

Researcher Development Framework document version 2 April 2011 modified to text.

Cover page.

Researcher Development Framework.

Vitae, realising the potential of researchers.

Page 1.

Note: for ease of cross reference, the page numbers given in this text correspond to the page numbers in the original document.

Researcher Development Framework.

Overview.

The Researcher Development Framework, R D F, is a major new approach to researcher development, to enhance our capacity to build the U K workforce, develop world class researchers and build our research base.

The R D F is a professional development framework for planning, promoting and supporting the personal, professional and career development of researchers in higher education. It articulates the knowledge, behaviours and attributes of successful researchers and encourages them to realise their potential.

The Framework is designed for:

1. Researchers to evaluate and plan their professional development.
2. Managers and supervisors of researchers in their role supporting the development of researchers and
3. Trainers, developers, human resources specialists and careers advisors in the planning and provision of support for researchers development.

It will also be of interest to employers to understand the portfolio of skills unique to researchers and their potential as highly valued employees, individuals interested in becoming researchers, and researchers looking to move into higher education from other sectors. Policymakers, funders of researchers and other stakeholders will find the associated Researcher Development Statement, R D S, a useful strategic overview of the R D F. [R D S reference 1. www.vitae.ac.uk/rds]

The R D F supports the implementation of the Concordat to Support the Career Development of Researchers [reference 2. www.researchconcordat.ac.uk], the Q A A Code of practice for research degree programmes [reference 3. www.qaa.ac.uk] and the 'Roberts' recommendations for postgraduate researchers and research staff [reference 4. http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/set_for_success.htm].

The R D F is not intended to be linked to performance management or replace locally agreed progression criteria or job requirements.

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Structure.

The R D F has been created from empirical data, collected through interviewing researchers, to identify the characteristics of excellent researchers expressed in the R D F as descriptors. The descriptors are structured in four domains and twelve sub domains, encompassing the knowledge, intellectual abilities, techniques and professional standards to do research, as well as the personal qualities, knowledge and skills to work with others and ensure the wider impact of research. Each of the sixty three descriptors contains between three to five phases, representing distinct stages of development or levels of performance within that descriptor.

The R D F has been incorporated into a downloadable Professional Development Planner to enable researchers to identify the areas in the framework they want to develop further and to create an action plan.

Note: The original document has a wheel shaped image of the Professional Development Planner which shows the four domains, Domains A, B, C and D, and twelve sub domains. The sub domains then display sixty three descriptors. The contents of the wheel are as follows:

Domain A: Knowledge and intellectual abilities.

The knowledge, intellectual abilities and techniques to do research.

There are 3 sub domains:

A1. Knowledge base.

A2. Cognitive abilities and

A3. Creativity.

A1. Knowledge base, has 7 descriptors:

1. Subject knowledge.
2. Research methods: theoretical knowledge.
3. Research methods: practical application.
4. Information seeking.
5. Information literacy and management.
6. Languages.
7. Academic literacy and numeracy.

A2. Cognitive abilities. 5 descriptors:

1. Analysing.
2. Synthesising.
3. Critical thinking.
4. Evaluating.
5. Problem solving.

A3. Creativity. 5 descriptors:

1. Inquiring mind.
2. Intellectual insight.
3. Innovation.
4. Argument construction.
5. Intellectual risk.

Domain B. Personal effectiveness.

The personal qualities and approach to be an effective researcher.

3 sub domains:

B1. Personal qualities.

B2. Self-management and

B3. Professional and career development.

B1. Personal qualities. 6 descriptors:

1. Enthusiasm.
2. Perseverance.
3. Integrity.
4. Self-confidence.
5. Self-reflection.
6. Responsibility.

B2. Self-management. 5 descriptors:

1. Preparation and prioritisation.
2. Commitment to research.
3. Time management.
4. Responsiveness to change.
5. Work life balance.

B3. Professional and career development. 5 descriptors:

1. Career management.
2. Continuing professional development.
3. Responsiveness to opportunities.
4. Networking.
5. Reputation and esteem.

Domain C. Research governance and organisation.

The knowledge of the standards, requirements and professionalism to do research.

3 sub domains:

C1. Professional conduct.

C2. Research management.

C3. Finance, funding and resources.

C1. Professional conduct. 7 descriptors:

1. Health and safety.
2. Ethics, principles and sustainability.
3. Legal requirements.
4. I P R and copyright.
5. Respect and confidentiality.
6. Attribution and co-authorship.
7. Appropriate practice.

C2. Research management. 3 descriptors:

1. Research strategy.
2. Project planning and delivery.
3. Risk management.

C3. Finance, funding and resources. 3 descriptors:

1. Income and funding generation.
2. Financial management.
3. Infrastructure and resources.

Domain D. Engagement, influence and impact.

The knowledge and skills to work with others and ensure the wider impact of research.

3 sub domains:

D1. Working with others.

D2. Communication and dissemination and

D3. Engagement and impact.

D1. Working with others. 8 descriptors:

1. Collegiality.
2. Team working.
3. People management.
4. Supervision.
5. Mentoring.
6. Influence and leadership.
7. Collaboration.
8. Equality and diversity.

D2. Communication and dissemination. 3 descriptors:

1. Communication methods.
2. Communication media.
3. Publication.

D3. Engagement and impact. 6 descriptors:

1. Teaching.
2. Public engagement.
3. Enterprise.
4. Policy.
5. Society and culture.
6. Global citizenship.

End of description of wheel shaped image.

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From page 3 onwards the four domains, twelve sub domains and the sixty three descriptors are repeated. The descriptors then have three to five phases, representing distinct stages of development or levels of performance within each descriptor.

Note: Some of the descriptors have one of two reference hyperlinks. These will be referred to as Reference link 1 and Reference Link 2.

The two linked references are:

Reference link 1: Joint Statement of the U K Research Councils Training Requirements for Research Students, 2001, U K GRAD Programme and the Research Councils www.vitae.ac.uk/jss

Reference link 2: Original source Irish Universities' P h D Graduates' Skills. I U A, 2008 http://www.iaa.ie/publications/2008/Graduate_skills_Statement.pdf .

Domain A: Knowledge and intellectual abilities.

This domain contains the knowledge and intellectual abilities needed to be able to carry out excellent research.

Sub domains and descriptors.

Each sub domain has up to 5 descriptor phases.

Phase 1, Phase 2, Phase 3, Phase 4, Phase 5. The phases represent distinct stages of development or levels of performance within that descriptor.

Sub Domain A1. Knowledge base.

Descriptor 1. Subject knowledge.

Phase 1. Four stages:

1. Has, at least, core knowledge and basic understanding of key concepts, issues and history of thought.
2. Knows of recent advances within own research area and in related areas. A3, in reference link 1.
3. Is working towards making an original contribution to knowledge.
4. Is developing a broader awareness of international and non academic aspects of knowledge creation.

Phase 2 and Phase 3. Three stages:

1. Develops detailed and thorough knowledge/understanding of own and related subject areas, and becomes familiar with associated areas in other disciplines/research areas.
2. Demonstrates link between own research and real world affairs.
3. Situates knowledge in international context.

Phase 4 and Phase 5. Three stages:

1. Stimulates new knowledge; may make outstanding breakthroughs. Considers multiple perspectives.
2. Has deep and holistic understanding of strategic direction and intellectual developments of discipline/research area and its inter relatedness with other disciplines/research areas. Uses this knowledge to enrich own discipline/research area.
3. Contributes to the integrity and future vibrancy of the discipline/research area. Exercises international influence.

