Transferable skills in doctoral education: the gate to different sectors

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Structure

- **Short intro to the project DocEnhance**

- **Importance of transferable skills training in doctoral education**

- **Work package 1: Skills investigation and intelligence - objectives**
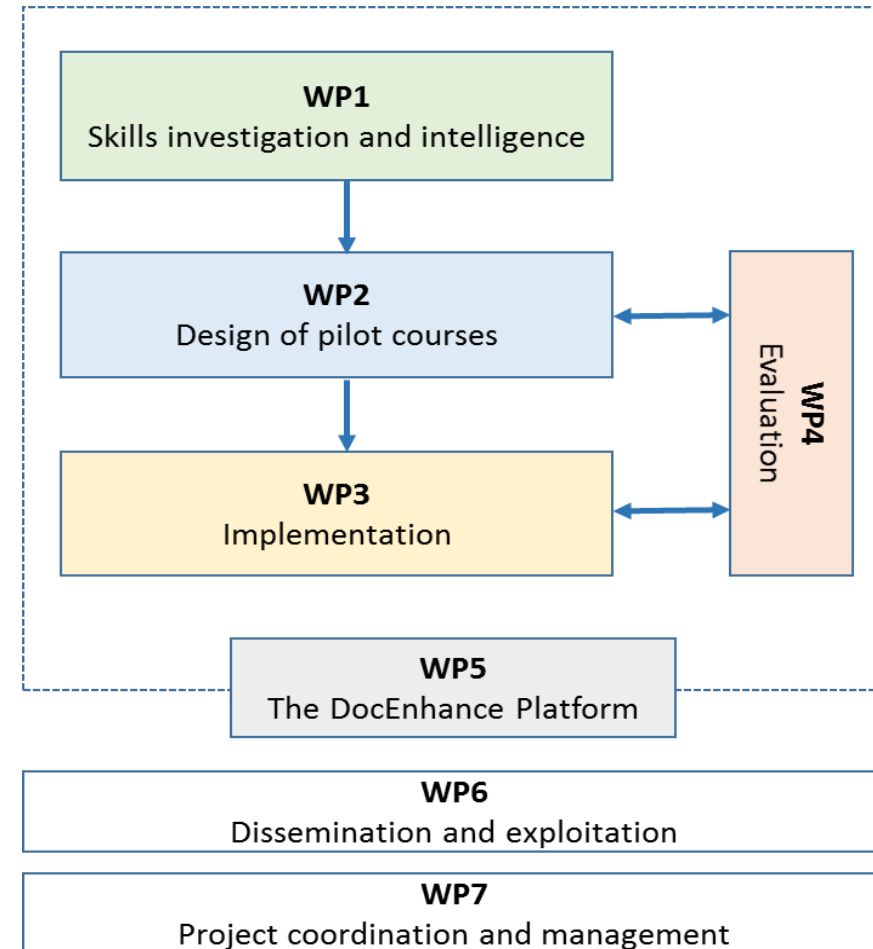
- **Results**

- **Recommendations**

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The overall objective of DocEnhance

- **To build the DocEnhance network and online platform to develop and integrate transferable skills training into PhD education in Europe, and to increase interaction with and exposure to the non-academic sector.**

WP1 Objectives

- **To build a diverse network of academic and non-academic actors in the field of doctoral education**

- **To increase knowledge transfer and ensure cooperation btw sectors**

- **To identify and prioritise future transferable skills**

- **To run a career-tracking survey among partner universities**

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Importance of transferable skills

- Transferable skills are skills learned in one context (for example research) that are useful in another (for example future employment whether that is in research, business etc.).

- Transferable skills may be acquired through training or through work experience. (EC, Principles for Innovative Doctoral Training, 2011).

- Offering training in transferable skills, including understanding the ethics of research, is central, and should be a priority for doctoral schools and programmes.

- Professional development of doctoral candidates includes awareness about skills attained through doing research as well as of the wide range of career choices for doctorate holders.

- Building ties to the other sectors contributes to bridging the communication gap with potential employers and recruiters (EUA 2010).

- The importance of transferability of skills from research and academia to other places of employment (The League of European Research Universities, 2010).

- Transferable skills may also contribute to better research outputs and they can help to maximise them by enabling researcher to be effective in research, as well as adaptable and flexible in an increasingly mobile and global research environment (OECD 201, KIRD 2010).

