

# RSQkit@deRSE25

A Contentathon for  
the Research Software Quality Kit



**Funded by  
the European Union**

RSQkit@deRSE25 -- 25 | 02 | 2025 by  
Giacomo Peru and the EVERSE team



# Workshop Structure

10:00 - Introduction and Set-up (30 min)

10:30 - Hands-on Work (60 min)

11:30 - Feedback (25 min)

11:55 - Wrap-up (5 min)



CONFERENCE  
**KARLSRUHE 2025**



# EVERSE

European Virtual Network for Research Software Excellence

Horizon Europe project (Feb 2024 - Feb 2027)

Building a framework for research software quality

Community-driven, for the communities

Five EOSC Science Clusters collaboration



# Three-Tier Model for Research Software

## Analysis Code

Computational research processes & methodology

Data analysis, simulation, visualization

## Prototype Tools

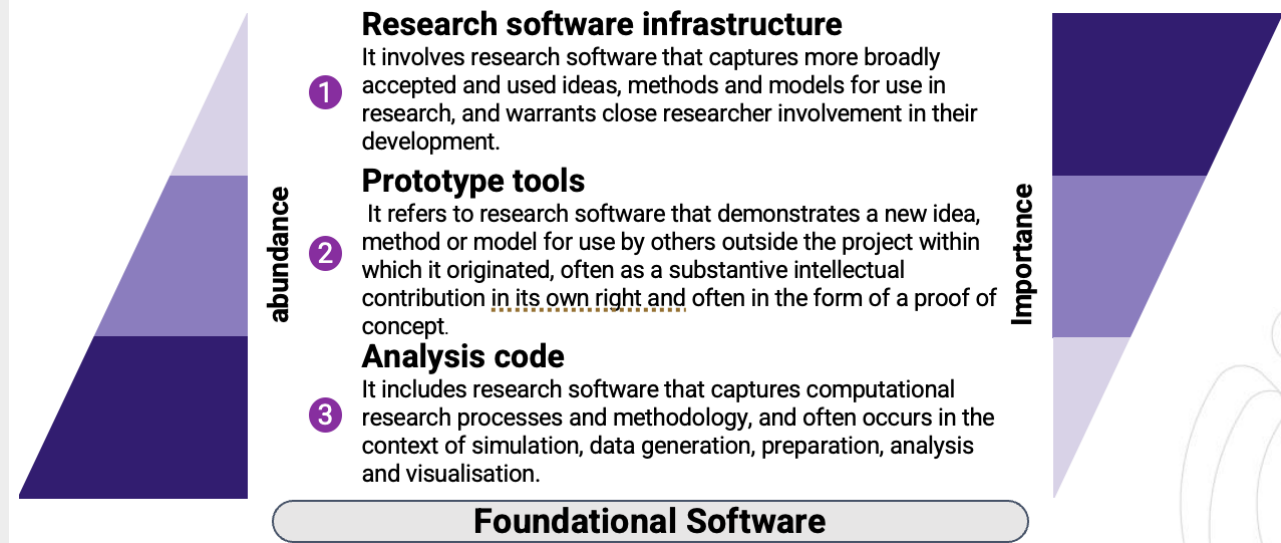
New methods/models for external use

Proof of concept implementations

## Research Software Infrastructure

Broadly accepted methods and models

Core research infrastructure components



# EVERSE Core Components

EVERSE Network

Research Software Quality Kit (RSQkit)

