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RESEARCH SUPPORT MATURITY ASSESSMENT MODEL

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This work has been conducted in the context of Ireland's National Research Services and Infrastructure forum (RESIN) and has benefitted from the contribution of its members.

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Introduction

The National Forum for Research Services and Infrastructure (RESIN) brings together research support staff, research IT staff and library staff working in research support from Irish Universities, Technological Universities, other Research Performing Organisations (RPOs) and Research Funding Organisations (RFOs).

RESIN have developed a Maturity Assessment Model designed to enable institutions to conduct an internal analysis of their research support infrastructure across the different areas of the organisation that have a role to play.

The scope of the model centres on assessing the ecosystem, supports and digital infrastructure in place to support research within HEIs, namely:

- · what support is required for effective Research IT infrastructure, e.g., funding
- · which services are reliant on that infrastructure and services, e.g., research data management

It is **not** designed as a tool to benchmark against other institutions or to establish a nationally-defined standard. The model is intended as a guide to be used, amended, and adjusted as is suitable for each institution.

The model can be used by institutions to assess their position and any requirements relating to the goals outlined in IMPACT 2030 and the <u>NORF National Action Plan for Open Research</u>.

The following functional areas are included:

- Research IT Support Structure
- Funding for Research IT
- · Governance and Co-ordination
- Research Data Management Services
- Research Management Services

Capturing the capacity and capabilities of each of these areas is necessary, as all play an important role in achieving a high-functioning research environment. The model also seeks to capture the interactions between associated areas.

Using the RESIN Maturity Assessment Model

While some functional areas are delineated in the model, it is unlikely that each section can be answered by just one function due to differences in organisational models and structures. As such, we recommend the model is completed collaboratively.

Each capability can be 'marked' from Level 0 through to Level 3.

Each of the levels is described in terms of what a service at that level may look like. E.g.

Function	Level 0	Level 1	Level 2	Level 3
Description of service, resource, infrastructure or policy	No Service	Awareness of the need to develop services and infrastructure. Planning in progress.	Some service and infrastructure development	Advanced level of service and infrastructure

It is likely that not all description levels will match your organisation exactly; you may not provide a service or resource listed but equally may provide something that is not included in this document. Identifying the operational level of each category for your institution may need to be decided following consultation across functional areas.

It may be that your organisation provides a service to a certain level, but has no plans to extend, and the service is considered to be fully mature for your institutional purpose. There is no expectation that Level 3 is the aim for all institutions in every case.

By capturing what is in place, the outputs and outcome of the model will provide information on the following areas:

- A clear assessment of the current service provision
- An overview of the service maturity level
- Overview of integration, overlap and collaboration between services
- Cross-functional research support workflows
- Identification of duplication of effort, gaps or areas for improvement in the current offering
- Identification and articulation of roles and responsibilities regarding Research Support

And will provide the potential for these follow-up actions to be considered, where appropriate:

An open conversation on Research Support with buy-in across the institution at all levels

- A basis for a discussion between service and infrastructure providers and users
- A roadmap towards a holistic service with the next steps in future service development and inputs from key stakeholders
- Create the potential for shared services and collaboration between central services
- A collective voice when creating a business case for new services or resources

Producing a formal report with recommendations for future service provision is an internal matter but may be useful in advocating for services and developing a future roadmap.

Finally, the model is not designed to be exclusive and can be used in collaboration with other models, e.g. RISE and/or Capability Maturity Modelling. The RESIN model is envisaged to have a 3-year lifecycle and an updated model available by 2027. This second iteration will also have a 3-year lifecycle (to 2030) and align with the IMPACT 2030 strategy timeline. It will serve as a tool for institutional alignment to this strategy as necessary.

Research IT Support Structure

This area of the activity covers the organisational setup of the function of IT research support. Facets to consider include:

- How is research IT delivered to research groups? Is it centralised or per research centre. If multiple support centres are involved, how do they co-ordinate?
- What level of support is offered: Does it have SLAs or is it offered on a best-efforts basis?
- Is there a service management framework in place?

