Athena Swan Ireland Silver Application: Departments

Applicant information

Name of institution	University of Limerick
Name of department	Department of Computer Science and Information Systems / Lero – the Taighde Éireann Research Centre for Software (Lero@UL)
Date of current application	November 2024
Level of previous award	Bronze Expanded Charter Award
Date of previous award	March 2021
Contact name	Dr Lilian Motti Ader / Dr Martina Prendergast
Contact email	Lilian.MottiAder@ul.ie / Martina.Prendergast@Lero.ie
Contact telephone	353872364943

Section	Words used
Section 1: An introduction to the department's Athena Swan work	2,447/2,000
Section 2: An assessment of the department's gender equality context and, where relevant, wider equality context	8,599/8,000
Section 3: An evaluation of the department's progress and success	1,901/2,000
Section 4: Action plan	N/A
Extra word count CSIS-Lero included in submission	1,000
Overall word count	12,947/13,000*

* For information on text included in the word count, please see our Word Allocation Guidance. **Do not remove application headings or question text from your application document. Doing so may invalidate your application.**

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Glossary of terms

AI	Artificial Intelligence
ALECS	Advanced Learning in Evolving Critical Systems, an Innovative Marie Skłodowska-Curie Fellowship at Lero, https://alecs.lero.ie
AssistProf	Assistant Professor
AssocProfA	Associate Professor A
AssocProfB	Associate Professor B
BAP	Bronze Action Plan
BDM	Business Development Manager
BSc	Bachelor of Science
CID	Contract of Indefinite Duration
CM&ID	Creative Media and Interactive Design
Cooperative education	Work placement (similar to internship), where CSIS students must spend eight months in an ICT-related position
Co-PI	Co-Principal Investigator
CSIS	Department of Computer Science and Information Systems
DARE	Disability Access Route to Education
DEIS	Delivering Equality of Opportunity in Schools
Durham-CS	Durham Computer Science
ECR	Early-career / Early-career researchers
EDI	Equality, Diversity and Inclusion
EHS	Faculty of Education and Health Science
EPE	Education and public engagement
EU	European Union
F	Female
FI	Funded Investigator
FProf	Full Professor
FT	Full-time
FYP	Final-Year Project
GC	Governance Committee
H1	First-class honours
H2:1	Upper second-class honours
H2:2	Lower second-class honours
H3	Third-class honours
HCI	Human Computer Interaction
HEA	Higher Education Authority
HEAR	Higher Education Access Route
HEI	Higher Education Institution
HESA	Higher Education Statistics Agency (UK)
HREDI	Human Rights, Equality, Diversity & Inclusion (an office in UL)
IBC	International Business Centre

ICSE	International Conference on Software Engineering
ICT	Information and Communications Technology
INF	Interfaculty
ISE	Immersive Software Engineering
J&J	Johnson and Johnson
Lero	Taighde Éireann Research Centre for Software
Lero@UL	The part of Lero that is located within CSIS
M	Male
MA	Master of Arts
MSc	Master of Science
MSAC	Mature Student Access Certificate
MSCA	Marie Skłodowska-Curie Actions – funding programme in Horizon Europe
NB-PNS	Non-Binary/Prefer Not to Say
No.	Number
O&E	Outreach and education
OU	Open University
PDR	Postdoctoral researcher
PDRS	Performance and Development Review System
PFC	Parnas Fellowship Committee
PG	Postgraduate
PGR	Postgraduate research
PGT	Postgraduate taught
PI	Principal Investigator
PMSS	Professional, managerial and support staff
Prof	Professor
PT	Part-time
PVA	UL President's Volunteer Award
RA	Research assistant
Researcher	Collective word for PDR, RA, RF and SRF
RF	Research fellow
SAP	Silver Action Plan
SAT	Self-Assessment Team
SCRATCH	A visual programming language and online community targeted primarily at children https://scratch.mit.edu
SDUT	Shandong University of Technology
SFI	Science Foundation Ireland (renamed in 2024 to Taighde Éireann – Research Ireland)
Software and ICT courses	See note below*
SRC	Scientific Research Committee
SRF	Senior research fellow