Descriptor 2. Research methods - theoretical knowledge.

Phase 1. Two stages:

1. Understands relevant research methodologies and techniques and their appropriate application within own research area. A4 in reference link 1.
2. Justifies the principles and experimental techniques used in own research. B6 in link 1.

Phase 2. One stage:

Appreciates the value of a range of standards and methods/techniques for information/data collection and analysis; assesses and demonstrates usefulness and validity of information/data in the context of a specific problem/question.

Phase 3. One stage:

Combines and justifies methods/techniques designed specifically for an investigation in a flexible and vigorous manner.

Phase 4 and Phase 5. One stage:

Recognises the value of alternative research paradigms and is able to work in, and support others working in, an inter disciplinary way.

Descriptor 3. Research methods - practical application.

Phase 1. Two stages:

1. Uses a range of research methods linked to study area; documents own activity.
2. Shows growing competence in own subject area and is developing awareness of alternative methods and analysis techniques.

Phase 2. Two stages:

1. Develops research approach and applies a range of appropriate methods and techniques with confidence.
2. Documents and evaluates research processes, using statistics where appropriate.

Phase 3. One stage:

Educates and guides others in the appropriate selection and use of research design, information/data collection, information/data management, analysis and methods/techniques.

Phase 4 and Phase 5. Two stages:

1. Creates new models and hypotheses, research designs, data collection and analysis techniques.
2. Sets expectations for application of methods locally, nationally and internationally.

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A1. Knowledge base. Continued.

Descriptor 4. Information seeking.

Phase 1. Five stages:

1. Acquires and develops search and discovery skills and techniques.
2. Identifies and accesses appropriate bibliographical resources, archives and other sources of relevant information, C3 in reference link 1, including web based resources, primary sources and repositories.
3. Makes best use of a range of current tools and techniques.
4. Assesses the reliability, reputation, currency, authority and relevance of sources.
5. Seeks feedback from relevant groups to access other insights.

Phase 2. Two stages:

1. Conducts advanced searches using a range of information software, resources and techniques; recognises their advantages and limitations.
2. Recognises the importance of bibliometrics and citations.

Phase 3, Phase 4 and Phase 5. Four stages:

1. Shows highly developed awareness of appropriate sources for research.
2. Uses a range of specialist print and online resources, as appropriate.
3. Manages bibliometrics and citations to best advantage and with a high level of proficiency.
4. Educates others in information/data seeking, accessing, evaluating and verifying techniques.

Descriptor 5. Information literacy and management.

Phase 1. Three stages:

1. Designs and executes systems for the acquisition and collation of information using information technology appropriately e.g. word processing, spreadsheets, simulation systems, databases. C2 and C4 in reference link 1.
2. Develops awareness of information/data security and longevity issues.
3. Knows where to obtain expert advice, i.e. information/data managers, archivists and librarians.

Phase 2. Three stages:

1. Develops awareness of the creation, organisation, validation, sharing, storing and curation of information/data and the associated risks.
2. Understands legal, ethical and security requirements involved in information/data management, especially over time.
3. Has knowledge of purpose of metadata.

Phase 3. One stage:

Advises and educates peers, less experienced researchers, students and staff in discipline/research area specific information/data management techniques, data security, legal and ethical requirements.

Phase 4 and Phase 5. Two stages:

1. Develops new techniques for information management.
2. Keeps abreast of and anticipates trends in the design and use of information/data collection, analysis and preservation.

Descriptor 6. Languages.

Phase 1. One stage:

Has excellent knowledge of language or languages appropriate for research, including technical language.

Phase 2. One stage.

Learns additional language or languages, including technical, appropriate for research and career development.

Phase 3, Phase 4 and Phase 5. One stage:

Becomes fluent/expert in additional relevant language or languages.

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A1. Knowledge base. Continued.

Descriptor 7. Academic literacy and numeracy.

Phase 1. Five stages:

1. Ability to understand, interpret, create and communicate appropriately within an academic context.
2. Prepares grammatically and syntactically correct content for presentations.
3. Writes in a style appropriate to purpose, E1 in reference link 1, and context for specialist and non-specialist audiences.
4. Is mathematically competent to undertake research in own discipline/research area; understands and applies any statistics that may be used in the discipline/research area; analyses data and uses appropriate computer packages.
5. Is I T literate and competent in using information and digital technology.

Phase 2. Four stages:

1. Continues to develop academic literacy abilities within wider contexts; understands the literacy requirements for different communication media.
2. Develops capabilities in I T and digital technology, as appropriate.
3. Presents complex ideas with clarity.
4. Understands analytical or statistical procedures in related disciplines/research areas and continues to develop mathematical ability.

Phase 3, Phase 4 and Phase 5. Three stages:

1. Has high level academic literacy and numeracy across a range of contexts and communication media.
2. Keeps up to date with the use of the latest I T and mathematical tools, techniques and procedures for the discipline/research area.
3. Educates, advises and guides others in academic literacy and numeracy skills, as appropriate.

A2 Cognitive abilities.

Descriptor 1. Analysing.

Phase 1. Two stages:

1. Critically analyses and evaluates own findings and those of others. A5 in reference link 1.
2. Validates datasets of others.

Phase 2 and Phase 3. Two stages:

1. Has well developed analytical abilities with knowledge of a range of methods. Willing to learn new ones.
2. Desktops the analytical understanding of less experienced researchers and staff.

Phase 4 and Phase 5. One stage:

Has outstanding analytical abilities.

Descriptor 2. Synthesising.

Phase 1. One stage

Sees connections between own research and previous studies. Benefits from guidance with synthesising information/data and ideas.

Phase 2. Two stages:

1. Critically synthesises new and complex information from diverse sources. Reference link 2.
2. Recognises patterns and connections beyond own discipline/research area.

Phase 3, Phase 4 and Phase 5. One stage:

Makes imaginative leaps of understanding across disciplines/research areas/agendas and beyond academia.

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A2 Cognitive abilities. Continued.

Descriptor 3. Critical thinking.

Phase 1. Three stages:

1. Able to understand argument, oral and textual, and articulate own assumptions; developing independent and critical thinking.
2. Has the ability to recognise and validate problems. A1 in reference link 1.
3. Recognises multiple ways of knowing and alternative paradigms.

Phase 2. Three stages:

1. Recognises significant and important arguments and can evaluate the assumptions of others.
2. Is capable of original, independent and critical thinking and has the ability to develop theoretical concepts. A2 in reference link 1.
3. Makes sound and realistic judgements based on evidence.

Phase 3. Two stages:

1. Is proficient and confident in applying critical thinking skills.
2. Stimulates critical thinking in less experienced researchers and peers.

Phase 4 and Phase 5. Two stages:

1. Is a creative critical thinker, acknowledged nationally and internationally.
2. Stimulates critical thinking at discipline/research area and policy levels.

Descriptor 4. Evaluating.

Phase 1. Four stages:

1. Summarises, documents, reports and reflects on progress. A6 in reference link 1.
2. Evaluates the impact and outcomes of own research activities.
3. Assesses the quality, integrity and authenticity of primary and secondary research information/data.
4. Accepts and gives constructive criticism.

Phase 2. Three stages:

1. Evaluates progress, impact and outcomes of peer researchers activities.
2. Advises and guides less experienced researchers on the quality, integrity, authenticity and validity of primary and secondary research information/data.
3. Is able to provide and accept constructive criticism at appropriate times.

