



TUS

**Technological University of the Shannon:
Midlands Midwest**

Ollscoil Teicneolaíochta na Sionainne:
Lár Tíre Iarthar Láir

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Technological University of the Shannon: Midlands Midwest (TUS)

Researcher Career Development Framework Policy



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1. Introduction & Background

The Technological University of the Shannon: Midlands, Midwest (TUS), is committed to building research capacity and scale through the development of research human capital, facilitating research activity and opportunities linked to education and enterprise with a global orientation. Researchers are the most important asset of the TUS research system. Research human capital is recognised as central to the successful transitioning to research prioritisation at TUS, promoting a cultural shift and ethos that supports research engagements as a core function of the new TU activities. The TUS Researcher Career Development Framework Policy is fully aligned with the Government’s Economic Recovery Plan 2021, which sets out the “dual ambition of placing research, development and innovation at the heart of addressing Ireland’s economic and societal challenges and building capacity and capability across the research and innovation system to move R&I up the value chain.”

Our Technological University (TU) researchers are valued and progressed within a vibrant integrative ecosystem, principally comprising PhD students, research assistants, post-doctoral (PD) researchers, research fellows, principal investigators and supervisors, complemented by a range of staff in administrative, technical and research support roles. TUS is committed to attracting, developing and supporting a cohort of talented researchers who, through scholarly activities, innovative actions and career development pathways, are an excellent resource within both academic and business environments. Retaining and maintaining a core group of highly skilled and high-performance researchers to continue to grow and deliver impactful research outputs is essential to our research strategy. This is in keeping with the National Research and Innovation Strategy 2021-27 Consultation paper, launched 11th June 2021, which also highlights the opportunity to “develop the right policies to ensure that R&I is at the heart of Ireland’s response to short- and long-term national challenges.” In response to the National R&I strategy 2021 which states its aim to identify and implement “reforms necessary to develop an R&I system that has the right capacity and capabilities” to strengthen Ireland’s R&I ecosystem, the TUS Researcher Career Development Framework Policy is informed by the National Research Career Framework and presents a series of measures designed to progress towards the achievement of new, career structures to facilitate the retention and recruitment of high calibre researchers empowered to strengthen and extend research activities.

A new framework for European R&I policy is also currently under development with which the TUS Researcher Career Development Framework Policy also intends to comply.

International reports demonstrate that attractive conditions afforded to researchers have a strong positive correlation on the quality of their research outputs. Valuing human research capital is evidential as a critical factor in reaping economic and societal rewards from investment in research. The broad stream trend towards less secure contracts and conditions for researchers is highlighted as counterproductive. A considerable population of researchers currently hold temporary positions without any commitment to renew their positions or transform those positions into long-term or permanent contracts. An overall decline in the capacity of research systems to attract and retain the best national and international talent is widely reported. The widespread precarity of researcher conditions and the lack of available career paths is directly associated with reduced returns for research funds, while better structures, conditions and researcher career opportunities lead to higher innovation performance and research outputs.

The TUS Researcher Career Development Framework aims to counteract these international trends by reforming conditions for researchers and providing supports to overcome the current precarity of researcher careers towards structured researcher career progression. Performance management and development pathways with clear organisational structures, which provide researchers with the necessary supports to drive, manage and develop their professional careers are detailed. Implementation of this framework will enable achievement of the national policy objective to develop a stronger R&I system served by “the creation and communication of a valid and robust career framework for that system” and is also essential to deliver on our obligations as part of the European Research Area (ERA). Furthermore, this framework will ensure delivery of best value, maximising research outputs for research funds invested and taking into consideration, best international practice.

Overarching principles that underpin the framework are aligned to the National Researcher Career Development and Employment Framework:

- The Framework covers, recruitment, training, mobile career development and employment, including future employment opportunities
- The ongoing renewal of the researcher pipeline through the provision of development opportunities is intrinsic to our TU maintaining a position at the forefront of research and innovation discovery
- In furtherance of the objectives of the European Charter for Researchers, and the Code of Conduct for the Recruitment of Researchers, this framework recognises that nationally and internationally the majority of researchers trained by our TU will ultimately continue their careers outside the TU and its purpose is to prepare those entering the framework for a variety of careers in the public and private sector in research and non-research roles
- The Research Career Development Framework uses an employee life cycle model recognising the significance of HR tools such as job descriptions and competency models and recognises the need to incorporate the open, transparent and merit-based recruitment (OTM-R) principles of the European Charter and Code in the Recruitment of Researchers. The framework recognises that the research career is predominantly a competitive one and that competition for funding and employment contracts is intrinsic to it. It therefore contains key stages of progression where certain standards must be reached in order to progress further and that tenured academic positions represent a minority outcome for post-doctoral researchers
- The Framework will complement existing TUS Equality, Diversity and Inclusiveness (EDI) objectives
- The framework also recognises that there are certain support or “infrastructural” roles which are necessary for the sustained functioning of the system but may not form part of the competitive progression-based career path, but which need to be accommodated
- The European Charter regards teaching as an essential means for the structuring and dissemination of knowledge and therefore considers it a valuable option within the researchers’ career paths. Reference to teaching within the framework is subject to the overarching principle of offering researchers development opportunities, mindful that teaching responsibilities should not be excessive and should not prevent researchers from carrying out their research activities

- The framework addresses matters related to learning and development and remuneration to bring greater clarity and predictability for researchers
- The framework provides for the development of transferrable/complementary skills and an approach to career development that reflects the mobile nature of researcher careers
- The Researcher Career Development Framework Policy is aimed at providing researchers with information in relation to TUS's:
 - Researcher Recruitment and Selection Policy
 - Career Pathways and Professional Development
 - Remuneration and Benefits
 - Roles and Responsibilities.

2. Policy on the Recruitment & Selection of Research Staff

2.1. Introduction

Recruitment Principles for Appointment to Positions in the Research Areas:

TUS is committed to attracting, recruiting, developing and retaining a high calibre of staff to build a diversified, supportive, innovative and inclusive workforce, reflective of the wider community. TUS aims to attract people who have the experience, knowledge, skills and abilities to support the TU's Strategic Plan.

TUS supports equality of opportunity, diversity and inclusion and encourages underrepresented groups to make applications for employment. TUS accommodates candidates with disabilities and our recruitment, selection and appointments are conducted in compliance with current employment legislation. TUS is committed to implementing good practice in our recruitment, selection and appointment procedures, which are open and transparent. A review will take place one year after the approval of this policy, and subsequently, on a three-year basis. The TU will include in its review recommendations from expert groups in relation to best practice and equality standards.

New entrants will be placed on the National Research Career Framework (NRCF) Scale level as advertised. The entry point on the scale will normally be point one. However, incremental credit may be applied to enable candidates to start on a higher point within that scale, subject to budget. These may include possession of a level 8 or level 9 degree, which will be considered when hiring on the research assistant scale, or relevant full time academic or industrial research experience, when hiring on other salary scales. Research staff recruited to one of the NRCF grades will normally be issued with a specific purpose contract, linked to a specific research grant. Incremental credit will normally be awarded for previous researcher experience within the NRCF research levels. In instances where a researcher is recruited to work on a succession of short-term projects funded via short-term grants, such as Innovation Vouchers, a fixed-term contract linked to a programme of work may be issued instead of a specific purpose contract.

