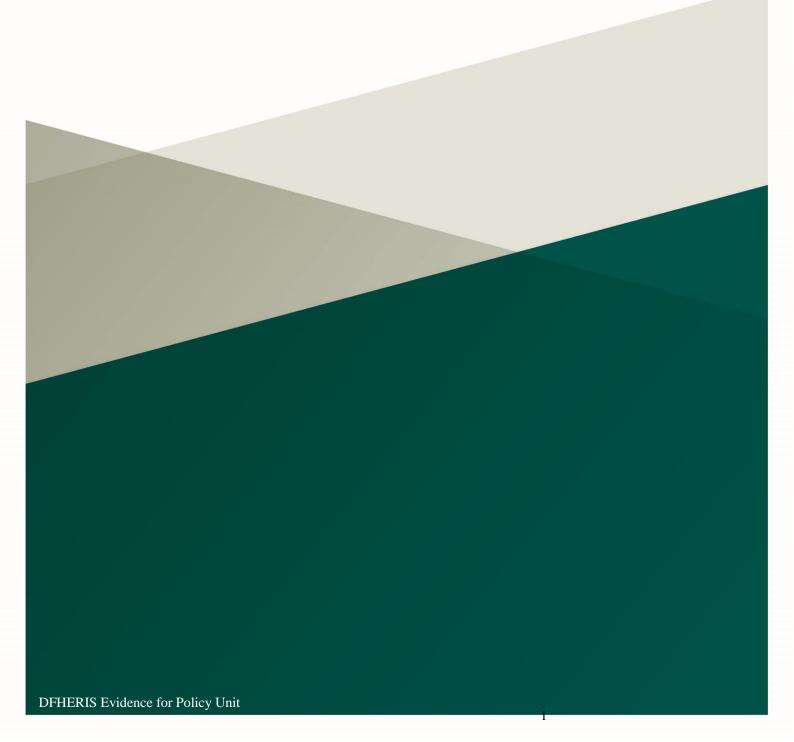


Evidence Base for the Tertiary Sector: 2023-2024 Research Priorities

July 2023



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1 Introduction

The tertiary education system, which incorporates further education and training, higher education, skills and the research sector delivers the knowledge and skills required for both Ireland's success at a national level and also for personal success at an individual level. The tertiary system ensures that there is a fit for purpose opportunity for engagement with learning for all learners, regardless of their learning goals. It delivers knowledge and innovation which is integral to Ireland's success as a small advanced economy now, and into the future

The rapid pace of technological change, combined with increased diversity across Irish society demonstrates the need for a dynamic system, primed to cater for a wide range of learners and responsive to ever-changing national and international challenges. The results of Census 2022 will continue to report during 2023 and evidence of further societal shifts may be anticipated.

There is a well-documented requirement for reliable and timely evidence to inform effective policy and funding decisions^{1,2,3} and to ensure that the system remains agile and accessible to all sections of our society. *Impact 2030*, emphasises the critical role of research in contributing to that evidence base.

This statement highlights the research intent and priorities of the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) and its agencies⁴ for 2023 <u>as they relate to tertiary sector policy and operations</u>. It includes research funding calls, ongoing activity and research publications. It also sets out the underlying research and evaluation activity delivered in 2022.

It is intended that this work will:-

- Enhance transparency of existing activity across the tertiary sector which contributes to the evidence base underpinning the contribution of the tertiary system to society and to individuals.
- Provide transparency in relation to key areas of interest to support engagement with the research community in supporting evidence-informed policy development.

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¹ gov.ie - Programme for Government: Our Shared Future (www.gov.ie);

² https://www.gov.ie/en/publication/efd7f-civil-service-renewal-2030/

³ https://creatingourfuture.ie/reports/

⁴ The Higher Education Authority (HEA), the Irish Research Council (IRC), Quality and Qualifications Ireland (QQI), Science Foundation Ireland (SFI), Skillnet Ireland, and SOLAS.

2 Policy Context

The Department of Further and Higher Education, Research, Innovation and Science (DFHERIS), and its agencies support the national research and innovation system in a number of areas:

1. Research Policy

The Minister for Further and Higher Education, Research, Innovation and Science holds policy responsibility for the national research and innovation system. Impact 2030, the whole of Government strategy sets out to position research and innovation at the heart of addressing Ireland's societal, economic and environmental challenges. It brings together key stakeholders from across the research and innovation ecosystem to ensure that the entirety of the system is facilitated to progress objectives shared across the Irish Research and Innovation system such as maximising its impact on public policymaking and implementation, and nurturing and attracting talent.

2. Research Funding

Budget allocations under DFHERIS in relation to research activity in the State reached almost €491m in 2022. Of this, Science Foundation Ireland (SFI) and the Irish Research Council (IRC) together provided almost €270m in grant allocations to research bodies in 2022, with a further €189m funding allocated to higher education institutions through the HEA⁵.