Phase 3. Two stages:

1. Monitors and evaluates progress, impact and outcomes of a range of other researchers activities.
2. Effectively manages difficult criticism.

Phase 4 and Phase 5. One stage:

Creates evaluation processes and evaluates progress, impact and outcomes for national/international organisations and or projects.

Descriptor 5. Problem solving.

Phase 1. One stage:

Isolates basic themes of own research; formulates basic research questions and hypotheses.

Phase 2. One stage:

Formulates and applies solutions to a range of research problems and effectively analyses and interprets research results. Reference link 2.

Phase 3. Two stages:

1. Identifies new trends, complex questions and broader problems; designs substantial projects.
2. Challenges particular hypotheses and refines them in the light of results.

Phase 4 and Phase 5. Two stages:

1. Leads a research agenda by making major contributions to understanding.
2. Asks the pertinent questions and designs projects that challenge traditional thinking in general and progress research themes.

Sub domain A3. Creativity.

Descriptor 1. Inquiring mind.

Phase 1. Three stages:

1. Demonstrates a willingness and ability to learn and acquire knowledge. D1 in reference link 1.
2. Demonstrates flexibility and open mindedness. D3 in reference link 1.
3. Develops a style of questioning and questioning technique.

Phase 2. One stage:

Identifies and asks useful, challenging questions; always curious.

Phase 3. Two stages:

1. Sees beyond immediate questions to unexplored areas.
2. Confidently enquires, challenges and questions.

Phase 4 and Phase 5. Two stages:

1. Anticipates cutting edge questions.
2. Encourages challenge and inspires curiosity.

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A3. Creativity. Continued.

Descriptor 2. Intellectual insight.

Phase 1. Two stages:

1. Absorbs and appropriates ideas; is intellectually astute.
2. Creates ideas and opportunities by investigating/seeking information.

Phase 2. Three stages:

1. Recognises new trends; is insightful; goes beyond the obvious.
2. Develops own conceptual approach/understanding of intellectual position.
3. Shows initiative and works independently. D7 in reference link 1.

Phase 3. Two stages:

1. Identifies where discipline/research area is going and to some extent influences the intellectual agenda.
2. Independently and confidently shares own lateral thinking.

Phase 4. Two stages:

1. Makes connections between previously unrelated issues.
2. Influences and stimulates the intellectual agenda for the discipline/research area.

Phase 5. One stage:

Provides outstanding breakthrough thinking for the discipline/research area and has strategic input to other disciplines/research areas.

Descriptor 3. Innovation.

Phase 1. Two stages:

1. Understands the role of innovation and creativity in research. D2 in reference link 1.
2. May engage in inter disciplinary research.

Phase 2. Three stages:

1. Exercises critical judgement and thinking to create new and or imaginative ways of understanding. Reference link 2.
2. Develops new ways of working on a topic and has innovative ideas.
3. Identifies which ideas are likely to be successful.

Phase 3 and Phase 4. Two stages:

1. Goes beyond recognising to realise the potential of ideas. Drives and delivers innovative research projects.
2. Encourages, inspires and works with others; actively seeks collaborations for inter disciplinary research.

Phase 5. One stage:

A visionary; challenges traditional viewpoints.

Descriptor 4. Argument construction.

Phase 1. Three stages:

1. Constructively defends research outcomes. E3 in reference link 1.
2. Provides some evidence in support of ideas.
3. Structures arguments clearly and concisely

Phase 2. Two stages:

1. Rigorous in argument construction and production of evidence.
2. Produces convincing arguments to defend research theses.

Phase 3, Phase 4 and Phase 5. Two stages:

1. Produces finely honed argument rapidly.
2. Educates, advises and guides others in argument construction.

Descriptor 5. Intellectual risk.

Phase 1. One stage:

Tests the boundaries, is willing to expose ideas to a critical audience and to critically appraise other research.

Phase 2 and Phase 3. One stage:

Challenges the status quo in thinking within discipline/research area.

Phase 4 and Phase 5. One stage:

Pioneering; takes intellectual risks appropriately.

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Domain B: Personal effectiveness.

This domain contains the personal qualities, career and self-management skills required to take ownership for and control of professional development.

Sub domain B1. Personal qualities.

Descriptor 1. Enthusiasm.

Phase 1 and Phase 2. 3 stages:

1. Maintains enthusiasm and motivation for own research.
2. Recognises the need for passion and pride in own work.
3. Is highly motivated even when work is mundane.

Phase 3 and Phase 4. One stage:

Is passionate about research: enthuses others; inspires enthusiasm in the discipline/research area.

Phase 5. One stage:

Inspires communities of international researchers.

Descriptor 2. Perseverance.

Phase 1 and Phase 2. Three stages:

1. Demonstrates self-discipline, motivation and thoroughness. D5 in reference link 1.
2. Perseveres in the face of obstacles and setbacks but benefits from peer, supervisor or leader support. Is developing some resilience.
3. Deals effectively with the routine aspects of research.

Phase 3. Two stages:

1. Perseveres through difficulties while supporting others.
2. Is resilient.

Phase 4. One stage:
Perseveres steadfastly and leads the way for others.

Phase 5. One stage:
Dedicated and stimulated by obstacles and challenges.

Descriptor 3. Integrity.

Phase 1. Two stages:

1. Understands and demonstrates standards of good research practice in the institution and/or discipline/research area. B3 in reference link 1.
2. Seeks guidance as necessary.

Phase 2. Two stages:

1. Acts with professional integrity and honesty, takes especial care in information/data handling and dissemination and engagement with others
2. Demonstrates standards of good research practice without need for guidance and encourages professional integrity in others.

Phase 3. One stage:

Acts as exemplar to and advises peers and less experienced members of staff, respecting their views and engaging effectively in discussion.

Phase 4. Two stages:

1. Sets expectations and standard of conduct.
2. Advises all staff and contributes to institutional and disciplinary policy/practice.

Phase 5. One stage:

Shapes policy and procedures of good practice in research in the H E sector, professional associations and bodies.

Descriptor 4. Self-confidence.

Phase 1. Two stages:

1. Aware of some personal abilities and willing to demonstrate them.
2. Recognises boundaries of own knowledge, skills and expertise and draws upon and uses sources of support, as appropriate. D6 in reference link 1.

Phase 2. Three stages:

1. Aware of range of own skills and enjoys demonstrating them.
2. Able to defend ideas in the face of reasonable challenge both from colleagues and others.
3. Self-reliant; D7 in reference link 1, capable of directing others.

Phase 3. Three stages:

1. Is confident of own skills and ideas in the face of strong challenge - seeks challenges.
2. Builds a range and variety of support structures.
3. Contributes to others support; recognises need for collegiality.

Phase 4. Three stages:

1. Comfortable that own ideas are likely to be radical/unusual; has self-confidence to initiate challenge and engage with others.
2. Maintains a variety of support structures.
3. Develops confidence in others.

Phase 5. Two stages:

1. Seeks out sophisticated challenges to any new/unusual/radical ideas.
2. Inspires confident behaviour in others.

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Sub domain B1. Personal qualities. Continued.

Descriptor 5. Self-reflection.

Phase 1. Four stages:

1. Makes time to reflect on practice and experience.
2. Develops strengths and improves on weak areas.
3. Seeks personal feedback.
4. Learns from mistakes.

Phase 2. Two stages:

1. Has heightened awareness of own strengths and weaknesses.
2. Strives for excellence, seeks and takes personal feedback on performance and acts on it.