The Researcher Career Development Framework therefore, is structured around the key stages of the researcher's employee life cycle, as follows; Pre-Recruitment; Recruitment; Pre-employment and contracting; Orientation; Professional and Career Development; Progression and Termination. For more specific information on TUS's Recruitment and Selection Policy in terms of recruitment, contracting, orientation and termination please review the TUS OTM-R Policy.

Formal advertisement of research positions is a prerequisite to the open, transparent recruitment process, and as researchers become employees of the TU, researcher positions will be formally established within the relevant academic unit, through the TU's job requisition process, which will include appropriate sign off by the delegated authority in relation to the level/grade of the role. In certain circumstances approval may be sought for contract renewals e.g. to complete a level on the framework; where a no cost extension has been received etc.

TUS will generally give candidates the details of the recruitment competition as part of the advertised documentation and the integrity of the process underpinned by the use of objective criteria and the recording of the basis of any decisions including pre-screening to check eligibility, shortlisting of candidates for interviews and interview. Shortlisted candidates will be interviewed by the appropriately constituted selection committee which will be independent and objective. The panel will make best practicable use of the expertise of external members and its composition should be appropriately diverse and selection evaluation criteria will be consistent with the requirements of the position with supporting evidence documented where applicable. Interviewed applicants may receive feedback on the strengths and weaknesses of their application. TUS will facilitate appeals in relation to the application of the recruitment procedures. The scope of the appeal's procedure is solely in relation to the failure of TUS or appointed selection committee to follow the terms of the TUS recruitment procedures. Appeals may be made to the TUS Vice President (VP) of People Culture & EDI, who may delegate the appeal to a senior Human Resources (HR) Manager to review and determine the issue.

Appointment of researchers who have been recommended for appointment following interview, will be subject to a number of standard pre-employment checks in line with TUS HR practice. These may include medical screening, as well as reference and qualifications checks. Appointment will be to fixed term / specific purpose contracts for post-doctoral researchers and research fellows in accordance with the level of the position in the Researcher Salary and Grading Structure. For post-doctoral researchers professional development role will be completed within the period of the contract which is issued. TUS will endeavour to offer a contract for the longest duration possible relative to the actual need and/ or the term of the project, subject to funding.

TUS operates a policy of strict compliance with current employment legislation; specifically, the Employments Permit Act 2003. The EURAXESS Ireland help-desk provides free advice and tailored assistance to international (mobile) researchers and their families, on topics including administrative, working and cultural matters, immigration, residency and work permits. Annual pay increments will generally be in line with funding budget. Following acceptance of appointment by the successful candidate, the researcher is formally appointed onto the staff of TUS in line with standard nomination and appointment processes.

TUS will facilitate researchers with a clear and structured orientation programme so that they are enabled to contribute effectively to the research team or department, and to maximise their

professional and career development from the research opportunity as early as possible in their appointment. The objective of the orientation process is to ensure that there is a seamless progression from welcome and settling in, through to delivering on project objectives, and on to short-, medium- and long-term career development planning. Researchers will fulfil a probationary period within the first year of appointment with TUS and will be required to demonstrate their suitability to continued employment under the terms of their contract. Researcher career development and transferable skills development for the researcher will form part of the researcher career and professional development pathways.

The termination process at the conclusion of the research contract period will include interaction between HR and the Principal Investigator / Head of Unit to confirm contract end date and to arrange communication with the researcher. This will include a timely communication to the researcher of the contract end date, and support options available to the researcher in that context. On request, a Statement of Employment that confirms that the researcher has been employed by TUS can be provided.

3. Career Pathways & Professional Development

This section sets out a series of standardised Roles and Responsibilities for grades under the Researcher Career Development Framework. Researchers in TUS should be employed only on these grades (including developers, group leaders, etc.). The particular roles and responsibilities accompanying a specific post should be clearly outlined at the time of advertisement and must be consistent with the roles and responsibilities of the grade.

Where applicable, standard job descriptions may be employed. Sample standard job descriptions are provided by the IUA at the following link:

<https://www.iua.ie/for-researchers/researcher-salary-scales-career-framework/>.

Research Assistant (Level 1)

Role holders at this level are concerned with **assisting** an individual research leader or team to conduct a particular study (or group of studies). They will generally be involved in equipment operation, data generation and/or collection using standard and well-defined methods developed by others. They will be working under close supervision by, and direction from, a more senior researcher or member of academic staff, who will be ultimately responsible for the project.

This may be the entry level for some staff that are expected to train and/or develop to take on more senior researcher roles. Role holders should be provided with academic and pastoral support within the department (including counselling on realistic career opportunities) and skills development, subject to appropriate funding being available.

Education / Experience

- A professional qualification or industry experience is desirable for this role
- Little to no research experience is required/expected at this entry level.

Progression Routes

- A research assistant can progress through the **Research Support Track**, the **Enterprise Career Track** or the **Research Career Track**, depending on qualifications. Where the research assistant holds a primary degree at level 8 they may be entitled to claim an EU equivalent to PhD (four years full time relevant research experience) to move to higher levels once they demonstrate the ability to function at the higher level. In situations where the research assistant does not possess a level 8 degree, their progression route is to research officer.

Examples of Roles & Responsibilities may include, but are not limited to:

Research

- Work under direction from line manager/team
- Provide assistance in conducting research activities, including planning, organising and communicating research studies within the overall scope of a research project
- Make use of standard research techniques and methods
- Assist in analysis and interpretation of results of own research, if applicable
- Undertake tasks which may include recording results and preparing technical reports including conclusions and recommendations
- Provide guidance as required to any support staff and/or research students working on the research project
- Maintain and calibrate equipment, machinery and surrounding areas. Where necessary initiate corrective actions such as external maintenance, or ordering spare/replacement parts
- Present information on research progress to line manager
- Other duties as directed by line manager.

Administration / Management

- Plan and manage own day to day research activities, under the direction of line manager where appropriate
- Manage personal research project resources
- Regularly update line manager of project/research progress and/or problems that may arise.
- Keep appropriate records
- Produce reports for project(s) in line with funding agency requirements.

Income Generation / Funding

- In the context of the Research Entity a research assistant may be required to contribute to funding proposals.

Research Officer (Level 2a)

Role holders at this level will have experience either in a research or industry setting, depending on the specific role. Role holders may have an appropriate professional qualification, coupled with relevant experience, to warrant inclusion in this category. Typically, the role of research officer will be associated with a particular function.

They will still be working under supervision, but will be expected to take significant initiatives in their work and consult with their line manager as needed. It will be expected that the level of responsibility and independent working will increase throughout the duration of the contract.

They will be involved in administration relevant to their role (e.g. H&S documentation, record keeping etc.). They will be expected to be undertaking research individually and/or collectively within their particular area of responsibility.

Education / Experience

- Level 7 qualification in relevant area, **and**
- Relevant research or industrial based experience within the role applied for.