Function	Level 0	Level 1	Level 2	Level 3
How is the research IT service delivery organised within your Institute?	The service is provided on an ad hoc basis and is not repeatable.	Support for research IT is provided by the central IT function alongside institutional level services. Non-targeted Limited services.	Some research groups within an institute avail of IT support which is tailored to their specific subject domain.	All researchers have access to a dedicated research IT function staffed with adequate resources. It may be organised centrally or distributed per department with a central co-ordination oversight function.

Function	Level 0	Level 1	Level 2	Level 3
Are SLAs provided in the delivery of research IT support?	No SLAs are provided.	Support is provided on a best-efforts basis.	Targets for SLAs are in place.	SLAs are in place and are reported on.
Is there a research IT service catalogue?	The catalogue of services offered is standard across all institutional users (academic, research, admin, staff).	There is a catalogue of services available to researchers in addition to the standard set of services.	The catalogue of services specific to research offered is clear and there is a clear process to update it. Service reports are available to staff and management.	The services provided to researchers are well documented via an accessible catalogue of services that is periodically updated. There is clear process to add services to the catalogue.
What is the level of maturity of research IT services offered?	All services are unique / ad-hoc	There is a mix of adhoc services and common, repeatable shareable services.	Undefined in v1.0.	All services are common shareable or unique ad hoc.
Does the service delivery follow standards/best practice such as the ITIL Framework?	Services are requested via email to an individual.	A service request process system is in place with no SLA for response time.	Partial compliance to ITSM frameworks such as ITIL with response time SLA.	Full compliance to ITSM frameworks such as ITIL. Reporting of SRs and their SLA are available.
Are research IT service reports available online to staff, management and researchers?	No service reports are available to staff, management or researchers.	Service reports are available but they are not online. They are accessible only to staff and management.	Service reports are available online to staff and management.	Service reports are available online to staff, management and researchers.

Function	Level 0	Level 1	Level 2	Level 3
What process is in place to manage future requirements gathering and delivery?	There is no set process to capture future requirements in place.	Ad-hoc meetings take place and are triggered by the need to plan for specific researcher uses cases known by the IT staff. There is no set timeline to analyse and respond to requirements.	Ad-hoc meetings take place and are organised by IT staff to discuss general researcher needs. There is no set timeline to analyse and respond to requirements.	The IT staff organise ongoing and proactive structured sessions with researcher representatives on future requirements, documents them and inputs to governance.
Is research IT staff directly involved in research projects from an IT perspective?	There is no involvement in research activities from IT staff.	Undefined in v1.0.	Undefined in v1.0.	Select IT staff are deeply involved in select research activities. They have a good understanding of the research workflows and can advise on tools and services needed to conduct the research.
How is IT upskilling for research IT support staff organised?	Upskilling and training is left to each individual staff member, there is no managed budget for training.	Undefined in v1.0.	Undefined in v1.0	A well-structured process and budget for staff training is in place.
Where Research IT support is decentralised, how is co-ordination with any central function, and between units, organised?	There is no co- ordination between the units, they work in silos.	Co-ordination between units occurs on an ad hoc basis.	Co-ordination between units occur on an ad hoc basis and/or is triggered by central IT (hub).	The various units have structured co- ordination sessions to discuss and address researcher needs and a RACI model is in place.

Funding for Research IT

This area of the activity covers how funding for IT support for research is managed and accessed, looking at the primary source of funding, its sustainability and update process. Considerations include:

- Does it come from the research groups?
- Is funding provided centrally by the institute?
- Is it a combination of the above?

