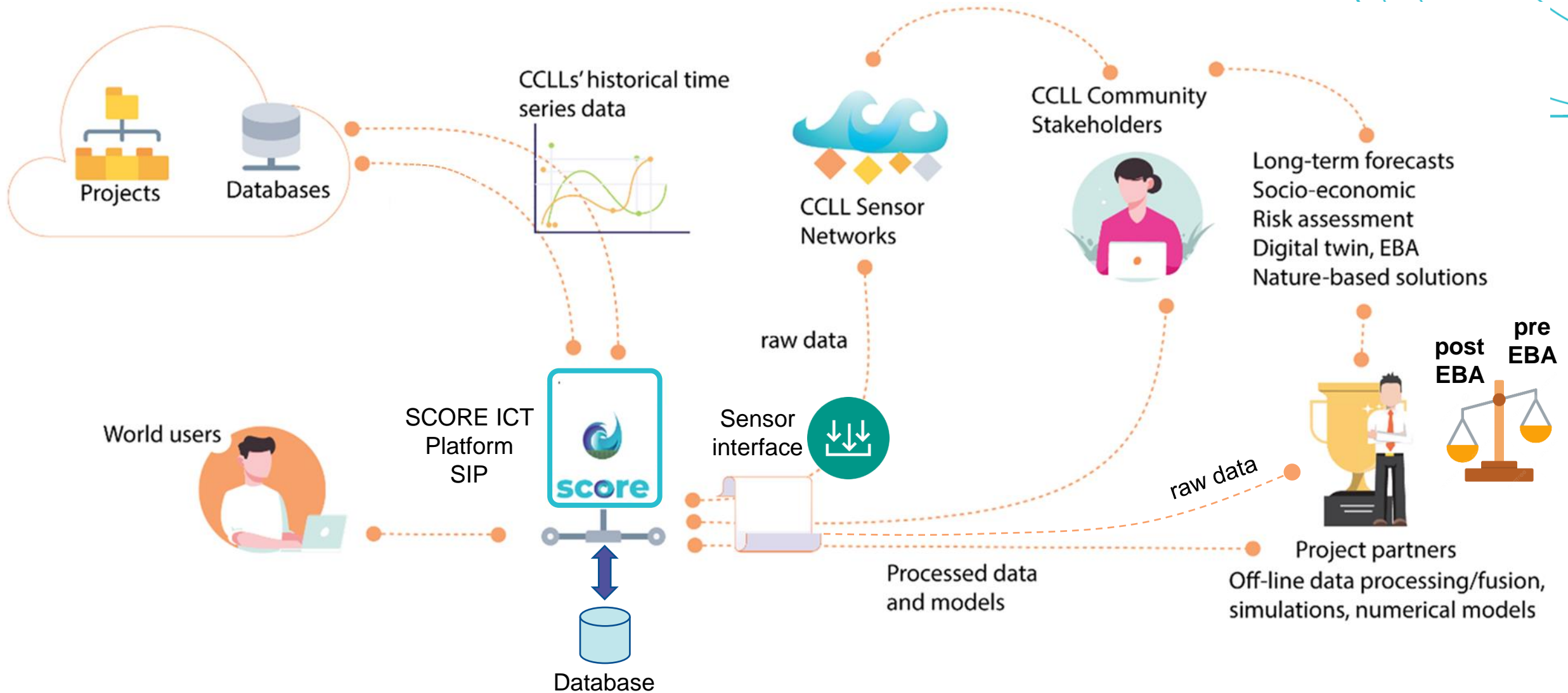
- ❑ Horizon 2020 projects are requested to draft a Data Management Plan (**DMP**) describing how data are managed according to the **FAIR** principles: **F**indable, **A**ccessible, **I**nteroperable, **R**e-usable).
- ❑ The **FAIR principles** emphasize machine-actionability (i.e., computers dealing with data with none or minimal user intervention) since computational support to deal with huge amount of data is increasingly needed in research.
- ❑ **FAIR is different from OPEN**, but data should be “as open as possible and as closed as necessary”
- ❑ There are specific guidelines and resources for drafting H2020 DMP documents that are contractual deliverables at month 6, mid-project and end of the project.
- ❑ The **earliest release of DMP should be part of the project proposal**.
- ❑ The **DMP is a living document**. In SCORE is updated every 6 months
- ❑ DMP was designed to be used by the SCORE partners as a reference for FAIR data handling
 - during the project (**through SIP**)
 - after the end of the project (**through permanent repositories**).