Phase 3, Phase 4 and Phase 5. Three stages:

1. Continuously seeks ways to improve own performance and that of less experienced researchers and/or team/department/institution.
2. Encourages self-reflection in others.
3. Leads by example.

Descriptor 6. Responsibility.

Phase 1. One stage:

Gradually takes complete responsibility for own project and own wellbeing; develops independence.

Phase 2. Three stages:

1. Takes responsibility for own and others' projects (students and less experienced colleagues).
2. Delegates responsibly.
3. Alert to the wellbeing of others.

Phase 3. Two stages:

1. Accepts and takes responsibility for building/leading research team and developing its members.
2. Engages in and encourages the development of wellbeing in other researchers/the team.

Phase 4 and Phase 5. Two stages:

1. Has leading responsibility for delivering highly skilled researchers for academic and non-academic professions. Is responsible for leading the discipline/research area nationally and/or internationally.
2. Engages in and encourages the development of wellbeing in academic and non-academic colleagues.

Sub domain B2 Self-management.

Descriptor 1. Preparation and prioritisation.

Phase 1. One stage:

Prepares and plans project to meet objectives and with support, is able to adapt if necessary.

Phase 2. One stage:

Takes strategic view of project; prioritises plans and is forward thinking; deals with the unexpected.

Phase 3. Three stages:

1. Anticipates future directions and trends in research, prepares for the unexpected.
2. Recognises good ideas.
3. Sees the gaps and opportunities in project plans and evaluates the changes needed.

Phase 4 and Phase 5. Three stages:

1. Plans, balances and responds effectively and appropriately to change and the unexpected.
2. Gives evidence for the need for change of priorities. Prioritises and switches focus between multiple projects/tasks.
3. Influences environment; has long term strategic vision.

Descriptor 2. Commitment to research.

Phase 1. One stage:

Commits to and completes first project and establishes research credentials.

Phase 2. One stage:

Evaluates and manages potential distractions. Dedicated: has purposeful and determined focus on developing own research and research credentials.

Phase 3 and Phase 4. One stage:

Has a purposeful and determined focus on developing excellence in research, taking it from the ordinary to the extraordinary.

Phase 5. One stage:

Determines to leave a legacy of inspirational research.

Descriptor 3. Time management.

Phase 1. One stage:

Manages own time effectively to complete research project; adheres to clear plan.

Phase 2. One stage:

Is establishing own time management systems: delivers projects on schedule, responds flexibly.

Phase 3, Phase 4 and Phase 5. Two stages:

1. Has established own time management skills, advises others and acts as role model.
2. Manages multiple or complex projects to time; balances constraints.

Descriptor 4. Responsiveness to change.

Phase 1. One stage:

Adapts approach when required to; seeks guidance and recognises risks.

Phase 2. One stage:

Adapts to changes; balances risk and opportunity. Knows when to seek advice and reassurance.

Phase 3. One stage:

Engages with change; expects change and is prepared for it, manages risk accordingly. Advises and reassures less experienced researchers.

Phase 4. One stage:

Embraces change and anticipates risk. Responds decisively, coaches and reassures others.

Phase 5. One stage:

Promotes change and contributes to institutional change initiatives; is willing to take reputational risk.

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Sub domain B2 Self-management. Continued.

Descriptor 5. Work life balance.

Phase 1. Three stages:

1. Is developing an awareness of work life balance issues.
2. Uses support and advisory resources when necessary to avoid undue pressure and to enhance personal wellbeing.
3. Considers the needs of others.

Phase 2. Two stages:

1. Maintains an acceptable work life balance and manages pressure.
2. Notices and helps manage the pressure on colleagues and less experienced researchers.

Phase 3, Phase 4 and Phase 5. Two stages:

1. Actively maintains attention to work life balance issues. Promotes an effective work life balance for self and team. Sensitive to signs of pressure on and stress in colleagues, students and staff; provides support, advice and management where necessary.

2. Influences departmental, institutional or disciplinary policies on work life balance and wellbeing.

B3 Professional and career development.

Descriptor 1. Career management.

Phase 1. Three stages:

1. Takes ownership for and manages own career progression, sets realistic and achievable career goals, identifies and develops ways to improve employability. G2 in reference link 1.
2. Presents own skills, personal attributes and experiences through effective C V's, applications and interviews. G4 in reference link 1.
3. Begins to establish a career network.

Phase 2. Three stages:

1. Forms credible career plans; reference link 2, critically reflects on experiences and pursues a cycle of self-improvement. Reference link 2.
2. Seeks advice, guidance or coaching from appropriate professionals.
3. Initiates and sustains networks and relationships that may encourage opportunities for employment. Reference link 2.

Phase 3. Three stages:

1. Is in process of establishing career trajectory; uses networks and coaching opportunities to manage own career.
2. Actively develops less experienced researchers and staff. Coaches others for specific academic activities.
3. Uses networks to enhance the employability of others.

Phase 4. Three stages:

1. Is an established researcher.
2. Maintains career momentum. Extends and manages career networks.
3. Acts as role model; creates opportunities for others and nurtures researchers careers.

Phase 5. Two stages:

1. Is an exceptional career role model: an exemplar and inspiration to others.
2. Engages in succession planning.

Descriptor 2. Continuing professional development.

Phase 1. Four stages:

1. Demonstrates self-awareness and the ability to identify own development needs. D4 in reference link 1.
2. Appreciates the need for and shows commitment to continuing professional development. G1 in reference link 1.
3. Recognises transferability of own experience and articulates this to potential employers or line managers.
4. Develops and maintains own records of achievement and experience.

Phase 2. Three stages:

1. Becomes familiar with employers' requirements and develops skills accordingly.
2. Actively seeks opportunities to enhance skills and take responsibility, formally or informally, within a research environment.
3. Maintains a portfolio of achievement and experience.

Phase 3. Three stages:

1. Has realistic view of own potential in academic or non-academic job market and adapts career development plans appropriately.
2. Supports and encourages the continuing professional development of others. Helps others make informed decisions in the light of employers requirements.
3. Reflects on skills and creates opportunities to develop further. Demonstrates, with evidence, initiative and competence in a wide range of contexts.

Phase 4 and Phase 5. Four stages:

1. Acts as continuing professional development role model for others.
2. Is influential in setting standards and devising criteria to define the skills required of professional researchers.
3. Contributes to the culture of continuing development within own institution and discipline/research area.
4. Actively acquires information and feedback on matters affecting the direction of discipline/research area/department/institution and on colleagues and less experienced researchers in relation to their professional development.

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B3 Professional and career development. Continued.

Descriptor 3. Responsiveness to opportunities.

Phase 1. Two stages:

1. Demonstrates an insight into the transferable nature of research skills to other work environments and the range of career opportunities within and outside academia. G3 in reference link 1.
2. Understands and takes advantage of a broad range of employment and professional development opportunities within and outside academia, including work experience and internships.

Phase 2. One stage:

Seeks out appropriate opportunities to enhance employability and may gain international experience; has realistic and mature approach to job search including positions outside academia.

Phase 3, Phase 4 and Phase 5. Three stages:

1. Recognises, creates and confidently acts on opportunities with the potential to develop own career within or outside academia.
2. Understands the complexity of the academic job market; able to advise others effectively and in a sensitive manner.
3. Actively creates and champions opportunities for others within and outside academia. Is responsive to collaborative opportunities across disciplines/research areas and with non-academic organisations.

Descriptor 4. Networking.

