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## Part III: Internal Quality Assurance and Enhancement of Research

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This document is Part III of the Technological Higher Education Quality Framework (THEQF). It sets out how Internal Quality Assurance and Enhancement (IQAE) functions in research activity in technological higher education institutions (THEIs). The principles in this document are based on the eight high-level principles set out in Part I of the THEQF.

This document should be read and used in conjunction with Part I. For some purposes it should also be considered in conjunction with the Introduction to the THEQF; Parts II and IV; and the Appendices.

Section 2 of this document addresses the THEI approach to strategic planning for research and sets out the context for research activity in THE.

Section 3 sets out principles for the establishment and maintenance of an IQAE system for research in THEIs.

## 2.1 Institutional Strategy

As part of their regular strategic planning activities, and in response to national policy, THEIs consider and develop strategy for research activities. These strategic plans are designed to be coherent with national and regional objectives for addressing technical skills gaps and economic need.

As with strategy for taught provision ([Part II .2.1](#)), research strategies are highly contextualised to the individual THEI. They may exist as part of an organisational strategy or as a separate strategic framework specifically for research.

## 2.2 THEI Research Strategy

Research is generally defined (along with innovation) as a positive trajectory of:

*“...creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications.”<sup>1</sup>*

A particular purpose of research in THE is the generation of knowledge-in-use<sup>G2</sup> through creative processes (experimental, theoretical, performance etc.) that meet regional and national needs and the purpose of THE ([Introduction.3.1.a](#)).

While research is usually conducted by principal investigators, early career researchers and learners registered on programmes at level 9 and 10 on the national framework of qualifications (NFQ), it is also a broad activity that relies on collaboration and active participation from a range of other organisations (commercial, public, regional and community).

Over the past decade, there has been an increased recognition that provisions for research activities should be embedded in institutional strategies and policies. It is also generally accepted that specific IQAE systems for research programmes should be linked with the research strategy.<sup>2</sup>

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1 | OECD, *Frascati Manual: Proposed Standard Practice for Surveys on Research and Experimental Development, The Measurement of Scientific and Technological Activities*, 2002.

2 | Kirsti Koch Christensen and Bologna Seminar, 'Doctoral Programmes for the European Knowledge Society (Salzburg Principles)', 2005.

The IQAE system generates information about research which is then checked against internal standards and international benchmarks (internal quality assurance) and that information is then fed back into the on-going development of the THEI's research programmes and activity (quality enhancement). The strategy that supports this:

- + Links tightly with the learning, teaching and assessment strategies (as described in [Part II](#))
- + Is informed and shaped by the THEI's engagements with stakeholders (as described in [Part IV](#))
- + Is informed and shaped by both staff and students
- + Addresses the balance between teaching and research within the institution's priorities, and addresses research-informed teaching
- + Addresses the use of IP<sup>GS</sup>, technology transfer and innovation links with regional community and enterprise bodies
- + Outlines an approach to measuring the impact of research activity
- + Facilitates a variety of research activity including NFQ L9 structured programmes, L10 doctoral programmes and research undertaken by academic staff.

### **2.2.a A note on strategy implementation**

Organisational culture and leadership are bigger determinants of success than strategic planning itself. As research is an area of growing capacity in Irish THE, strategies tend to be ambitious and success is ensured by strong leadership in the area of research and by clearly articulating the strategy across the institution and making it clear (from a management and governance perspective) where responsibility for the strategy's implementation lies.

Building an IQAE system in research and postgraduate programmes is about ensuring and enhancing the quality of both the environment wherein research takes place (the lab, workplace or library etc.) and the administrative systems that enable and support research. This section outlines specific principles for the IQAE system for research.<sup>3</sup> These are based on the high-level principles outlined in [Part I](#) and divided into four themes:

- + Postgraduate programmes and early career research
- + Research capacity and impact
- + Robust approaches to monitoring, control and assessment of research
- + Research Support and Infrastructure.

The themes draw on effective practice in Irish and international THE and reflect the reality and aspirations of the sector.

**Notes:**

The principles outlined in [Part II](#) concerning programme design and pedagogical theory and practice apply to research programmes where appropriate (for example in the approval of programmes and the delivery of taught elements). The concept of the quality of the whole-student experience<sup>G7</sup> similarly applies to research.

**3.1 Postgraduate Programmes and Early Career Research**

THEIs are committed to supporting the development of early-career researchers. They do this through the provision of structured postgraduate programmes.

There are four types of research-focussed postgraduate programme in THE. Students undertake these in any and all disciplinary areas:

- + **NFQ Level 9 Research Master's Degree.**

L9 graduates are able to integrate knowledge and judgements and handle complexity; they have a mastery of the principles and theory of their discipline and may contribute to the literature. They are also competent in appropriate research methods.

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3 | European Commission, *Principles for Innovative Doctoral Training*, 2011.

**+ NFQ Level 10 Structured PhD.**

PhD study is about the advancement of knowledge through original research in which the researcher demonstrates advanced scholarship in their field combined with a highly specialised knowledge of a subset of it. THEIs typically provide structured PhD programmes which include taught elements and clearly articulated progression routes.<sup>4</sup>

**+ NFQ Level 10 Work-based or Professional Doctorates.**

The work-based doctorate is a programme of advanced study and research where the research will usually be undertaken in the work domain, as opposed to primarily within the THEI. They should be aimed at affecting the workplace and improving professional practice. Work-based doctorates are also structured, but around the perceived needs of the professional conducting the research.