- Transferable skills may be increasingly important in collaborative and cross-disciplinary work and work in teams. The capacity of researchers to communicate with others is essential for interdisciplinary work (EUA, 2009, p. 87).
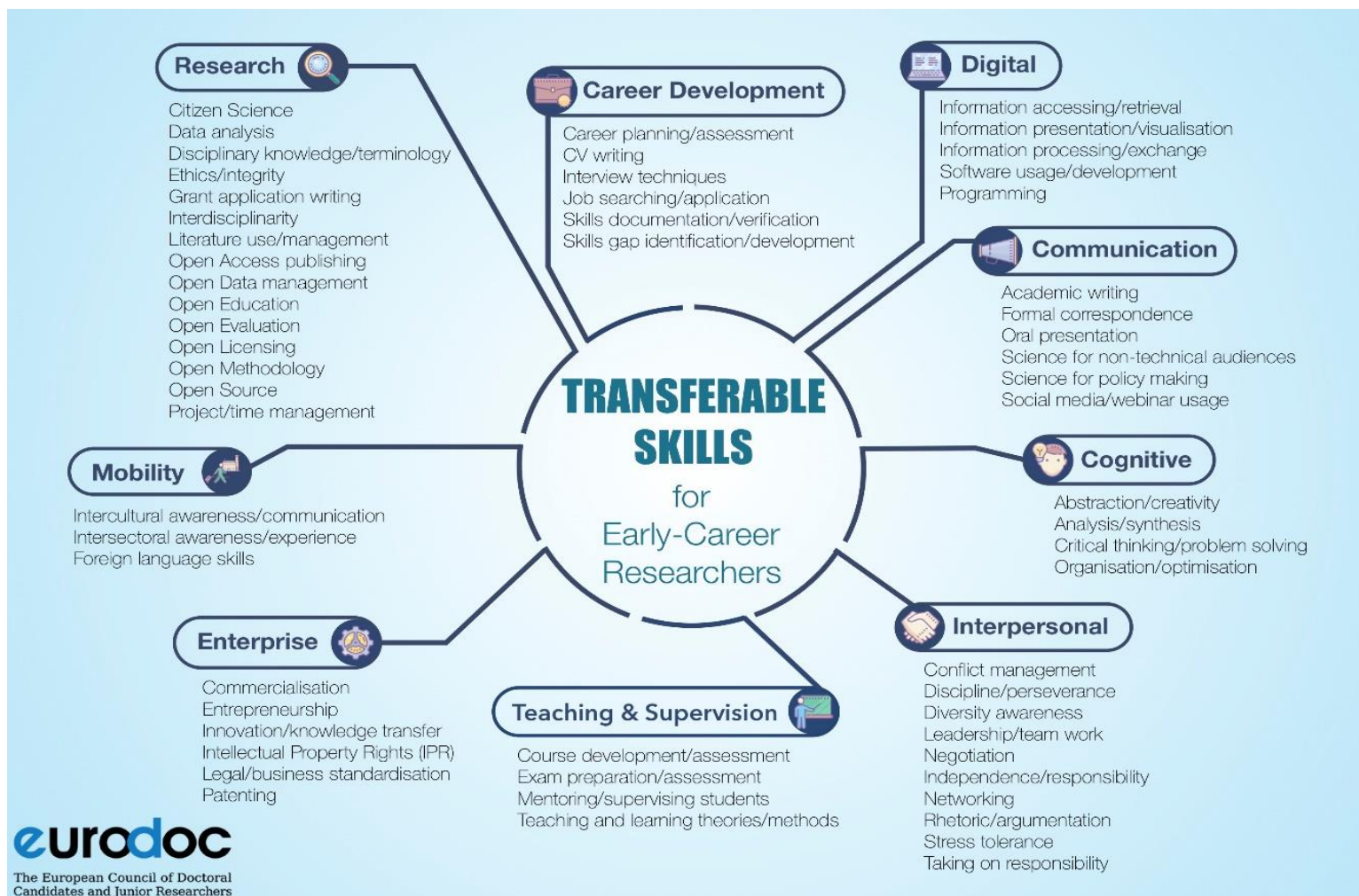
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Transferrable skills for Early-Career Researchers

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Regional stakeholder workshops

✓ **4 skills-prioritizing workshops organized for external stakeholders**

✓ **Each workshop focused on a career sector chosen to represent crucial challenges of the 21st century**

✓ **The purpose of the RSWs was to understand what skills are needed across Europe within each of the chosen sectors**

✓ **The recommended curricula and pilot courses (WP2) are designed by outcomes of RSWs**
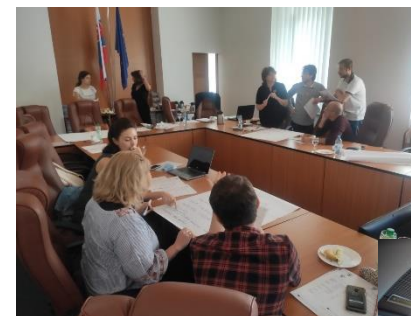
Transferable skills in non-profit sector, 10.9.2020, Slovakia

