

# PhD students or “early career researchers”

## What difference does it make?

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# The presentation at a glance



- Looking at prospective careers: what do we know
- Implications for shaping doctoral programmes
- The European level dimensions & the role of EUSPRI

# One case: Manchester STEM\*



	% first job	% last job	% fixed term For last job
Academic/public research	42	30	36%
Research/technical positions in manufacturing	21	12	0%
Other employment	37	58	2%
	100	100	

## **The composition of other positions**

1/3<sup>rd</sup> private sector dedicated managers

1/5<sup>th</sup> public sector dedicated managers

1/3<sup>rd</sup> technical positions in services (mainly in consultancy)

\* Lee, Miozzo & Laredo, Research Policy, 2010

# Types of jobs & types of competences

	academia	Technical positions	other
Specialist knowledge in PhD topic	1.6	0.5	0.3
Generic knowledge in PhD subject area	1.3	1.0	0.4
General analytical skills	0.9	1.2	1.6
Problem solving capability	1.1	1.6	1.7
Project management skills	0.2	0.6	0.7
Average note: maximum is 3			

# Consequences

- Doctoral studies need to take into account the de facto variety of trajectories
  - Doctoral candidates need to be prepared beyond simply doing a thesis that demonstrates their professionalism
- Institutional answers: the Bologna process & the 10 Salzburg principle
- Implementation answers at local and 'community' levels

# The 10 Salzburg principles



1. Advancement of knowledge through **original research**.
2. Accounting for labour markets and professional **career** development options.
3. Working within rich diversity of doctoral programmes in Europe with **quality provision**.
4. Acknowledging doctoral candidates as **early career researchers**: professionals with commensurate rights
5. Recognising crucial role of **supervision & assessment**.
6. Achieving **critical mass** through innovative design & delivery.
7. Duration: **3-4 years**.
8. Innovative design for interdisciplinary training and development of **transferable skills**.
9. Increasing international, interdisciplinary and inter-sectoral **mobility**.
10. Recognising need for appropriate and sustainable **funding**.

# Implementation Issues -1

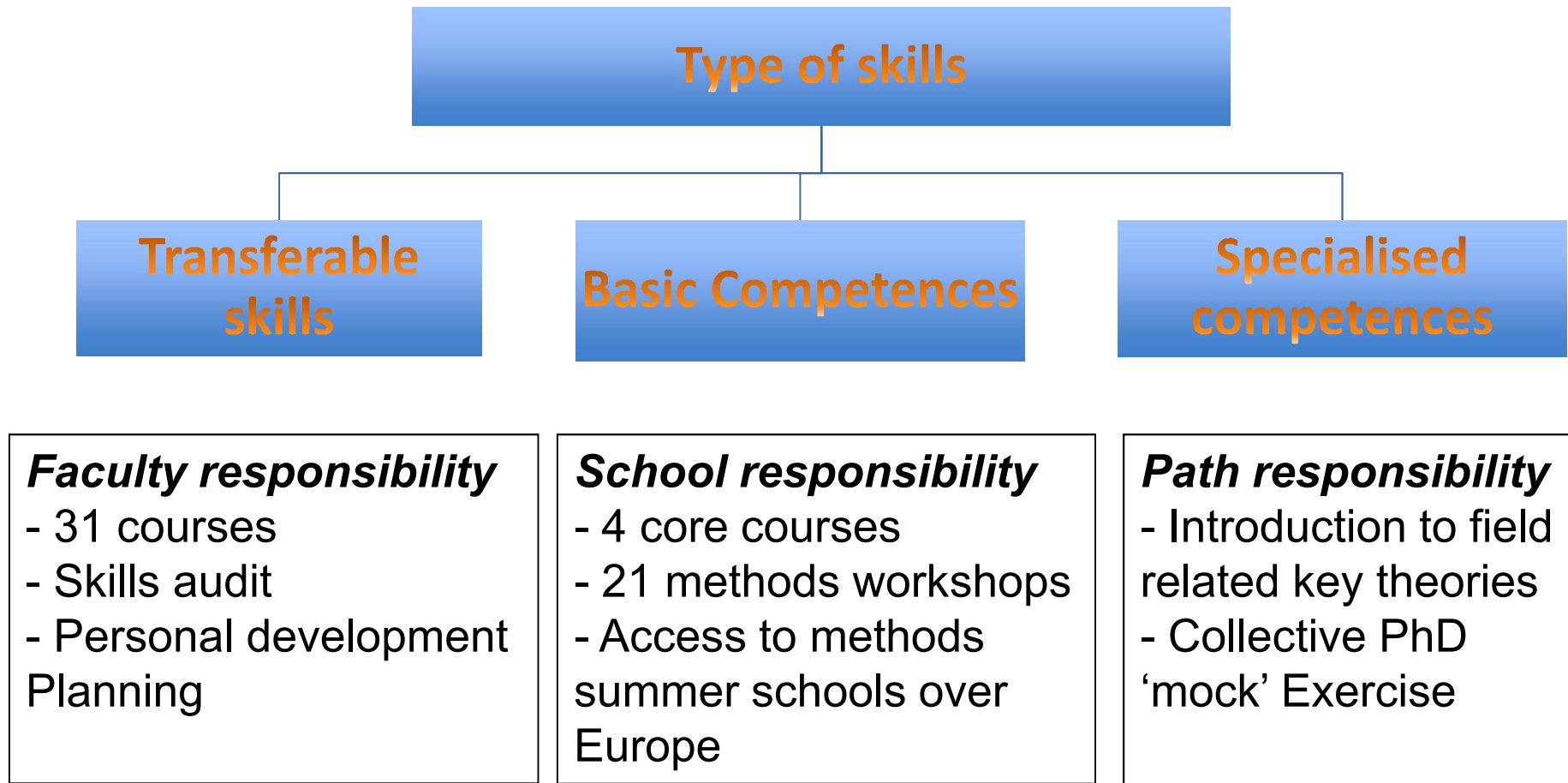
- The PhD thesis as the archetype of a project
  - duration: 3+1 years
  - supervision: 1 or 2 supervisors (with or without rules)
  - monitored: yearly 'upgrades' (with or without sanctions)
  - clearly defined objective & evaluation: original knowledge...
  - ... tailoring or not the thesis to future careers

# Implementation Issues 2

- The supportive environment:
  - speeding up & enlarging the process: ‘taught’ components  
→ see the example of Manchester
  - complementary discussions: the role of lateral interactions
  - complementary experiences (teaching, contract research)
  - learning about the outside world: conferences, mobility...  
→ see EUSPRI activities



# Types of skills: Manchester implementation



# EU SPRI FORUM



- Created 2010, as a follow-up from the EC supported network of excellence, PRIME
- Members = universities and public research organisations that pay an annual fee for developing activities that are free of charge for early career researchers of member organisations.
- Activities:
  - the annual EU SPRI conference: 2014 June 18-20 in Manchester
  - EC conferences (e.g. in 2014 Valencia on interdisciplinarity, Ancona on entrepreneurship for societal challenges)
  - EC mobility (from 3 to 6 months in another lab): 15 in the last year
  - EC schools: on innovation systems (Utrecht 9/13, Lund 10/13), on emerging technologies (Manchester 6/14)