



**QAA  
Scotland**

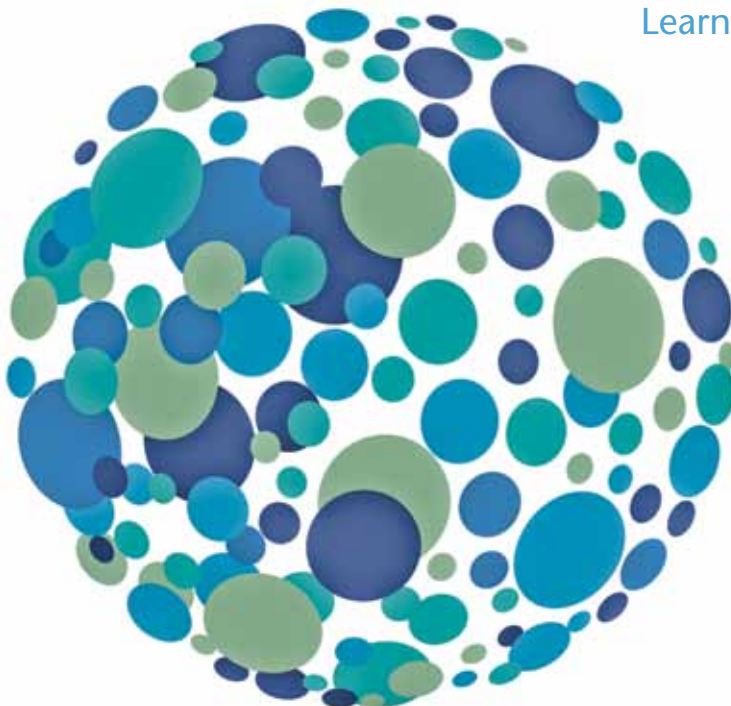
Report of the Scottish Higher Education Enhancement Committee

# International Benchmarking

Shaping the Twenty-First Century Doctorate:  
Learning from international practice

Executive Summary

March  
2012



**QAA Scotland**

183 St Vincent Street

Glasgow

G2 5QD

Tel 0141 572 3420

Fax 0141 572 3421

© The Quality Assurance Agency for Higher Education 2012

ISBN 978 1 84979 541 8

All Enhancement Themes publications are available at [www.enhancementthemes.ac.uk](http://www.enhancementthemes.ac.uk)

Registered charity numbers 1062746 and SC037786

## Executive summary

### Introduction

This report has been written on behalf of the Quality Assurance Agency for Higher Education (QAA) and the Scottish Higher Education Enhancement Committee's (SHEEC's) International Benchmarking Working Group (IBWG) on Shaping the 21st Century Doctorate. Its purpose is generally to contribute to the enhancement agenda in Scottish higher education, and specifically to highlight effective practice in doctoral education in a way that enables Scottish institutions to learn from what is happening elsewhere in Scotland and also internationally.

The report is structured in six chapters:

- 1 Introduction and context (Annexes 1, 2 and 3)
- 2 Supporting diverse doctoral students and surveying the student experience (Annex 4)
- 3 Standards, quality and review of doctoral programmes (Annex 5)
- 4 Developing and supporting critical mass and diversity (Annexes 6 and 7)
- 5 Supporting the development of doctoral skills and attributes (Annexes 8 and 9)
- 6 Conclusions and recommendations.

In each chapter, the IBWG has drawn widely on practice that can be seen to support and enhance the research student experience, including frameworks for safeguarding academic standards and the quality of programmes.

The report focuses on doctoral degrees, rather than research degrees as a whole. However, some elements, especially the examples of practice, will be of general interest to anyone contributing to research degrees.

Chapter 1 summarises the background to the report, the IBWG's rationale for commissioning it and how evidence was gathered. Annexes 1 and 2 provide details of the IBWG's membership and programme of work. This chapter also provides a broad context for the project, including information about different forms of doctorate and their characteristics (Annex 3), and about the growth in research students; both in Scotland (Figure 1) and across countries of the Organisation for Economic Cooperation and Development (OECD) (Figure 2). Finally, and importantly, this chapter emphasises the way in which doctoral education can be broadened through internationalisation and the many different ways in which an international perspective can be provided. It includes details of international collaborations in which Scottish universities are involved, together with international conferences, summer schools and details of how Scottish institutions attract international visitors. There is an example of practice at the University of Nottingham to illustrate practice elsewhere in the UK. Internationally, the chapter draws on examples from the USA Council for Graduate Schools. With regard to student mobility, there are case studies from Canada and non-UK Europe (cotutelle programmes).