Doctoral education in cooperation between industry and the university, 2.10.2020, Finland

Transferable skills in Technology sector, 27.10.2020 and 3.11.2020, Spain

Regional stakeholder workshop 10.11.2020, Norway

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Industry (Finland)	Technology (Spain)	Non-profit sector (Slovakia)	Specific data-driven sectors (Norway)
• Digital skills • Communication, presentation skills • Skills to identify own skills and communicate them to different audiences • *Problem solving* • *Management & leadership skills* • Contextual flexibility • Creativity • Adaptability, motivation, ethics • Teamwork and networking • Language skills	• Adaptability and flexibility • Collaboration/ team work • Motivation • Language skills • Presentation skills • Permanent self-learning • Ability to address different audiences • Understanding business culture/organizational structures • Participation in non-research activities • Time management	• Personal skills and abilities: empathy, motivation, resilience, adaptability, flexibility, ethics, social responsibility • Communication and presentation skills • Organisational and execution skills: project management, financial management, creativity • *Management and entrepreneurial skills, leadership, problem solving,* critical thinking • Teamwork • Language skills	• Understanding and analysing different types of data • Running statistics • Handling sensitive data • Metadata management • Text data mining • Visualising and communicating data and statistics

Career-tracking survey (CTS)

- Launched on 9 March 2021 and closed on 15 April 2021, collecting more than **2,220 responses** from the nine participating universities

  - Aristotle University of Thessaloniki (Greece), UiT Arctic University of Norway Tromso (Norway), Maastricht University (Netherlands), Technical University of Munich (Germany), University of Alcala (Spain), University of Chemistry and Industry Prague (Czech Republic), Matej Bel University (Slovakia), NOVA University Lisbon (Portugal) and University of Sassari (Italy)

- 60-70 questions, 8 different sections (doctoral education, skills, transition to first/next employment, employment and career related experience, intersectoral and geographical mobility and demographic details)

- Overall response rate: 25 %

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Motivations to pursue a doctorate by field of a doctorate degree.

	Natural sciences	Engineering and technology	Medical and health sciences	Agricultural sciences	Social sciences	Huma-nities	Total
To work as a researcher in academia	63.0%	67.4%	38.7%	28.1%	38.3%	31.7%	47.9%
To work as a researcher outside academia	36.4%	35.5%	14.3%	14.1%	10.2%	7.9%	18.8%
To work as a highly skilled expert	68.6%	84.9%	36.1%	18.3%	30.6%	22.5%	40.9%
To diversify career opportunities	50.8%	65.5%	40.0%	35.2%	25.4%	18.4%	34.9%
Personal accomplishment	64.7%	88.9%	52.5%	26.7%	38.7%	30.0%	45.6%
Interest in the research topic	80.1%	99.2%	43.1%	26.7%	40.4%	31.7%	50.9%
Social recognition	16.6%	25.5%	17.4%	12.7%	14.4%	5.4%	12.1%

