

QUALITY ASSURANCE OF RESEARCH AT THE UNIVERSITY OF SAINT JOSEPH

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CONTENTS

		Page
1	Introduction	 3
2	Planning, Supporting, and Developing Research and Research Quality	 6
3	The University Framework for Quality Assurance and Enhancement of Research	 8
	3.1 Key elements of the framework	 8
	3.2 Addressing the three main areas of focus in quality assurance of research	 10
	3.3 The three levels of the framework for quality assurance in research	 13
4	Recognition of Research Quality: Criteria, Indicators, and Evidence	 17
5	Supporting Staff and Students in Developing Research	 21
6	Acting on Feedback on Quality Assurance	 22
7	Questions in Addressing Research Quality	 23
	7.1 Initial areas of focus	 23
	7.2 Additional questions for quality assurance in research	 24
8	Concluding remarks	 25

1 INTRODUCTION

The University of Saint Joseph takes a wide embrace in its view of research, embodying the view set out at the start of its research policy, which is that the University's research must serve its vision, mission, *Road Map*, policies, and stakeholders, internal and external, at strategic, tactical, and operational levels.

As set out in the University policy for research, its research must serve 'the local community, the wider society, and the research community at all levels, by the creation, production, conduct, reporting, dissemination, uptake, and impact of knowledge discovered and reported through research. The University is committed to excellence in research in all its fields of work, based on the highest international standards, and to promoting actively the important role of research in its teaching and learning.' In accomplishing this, the University recognises that it 'has a responsibility to support, promote, conduct, and disseminate high quality, ethically defensible research' in intent and conduct, and that 'the research work of the University serves and promotes the safety, wellbeing, humanity, and development of individuals, communities, societies, and those involved in the research, in accordance with the mission, vision, and values of the University'. This accords with the University's mission, vision, values, and strategic planning.

The University's quality assurance for research includes, *inter alia*, planning, implementing, monitoring, reviewing, evaluating, and continuously improving the quality and quality assurance of its research. In so doing, it recognises the high level of demand that this document places upon its users in each Faculty.¹ To address this, and to attend to realism, it suggests a phased approach to developing quality assurance for research, indicated below. The University has taken many active steps to develop its research culture and output. This is already bringing many positive outcomes. As it develops its processes of ensuring that research in the University meets high standards and demands of quality assurance, it recognises that this takes time to install, develop and change practices, to become embedded in the institution, and to review and refocusing.²

It is unrealistic to expect a short-term implementation achievement of all the dimensions of quality assurance set out in this document. Rather, this document is built on the acceptance of the developmental nature of assuring, enhancing, and developing quality in research, aligning the quality assurance in research in a ground-up process of improvement. To this end, whilst this document sets out an overall framework and a vision of a mature and well-developed quality assurance process, practices, and positive

² This is informed by the *Stages of Concern* of Hall & Hord (2011) in ensuring effective innovations. Hall, G. E. & Hord, S. M. (2011) *Implementing Change: Patterns, Principles and Potholes (third edition)*. Pearson.

¹ Hereafter, the term 'Faculty' is used as a shorthand for each academic unit, that includes each Faculty, School, Department, Institute, Research Centre, Observatory, and otherwise named research unit.

impact for research, it stages this into three phases in accomplishing the full gamut of quality assurance for research, injecting realism into the forward planning. The three phases are:

Phase 1: Year One: This accomplishes the devising and sharing amongst Faculties of an agreed set of criteria to be used within and across the University as appropriate. This recognises and respects the specific nature and features of each Faculty, whilst developing all the Faculties in parallel and based on the University policy and criteria for quality assurance in research.

Phase 2: Years Two to Four: This is to test the criteria and make adjustments, whilst recognising that not all of the criteria may be operational at the early period of this stage of maturity, but that they should all be operational and tested by the end of this Phase.

Phase 3: Year 5 onwards: Maturity, embracing further strategic planning, modification and refocusing.

Ensuring effective development of quality assurance in research recognises the multidimensional tasks and areas of focus.³ This reinforces the need to render quality assurance manageable. Hence a staged approach to developing and implementing quality assurance in research, over a period of years, is important.

The University adopts an approach to quality assurance that accepts that it is incumbent on the University and each Faculty to ensure that its research work addresses the multiple interpretations of quality as:

- excellence
- recognition of meeting set standards
- fitness for purpose
- fitness of purpose
- conformance to requirements

³ For example: size, magnitude, and scale of change; radical and incremental change; process and product; administrative and technical support; timing of different areas of development; Internal and external participants and participant groups; primary and secondary characteristics of the present and future state (perception-based and non-perception-based); internal and external networks; environmental determinants; organizational climate, health, and culture; organizational determinants: specialization, functional differentiation, professionalism, formalization, centralization, managerial attitude and tenure, technical knowledge, administrative intensity, resources, internal and external communications, vertical differentiation, structural complexity, organizational structure and size, strategy, organizational learning; management and leadership' resources: financial, human, material, temporal, locational, administrative; individual factors (personality, motivation, cognitive ability, work characteristics, mood); group characteristics (team structure, climate, processes, leadership, member characteristics); internal sources (professional backgrounds of university staff: skills and expertise, experience, internal efforts); embodied and embedded social practices and tacit knowledge; innovation capability of staff and institution.

- reliability
- meeting producer and consumer needs, expectations, and specifications
- meeting stated purposes, goals, and objectives
- making a positive difference to practices
- quality control (compliance) and quality enhancement.

