

# KRECon 2022 Pre-Conference Workshop Research integrity

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# Nice to meet you

## Dr Alexander Hasgall

- Head EUA Council for Doctoral Education, comprising 270 Universities from 38 countries
- Advisory/stakeholder board member of several Research Ethics and Integrity projects representing EUA-CDE
- Background in Philosophy and History

## Dr Iryna Degtyarova

- Senior researcher at Polish Rectors Foundation
- Expert in Polish Rectors Conference CRASP
- Eurodoc Advisory Board Member
- Stakeholder/Advisory board member in RI projects
- Background in public administration and linguistics

## Doctoral education in Europe

- The doctorate plays a central role in the history of European Universities
- Bottom up process: Salzburg Principles 2005 – Salzburg II 2010 – Salzburg III 2016
- Increased importance for the European Research Area
  - Innovation Union 2010
  - Principles for Innovative Doctoral Training 2011
- National legislations
- Much of this is connected to the discourse regarding the knowledge society as a driver for growth

**BOLOGNA SEMINAR**  
**DOCTORAL PROGRAMMES FOR THE EUROPEAN KNOWLEDGE SOCIETY**  
Salzburg, 3-5 February 2005

**A bottom-up  
process  
leading to the  
reform of  
doctoral  
education in  
Europe**

**SALZBURG II  
RECOMMENDATIONS**

EUROPEAN UNIVERSITIES' ACHIEVEMENTS  
SINCE 2005 IN IMPLEMENTING  
THE SALZBURG PRINCIPLES

**DOCTORAL EDUCATION –  
TAKING SALZBURG FORWARD**

**IMPLEMENTATION  
AND NEW CHALLENGES**

## The aim(s) of doctoral education

### (Research & Researchers!)

“The core component of doctoral training is the **advancement of knowledge through original research**.

At the same time, it is recognised that doctoral training must increasingly meet the **needs of an employment market** that is wider than academia.”

*Salzburg Principles 2005.*

“The goal of doctoral education is to cultivate the **research mindset, to nurture flexibility of thought, creativity and intellectual autonomy** through an original, concrete research project. It is the practice of research that creates this mindset.”

*Salzburg Recommendations 2010.*

## Diversity in conditions, practices and contexts

- **Diverse organisation:**  $\frac{3}{4}$  of universities organised in programmes (taught courses, milestones etc.) and 40% with centralised doctoral schools. Only 5% without any institutional oversight.  
Credits, Supervision, Admission criteria etc.  
Increased inter-institutional collaboration. Increased role of professionals, ...
- **Diverse practices of doctoral education:** Different kinds of doctorates: “traditional doctorates” (most cases), professional doctorates, doctorates in the arts; different outcomes (book, journal articles, artefacts). digital defences, but also increased relevance of postdoctoral researchers as target groups.
- **Diverse conditions:** Funding and status of doctoral candidates, duration of the doctorate, legal frameworks, ...
- **Diverse activities of doctoral candidates:** Besides research proposal writing, teaching, data collection and management, scientific collaboration and publishing, science communication, ...
- A **multiplicity of (transversal) skills trainings** is offered to doctoral candidates



*The importance of diversity: the rich diversity of doctoral programmes in Europe – including joint doctorates – is a strength which has to **be underpinned by quality and sound practice.***

Salzburg Principles, EUA 2005



## 2.5. *Career development*

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



- ***New challenges have appeared in the last five years:** digitalisation has enabled the development of open research, open education and social media; **standards for training in research integrity and ethics are urgently required;** and research has become increasingly global.*
- ***Developing an ethos of research integrity –** one of the central priorities*



- Ensuring awareness of good research conduct for doctoral candidates is important in **developing a common research ethos** [...]
  - Doctoral candidates should **have knowledge of national and international codes of ethics and integrity**.
  - This requires **interaction between different initiatives**: formal training and awareness-raising for doctoral candidates, appointing an ombudsperson, identification of best practices and clarity about what is unacceptable, as well as awareness of international and intercultural differences.

EUROPEAN UNIVERSITY ASSOCIATION

# DOCTORAL EDUCATION – TAKING SALZBURG FORWARD

## IMPLEMENTATION AND NEW CHALLENGES



*Taking Salzburg Forward, EUA-CDE 2016*

## NEW CHALLENGES

### DEVELOPING AN ETHOS OF RESEARCH INTEGRITY

Research integrity and research ethics are important areas for action within institutions. There is increased social awareness about ethics and integrity in research, and new techniques raise new ethical questions: for example, big data raises concerns about privacy and data management; use of embryonic stem cells can cause religious or moral protest. As research influences policy decisions, medical treatments and technological solutions, the general public has legitimate concern that these results come from rigorous methods which have been ethically applied.

