



**Univerzita  
Karlova**

# How to use ResearchComp? A practical example

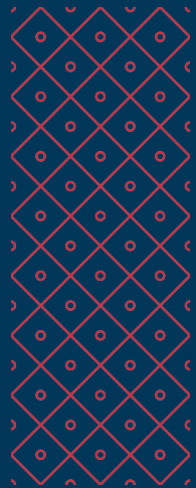
**INSPIRING ERA Exchange on Action 4:  
Research Careers**





# Content

- 1) Using ResearchComp in support of doctoral candidates at Charles University and other Czech public universities**
- 2) Using ResearchComp in Mentoring programme for postdoctoral researchers at Charles University**



# **1) Using ResearchComp in support of doctoral candidates at Charles University and other Czech public universities**

**Lukáš Nachtigal, Head of the Doctoral Studies Office**



## Doctoral study at CU in numbers

- In 2023 there were **52 628** students, out of which **6 456** were doctoral candidates.
- In 2023 there were **69 395** applications for study, out of which **1 722** were to doctoral study programmes (**1 029** successful applicants were enrolled).
- In 2023 there were **8 834** graduates, out of which **670** graduates received the title „Ph.D.“.
- In 2023 there were **976** study programmes conducted, out of which **441** were doctoral study programmes.



# Doctoral Study Hub

- **The Doctoral Study Hub** is a platform for all doctoral candidates at CU that gives them access to courses, seminars and workshops provided by rectorate departments (9). The aim of this platform has been to rise visibility of all provided courses and to help develop scientific career, esp. in early stage of the study.
- To better re/develop central portfolio, the **European Competence Framework for Researchers** was adopted in 2023.





# Benefits of adopting ResearchComp

- **Ability to unify our approach** on the level of Doctoral Study Hub project (with several providers) for development of ONE curricula with clear framework.
  - Looking for unity among all rectorate level based units.
- **Ability to connect** further development of the portfolio for doctoral candidates also with development of portfolio for postdoctoral candidates.
  - Looking for unity of portfolio and support for young researchers to provide ONE clear path of support (not just) in reserach carrer.
- **Ability to communicate with other providers** of services and support for doctoral candidates – for example the National Library of Technology (PA2a NCIP).
- **Ability to communicate with other universities** on the topic of development of proper support for doctoral candidates – the debate enhanced by project of The Ministry of Education, Youth and Sports - Preparation for implementation of doctoral study reform.



# Practice of Czech universities I.

Portfolio of courses shared in October 2024 among 19/24 of Czech public universities. Portfolio has been still updated, no final data available. Categories are mentioned by number of uses of their courses.

**MAKING AN IMPACT** – main topics: Academic Writing, Popularization of science, Open Science; new topics in development: Communication of science

- Highest number of courses provided by universities is from this category.

**DOING RESEARCH** – main topics: Academic Integrity and/or Research Ethics, Academic Writing, courses related to AI; new topics in development: more of Research Ethics, Scientific Writing

- Highest difference in labeling of courses among universities is by this category.

**SELF-MANAGEMENT** – main topics: Scientific Career Planning, Self/Time management and Pedagogical competencies; new topics in development: more of Scientific Career Planning and other topics already provided

- Highest interest in development of courses by universities is in this category.



# Practice of Czech universities II.

**MANAGING RESEARCH TOOLS** - **main topics:** Intellectual Property, Data management, metological courses;  
**new topics in development:** Security, Proper usage of AI tools and more of Data management

- **Highest number of universities provide at least one course of this category.**

**MANAGING RESEARCH** – **main topics:** Project management, Management of R&D outputs, Grant applications and financing; **new topics in development:** similar to those already provided

**WORKING WITH OTHERS** – **main topics:** Crisis communication, Assertive communication, Team management;  
**new topics in development:** Cross-cultural communication, more of Team management