STEM	Science, Technology, Engineering & Mathematics
$STEM^2D$	Science, Technology, Engineering, Mathematics, Manufacturing and Design
SyMeCo	European Commission Marie Skłodowska-Curie Actions (MSCA) COFUND programme for postdoctoral fellows
TA	Teaching Assistant
TERI	Taighde Éireann – Research Ireland (formerly SFI)
UDL	Universal Design for Learning
UG	Undergraduate
UL	University of Limerick
UoG	University of Galway
UT	University Teacher
$WiSTEM^2D$	Women in Science, Technology, Engineering, Mathematics, Manufacturing and Design

*'Software and ICT courses' is the phrase we use in our figures, and are, as stated in Higher Education Authority (HEA) statistics: Information and Communications Technologies, Software Application Development and Analysis, Database and Network Design and Administration, and Interdisciplinary programmes and qualifications involving Information and Communications Technologies.

As evidenced in the email below, we have an additional 1,000 words for our application, i.e. 13,000 words in total.

RE: Word extension confirmation- Department of Computer Science & Information Systems

Athena Swan Ireland <athenaswanireland@advance-he.ie>

Tue 11 Jun 2024 3:55 PM

To:Athena Swan Ireland <athenaswanireland@advance-he.ie>;Martina.Prendergast <Martina.Prendergast@lero.ie>
Cc:Lilian.MottiAder <Lilian.MottiAder@ul.ie>

CAUTION: This email originated from outside of the University of Limerick. Do not click on links or open attachments unless you recognize the sender's email address and know the content is safe.

Dear Martina

This email is to officially confirm a word extension of 1000 words to the Department of Computer Science & Information Systems, Athena Swan Ireland silver departmental application, for the purposes of describing Departmental structures, including the headquarters of Lero – the Science Foundation Ireland Research Centre for Software. We ask that you include this email within your application upon submission.

Best Regards
Athena Swan Ireland Team
Follow Advance HE on:
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AdvanceHE

Athena Swan Ireland

Department of
Computer Sciences
& Information Systems

Software for a better world

Athena Swan Ireland
Advance HE
athenaswanireland@advance-he.ac.uk

November 2024

Commitment to the Athena Swan Ireland charter principles

Dear Head of Athena Swan Ireland,

On behalf of the **Department of Computer Science and Information Systems** and the **Taighde Éireann Research Centre for Software (Lero@UL)**, I wish to pledge my commitment to the principles of the Athena Swan Ireland charter.

I confirm that the **Department of Computer Science and Information Systems** and the **Taighde Éireann Research Centre for Software (Lero@UL)** is committed to working towards the achievement of the Athena Swan Ireland charter's aims and I confirm our acceptance of the principles of the charter.

In committing to the principles of the Athena Swan Ireland charter, we recognise that we join a global community with a shared goal of addressing systemic inequalities and embedding inclusive cultures in higher education.

We acknowledge that equality, diversity and inclusion (EDI) strengthens higher education communities – the quality, relevance and impact of teaching and research, and the talent pool of potential staff and students.

By participating in the Ireland charter framework, we strive for impactful and sustainable gender equality work and seek to build capacity in evidence-based equality interventions across the equality grounds enshrined in Irish legislation.

We recognise that each institution, department and professional unit has different equality challenges and development priorities, and that these priorities should be developed based on an understanding of the local evidence-base and national and global equality challenges in higher education.

In determining our priorities and interventions, we commit to:

1. adopting robust, transparent and accountable processes for Athena Swan work, including:
    a. embedding EDI in our culture, decision-making and partnerships, and holding ourselves and others in our department accountable.
    b. ensuring active leadership from senior staff, with those in senior roles at the fore of taking action, and inspiring and fostering dedication and involvement from staff at all levels.
    c. collecting equality monitoring data to measure, understand and publicly report on challenges and progress, taking steps when necessary to support and encourage disclosure.

d. undertaking transparent self-assessment processes to ensure priorities, interventions and actions are evidenced-based and inform our continual development.
e. distributing tasks appropriately, formally recognising and rewarding work and ensuring there is not a disproportionate burden on underrepresented groups.