Researchers are under immense pressure to publish and this can lead to compromises of best research conduct: researchers can be tempted to enter a grey area between the application of rigorous methods and those that give faster and more spectacular results, such as the use of small sample sizes, selective use of data and the use of the "smallest publishable unit". Such practices are counter-productive to reliable and robust research and to the development of the correct research culture of doctoral candidates. Moreover, they put public trust in universities at risk. Universities must be able to show that they respond to concerns about research ethics ranging from scientific method to privacy concerns and animal welfare.

Ensuring awareness of good research conduct for doctoral candidates is important in developing a common research ethos. This awareness is dependent on the daily practices to which doctoral candidates are exposed in their research environment. Awareness of ethical issues connected to specific techniques or situations must be embedded in daily practice and continuously developed. A willingness and consensus among all stakeholders to uphold high standards and best practices is critical if institutions are to develop a sound research culture. An ethos of research integrity must develop and be cultivated in research environments and institutional leaders must ensure this is made explicit and transparent in codes of conduct.

Universities must build this consideration into their doctoral education policies. Doctoral candidates should have knowledge

of national and international codes of ethics and integrity. They should be aware of the ethical issues related to their discipline and be able to foresee such issues in their own research.

This requires interaction between different initiatives: formal training and awareness-raising for doctoral candidates, appointing an ombudsperson, identification of best practices and clarity about what is unacceptable, as well as awareness of international and intercultural differences.