See <https://score-eu-project.eu/deliverables/> for public deliverables

A “minimal” DMP approach

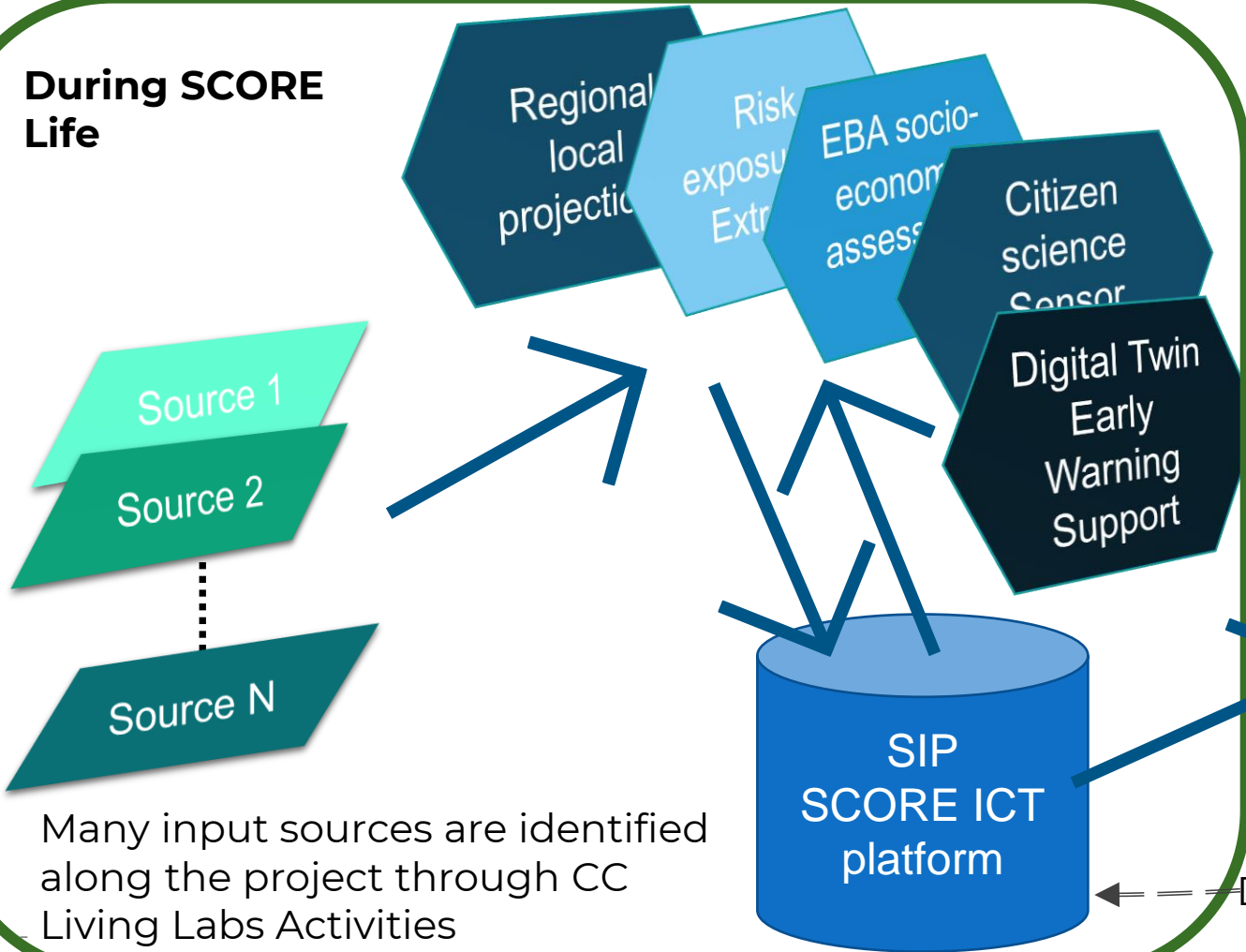


Introducing SCORE WP 5: Project's Data Flow



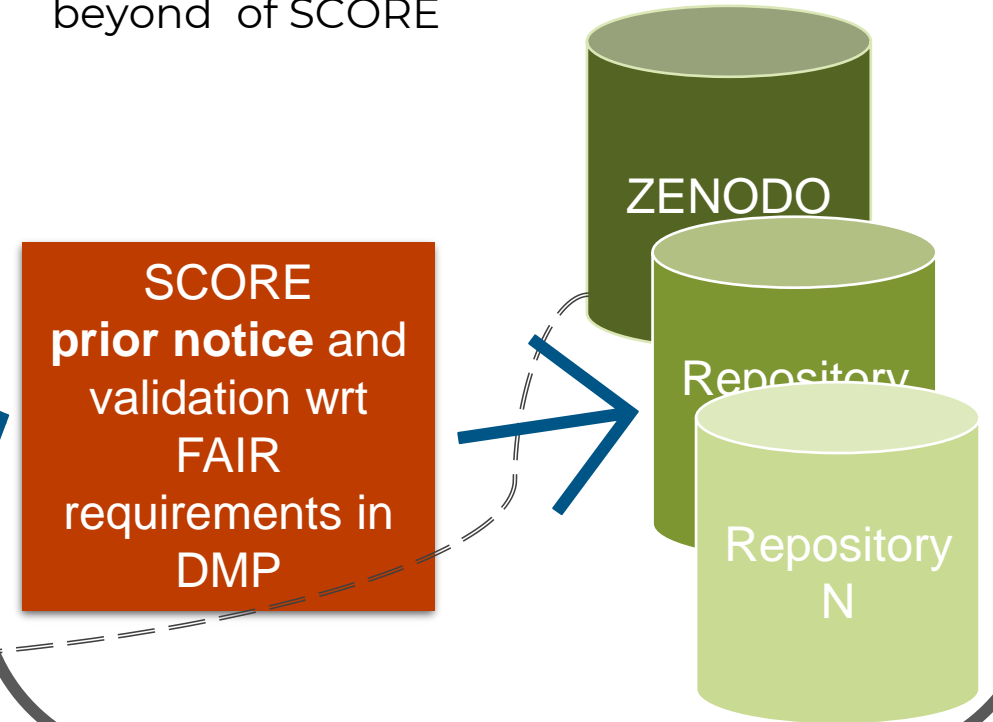
SCORE DMP view of data (with SIP and datasets as products)

During SCORE Life



After SCORE Life

Preparing SCORE suitable datasets for long-term preservation through DOI attribution and re-use beyond of SCORE



Both SIP and selected repositories implement FAIR principles.
SIP requires a DOI from an external provider

SCORE DMP: Some a few key aspects in FAIR implementation

❑ Findable:

Data discoverable with metadata, identifiable and locatable by means of a standard identification mechanism (e.g. DOI)

Valid and machine readable DOIs (Digital Object Identifiers) allow other repositories to find and identify the datasets deposited. Using ZENODO satisfies most of findability requirements and issuing a DOI and is a convenient solution for records that are less than 50GB.

❑ Accessible:

Data should be always available and obtainable: if the data are restricted, the metadata should be open

- obtaining explicit copyright permissions from third party data owners also through specific agreements: *In case of copyright on raw data derived, collected, or elaborated from pre-existing databases or from other original, datasets will be made available if reproduction and sharing are allowed by expressed permission of the right holders or by applicable copyright exceptions and exemptions.*
- *Restrictions:* Data belongs to third party which denies permission for sharing for confidentiality and proprietary issues;
- *Restrictions:* Protection of personal data as drafted in **D11.1- Ethics requirement: Standard Ethical Protocol**

SCORE DMP: Some a few key aspects in FAIR implementation

❑ Interoperable:

Data interoperability refers to the ways in which data is formatted that allow diverse data to be parseable, to be merged or aggregated

For geographic data, INSPIRE directive and related standards are adopted. Otherwise, datasets will be described using other metadata standard or general-purpose descriptive metadata.

❑ Re-usable:

Data should be shared with the least restrictive licences, well described (eventually resorting to associated papers or at least a read.txt), allowing the widest reuse possible and facilitating the integration and joint processing with other data sources

Datasets available under Creative Commons **CC BY 4.0** and **Open Data Commons ODC-BY** .