Note: percentages do not sum 100% because each respondent could choose all the motivations that apply in his/her particular case.
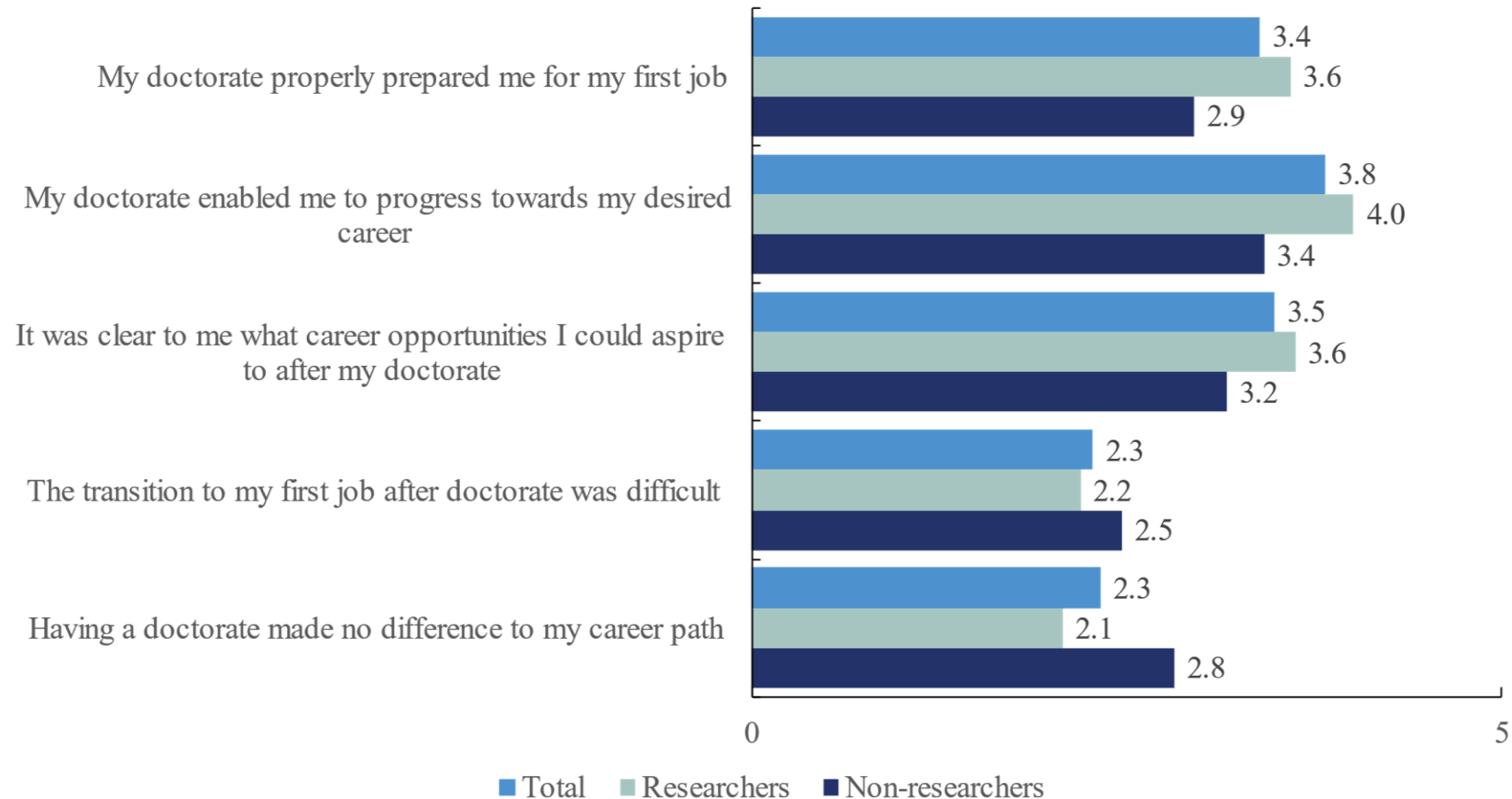
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Average rated benefits of the doctoral programme for career development

My doctorate properly prepared me for my first job
- 3.4
- 3.6
- 2.9

My doctorate enabled me to progress towards my desired career
- 3.8
- 4.0
- 3.4

It was clear to me what career opportunities I could aspire to after my doctorate
- 3.5
- 3.6
- 3.2

The transition to my first job after doctorate was difficult
- 2.3
- 2.2
- 2.5

Having a doctorate made no difference to my career path
- 2.3
- 2.1
- 2.8

0 — 5

■ Total ■ Researchers ■ Non-researchers

Note: Average rates measured using a Likert scale from 1=strongly disagree with the statement to 5=strongly agree with the statement. The distinction between researchers and non-researchers only applies to those employed respondents.

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Executive summary of CTS

▌ Doctorate holders are mostly satisfied with their doctorate programmes

▌ Doctorate holders quickly find employment after graduation both in and outside the academia although temporary contracts persist as a common (and unwelcome) situation

▌ Most doctoral programmes offer transferable skills training, although these tend to focus on academic skills

▌ The added value of the doctorate on careers was overall positive, but less so for those in non-academic, healthcare and government sectors

▌ The content and structure of doctorate programmes exerts a clear influence on skills development

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RECOMMENDATIONS FOR DOCTORAL TRAINING INSTITUTIONS

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▌ Provide transferable skills trainings covering more than just research and academic skills and work with supervisors on promoting these

▌ Encourage skills development through different routes – formal skills training, collaboration and mobility during PhD as well as on-the-job training

▌ Provide informed career advice early in the doctoral training, with more targeted approach for some groups

▌ Promote transferable skills strategically depending on the desired career path and help doctoral researchers build their skills portfolios

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Useful outputs produced by DocEnhance

- **Good practice recommendations for integration of transferable skills training in PhD programmes**

- **DocEnhance platform** as a part of PhD hub

- **PhD training in three transferable skills courses and Open Educational Resources**

- **Interaction model for educational collaboration between the academic and non-academic sector**

- **What comes after a PhD? Findings from the DocEnhance survey of doctorate holders on their employment situation, skills match, and the value of the doctorate**

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For more information visit: https://docenhance.eu/

Thank you for your attention ☺