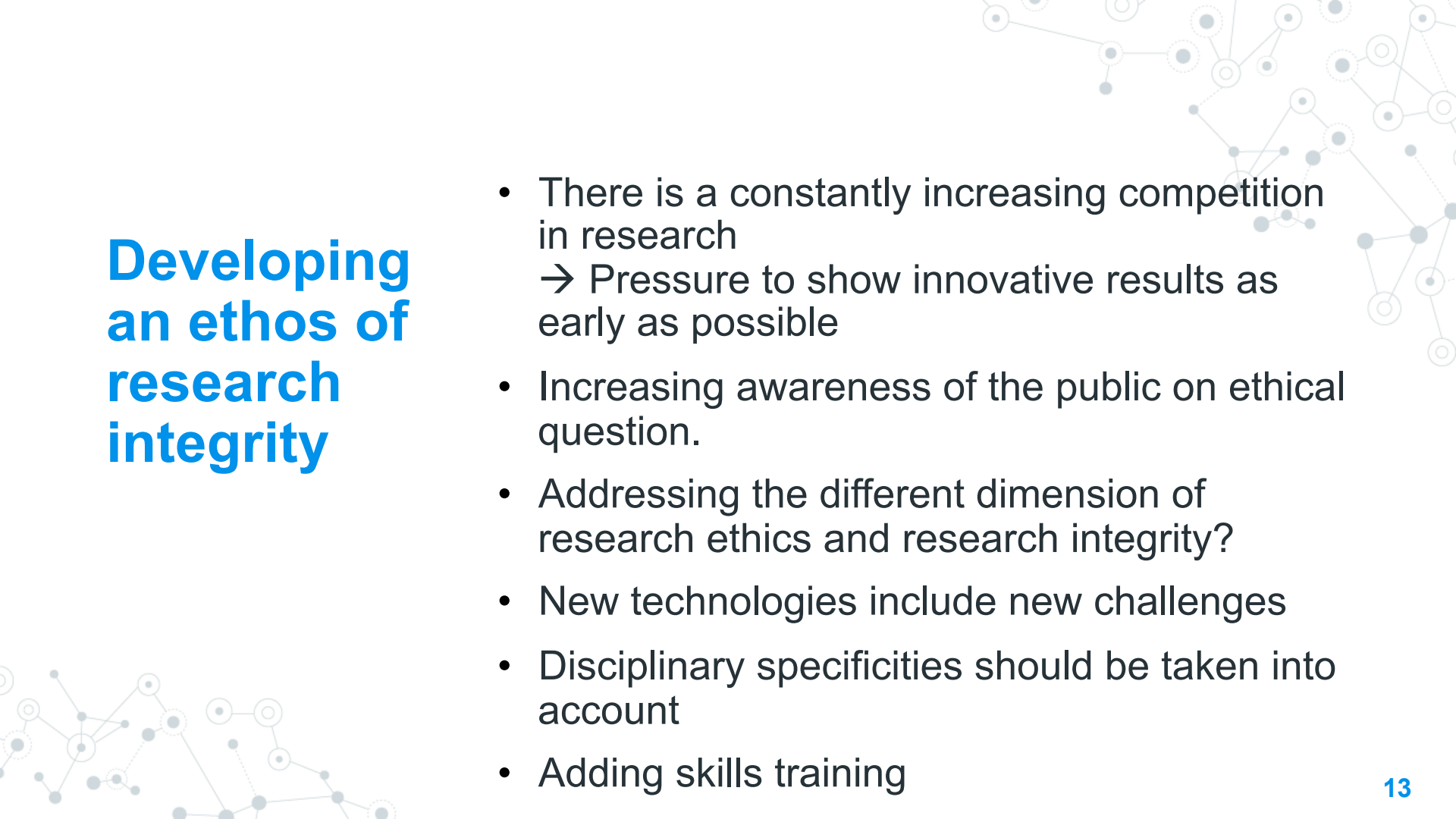
### THE DIGITAL CHALLENGE

Universities in particular and society in general are facing the challenges of digitalisation. Big data, open research – including the use of social media – and online learning offer new interaction possibilities for researchers.

Students and doctoral candidates have grown up in a world where information is shared and interaction happens with ease over the internet. The potential for sharing information has changed research and created opportunities for new ways of collaboration, often referred to as open science or open research. Such practices include the sharing of data and drafts before publication, open notebooks, and open access to publications. New generations of doctoral candidates will increasingly be familiar with models of blended learning with online content. It is not possible for institutions to directly control doctoral candidates' use of digital tools, but the new possibilities for academic dialogue and self-guided online learning will enhance the competences and the independence of doctoral graduates, once the appropriate framework is provided.

Doctoral candidates at the forefront of harnessing digital possibilities, supervisors as well as university leadership can learn from their own practice and experience. However, universities must develop coherent policies and infrastructures for online sharing and learning in doctoral education that can be used in a coherent and responsible manner across the institution. Such policies must include the technical, legal and ethical aspects of open research<sup>3</sup> and open education, including clear guidelines for the recognition of online courses. Supervisors might need training and information about open research as well as clear incentives to follow institutional publication policies, especially regarding the use of repositories for open

<sup>3</sup> For example "EUA's Open Access Checklist for Universities: A practical guide on implementation", EUA 2015, <http://www.eua.be/activities-services/publications.aspx>



## Developing an ethos of research integrity

- There is a constantly increasing competition in research  
→ Pressure to show innovative results as early as possible
- Increasing awareness of the public on ethical question.
- Addressing the different dimension of research ethics and research integrity?
- New technologies include new challenges
- Disciplinary specificities should be taken into account
- Adding skills training