In meeting these interpretations, the University and Faculties must ensure that their research work is suitably diverse, fit for purpose, addresses fitness of purpose, and that it can take many forms, leading to many and diverse kinds of purposes, types, contents, and output.

Research is defined as 'a process of investigation leading to new insights effectively shared' (the UK's Research Excellence Framework, 2021). It is an original, systematic, careful investigation and exploration, undertaken in order to gain and promote new and new ways of considering knowledge, facts, principles, understanding, ideas, insights, ways of thinking, theoretical and/or practical applications, and new conclusions, to increase the stock of knowledge of society, humanity, and cultures. Typically it entails data collection, analysis, evaluation, interpretation, and documentation that accords with suitable methodologies established by relevant professional fields and academic disciplines.

In evaluating and ensuring the quality of its research, the University moves beyond evaluation to development and improvement in its research work. This requires attention not only to research purposes, contents, conduct, output, uptake, and impact, but to research training and development, preparation, support, funding. The University upholds the significance of its research being consequential, having strong uptake and engagement of, and impact on, its target recipients, participants, and end-users, i.e. its outcomes making a significant positive difference. Further, to promote effective research work in the University requires ongoing attention to generating, promoting and sustaining a research environment and culture in each Faculty.

Quality assurance and enhancement operates in respect of funded and non-funded research in the University. For externally funded research, the sponsors review the quality of the proposals, conduct, outcomes, and dissemination of the research. For internally funded and non-funded research, the University has Key Performance Indicators for research and has a review body for research proposals. Quality Assurance for research requires: (a) Strategic Plans, policies, procedures, and activities to realise the University's goals and plans for research, with training/development for staff and students; (b) procedures and criteria for monitoring, reviewing and developing the scope, management and leadership of the highest quality research and dissemination; (c) the creation, development, and sustaining of a research environment and culture across the University; (d) appropriate support, development and mentoring programmes for staff and students for research, to attract and retain research students and staff, and to promote research activity in the University.

A key feature of ensuring and evaluating quality in research is a recognition of its diversity; there is no Procrustean 'one size fits all' in judging and ensuring quality assurance here. This is because there are many kinds, purposes, uses, outcomes, audiences, uptakes and impacts of research, research output, researchers, disciplinary and interdisciplinary areas, institutional and personal contexts of research. This means that each institution, Faculty and Faculty member must set out and justify its own indicators, criteria, evidence base, and ways of judging acting on feedback, planning, developing, and improving its quality assurance.

2 PLANNING, SUPPORTING, AND DEVELOPING RESEARCH AND RESEARCH QUALITY

The University must have clear and comprehensive strategic plan, policy, procedures, and activities to ensure that its mission and goals for research are realised concretely and significantly. The University and each Faculty must have development plans for its research activity, clear procedures and processes for monitoring, reviewing, evaluating and improving its research work, supported by appropriate training and development for staff and students, all located within an environment that encourages and promotes research.

The University and each Faculty must have detailed procedures and criteria for monitoring, reviewing, evaluating, and developing the scope and quality of research, publication, dissemination, uptake, and impact of its research, the management and leadership of research at University and Faculty levels, the support and promotion of research, researchers and research groups, to ensure that the highest quality in research outputs and outcomes are achieved, including impact evaluation and improvement.

The University and each Faculty should have appropriate support, development, and mentoring programmes for staff and students for research, for both funded and non-funded research activity, to attract and retain research students and staff, and to promote research activity in the Faculty and beyond, including with collaborative and international projects.

The University must assure itself that it has addressed, with documentary evidence, many areas, e.g. those set out below, and that they are quality-assured, reviewed, and developed with regard to research:

- Principles, policy, regulations, strategy, and procedures for research
- Responsibilities
- Leadership, management, and oversight of research
- Code(s) of practice

- Research leave
- Institutional, Faculty and individual staff members' arrangements for research
- Support for research
- Annual review of research
- Research supervision
- Research coordination and Research Coordinators in each Faculty
- Appointment of research supervisors
- Students' and supervisors' responsibilities
- Change of supervisor
- Supervisor training and development
- Ethics management
- Intellectual property rights
- Equality and diversity
- Academic integrity
- Review of operations for research
- Strategies for improving research
- Action planning for research
- Resources and capacity building for research
- Key Performance Indicators for research
- Monitoring, reviewing, evaluating, reporting, and developing research
- Developing and disseminating 'good practice' and excellence in research
- Promoting the uptake and impact of research
- Standard Operating Procedures for research

These are areas of possible focus for the provision, uptake, excellence, outcomes, and impact of research across the University and the wider society. To achieve and sustain these, the University and each Faculty must take steps to cultivate and nourish its research environment and culture through the provision and uptake of a diverse range of research-related activities, incentives, support, and opportunities.

The considerable of this list accept that realising all of these in practice is likely to take a substantial period of time; hence the phased approach to quality assurance in research at the University is designed to take cognisance of this.

3 THE UNIVERSITY FRAMEWORK FOR QUALITY ASSURANCE AND ENHANCEMENT OF RESEARCH

3.1 Key elements of the framework

The fully-fledged University's framework requires each of three levels (University, Faculty, and individual staff member) to be part of the quality assurance processes of planning, implementing, monitoring, review, evaluation, and continuously improving the quality and quality assurance of its research, acting on feedback and deliberation of how to move forward with research and its quality assurance. Improving research and its quality assurance is based on continuous improvement from feedback and feedforward. Improving, sustaining, and maintaining high quality research and research activities identify accountability, processes in assuring quality, capability and capacity building, developing a research culture and environment, judging performance in research, with its evidence base demonstrating validity and reliability, conformity to requirements, utility, action orientation, impact evaluation, appropriate foci, and indicators of quality. To address this, the document indicates a phased approach over time.