Function	Level 0	Level 1	Level 2	Level 3
What is the source of funding for research IT support staff?	There is no specific funding for research IT support staff.	Research IT staff is part-funded centrally, part funded by research groups, with no set definition of who funds what resources.	Research IT staff is part funded centrally, part funded by research groups, with a set definition/criterion of who funds which resources.	There is a defined central funding for research IT staff. Additional resources for research groups, centres are funded by the various groups/centres.
Is there a process in place for the review of staff funding?	There is no defined process in place.	Undefined in v1.0	Review of staffing levels and funding for research IT occurs at defined periods. There is no process to request additional resources outside set periods.	Review of staffing levels and funding for research IT occurs at defined periods. It is possible to request additional resources through a defined process outside the set periods.

Function	Level 0	Level 1	Level 2	Level 3
What is the source of funding for digital infrastructure specific to research?	There is no targeted institutional funding for digital infrastructure for research.	Funding for digital infrastructure for research is provided by the respective research/centre funds.	Undefined in v1.0	The provision of shared digital infrastructures for research avails of central institutional funding. It is possible to have additional capacity of shared resources funded by research groups. Specialised (thematic, disciplinary) digital infrastructures are funded by the respective research groups.
Are measures in place to guarantee sustainability of funding for research IT resources?	No measures are in place to guarantee the long-term funding of digital infrastructures for research.	Some of the digital infrastructures have a plan for long term sustainability.	Undefined in v1.0	There is a strategy in place to guarantee the long-term sustainability for all digital infrastructures.

Governance and Co-ordination

This area of the activity looks at how the various functions (IT, data management, research management) co-ordinate both amongst each other and with researchers to ensure they meet researcher needs. The considerations look at, strategy, policy, governance and operations regarding the co-ordination between these functional units.

What is the institutional strategy on the formation of a governance structure to coordinate support to research?	There is no such strategy in place.	There is an informal agreement between unit heads to co-ordinate their support to researchers.	There is a research strategy without specific actions called out.	The strategy is set at executive level and aligns with national strategies such as NORF and IMPACT 2030. It has an implementation plan covering data, systems, HPC etc., informing related national RI policy, strategy and investments.
What is the policy landscape, for research support and systems?	No institutional policies are in place for research support and systems.	Policies exist, are self- contained and not required to align with other institutional/national policies.	Policies exist, are required but do not necessarily align with/across other institutional or national policies.	Policies exist and align with other relevant institutional and national policies. Changes to policies are reviewed and their impact assessed and may or may not be approved.
Does an Institutional Governance committee/unit exist, tasked with decision making on institutional research infrastructure, services and support requirements?	No such unit is in place. Ad-hoc discussions may occur between IT, library and Research office staff but there is no set structure in place and no defined leadership.	An informal structure is in place with Terms of Reference (ToR). No set representation from IT, library and Research office staff. It meets on demand by members.	There is a set structure with ToR, which directly references the institutional strategy. It has a chairperson and set representatives from IT, library and Research Office and has a researcher/academic representative. It meets regularly, and its decisions are not binding, are but constitute recommended actions to institutional executive level.	There is a set structure with ToR and a chairperson. It is sponsored by CIO (Director IT), Head of Library, VP research. It meets at regular intervals and on demand and its decisions are binding.

Does a mechanism such as a forum, for gathering and analysis of researcher requirements exist?	There is no forum in place, discussions are triggered by researchers on demand, with people they know. Researchers may log a call with IT helpdesk.	Multiple committees exist with no or unclear ToR. There are named individuals from each function who researchers can contact to discuss their needs.	A forum is set with named individuals,. It works primarily in "reactive" mode by researcher requests and is contacted primarily via help desk.	The forum proactively stays engaged with researchers and funding bodies on forthcoming requirements that may arise from new funding calls and other sources of information. Their activities are in line with institutional strategy, policy and governance.
How do research support units co- ordinate amongst themselves to support each other within the institute?	There is no co- ordination in place between the various units of research IT, library, and research office.	Co-ordination occurs adhoc, on demand, initiated by any individual in any of the 3 functions.	An informal co-ordination structure is in place supported by heads of units.	A set structure is in place and is sponsored by CIO, Head of Library, VP research. Meets at regular intervals and on demand. Named reps from IT, RDM, RO.
Is there coordinated support to researchers for digital Research infrastructure proposals development?	No support is provided to researchers in developing proposals.	Each unit interacts with researchers independently of one-another.	Co-ordination between units occurs on demand and in response to a researcher's request. The researcher takes lead in contacting contact each unit/function.	Well coordinated between all units and researchers in line with institutional strategy, policy, and governance.