Phase 1 and Phase 2. Three stages:

1. Develops and maintains co-operative networks and working relationships with supervisors, colleagues and peers, within the institution and the wider research community. F1 in reference link 1.
2. Uses personal and/or online networks effectively for feedback, advice, critical appraisal of work and for responding to opportunities.
3. Engages with learned societies and public bodies.

Phase 3. Two stages:

1. Shares external networks with less experienced researchers/students.
2. Builds professional rapport. Becomes respected member of learned societies.

Phase 4. Two stages:

1. Leads networks.
2. Has national, international and policy making network connections with academic and non-academic bodies and organisations, and in public and private research and development areas.

Phase 5. One stage:

Has Influential connections with significant bodies and organisations; has high impact on society through academic and non-academic bodies and organisations.

Descriptor 5. Reputation and esteem.

Phase 1. Two stages:

1. Speaks with authority on own topic.
2. Begins to be known as a good researcher.

Phase 2. Two stages:

1. Maintains position in debates about own research areas.
2. Is establishing a reputation in the discipline topic/research area and locally.

Phase 3. Three stages:

1. Has an established and growing reputation in own and, possibly, other disciplines/research areas; increasing research esteem.
2. Conducts peer review internally and acts as reviewer for projects and journals.
3. Supports the development of the reputations of less experienced researchers.

Phase 4. Three stages:

1. Is a leading, well known national authority and speaker on own focal topic and related areas and in some international arenas.
2. Acts as reviewer for external chairs.
3. Actively promotes the reputation and esteem of department/team, colleagues, peers and less experienced researchers.

Phase 5. Two stages:

1. Is globally renowned; becomes international authority and leading speaker on own focal topic and related areas.
2. Actively champions the reputation of the discipline/research area and own institution.

Domain C: Research governance and organisation

This domain contains the knowledge of the standards, requirements and professional conduct that are needed for the effective management of research.

Sub domain C1. Professional conduct.

Descriptor 1. Health and safety.

Phase 1. Two stages:

1. Understands relevant health and safety issues and demonstrates responsible working practices. B4 in reference link 1.
2. Takes responsibility for own work space. Aware of impact on others and wider environment.

Phase 2. Two stages:

1. Recognises the significance and relevance of health and safety regulation and guidance. Sets example, can educate and advise peers and less experienced researchers/students.
2. Takes responsibility for immediate work environment and people in it.

Phase 3. Two stages:

1. Sets expectations, educates, trains and guides peers and less experienced researchers in health and safety.
2. Manages and takes responsibility for health and safety within department.

Phase 4. Two stages:

1. Determines departmental/local expectations on health and safety matters. Educates, trains, guides and disciplines students and staff.
2. Determines institutional policy and/or contributes ideas to national policy.

Phase 5. One stage:

Shapes policy and procedures of own institution, national or international professional associations/bodies

Descriptor 2. Ethics, principles and sustainability.

Phase 1. Four stages:

1. Understands and applies the relevant codes of conduct and guidelines for the ethical conduct of research; seeks advice from supervisor.
2. Demonstrates awareness of issues relating to the rights of other researchers, of research subjects, and of others who may be affected by the research. B2 in reference link 1.
3. Is mindful of own impact on the environment. Understands how to behave and work in a sustainable way.
4. Understands the concept of corporate social responsibility: seeks guidance as necessary.

Phase 2. Two stages:

1. Makes own ethical judgements about work and advises less experienced researchers and students. Challenges potential or actual unethical behaviour of others.
2. Acts and works in a responsible way to create a sustainable environment.

Phase 3. Two stages:

1. Sets expectations and ensures ethical principles are adhered to within own research environment. Educates and advises peers and less experienced members of staff.
2. Acts as exemplar, advises peers and staff on environmental issues; promotes sustainable attitude to research among less experienced researchers.

Phase 4. Two stages:

1. Determines appropriate ethical conduct for discipline/research area; advises policy makers.
2. Drives local environmental policy and promotes sustainable approach to research among colleagues/department.

Phase 5. Two stages:

1. Shapes policy and procedures of the H E sector and professional associations/bodies.
2. Promotes public understanding of the ethical issues raised by research.

Descriptor 3. Legal requirements.

Phase 1. One stage:

Has basic understanding of legal requirements surrounding research, e.g. Data Protection Act, Freedom of Information Act, Equality Act 2010 and equivalent Northern Irish legislation.

Phase 2. One stage:

Understands the legal obligations of the profession and can advise peers and less experienced researchers, especially on ownership of data and the requirements of the Data Protection Act. B2 in reference link 1.

Phase 3. One stage:

Assumes, for the local research context, responsibility for working within the legal framework; sets expectations, advises peers and less experienced members of staff.

Phase 4. Two stages:

1. Advises staff and contributes to institutional policy.
2. Ensures that students and staff have equality of opportunity and are treated fairly.

Phase 5. Two stages:

1. Shapes policy and procedures of the H E sector and professional associations/bodies.
2. Leads by example.

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Sub domain C1. Professional conduct. Continued.

Descriptor 4. I P R and copyright.

Phase 1. One stage:

Has basic understanding of data ownership rules as they apply to own research.

Phase 2. Three stages:

1. Has sufficient understanding of copyright, B2 in reference link 1, I P R, licensing to advise peers and less experienced researchers.
2. Understands the value of open access of research outputs to researchers and the wider society.
3. Manages the deposit of research outputs, open and wider access, and the Creative Commons license.

Phase 3 and Phase 4. Three stages:

1. Sets local expectations among staff/team/department.
2. Engages in the commercialisation of intellectual property where appropriate.
3. Advises all staff and contributes to institutional policy.

Phase 5. One stage:

Shapes policy and procedures of the H E sector and professional associations/bodies.

Descriptor 5. Respect and confidentiality.

Phase 1. Two stages:

1. Within own research respects the right of participants to confidentiality and anonymity.
2. Respects colleagues.

Phase 2. Two stages:

1. Advises peers and less experienced researchers on respect, confidentiality, B2 in reference link 1, and anonymity.
2. Encourages others to respect colleagues; challenges those who do not respect others.

Phase 3. One stage:

Sets expectations, advises peers and less experienced members of staff.

Phase 4. One stage:

Directs local policy, advises all staff and contributes to institutional policy.

Phase 5. One stage:

Shapes policy and procedures of the H E sector and professional associations/bodies.

Descriptor 6. Attribution and co- authorship.

Phase 1. One stage:

Understands concept of attribution, B2 in reference link 1, and applies it consistently and fairly to appropriately recognise contributions and co-authorships. Seeks advice on local codes of conduct.

Phase 2. One stage:

Advises peers and less experienced researchers on bibliometrics and citation practice.

Phase 3. One stage:

Sets expectations, advises peers and less experienced members of staff.

Phase 4. One stage:

Directs local policy, advises all staff and contributes to institutional policy.

Phase 5. One stage:

Shapes policy and procedures of the H E sector and professional associations/bodies.

Descriptor 7. Appropriate practice.

Phase 1. One stage:

Understands and adheres to the rules and regulations concerning academic malpractice, B2 in reference link 1, in the institution in which based, and of professional body and funder, if appropriate.

Phase 2. One stage:

Has sufficient understanding of the rules of academic malpractice to advise peers and less experienced researchers. Challenges malpractice.

Phase 3. One stage:

Sets expectations, advises peers and less experienced members of staff.

Phase 4. Two stages:

1. Directs local policy, advises all staff and contributes to institutional policy.
2. Is involved in decisions regarding malpractice.