Training and recognition framework

Best practices and quality indicators

Tools and services for assessment



# The Research Software Quality Kit

## *RSQkit*

Community-curated knowledge hub

Practical guidance for software development

Best practices across software tiers

Built on successful RDMkit model

Gateway to tools, training, and resources





# RSQkit's zen

## *An evolving zen*

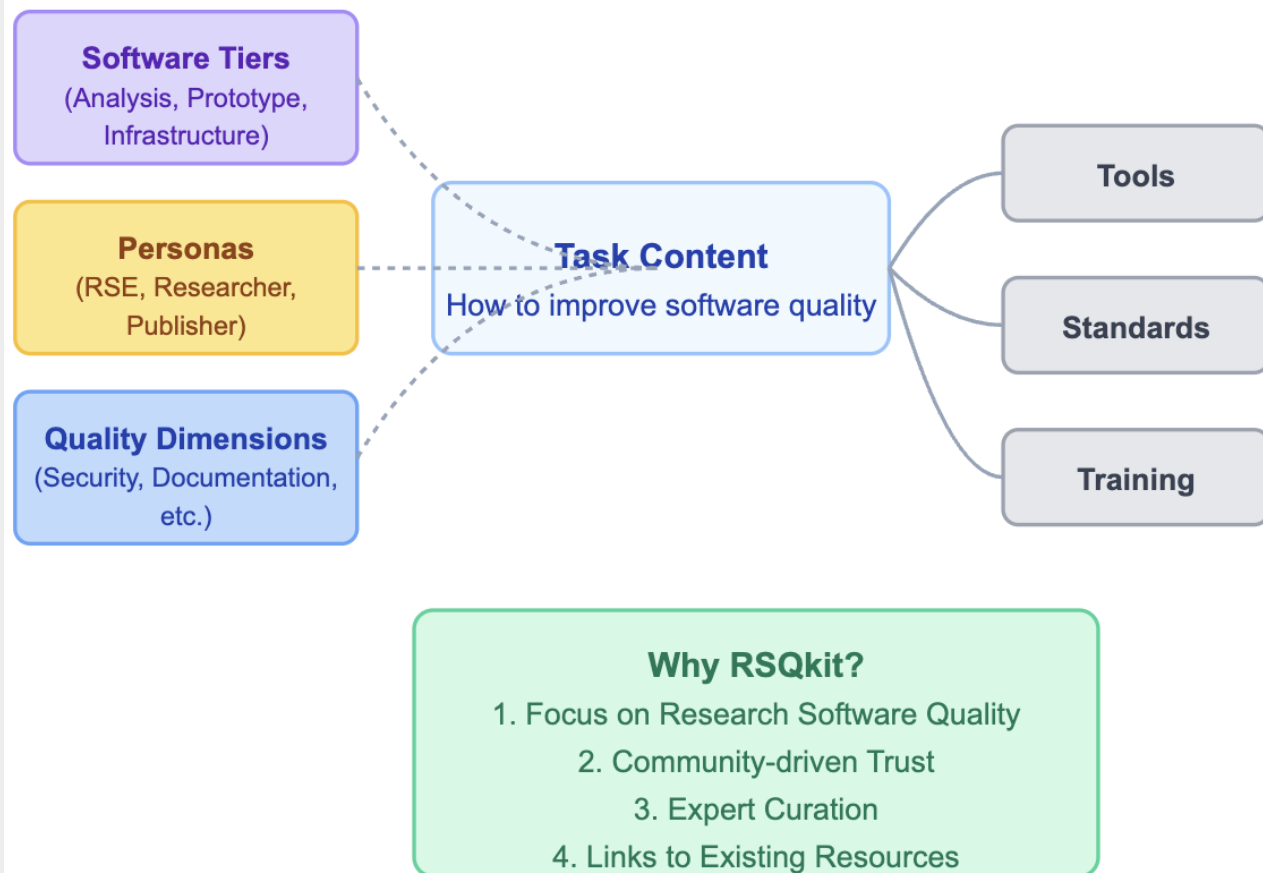
Focuses on research software quality

Links to external resources rather than duplication

Integrates with existing tools and training

Provides conceptual overviews

Makes information discoverable based on user needs



# Types of Content

Task Pages

Tools & Resources

Science Stories

# Research Software Quality Kit (RSQKit)

✔ Your tasks

**Creating README documents for software**

How to make a good README document for research software projects

✔ Your tasks

**Creating a 'Read the Docs' Page**

How to create 'Read the Docs' pages to describe software

✔ Your tasks

**Creating a CITATION.cff file**

What is the Citation File Format and how to create a CITATION.cff for your software

