## Tutkijakoulutuksen kehitystrendit Euroopassa

Placing doctoral education on the map: Broader European developments in a nutshel

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Council for Doctoral Education (EUA-CDE) steering committee member 2019-



## Doctoral Education: International developments

- The Bologna Process: attention to quality, transparency and training first on Bachelor and Masters level later focus on the the third cycle
- EUA 2001 => EUA-CDE 2008
- Recommendations, standards, good practices, training needs, supervision, researcher career, "modern doctorates", employment (also) outside the academia
- The voice of doctoral education in Europe and on a global level.



## **Doctoral Education: National developments:**

 The network-based model (1995-) replaced by the doctoral school model in 2011-2012

"Doctoral programmes shall be tightly integrated into the university and form an important part of its research strategy and profile, thereby ensuring highquality scientific and artistic postgraduate education. Universities shall take the promotion of doctoral candidate employment and career planning into account in the planning of researcher training." TOWARDS QUALITY,
TRANSPARENCY AND
PREDICTABILITY IN
DOCTORAL TRANING







The EUA Council for Doctoral Education (EUA-CDE) was launched in 2008 at the initiative of the European University Association, responding to a growing interest in doctoral education and research training in Europe.

The largest European network in this field, EUA-CDE has, over the past 15 years, assumed a leading role in reforming doctoral education in Europe.

Covers more than 290 universities and institutions working on issues related to doctoral education and research training in 39 countries.

Monday, 19.8.2024 NIKANDER



# Trends and Drivers in doctoral education:

## **Extrinsic**

Opportunities, expectations & challenges for doctoral education deriving from a changing world

- Digitalisation
- Sustainable Development Goals
- Exchange with Society
- Equality, Diversity & Inclusion
- Academic Freedom

## **Intrinsic**

Changes in the ways in which universities organize themselves to deliver doctoral education



- Diverse Institutional Dynamics
- Ensuring Quality & Fair Assessment



- Skills Fit for Purpose
- Supervision
- Adequate funding

#### Recommendations:



## Salzburg I 2005

#### Conclusions and Recommendations from the Bologna Seminar on "Doctoral Programmes for the European Knowledge Society" (Salzburg, 3-5 February 2005)

- i. 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.
- ii. Embedding in institutional strategies and policies: universities as institutions need to assume responsibility for ensuring that the doctoral programmes and research training they offer are designed to meet new challenges and include appropriate professional career development opportunities.
- iii. 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.
- iv. Doctoral candidates as early stage researchers: should be recognized as professionals – with commensurate rights – who make a key contribution to the creation of new knowledge.
- v. The crucial role of supervision and assessment: in respect of individual doctoral candidates, arrangements for supervision and assessment should be based on a transparent contractual framework of shared responsibilities between doctoral candidates, supervisors and the dostitution 2004 where appropriate including other partners).

- vi. Achieving critical mass: Doctoral programmes should seek to achieve critical mass and should draw on different types of innovative practice being introduced in universities across Europe, bearing in mind that different solutions may be appropriate to different contexts and in particular across larger and smaller European countries. These range from graduate schools in major universities to international, national and regional collaboration between universities.
- vii. Duration: doctoral programmes should operate within an appropriate time duration (three to four years fulltime as a rule).
- viii. The promotion of innovative structures: to meet the challenge of interdisciplinary training and the development of transferable skills.
- ix. Increasing mobility: Doctoral programmes should seek to offer geographical as well as interdisciplinary and intersectoral mobility and international collaboration within an integrated framework of cooperation between universities and other partners.
- x. Ensuring appropriate funding: the development of quality doctoral programmes and the successful completion by doctoral candidates requires appropriate and sustainable funding

## euacde council FOR DOCTORAL EDUCATION

Year	Thematic Workshop (January) ~ 100 participants	Place	Annual Meeting (June) ~ 230 participants	Place
2008	Enhancing of Supervision	London	Launch Conference	Lausanne
2009	Structuring Doctoral Education	Zagreb	Second Annual Meeting	Lausanne
2010	Researchers' Careers Support and Development	Ghent	Third Annual Meeting	Berlin
2011	Mobility – international and inter-sectoral	Budapest	Promoting Creativity	Madrid
2012	Supporting Individual Paths of Doctoral Candidates	Dublin	Funding Doctoral Education	Stockholm
2013	Interdisciplinary Doctoral Programmes	Turin	From Student to Researcher: are we on the right track?	Warsaw
2014	Education – Mindset, Research, Innovation	Izmir	Doctoral Education: Thinking globally, acting locally	Liverpool
2015	Regional Engagement and Doctoral Education	Marseille	Education –where do we go from here?	Munich
2016	Doctoral Supervision	Delft	Doctoral Education: a dilemma of quality and quantity?	Tarragona
2017	Ethics and Integrity in Doctoral Education and Research Training	Lisbon	Digitalisation: A game changer for doctoral education?	Tallin
2018	The Impact and Outcomes of Doctoral Education Reform in Europe	Malta	Excellence through diversity: doctoral education in a globalised world	Ljubljana
2019	Inter-institutional collaboration in doctoral education	Amsterdam	The societal dimension of doctoral education	Brescia
2020	Academic Career Development	Tbilisi	The role of doctoral Education for Europe's Universities	ONLINE
2021	Artificial intelligence, data management and the digital world of doctoral education	ONLINE	Doctoral Education in a post-Pandemic world	ONLINE
2022	Focus group Monday, 19.8.20	24 RNLINEDE	Time and Timing in doctoral education	Manchester
2023	Sustainability in doctoral education: developing a strategic approach	Cluj-Napoca	Engaged research - the role of communication in doctoral education	Lahti