Phase 5. One stage:

Shapes policy and procedures of the H E sector and professional associations/bodies.

Sub domain C2 Research management.

Descriptor 1. Research strategy.

Phase 1. Two stages.

1. Aware of how own research aligns with the research strategy of the institution and strategic focus of the discipline/research area.
2. Develops understanding of broader context of research.

Phase 2 and Phase 3. One stage:

Ensures research contributes to the discipline/research area and own institution and also to wider aims of all stakeholders, the public and the business sector.

Phase 4 and Phase 5. One stage:

Shapes and influences broader research agenda.

C2. Research management. Continued.

Descriptor 2. Project planning and delivery.

Phase 1. Two stages:

1. Applies effective project management through the setting of research goals, intermediate milestones and prioritisation of activities. C1 in reference link 1.
2. Acts on decisions agreed with supervisor/line manager and delivers results.

Phase 2. Four stages:

1. Independently defines a manageable research project.
2. Understands project management cycles and is able to draw on a range of project management techniques and tools.
3. Allows for wider public access to and long term preservation of research information/findings.
4. Manages problems and conflict.

Phase 3. Three stages:

1. Defines large research projects, draws up long term plans for research.
2. Uses range of project management strategies.
3. Clarifies priorities; sets expectations, keeps project on track.

Phase 4 and Phase 5. Two stages:

1. Effectively manages multiple research projects and both the research agenda and bureaucracy for various projects.
2. Able to take unpopular but evidence based appropriate decisions.

Descriptor 3. Risk management.

Phase 1. Two stages:

1. Makes basic risk assessment and is able to manage risks in own project with support.
2. Aware of risks in virtual environments and when using interactive communication technologies.

Phase 2. Two stages:

1. Assesses risks in own research environment, takes responsibility for others in that environment.
2. Aware of risks to research information over time.

Phase 3. One stage:

Conducts thorough risk analysis for self, team and others; quick to identify risks and confidently manages them.

Phase 4. Two stages:

1. Accepts responsibility for risk management; educates and advises others.
2. Determines and directs procedures/ expectations for own institution.

Phase 5. One stage:

Shapes policy on risk management for the H E sector and professional associations/bodies.

Sub domain C3. Finance, funding and resources.

Descriptor 1. Income and funding generation.

Phase 1. Two stages:

1. Understands the processes for funding and evaluation of research. B5 in reference link 1.
2. Writes own research proposal.

Phase 2. Two stages:

1. Has broad awareness and knowledge of key relevant funding sources and grant application procedures. Reference link 2. Recognises the significance of income and funding generation for own institution.
2. Applies for small grants/fellowships successfully.

Phase 3 and Phase 4. Three stages:

1. Aware of wider economic context. Understands funding complexities and variety of sources for funding. Educates, advises and guides others on income and funding generation.
2. Applies for increasingly larger grants, seeking alternative sources. Engages in income generation for own institution.
3. Supports funding applications led by others.

Phase 5. One stage:

Influences funding policy within the H E sector and professional associations/bodies.

Descriptor 2. Financial management.

Phase 1. Two stages:

1. Understands the basic principles of financial management.
2. Has some commercial awareness.

Phase 2. Four stages:

1. Has knowledge of required financial management systems.
2. Keeps basic accounts and reconciles them.
3. Manages own grant.
4. Develops deeper commercial awareness.

Phase 3 Three stages:

1. Is expert in the use of required financial management systems for audit tracking and budgetary planning.
2. Understands institutional and national financial systems for supporting research.
3. Manages multiple budgets; educates, advises and guides others.

Phase 4 and Phase 5. One stage:

Helps shape/contributes to funding policy and financial management processes and commercial awareness in institution/department.

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Sub domain C3 Finance, funding and resources. Continued.

Descriptor 3. Infrastructure and resources

Phase 1. Two stages:

1. Makes efficient use of available resources.
2. Knows immediate academic system/work environment, departmental or faculty.

Phase 2. Three stages:

1. Makes creative use of available resources; cultivates useful connections.
2. Aware of research organisations reporting mechanisms and house styles, and of procurement law and best practice.
3. Recognises corporate culture and what is acceptable within it; acknowledges the impact of own role within it.

Phase 3. Two stages:

1. Contributes to the planning and resource management of the department; accepts responsibility for own and others actions.
2. Procures and maintains resources appropriate to range of projects; mindful of economies of scale.

Phase 4 and Phase 5. Three stages:

1. Drives/directs/influences internal use of infrastructure and resources.
2. Contributes to institutional administration and governance; chairs high level institutional committees.
3. Makes persuasive arguments for the allocation of resources and appropriate infrastructure.

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Domain D: Engagement, influence and impact.

This domain contains the knowledge, understanding and skills needed to engage with, influence and impact on the academic, social, cultural and economic context.

Sub domain D1. Working with others.

Descriptor 1. Collegiality.

Phase 1. Two stages:

1. Shows consideration to others.
2. Listens, gives and receives feedback and responds perceptively to others. F3 in reference link 1.

Phase 2. Two stages:

1. Is approachable, demonstrates interpersonal sensitivity.
2. Ensures everyone has a shared understanding.

Phase 3. Two stages:

1. Keeps people informed of wider institutional issues. Promotes collegiality, regardless of status.
2. Engages in supportive peer review with colleagues.

Phase 4 and Phase 5. Three stages:

1. Exemplar for collegial behaviour in department/institution.
2. Cascades knowledge.
3. Solicits and attends to feedback from colleagues at all levels.

Descriptor 2. Team working.

Phase 1. Two stages:

1. Understands own behaviours and impact on others when working in and contributing to the success of formal and informal teams. F2 in reference link 1.
2. Appreciates contributions of other team members including non-academic members. Thanks people for their contribution.

Phase 2. Four stages:

1. Understands leadership in team environments; recognises the strengths of team members and works effectively to achieve mutual goals. Reference link 2.
2. Coaches less experienced researchers and students.
3. Gives credit to people for their contribution.
4. Builds support and coalitions to attain goals.

Phase 3. Six stages:

1. Leads, manages and delegates impartially.
2. Is sensitive to intentions, needs and positions of team members; acts accordingly to achieve success.
3. Manages expectations and resolves conflict.
4. Coaches team members; helps team members clarify their roles and responsibilities.
5. Acknowledges the results of the team.
6. Actively seeks collaborative partners.

Phase 4 and Phase 5. Two stages:

1. Recruits, trains and builds sustainable team; develops staff and facilitates relationships.
2. Collaborates with key figures/teams internationally.

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Sub domain D1. Working with others. Continued.

Descriptor 3. People management.

Phase 1. One stage:

Negotiates activities and deadlines with supervisor/line manager.

Phase 2. Five stages:

1. Develops own management style.
2. Supervises/manages and develops less experienced researchers and students with sensitivity.
3. States clear expectations, clarifies goals and negotiates realistic deadlines so that people know what is expected of them.
4. Sets an example in relation to equality and diversity matters; challenges inappropriate behaviour.
5. Motivates and encourages others.

Phase 3. Five stages:

1. Has established an independent personal management style.
2. Rewards good performance and deals effectively with underperformance.
3. Explains the rationale behind decisions and the importance of issues.
4. Ensures appropriate equality and diversity policies and procedures are implemented.
5. Empowers others.

Phase 4 and Phase 5. Three stages:

1. Creates nurturing/supportive culture for others.
2. Ensures the implementation of equality and diversity policies.
3. Leads by example, inspires others, communicates vision.