3. Research Utilisation at a National Level

As the key funder of the higher education and research system, under *Impact 2030* DFHERIS has commenced work to ensure that policy practitioners and researchers are supported to engage with each other, allowing for greater impact of research activity and insights in supporting policy development across Government.

4. Research Utilisation at a Sectoral Level

Inherent in the above activity is a need to ensure that there is a robust evidence base to inform policy development relating to the tertiary education system and cross-departmental policy initiatives in which DFHERIS is involved. Data collection and availability, research and evaluation activity is distributed across the key agencies in the sector – SOLAS, Higher Education Authority (HEA), Quality and

5 https://www.gov.ie/pdf/?file=https://assets.gov.ie/254856/0d22ff48-8df7-47c2-8213-48c8d549ca51.pdf#page=null

Qualifications Ireland (QQI), Skillnet Ireland, Science Foundation Ireland (SFI), Irish Research Council (IRC) as well as within the Department itself.

This paper is concerned with area (4) above.

3 2023-2024 Areas of Research Interest

Data collection and research activity relevant to the tertiary sector is carried out across the sector. This paper brings together the relevant research and evaluation activity to form a tertiary system overview of evidence activity and current areas of research interest.

These areas of research interest were identified through a baselining exercise across three broad areas which cross the entirety of the tertiary sector – Tertiary Sector Outcomes, Inclusion and Transitions; through the 2023 business planning cycle within the Department and through review of 'Creating Our Future' outputs to identify areas of relevance to the sector arising from the national consultation.

DFHERIS recognises that not all information needs are, or should be, linked to defined areas of known activity. The Department remains open to learnings from fundamental and applied research through which unique policy perspectives may be drawn and will work to develop opportunities for knowledge sharing over the coming period in addition to formalising additional opportunities for engagement between the Department and the higher education (HE) research sector.

3.1 Bringing the tertiary sector towards carbon neutrality

The decarbonisation of the stock of existing buildings is a key mission within the Climate Action Plan 2023 (CAP 2023), with actions and targets aimed at delivering a 50% improvement in energy efficiency and reducing emissions from this sector by 51% by 2030. The plan notes that the public sector should lead by example by specifying low carbon construction methods and low carbon cement material as far as practicable for directly procured or supported construction projects from 2023. Reaching these ambitious target presents a significant challenge requiring a strong evidence base to underpin an effective and strategic approach.

January 2023 saw a €26 million call of the Energy Efficiency and Decarbonisation Pathfinder Programme for the higher education sector. Co-funded with the Department of the Environment, Climate and Communications under Project Ireland 2040, this third call under the pathfinder programme represents a key measure under the Department's climate action agenda. Administered through the Sustainable Energy Authority of Ireland (SEAI) and Higher Education Authority (HEA), the 13 successful pathfinder projects will test a range of building retrofit approaches to build evidence and capability in the sector, and to inform decisions as larger scale programmes are rolled out in the future. Detailed activity under the 2020 and 2021 calls are listed in Section 4.7.

Areas of interest to the Department include modern methods of construction, minimising embodied carbon in the tertiary sector footprint and carbon budgeting for the sector.

3.2 The contribution of the tertiary system to individuals and to society

The Department and its agencies have an established programme of work on higher education graduate outcomes and outcomes for some further education learners. SOLAS will deliver a review of apprenticeship outcomes in 2023, contributing to the overall picture for tertiary learners. Work between the CSO and agencies is ongoing on ensuring that relevant data can be brought together to develop an understanding of long term impacts of qualifications on learners and their careers.

It is recognised that there is substantial level of relevant information being generated across the sector and the Department will work to bring this broader evidence together to ensure that learners and the public have a clear understanding of the impacts of continued engagament with the tertiary system on their lives and on wider societal goals.

The tertiary sector operates in collaboration with employers and industry across all offerings from further education, higher education, work-based learning and skills development through Skillnet Ireland and apprenticeship and the research sector. Key areas of research interest include the contribution of the tertiary sector and innovation to regional and national outcomes.

In particular, the Department is interested in the evaluation of research and innovation public expenditure, whether through the exploration of frameworks for such evaluation or the application of such a framework to national public investments, to expenditure by a particular public research funder or to a particular programme level public expenditure.

3.3 Strategy for tertiary education

A key deliverable within the Higher Education Authority Act 2022 is the commitment to deliver a Strategy for Tertiary Education. A key component of the Tertiary Education System is the Unified Tertiary System Policy platform. A public consultation was held and a series of consultation papers are underway to help generate ideas and inform the development of a detailed unified education and training strategy.

The Department welcomes research into successful partnerships and regional impact of collaborate activity across the FET, HE and Research sectors.

An area of particular interest is research on the economic history of the development of Ireland's research and innovation system including the establishment of SFI, expansion of Government research and innovation funding and the introduction of the Programme for Research in Third Level Institutions (PRTLI).

