

Metrics and fair data for (early) career support

Background information

Some FAU CRIS Facts

- FAU's central application holding information about research outcomes and ongoing research
- Configuration, maintenance and enhancement done by FAU CDI (FAU's Competence Center for Research Data and Information), a research / administration hybrid team
- Software: Converis (Clarivate Analytics) with a lot of in-house enhancements and extensions
- Oldest publication: 1959
- 6 people with more than 1,000 publications
- Largest author list on a single paper: 4,805

FAU CRIS timeline

- 2010** Initial decision for an implementation of CRIS at FAU
- 2013** First test users
- 2015** Official Launch – Publications only
- 2016** Additional entity types: Research grants, research fields
- 2019** First Workflows: NGL and ETI
- 2022** More Workflows: Ranking contact collection, habilitation statistics
- 2025** Reworking Workflows: NGL and ETI
- More entity types: Research data, Research equipment
- 2026...** Seed funding application for collaborative research groups

Some FAU Facts

- Located in Erlangen and Nuremberg in Southern Germany
- Founded in 1743
- More than 3.500 researchers
- More than 40.000 students
- More than 300M € third-party funding

How to get valid and meaningful data

Getting starting data

- Automated Imports of:**
- publications (Scopus)
 - research projects / grants (FAU fiscal department)
 - personal data (FAU Identity Management)
 - research infrastructure

Additional manual entry where necessary

Enriching data ...

- ... by researchers:**
- Connecting data (e.g. publication – research infrastructure)
 - Adding keywords
 - Adding additional information

- ... by the CRIS-Team**
- Adding metadata (e.g. country of partners and funding organisations)

Using the data

- Automatically filling university (and personal) websites
- Strategic decisions by university leadership
- Reporting (e.g. press, government, funding organisations)

→ **Internal Applications for (early) career support**

- Using data and making it visible encourages users to keep it up to date and valid.

Workflow and motivation

Example Workflow for Emerging Talents Initiative application

- Application entered by **researcher**, using the data already in the CRIS system
- Data initially validated by **ETI team**, adding FAU reviewers from the CRIS database
- **Reviewers** review applications according to scientific good practice
- **ETI Team** approves or denies grant in cooperation with **VP research**

„Fair is foul and foul is fair“

Yes, they are meant for research data, but are the FAIR principles relevant for this?

- Findable ...**
- Accessible ...**
- Interoperable ...**
- Reusable** → Primary relevance of this whole operation, making data reusable adds significantly to data quality and validity

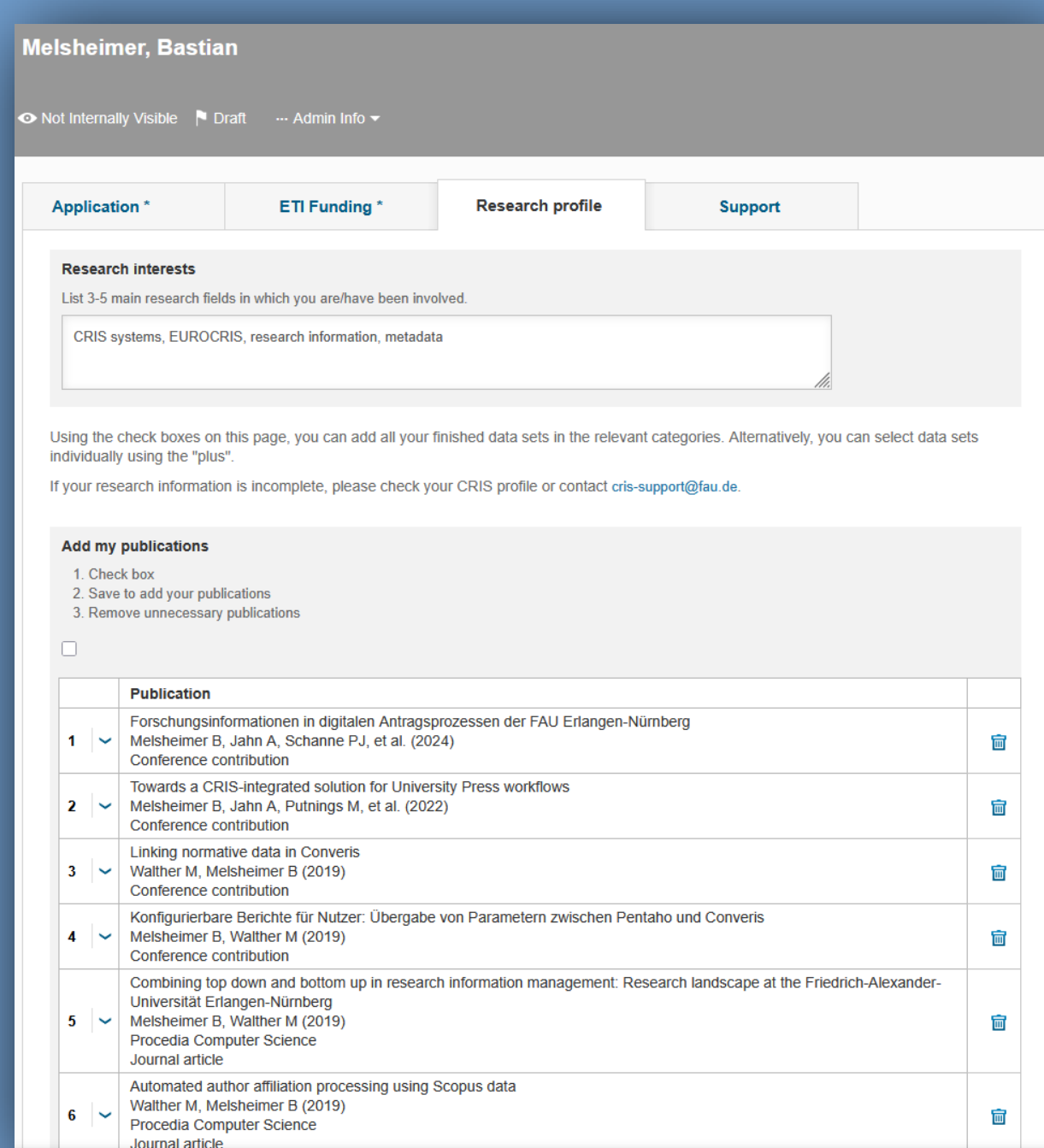
- Is it fair to use an applicant's data like this?**
- Data sovereignty vs. Free access
- Applications are sent by the users themselves, they decide which items they attach to a form. That data, of course, is then put under close scrutiny.

