

# Graduate trajectories: a view from researchers

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# What to expect from the workshop?

The workshop aims to contribute to research-based development of doctoral education by

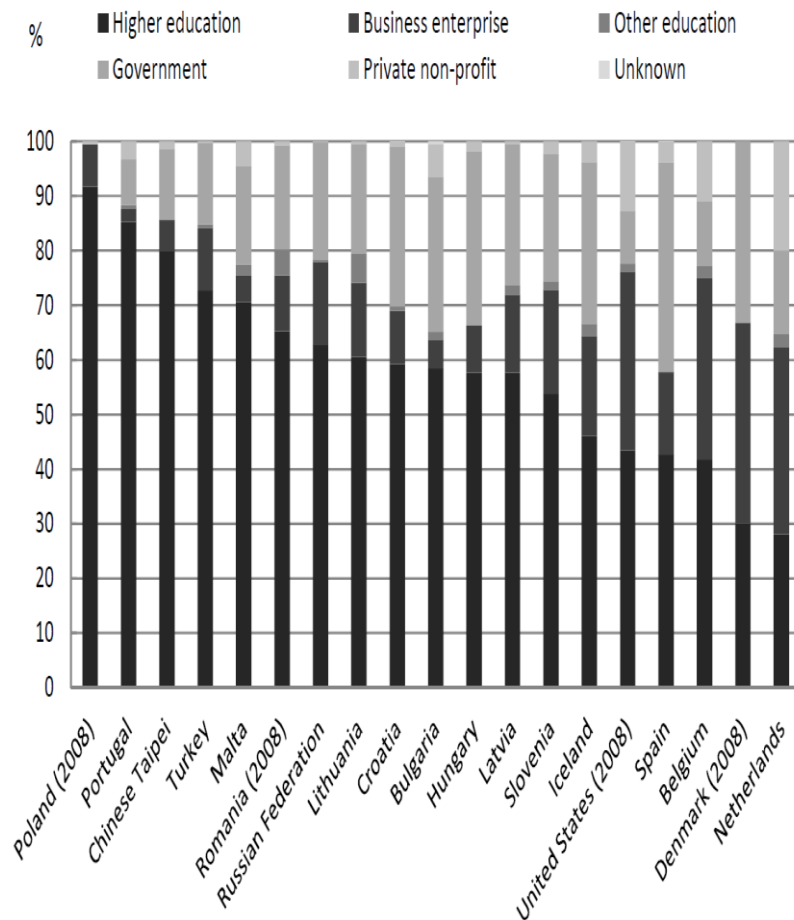
- I. Starting point:* small group discussions on career trajectories.
- II. Research perspective:* evidence that informs our understanding of Post-PhD trajectories
- III. Strategies for enhancing PhD trajectories:* small group discussions
- IV. Plenary*

# Starting point: Question 1

- What do you know about Post PhD career trajectories at your universities? **Time 7 min.**

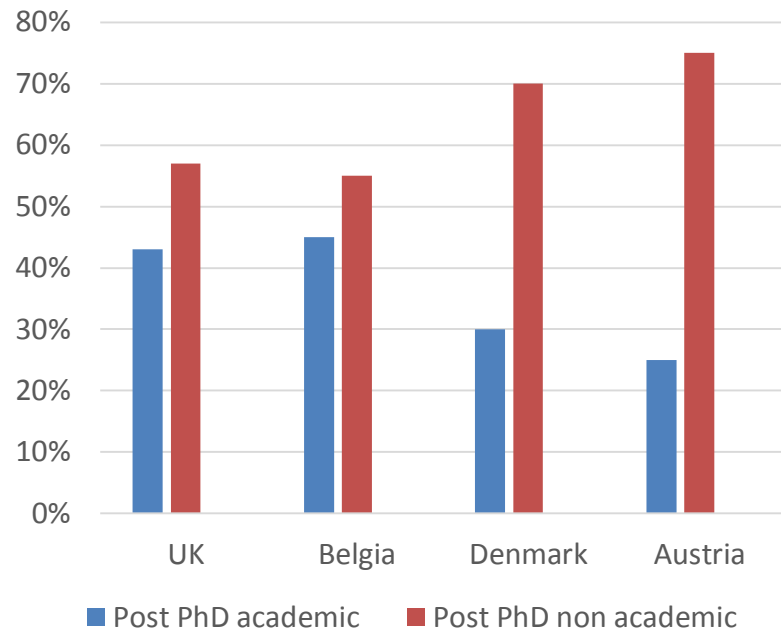
# Post PhD Careers (OECD, 2013)