Examples of Roles & Responsibilities may include, but are not limited to:

Research

- Operational responsibility for function or area
- Maintenance and upkeep of specified area
- Ensuring complete alignment with best practice H&S requirements for staff and students utilising area of responsibility
- Provides training to staff and students as required
- Engage in appropriate training and development opportunities as required by the line manager
- Other duties as directed by line manager.

Administration / Management

- Carry out any additional duties as may be required within the general scope and level of the post.

Income Generation / Funding

- Contribute to the delivery of research programmes/projects.

Post-Doctoral Researcher / Experienced Post-Doctoral Researcher / Research Engineer or Scientist / Senior Research Engineer or Scientist¹

Role holders at this level will be experienced researchers, drawing upon knowledge gained from direct postgraduate research or equivalent. It would be usual that role holders are at early career development stage (<6 years research experience).

They may be *associated* with a particular project (or projects) and will contribute ideas, and/or enhancement of techniques or methodologies. They will still be working under supervision but will be expected to take significant initiatives in their work and consult with the Principal Investigator / Project Lead (PI/PL) over the details of the project. It will be expected that the level of responsibility and independent working will increase throughout the duration of the contract.

They will be involved in administration relevant to their projects (e.g. report writing, managing other researchers and monitoring research budgets). They will be expected to be undertaking research individually and/or collectively and to be advancing the state of knowledge and understanding within their particular area of expertise. Role holders will be provided with academic and pastoral support within the department (including counselling on realistic career opportunities) and skills development, subject to availability of funding.

Education / Experience - Post-Doctoral Researcher / Research Engineer or Scientist (Level 2a)

- Purpose of the role is to conduct a specified programme of research under supervision of a Principal Investigator (PI) while developing skills and competencies with respect to the role and future career options.
- Minimum of PhD or level 8 honours degree and four years full time research experience post award of degree
- Industrial based R&D in a complementary research discipline is desirable for entry into the enterprise track e.g. Research Engineering/Scientist.

Education / Experience - Post-Doctoral Researcher / Senior Engineer or Scientist (Level 2b)

- Purpose of the role is to conduct a specified programme of research under supervision of a PI while also supervising researchers at Level 1 and Level 2a. Continuing to develop skills and competencies with respect to the role and future career options
- Usually will have 2 years' experience post award of PhD or level 8 honours degree and six years full time research experience post award of level 8 degree
- Other criteria may include relevant industrial experience in a complementary research discipline, leading (normally as PI) competitive external funding applications which covers the salary of the candidate for a minimum of one year or other initiatives such as leading high impact factor journal

¹ <https://www.iaa.ie/wp-content/uploads/2021/01/Post-Doctoral-Researcher-Level-1-General-Job-Description.pdf>

publications in the field of research, invention disclosures, patent applications or combinations thereof.

Examples of Roles & Responsibilities may include, but are not limited to:

Research

- Assist in identifying and developing future research and funding initiatives
- Liaise with both internal and external stakeholders including industry, civic/civil society, NGOs and academic partners/collaborators
- Engage in appropriate training and development opportunities as required by the PI/Project Lead (PL)
- Engage in the dissemination of the results of the research in which they are engaged, as directed by, with the support of, and under the supervision of the PI/PL
- Engage in postgraduate student supervision
- Acquire generic and transferable skills (including project management, business skills and postgraduate mentoring/supervision), subject to availability within the TU
- May participate in limited teaching hours for own development
- Other duties as directed by line manager.

Administration / Management

- Carry out any additional duties as may be required within the general scope and level of the post
- Assist in the management / co-ordination of key aspects of the research programme (e.g. financial management, reporting, equipment management etc.).

Income Generation / Funding

- Contribute to the identification of external funding sources and assist in the writing of grant proposals.

Research Fellow / Lead Scientist or Engineer (Level 3)

Role holders at this level will have substantial experience of research (normally not less than six years). They will initiate and take responsibility for research projects and may adopt a leadership role on the project.

They will be involved in administration relevant to their projects, managing other researchers and monitoring research budgets. They will be expected to undertake research individually and/or collectively and to be advancing the state of knowledge and understanding within their particular area of expertise as well as publishing regularly in high quality outlets.

They will be expected to establish a growing reputation within their particular research field and academic discipline and to be establishing a growing national reputation within their field.

Role holders will mentor more junior staff, encouraging and supporting their development/career. They will engage in continuous professional development activity.

Education / Experience

- Typically, a PhD or level 8 honours degree and four years full time research experience post award of degree, including industrial based R&D in a complementary research discipline plus significant further relevant research experience (10 years post Level 8 degree).
- Clearly demonstrate that they are capable of independent research
- Have a track record of postgraduate/team supervision
- Have a track record of contributing to funding acquisition.

Examples of Roles & Responsibilities may include, but are not limited to:

Research

- Co-ordinate large scale externally funded projects
- Assist in identifying and developing future research and funding initiatives
- Define research objectives and carry out original and significant research which supports research activity in the Research Entity, Department/School, or the Institute, dependant on their reporting structure
- Manage and independently conduct a specific programme of research and scholarship
- Disseminate the outcomes of the research, including peer-reviewed academic publications of international standing
- Participate fully in the wider research and scholarly activities of the Research Entity, Department / School or the Institute
- Contribute to the development of the research strategy within the Research Entity, Department / School or the Institute
- Supervise post graduate research students
- Plan and implement commercial and consultancy activities as appropriate
- Engage in appropriate professional training and professional development opportunities as required by the PI/PL, Department/School or the TU
- May participate in limited teaching hours for own development pending agreement with their line manager
- Other duties as directed by line manager.

Administration / Management

- Take responsibility for, manage and conduct administrative and management tasks associated with the research programme(s)

- Provide training, expert advice and / or assistance to new members of the team and research students as appropriate
- Manage and appraise team of researchers under direct line management, including setting individual goals for each staff member
- Carry out any additional duties as may reasonably be required within the general scope and level of the post
- Represent TUS at external events as identified individually or by line manager.

Income Generation / Funding

- Independently identify research objectives/potential funding sources and prepare associated funding bids / grant proposals in line with set metrics both individually and as part of a team
- Contribute to patents / commercial application, as appropriate
- Liaise with both internal and external stakeholders including industry and academic partners/collaborators, to develop pipeline projects and funding opportunities.

Senior Research Fellow / Function Manager / Principal Engineer or Scientist (Level 4)

Role holders at this level will have extensive experience of research/research management and may take on the role of a function manager. They will have a significant leadership role in collaborative research bids, leading research teams or driving forward innovative research themselves. They will manage the design, development and delivery of a range of research programmes and provide research leadership, contributing to the strategic direction of their Research Entity, Department/School or the Institute and enhance the research reputation of the Research Entity, Department/School and the Institute e.g. through publications in refereed journals, contributions to edited volumes or authorships of major text(s) as appropriate to the discipline, over a sustained period.

Role holders at this level will have established reputations as leading researchers within their research field. They will enjoy a wide recognition for their expertise and will have made recognised and significant contributions to the developing knowledge and understanding of their research area.

