WP3 and Workshop introduction

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WP3: Tools and services for software quality and FAIRness

Objectives:

O3.1: To establish a **technology watch** identifying and **gathering tools and services** targeting scientific software, code, and workflows **quality and FAIRness**

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O3.1: To establish a **technology watch** identifying and **gathering tools and services** targeting scientific software, code, and workflows **quality and FAIRness**

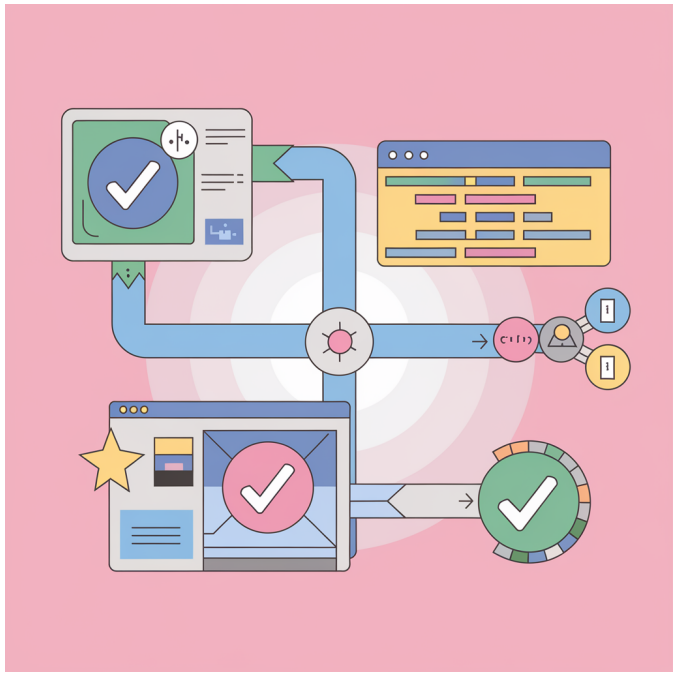
O3.2: To assist the Science Clusters in **measuring and improving** software, code, and workflows **quality and FAIRness globally** by combining existing tools and services into common frameworks

WP3 Tasks

Technology Watch
for tools and services
for software quality

T3.1: **assess and document the existing tools and services** used in the Science Clusters and elsewhere to improve software quality, metadata, and FAIRness, **align them with best practices**, and **include them in the RSQkit paired with guidelines and best practices**.

WP3 Tasks



Technology Watch
for tools and services
for software quality

Integrated Pipelines
to measure and improve
software quality

T3.2: develop **integrated quality indicators** and a **common metadata framework** for software quality, containerize tools and services, develop **actionable pipelines** to assess and improve software quality, and **integrate** software quality **pipelines into** widely used **platforms** for research software engineering and code archival.

WP3 Tasks

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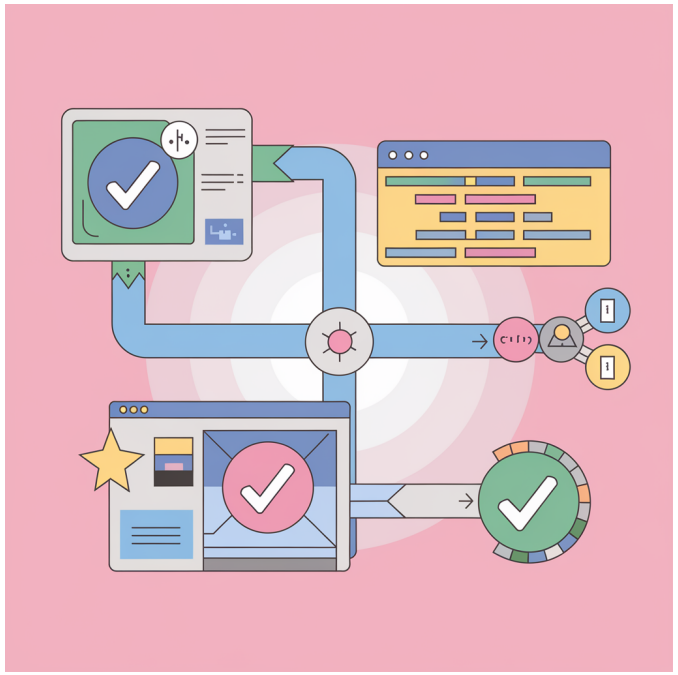

Integrated Pipelines
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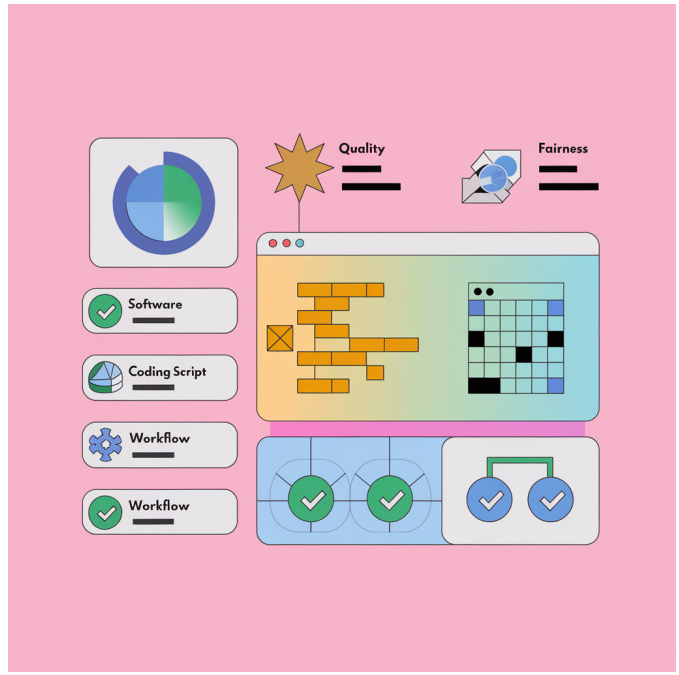