Research Data Management Services

This section aims to help central services within institutions to self-assess how they are facilitating and enabling the transition to an Open Research environment through Research Data Management and FAIR Principles and Open Data within their institution.

The questions and topics in this section focus on policy, policy alignment, services, training and skills development and infrastructure which support research data at all stages of the research data lifecycle.

Institutional Data Governance

Function	Level 0	Level 1	Level 2	Level 3
Does your organisation deal with Data Governance within strategic documents and plans?	No Open Research strategy. No RDM strategy. Open Research and RDM not mentioned in any institutional strategy documents.	Open Research mentioned and assigned actions in a wider institutional strategy without specific actions or targets for RDM/FAIR or Open Data.	Open Research called out in an institutional strategic plan with dedicated actions to enable a FAIR/Open Data research environment.	Dedicated institutional Open Research Strategy, which directly addresses FAIR/Open Data and RDM with targeted actions.
Is there a specific RDM Policy?	No RDM policy in place.	RDM policy in development.	Dedicated RDM policy in place but requires updating, e.g. Does not mention FAIR; not fully implemented or socialised widely; FAIR only a recommendation, not a mandate.	RDM policy is up to date. Mandates data management plans. Open Data the default. FAIR is mandated. Fully implemented and well socialised.
Is there effective policy alignment in your institution? Do related policies impact on RDM provision, (e.g. Ethics, IP, GDPR) include RDM?	No alignment between related polices.	RDM mentioned in related policies but functionally no coordinated alignment between policies.	Policies are aligned and cross-reference each other but there are no structures or fora in place to support collaboration and enable implementation.	Policies are aligned across the research landscape AND a forum exists for policy holders to work together and co-develop resources and infrastructure to support RDM, FAIR and Open Data.

Function	Level 0	Level 1	Level 2	Level 3
Does your institution have a budget & resources dedicated to RDM? (This may not be a ringfenced budget but could include resources spread across the organisation. The aim is to capture the security and permanence of the function).	None.	Budget and resources can be available on a project/isolated basis from several parts of the institution (RO, Library, IT), but there are no centralised structures or permanent dedicated resources in place.	There is a dedicated RDM budget and/or resources (Tech, People) within functions e.g. library, but no centralised fund or strategy. May be available on a first come, first served, basis.	There is a ringfenced institutional budget, aligned to strategic intent with financial and infrastructural planning annually. Infrastructure and personnel are secure and dedicated to RDM.

RDM Support

Function	Level 0	Level 1	Level 2	Level 3
What training in RDM is provided by your institution?	No training is available within the institution.	Institutionally tailored and/or external programs exist but are self-guided and generalist. Some F2F training is provided on request, depending on the resources available.	A suite of regular formal classes is available, both on request and scheduled. General in nature. Not mandated or accredited.	A suite of regular formal classes is available, both on request and scheduled. This service includes discipline-specific training from discipline experts and is either mandated and/or accredited, e.g. Carpentries.
Do you provide an RDM advisory service?	No advisory service available for RDM, FAIR, Open Data.	Advise on RDM, FAIR and Open Data available on a 'best effort basis' in response to specific funding calls.	University-wide advisory service available. High level & generalist. Project-specific consultation available on request, but no embedded or discipline-specific support available.	In addition to the general advisory service provided, discipline-specific advice from data stewards is available. Data stewards available within departments and advice given goes beyond the generic.