#### **BOLOGNA SEMINAR**

DOCTORAL PROGRAMMES FOR THE EUROPEAN KNOWLEDGE SOCIETY

Salzburg, 3-5 February 2005

**Selected EUA-CDE** 

## euacde FOR DOCTORAL EDUCATION





Building the Foundations of Research

A Vision for the Future of Doctoral Education in Europe

CODOC - COOPERATION

ON DOCTORAL EDUCATION BETWEEN

AFRICA, ASIA, LATIN AMERICA AND EUROPE

N UNIVERSITY ASSOCIATION

RINCIPLES AND PRACTICES
FOR INTERNATIONAL
DOCTORAL EDUCATION

Co-tutelles in European universities: concept, aims

## SALZBURG II RECOMMENDATIONS

reports and

documents

EUROPEAN UNIVERSITIES' ACHIEVEMENTS SINCE 2005 IN IMPLEMENTING THE SALZBURG PRINCIPLES

DOCTORAL EDUCATION –
TAKING SALZBURG FORWARD

IMPLEMENTATION
AND NEW CHALLENGES

Quality Assurance
in Doctoral Education —
results of the ARDE project

COLLABORATIVE DOCTORAL EDUCATION IN EUROPE: RESEARCH PARTNERSHIPS AND EMPLOYABILITY FOR RESEARCHERS

REPORT ON DOC-CAREERS II PROJECT

BY LIDIA RORRELL-DAMIAN, RITA MORAIS AND JOHN H. SMITH

SURVEY

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Doctoral education in Europe: current

Postdoctoral researchers

at European universities:

profiles, roles and institutional

support structures

developments and trends

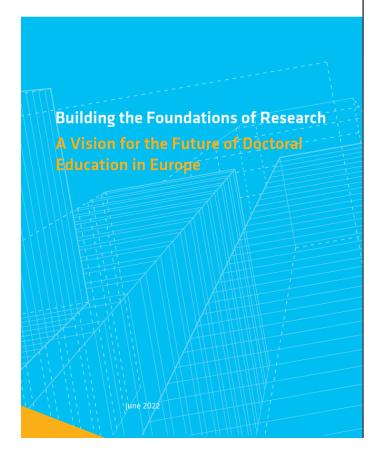






ly Alexender Haegall and Ana-Maria Peneoasi April 2022





- Doctoral schools serve as a place where the opportunities and challenges of new digital technologies are embraced in the pursuit of research goals and in their own enabling frameworks.
- Universities should embrace the Sustainable Development Goals as a holistic framework providing a context for and supporting the delivery of doctoral education.
- Even when not connected to a specific mission, research and education at doctoral level contributes to the resolution of the environmental, demographic, socio-economic, and political challenges that Europe and the world are facing. The path to resolving these challenges may lie in addressing fundamental research questions where the application is not evident at the time.
- A diverse doctoral education must be sensitive to the different backgrounds that doctoral candidates bring with them. Doctoral education should encourage reflection on and the overcoming of any social, economic or cultural barriers. It should foster a diversity that goes hand in hand with excellence and a shared understanding of research quality.
- Doctoral education should promote a dialogue about the different dimensions of academic freedoms and raise awareness about where any are at risk. It should create an open space for critical debate and the exchange of opposite views, while defending the rights of doctoral candidates to engage in these activities.
- Doctoral education needs to embrace the variety of formats which have emerged to meet specific needs but at the same time to ensure that the core principles, including the importance of conducting original research, remain integral to all of these. Structured approaches should be used as a means of ensuring that the voice of doctoral education is properly embedded in university structures.
- A fit-for-purpose quality assurance system is essential but the overarching goal is the quality of research, not the use of a particular tool. The focus should go beyond administrative processes to also value the education and research content. That should include an understanding of core skills and values such as research ethics and integrity and the adoption of a critical approach to research assessment not confined to publication metrics.
- Doctoral candidates must be equipped with the knowledge and skills to meet the modern demands of research and pursue their chosen career paths. At the same time, they need to map, visualise and verbalise their skills and communicate those capabilities to others. Doctoral education should develop both tacit and explicit skills. Transversal skills should not be seen as an add-on but as a key element of the doctorate, maintaining the essential role of original research as the key feature of doctoral education.
- Supervision is crucial. Its form adapts to the needs and resources of an institution. Universities should invest in the training of supervisors, enabling them to embrace their roles fully and ensure that the doctoral school or environment plays its appropriate supportive role.
- The level of living support for doctoral candidates needs to take into consideration the relative attractiveness of the careers and the incomes of early-career knowledge workers in other sectors. This means that the work of doctoral candidates should be appropriately rewarded. Duration of funding should be based on a realistic assumption of the duration of a doctorate. An increase in salaries or duration of the doctorate should not, however, be at the expense of the availability of doctoral positions. The increased need to tackle societal challenges with high-quality research demands the availability of such positions, but this should not lead to a reduction in other university services.