The University adopts a range of indicators of research quality, as part of a framework for indicating, reviewing, and developing quality in its research work and output at three main levels:

Level 1: University *Level 2:* Faculty *Level 3:* Individual staff member

These are addressed below. Additional to this, the framework addresses the need for each level to set out its areas of focus, its indicators, criteria and evidence, its responsibilities and procedures for quality assurance, and its moves from review and evaluation to development and improvement.

The contents, foci, and procedures of quality assurance of research at each of these three levels includes:

- 1. A statement of the purposes, processes, targets and intended outcomes of quality assurance for research, and the rationales on which these are built.
- 2. An indication of the main areas of focus, and, where appropriate, their relative weighting, including as a *sine qua non*:
 - a. *research outputs* (originality, significance, rigour, and advancement of the discipline);
 - b. research impact (reach, significance, and engagement);
 - c. *research environment* (vitality and sustainability, including research culture).

These are based on the UK's *Research Excellence Framework* for 2021.⁴ These metamorphose respectively into three revised areas for its proposed 2028 round:⁵

- a. contribution to knowledge and understanding (formerly 'outputs');
- b. engagement and impact (formerly 'impact');
- c. people and culture (formerly 'environment').

These form the basis of the areas of focus for the research and its quality assurance at each of the three levels of the framework (University, Faculty, individua staff member).

- 3. In considering the quality of research at all three levels, the main areas of focus are several, and these include, but are not limited to:
 - i. Alignment to the University's and the Faculty's mission, vision, and strategic planning
 - ii. Research environment and culture
 - iii. Originality, significance, scale, scope, rigour, impact, insight, of research projects and outputs
 - iv. Context of research: institutional, local, regional, national, international
 - v. Fields of research
 - vi. Types, methodologies, and methods of research (e.g. empirical, nonempirical, theoretical, quantitative, qualitative, mixed methods, experimental, survey, ethnographic, case study, action research, etc.)
 - vii. Indicators of quality in research output
 - viii. Data and records kept on a diverse range of research matters with regard to quality assurance and enhancement

⁴ The 2021 UK Research Excellence Framework (REF) (https://www.ref.ac.uk/publications-andreports/panel-criteria-and-working-methods-201902/) indicated this: (a) '**Outputs**: The sub-panels will assess the quality of submitted research outputs in terms of their 'originality, significance and rigour', with reference to international research quality standards. This element will carry a weighting of **60 per cent** in the overall outcome awarded to each submission. (b) **Impact**: The sub-panels will assess the 'reach and significance' of impacts on the economy, society, culture, public policy or services, health, the environment or quality of life that were underpinned by excellent research conducted in the submitted unit. This element will carry a weighting of **25 per cent**. (c) **Environment**: The sub-panels will assess the research environment in terms of its 'vitality and sustainability', including the approach to enabling impact from its research, and its contribution to the vitality and sustainability of the wider discipline or research base. This element will carry a weighting of **15 per cent**.'

⁵ For the 2028 UK Research Excellence Framework (REF), this is proposed to be: '1. **People and culture** (25% weighting). This element replaces the environment element of REF 2014 and 2021 and will be expanded to include an assessment of research culture. Evidence to inform assessment of this element will be collected at both institutional level and at the level of disciplinary submissions. (2) Contribution to knowledge and understanding (50% weighting). This element expands the outputs element of REF 2014 and 2021. The assessment will continue to be largely based on assessment of submitted outputs. In REF 2028, however, at least 10% of the score will be based on evidence of the broader contributions to the advancement of the discipline. (c) Engagement and impact (25% weighting). This element replaces the impact elements of REF 2014 and 2021, although it is similar to the impact element of 2014. Submissions will consist of both impact case studies and an accompanying statement to evidence engagement and impact activity beyond case studies.'

- ix. Provision of support for research, e.g. financial, temporal, contractual, material, spatial, facilities, managerial
- x. Training and development provision and activities for research and researchers
- xi. Planning for, including, undertaking, assessing, evaluating, and improving the uptake and impact of research (e.g. reach, nature contents, significance), together with evidence of improvements to impact
- xii. Evaluating and approving research proposals
- xiii. Research ethics, risk analysis, and safeguarding
- xiv. Research staffing (expertise and fields) and technical support
- xv. Research networking and collaboration
- xvi. Linking researchers and stakeholders
- xvii. Overcoming barriers to engagement in, participation in research
- xviii. Identification of research needs
- xix. Research development plans and strategy
- xx. Monitoring and, where appropriate, increasing the number of research projects: funded and unfunded
- xxi. Monitoring and, where appropriate, increasing the number of doctoral/research students and staff
- xxii. Management and leadership of research
- 4. How to review and evaluate research work, and how to follow up on the outcomes of the review, using strategies and evidence from feedback and feedforward.

Putting together the levels of the framework with the main areas of focus of the research and its quality assurance is represented in outline form in Table 1.