✔ Your tasks

**Digital Software Identifiers (DOI) for Software**

Obtaining a DOI via Zenodo for software

✔ Your tasks

**Environmental sustainability of research software**

Guide to improving environmental sustainability of software

✔ Your tasks

**How to add your first GitHub action**

Step-by-step guide that covers workflow creation, using pre-built actions from the GitHub Marketplace, and automating testing with GitHub Actions.

✔ Your tasks

**How to organise your software project**

Good practice for organising files in a software project (or a research project in general)

✔ Your tasks

**Languages, frameworks & technologies**

How to decide on which programming languages, frameworks and technologies to use, and getting started with templates

✔ Your tasks

**Licensing software**

How to apply a license to research software

Tool or resource	Description	Related pages	Registry
<a href="#">APPTAINER</a>	Container platform designed for ease-of-use on shared systems and in high performance computing (HPC) environments		
<a href="#">Bandit</a>	Bandit is a tool designed to find common security issues in Python code.		
<a href="#">Bash</a>	Bash, which stands for - Bourne Again SHell, is a command-line interface and scripting language commonly used in Unix and Unix-like operating systems. It provides a powerful environment for executing commands, managing files, and automating tasks through scripts.	<a href="#">Languages, frameworks ...</a>	
<a href="#">Bearer</a>	Bearer CLI is a static application security testing (SAST) tool that scans your source code and analyzes your data flows to discover, filter and prioritize security and privacy risks.		
<a href="#">Black</a>	Automated Python code formatter		
<a href="#">C++</a>	C++ is a high-performance, general-purpose programming language that supports both procedural and object-oriented	<a href="#">Languages, frameworks ...</a>	



# Contributing to RSQkit

## Minor corrections, formatting

→ Direct editing through website

## Content Review

→ Open issues

→ Suggest modifications

→ Add reference

## New Content Creation

→ Choose from topic list

→ Use template

→ Submit pull request

## Create new issue in EVERSE-ResearchSoftware/RSQKit:

### Add a title \*

Title

### What is the topic of the new content? \*

Please provide the suggested title

Write


Preview

H

B

2

Leave a comment

 Paste, drop, or click to add files

### Description of the new content \*

Please provide details of the suggested new content and where it v

Write

Preview

H

B

2

# Credit and Attribution

Contributors added to CONTRIBUTORS file  
(*under development*)

Contributions listed in task page citations

Content licensed under CC BY 4.0

## Contributors



Aleksandra Nenadic



Daniel Garijo



Esteban González



main

RSQKit / CITATION.cff



dgarijo Update CITATION.cff ✓

Code

Blame

13 lines (13 loc) · 375 Bytes

```
1  cff-version: 1.2.0
2  title: Research Software Quality Kit (RSQKit)
3  message: >-
4      If you use this software, please cite it using the
5      metadata from this file.
6  type: software
7  authors:
8      - given-names: RSQKit Community
9      family-names:
10 repository-code: >-
11     https://github.com/EVERSE-ResearchSoftware/RSQKit/tree/main
12 url: 'https://everse.software/RSQKit/'
13 license: Apache-2.0
```

# Today's Ambition

*Collaborate and create*

RSQkit is a resource from the community, for the  
community

Make at least one contribution to RSQkit

Check the guidelines

Talk with us



# Getting support today

## In the room

Elena Breitmoser

Guido Juckeland

Faruk Diblen

Neil Chue Hong (until 11:30)

Giacomo Peru

## Online

Carlos Martinez  
(Netherland eScience Centre)



Aleksandra Nenadic  
(University of Manchester)

Shoaib Sufi  
(University of Manchester)



*thank you!*



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