## PhD degree holders by the sector of employment



## Post PhD employment academic versus non academic posts

Around 60% in many countries are Post-PhD employed doing research  
Unemployment rates are generally low 2,2%<



# Changes in the PhD over 20 years

## Previous perspective

Purpose:  
prepare  
'faculty'

- Limited # of students
- Worked relatively independently
- Time to develop academic profile
- Got position quickly
- Little government/institutional oversight

## Present perspective

Purposes:  
prepare  
researchers/  
non-  
researchers  
for society

- More & varied student body
- More formal training
- Less time overall & to develop academic profile
- Difficult to get 'faculty' position
- Know little of where students go/what they do
- Government/institutional oversight
- Changing doctoral structures

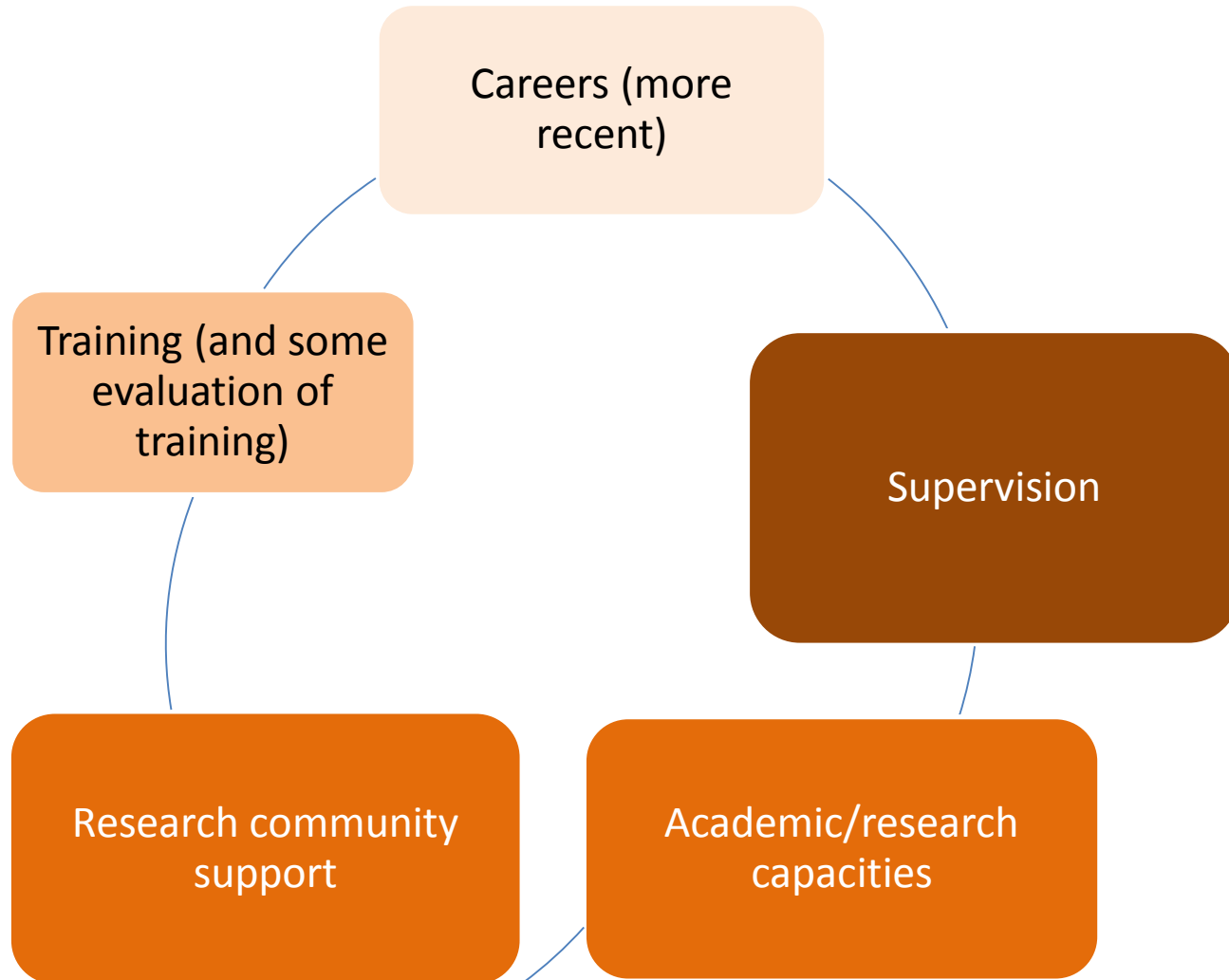
# Doing more (often with less)...