3.2 Addressing the three main areas of focus in quality assurance of research

The three main areas of focus in research work and its quality assurance, are:

- 1. Research environment, people, and culture
- 2. Research outputs, contribution to knowledge and understanding
- 3. Engagement in, and impact of, research

In judging the quality of the research, research activities, environment, output, development uptake, and impact, each of the three main areas of the research focus set out in Table 1 requires the University to identify and address the indicators, criteria, and evidence for judging the level of achievement and the quality of the research, and, if it wishes, to identify the overall weighting to be given to that area (non-compulsory). (If the Faculty wishes to allot weighting to each of the three areas, then it will need to indicate how this weighting will be achieved and addressed, as it might require metrics

to be the main data sources, which might be insufficient in providing a valid and reliable account of the quality achievement in this area of research.)

Table 1. Elements of the framework for quality assurance for research FOCUS 1: RESEARCH ENVIRONMENT, PEOPLE, AND CULTURE (% weighting, if desired)

Responsibilities, tasks, and procedures Indicators of quality Criteria for making judgements of quality Evidence required Procedures for monitoring/review Judgement of quality Action for improvement

FOCUS 2: RESEARCH OUTPUTS, CONTRIBUTION TO KNOWLEDGE AND UNDERSTANDING (% weighting, if desired)

Responsibilities, tasks, and procedures Indicators of quality Criteria for making judgements of quality Evidence required Procedures for monitoring/review Judgement of quality Action for improvement FOCUS 3: ENGAGEMENT IN, AND IMPACT OF, RESEARCH (% weighting, if desired)

Responsibilities, tasks, and procedures Indicators of quality Criteria for making judgements of quality Evidence required Procedures for monitoring/review Judgement of quality Action for improvement

These three areas of focus take cognizance of the three phases of development set out earlier in this document, i.e. the University recognises and respects the need for time for development and implementation to take place.

Quality assurance to the three areas of research work here requires attention to the diverse interpretations of quality set out at the start of the present document:

- excellence
- recognition of meeting set standards
- fitness for purpose

- fitness of purpose
- conformance to requirements
- reliability
- meeting producer and consumer needs, expectations, and specifications
- meeting stated purposes, goals, and objectives
- making a positive difference to practices
- quality control (compliance) and quality enhancement.

FOCUS 1: RESEARCH ENVIRONMENT, PEOPLE, AND CULTURE

The University here follows the UK's *Research Excellence Framework* which writes that the quality of the research environment will be assessed 'in terms of its 'vitality and sustainability', including the approach to enabling impact from its research, and its contribution to the vitality and sustainability of the wider discipline or research base'. This includes, for example, considering:

- the provision of support for research, e.g. financial, temporal, contractual, material, spatial, facilities, managerial
- the training and development provision and activities for research and researcher.
- the evaluation of research staffing (expertise and fields) and technical support
- the identification of research needs
- research development plans and strategy, attention to the number of research projects: funded and unfunded
- the number of doctoral/research students and staff
- the management of research
- in establishing the research culture, this looks at the range of research-related activities in each Faculty and across the University for promoting, understanding, and facilitating research and its dissemination.

The University's May 2023 document 'Suggestions for Faculties/School/Institutes/ Centres and Research Coordinators at the University of Saint Joseph' provides many ways in which the research environment and culture can be developed in each Faculty, including in the areas of: public events; publications and research outputs; recordkeeping and updating; dissemination; notices; and funding. These areas of focus can feature in evaluating and developing quality assurance and enhancement here.

FOCUS 2: RESEARCH OUTPUTS, CONTRIBUTION TO KNOWLEDGE AND UNDERSTANDING

This focuses on the quality of the outputs and products of the research, and their contribution to a broad spectrum of areas and parties. The UK's Research Excellence Framework writes that the quality of the research outputs will be assessed '*in terms of their 'originality, significance and rigour'*, with reference to international research quality

standards', and this includes, for example '*applied*, *practice*, *basic and strategic research*'. This is also informed by the UK *Research Excellence Framework*'s Annexe A in its 'Panel criteria and working methods' (2019).⁶ Quality assurance here evaluates:

- the originality, significance, scale, scope, rigour, impact, insight, of research projects and outputs
- the fields of the research
- the types of research (e.g. empirical, non-empirical, theoretical, narrative, 'pure' and 'applied research)
- the types, methodologies, and methods of research (e.g. empirical, nonempirical, theoretical, quantitative, qualitative, mixed methods, experimental, survey, ethnographic, case study, action research, etc.)
- keeping reliable and valid data and records on research
- evaluating and reporting on the research ethics, risk analysis, and safeguarding in research projects and research training

FOCUS THREE: ENGAGEMENT IN, AND IMPACT OF, RESEARCH

The UK's Research Excellence Framework writes that the quality of the impact will be assessed in terms of 'the 'reach and significance' of impacts on the economy, society, culture, public policy or services, health, the environment or quality of life that were underpinned by excellent research conducted'. Quality assurance here takes into account and evaluates:

- the context of research: institutional, local, regional, national, international
- the planning for, including, undertaking, assessing, and evaluating uptake and impact of research (e.g. reach, nature contents, significance)
- evidence of impact
- research networking and collaboration
- linking researchers and stakeholders
- addressing how to overcome barriers to engagement and participation in research

3.3 The three levels of the framework for quality assurance in research

Each of the three levels has its own main foci, responsibilities, and tasks, which address the contents, management, operations, and improvement of the quality of the research work in the University.