3.4 Inclusion within the tertiary sector

The higher and further education sector is a valuable instrument in promoting equality, diversity and social cohesion. Creating an inclusive system, which reflects the diversity across Irish society and offers opportunities to learners from all walks and stages of life is a core tenet of the department's strategy. In 2022, the department published the fourth *National Access Plan*, which will continue to target supports to underrepresented students. The plan also contains a detailed data overview, covering current data availability and further data priorities over the lifetime of the plan. *Future FET: Transforming Learning* (2020-2024) identified learners with disabilities as a key priority group, with commitments to create pathways to ensure that this cohort can fully engage in learning whilst delivering on the critical skills needs of the economy and the future world of work.

Contributors to the recent consultation process for *A More Unified Tertiary System* called for the provision of coherent support services, highlighting that Further Education and Training (FET) and learners entering Higher Education (HE) may require specific supports to successfully participate and complete their education journey accompanied by improvements to communication between services.

A number of supports at tertiary level have been expanded to improve pathways across the tertiary system e.g. the Programme for Access to Higher Education (PATH) bursary has been extended to continue support to postgraduate level. Impact 2030 proposes to further extension of the programme, targeting inclusion within the research community. Ongoing activity to inform the Department on the lived experience of learners includes a National Survey of Student Experiences of Bullying in Irish HEIs due later this year, building on the survey of staff experience which was published in 2022.

Areas of interest include pathways through the tertiary system for learners in target groups and the requirements and efficacy of the current student support system.

3.5 Skills

DFHERIS and the Economic and Social Research Institute (ESRI) embarked on a joint research programme in 2022 with a specific focus informing skills policy in Ireland. This strategic agreement comes amid a backdrop of rapid transformation affecting skills and labour market needs. The programme will run for three years in the first instance and deliver three key research projects to 2025.

Work is progressing on the first area of research, in relation to emerging technologies and is expected to conclude in the second half of the year.

The <u>OECD Skills Strategy Ireland: Assessment and Recommendations</u> report was launched on the 9th May 2023 to inform whether, and how, the National Skills Strategy (NSS) 2025 might need to be adapted to ensure that it remains fit for purpose in a changing world.

The Report on the Analysis of Skills for Residential Construction & Retrofitting 2023–2030, commissioned by SOLAS and DFHERIS, addressed additional construction skills required to meet Government targets for new housing and retrofitting over the period of 2023-2030. The review was included as a high priority action under the revised Housing for All plan, to help tackle the housing crisis, and ensure supply of the requisite skills to meet housing and domestic retrofit targets.

3.6 Scheduled Policy Planning and Reviews

Key national strategies under the remit of the Minister for Further and Higher Education, Research, Innovation and Science contain review dates as set out below. In general, where the Minister intends to renew or develop a successor strategy then a public consultation may take place to inform the successor/replacement strategy.

Publication year	Action Plan	Research and Evaluation commitments
2016	Irish Educated, Globally Connected – An international education strategy for Ireland 2016-2020	- End-term review <u>completed</u> 2022
2016	Ireland's National Skills Strategy 2025 – Ireland's Future	- OECD Review of the National Skills Strategy reported 09th May 2023
2019	Technology Skills 2022	- Term of the Action Plan complete
2021	Action Plan for Apprenticeship 2021-2025	 Apprenticeship outcomes reporting Deliver value for money review of apprenticeship to review the impact of the single apprenticeship system in driving fit for-purpose apprenticeships and to inform the development of a successor action plan (Q4 2024)
2021	Adult Literacy for Life – a ten year adult literacy strategy	- Independent mid-term review 2026

2022	Ending Sexual Violence and Harassment in Higher Education Institutions – Implementation Plan 2022-2024	-	Full review of progress will be carried out after one year.
2022	Race Equality in the Higher Education Sector Implementation Plan 2022-2024		
2022	National Access Plan - A strategic action plan for equity of access, participation and success in higher education 2022-2028	-	A progress review of the National Access Plan will take place in 2025.
2022	ESD to 2030 – The Second national strategy on Education for Sustainable Development	-	Mid-term impact review 2026
2023	Impact 2030: Ireland's Research and Innovation Strategy	-	Report on inclusion and diversity in the Irish research system Mid-point review 2024
2023-2024	Strategy for Tertiary Education system	-	Commitment under the HEA Act, 2022

4 Sectoral Research and Evaluation Activity

4.1 Higher Education Authority (HEA)

The Higher Education Authority (HEA), distributes the annual recurrent grant to the HEIs to cover a range of activities. The HERD survey (2023) results show that the amount of indirect government funding spent on research stood at €135 million in 2020.

The HEA statistics section produce key reports based on returns via the Student Record System (SRS) and Graduate Outcome survey. These returns are also utilised to inform other 'one-off' reports in response to prevailing trends or activity in the sector or wider economic and social issues as they emerge.

The Research Info-Byte Series focuses on specific policy-relevant areas. These are 5-minute reads, less than 10 pages long, leveraging the data available through the Student Record System, the Graduate Outcomes Survey, and other sources, and providing new, evidence-based insight.