**SURVEY**

**Doctoral education  
in Europe: current  
developments and trends**

By Alexander Hasgall and Ana-Maria Peneoasu

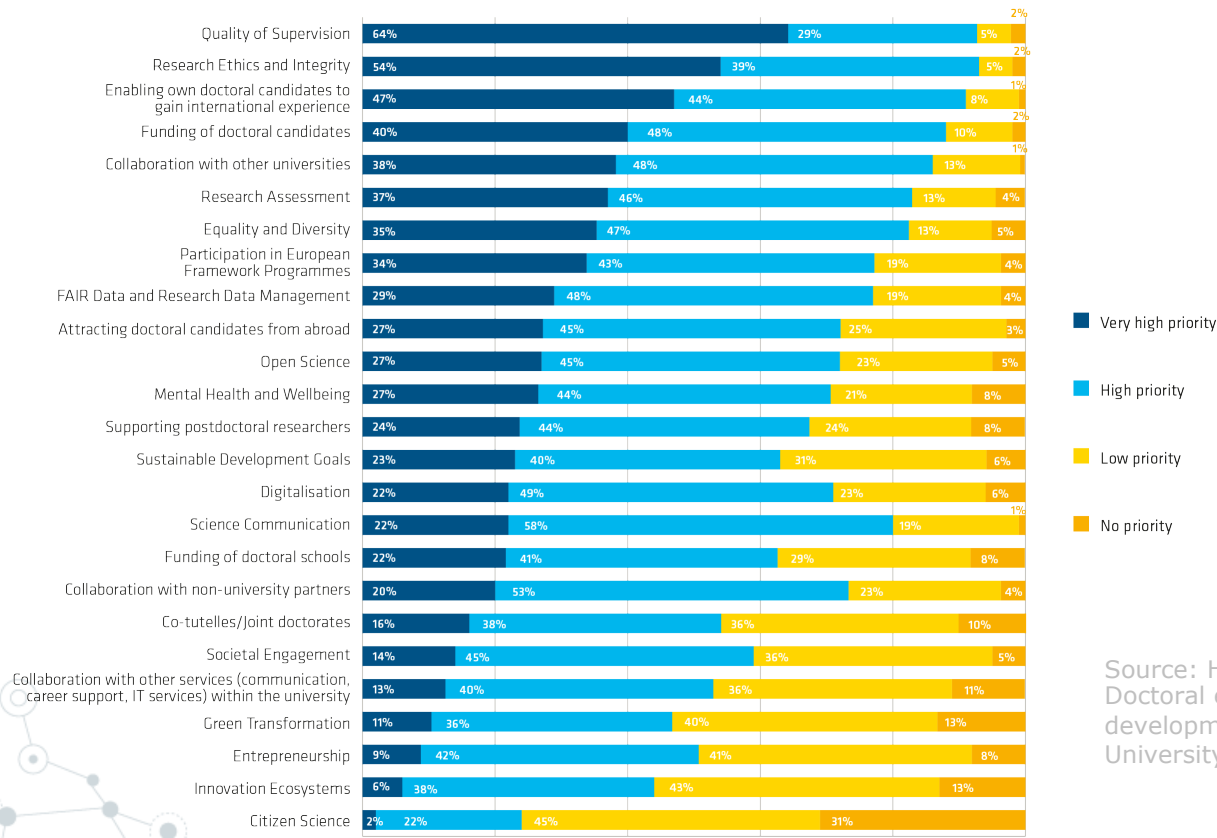
April 2022

**EUA-CDE Survey  
2022**

**Role of research  
ethics and integrity  
in strategies and  
training**

# Institutional priorities

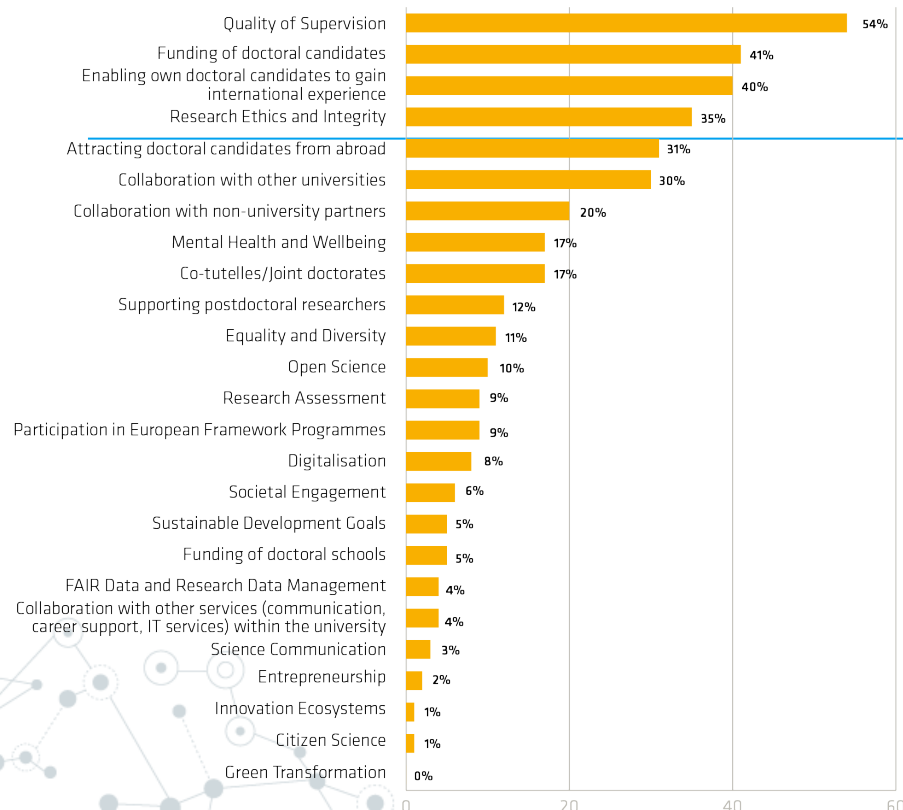
*Which of the following topics are a priority in the area of doctoral education at your institution? (Number of respondents: 134-137/138)*



Source: Hasgall/Peneoasu (2022):  
Doctoral education in Europe: current  
developments and trends. European  
University Association

## Top priorities

*Please identify which of the following topics you consider most important for doctoral education at your institution. Please indicate max. 3-4.*

