

# Future and prospects of CRIS-informed funding support at TU Wien

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**Introduction:** TU Wien, Austria's largest university of technology, is firmly anchored in the country's innovation and science system. Guided by its mission statement "Technology for People," this anchoring rests on three pillars: research, academic affairs, and participation.

To maintain its research at an internationally competitive level, TU Wien relies heavily on third-party funding. In 2022, researchers secured €105 million from funding agencies as well as the private and public sector. This funding fuels not only academic output but also fosters the careers of young scientists. In that year, 1.572 out of 3.036 researchers, from student assistants to full professors, were financed from various third-party sources [1].

**Challenges of Obtaining Funding:** Researchers typically submit proposals to different funding bodies for specific programs. These proposals undergo rigorous evaluations based on the funder's mission and program goals. The programs cover a broad spectrum, ranging from basic research and applied research to product/system development, research infrastructure, doctoral school foundation, and career grants like researcher mobility just to name a few. With hundreds of funding opportunities available, finding the perfect fit for their research needs can be overwhelming for researchers. As of February 21st, 2024, the European Commission alone offers in its "funding & tenders" portal 461 open grants [2]. Considering national and other international opportunities, gaining a comprehensive overview becomes nearly impossible.

**The Competitive Landscape:** Securing funding for research projects is highly challenging due to the fiercely competitive nature of the landscape. In 2022, the Austrian Science Fund (FWF), the nation's leading public funding body for fundamental research, exemplifies this challenge. While it received a substantial application volume of €1.111 million across 2783 proposals, the FWF only funded 743 proposals, totaling €273 million [3].

In such an competitive environment simply proposing an interesting research topic and demonstrating the investigator's or team's qualifications is no longer sufficient. With success rates sometimes hovering around a few percent, excellence in non-scientific aspects such as project management, risk management, research ethics, gender issues, and dissemination becomes crucial.

**Transformation of Funding Support:** This demanding and competitive environment is reshaping the requirements for TU Wien's funding support unit. In the past, it sufficed to guide researchers through the administrative and formal application process and provide information about funding opportunities and deadlines. In future, the job description of a funding support specialist will include additional tasks:

- Support researchers in identifying suitable funding opportunities with the highest success rate.
- Implement tailored support measures that enhance proposal success.

In short, recent years have witnessed a shift from administrative to *success-oriented funding support*.

TU Wien’s funding support team has identified four cornerstones for this transformation:

- 1) **One-stop shop for funding opportunities,**
- 2) **Internal monitoring of applications,**
- 3) **Performance analysis,**
- 4) **Continuous improvement process.**

This creates also new requirements for the TU Wien Information-Systems & Services (TISS) [4]. TISS is the central information source about project applications and outcomes. In addition, it covers many administrative aspects of the application and approval process and has also potential to ease the administrative burden for funding support specialists to free up resources for the new tasks.

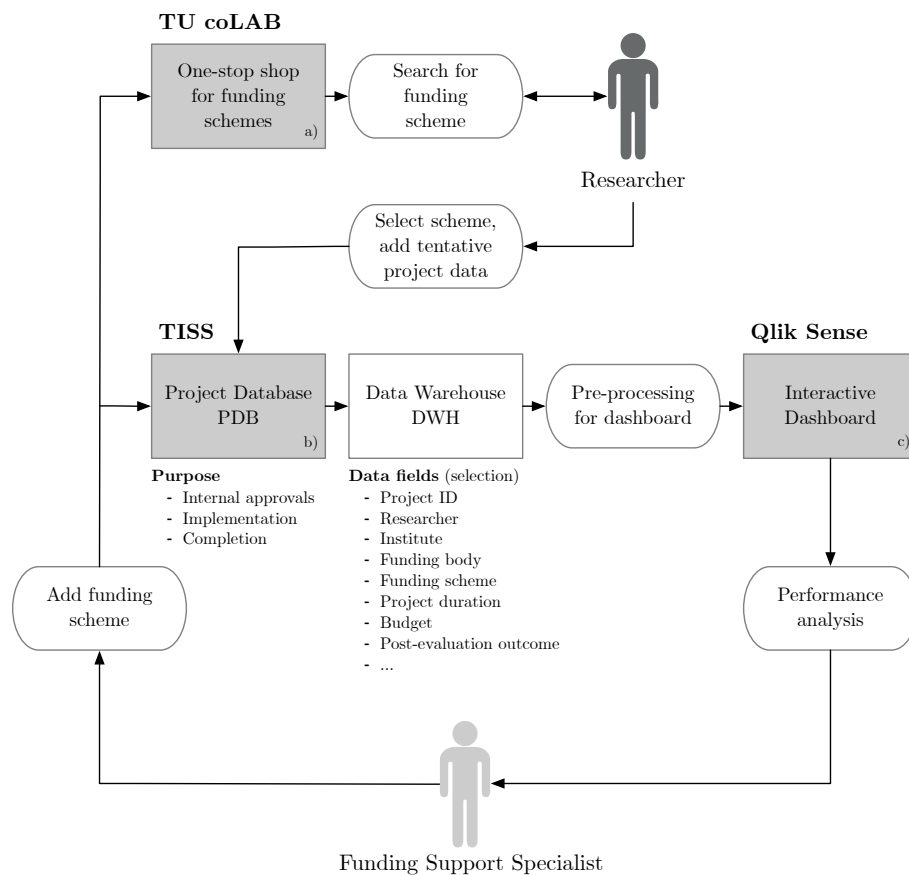


Figure 1: Interactions between researchers, funding support specialists and used tools [a) TU coLAB... TU collaboration lab, Atlassian confluence, b) TISS... TU Wien Information-Systems & Services, c) Qlik Sense... interactive dashboard, QlikTech] from an end-user perspective.