- As senior administrators, developers and program managers, difficulty of changing policies and actual practices; challenged to
  - Create policies that will have the potential to change practices
  - Find/train human resources to support coherent practice and policies
  - Create rewards for supporting change

# Starting point: Question 2

- What is happening *during the degree* that is influencing Post-PhD career trajectories at your universities? **Time 7 min.**
- Summary of main group ideas and plenary discussion

# Themes of research





# What affects careers and trajectories: Supervision

## Promote

- Frequent supervision
- Shared expectations (goals, relationship, resources, etc.)
- Constructive feedback and support
- More than one supervisor



- Lower attrition risk
- Timely completion
- Satisfaction with studies and supervision
- Research engagement
- Reduced burnout
- Research productivity

## Hinder

- Lack of supervision
- Problems in supervisory relationship
- Lack of support in academic writing



- Attrition
- Prolonged studies
- Reduced satisfaction
- Reduced interest in research
- Increased risk of burnout
- Reduced productivity

# What affects careers and trajectories: Research community support

## Promote

- Sense of belonging
- Integration into the researcher groups/communities
- Having extensive networks
- Social support from researcher community



- International experience
- immediate employment
- Research engagement
- Timely completion
- Reduced risk of burnout and attrition
- Research productivity
- More frequent supervision
- Satisfaction with doctoral experience
- Ethical code of conduct

## Hinder

- Being outsider (International at risk )
- Lack of networks and social support
- Not understanding value of networks or developing them
- Frictions in research community
- Values and ethical discrepancy



- Increased risk of burnout
- Reduced satisfaction and engagement
- Attrition
- Prolonged studies
- Reduced research productivity
- Lack of interest
- Ethical misconduct

# What affects careers and trajectories: What we know about careers

## Promote

Departments can make a difference in students career thinking  
Teacher preparation, besides being beneficial for research, makes students more competitive for future careers

PhD skills have relevance in the non-academic arena

Students on external internships find them productive and see new non-academic career options

## Hinder

Students put off career thinking and lack knowledge  
Students consistently report career preparation lacking

Students may not want academic careers  
Supervisors encourage faculty positions, not non-academic careers

Students unable to assess the fit between PhD skills and non-academic positions

# Group work (20 minutes)

- Choose one theme and think what should or might be done at the two levels:
  - Training
  - Policy: Institutional (country) rules, practices and guidelines
- Each group will report one recommendation (please choose a reporter)

