

Background

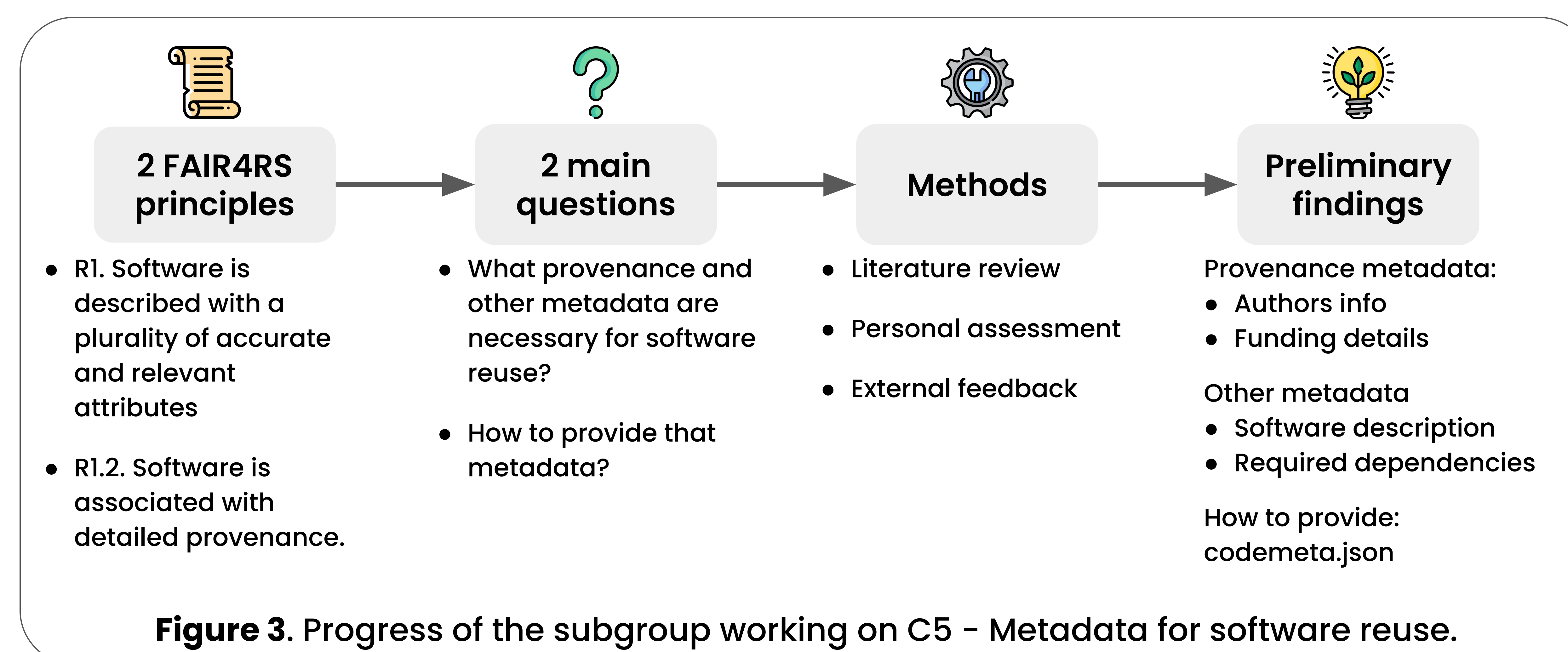
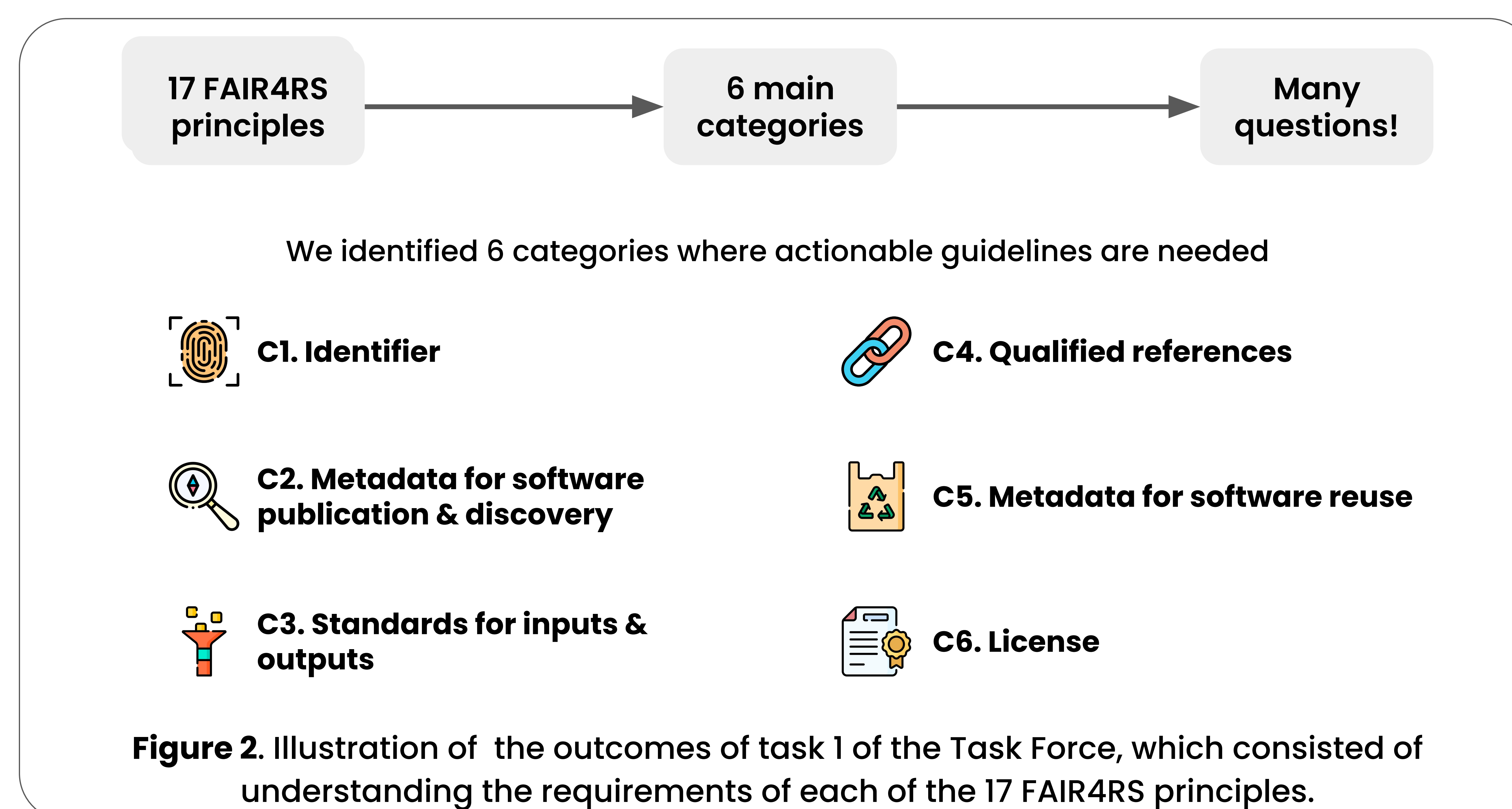
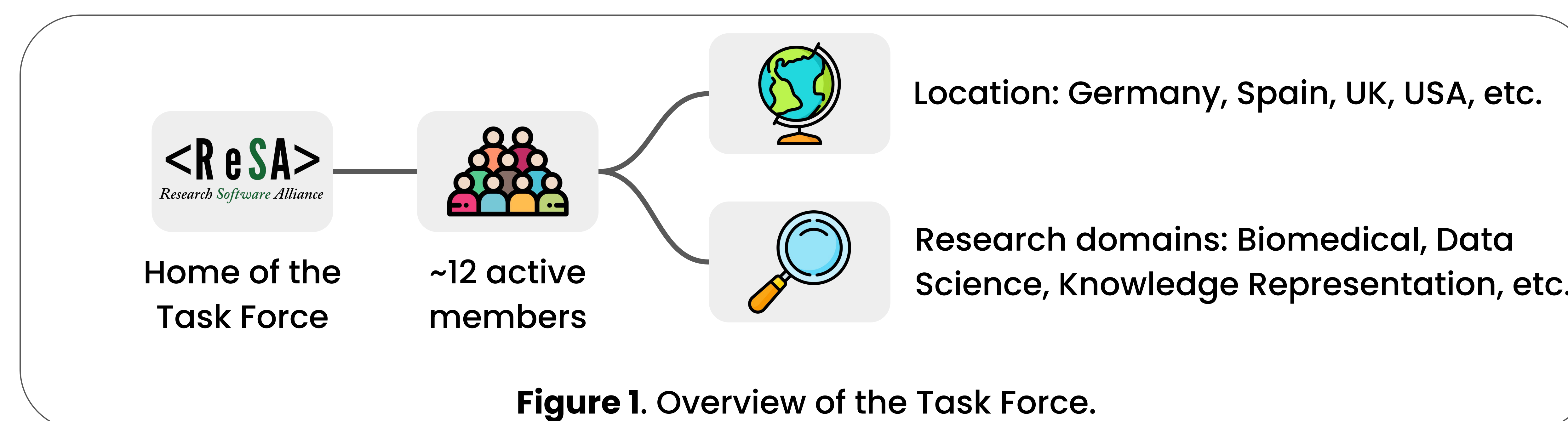
- **Research software** is a critical element of modern scientific research.
- Making it **FAIR** (Findable, Accessible, Interoperable, and Reusable) is crucial to support reproducibility, transparency, sustainability, and scientific progress.
- The **FAIR4RS principles** (2022) provide a framework to achieve this through unique identifiers, metadata, license, and more. They are now being adopted by researchers, organizations, and funders worldwide.