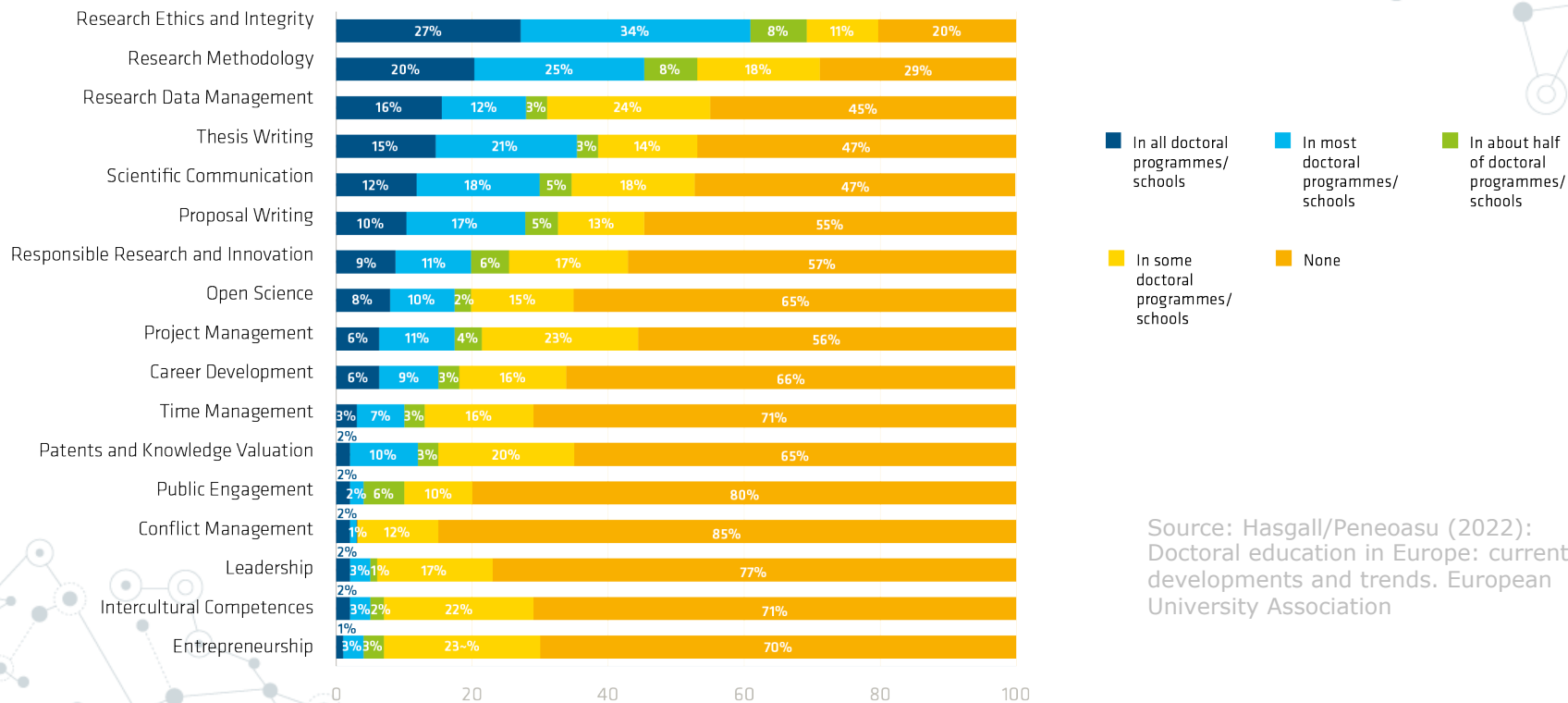


Source: Hasgall/Peneoasu (2022):  
Doctoral education in Europe: current  
developments and trends. European  
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# Mandatory transversal skills training

*What type of mandatory transversal skills training is offered to doctoral candidates at your institution?*