**COGNITIVE ABILITIES** – **main topics:** Critical thinking; **new topics in development:** Statistics, Problem solving

- **Lowest number of courses provided by universities is from this category.**

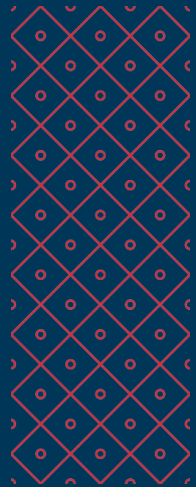




# Practice of Charles University

<b>AUTUMN 2024 - COURSES</b>	<b>ResearchComp category (Competence Area)</b>
Open Science	CA 2 - Managing research
Excellence in international networking, teaming and cooperation	CA 6 - Working with others
Entrepreneurship II - Science into action	CA 4 - Self-management
Research Data Management	CA 7 – Managing research tools
Entrepreneurship I - Design thinking	CA 4 - Self-management
Supervising graduate and postgraduate research projects	CA 3 - Making an Impact
Various Career Pathways in Research	CA 4 - Self-management

<b>SPRING 2025 - COURSES</b>	<b>ResearchComp category (Competence Area)</b>
Stress, resilience and academia	CA 4 - Self-management
Time management for researchers	CA 4 - Self-management
Various Career Pathways in Research	CA 4 - Self-management
Building and managing research groups for postdocs	CA 6 - Working with others
Citizen science	CA 7 – Managing research tools
Valorize your research idea I - Lean Canvas	CA 3 - Making an Impact
Science communication	CA 3 - Making an Impact



## **2) Using ResearchComp in Mentoring programme for postdoctoral researchers at Charles University**

**Eva Janů, Postdoc Community Officer, Research Support Office**



# Content

- **Career support for the postdoc community at CU**
- **Mentoring programme for postdocs**
- **Using ResearchComp in the Mentoring Programme**
- **Who do we have the data from?**
- **Who are our mentors?**
- **Willingness of mentors to support the mentees in strengthening research competences**
- **Outcomes for the Mentoring programme**
- **Personal remarks – use of AI in research**



# Career support for the postdoc community at CU

- 1. Training for postdocs based on the ResearchComp**
- 2. Mentoring Programme – pilot phase**
- 3. Postdoctoral grants (result of the successful MSCA COFUND application – 20 postdoctoral fellowships will be supported in 2025 and 2026 – ResearchComp used as a guideline for their training)**



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# Mentoring programme for postdocs

- **Two main goals of the programme:**
  - **Providing tools for the smooth career development of early-career researchers.**
  - **Supporting equal opportunities and fostering cultural and institutional change at CU.**
- **It is in an early stage of the pilot year – Call for mentors closed, Call for mentees now open for submissions.**



# Using ResearchComp in Mentoring programme

## Simple idea:

- **Mentors** mark those competences they are willing to help the young researchers to strengthen (in the Call for mentors application)
- **Mentees** mark those competences they want to strengthen in respect to their preferred career path (in the Call for mentees application)
- The data will be used:
  - a) for effective mentor-mentee matching
  - b) as a informal background material for the mentor-mentee meetings



# Who do we have data from?

- **At the moment we have available data from the mentors saying what competences they are ready to help the young researchers to strengthen (Call for mentors is closed) - 56 mentors filled out the application**
- **We are currently gathering data from the postdoctoral researchers – mentees (Call for mentees is now open for submissions)- more exciting data on the way**