⁶ https://www.ref.ac.uk/publications-and-reports/panel-criteria-and-working-methods-201902/

Level 1: University

- 1. The University must have, and review, its policy and practices for ensuring quality assurance and enhancement with regard to research in each Faculty.
- The University must have a leadership and management structure and mechanism for ensuring that the quality of the research and the quality assurance of research work in the University are active, sufficient, and bringing benefit to its research work, its oversight, provision, quality, impact, significance, evaluation and development.
- 3. The University must ensure that there is a strategic plan for the University's research work, together with a mechanism for developing, reviewing, and overseeing the realisation of that plan in practice.
- 4. The University must have, and operate, a University Research Committee and a University Research Ethics Committee, with their terms of reference, powers, and responsibilities set out, operational and reviewed as appropriate.
- 5. The University must have a dedicated Research Office at the University level, that handles and meets the requirements of, and liaison with, with external and internal agencies and agents for the preparation, submission, operation, monitoring and follow-up on research bids and reporting submitted to funding agencies and agents.
- 6. The University must ensure that each Faculty has an active, productive, and impactful Research Coordinator.
- 7. The University must have a policy for research and research ethics, risk management, and a mechanism for ensuring compliance with these policies across the University.
- 8. The University must have an ongoing, secure repository of data on research activities and outcomes from each Faculty and individual staff member, together with reviewing the research performance of the University based on repository evidence.
- 9. The University must provide financial, managerial, administrative, material, and leadership support for the sustainable development and operations of research and research facilities across the University.
- 10. The University must set out its provision for the operations, development, maintenance, and continuous improvement of, and support for, its research culture and environment across the University.
- 11. The University must ensure that each Faculty has, and operates, its own strategic plan for research, together with its own mechanism for reviewing and developing its research environment and culture, staffing, work, outputs, and impact, and the indicators, criteria, and evidence of quality of these.
- 12. The University must ensure that each Faculty fulfils the requirements for promoting, assessing, evaluating, and reviewing, developing, and improving research projects, activities and their quality, outputs, uptake, and impact.
- 13. The University must ensure that each Faculty has appropriate academic staff who are 'research active', together with the criteria for being 'research active'.

14. The University must ensure that each Faculty has appropriate strategies and practices for training and developing researchers at staff and student levels.

Level 2: Faculty

Each Faculty must ensure that it has the following and that these are in operation and are yielding positive outcomes, uptake, and impact:

- 1. The Faculty must indicate how it addresses, in practice, and aligns with, the University's strategic plan for research.
- 2. The Faculty must have leadership and management structure and mechanisms for ensuring that the quality of the research and the quality assurance of research work in the Faculty are active, sufficient, and bringing benefit to its research work, its oversight, provision, quality, impact, significance, evaluation and development.
- 3. The Faculty must have its own strategic plan for activating, prioritising, operating, ensuring, reviewing, evaluating, developing, assuring, and improving the provision, contents, scope, activities, and quality of its research work, including, but not limited to, the areas of focus set out in Section 3.1 and the high quality coverage of, maintenance of, and ongoing improvements to:
 - i. research foci, contents, conduct, and outputs
 - ii. research quality, originality, rigour, and significance
 - iii. research environment and culture
 - iv. research provision, support, and facilities
 - v. needs in improving research
 - vi. research activities in the Faculty
 - vii. research development and training for, and activities of, staff and students
 - viii. research networking and collaboration with outside parties and stakeholders
 - ix. outcomes of research, and their uptake and impact
 - x. research monitoring and review
- 4. Each Faculty must decide and state how to operate the University's indicators, why, and what criteria it will use when working with the indicators (i.e. to identify high and low quality in each indicator), and, where necessary, the evidence that it will use in coming to a judgement of the quality of the research in addressing that indicator.
- 5. The Faculty must have, state, and use, its own procedures for conducting the quality assurance and enhancement of its strategic plan and all its operations and activities of research.

- 6. The Faculty must have, state, operate, act on the outcomes of, and engage in ongoing review of, its indicators, criteria, and required evidence for judging the quality of its research provision, support and development, contents, foci, activities, projects, outputs and their uptake and impact.
- 7. The Faculty must indicate, annually, the action taken on the outcomes of its indicators and evidence of research activity, output, and outcomes, for each member of staff in the Faculty, to improve the quality of the research work in the Faculty.
- 8. The Faculty must have, operate, and ensure ongoing review of, a formal Faculty procedure for reviewing and approving research proposals and, where appropriate, research ethics, risk analysis and safeguarding, for both funded and unfunded research, by staff and students.
- 9. The Faculty must have an active, productive, and impactful Research Coordinator, together with a procedure for the review of the work and outcomes of the work of the Research Coordinator and its impact on improving the quality of the research work, research environment and culture, and researcher and research development in the Faculty, and uptake and impact of research outputs.
- 10. The Faculty must have, operate, and ensure ongoing review of research projects and activities of its staff and students.
- 11. The Faculty must indicate, operate, and review annually the provision for the development of staff and students as researchers, together with the uptake, impact and outcomes of such provision.
- 12. The Faculty must make recommendations to the University, on an annual basis, for the provision, development, and improvement of research in the Faculty.
- 13. The Faculty must fulfil the University's requirements for promoting, assessing, evaluating, and reviewing, developing, and improving research projects, activities and their quality, outputs, uptake, and impact.
- 14. The Faculty must ensure that it has appropriate academic staff who are 'research active', together with the criteria for being 'research active'.