Stakeholder motivation

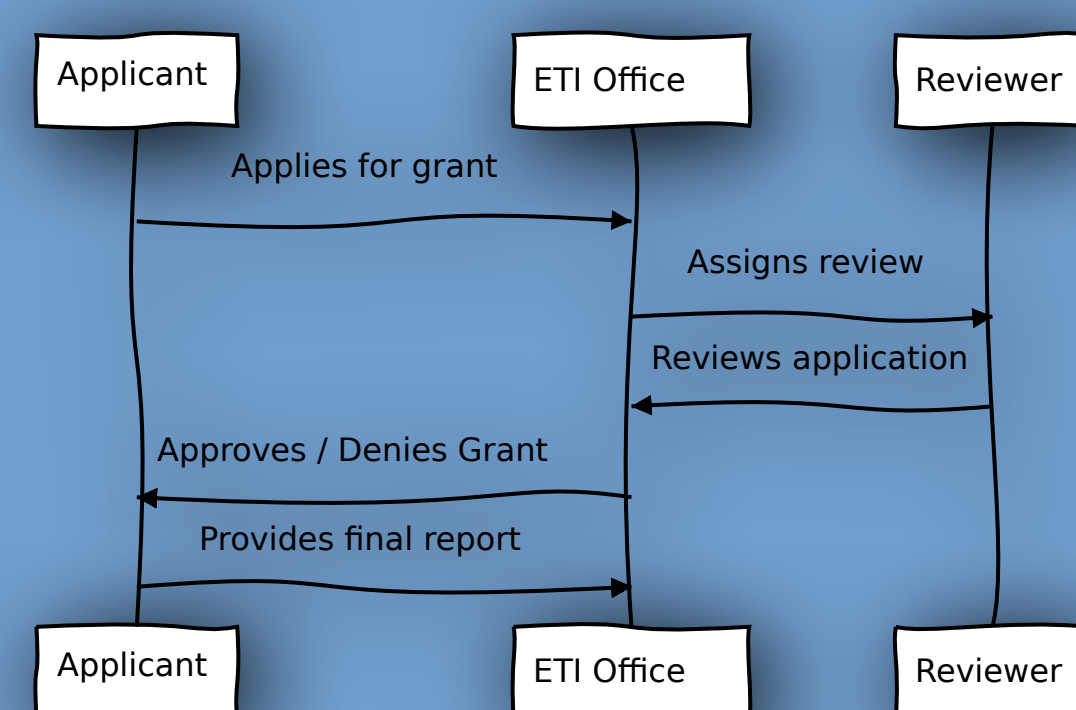
- Researchers:** Ability to influence and choose their submitted data, lean and transparent workflows with quick decisions
- HR:** Valid data, informed decisions
- Career Support Office:** Ability to reach the „right“ supportees
- Reviewers:** Valid data, informed decisions, easy and accessible interface
- Deans' offices:** getting rid of paper workflows, informed decisions