Education / Experience

- Typically, a PhD or level 8 honours degree with further significant research experience (>12 years post level 8 degree)
- Experience including industrial based R&D in a complementary research discipline
- Track record of independent research, postgraduate / team supervision, leading funding acquisition and international collaboration
- Record of research leadership and research management.

Examples of Roles & Responsibilities may include but are not limited to:

- Play a leading role in regional / national / international collaborative research projects

- Supervise post graduate research students
- Manage and appraise team of researchers under direct line management, including setting individual goals for each staff member. Identify and secure external sources of funding and manage budgets and resources accordingly
- Help to create networks of researchers and opportunities for their junior researchers, advising them on possible sources of research funding, providing expert advice on their projects, and generally overseeing the development of their careers
- Act as the driver of strategic research projects and outputs
- May participate in limited teaching hours for own development
- Contribute to patents / commercial application, as appropriate
- Disseminate the outcomes of the research in appropriate national and international peer-reviewed academic publications, conferences and policy forums
- Play a leading role / is active in external networks or professional organisations, to identify sources of funding, generate income, obtain consultancy projects, or build collaborative relationships for future activities
- Other duties as directed by line manager.

Administration / Management

- Manage and oversee research projects and assume strategic and operational responsibility for project budgets and resources
- Recruit, manage and lead a team of researchers to achieve the stated programme aims
- Carry out any additional duties as may reasonably be required within the general scope and level of the post

Income Generation / Funding

- Independently secure significant funding to conduct a research project as the PI. The level of funding should reflect the size of the research team under the supervision of the Senior Research Fellow.
- Raise significant academic and/or Industry research funds

3.1. Research Tracks and Alignment to Pay Scales

Research staff may be required to participate in a range of activities depending on their level and roles which may include: supervision, mentoring and administrative duties (including grant writing) and should seek to regularly improve themselves through updating and expanding their knowledge, skills and competencies.

TUS Professional Development Committee (PDC) will oversee the allocation of funding for professional development. Staff who wish to avail of funding for courses can apply through the PDC. More information for accessing supports through the PDC is available by contacting hr@tus.ie.

Research staff are generally hired on either fixed term or specific purpose contracts to enable them to develop niche expertise that is core to a formally designated TUS research institute, centre or department, or area that has the potential to develop into a new research institute, or other research entity. If a researcher has four years consecutive services and the position is viable they may be entitled to a contract of indefinite duration.

A viable research position is one where the researcher has a proven track record of accomplishment based on their respective salary scale. The position will normally be closely aligned to core research capabilities of the TUS and have funding in place for at least the medium term (1-3 years) usually from a competitive funding source.

TUS will continue to provide for reasonable opportunity for progression, if the researcher meets the criteria necessary for progression within/between levels.

Researchers are categorised into one of three categories as outlined below.

- 1. Research Support track:** this track would apply to staff who are not normally in possession of a level 8 degree, which would prevent them from attaining PhD equivalence and entering the enterprise or research career track. This track is designed to acknowledge professional qualifications, which are normally obtained at level 6 or 7 coupled with relevant experience or service.
- 2. Enterprise Career Track:** this track would apply to those researchers whose focus is on the delivery of industry-based projects. This would normally be in support of TUS's technology gateways or other industry relevant services, or may be directly related to industry funded / co-funded research projects.
- 3. Research Career Track:** this track would be for those researchers who wish to remain as researchers or research managers. Entry onto this track would be highly selective as the focus is on research and research management rather than teaching, although it may involve knowledge transfer activities, and is therefore highly reliant on sustainable research income for long-term employment.

Lecturing Career opportunities: there is currently no direct route to transfer from research posts to lecturing posts. Lecturing posts will be filled by open competitions.

Four levels of research staff are designated as per table 1 and progression routes are illustrated in **Figure 1**. Salary payments are aligned to the **National Research Career Framework (NRCF)**^{2 a} which is in turn aligned to the European Career Framework (ECF) for researchers.

²<https://www.iaa.ie/for-researchers/researcher-salary-scales-career-framework/>

²Department of Education and Skills, National Strategy for Higher Education to 2030 (2011).

³National Framework for Doctoral Education (2015).

⁴European University Association, Salzburg Principles (2005) and Salzburg II Principles (2010); European Commission, Principles for Innovative Doctoral training (2011).

The staff entry point on each individual level will be determined on a case-by-case basis as outlined in Section 2.1.

Table 1: Staff Salary Levels

Research support	Enterprise track	Research Track	NRCF
Research Assistant	Research Assistant	Research Assistant	NA
Research Officer	Research Engineer/Scientist	Post-Doctoral Researcher	2a
NA	Senior Engineer/Scientist	Experienced Post-Doctoral Researcher	2b
NA	Lead Engineer/Scientist	Research Fellow	3
NA	Principal Engineer/Scientist	Senior Research Fellow/ Function Manager	4