2. making and mainstreaming sustainable structural and cultural changes to remedy the effects of structural inequalities and social injustices, which manifest as differential experiences and outcomes for staff and students.
3. tackling behaviours and cultures that detract from the creation of an institutional campus culture that is safe, respective and supportive, including condemning sexual violence and harassment, bullying, discrimination, unfair treatment, or exploitation of staff, students or partners.
4. addressing unequal gender representation across academic disciplines and professional, managerial and support functions, including examining gendered occupational segregation, and elevating the status, voice and career opportunities of under-valued and at-risk groups.
5. fostering collective understanding that intersectional inequalities must be accounted for in the development of effective equality analysis and actions.
6. mitigating the equality impacts of short-term and casual contracts for staff seeking sustainable careers.
7. supporting flexibility and the maintenance of a healthy 'whole life balance' and mitigating the equality impact of career breaks and caring responsibilities.
8. fostering collective understanding that individuals have the right to determine and affirm their gender, and to implementing inclusive and effective policies and practices that are cognisant of the lived experiences and needs of trans and non-binary people.

I understand that:

- ✓ Information on charter signatories, the institution's charter contact person and institutional and departmental award-holders will be publicised on Advance HE's website.

I confirm that the **Department of Computer Science and Information Systems** and the **Taighde Éireann Research Centre for Software (Lero@UL)** understands and accepts the guidance on the Athena Swan Ireland charter. I understand that the guidance may change as the scheme evolves and that our institutional charter contact will be informed of any such changes.

Yours sincerely,



Professor Patrick Healy
Head of Department, Computer Science and Information Systems



Professor Lionel Briand
Director, Lero – The Taighde Éireann Research Centre for Software

Section 1: An introduction to the department's Athena Swan work

In Section 1, applicants should evidence how they meet Criterion A:

- Structures and processes underpin and recognise gender equality work and, where relevant, wider equality work

Recommended word count: 2,000 words

1.1 Letter of endorsement from the head of the department

Insert (with appropriate letterhead) a signed letter of endorsement from the head of the department. The letter should comment on:

- the link between the Athena Swan Ireland principles and the department's strategy;
- leadership of the head of department in advancing equality, including any involvement in the self-assessment or specific actions;
- evidence of how the department's equality work is led and supported by the department's senior management;
- the key gender equality priorities during the validity of the previous award;
- where relevant, the key priorities relating to additional equality grounds during the validity of the previous award;
- key achievements (against identified priorities) since the previous award;
- key priorities for future action, including any remaining priorities from the previous action plan.

Sarah Fink
Head of Athena Swan Ireland
Advance HE
First Floor, Penrose 1
Penrose Dock
Cork
Ireland
T23 KW81

November 2024

Dear Sarah,

We are pleased to submit our application for the Athena Swan (AS) Silver award. This is a joint University of Limerick (UL) application by the Department of Computer Science and Information Systems (CSIS) and Lero – the Taighde Éireann Research Centre for Software (Lero@UL).

We are both fully committed to the principles of AS and wholeheartedly endorse this application and action plan. In CSIS and Lero@UL ('CSIS-Lero'), we aim to address systemic inequalities, and embedding inclusive cultures in higher education aligns with UL's strategies. This application provides an overview of those activities carried out by our staff and students that increase awareness of the importance of gender and diversity representation and have a positive impact not only internally but also institutionally, locally and internationally.

As we prepare for our departmental CSIS quality review in October 2025, which will examine all aspects of the department, including teaching and research, we acknowledge that equality, diversity and inclusion (EDI) strengthen higher education communities. We aim to increase the relevance and impact of teaching and research and the staff/student talent pool.