**1) One-stop shop for funding opportunities:** Given the vast number of funding opportunities, identifying the right fit can be challenging. Hundreds of options are scattered across different funder websites and portals, with no standardization, making comparison difficult. At the moment, the TUW-internal one-stop shop for funding opportunities (Fig. 1a) is realized in TU coLAB (Confluence, Atlassian) [5]. However, this system relies heavily on manual curation by funding support specialists. These have to manually search funder websites, copy the necessary information and publish so-called one-pagers with the most essential information. This approach inherently limits the number of covered

opportunities, hindering comprehensive support for researchers.

One solution will be provided by the RIS Synergy [6] project. In the future, program information from major Austrian national funding agencies like FWF and FFG, and the local Viennese funder WWTF, will be provided via the program information interface [7]. The RIS Synergy program information interface will provide comprehensive information on funding programs in an extended CERIF standard and therefore will also be compatible to other data sources like the API of the funding & tenders portal of the European Commission. Standardized program information will allow to automatically create uniform one-pagers with the most relevant information for different programs. The remaining task for funding support specialists will be to select funding programs of interest and to enrich the data via an input tool with TU Wien-specific details, such as internal deadlines, responsible specialists, recommendations, and best practices examples.

**2) Internal monitoring of applications:** All planned applications for third-party funding have to be entered in the TISS project database [4] (Fig. 1b). Researchers have to pick the proper funding scheme from a menu and enter essential project details. Previously, funding opportunities were manually added by specialists. The RIS Synergy program information interface now offers a solution to automatically retrieve this information directly from funders. This reduces errors, avoids typos, and eliminates ambiguity in the database, as both funder and call identifiers are used. This ultimately leads to cleaner data and less time spent on cleaning tasks before data analysis.

The TISS platform also serves the internal approval process and, if successful, project implementation at the institution. The database captures relevant information for the funding support unit, including funding bodies, programs, researchers, institutes, project duration, budget, and post-evaluation outcomes. This data serves as a valuable resource for analyzing and improving support measures offered by the funding support unit.

**3) Performance analysis:** Funding support specialists at TU Wien require a user-friendly tool to efficiently assess the performance of researchers, research groups, institutes, faculties, and the entire university across various funding programs. A Qlik Sense [8] dashboard (Fig. 1c), powered by research data from the TISS project database via the data warehouse, addresses this need and thus helps to streamline funding support with data-driven insights. This interactive dashboard empowers users to perform complex data analysis without extensive training, unlike traditional methods like spreadsheets or Python coding.

Initial findings reveal distinct funding trends across different departments. For example, institutes specializing in natural sciences exhibit different track records and utilize funding sources distinct from institutes focusing on mechanical or electrical engineering. This highlights the importance of tailored support strategies and underscores the diverse funding landscape within TU Wien.

Beyond success rates and preferred funders, the dashboard identifies underutilized funding opportunities. This data can shed light on potential gaps in researcher awareness, application barriers, and reasons for unsuccessful applications. Each of these insights informs specific actions to optimize funding support and empower researchers at TU Wien.

**4) Continuous improvement process:** Based on the performance analysis and comparisons with national and international success rates, funding support specialists develop and implement targeted measures to continuously improve the success rate of TU Wien researchers. These measures

can range from:

- Information events and workshops: These sessions educate researchers on specific funding programs, proposal writing techniques, and best practices for the different proposal parts.
- Mentoring programs: Experienced researchers and funding support specialists provide personalized guidance and support to junior researchers throughout the proposal development and application process.
- In-depth proposal checks: Specialists offer comprehensive feedback on draft proposals, identifying areas for improvement and ensuring alignment with program requirements and evaluation process.
- Hearing trainings and simulations: Researchers practice their presentation skills and refine their responses to potential evaluation questions in simulated hearing environments.

The effect of these measures is assessed by monitoring changes in success rates or in case of awareness campaigns if the number of applications increase over time. This data-driven approach ensures that TU Wien's funding support services remain relevant, effective, and responsive to the evolving needs of its researchers. Additionally, CRIS-informed funding support specialists gain the satisfaction of knowing their efforts make a measurable difference.

By taking a proactive and data-driven approach to continuous improvement, TU Wien's funding support unit ensures that its researchers have the best possible chance of securing the funding they need to pursue their groundbreaking work. This not only mitigates the risk and personal frustration of rejection, but also benefits the university and contributes to the advancement of scientific knowledge and the development of innovative solutions to global challenges.

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