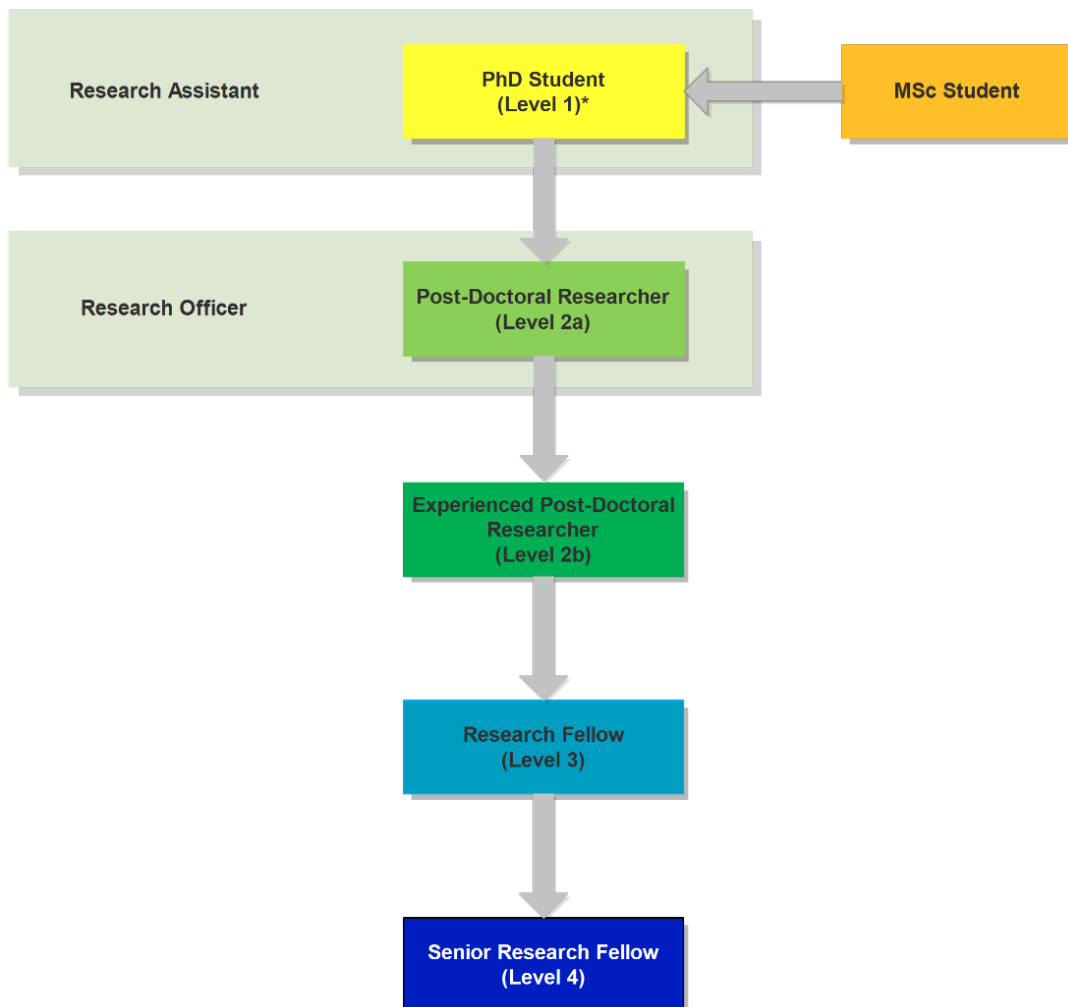


Figure 1: Research career path and progression routes

*** Level 1 on the NRCF is PhD Student. While this is not aligned to Research Assistant both routes can be used for progression to Level 2a depending on experience and qualifications within TUS.**

3.1.1. The Researcher Competency Model

A competency model represents a set of observable behaviours comprised of knowledge, skills and competencies. These behaviours are enduring qualities that are transferable across tasks and work settings and help foster the organisation's success when aligned with business objectives.

Best practice competency models combine leadership, professional, and technical competencies.

- **Leadership competencies** - competencies that are common and required across a large portion of the entire organisation in order for the organisation's leaders and professionals to be successful
- **Professional competencies** - competencies needed for success in a particular employment level or may cut across levels of the organisation with various degrees of mastery
- **Technical competencies** - competencies that focus on a specific job that involves the application of specific knowledge.

As detailed in **Figure 1**, the Competency Model includes ascending competency themes beginning with "Research Foundations", which are the basic and foundation competencies required for a research role. The competency model underpins career progression as it builds on the core competencies for a researcher as an individual moves up the career ladder. To advance to the next level it is expected that the individual has already demonstrated the competencies required in the post for which they seek to move to.

To illustrate, as an individual progresses from a NRCF level 1 to level 2a/b, it is expected that they are proficient across all the Research Foundation Competencies and the competencies within the 'Advanced Problem Solving & Industry Focus' theme. Similarly, as an individual progresses from NRCF level 2a / b to NRCF level 3 position, it is expected that they have developed the competencies required at their current level and have demonstrated competencies underpinning the 'Management' cluster. The same process applies to the progression of NRCF levels 3 to 4.

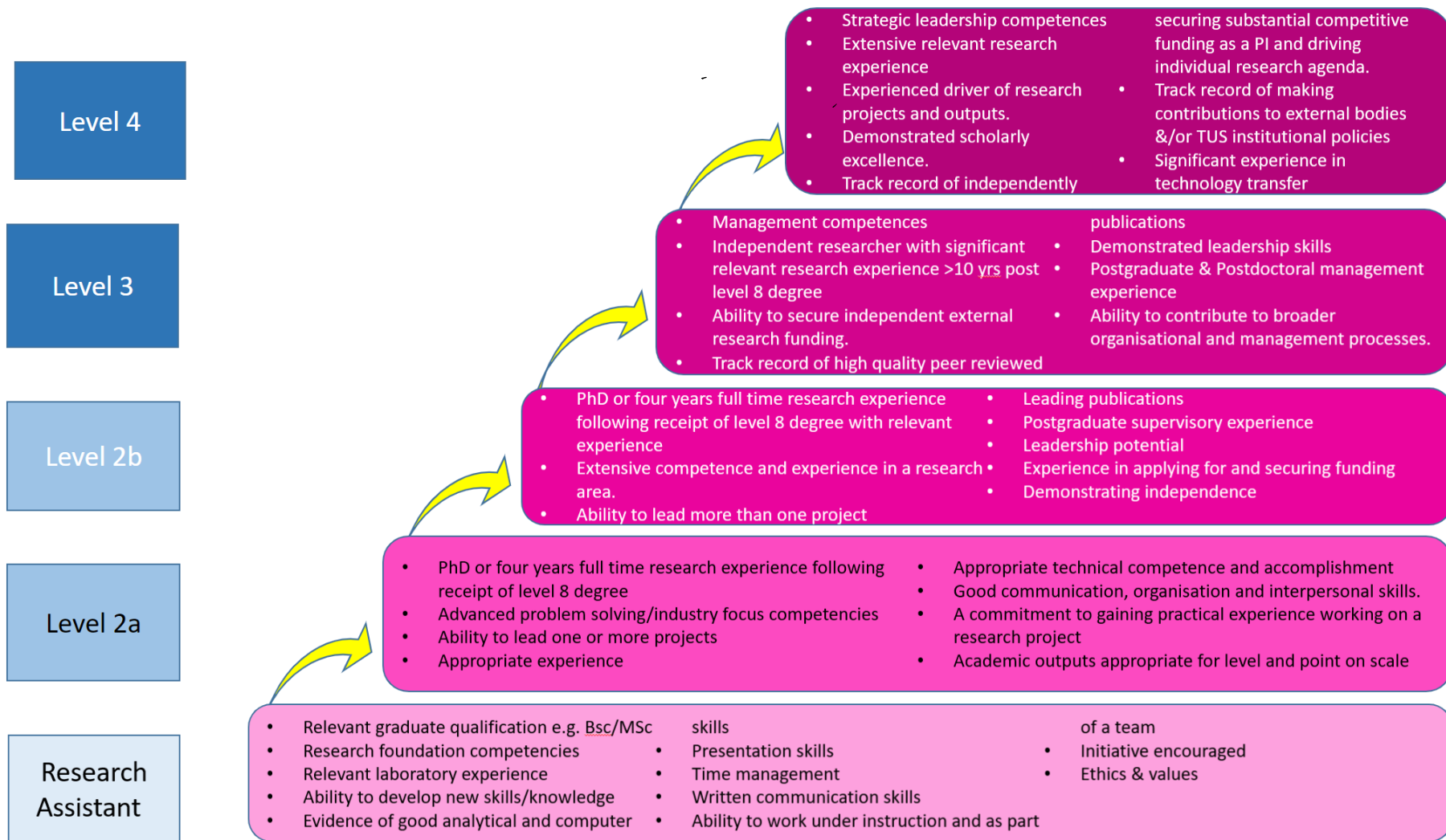


Figure 2: Outline of the competencies required for each role at each of the competency theme levels

3.2. Increments & Progression Procedures

TUS is committed to ensuring that there is a robust, flexible and transparent mechanism in place to facilitate progression of its research staff within a sustainable financial framework.