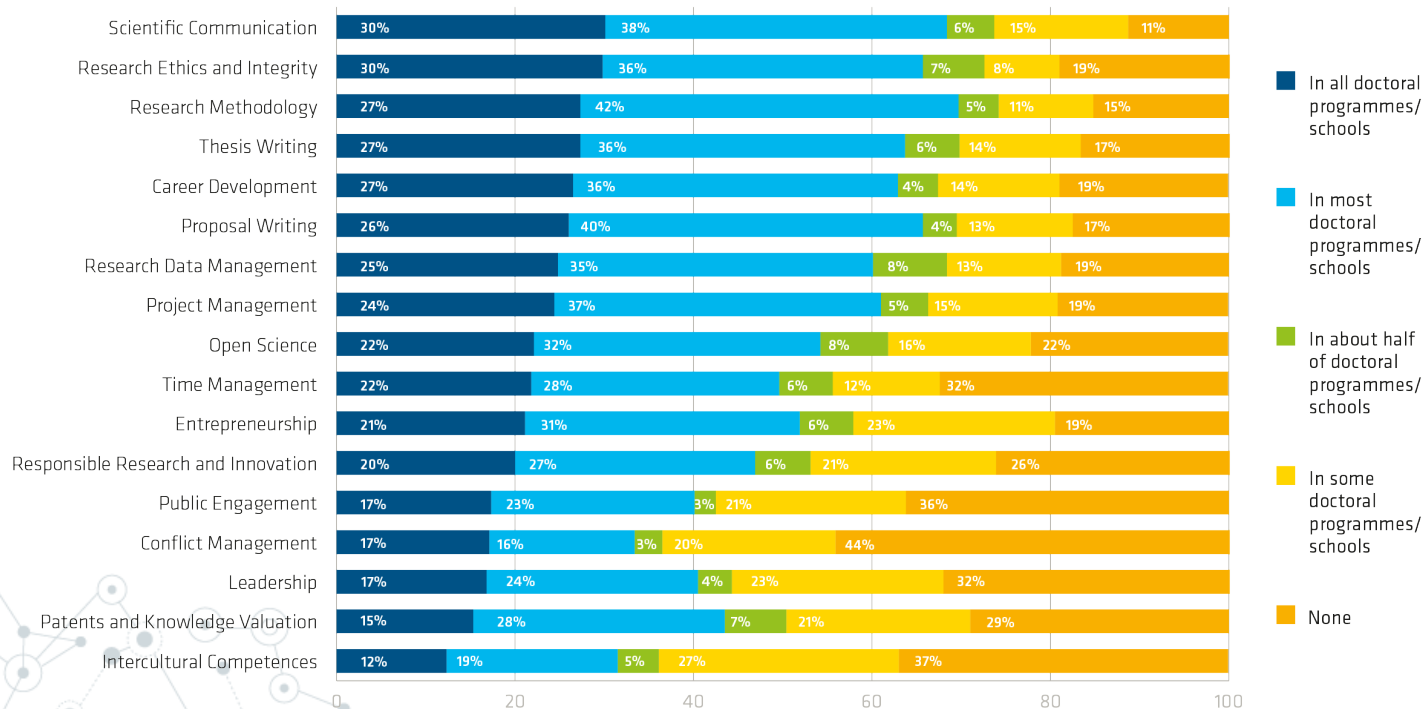
*Number of respondents: 124-133/138*



# Optional transversal skills training

*What type of optional transversal skills training is offered to doctoral candidates at your institution?*