Level 3: Individual staff member

Each staff member in the University must ensure, on an ongoing and annual basis, that they have fulfilled the following:

- 1. Registering with ORCID
- 2. Updating their entries in the University repository each time they have a new, recognised output
- 3. Being research active whilst taking account of contextual matters, e.g., age, experience, stage in their career, teaching, supervision, and administrative commitments

- 4. Providing evidence to inform the University's indicators and criteria of quality, and the quality assurance activities and requirements with regard to research in the Faculty and their own performance
- 5. Expanding the range of indicators of quality that they have met in their research work and involvement
- 6. Agreeing with their Dean, their plans and proposals for research projects, activities, involvement, contents, and outcomes: their quality, rigour, originality, significance, uptake, and impact
- 7. Liaising with the Research Office with regard to funded research, as appropriate
- 8. Indicating the steps taken to improve the quality of their research and its outcomes, and their own research performance, skills, experiences, and competences
- 9. Being actively involved in the research activities and events of the Faculty, as appropriate, and contributing to the development of the research environment and output in their Faculty
- 10. Providing evidence of their contribution to the development of, and involvement in promoting the research environment, culture, and activities of their Faculty
- 11. Providing evidence of liaising closely with the Faculty's Research Coordinator in supporting, promoting, and developing the scope, activities, involvement in, and quality improvement in the research work, environment, culture and activities, in the Faculty
- 12. Taking and reporting steps taken to improve their status in being 'research active'
- 13. Taking and reporting their research networking and collaboration with outside parties and stakeholders
- 14. Making recommendations to the Faculty for the development of research in the Faculty

4 RECOGNITION OF RESEARCH QUALITY: CRITERIA, INDICATORS, AND EVIDENCE

Indicators of research quality can include metrics and other forms of recognizing quality and excellence. The University recognises that, given its values and ethos, there is a need to avoid reliance solely on metrics, and that 'soft' indicators of social impact can be utilised, drawing, where relevant, on international frameworks, including, where appropriate, reference to the requirements of the Holy See. Recognising and judging the quality of research must take account of the context of the research, the University, the Faculty, the staff member etc., keeping and working with diverse data on research projects, output, and consequences. These can include, for example (and not limited to these):

- Journal rankings and tiers, citations and impact factors (e.g. over a given period of time), e.g. bibliometrics, altmetrics, and h-index
- Doi and ISSn recognition
- Blind, peer-reviewed publications
- Amounts, sources, and recognition of external funding
- Number of funded research projectsand amount for each project
- Publication by international publishers
- Monographs, singly and jointly authored works
- Edited volumes and chapters in books
- Conference papers for, and proceedings from, peer-reviewed conferences
- Patents (international), licenses, copyrights, trademarks, franchises, and intellectual property
- Prizes and awards
- Membership of editorial boards
- Networking
- Inter-disciplinary research projects
- Number of research active staff
- Number, nature and areas of research projects, activities and events
- Number of authors in/named contributors to/producers of a single output
- Activities and events concerning research
- Conferences, symposia, roundtables, seminars, workshops attended and/or organised
- Research presentations made
- Reviewers of research proposals and research outcomes
- Exhibitions and presentations
- Non-print outcomes and products of research
- Software
- Website contents
- Performances
- Compositions
- Designs
- Artefacts
- Devices and products
- Research data sets
- Working papers

Indicators (e.g. on social, economic, and cultural areas) that can be measured can include, in addition to publications, e.g.: return on investment; observable developments and consequential changes to policies, practices, and trends (e.g. rates of illness, deaths from diseases, crime rates, housing, employment, uptake of higher education).

Less tangible/measurable outcomes can be, for example: behaviour; attitudes; opinions, views, and perceptions; behaviours; knowledge and capabilities; intellectual development; scholarship; ways of thinking; values and intentions; beliefs; relations and loyalties; processes; competencies; interests; reputation; morals and ethics; etc. These are likely to draw on qualitative data case studies, and professional judgment of experts in the fields of the research.

Other indicators of research quality can derive from the findings of quality and ranking agencies, e.g. for institutional and program quality audit and review, research assessment exercises and findings (e.g. the Research Excellence Framework in the UK; the Newman Framework for Catholic universities), for coverage of key research issues, e.g. Sustainable Development Goals.

Indicators of impact are wider than solely citation data, and they can include, for example, reference to scholarly, societal, economic, cultural, stakeholder, and media impact.

Within this framework of recognition, each Faculty should:

- i. set out and operationalise its own expectations for, addressing the University's indicators of research quality from conception to contents, to conduct, to reporting, to outcomes, to dissemination, and to promoting uptake and impact
- ii. have its own expectations for addressing the University's indicators of research quality with regard to research involvement and participation in research-related activities
- iii. have clear and operational statements of the criteria and evidence to be used for judging quality and achievement in each of the indicators;
- operate an efficient, efficacious, and effective mechanism for reviewing and judging the quality of its research environment, contents, output, impact, management, development, and support, with action-oriented feedback and evidence of this contributing continuous improvement to the research work of the Faculty
- v. operate an efficient, efficacious, and effective mechanism for acting successfully and productively on feedback on the quality assurance of its research work
- vi. undertake developments and improvements consequent to feedback, for improving the quality and quality assurance of research, including: improvements in research contents output, dissemination, uptake and impact; research training and expertise; research partnerships, teams, and collaborations; research facilities, support, and infrastructure; funding; and reputation.