Descriptor 4. Supervision.

Phase 1. One stage:

Engages in peer support and evaluation, and undergraduate support and assessment.

Phase 2. Three stages:

1. Provides support and advice to peers and less experienced researchers.
2. Takes on co-supervision role.
3. Welcomes feedback on own supervisory skills.

Phase 3, Phase 4 and Phase 5. Four stages:

1. Encourages the development of autonomy in others.
2. Takes on lead supervisor role. Supports the development of supervision skills in others.
3. Keeps up to date with supervision policy and procedure.
4. Actively seeks feedback on own supervisory skills and techniques; provides feedback for less experienced colleagues.

Descriptor 5. Mentoring.

Phase 1. Two stages:

1. Effectively supports the learning of others when involved in teaching, mentoring, demonstrating or other research activities. E5 in reference link 1.
2. Recognises the importance of mentorship and receiving mentoring.

Phase 2. Three stages:

1. Develops skills as a mentor and uses own mentorship effectively.
2. Encourages peers and less experienced researchers to present at conferences, write and publish joint or individual papers.
3. Acts as a mentor to students.

Phase 3. Four stages:

1. Acts as mentor to less experienced colleagues.
2. Helps mentees and other people to see opportunities and take up new challenges.
3. Identifies potential in others; empowers people.
4. Sets challenges but builds and develops confidence; manages the over confident.

Phase 4 and Phase 5. Four stages:

1. Is a role model. Shares networks; creates opportunities for others.
2. Shapes the mentoring strategy of own institution.
3. Involves people in decision making and leadership roles, promoting their autonomy.
4. Nurtures talent; develops skilled researchers.

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Sub domain D1. Working with others. Continued.

Descriptor 6. Influence and leadership.

Phase 1. Four stages:

1. Engages in debate and invites challenge.
2. Develops awareness of need to gain support.
3. Recognises implications of own research for real life contexts.
4. Learns of the value to academia of engaging in dialogue with those who use the outputs of research to achieve influence and impact.

Phase 2. Four stages:

1. Influences and leads less experienced researchers and students.
2. Listens actively and communicates confidently. Presents a convincing case.
3. Engages with stakeholders and users of research to extend influence and impact of research within and beyond academia.
4. Develops awareness of different leadership styles.

Phase 3. Eight stages:

1. Takes responsibility for key areas of work within the institution.
2. Generates excitement about ideas.
3. Recognises and encourages the contributions of others and uses them to best effect.
4. Offers ideas that encourage people to think differently; states expectations clearly as a role model.
5. Develops own leadership style.
6. Protects less experienced researchers in an academic context.
7. Demonstrates initiative and competence in leading people, resources and services, formally or informally.
8. Influences and provides leadership in committees and in external relationships.

Phase 4. Four stages:

1. Highly influential in academic and non-academic spheres. Presents and defends strong or radical ideas.
2. Is recognised as making significant contributions to policy making bodies and academic committees.
3. Can use range of leadership styles; includes and enables others; convinces through argument; involves others in decisions.
4. Promotes the value of own staff and department/institution.

Phase 5. Two stages:

1. Has exceptional influence; internationally renowned.
2. Input sought by policy makers, funding bodies, etc.

Descriptor 7. Collaboration.

Phase 1. Three stages:

1. Aware of the value of working collaboratively to benefit research and for maximising the potential for impact.
2. Co-produces research outputs with supervisors/research leaders.
3. Recognises common/conflicting interests within own and adjacent disciplines/research areas.

Phase 2. Two stages:

1. Builds collaborative relationships with a range of colleagues within own and adjacent disciplines/research areas and with stakeholders and users of research to co-produce research outputs.
2. Actively participates in and contributes to collaborations and external relationships.

Phase 3. Two stages:

1. Manages and negotiates collaborations and external relationships; contributes to development of discipline/research area.
2. Works in multi or cross disciplinary contexts; thinks comparatively.

Phase 4 and Phase 5. Two stages:

1. Builds collaborative relationships with a range of external organisations and bodies; negotiates at national and international level.
2. Actively builds capacity in collaborations and external relationships nationally and internationally; contributes to reputation and vibrancy of department/institution.

Descriptor 8. Equality and diversity.

Phase 1. Two stages:

1. Is sensitive to and respectful of individual differences. Develops awareness of diversity and difference within working environment.
2. Understands equality and diversity requirements of institution.

Phase 2. One stage:

Appreciates and works with diversity and difference in education/research.

Phase 3. Two stages:

1. Acts as role model for personal conduct when dealing with diversity and difference; educates, advises and guides less experienced researchers.
2. Makes positive use of diversity and difference to enrich research projects and outputs.

Phase 4 and Phase 5. Two stages:

1. Sets example locally, nationally and internationally.
2. Helps shape departmental/institutional policy and implementation.

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Sub domain D2. Communication and dissemination.

Descriptor 1. Communication methods.

Phase 1. Three stages:

1. Constructs coherent arguments and articulates ideas clearly to a range of audiences, formally and informally, through a variety of techniques. E2 in reference link 1.
2. Actively engages in knowledge exchange and debate with colleagues, sometimes between disciplines/research areas.
3. Appreciates the skills of rhetoric.

Phase 2. Five stages:

1. Presents work confidently.
2. Able to persuade others, asking timely and appropriate questions. Reference link 1.
3. Can communicate research effectively to a diverse and non specialist audience.
4. Recognises the value of ideas from outside academia and incorporates them where appropriate.
5. Actively engages in inter disciplinary knowledge exchange.

Phase 3. Three stages:

1. Eloquently makes the complex accessible.
2. Demonstrates incisive interrogative and interview techniques.
3. Actively engages in knowledge exchange with the public, business, industry, the professions and other users of research.

Phase 4 and Phase 5. Two stages:

1. Varies approach and presents research to professional peers/expert and non expert audience in an inspirational way.
2. Produces finely honed argument rapidly.

Descriptor 2. Communication media.

Phase 1. Three stages:

1. Develops skills in a range of communication means, e.g. face to face interaction using interactive technologies, and/or textual and visual media, where useful/necessary.
2. Has a web presence as a researcher.
3. Uses audio visual aids effectively in presentations.

Phase 2. Four stages:

1. Is confident in face to face interactions. Uses interactive communication technologies for networking, information/data sharing and promoting research presence.
2. Engages with locally available media.
3. Makes the complex accessible using a wide range of audio visuals as appropriate.
4. Willingly learns additional skills.

Phase 3. Five stages:

1. Confidently uses e-resources.
2. Establishes and leads virtual research environments.
3. Collaborates and communicates research 'virtually'.
4. Uses national/international media and web media.
5. Continuously seeks self-improvement in terms of media usage. Educates, advises and guides others.

Phase 4. Two stages:

1. Maintains advanced level of knowledge and skill in interactive communication technologies.
2. Is aware of and engages with international media.

Phase 5. One stage:

Is an institutional/disciplinary leader with global presence on key issues.

Descriptor 3. Publication.

Phase 1. Three stages:

1. Understands the processes of publication and academic exploitation of research results. B7 in reference link 1.
2. Produces some publishable material in print, electronic or other format.
3. Is developing awareness of the range and diversity of outlets for publications.

Phase 2. Three stages:

1. Understands how research is evaluated and published in print, electronic or other format.
2. Produces publishable material of high standard; may co-author/collaborate with others.
3. Disseminates in a range of research, professional and public outlets.