The following reports have been, or are planned to be published in 2023:

- Key Facts & Figures for higher education
- Progression and Completion in Higher Education
- Socio-economic profile of the HE student body
- Graduate Outcomes Survey
- Graduate Outcomes and Disability
- Graduate Outcomes and Socio-Economic Profile
- Regional mobility of Irish graduates
- Research Info-Byte: Law graduates
- Research Info-Byte: STEM in Higher Education in Ireland
- Research Info-Byte: Nursing and Midwifery graduates

The Eurostudent 8 survey results were launched at the "Supporting Success through Wellbeing in Higher Education" event in April. Focusing on students' social and economic conditions, the data collected is comparable to that collated on the social dimension of European higher education. The

report is produced every four years and this most recent iteration includes new modules on mental health, Covid, and digitalisation.

4.2 Irish Research Council (IRC)

Key actions in the IRC's Strategic Plan to support evidence for tertiary sector activity include commitments to:-

- regularly publish and dissemination of quantitative and qualitative information on the impact of awards;
- actively following the careers of researchers who were funded at an early-career to assess the impact of the long-term benefits of such funding on a researchers career;
- facilitate the development of the evidence base for higher education and research policy through the IRC's policy-oriented funding programmes.

Associated initiatives:

Of the suite of programmes opening in 2023, the following support collaboration between excellent researchers and public policy or community based projects.

- The New Foundations call launched in April with a 16th June deadline. This year, the call features 6 strands one strand will be funded by IRC and the remainder funded by government departments or agencies.
- The COALESCE (Collaborative Alliances for Societal Challenges) call is scheduled to launch in September – with one strand funded by IRC and the remainder in partnership with other government departments and agencies. The programme supports excellent research addressing national and global challenges.
- The DOROTHY (DevelOp interdisciplinaRy apprOaches to healTH crisis collaborativelY) MSCA COFUND programme (a partnership between the IRC, HRB and EPA) launched its second call in March 2023. The programme will fund research on the topic of public health crises and their legacies. It aims to create a critical mass of well-networked experts, from all disciplinary areas, who will be fully able to engage with the Irish and EU innovation ecosystem, trained to tackle future public health crises in ways that will lead to positive societal impact.
 - The IRC is a member of the National Framework for Doctoral Education Advisory Forum Career Tracking Working Group. The cross-agency Working Group is examining options for a systematic approach to career tracking of doctoral researchers.

4.3 Quality and Qualifications Ireland (QQI)

As part of its 10 year anniversary celebration, QQI issued a call for proposals that will help institutions to build the momentum of assessment scholarship and/or professional development relating to assessment in the context of the National Framework of Qualifications (NFQ). €374k will be invested over 8 successful projects in the areas listed below. Full programme details are available at QQI Anniversary Funded Proposals.pdf

- A Cost-Benefit Analysis of using the ICAI-McCabe Survey to Measure Beliefs and Knowledge about Academic Integrity in Irish Higher Education, Dr Andrew Gibson, Trinity College Dublin
- Assessment Identity, Academic Integrity and Ethical Practice, Prof Marie Clarke, University College Dublin
- Interactive Oral Assessment: A model for robust and authentic assessment design, Dr Monica Ward and Dr Fiona O'Riordan, Dublin City University
- A programme-based approach to building authenticity into Assessment and Feedback processes through consultation with Professional and Regulatory Bodies, Dr Jen Harvey, Technological University Dublin
- External Peer Review of Assessment, Dr Sinead O'Sullivan, University of Limerick
- UDL designed authentic assessment as preventative measure of Academic Misconduct, Dr Susan Gottlöber, Maynooth University
- To investigate the use of technology-enhanced simulation as an integrative authentic assessment approach on a blended learning professional programme, Dr John Meegan, Hibernia College
- Real Exploration of Assessment and Learning (REAL) using Sophisticated Toolkits across
 NFQ levels, Dr Cormac Quigley and Dr Etain Kiely, Atlantic Technological University

4.4 Science Foundation Ireland (SFI)

Science Foundation Ireland (SFI) funds research projects in diverse areas of Science, Technology, Engineering and Mathematics across the research career pipeline. Key areas

- The Science Policy Research Programme aims to develop and support research capacity in the area of science policy research in Ireland, to ensure that international best practice can be brought to bear in an Irish context. Science policy research, also known as the science of science or meta-research, uses social science and economic methodologies to study research funding and national research system practices. This programme will be relaunched in 2023 focused on targeting short term projects and building capacity around issues that SFI or government departments wish to address.
- SFI conducts an annual survey of outputs arising from the SFI research community. This includes information on the number and destination of PhD graduates, collaborations, academic outputs, innovation and commercialisation activities, national and international funding leveraged by the research community and education and public engagement activities. The results from the survey are included in the SFI Annual Report and SFI intends on publishing a detailed report from the 2022 survey in Q3 2023.
- Periodically SFI conducts analysis on the career progression of research team members supported by SFI funding. SFI also chairs and acts as an expert advisor to the Career Tracking Working Group of the National Framework for Doctoral Education Advisory Forum, which aims to explore possible approaches for developing a national system to track the careers of doctoral graduates.