Metadata should include comprehensive data descriptions.

Relevant documentation about processing, data collection procedures, and even software should be provided

Please refer to www.openaire.eu for a general description of FAIR principles

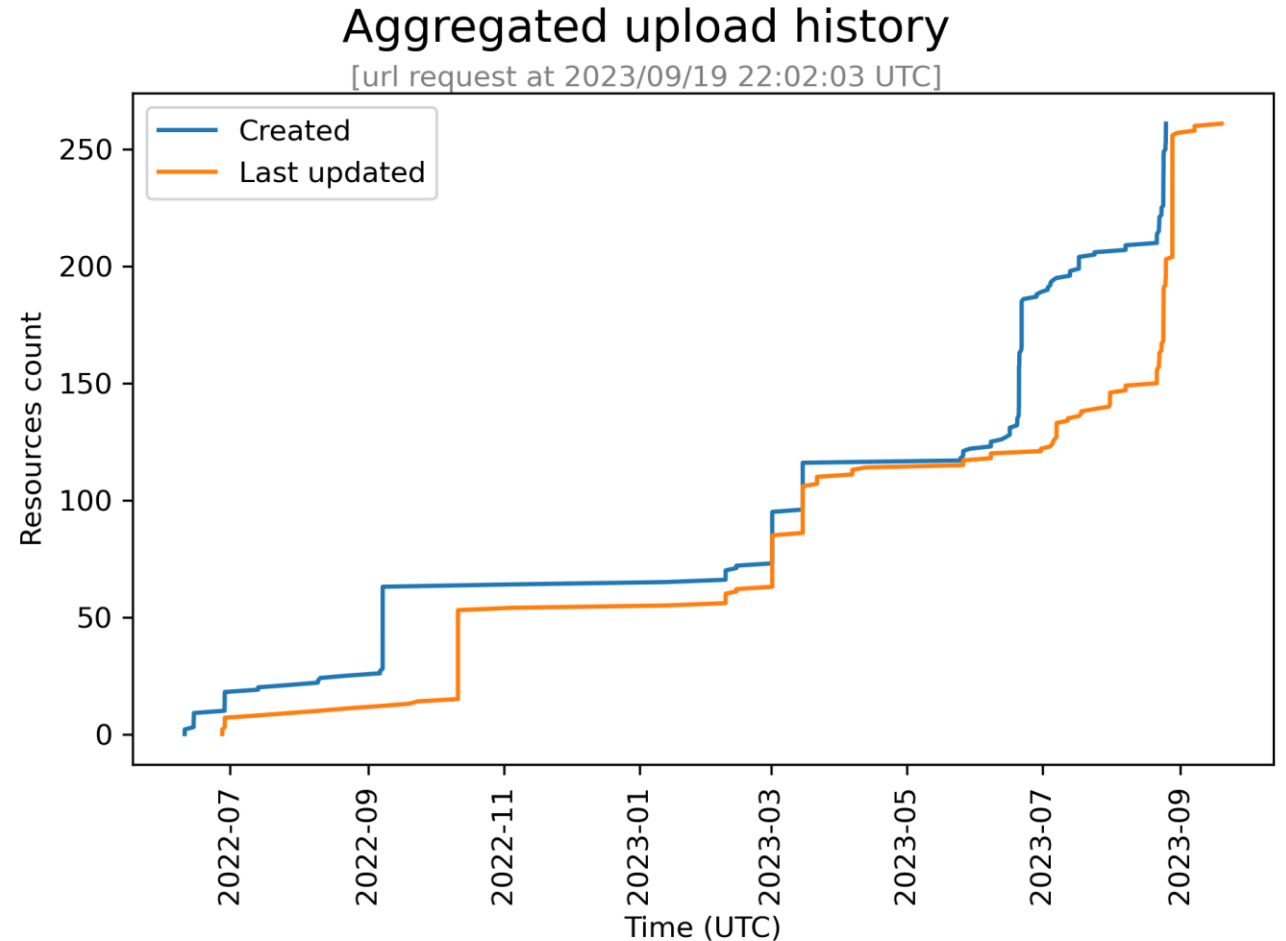
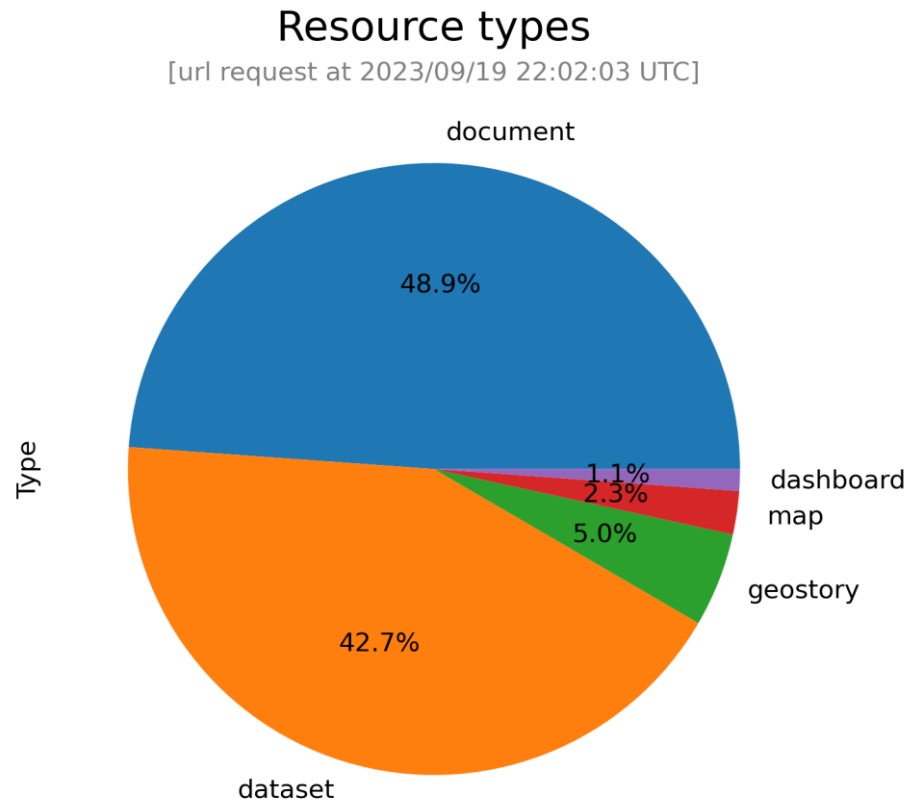
Implementation of SCORE Data Management Plan