Increments are the normal process of moving from one incremental point on the pay scale to the next. Normally a researcher will only be able to move up the incremental scale by one increment per annum. Increments will be in line with public service policy.

Progression is the movement from one grade to another where the post is not advertised to be filled by competition.

- **Level 1 to Level 2a:** Progression between levels e.g. research assistant or NRCF level 1 to 2a will normally be through open competition, but may occur without competition when supported by funding being available, the applicant meeting the specific criteria of that role and subject to successful performance at progression review panel.
- **Level 2a to Level 2b:** Progression within the researcher careers framework from NRCF Level 2a to Level 2b will normally be through open competition. However, progression from PD1 to PD2 without open competition may occur where a post-doctoral researcher is on a contract supported by 3-4-year funding. In that instance, they may be eligible to apply for PD2 after 2 years' service, subject to performance and funding. Such applications will be considered through the TUS internal progression process. Achievement of the expected progression within PD 1 and PD 2 is transferable between the Irish Higher Education Institutes. This can be reflected in the starting pay of a PD researcher.
- **Level 2b to Level 3:** Progression from PD to research fellow may be by way of open competition or merit based internal progression. In relation to the latter, (a) where a researcher has secured independent research funding in their own right a researcher may be considered to have completed their post-doctoral development objectives and may be appointed as a Research Fellow, subject to the TUS internal appointment process, or (b) where a researcher has achieved a level of attainment that meets standards specified by TUS, the researcher may make application for appointment as a Research Fellow, subject to the TUS internal appointment process, which shall also consider the availability of funding.

3.2.1. Progression Application Procedures

Consideration of proposals for progression involves primarily assessing achievement in research and/or involvement in industrially funded research, problem solving, new product or process development etc., i.e. contribution to the advancement of a subject by research, scholarship, knowledge transfer, process development, consultancy, exchange activity benchmarked against the requirements of their existing job description and the requirements of the new role evaluated by an independent panel. The performance will be guided by the requirements set out below.

Progression can be proposed by the employee and endorsed by the employee's line manager following appraisal. On endorsement, the employee should make an application for progression to their Research Institute Director / Function Manager, copied to the Dean of Faculty / Head of

Research, setting out their achievements in the current role and how their current outputs align to the role for which they seek progression to while demonstrating outcomes, such as but not confined to, the following:

- Delivering high quality research, supported by notable achievements and reputation through publications and/or reports, including books, articles in refereed journals, editorships, reviews and surveys
- Attracting and obtaining research, industrial and/or commercial funding
- Carrying out their own research programmes
- Consultancy track record
- Contributing to and organising major conferences and colloquia
- Undertaking consultancies/research and provision of specialist advice to outside agencies/industries
- Devising and directing research projects
- Leading research teams and supervising the work of others.

The final recommendation on progression will be made following a review panel subject to funding availability (details of panel requirements below).

- During the review, the candidate will normally give a presentation outlining how they have met the progression criteria and how they will continue their progress. Approval is following standard RRF procedures
- Employees cannot skip a level.

Following progression between levels the employee will normally start at the first point of the new level.

Progression will be reviewed by a panel consisting of:

Progression stage	Number of panel members	Composition of panel members
From Research Assistant / NRCF level 1 to NRCF level 2a or From NRCF level 2a to 2b	Minimum of 3-person panel	1. Research Director 2. Line Manager 3. Research Support Office Nominee
To NRCF level 3	Minimum of 4-person panel	1. Research Director 2. Line Manager 3. Research Support Office Nominee 4. One independent external member with expertise in the area – industrial or academic
To NRCF level 4	Minimum of 5-person panel	1. Research Director 2. Line Manager

		<ol style="list-style-type: none"> 3. Research Support Office Nominee 4. Dean of Faculty (or nominee) 5. One independent external member with expertise in the area – industrial or academic
<p>In cases where Research Director and Line Manager roles overlap, an additional internal independent representative may be included on the panel.</p> <p>The focus of the panel members should reflect the nature of the work being undertaken at present and the new role. Membership of the panel may be varied by the President in order to ensure this alignment. Where a collaborating industry / agency is not represented on the panel a report should normally be obtained from that industry / agency.</p>		

Those seeking progression will normally be expected to operate at the higher level for an appropriate predefined probationary period depending upon the duration of the contract.

In the case where a research progression application is not successful the applicant may seek a review of the decision by making an appeal in writing to the VP Research, Development & Innovation (RDI). This should normally be submitted within 3 working days of receipt of the response from the researcher progression panel. The appeal should detail the reasons for requesting a review of the decision of the researcher progression panel.

The VP RDI will endeavour to acknowledge receipt of the request for review within 3 working days of receipt of the appeal. The VP RDI shall arrange the appointment of the researcher progression appeal panel and convene a meeting of the appeal panel normally within 10 working days of receipt of the request. The appeal panel will consist of two senior staff not involved in the original decision and VP RDI (three-person panel), ensuring a gender balance where possible.

Having completed its review, the researcher progression appeal panel will make a determination which may include one or more of the following:

- upholding the original decision of the researcher progression panel
- modifying the original decision of the researcher progression panel
- overturning the decision of the researcher progression panel.

The researcher progression appeal panel’s determinations shall be sent within 3 working days of the conclusion of the appeal review to the candidate. The decision of the researcher progression appeal panel shall be final and binding within the TU. This outcome does not interfere with the Statutory Rights of any parties to the application.

4. Remuneration & Benefits

Researcher Pay Scales are designed to provide a mechanism that will be applicable to all research staff. The pay scales will be in within the parameters of the current NRCF salary levels. The proposals are

subject to any salary adjustments or adjustments in terms and conditions that may be made at national level.

4.1. Leave

Leave entitlements for research staff are fully in accordance with the terms of the TU's general leave policies/schemes and national legislation as appropriate. The following categories of leave are provided for Research staff:

- Annual Leave
- Maternity Leave
- Parental Leave
- Sick Leave
- Career Break
- Marriage Leave
- Adoptive Leave
- Paternity Leave
- Shorter Working Year
- Force Majeure

Full details with respect to researcher leave entitlements and the related application processes may be obtained from the HR Department. Details are also available on the HR website.

Holiday allowances that apply to the various levels on the NRCF Scale:

- Research assistant – 22 days
- NRCF Level 2a – 23 days
- NRCF Level 2b – 25 days
- NRCF Level 3 – 27 days
- NRCF Level 4 – 30 days

These holidays are inclusive of TUS shutdown over Christmas holidays which is typically four days.

Research employees are entitled to paid sick leave in line with TUS sick leave policy.

Researchers within the NRCF training and development roles can avail of relevant professional development to enhance their career.

4.2. Core working

Researchers are required to work a 37 hour week. Typical working hours are 09:00 to 17:30 Monday to Thursday and 09:00 to 17:00 on Fridays. Other arrangements may be made at a local level but only with the prior agreement with the researcher's line manager.

Appendix A

Research Professors

As a Technological University it is envisaged that TUS will have the ability to appoint 'Chairs' (including endowed 'Chairs') and Associate Professors in line with traditional universities in the research environment to strengthen research activities in core research areas. An outline of the calibre of potential candidates is outlined below.