# What we would do

- Change process
  - Create robust career tracking and use to develop formal and informal career planning opportunities
  - Consult, consult program/ departmental use and progress on new policies/practices
  - Disseminate results and ‘reward’ robust practices
- Changes in doctoral programs: is your program “fit for purpose”?
  - Tweak admissions processes to engage applicants to consider career opportunities
  - Introduce external internship of some kind
  - Rethink role of theses and publication to ensure students have opportunities to become active agents of their future communities (academic and non-academic)
  - Rethink the value of single supervision and expand it (institutionally, disciplinary, etc.)
- Evidence-based decision-making
  - Consider whether empirical evidence can inform the process
  - Try to connect with researchers in the field in order to link policy and practice to research
  - When possible consider the use of more research-driven instruments

Thank you!

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# Final thoughts

- We acknowledge the difficulty of changing practices and this has to do with adopting an integrated approach:
  - Need to combine in a coherent way practice and policies
  - Need to invest in human resources to make policies effective
  - Building some kind of rewards

# What affects careers and trajectories: Supervisors' Training

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- **New supervisors feel at sea.** There is evidence that training helps new supervisors to understand and better accomplish their role.

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- Supervisors need training on how to guide writing, especially genres different from monographs
- Co-supervision is emphasized but is difficult for supervisors especially when they come from different universities
- Sharing expectations is crucial for thesis completion
- Supervisors' training needs to include co-supervision



# What affects careers and trajectories: Supervisory Support

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- Frequency of supervisory meetings contributes to satisfaction (Woodward, 1993) and better rates of completion (Pyhältö et al, 2015), lower time to obtain a doctorate and positive post-doctoral experience (Seagram et al., 1998; Wright & Cochrane, 2000)
- Good fit between the DS and S perceptions on supervision and the main challenges/resources of doctoral journey enhances (Murphy et al, 2007; Pyhältö et al, 2013; 2015;

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- Lack of adequate writing support (from supervisors; learning alternative genres).
- Writing articles during the PhD education is related to post-docs higher productivity (Castelló, McAlpine & Pyhältö, submitted). However students in SSCC write mostly monographs, a genre not aligned to any of possible future practices (scientific journals, reports; research applications; scientific books)
- Supervisory support is not usually oriented to career planning

# What affects careers and trajectories: Integration into research community and Networking

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- Doctoral students integration in research groups is associated with international experiences and collaboration
- Being integrated in the research community is related to a more immediate employment as researchers (Phyältö XXx)
- Adequate support (last study)
- Community support is related to higher productivity (publishing as a first author) at the doc and post-doc level (Castelló, McAlpine & Phyälto, submitted)
- PhD students may not understand the value and invest in networking, yet there are positive short- and long-term outcomes (Devenish, 2009)
- (Lynn xx , Kirsi xx , our own work in process)
- International students less integrated in research community (XXX) and participate more in training than national students (XXX): way to understand culture and how things work.

# What affects careers and trajectories: Students' Training

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- Being trained and doing teaching is beneficial for research and makes students more competitive for future careers ( )

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- Students do not have realistic assumptions on their own careers. Many of them expect to remain in the academia ( Phyälto XX ?¿; Kiley, 2015 ). Data shown the majority will get their jobs outside (XX)
- There is a lack of training on abilities and skills for alternative research scenarios outside academia (XX)
- Students are not aware of the type of career in which they are embarking when starting a PhD (Kiley, 2015; Castelló, McAlpine & Phyälto, 2015) and do not interact with examples of alternative job scenarios (XX)

# What affects careers and trajectories: Ethics and research process

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- Students lack 'spaces' and supervisory involvement in discussing ethical practices (Holley)
- Intentions of abandonment are linked to PhD difficulties in accepting values and ethics underlying some well established practices (competition, individualism) (Castelló, Sala-Bubaré, Pardo & Suñe, submitted).
- PhD students might also be object of misbehaviour or receive models of misbehaviour
- Media learning and new ways of learning and working in virtual spaces