Chapter 2 is about supporting doctoral students at a general level. It contains details about how student feedback is obtained and used in different contexts to improve practice.

This chapter also considers how best to support part-time and international students, drawing on Scottish, other UK and international activities and case studies; the international reference points being Aarhus (Denmark), Tokyo (Japan), and Adelaide (Australia) (Annex 4).

Chapter 3 focuses on academic standards, quality assurance and review of doctoral education. It summarises policy and guidance frameworks within which research degrees are delivered, looking at Scotland (Figure 3) and the UK more generally, with details about the Scottish Enhancement-led Institutional Review (ELIR) system and including links to reference sources about different research qualifications. Chapter 3 also contains references to international quality assurance systems for doctoral education across non-UK Europe, with case studies from the Netherlands, Ireland, North America, Australia, and New Zealand. This chapter also considers supervision and the challenges of joint degrees, using examples of practice from the University of Melbourne in Australia.

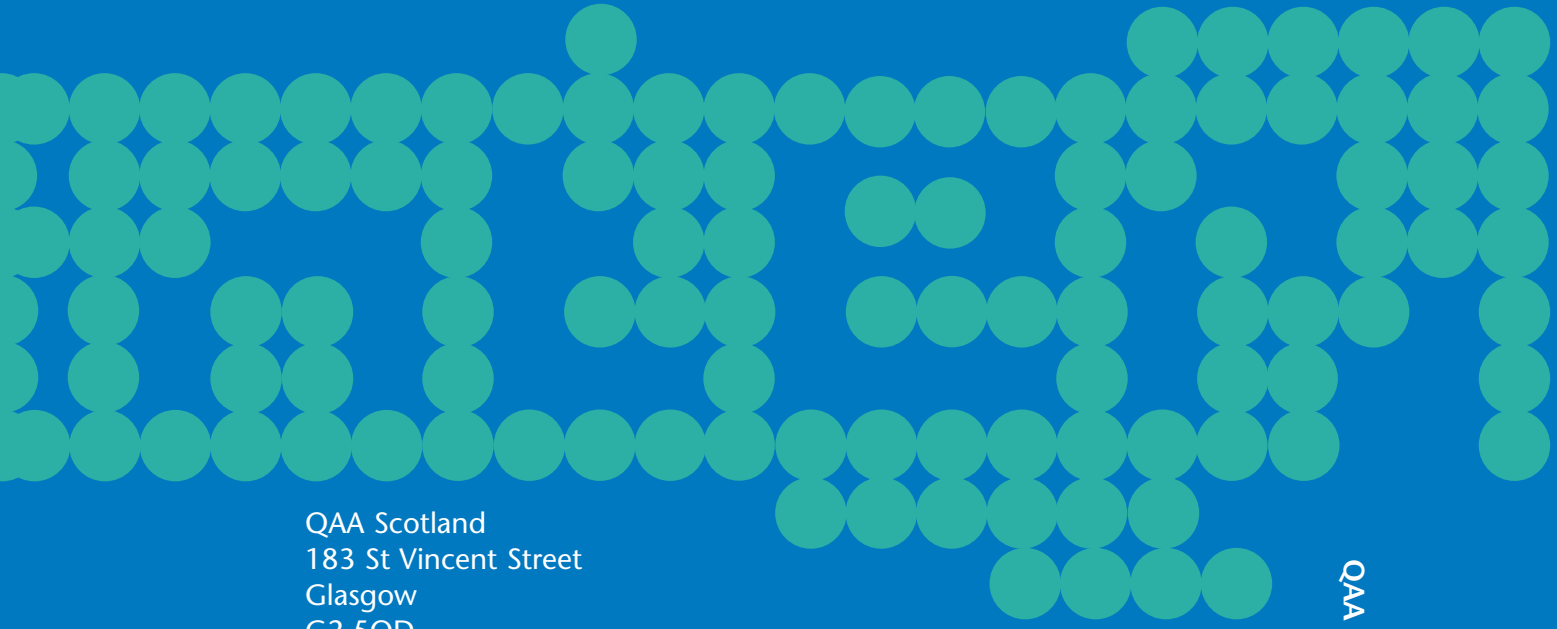
Chapter 4 is about developing and supporting critical mass and diversity in doctoral education and draws on graduate school models and centres for doctoral training as examples (Annex 6). This chapter summarises the unique and effective model of research pooling in Scotland (also commenting on its complexity), using case studies in physics, social sciences, medicine, engineering and mathematics to demonstrate the effectiveness of graduate schools and doctoral training centres. There is also an example of practice from the Manchester Doctoral College at the University of Manchester and an example from a social sciences doctoral school at the University of Sussex. The chapter concludes with several non-UK European case studies, plus case studies from three Australian universities (Melbourne, Monash and Newcastle) and two North American universities (Stanford and Michigan) (Annex 7).