Professor / Associate Professor (Research)

In exceptional circumstances, TUS may award the title of Associate Research Professor / Professor to distinguished research staff which will be aligned to appropriate salary scales within the organisation. Such awardees will have made internationally recognised contributions to the furtherance of knowledge and/or its application. Awardees will have made significant contributions/achievements over a number of years in a variety of areas such as:

- A proven record of attracting substantial research funding
- A track record of successful research supervision to PhD level
- Received honours, prizes and awards
- A substantial record of peer-reviewed publications (or internationally-recognised equivalent public output)
- Successful research management experience
- Substantial achievement in technology and knowledge transfer (e.g. a documented record of successful commercialisation, patents etc.)
- Proven ability to contribute to the strategic direction of the institute.

Upon retirement the title "Emeritus Professor/Associate Professor" may be awarded.

Appendix B

International Best Practice

A strong correlation prevails between research performance and support for researchers across the OECD. The innovation performance for Ireland, shown in **Figure 3** lies above the EU average, yet below the innovation leaders, which are Sweden, Finland, Denmark, Netherlands and Luxemburg. When considering the relatively poor Irish government investment in research and conditions for Irish researchers, this is an impressive outcome and can potentially be related to another case of Ireland “punching above its weight”, rather than breaking an international trend.

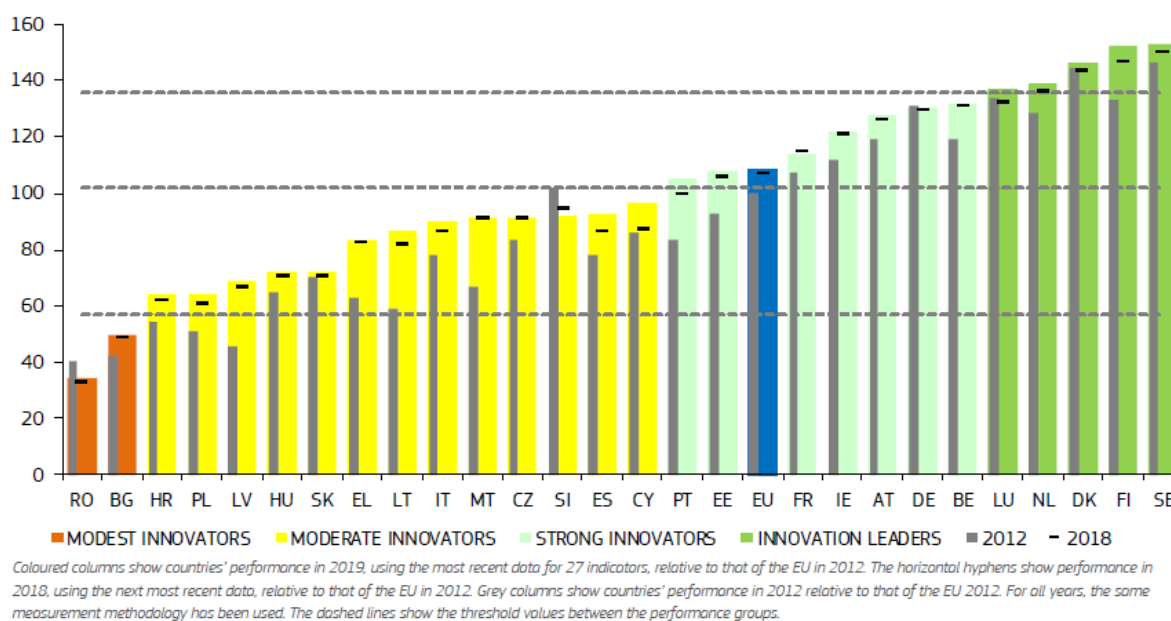


Figure 3: Innovative performance per country

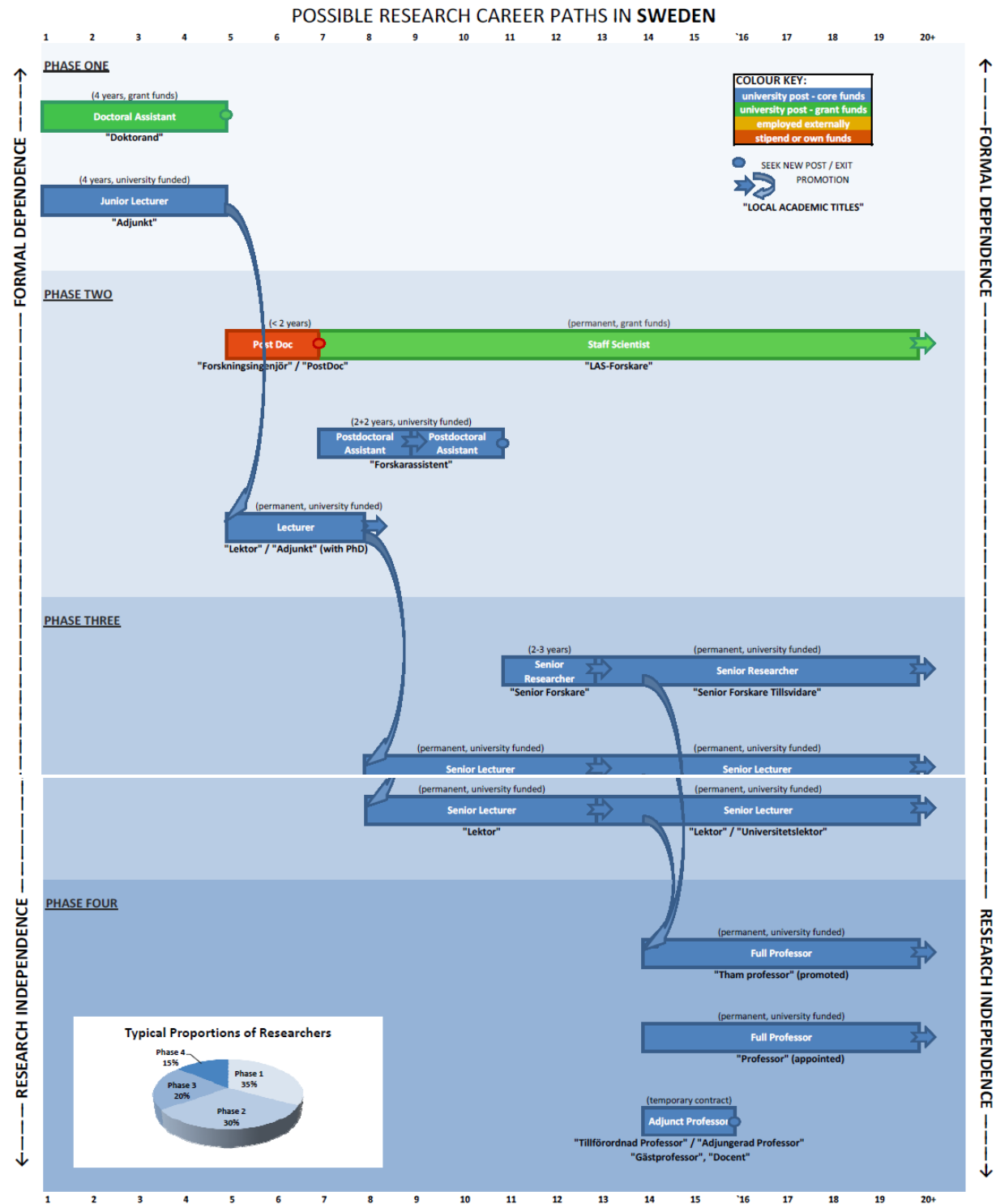
Higher education expenditure on R&D (HERD) as a percentage of GDP within OECD countries