Function	Level 0	Level 1	Level 2	Level 3
Does your institution provide Data Management Plan support?	No DMP support provided.	PreAward support for DMP writing is provided, but there is no/little support for DMP implementation during the research project.	PreAward DMP support is provided as routine and is well socialised. Research project support for DMP implementation with ad hoc advice provided, on request, based on resourcing.	DMP support is provided throughout the research lifecycle, from application stage through to completion and publication. Discipline-specific support is available.

Data Stewardship Capabilities

Function	Level 0	Level 1	Level 2	Level 3
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Does your institution support Data Curation, and if so, how?	No support for data curation.	DIY approach to data curation. Researchers directed to training materials and online resources, but no direct support given.	Some direct help for organisation and structuring of datasets but only on best effort basis. No domain expertise available. Access to a generalist data steward. Support given is FAIR compliant.	Help and support available from a data steward with domain expertise. FAIR and Open Data principles are implemented.
How does your institution support Data Publishing?	No data publishing support service.	Data publishing is supported at the level of the institutional repository only; no subject-specific advisory is provided.	Data publishing advice/support is available for the institutional repository or data repository. Subject-specific advice (e.g. for external repositories) is dependent on expertise available and largely delivered on 'good will' basis by staff, with no dedicated resource defined. FAIR adherence required in principle but not fully mandated/monitored.	A dedicated resource exists to facilitate and support data publishing, advising on subject-specific best practice. Publishing is mandated at institutional level and must comply with FAIR principles.

Function	Level 0	Level 1	Level 2	Level 3
What metadata support is provided?	No metadata support.	Generalist training and support materials available for self-guided learning. Metadata support is available on demand but is not subject-specific and not embedded. Predominantly provided at DMP writing and end of research stages.	General support is available through the research lifecycle, but no subject expertise is resourced. Service is not well socialised.	Dedicated metadata support is available across the research lifecycle, with subject expertise and focuses on FAIR compliance and maximising meaningful research outputs.
What services are available to support Data Capture & Study Design?	No support is provided.	Links to external materials and resources only.	Some on-boarding materials and resources are provided. Generalist training and support available but not domain specific. No embedded support from central services.	Data steward with domain expertise to guide and support data capture, and study design to ensure the quality of the underlying data, e.g. electronic data capture, relational databases design etc. Dedicated training materials.

Data Infrastructure

Function	Level 0	Level 1	Level 2	Level 3
Does your institution have a data repository? (Separate from your institutional repository).	No institutional data repository available. No advice on repository selection.	Third-party data repositories, such as Zenodo, or domain-specific, free to use repositories are the norm. Limited subscription available to domain-specific third-party services such as DRI may be in place. Advice available on repository selection; given on 'best efforts' basis.	Data repository services are available through other FAIR compliant in-house software, such as institutional repository or CRIS. Third-party data repositories, e.g. Zenodo,domain-specific free-to-use repositories, are used and recommended where appropriate.	A dedicated data repository service is available and supported by the institution. Deposit is supported through metadata support, data quality checks and some data curation activities. It is interoperable with internal and external systems, e.g. Zenodo, uses PIDs, is FAIR compliant, and its

Function	Level 0	Level 1	Level 2	Level 3
			be taken out to domain-specific third-party services, such as DRI, where there is demand.	use is mandated. Advice available on repository selection and direct support for depositing data.
Do you provide dedicated DMP tool(s)?	No DMP software provided or advocated.	External DMP software (e.g. DMP Online) is recommended by the institution, but not mandated and there is no institutional instance. Limited support may be provided.	Templates tailored to the institution and/or funders are provided (may be within one or multiple systems) and aligned with relevant policies. Adaptations for domain-specific requirements have been developed and are supported within the institution.	There is mandated use of an interoperable and institutionally supported DMP tool, producing machine actionable DMPs compliant with funder requirements. Reporting and compliance functionality. Templates tailored to the funder, institution and discipline are available.
What, if any, Active Data Storage is provided and supported?	No dedicated infrastructure for active data storage (beyond standard institutional tools, e.g. Microsoft Office).	Additional active data tools can be IT-supported on a project basis, paid for by funded projects, but no usage support is provided.	A number of active data tools are available through the institution, but they are not necessarily provided via a dedicated Research function and may not be fully compliant with Open/FAIR principles. May be legacy systems, for example.	The institution provides a suite of active data storage opportunities to suit varying requirements for volume and format, with full support. These tool(s) are compliant with principles of Open Research and support and enable FAIR and Open Data as an output.