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## **MOTIVATION:**



Often **precarious working conditions**, based on cross-border and project-based temporary contracts  $\rightarrow$  negative effects on attractiveness of careers in research and on mental health



**Skills** provided to doctoral candidates too often focused on careers within academia



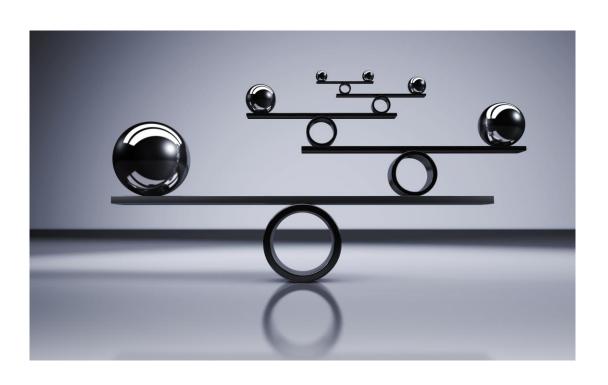
Researchers need to seize **opportunities in the broader labour market**, including beyond academia or creating their own business <del>-></del> right skillset needed



Higher education institutions and industry need to partner to anticipate the skills needs



## AIM:



- To enhance the appreciation and attractiveness or researcher careers
- Increasing the employability of researchers
- Strengthening the European Research Area (ERA) and making it more resilient, appealing, and competitive.

## **MEASURES**:

- A proposal for a new European framework for research careers.
- A new Charter for Researchers that outlines the roles, responsibilities and entitlements of researchers, employers, and funders
- The European Competence Framework for Researchers (ResearchComp) that promotes equipping researchers with transversal skills required for careers in different sectors.
- For more info:
   <a href="https://ec.europa.eu/commission/presscorner/detail/en/ip\_23\_3807">https://ec.europa.eu/commission/presscorner/detail/en/ip\_23\_3807</a>



#### DOING RESEARCH

MANAGING

- Á
- · Have disciplinary expertise
- · Perform scientific research
- · Conduct interdisciplinary research
- · Write research documents
- Apply research ethics and integrity principles

**RESEARCH TOOLS** 

· Manage research data

· Promote citizen science

Manage intellectual property rights
 Operate open source software

#### MANAGING RESEARCH



- · Mobilise resources
- · Manage projects
- Negotiate

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- · Evaluate research
- · Promote open access publications

## RESEARCH COMP

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## UIIS

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- · Participate in the publication process
- Disseminate results to the research community
- Teach in academic or vocational contexts
- · Communicate to the broad public
- Increase impact of science on policy & society
- · Promote open innovation

MAKING

AN IMPACT

 Promote the transfer of knowledge

#### WORKING WITH OTHERS



- · Interact professionally
- · Develop networks
- · Work in teams
- · Ensure wellbeing at work
- · Build mentor-mentee relationships
- · Promote inclusion & diversity

## COGNITIVE



- Abstract thinking
- · Critical thinking
- · Analytical thinking
- · Strategic thinking
- · Systemic thinking
- · Problem solving
- · Creativity

#### SELF MANAGEMENT



- Manage personal professional development
- · Show entrepreneurial spirit
- · Plan self-organisation
- Cope with pressure

## Research Competence

## **MAKING AN IMPACT**



## 1. Participate in the publication process -

Submit, revise and publish academic research through the most appropriate dissemination means and participate in peer review processes, including open peer review.