Associated initiatives:

- In supporting broader impact of the research system on informing policy, 2023 will see €1m allocated to the second round of the Public Service Fellowship Programme. The programme offers researchers an opportunity to be temporarily seconded to Government Departments and agencies, to work on specific collaborative projects with the aim of reaching mutually beneficial outcomes. In addition to the specific projects funded, the programme encourages connectivity between the research community and public service organisations.
- The SFI Discover Programme aims to support and develop STEM education and public engagement by investing in, developing and extending activity and ability in this area, and exploring and encouraging novel means of engaging the public in STEM. Previous projects supported under the SFI Discover programme include supporting undergraduate research internship programmes, the design and delivery of novel workshops on data literacy for adults and developing novel approaches and resources for learning.
- the National Challenge Fund and SFI Challenge Funding calls provide ambitious researchers the chance to make a difference by developing solutions to key challenges. These programme aim to foster collaboration between government departments, agencies, enterprise, the academic research community, and societal stakeholders to co-create solutions that address complex societal and economic challenges.

4.5 Skillnet Ireland

Skillnet Ireland's research programme focuses on skills needs and trends shaping the future of industry. Key industry insights planned for 2023/2024 include:

- Future Talent Needs for Digital Health Sector (HealthXL) which will be launched at the MedTech Meeting of Minds Conference in May.
- Skills First: An Emerging Approach to Manage Human Resources for the New World of Work (TCD/DCU) due to launch in June 2023.
- Skillnet Ireland's Annual National Workforce Development Survey (in conjunction with B&A), due to launch in Q3/4 2023
- Strategic Quarterly Research: Housing & Construction/Methods of Modern Construction in collaboration with the Construction Professionals Skillnet (due Q1 2024)
- Strategic Quarterly Research: Climate Change & Sustainability In collaboration with the Climate Ready Academy (due Q4 2023)
- Teaching and learning modalities for continued professional development: Leading Healthcare Providers Skillnet, Dr Catherine FitzGerald et al, RCSI & LHP Skillnet (March 2023)
- Building Action Through Data: An analysis of EDI in the BioPharmaChem Industry in Ireland, *Coyne research & BPI Skillnet (March 2023)*

In early 2023, Skillnet Ireland opened a call offering individual networks an opportunity to propose areas of research, with eight areas, including robotics and green technology selected to proceed to tender. It is intended that the projects will produce tangible outputs linked to policy. The projects include:

- Cork Chamber Skillnet: Cork's International Financial Services (IFS) Cluster
- IFS Skillnet: The new world of work: how do employees in the FS sector learn best?
- Cobotics Skillnet: Exploring the Effect of Digitalisation on Employee Engagement
- GreenTech Skillnet: Delivering Commercial retrofit 2030 targets through Talent
- *ICBE Business Excellence Skillnet:* To investigate the reported decline in high-potential Managers transitioning successfully to Leadership Roles
- *Technology ICT Ireland Skillnet:* A talent driven approach to preparing Irish industry for the future of the digital decade.
- Animation Skillnet: Immersive Technology Roadmap for Growth

 Animation Skillnet: Skills Needs & Skills Challenge Analysis for the Creative and Cultural Industries

4.6 SOLAS

Research and evaluation activity in SOLAS covers a number of key areas. The Skills & Labour Market Research Unit in SOLAS provides a data gathering, analytical and research resource to identify skills needs and support the work of the National Skills Council. The Data Analytics Unit delivers Further Education & Training (FET) statistics and outcomes of learners who have undertaken FET while reviews of FET provision are carried out by external research bodies.

Key outputs planned for 2023 include:

- SOLAS most recent edition of the Skills Bulletin (Spring 2023) considered the contribution of young people (aged 15-24 years) to the Irish labour force between quarter 3 2019 and quarter 3 2022.
- FET Systems Outcomes Report 2018-2022 (Due May 2023)
- 2022 Annual Report Strategic Performance Agreements (Due May 2023)
- National Skills Bulletin 2023 (Q4 2023)
- Monitoring Ireland's Skills Supply 2023 (Q4 2023)
- Lifelong Learning report (Q3 2023)
- Recruitment Agency Survey (Q1 2023)
- Additional Skills Bulletins (Q3 and Q4 2023)
- L5 and L6 Outcomes Report (Joint work SOLAS DAU-CSO)
- FE to HE Progression Report (SOLAS DAU)
- FE to FE Progression Report (SOLAS DAU)
- Apprenticeship Outcomes (SOLAS DAU-CSO)

4.7 Carbon Neutrality-Pathfinder Programme in Higher Education

The Department of Further and Higher Education, Research, Innovation and Science (DFHERIS), in partnership with the Sustainable Energy Authority of Ireland (SEAI) and the Higher Education Authority (HEA) launched the first call for the Energy Efficiency and Decarbonisation Pathfinder Programme (EEDPP) for the Higher Education Sector in 2020. The purpose of this programme was to test decarbonisation approaches, build capability, provide an evidence base and to establish a pathway for a large-scale building decarbonisation programme. EEDPP 2020 projects are complete.