**+ NFQ Level 10 Practice-led Doctorates.**

Practice-led doctorates are awarded for creative or performance work where the product (artefact, performance, text etc.) is accompanied by a body of critical academic commentary. A practice-led PhD reflects a focus on the creative product in its academic context, while a DMA or DArt (for example) focusses on the quality of the product<sup>5</sup>.

THEIs have IQAE systems that support the formation of early-career researchers by facilitating postgraduate programmes that:

- a. Provide opportunities to early-career researchers to:
  - i. Obtain a broad understanding of the disciplinary area and acquire useful transferable skills outside of academia
  - ii. Experience the practical applications of their area of research
  - iii. Engage in technology transfer/commercialisation of their work
  - iv. Collaborate across industry and other educational institutions
- b. Cater to a diverse student cohort (full and part-time, academic and industry-based, etc.)
- c. Offer a comparable whole-student experience, and comparable entitlements and responsibilities, to those provided in the institution's taught provision
- d. Encourage, and are systematically designed to facilitate, collaboration and the participation of regional enterprise and industry.

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4 | Kirsti Koch Christensen and Bologna Seminar, 'Doctoral Programmes for the European Knowledge Society (Salzburg Principles)', 2005.

5 | UK Council for Graduate Education, *Practice-Based Doctorates in the Creative and Performing Arts and Design*, 1997.

## Principles for Internal Quality Assurance and Enhancement of Research

The key principle that governs the implementation of these is [Principle 1: Academic and Student-centred Values \(Part I.3.1\)](#).

*These principles reflect the fact that THEIs both design and facilitate researcher-designed programmes with the student's need at the centre. The whole-student experience of the researcher is key to them achieving their research goals and contributing to the research objectives of their institution.*

### 3.2 Robust Approaches to Monitoring and Control of Research Capacity and Impact

A successful research strategy enables the THEI to have a measurable impact on regional and national economic and social objectives, but also allows the organisation to pursue its own strategic objectives.<sup>6</sup>

THEI research capacity may relate to the THEI's potential to provide structured research programmes as outlined above (Part III.3.1). It may also relate to the idea of achieving "critical mass"<sup>6,10</sup>.

Capacity and impact control the THEI's ability to successfully develop research from a proposal to a self-sufficient activity that contributes to the institution's objectives.

To ensure capacity and impact of their research programmes, THEIs build IQAE systems that:

- a. Especially support research priorities and build expertise in areas of particular relevance to the institution's regional economy and community, and in line with national policy priorities
- b. Measure and evaluate impact of research outcomes and use this process to inform the on-going development of research priorities
- c. Clearly articulate the entry requirements, progression routes and academic requirements expected of researchers<sup>7</sup>
- d. Ensure high-quality supervision of L9 and 10 students including the establishment and monitoring of a research plan and researcher development plan
- e. Strategically establish collaborative and partnership arrangements for research.<sup>8</sup>

6 | *National Strategy for Higher Education to 2030*, Department of Education and Skills, 2011; Higher Education Authority, *National Framework for Doctoral Education*, 2015.

7 | Irish Universities Association, *Ensuring Research Integrity in Ireland*, 2014, 24; European Science Foundation and ALLEA - All European Academies, *The European Code of Conduct for Research Integrity*, 2011, pp. 1–20.

8 | IHEQN, *Guidelines for the Approval, Monitoring and Review of Collaborative and Transnational Provision*, 2013.



*The key principles that govern the implementation of these are [Principle 4: Practice Informed and Stakeholder Engaged \(Part I.3.4\)](#) and [Principle 7: Measurement \(Part I.3.7\)](#).*

*The success of THEIs in being responsive in research activity is down to their reflective practice and stakeholder engagement for the purposes of building research capacity. This principle reflects the fact that research capacity and impact is constantly growing in Irish THE.*

### **3.3 Research Infrastructure and Support**

As with all aspects of higher education, quality in research depends on investment in systems and structures that support it<sup>9</sup>.

THEIs have a combination of hard and soft infrastructure and well developed and defined IQAE systems, policies and protocols to support research. The IQAE system ensures:

#### **In general**

- a. That research work environments (labs or other spaces and equipment) are appropriate and of sufficient quality
- b. That learner support services (such as IT and library services) and student support services (such as counselling services) are sufficiently prepared and agile to deal with the particular needs of researchers.

#### **For supporting individual researchers**

- c. Incentives and support services are available to academic staff to encourage them in becoming research active
- d. That the institution has a development framework for researchers to attract and retain high-performing postgraduate, post-doctoral and senior researchers.

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9 | QQI, *Report of Expert Panel on the Quality Assurance of Research Degree Programmes in Irish Higher Education Institutions*, 2016, p. 19.

## Principles for Internal Quality Assurance and Enhancement of Research

*The key principles that govern the implementation of these are [Principle 2: Institutional Autonomy and Academic Freedom \(Part I.3.2\)](#) and [Principle 8: Consistency with Policy and International Effective Practice \(Part I.3.8\)](#).*

*These principles reflect the sectoral commitment to supporting researchers in THE and to assist them in working on the institutional research strategy.*

*They also reflect the support for freedom of inquiry within disciplines and to support researchers as students and staff. It relies on the ability of the institution to collaborate and benchmark itself internationally.*