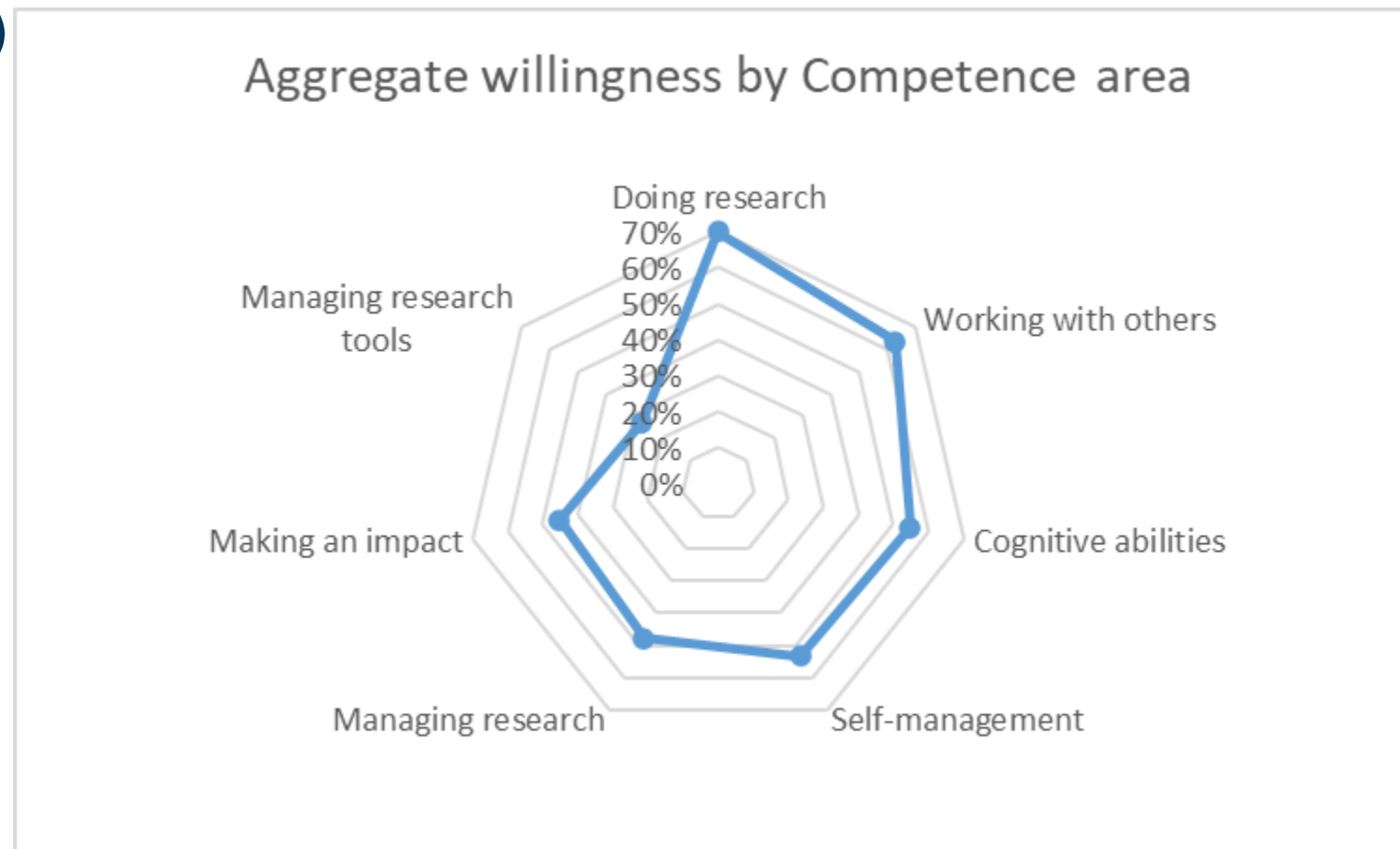
# Who are the mentors?

- **56 senior researchers filled out the mentor's application**
- **at least 8 years of experience in research (R3 and R4)**
- **21% women, 79% men**
- **81% working at academic institutions, 15% private companies, 4% public institutions**
- **40% Charles University employees, 32% other Czech institutions, 28% foreign institutions (Europe and USA)**
- **47% Natural sciences, 25% Social sciences, 17% Medicine, 11% Humanities**
- **Diverse group of researchers. Small sample.**