*Number of respondents: 127-133/138*

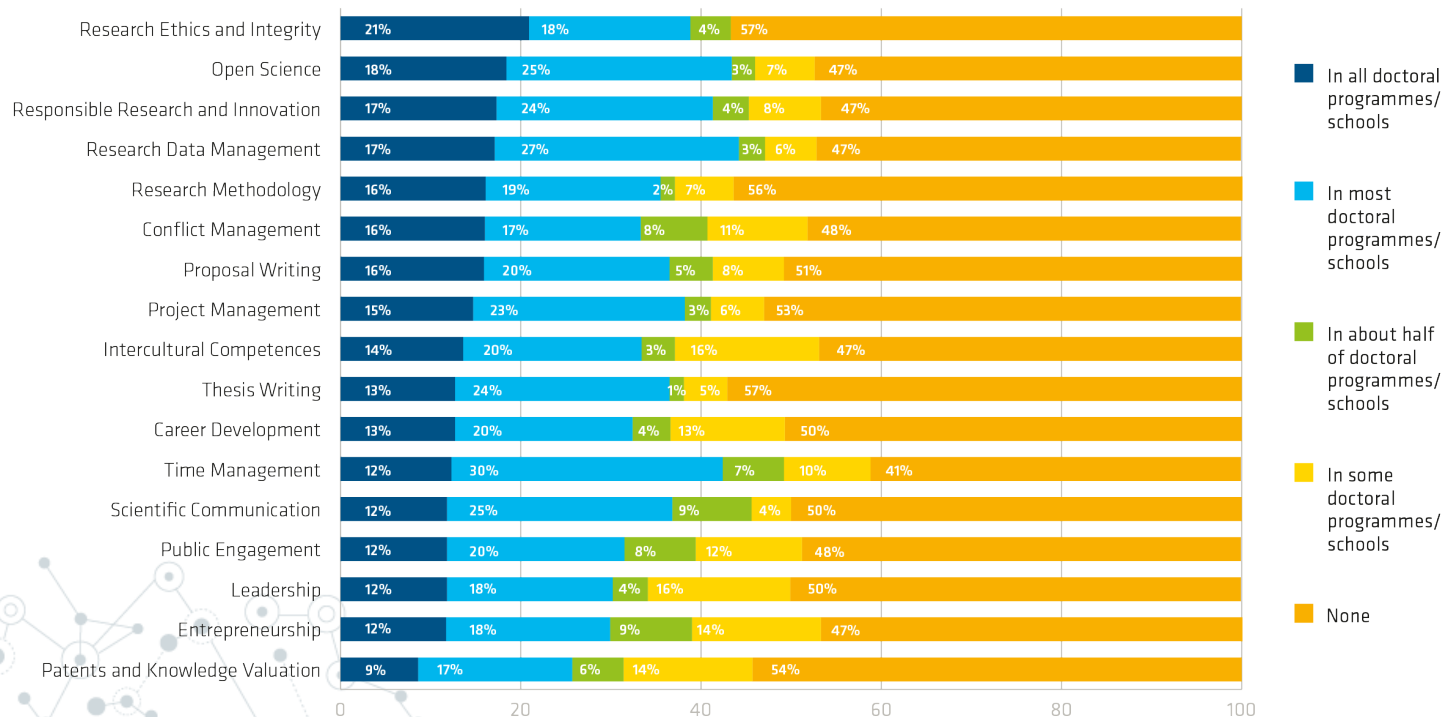


Source: Hasgall/Peneoasu (2022): Doctoral education in Europe: current developments and trends. European University Association

# Prospective transversal skills training

*If it is not available now, do you intend to offer any of the following training to doctoral candidates in the future?*

*Number of respondents: 62-77/138*



Source: Hasgall/Peneoasu (2022): Doctoral education in Europe: current developments and trends. European University Association

# Research integrity across the contexts

- Public trust to science and scientists vs. disinformation and pseudoscience
- Academic freedom and research integrity
- Research assessment and research integrity
- Research integrity and research culture / institutional dimension
- Doctoral supervision and research integrity
- **RI skills / individual dimension BUT how to teach /institutional**
- Whistleblowing and investigation
- Data integrity/FAIR and data management
- AI and ethics
- War and ethics (military research)

...

# Common understanding of RI across Europe

- Definitions and principles
- **Good research practices**
- Violations: misconduct and unacceptable practices
- Dealing with the violations



**The European  
Code of Conduct for  
Research Integrity**  
REVISED EDITION



<https://allea.org/code-of-conduct/>

# 4 FUNDAMENTAL PRINCIPLES OF RESEARCH INTEGRITY

The European Code of Conduct for Research Integrity, 2017

## Reliability

in ensuring the quality of research, reflected in the design, the methodology, the analysis, and the use of resources.

## Respect

for colleagues, research participants, society, ecosystems, cultural heritage, and the environment.



Good research practices are based on fundamental principles of research integrity. They guide researchers in their work as well as in their engagement with the practical, ethical and intellectual challenges inherent in research.

## Honesty

in developing, undertaking, reviewing, reporting, and communicating research in a transparent, fair, full, and unbiased way..

## Accountability

for research, from idea to publication, for its management and organisation, for training, supervision, and mentoring, and for its wider impact.

<https://allea.org/code-of-conduct/>

# Good practices in research - ECoC



**Research  
Environment**



**Research  
Procedures**



**Data practices and  
management**



**Publication and  
dissemination**



**Training,  
supervision and  
mentoring**



**Safeguards**



**Collaborative  
working**



**Reviewing,  
evaluating and  
editing**

# Good practices in research environment (2.1)

## Research institutions and organisations

- **promote awareness and ensure a prevailing culture** of research integrity.
- **demonstrate leadership in providing clear policies and procedures on good research practice** and the transparent and proper handling of violations.
- **support proper infrastructure for the management and protection of data and research materials** in all their forms (encompassing qualitative and quantitative data, protocols, processes, other research artefacts and associated metadata) that are necessary for reproducibility, traceability and accountability.
- **reward open and reproducible practices in hiring and promotion** of researchers.