Table 2: Higher education expenditure on R&D (HERD) as a percentage of GDP within OECD countries

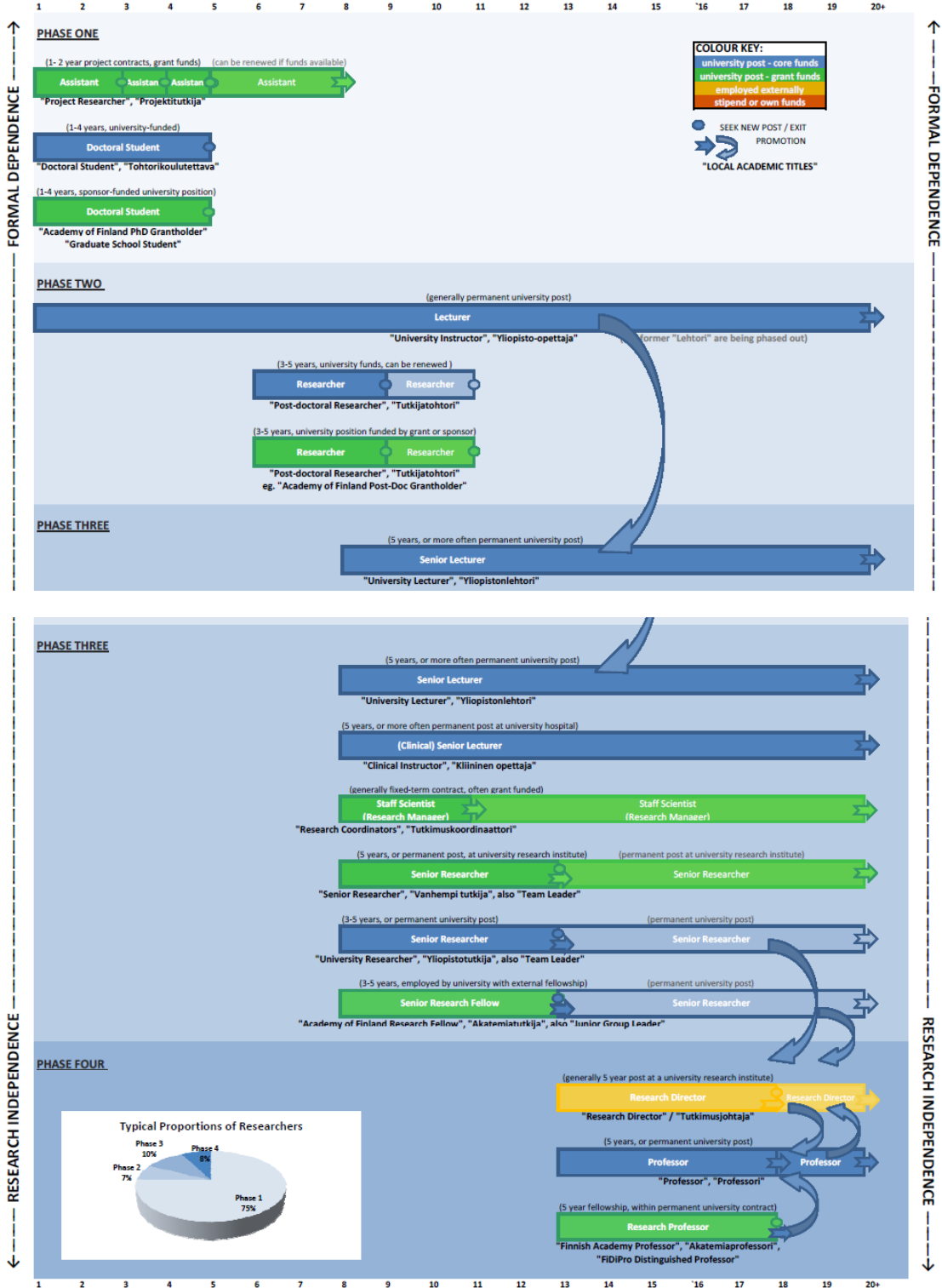
MSTI Variables	HERD as a percentage of GDP						
	Unit	Percentage					
Year	2013	2014	2015	2016	2017	2018	2019
Country							
<u>Denmark</u>	1.01	0.98	1.04	1.00	0.97	0.98	1.00
<u>Sweden</u>	0.89	0.90	0.86	0.87	0.84	0.84	0.81
<u>Norway</u>	0.52	0.53	0.60	0.67	0.71	0.71	0.74
<u>Austria</u>	0.72	0.73	0.72	0.69	0.69	0.71	0.72
<u>Finland</u>	0.70	0.72	0.70	0.68	0.69	0.69	0.71
<u>Iceland</u>	0.63	0.64	0.64	0.65	0.66	0.63	0.66
<u>Canada</u>	0.67	0.65	0.67	0.68	0.67	0.65	0.63
<u>Netherlands</u>	0.62	0.63	0.64	0.61	0.61	0.59	0.58
<u>Estonia</u>	0.72	0.63	0.60	0.44	0.51	0.63	0.57
<u>Portugal</u>	0.59	0.59	0.57	0.57	0.56	0.56	0.57

<u>Belgium</u>		0.51	0.49	0.49	0.53	0.53	0.53	0.56
<u>Germany</u>		0.51	0.51	0.51	0.53	0.53	0.55	0.55
<u>Poland</u>		0.26	0.28	0.29	0.30	0.34	0.38	0.47
European Union – 27 countries (from 01/02/2020)		0.46	0.46	0.46	0.44	0.44	0.45	0.46
<u>France</u>		0.47	0.50	0.50	0.46	0.46	0.45	0.45
<u>Israel</u>		0.52	0.52	0.52	0.49	0.45	0.45	0.43
<u>Czech Republic</u>		0.51	0.50	0.48	0.34	0.35	0.41	0.42
<u>United Kingdom</u>		0.43	0.42	0.42	0.40	0.40	0.41	0.41
<u>Greece</u>		0.31	0.31	0.37	0.32	0.33	0.34	0.39
<u>Ireland</u>		0.37	0.37	0.28	0.28	0.25	0.27	0.27
<u>Luxembourg</u>		0.24	0.21	0.24	0.25	0.26	0.24	0.26

International Career Paths from selected Innovation Leader Countries



POSSIBLE RESEARCH CAREER PATHS IN FINLAND



POSSIBLE RESEARCH CAREER PATHS IN THE NETHERLANDS