# Willingness of mentors to support the mentees in strenghtening research competences

- **Aggregate willingness = (share of all positive answers on all answers)**



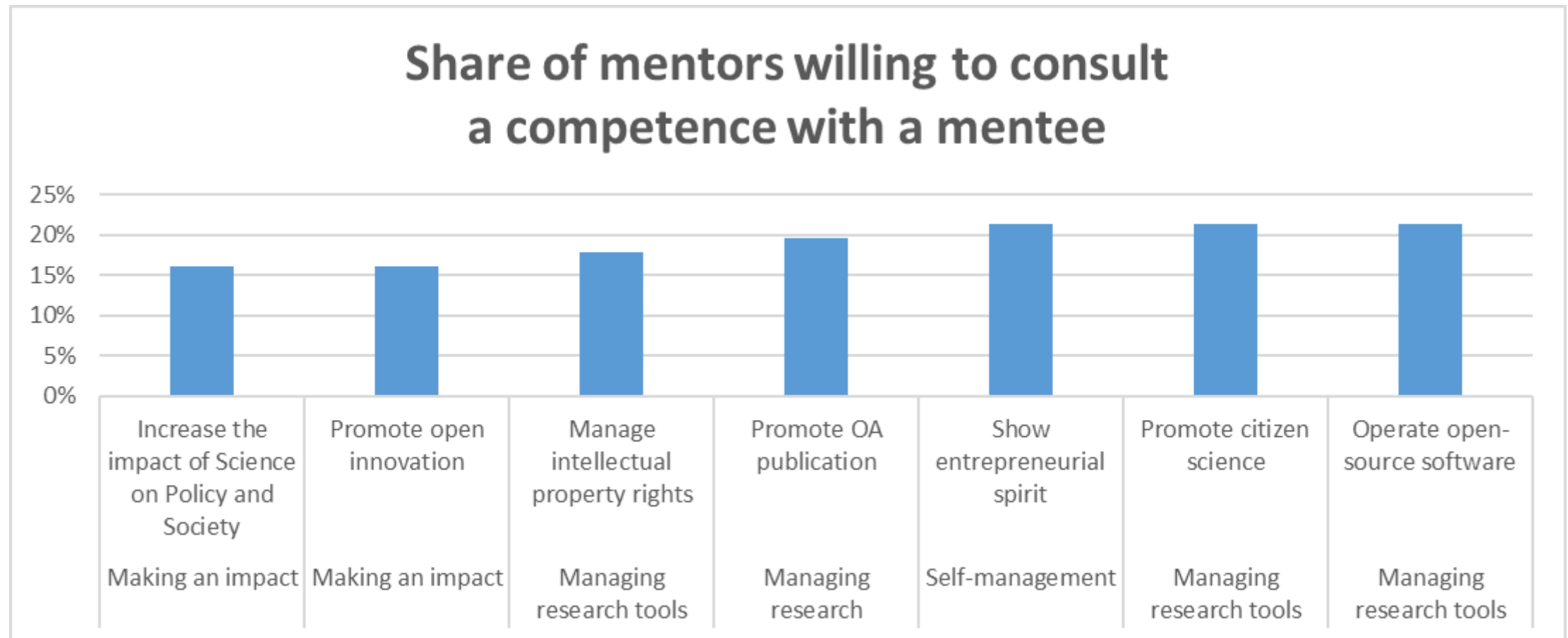


# Competences with the most positive answers





# Competences with the least positive answers





# Outcomes – Mentoring for postdocs

- **Word of warning: Small sample – the results should not be generalized or interpreted as a pattern**
- **In the next round of the Mentoring Programme, we will recruit specialized mentors to cover the competences with the least positive answers (mentioned previous slide)**
- **We will also make sure the least preferred competences by the mentors' least preferred competences are covered by relevant training option.**
- **We will take into consideration the intersections of the competence preferences during the mentor-mentee matching process**
- **We will provide the list of mutual competence preferences as a part of the background material for mentor-mentee meetings**



# Personal remark - use of AI tools in research

- **ResearchComp should be revised in light of the increasing use of AI tools in science and research.**
- **Several competences will become less central with the usage of the AI tools:**
  - Project management skills
- **Other will further gain their significance:**
  - Data management and critical thinking as a foundation for effective AI use
  - The whole Working with others competence area.
- **Including new competences should be considered:**
  - AI literacy: understanding AI's capabilities, limitations, and ethical implications



# Thank you!

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