- And not least **CRIS-Team:** Valid data, more metadata, better user motivation

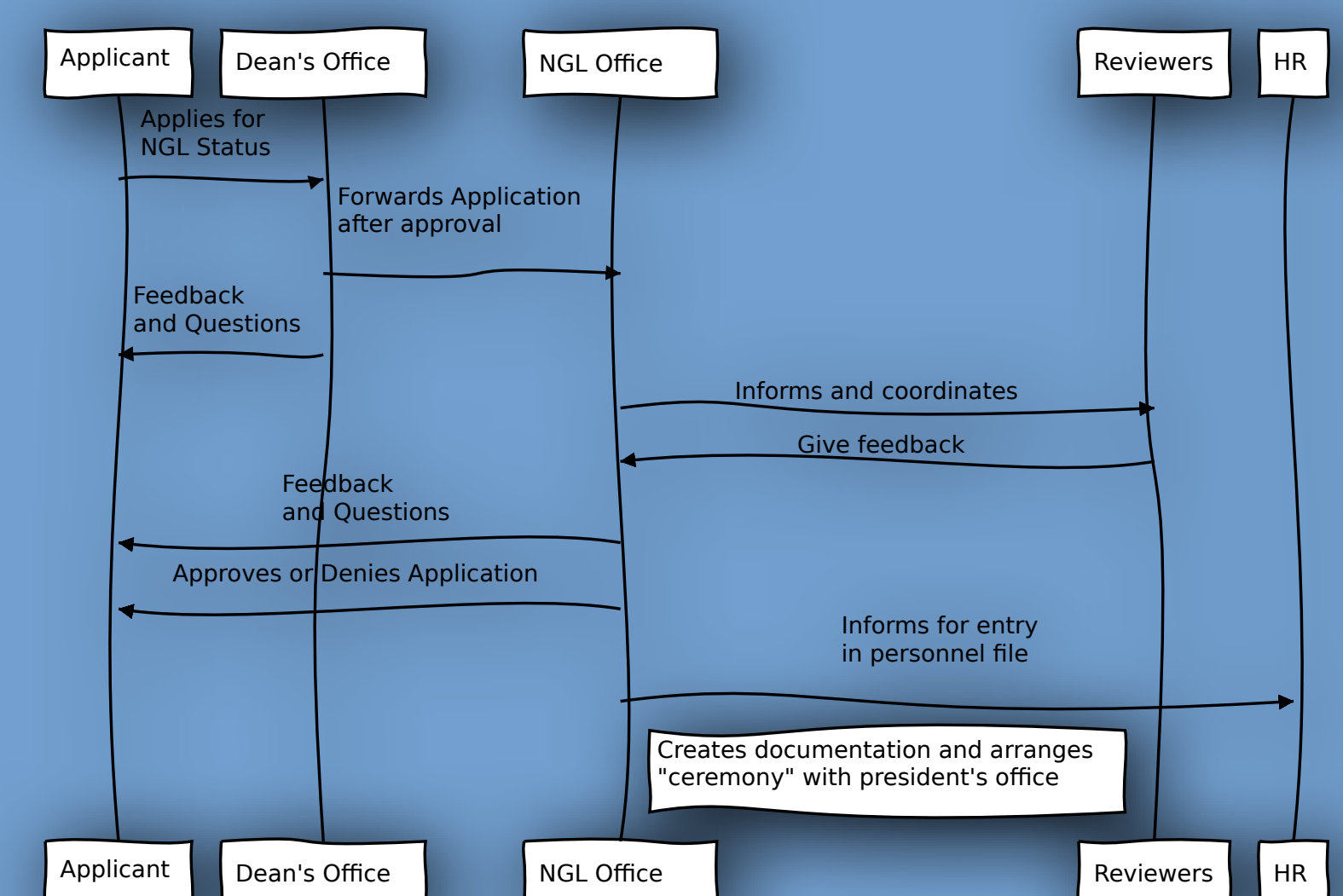
Workflow examples for early career support



Emerging Talents Initiative Workflow



Head of Junior Research group Workflow



ETI: Emerging Talents Initiative: University internal application for starting funds to get a research grant „off the ground“
NGL: „Nachwuchsgruppenleitung“ (Head of junior research group): Application for „Privatdozent“ (private lecturer) status with the ability to supervise doctoral students

Conclusions / Outlook

Pros/Cons of Paper-based workflow alternative (including „quasi-paper“ like submitted Excel/Word files)

- Pro**
 - Absolute control over submitted data
- Con**
 - Decentralised data hoarding
 - increased administrative effort, comparison against other paper lists
 - Physical movement of paper limits access to one person at a time
 - No „feedback“ loop for applicants
 - Dead trees

Pros/Cons of External database (e.g. Scopus) alternative → User just sending a link to an external database

- Pro**
 - Extremely low effort for applicant
- Con**
 - Very little control over what is available in that database
 - Clear bias against some research fields (e.g. humanities) and some content (e.g. grants)
 - Increased effort for reviewing / awarding departments

What does the future hold?

- Applications for seed funding for larger collaborative research grants
- Applications for professorial bonuses
- Workflow for using UN Sustainability Development Goals as internal benchmarks