# Good practices in training, supervision and mentoring (2.2)

## Research institutions and organisations

- **ensure that researchers receive rigorous training** in research design, methodology and analysis.
- **develop appropriate and adequate training in ethics and research integrity** and ensure that all concerned are made aware of the relevant codes and regulations.

# Good practices in training, supervision and mentoring (2.2)

## Researchers

- **Researchers across the entire career path**, from junior to the most senior level, **undertake training in ethics and research integrity.**
- Senior researchers, research leaders and supervisors **mentor their team members and offer specific guidance and training** to properly develop, design and structure their research activity **and to foster a culture of research integrity.**

# Violations of research integrity

**Fabrication** is making up results and recording them as if they were real

**Falsification** is manipulating research materials, equipment, or processes, or changing, omitting, or suppressing data or results without justification

**Plagiarism** is using other people's work and ideas without giving proper credit to the original source whereby you are violating the rights of the original author(s) to their intellectual outputs

Other violations and research misconduct (e.g. self-plagiarism, selective citing, withholding or manipulation of research results, ignoring of others misconduct)

# Good practices to deal with violations and allegations of misconduct

National or institutional guidelines differ as to how violations of good research practice or allegations of misconduct are handled in different countries.

Violations are handled in a consistent and transparent fashion.

The principles of integrity and fairness need to be incorporated into any investigation process.

# Institutions have to train – how?

**Approaches and good practices**



## Two approaches to training and practicing RI

### A value-based approach

- RI as a virtue that must be kindled
- ‘positive approach’ guidelines emphasizing the principles of research integrity

### Norms-based approach

- adherence to a clear set of norms/rules
- focus on enforcement of those rules
- negative approach: focussing on defining misconduct, i.e. breaches of integrity (FFP)

e.g. work by Godecharle et al,  
Horbach & Halfmann (2017)

## Values and norms in RI

- Values are important beliefs or ideals of a person in a community, serving as a motivation for action.
- A value is general, referring to an overall ideal
- **Values can be operationalized in specifying norms**
- Values show what persons and communities hold as important.
- 4 fundamental principles/values for RI in the ALLEA Code: reliability, honesty, respect, accountability

### Values in the national Code

Values in key stakeholder documents...

- **Norms are action-guiding rules: permissions, orders or commands and prohibitions**
- A norm is concrete, specifying certain things that have to be done (or omitted)
- **Norms refer to and are justified by underlying values.**
- Norms say what has to be done in order to realize values
- **Norms: legal regulations; ALLEA Code, National codes, university code**

# Good practices in training

## (Kersschot M., Degtyarova I., Novitzky P., 2021)

RI training should commence considerably earlier

RI training should be an obligatory part of any doctoral training , also as a part of transferable skills

RI training to mixed but small groups

**A well-established training system revolves around a unified Code of Conduct**

Potential of mobility for cultivating RI culture

Combine and balance legal and ethical (value-based) interpretations, which are both essential for practicing high standards of RI in research.

Universities should raise awareness of (new) trends in RI among senior academics and also provide RI training for senior staff members, especially supervisors of DCs.

Bottom-up approaches and self-regulation in RI standards setting

Effective RI infrastructure (e.g. RI officers, offices, persons of trust)

The issues of ethos, and the mission of both the scientist and the academic profession are worthy of wide and honest public discussion.

## Good practices in training (e.g. NL)

National  
Code of  
Conduct for  
RI

Single  
definition  
and clear  
rules

Training  
according to  
the Code

Institutional  
support and  
activities

# Good practices - use interactive exercises

## The Dilemma Game

- developed by Erasmus Rotterdam University
- different dilemma categories
- no winning or losing
- critical dialogue to foster development of a moral compass of researchers



<https://www.eur.nl/en/about-eur/policy-and-regulations/integrity/research-integrity/dilemma-game>

# The moral dilemma and moral conflict

- **A moral dilemma** is when **two courses of action are possible**, which exclude one another. If one goes for one action, the alternative cannot be realized. The one has to choose between both actions; a third option, such as not making a choice, is not possible.
- **A moral conflict implies two conflicting values.** In the case of authorship, these values might be gratitude (for a – albeit small - contribution) versus righteousness (acting in line with the authorship guidelines).
- A moral dilemma is a conflict situation in which the choice one makes causes a moral harm, which cannot be restlessly repaired.

- Dilemma game: instructions for the groups

read each dilemma and the answers

indicate your choice

discuss all of the options in the group

relate to the 4 principles of ECoC

one person takes notes

Go to the app – proposed **dilemmas 95, 97, 103, 105**



# Download and use Dilemma app!

<https://t.ly/jgN2l>



Google Play



# Thank you for participating!

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