Dashboards
to measure globally the
software quality and its evolution

T3.3 : develop **dashboards** to **collect integrated indicators** of software quality and FAIRness, **integrate them with existing platforms** used in the communities **to measure globally** the software quality in the Science Clusters

WP3 Tasks

Technology Watch
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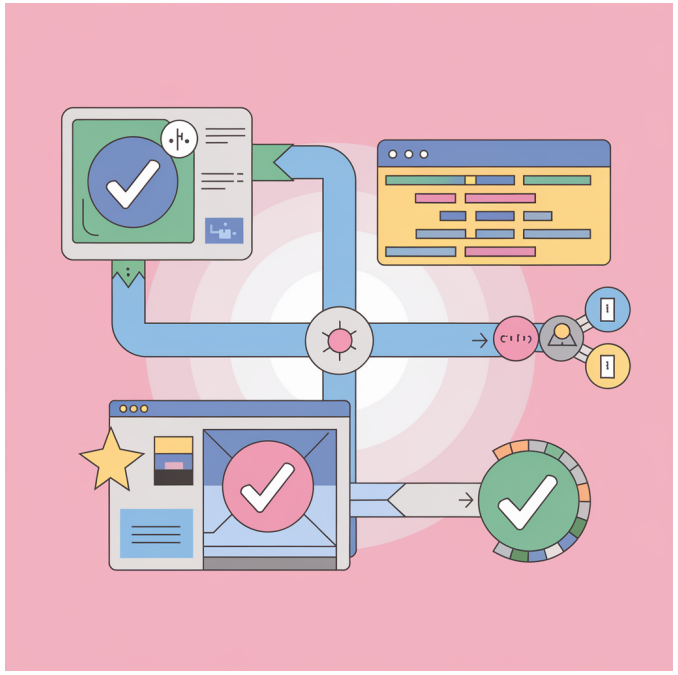

Integrated Pipelines
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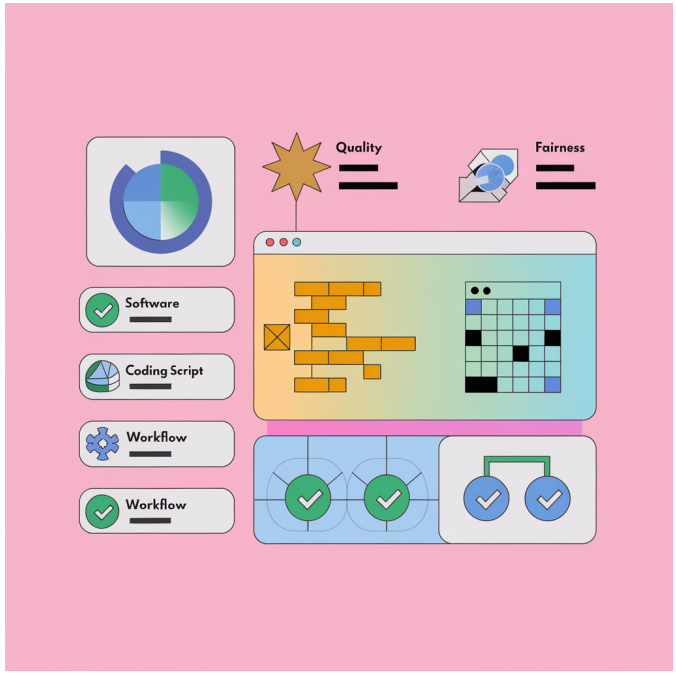

Dashboards
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This workshop

A milestone for our first task to collect, assess and document the existing tools and services used in the Science Clusters and elsewhere to improve software quality, metadata, and FAIRness and align them with best practices.

Goal: to get feedback from you, members of the Science Clusters, on what tools and services you use, and **how you use them**

This will greatly help us shape our ***RSQKit*** and ***Technology Watch (T3.1)***

We want to understand:

- *what tools are being used?*
- *what they are being used for?*
- *their strengths and weaknesses*
- *what tools don't exist but would be useful*

This workshop

Some definitions before we dive in

***Software Quality Tools & Services*:** tools and services that can measure or improve software quality

Software Quality Dimensions (that we will use in this workshop)*:*

1. ***Usability****:* The ease with which users can learn, interact with, and efficiently use the software.
2. ***Functionality****:* The software's ability to meet requirements and perform intended tasks correctly.
3. ***Technical performance****:* Efficiency, speed, and resource usage under different workloads.
4. ***Documentation****:* Guides, manuals, and support for users and developers.
5. ***Testing****:* Verification to ensure correctness through various test methods.
6. ***Security/Safety****:* Protection from threats (security) and prevention of harm (safety).