The EEDPP 2021 aimed to consolidate the learnings from EEDPP 2020 and build on the solutions identified in a Decarbonisation report produced for the higher education sector. The programme made funding available for six pathways identified in the report with the aim of assisting key stakeholders to better understand how these pathways might be undertaken. Under the EEDPP 2021, HEIs were invited to submit proposals for retrofit works to existing buildings which were in line with the pathways identified in the Decarbonisation Report. Successful projects under EEDPP 2021 are currently at design and/or implementation stage:

HEI	Programme call and Project Description			
	2020	Phase 1 Extension Retrofit [Letterkenny Campus]		
Atlantic Technological University (ATU)	2021	Biomass and Medium Fabric Upgrade [Letterkenny Campus]		
	2021	Central Block (CCAM) - Medium Retrofit with High Temp Air Source Heat Pump [Galway Campus]		
Dublin City University (DCU)	2020	Marconi Building Deep Retrofit and BER Upgrade		
IADT	2020	Energy Efficiency Upgrades - Atrium Building		
Maynooth University (MU)	2020	John Paul II Library – solar panels, heat decarbonisation and insulation		
Munster Technological University (MTU)	2021	Melbourn Building – Deep Fabric Retrofit		

South East Technological	2021	Burrin Building – Medium Retrofit with High Temperature Heat Pump [Carlow Campus]
University (SETU)	2021	Business School – Deep Fabric Retrofit [Waterford Campus]
University College Cork (UCC)	2020	Decarbonisation of the O'Rahilly Building Heating System as a pathway to B2 Certification
	2021	Deep Retrofit with Geothermal Water Source Heat Pump
University College Dublin	2020	Belfield Campus District Heating Decarbonisation - Heat Pump
(UCD)	2021	Quinn School of Business – Medium Retrofit with M&E Upgrades
University of Galway (UG)	2020	Áras De Brún – Energy and Carbon Efficient Upgrade
University of Limerick (UL)	2021	Deep Retrofit with Low Temp Air Source Heat Pump

5 2022 Publications and Activity

5.1 Skills

Publication	Lead	Summary
	Organisation /Researcher	
Autumn/winter skills Bulletin 2022	SOLAS	The Skills Bulletin series examines the extent to which Ireland has the capacity to expand its workforce to meet its labour market needs. The report profiles those working part-time who are seeking more hours, those unemployed, and those outside of the labour force but are either available but not seeking employment or seeking employment but not available. Combined these three groups are those potentially available to meet any additional demands in the labour market.
Digital Transformation in the Screen Industries	Skillnet Ireland	This report provides a number of action-oriented case studies on the impact of digital transformation on the future of work in the creative screen industries in Ireland.
Open Source and InnerSource Skills in Ireland – A Call for Action	Skillnet Ireland	This report outlines the key advantages of leveraging open source and InnerSource in companies based in Ireland and highlights how investing in developing open source and InnerSource skills would help fulfil the talent needs of Ireland's organisations and position Ireland as a leader in the broader open source and InnerSource ecosystem.
National Skills Bulletin 2022	SOLAS	The National Skills Bulletin 2022, produced by the SLMRU in SOLAS on behalf of the National Skills Council (NSC), provides an overview of the labour market in Ireland in 2021, with detailed employment outlooks across 100 occupations. The report highlights skills and labour shortages across a range of occupations. The insights in the report aim to assist policy formulation in the areas of employment, education/training, and immigration.
Monitoring Ireland's Skills Supply 2022	SOLAS	This report is the 16 th in a series of annual reports produced by the SLMRU aimed at monitoring the potential supply of skills to the labour market from Ireland's education and training system.
Difficult-to-fill vacancies survey 2022	SOLAS	The survey gathered the views of selected Irish recruitment agencies in respect of vacancies for occupations that require skills which are in short supply and difficult to fill.
Report on the Analysis of Skills for Residential Construction & Retrofitting 2023–2030	DFHERIS, SOLAS	The purpose of this report is to quantify the additional construction skills required to deliver the Government's targets in new housing and the retrofitting of 446,300 homes over the period 2023-2030