Monitoring of compliancy with the DMP

- ❑ **Verification of descriptions** of data sources feeding SIP
- ❑ **Prior notice** for deposited datasets
 1. Notify publication dataset to SCORE partners
 2. Partners can notify justified objections if
 - It adversely affects protection of results/background of the objecting party
 - Legitimate interests of the objecting party would be significantly harmed
 - **Not compliant with DMP rules**
- ❑ Keep track of datasets and their characteristics in releases of the DMP

Implementation of SCORE Data Management Plan

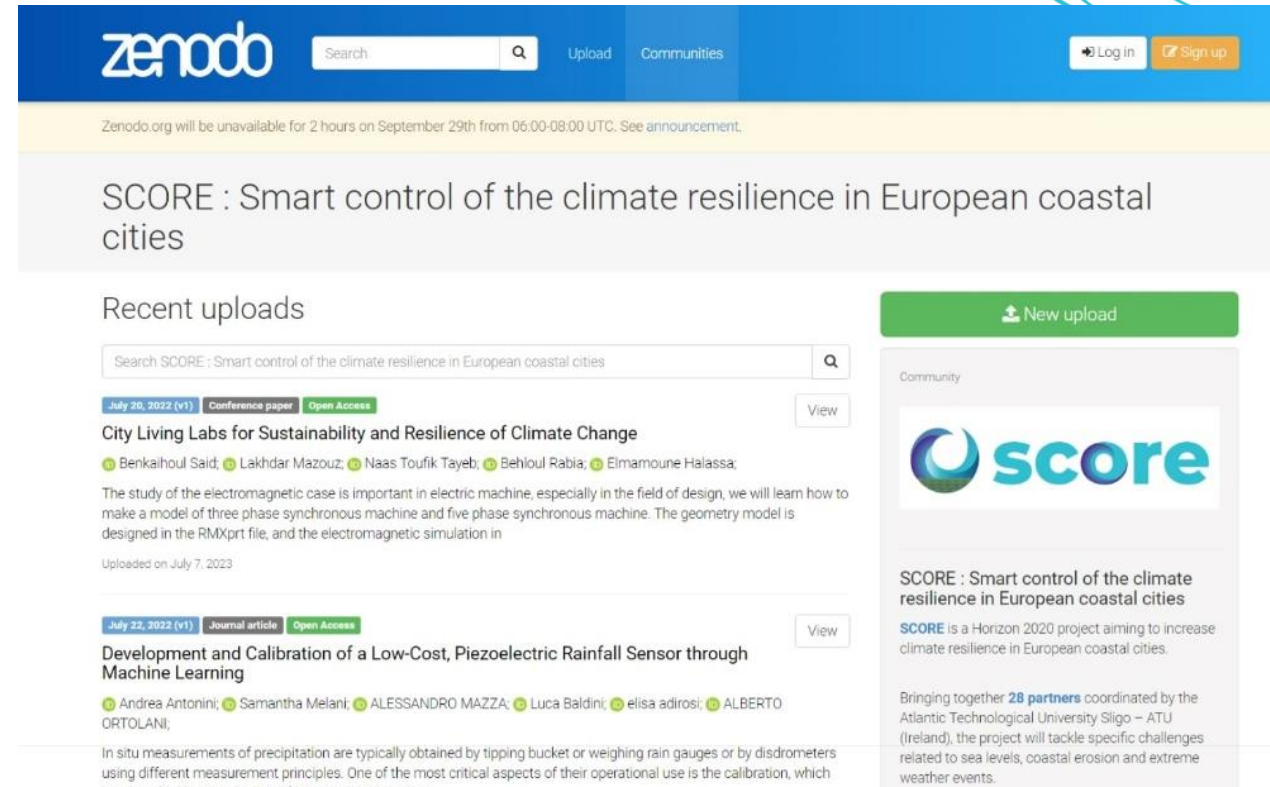
Monitoring usage of SIP



Implementation of SCORE Data Management Plan

Specific actions to ensure dissemination of SCORE datasets

- ❑ publishing SCORE data in an open repository following the rules for increasing the findability and reuse set in the DMP . To improve the SCORE identity in Zenodo, a specific SCORE community has been set.
- ❑ Identify datasets worth to be published in a data journal (es. Earth System Science Data (ESSD)), Scientific Data (from Nature Publishing Group), the GeoScience Data Journal (Royal Meteorological Society)
- ❑ Publish journal papers based on SCORE datasets and cite them
- ❑ Include citation of SCORE datasets also in dissemination material and in material used for citizen and stakeholder involvement at CCLLs



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Zenodo.org will be unavailable for 2 hours on September 29th from 06:00-08:00 UTC. See announcement.

SCORE : Smart control of the climate resilience in European coastal cities

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July 20, 2022 (v1) Conference paper Open Access View

City Living Labs for Sustainability and Resilience of Climate Change

Benkaihou Said, Lakhdar Mazouz, Naas Toufik Tayeb, Behioul Rabia, Elmamoune Halassa,

The study of the electromagnetic case is important in electric machine, especially in the field of design, we will learn how to make a model of three phase synchronous machine and five phase synchronous machine. The geometry model is designed in the RMXprt file, and the electromagnetic simulation in

Uploaded on July 7, 2023

July 22, 2022 (v1) Journal article Open Access View


Development and Calibration of a Low-Cost, Piezoelectric Rainfall Sensor through Machine Learning

Andrea Antonini, Samantha Melani, ALESSANDRO MAZZA, Luca Baldini, elisa adirosi, ALBERTO ORTOLANI,

In situ measurements of precipitation are typically obtained by tipping bucket or weighing rain gauges or by disdrometers using different measurement principles. One of the most critical aspects of their operational use is the calibration, which

New upload

Community



SCORE : Smart control of the climate resilience in European coastal cities

SCORE is a Horizon 2020 project aiming to increase climate resilience in European coastal cities.

Bringing together **28 partners** coordinated by the Atlantic Technological University Sligo – ATU (Ireland), the project will tackle specific challenges related to sea levels, coastal erosion and extreme weather events.

<https://zenodo.org/communities/score-eu-project/>

Thank you!

 www.score-eu-project.eu

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