Function	Level 0	Level 1	Level 2	Level 3
Does the institution provide a Data Safe Haven (i.e. secure storage for personal and sensitive personal data during active research)?	None available.	Secure storage available but only within existing systems and only available to organisational staff and students.	Secure compute and cloud storage options available to staff and students on specific projects, with ability to invite external collaborators and/or share files securely.	Secure compute and storage options widely available to staff and students. Suitable for multiple data types. Ability to invite external collaborators and/or share files securely. Metadata capture on ingest. Potential for FAIR but Closed data sharing postproject (even if not actioned).
What, if any, - Archival Data Storage is provided and supported? (This is for data that will never be FAIR, it's for the research records that are required in the case of a post-project audit but will not be shared, e.g. consent forms)	No archival storage available. Responsibility rests with the project PI.	No dedicated infrastructure for long-term data storage beyond standard institutional tools. e.g. Microsoft Office.	Archival storage available institutionally in limited cases and on a 'best effort' basis. Some data archiving is completed at project level with external service providers, often funder-mandated or pre-determined. No institutional oversight.	The institution provides a fully functioning archive facility, which is supported - usage & IT – and future-proofed for longevity. Policies on usage and retention are clearly defined, with processes in place for access and deletion. Availability of the infrastructure is widely communicated to relevant stakeholders.

Function	Level 0	Level 1	Level 2	Level 3
Are Data Capture tools provided and supported?	No institutional input. (Tools used are at the individual discretion of and discrete to research projects).	Some tools are available through institutional subscription, but in the main, specialist data capture tools are procured through research grants and not widely available. No data stewardship support at data capture stage.	Specialist data capture tools are universally available for electronic data capture, but no dedicated support or training available; users are directed to the software providers training materials.	Specialist data- capture tools are universally available for electronic data capture, with dedicated support or training available, tailored to local and/or domain requirements.

Research Management Services

This section covers the set of services offered by the Research Management function within institutes that aid support staff and researchers in accessing and managing funds, managing research information and outputs alongside specialist systems.

Research Management

Function	Level 0	Level 1	Level 2	Level 3
Does your institute have a Current Research Information System (CRIS) in place?	No CRIS in place.	Need for CRIS identified and process to implement is underway. Old CRIS in place which is not regularly updated by researchers. Gaps exist in relation to connectivity with other IT systems.	CRIS has been recently updated, but certain modules need to be integrated to meet all institutional research needs.	CRIS has been recently updated and meets all institutional research needs. In-house development expertise available or external SLA in place. Resources onboarded and system being used. CRIS optimised with additional integrations. (national CRIS system for discussion at workshop?)

Research Funding

Function	Level 0	Level 1	Level 2	Level 3
Does your institute have a system/portal in place to identify funding opportunities and share results with researchers?	No access to centralised funding information portal or funding awareness database. No coordinated emails circulated to research community announcing funding calls.	Some funding information is available, but not regularly updated. Regular emails circulated about funding calls. Include facilitated sessions	Subscription to funding awareness database and/or portal for all research staff. Regularly updated detailed funding area of website/intranet provided. Automated regular email updates about funding calls.	Subscription to funding awareness database for all research staff, regularly updated detailed funding area of website provided. Automated regular updates about funding calls. Facilitated sessions for researchers on specific calls.