Summer Skills Bulletin 2022	SOLAS	Insights into the changing landscape of female employment since the onset of COVID-19
Cl.C. C I M	DA IOD	This is a structure of the structure of
Shifting Sands: Navigating the patterns emerging in the Irish labour market post-Covid	SOLAS	Joint publication with EMSI Burning Glass as a strategic research partner.
Feasibility Study for SIIL: National Innovation Lab for the Irish Screen Industries	Skillnet Ireland	This study explores the case for developing a Screen Industries Innovation Lab (SIIL) for Ireland. By aligning as one creatively focused but technologically driven entity, a physical incubator for the screen and immersive tech industries has the potential to become the digital home for all things animation, immersive, and screen. A world-class screen industry requires both talent and innovation, and an increased focus on research and training.
Future talent and skills for Financial Services Sector	Skillnet Ireland, Financial Services Ireland, IBEC	This report analyses skills requirements for the future talent pipeline for the Financial Services Sector, which are essential to capturing the growth potential in financial services for the broader economy in the future. It aims to identify skills required for the evolution of roles in an increasingly digital workplace and the expansion of workforce capabilities to enable the sector to exploit opportunities in the global financial services eco-system.
Future Talent Needs for Digital Health Sector	Skillnet Ireland	A skill needs analysis for digital health seeks focused on skills and capabilities required for a world class digital health talent pool in Ireland to best position Irish based companies to attract digital health projects and investment. The focus is on cross-sectoral (Medtech, pharmaceutical, technology and core digital health companies) and spans start-ups to MNCs both nationally and in other successful digital health hubs.
Modern Methods of Construction: Defining MMC Business	Skillnet Ireland, Construction Industry Federation	The report explores the new construction sector business model necessary for the effective implementation of Modern Methods of Construction (MMC) and the related new roles and skills required to perform effectively. This allows the sector to improve its productivity and meet the needs of the Irish National Development Plan (NDP) 2021 and Housing for All (HfA) strategy. It also examines digital transformation and sustainable construction as these are intrinsically linked with the effective implementation of MMC.
The Irish Immersive Economy: Irish Immersive Technology Industry Landscape 2022	Skillnet Ireland, Dublin Business Innovation Centre, Eirmersive	This report outlines Ireland's current immersive technology capacity and capabilities and makes recommendations that support business growth across a range of sectors and supports the attraction of foreign-direct investment within this sector.

Talent for Ireland's Green	Skillnet	This research study examines current and emerging skill
Economy 2022	Ireland, ESRI	needs within Ireland's private enterprise sector to enable
		innovation and support the transition to a low-carbon
		economy. More specifically, this research provides novel
		evidence on: Business awareness of and exposure to climate
		change challenges; skill needs in the medium term to support
		enterprise innovation activities and the transition to a low-
		carbon economy; and existing upskilling programmes and
		future training needs to develop the necessary skill sets.
Hydrogen and Wind	Skillnet	Gavin & Doherty Geosolutions Ltd (GDG) were
Energy: The role of green	Ireland,	commissioned to critically examine the potential for
hydrogen in Ireland's	GDG, Wind	hydrogen produced by wind turbines to assist in Ireland's
energy transition	Energy	transition to a low-carbon energy system. The report
	Ireland	explores this coupling in detail and outlines both the
		challenges – technical, economic, and policy – and
		opportunities associated with the development of a wind-
		based green hydrogen industry in Ireland.

5.2 Inclusion

Publication	Lead Organisation	Summary
	/Researcher	
2nd HEA National Review	HEA	2nd HEA National Review of Gender Equality in Irish
of Gender Equality in Irish		Higher Education Institutions informed by an online survey,
Higher Education		written consultations and wider stakeholder group
Institutions		engagement.
HE Socio-Economic	HEA	The HEA uses Deprivation Index Scores (DIS) to assess the
Profiles 2020/2021		socio-economic profiles of higher education students in
		Ireland. Data and evidence in this area is used by policy-
		makers to drive and implement change, and to further
		promote accessibility of third-level education to all. This set
		of Socio-Economic Profiles relates to the academic cohort of
		2020/21 students.
National Lifelong Learning	SOLAS	This paper examines lifelong learning participation numbers
Report		and rates amongst adults in Ireland.
Review of Gender Strategy	IRC	The review drew on internal IRC data on applications and
and Action Plan		awards, anonymised samples of applications and content
		related to the sex/gender dimension, surveys with Irish
		researchers and international reviewers, focus groups with
		IRC staff and stakeholders and relevant literature.
Race Equality Anti-Racism	HEA	Further to the Race Equality in the Higher Education Sector
Principles for Irish Higher		report (2021), and subsequent Implementation plan 2022-24,
Education Institutions		HEA Centre of Excellence for Equality, Diversity and
		Inclusion in collaboration with the Athena Swan Ireland

		Intersectionality Working Group developed principles informed by stakeholder consultation which underpin this statement/charter on race equality for Irish HEIs.
Report on the National	Mazzone et	Commissioned by the Department of Further and Higher
Survey of Staff	al., DCU	Education, Research, Innovation and Science, this report
Experiences of Bullying in	Anti-Bullying	presents the findings of an anonymous online survey
Irish Higher Education	Centre	examining the prevalence and impact of workplace bullying
Institutions	(ABC),	among staff in 20 publicly funded Higher Education
	Dublin City	Institutions (HEIs) in Ireland.
	University	
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5.3 System Outcomes