Phase 3. Five stages:

1. Regularly publishes and is involved in editing/may be editor of national publication.
2. Aims for the most prestigious publication in academic and non-academic outlets.
3. Actively seeks collaborative and/or interdisciplinary partners; is lead author on co-authored outputs.
4. Supports and enables less experienced researchers to publish.
5. Willingly peer reviews publications.

Phase 4. Two stages:

1. Chooses to actively publish in a variety of outlets, sometimes solicited contributions; is involved in editing/is editor of international journal or other form of dissemination.
2. Targets appropriate journals/outlets to gain an extensive track record of high quality published research.

Phase 5. Two stages:

1. Internationally and publicly renowned for publications.
2. Serves on influential editorial boards.

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Sub domain D3. Engagement and impact.

Descriptor 1. Teaching.

Phase 1. Three stages:

1. Contributes to teaching at undergraduate level.
2. Assists in the supervision of undergraduate projects.

3. Participates in research meetings (seminars, workshops, conferences, etc.). Has a developing awareness of the ways research influences/interacts with teaching.

Phase 2. Five stages:

1. Has a developing awareness of own teaching style and techniques. Is involved with the assessment of student knowledge and supervision of projects.
2. Assists in the development of student research skills.
3. Willing to co-supervise postgraduate research projects.
4. Recognises the significance of translating research into other educational outputs; seeks ways for own research to influence teaching.
5. Organises research meetings; seminars, workshops, conferences, etc.

Phase 3. Six stages:

1. Improves own approach and develops wider repertoire of teaching styles and techniques.
2. Contributes to and manages the teaching and learning programmes in the department and contributes to the development of the curriculum in own area.
3. Values the teaching, learning, research connection and interactions.
4. Educates, advises, guides and manages less experienced researchers.
5. Builds supervisory experiences; supervises postgraduate researchers; acts as external examiner at doctoral level.
6. Attracts new postgraduate researchers.

Phase 4 and Phase 5. Three stages:

1. Leads teaching programmes and their evaluation/quality assurance procedures.
2. Pursues opportunities to develop research informed teaching. Actively encourages and promotes a culture that links research and teaching.
3. Mentors supervisors of postgraduate researchers.

Descriptor 2. Public engagement.

Phase 1. Three stages:

1. Understands and appreciates the value of engaging with the public, willingly participates.
2. Open to influence of public interactions on own work.
3. Responds to local opportunities and existing activities; presents aspects of research at public events.

Phase 2. Four stages:

1. Contributes to promoting the public understanding of own research area. E4 in reference link 1.
2. Actively seeks ways to realise opportunities for public engagement.
3. Facilitates engagement with others, leads on local opportunities, is involved with national programmes; makes appropriate use of external support for these activities.
4. Recognises the mutual benefit of engagement to research, researchers and the public.

Phase 3. Four stages:

1. Facilitates opportunities for public dialogue, connects with users of research and beneficiaries; leads major public engagement projects and funding applications.

2. Helps to shape the public's conception of research. Facilitates a dialogue between the public and researchers; educates, advises and guides less experienced researchers about the importance of public engagement.
3. Initiates activities; building track record of public engagement.
4. Creates a climate where engagement activity is valued.

Phase 4 and Phase 5. Two stages:

1. Establishes public engagement reputation, gives strategic support, promotes projects and supports funding applications.
2. Is known advocate for public engagement in discipline/research area; occupies specific public engagement post or posts or personal chair.

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Sub domain D3. Engagement and impact. Continued.

Descriptor 3. Enterprise.

Phase 1. Four stages:

1. Creates ideas and identifies opportunities internally and externally.
2. Develops ideas in an innovative manner within own institution or externally.
3. Understands the process of commercial exploitation of research results. B7 in reference link 1.
4. Learns of the value to academia of establishing relationships in business/commercial context.

Phase 2. Three stages:

1. Demonstrates high motivation and commitment to take forward enterprising ideas. Appreciates the significance of the research-enterprise relationship.
2. Understands different environments, appreciates and, where appropriate, contributes to knowledge exchange within society. Reference link 2.
3. Becomes more aware of commercialisation, entrepreneurship/intrapreneurship and social enterprise.

Phase 3. Five stages:

1. Leads others in a range of environments to solve problems in a creative and innovative manner.
2. Builds strong networks to acquire resources and influence change through knowledge exchange.
3. Turns ideas into real ventures which enrich research and transfer knowledge and expertise to wider audiences internally and externally.
4. Recognises potential for new products and novel applications of research for commercial and/or social benefit. Highly skilled at developing relationships in business/commercial context; commercially and socially aware.
5. Educates, advises and guides less experienced researchers.

Phase 4 and Phase 5. Five stages:

1. Stimulates, creates and builds extensive relationships in business/commercial context.
2. Establishes recognised reputation for enterprise and knowledge exchange.
3. Provides strategic leadership and support to others relating to enterprise.

4. Is highly skilled in getting new technologies and/or new ideas adopted by non-research specialists/industry.
5. Acts as advocate for enterprise.

Descriptor 4. Policy.

Phase 1. Two stages:

1. Understands the relevant policy making processes and presents findings in a policy friendly format.
2. Analyses policies and understands the wider contexts in which they are situated.

Phase 2. Three stages:

1. Recognises, understands and appreciates the importance of policy making to research and the importance of research to policy making.
2. Engages in dialogue with the public, policy makers, government and other key organisations.
3. Evaluates the impact of policy and its fitness for purpose.

Phase 3. Two stages:

1. Produces research which can inform the development or enhancement of policy.
2. Educates, advises and guides less experienced researchers.

Phase 4. Two stages:

1. Understands/builds the relationship between academia and the policy making process and makes the appropriate links to influence policy making.
2. Advises and informs all staff on impact of policy on research.

Phase 5. Two stages:

1. Has the ability to get research knowledge into the policy making process through a variety of mechanisms.
2. Is able to influence policy by working directly with key policy makers.

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Sub domain D3. Engagement and impact. Continued.

Descriptor 5. Society and culture.

Phase 1. Two stages:

1. Develops awareness of the impact of research on wider society and of the impact of society, the environment and culture on research.
2. Understands concept of corporate social responsibility.

Phase 2. Four stages:

1. Recognises, understands and appreciates the potential impact of research on society, the environment and culture.
2. Engages in dialogue with the community and/or relevant stakeholders.
3. Has deeper understanding of corporate social responsibility and acknowledges the impact of own role within it.
4. Politically aware.

Phase 3. Three stages:

1. Actively seeks ways to enrich society and culture with research projects and outputs.
2. Educates, advises and guides less experienced researchers in corporate social responsibility.
3. Politically astute.

Phase 4 and Phase 5. Four stages:

1. Sets example locally, nationally and internationally.
2. Helps shape departmental/institutional policy and implementation.
3. Uses politics to advantage.
4. Sets expectations of staff in respect of corporate social responsibility.

Descriptor 6. Global citizenship.

Phase 1. One stage:

Shows a broad understanding of the context in which own research takes place, at the national and international level. B1 in reference link 1.

Phase 2. Two stages:

1. Recognises impact of own and others' research as global citizens.
2. Develops international contacts and networks; engages with and understands other cultures.

Phase 3. Two stages:

1. Sets example and expectations; takes lead on impact issues for discipline/research area and/or institution.
2. Can educate, advise, train and guide peers, researchers and staff in international research issues.

Phase 4 and Phase 5. Two stages:

1. Has global impact.
2. Takes lead; sets example and agendas, and influences policy on national and international scale.

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