FOUNDATIONAL	INTERMEDIATE	ADVANCED	EXPERT
Understands the processes of publication both in the traditional and in the Open Science paradigm     Understands how academics communicate research results     Is aware of the diverse outlets for publications and publishes research results with supervision	<ul> <li>Produces publishable material of high standard</li> <li>Collaborates and co-authors with other researchers</li> <li>Peer reviews publications.</li> <li>Disseminates in a range of research outlets (research, professional and public).</li> </ul>	<ul> <li>Regularly publishes in, and is involved in the editing of, academic journals</li> <li>Actively seeks co-authors and collaboration</li> <li>Is lead author on co-authored outputs.</li> <li>Supports less experienced researchers to publish.</li> </ul>	Is well-known for involvement in editing academic journals     Has multiple high-ranked publications     Serves on influential editorial boards     Has published internationally and publicly renowned articles.

## **SKILLS & GOALS ANALYSES:**

## Research (

Citizen Science

Data analysis

Disciplinary knowledge/terminology

Ethics/integrity

Grant application writing

Interdisciplinarity

Literature use/management

Open Access publishing

Open Data management

Open Education

Open Evaluation

Open Licensing

Open Methodology

Open Source

Project/time management

### **Career Development**

Career planning/assessment

CV writing

Interview techniques

Job searching/application

Skills documentation/verification

Skills gap identification/development



#### **Digital**

Information accessing/retrieval Information presentation/visualisation Information processing/exchange Software usage/development Programming



#### Communication

Academic writing
Formal correspondence
Oral presentation
Science for pon-technica

Science for non-technical audiences

Science for policy making Social media/webinar usage

Mobility



Intercultural awareness/communication Intersectoral awareness/experience Foreign language skills **SKILLS** for

Early-Career

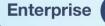
TRANSFERABLE

Researchers



### Cognitive

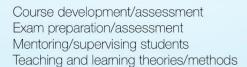
Abstraction/creativity
Analysis/synthesis
Critical thinking/problem solving
Organisation/optimisation





Commercialisation
Entrepreneurship
Innovation/knowledge transfer
Intellectual Property Rights (IPR)
Legal/business standardisation
Patenting

#### Teaching & Supervision



**NIKANDER 3.5.2024** 



### Interpersonal

Conflict management
Discipline/perseverance
Diversity awareness
Leadership/team work
Negotiation
Independence/responsibility
Networking

Rhetoric/argumentation Stress tolerance Taking on responsibility

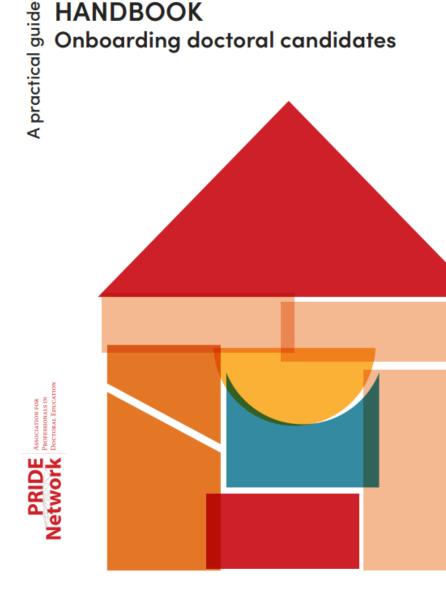


## The importance of onboarding

- Professionals in Doctoral Education: HANDBOOK
- Relevance, advantages, effective ways to implement onboarding & practical examples

In summary, the main advantages of onboarding processes for doctoral candidates are:

- contributes to expectation management and productive working practices between candidates and supervisors;
- clarifies regulations and doctoral programme requirements;
- provides orientation to relevant academic support services;
- contributes to building networks;
- develops the sense of belonging;
- increases well-being;
- increases satisfaction and completion rates;
- encourages an open mindset when thinking about future career steps.





### Visualising the Degree: A PhD Calendar

#### The Early Phase: Provisional Registration

Start Get supervision off the ground Submit full research proposal Navigate the literature review Start writing Apply to Ethics Committee Develop particular skills Report / Take stock Developing your topic The Mid Phase Give a seminar or conference paper Collect and organise data Keep writing Maintain contact with supervisor/s Report Take stock Keep your work on track by setting yourself achievable tasks and goals The Final Phase Plan a submission date Give sections to aupervisor/s Editing Hand in the penultimate draft Submit thesis Publish articles Prepare for the oral examination

Dr Frances Kelly (2003), Doctoral Programme, Student Learning Centre, Nithen University of Auckland
Based on the PhD Calendar by Stella Clark and Richard James, The University of Melbourne (2002)

## In sum: Shared European challenges

- Attractiveness of researcher careers
- Skills fit for purpose
- Intersectoral stake-holder collaboration
- Communication and people skills: verbalising & visualising one's skills and message to employers, stake-holders and the broader audience.
- As the number of postdocs in Europe dramatically raises, there is a need to address this specific group, particularly related to their academic and non-academic career development.
- Doctoral schools, together with other services within the university, play an increasingly important role in supporting this group => task-force.
- Strategic, long-term vision on doctoral education.



## Kiitos Thank you

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