Publication	Lead Organisation /Researcher	Summary
Graduate Outcomes 2021	HEA	Higher Education Graduate Outcomes Survey which details the outcomes of students i.e. earnings, employment, further study, of HE graduates 9 months after graduation
Research Info-Byte Barriers to Employment or Further Study	HEA	This Info-Byte seeks explores the barriers cited by graduates, to further understand the issues graduates face in seeking employment or further study nine months after graduation.
Research info-byte data graduates	HEA	This info-byte explores employment outcomes for data graduates over a three year period, using data from the Graduate Outcomes Survey.
Research info-byte doctoral graduates	HEA	This info-byte explores employment outcomes for doctoral graduates over a three year period, using data from the Graduate Outcomes Survey.
Research info-byte economics graduates	HEA	This Info-Byte considers Economics graduates in their early careers, where they expect to work, what they can expect to do in their roles and how much they can expect to earn.
Defining, writing and applying learning outcomes	QQI	This second edition of the Cedefop European handbook on learning outcomes is addressed to individuals and institutions actively involved in defining and writing learning outcomes in education and training.
From FE to HE: performance of PLC candidates with QQI FET awards	QQI	Statistical analysis of CAO points of PLC candidates with QQI FET awards

FET in Focus 2022: Community Education in FET	SOLAS	A study into Community Education in Ireland that provides information on the profiles of Community Education learners in FET.
FET Learner Outcomes: Early Leavers	SOLAS	This report uses the Programme and Learner Support System (PLSS) database and the Educational Longitudinal Database (ELD) to examine early leaver learner outcomes for those learners who were enrolled and exited their courses in 2017.
FET Health Graduate Outcomes	SOLAS	This report provides data-driven evidence that illustrates the value of FET to the learners who would like to work in the healthcare sector. The study is focused on those learners who qualify to become frontline healthcare workers.

5.4 System Performance

Publication	Lead Organisation /Researcher	Summary
Institutional Profile 19/20	HEA	The Institutional Profiles are published annually and provide an overview of the performance of the higher education system. Key metrics include participation metrics, fields of study, research, knowledge transfer, and the financial and HR base underpinning the system.
Review of Consortia-Led Apprenticeships in Ireland	QQI	The report sets out the findings of a QQI-commissioned review of the quality assurance, governance arrangements and processes developed for the 39 consortium-led apprenticeships that were established by mid-2021.
QQI awards and related provision: Looking back over the past 10 years	QQI	A look back at certification data over the previous 10 years to reveal the trends and shifts in the demand for QQI awards and the related provision of programmes (i.e. courses, apprenticeships, traineeships etc.). Includes analysis of how provision has evolved over the decade and how some shifts in the demand for QQI awards are being driven by the needs of learners, policy and the labour market.
Annual analysis of awards made by QQI in 2021	QQI	This is a synoptic analysis of QQI Certification Data for 2021
Annual Quality Report summary	QQI	Publish Annual Quality Report summary (Insights on Higher Education).
ECCTIS Report	QQI	ECCTIS report on the evaluation of the overall comparability of the Advanced Certificate and Higher Certificate qualifications (Level 6).

ETB Reviews	QQI	Complete and published inaugural review reports for the final phase of ETB reviews.
Irish Survey of Student Engagement 2022	HEA, IUA, THEA, USI	The Irish Survey of Student Engagement National Report in partnership with the HEA, the IUA, THEA and the USI. StudentSurvey.ie asks students directly about their experiences of higher education, including their academic, personal, and social development. Each participating institution selects a specific three-week period during February and March to open the survey for their students. This allows the national survey to take account of local events and other demands on students' time in order to increase the benefit of the survey at local level.
Transforming Learning: Strategic Performance Agreements	SOLAS	The National System Report accompanies all 16 Strategic Performance Agreements between SOLAS and the Education and Training Boards (ETBs) for the period of 2022 – 2024
Annual Report and Accounts 2021	SFI	SFI Annual report has several infographics, including infographics derived from Research Outputs exercise, international rankings of SFI and national system performance on citations to academic publications, and also includes field-specific rankings

5.5 Research System

Publication	Lead	Summary
	Organisation	
	/Researcher	
Creating Our Future	SFI	The largest ever public engagement on research exercise in
project		the country, led by DFHERIS/SFI.
DFHERIS commissioned		Study undertaken under Pillar 2 of <i>Impact 2030</i> (under
bibliometric analysis of the	DFHERIS/U	Section 2.1) focusing on impact of public investment in
Irish higher education	CD	research and innovation in Ireland. As part of the first phase
sector's research		of this work, the study focuses on the Irish higher education
performance from 2010 to		sector and its performance, with particular regard to
2020		knowledge and talent. Its purpose was to provide an
		indicative measure of research quality of the Irish higher
		education sector, insofar as bibliometrics allow, and within
		the wider context of the Department's R&I impact review.