Responsible metrics for judging the quality of research and research activities, in the three areas of the University's framework for research, as set out above, address: (i) research environment, people, and culture; (ii) contribution to knowledge and

understanding; (iii) engagement and impact. These operate at the three levels of the framework for quality assurance in research at the University (University, Faculty, individual staff member), and within the University's statements and uses of indicators and phased approach to introducing and operating them. The use of metrics are used with regard to fitness for purpose, and they rely on several cautionary features with regard to how they should be used:⁷

- The **robustness** of the metric, i.e. that it is based on the best possible and available data: validity, reliability, accuracy, scope and coverage.
- **Humility** in using the metric, recognises that metrics do not tell the whole story, and that expert and experienced judgement and connoisseurship, qualitative data, informed expert judgement and assessment, together with contextual features, are essential in complementing and informing quantitative data.
- **Transparency:** where the data collection and processes of analysing, verifying, and using the data are open and transparent.
- **Diversity:** to take account of the field and the likely variation across fields, with metrics needing to be sensitive to the fields, thereby arguing for a range of indicators. For example, peer-reviewed conference papers might have a higher profile for computer scientists and engineers than for arts and humanities, and products and prototypes might have a higher profile for engineers and some sciences, art works, artefacts and practice-based outputs might have a higher profile in arts and performing arts.
- **Reflexivity:** recognising the possible and likely effects of using these metrics, and updating the metrics to be used, where relevant.

Added to these is the need to recognise that academics will likely be at different ages and stages of their development, career, and level of expertise. Hence, it is important to take account of these features, rather than adopting a 'one-size fits all' approach in judging quality. The University, Faculty and individual staff member should indicate how accounts is being taken of these in judging the quality of the research environment, contents and output, and impact, together with realistic expectations of what can be achieved at each of the three levels of the Framework (University, Faculty and individual staff member).

Further, it is important to recognise that outcomes of research are of many kinds, and indicators must be cognizant of this and judge quality suitably flexibly. For example, some outcomes might be focused on practical outputs and outcomes; some might concern new knowledge; some might contribute to, for example, health and wellbeing; some might be concerned with scholarship; some might be concerned with technological developments; some might concern policy; some might concern 'pure'

⁷ The emboldened features here derive from J. Wilsdon's (2015) *The Metric Tide*. Sage, which is based on the UK's *Research Excellence Framework* (2014) and which emphasises the need for using 'responsible metrics'.

research whose applications are unclear or redundant with regard to the research; some might be publications; some might be products; some might take other forms of output. Some kinds of research need vast sums of funding; others might not need any. Indicators on their own are inert; it is what the University, Faculty and individuals do with these indicators and evidence, how they are used, that is important. Their use requires attention to appropriateness.

5 SUPPORTING STAFF AND STUDENTS IN DEVELOPING RESEARCH

In accordance with the phased approach to implementing quality assurance for research, the University must have policies, regulations, systems, procedures, contents, and practices for oversight, for managing, monitoring, reviewing, recording, and reporting research with regard to staff and student development, expectations of and from students, research training, participation in research, research supervision, academic standards and ethics in research, needs identification, student support, outcomes, resource provision and usage, mentoring and feedback, student representation, complaints and appeals, and professional development.

The University's planning for research includes attention to the three areas of its framework, one of which is its support for staff and students in developing research. It is essential for the University to set out, and adhere to, its planning for the support and development of research and quality assurance in research in the University, including but not limited to, clear goals, responsibilities, motivations, and incentives to be implemented, and for these to be translated into Faculty-level planning, implementation, and review.

Staff development for research should be available, taken up, and impactful, at University and Faculty levels. This takes many forms, and each Faculty and staff member should keep a record of research provision and training that has been provided, together with its uptake, impact and outcomes. Where appropriate, new and experienced staff should be attached to a mentor in promoting research expertise, skills and practices of novice staff researchers.

Where proposals for funded research are submitted, it is expected that opportunities for, and provision of, research training for staff and students will be included where appropriate.

With regard to developing postgraduate students and staff as researchers, the University must have policies, regulations, systems, procedures, and practices for oversight of supervisor selection and appointment, expertise, support, responsibilities, training and development, progress and practice, reporting and monitoring. It will have procedures for reviewing and reporting on student and staff progress, and action taken as a consequence of this. Training of supervisors, including co-supervisions, must be accompanied by making clear the supervisors' realistic expectations of students in becoming researchers.

Postgraduate students should be encouraged to conduct research that is publishable, and to publish from their degree-related research, perhaps jointly with their supervisor, as an entrée into publishing or other kind of output. The University's English Language Centre provides assistance and support for ensuring the quality of the English language being used in publications by students and staff.

6 ACTING ON FEEDBACK ON QUALITY ASSURANCE

Feedback on research quality and its related quality assurance at each of the three levels of the Framework (University, Faculty, and individual staff member) should be action oriented, practicable, realistic, and beneficial. Feedback is a necessary but insufficient element of all quality assurance and research development; it must be *consequential*, and action must be justified, and, where appropriate, taken on the feedback, monitored, reviewed, evaluated and lead into the next cycle of planning, implementation, and evaluation of research and its quality assurance.

Acting on feedback, should be planned carefully, and be part of the development planning of the University Faculty and individual staff member, aligned to the mission, vision, and strategic plans of the University and the Faculty, and include statements of purposes, responsibilities, processes, achievement targets, and evaluation of their achievement, identification, and evaluating the quality and level of congruence between intentions and actuality in terms of situational analysis, preparation, contents, processes and transactions, and outcomes, e.g. Figure 2.⁸

⁸ Hargreaves, D. & Hopkins, D. (1991) The Empowered School.Cassell.



Figure 2. Action planning to act on feedback on research quality and its quality assurance

In planning for development and implementation of quality assurance for research from feedback, Figure 2 suggests that Faculties start by identifying targets and success criteria. Then they plan their routes and tasks to achieving those targets, with stated criteria for judging that they are 'on track'. Then they plan the initial tasks to be undertaken in setting out on this path to achievement of high quality in quality assurance of research. Each stage here requires its own success criteria for checking achievement of the intention and evaluating the level of congruence between intention and actuality.