Chapter 5 summarises the significant UK developments in supporting skills development in research education, with references to Roberts' funding and the work of Vitae (formerly UK Grad), including the Researcher Development Framework which spans all stages of research development from postgraduate student to international researcher. This chapter contains information about postgraduates as teachers (Annex 8) and their support and development, both UK-wide and internationally. UK case studies are from the University of Glasgow, Durham University, the University of Liverpool, Edinburgh Beltane, the University of Strathclyde, the University of Edinburgh, and the SPIRIT programme. International case studies include Emory University in Atlanta, Georgia; the University of Toronto; the University of Western Australia; the University of New South Wales; the University of Miami (with Hamburg); and the University of Michigan. The chapter also focuses on entrepreneurship, leadership, management and professional skills with examples both in the UK and internationally (Annex 9).

Chapter 6 summarises some of the main findings and points of interest in the report. Rather than being overly prescriptive in the ways in which Scottish institutions use the report's contents, the IBWG's intention is that individuals and institutions will adopt and adapt any practices that are of particular relevance to them and their doctoral students, especially when undertaking restructuring or making changes to provision. The IBWG would nevertheless wish to highlight the following recommendations as being significant outcomes of the report, which may be worthy of further discussion by institutions and sector-wide bodies in Scotland.

The IBWG recommends that:

- institutions take a strategic approach to attracting home students to doctoral programmes, including consideration of diverse modes of study and sponsorship (p 60)
- all Scottish institutions take part in the Postgraduate Research Experience Survey (PRES) or conduct a similar satisfaction survey of their postgraduate research student (PGR) population and that the results are aggregated to provide quantitative evidence (p 60)
- to encourage Scottish university participation in joint international PhD programmes, Scottish higher education institutions (HEIs) collaborate to form a central resource providing funding, advice and draft agreements, drawing on experience elsewhere (p 61)
- all Scottish institutions provide research communication programmes for international PGRs and accessible support, both academic and non-academic, for international students and their families (p 61)
- there is a need to be more proactive and structured about how academic standards and the quality of doctoral programmes are reviewed, internally and externally (p 61)
- it is timely to have a review of qualification titles at doctoral level, using the doctoral qualifications descriptor and Scottish Credit and Qualifications Framework (SCQF) (Chapter 3) (p 61)
- it would be useful for Scottish HEIs to consider a coordinated approach to initial and supplementary supervisor training that all supervisors are expected to engage in (p 61)
- Scottish institutions may benefit from a review of existing graduate schools and doctoral training centres, so as to optimise their effectiveness and reduce any duplication of effort (p 62)
- all Scottish institutions awarding research degrees have in place a teaching preparation programme drawing on best practice in the rest of the UK and overseas, which PGRs begin, and if possible complete, before they begin teaching (p 62)
- to assist doctoral graduates in the transition to the next step in their careers, Scottish institutions develop opportunities for postgraduate internships and affiliate programmes, drawing on best practice in the rest of the UK and internationally (p 62).



QAA Scotland  
183 St Vincent Street  
Glasgow  
G2 5QD  
Tel 0141 572 3420  
Fax 0141 572 3421  
Email [comms@qaa.ac.uk](mailto:comms@qaa.ac.uk)  
Web [www.qaa.ac.uk](http://www.qaa.ac.uk)

QAA 471 08/12