Problem

- By design, the FAIR4RS principles do not provide concrete implementation steps, making them **difficult** for developers to apply.
- Field-specific guidelines, such as FAIR-BioRS (2023), exist but lack broad, cross-disciplinary input.
- The 2 year community survey of the FAIR4RS principles confirmed the **need for generalized actionable guidelines**.

Solution

- To address that, we established the Actionable Guidelines for the FAIR Research Software (**Actionable FAIR4RS**) **Task Force** in December 2024 under the Research Software Alliance (ReSA).
- The Task Force is run by a diverse international team of researchers and research software developers from various fields (Fig. 1).
- Goal: **Create actionable and domain-agnostic guidelines** for implementing the FAIR4RS principles, through a comprehensive, community-driven methodology.



Progress

- We began by conducting an in-depth analysis of the FAIR4RS principles and identified **six key categories** where actionable instructions are needed, each with a series of outstanding questions (Fig. 2).
- **Six subgroups** are now conducting literature reviews and community outreach to answer these questions.
- Fig. 3 illustrates the approach and preliminary findings from the subgroup working on category C5, including a preliminary list of metadata elements we believe are essential for software reuse and ways to include that metadata with software.

Next Steps

- Dec 2025: Subgroups complete investigations to establish answers for outstanding questions.
- Mar 2026: Release draft guidelines for broad community feedback.
- Summer 2026: Publish the first official version of the Actionable FAIR4RS Guidelines.
- Fall 2026: Transition to a maintained, living resource that evolves with community input.

Get Involved!

Are you a **developer, maintainer, funder, or user** of research software?

Email bpatel@calmi2.org to **join us** and help build the foundation for FAIR research software!