7 QUESTIONS IN ADDRESSING RESEARCH QUALITY

In promoting the research culture and environment, high quality research and its dissemination, uptake, and impact, the following questions provide useful areas of focus. These are set out at two levels: initial suggestions for focus, followed by additional questions for further and/or subsequent analysis.

7.1 Initial areas of focus

- 1. How are new research opportunities identified and addressed in the University and each Faculty?
- 2. How does the University and each Faculty address human resources/people management issues with regard to research?
- 3. How does the University and each Faculty review and evaluate the quality of its research? What are the results of those evaluations?

- 4. What strategies and methods for improving research are there in the University and each Faculty, and what is the impact of these, and the staff development provided for developing research and publication in the University and each Faculty and the impact of these?
- 5. How does the University and each Faculty develop research and competencies for staff and students in research?
- 6. How, and how effectively, does the University and each Faculty develop and sustain a research culture and climate in the University and each Faculty for staff and students?
- 7. How does the University and each Faculty develop research collaboration?
- 8. How effective is the research in the University and each Faculty, and how does the University and each Faculty know this?
- 9. What procedures and processes does the University and each Faculty have for planning, monitoring, reviewing judging, developing what it says and what it does about research?
- 10. Where and what interventions and developments are needed to improve the research and its quality assurance?

7.2 Additional questions for quality assurance in research

- 1. What steps do the University and each Faculty take to align the research to the Faculty's mission and goals?
- 2. What do the University and each Faculty have by way of research teams, individuals, their work and evidence of its impact?
- 3. What is the diversity of the research in the University and each Faculty?
- 4. What is the range and coherence of research in the University and each Faculty?
- 5. How effective is the functioning of research centres/institutes in the University and each Faculty?
- 6. What are the percentages of full-time and part-time staff who are active in research in the University and each Faculty?
- 7. What is the relationship between teaching and research in the University and each Faculty?
- 8. What, and how much non-funded research takes place in the University and each Faculty?
- 9. How is externally funded research addressed in the University and each Faculty?
- 10.What, and how much funded research takes place in the University and each Faculty?
- **11.** How does the University and each Faculty address ethical issues in its research activity?
- 12.What improvements/enhancements to the research in the University and each Faculty have there been over a specified period?

- 13. What research seminars and other related activities are there in the University and each Faculty?
- 14. How are staff and students inducted into research?
- 15. What national, international, and cross-institutional research is undertaken in the University and each Faculty?
- **16.** How does the University and each Faculty manage the supervision of higher degree students?
- 17. How does the University and each Faculty arrange for supervision of research, how effective it is, and how is this evaluated and improved?
- **18**. How does the University and each Faculty attract, recruit, retain, support and incentivise research students?
- **19.**What does the University and each Faculty say it is doing and what it values in its research work?
- 20. How does the University and each Faculty know and inform itself and its stakeholders if these procedures and processes are being used and are working?
- 21. How does the University and each Faculty inform itself and its stakeholders about the procedures and processes for planning, monitoring, reviewing judging, developing what it says and what it does about research and its outcomes?
- 22. Are the procedures and processes in place, operating, and effective in meeting the University's and the Faculty's stated mission, values, policies, criteria for effective research?

8 CONCLUDING REMARKS

There are very many dimensions of 'research work' in the three levels of this framework for quality assurance in research: University, Faculty, and Individual Staff Member. Given the diversity of 'research work', the interpretation of 'quality' and 'quality research' is, itself diverse. Hence, whilst the macro-level responsibility for research obtains at the University level, making research quality and its quality assurance 'work' effectively varies according to each Faculty and the individuals within each. Hence, it is essential that the Faculty decides how it will address its specific focus, criteria, the University's indicators, and evidence for assessing, evaluating and demonstrating 'quality' in its 'research work' (widely defined).⁹

Quality assurance in research does not rest with assessment and evaluation of quality in the different areas of 'research work'. Rather, it requires ongoing attention to quality enhancement, development and improvement, i.e. it is action oriented. As set out in the opening pages of this document, the University's quality assurance for research

⁹ Useful examples of these in different disciplines can be found in the UK's *Research Excellence Framework* and its *Panel criteria and working methods* (2019).

includes, *inter alia*, planning, implementing, monitoring, reviewing, evaluating, and continuously improving the quality and quality assurance of its research. This all needs to be documented and reported. Here quality assurance operates in a helical model akin to action research where plans for quality assurance has cycles of sequences:

- 1. Identify problem/issue to be addressed in improving the quality of the research and the quality assurance and enhancement of research work \rightarrow
- 2. Prepare preliminary intervention planning for addressing the issue (improving the quality of the research and the quality assurance and enhancement of research work) \rightarrow
- 3. Decide on the intervention to be conducted \rightarrow
- 4. Detail plan for the intervention, including success criteria \rightarrow
- 5. Implement the intervention \rightarrow
- 6. Monitor and record the implementation and its effects \rightarrow
- 7. Review and evaluation the outcomes of the intervention \rightarrow
- Judge how effectively the intervention has addressed/solved the problem/issue in improving the quality of the research and the quality assurance and enhancement of research work →
- 9. Move to the next cycle of improving the quality of the research and the quality assurance and enhancement of research work, informed by the outcomes of the previous cycle.

Here, each stage involves evaluation, reflection, and reflexivity. It is a process of continuous improvement.