Function	Level 0	Level 1	Level 2	Level 3
Does your institute have a Grants Management System in place?	No formal grants management system established.	Has identified a formal grants management system and is beginning the implementation process. Grants management occurs at local level by relevant Research Officers (funding portals, Excel trackers, Agresso).	Using software to manage grants, develop bespoke workflow, enable basic reporting and authorisation.	Grant management workflows integrated with institutional CRIS system.

Research Assurance

Function	Level 0	Level 1	Level 2	Level 3
Does your institute have a Research Ethics Management system in place?	No formal Research Ethics system established.	General research ethics information provided, but no system in place. Ethics applications are tracked locally by Ethics team (Excel tracker etc.)	Ethics software in use that manages workflow. The system is not integrated into CRIS and may be limited in terms of upgrades/support.	Ethics software is integrated into CRIS and all ethics queries are centrally managed through the CRIS interface.

Conducting Research

Function	Level 0	Level 1	Level 2	Level 3
Does your institute have a Clinical Trials Management System in place?	No formal system for managing clinical trials.	Clinical trials management occurs at local level by relevant Research Officers (Excel trackers, Agresso).	Software in use for streamlining approval/workflow of clinical trials applications.	All clinical trials applications are managed centrally through the CRIS interface.

Disseminating Research

Function	Level 0	Level 1	Level 2	Level 3
Does your institute have a Publications Metrics system in place?	The institution has no subscription to a publication's metrics/bibliometrics platform (eg. SciVal, Web of Science).	All researchers have access to one publications database.	All researchers have access to 1-3 publications databases.	The institution's CRIS integrates with publications databases and automatically identifies potential publications for each researcher profile. All researchers have access to 3+ publications databases covering a variety of disciplines.
Does your institute have an Alternative Metrics system in place	The institution has no subscription to an alternative research metrics platform (eg. Altmetric, Overton).	The institution has a subscription to one platform that evaluates alternative research metrics at researcher level.	Undefined in v1.0	The institution has access to 1+ platforms that evaluate alternative research metrics at researcher level, school level and HEI level.
Does your institute provide information on Research Impact?	The institution does not provide targeted access to website information/training about research impact.	The institution has some information available on its website regarding Research Impact.	Undefined in v1.0	The institution has a dedicated Research Impact section on its website, providing access to information, resources and tools to inform researchers about impact, including case studies of best practice and training/workshops.
Does your institute offer an Open Access repository of publications?	Institution does not have an open access repository.	Institution has access to a shared/community repository	Institution has open access repository that researchers can manually submit papers to.	Institution has open access repository that is integrated with CRIS to allow researchers to easily upload papers by clicking button.

Innovation

Function	Level 0	Level 1	Level 2	Level 3
Does your institute have an IP Management system in place?	The institution does not have access to IP management software.	Undefined in v1.0	The institution manages IP portfolio using IP management software, which tracks patents, licenses, etc.	The institution's CRIS integrates with IP management software to give internal stakeholders oversight of IP management.

List of Abbreviations

CIO Chief Information Officer

CRIS Current Research Information System

DMP Data Management Plan
DRI Digital Repository of Ireland

F2F Face To Face

FAIR Findable, Accessible, Interoperable, Reusable

GDPR General Data Protection Regulation

HEI Higher Education Institute
HPC High Performance Computing

IP Intellectual Property
ITIL IT Information Library
ITSM IT Service Management

NORA National Open Research Action plan
NORF National Open Research Forum

OA Open Access

PI Principal Investigator
PID Persistent Identifier

RACI Responsible, Accountable, Consulted, Informed

RDM Research Data Management
RFO Research Funding Organisation

RI Research Infrastructure

RO Research Office

RPO Research Performing Organisation

SLA Service Level Agreement

SRs Service Requests
TOR Terms of Reference
VP Vice President