The data presented in this submission was gathered and collated by our self-assessment team (SAT) and EDI committees and by many staff and students who are fully engaged in fostering EDI in CSIS-Lero. Work done by individual members is recognised within departmental workload; the work accounts for over 40 hours per year of SAT meetings (68 weekly meetings during 2023-2024) and is supported by dedicated staff and student volunteers. We received external and institutional support. Actions undertaken since 2021 helped us embed our EDI strategy in different activities, which led to greater representation, awareness and impact in our institution and community.

Two key priorities from our 2021 application were to increase the numbers of girls studying computing courses and to advance women's careers. We can now report that we have made significant strides in both areas.

We run numerous outreach events that showcase careers in computer science and excellence in research in STEM^{2}D. We are proud of the visibility of our female academics and professional members; we encourage leadership, foster career development and inspire future generations. We recognise the work of female students and provide them with support and

reassurance. Our new programmes for undergraduates, postgraduates and postdoctoral researchers have been designed and marketed to assess and address gender disparities. In addition, members of our staff are involved in initiatives locally, nationally and abroad.

Our AS action plan is integrated into our quality review – the plan and the review share common goals and desired outcomes. Members from CSIS-Lero are involved in multiple committees and networks across UL (e.g. HR-EDI, Research Ethics, Arts and Culture Steering Committee) and local, national and international organisations that place gender and EDI initiatives on their agendas.

Our most recent assessment of gender and diversity in CSIS-Lero enabled us to define three priorities:

1. Embed EDI across all activities
2. Address career development issues for all staff, particularly for staff on contract
3. Embed EDI community of practice in teaching and learning

By endorsing this AS application, we confirm our commitment to incorporating AS actions into CSIS-Lero objectives.

The AS process has given us the opportunity to discuss and reflect; it has enabled us to develop new actions, restructure initiatives and become more strategic in our approach to gender equality, all of which are presented throughout this submission.

Yours sincerely,



Professor Patrick Healy
Head of Department, Computer Science and Information Systems



Professor Lionel Briand
Director, Lero – The Taighde Éireann Research Centre for Software

Confirm the following:

The information presented in the application (including qualitative and quantitative data) is an honest, accurate and true representation of the department. ☒

1.2 Governance and recognition of equality, diversity and inclusion work

Provide a description of the department's structures to advance equality. This should include:

- information on where the department is in the Athena Swan process;
- an organigram of the department's key management and/or committee structures, with headcount by gender, that includes the formal reporting structures in place to carry out and support Athena Swan activity and, if applicable, wider EDI work;
- information on the relationship of department structures with institutional Athena Swan structures and, if applicable, EDI structures, including mechanisms for sharing the findings of self-assessment as well as good practice;
- information on support provided by the institution for the application;
- information on formal processes in place to resource, distribute, recognise and reward Athena Swan and, where applicable, EDI work, referencing institution-level policies where appropriate;
- information on resource provision for the action plan and associated activities to ensure effective implementation;
- any other relevant structure and organisation information, such as the department's relationship with community partners;
- confirmation that staff and students are recorded as the gender with which they identity in this submission.

1.2.1 Description of CSIS-Lero

This CSIS-Lero submission is for the Department of Computer Science and Information Systems (CSIS), a department within UL's largest faculty, Science & Engineering (S&E), and Lero@UL, that part of Lero situated in CSIS in UL. CSIS employs academics, professional management and support staff (PMSS) and researchers and teaches undergraduate (UG) and postgraduate (PG) students.

Home to 360 researchers (27%F, 71%M) and 20 PMSS (65%F, 35%M), Lero is a research centre funded by Science Foundation Ireland (SFI) (now Taighde Éireann – Research Ireland [TERI]), industry and other grants. Eleven other Irish higher education institutions (HEIs) are members of Lero. Lero is not a legal entity – PMSS and researchers employed through Lero grants in each HEI are employees of that HEI. Therefore, PMSS and researchers employed at Lero@UL are UL employees with a reporting line to the CSIS Head of Department (HoD) (Figure 1.2.1).

As a research centre, Lero has no specific teaching responsibility apart from PhD education. Lero@UL academics are employed within CSIS and self-declared Lero members. They conduct research and teach UG and PG modules within CSIS.

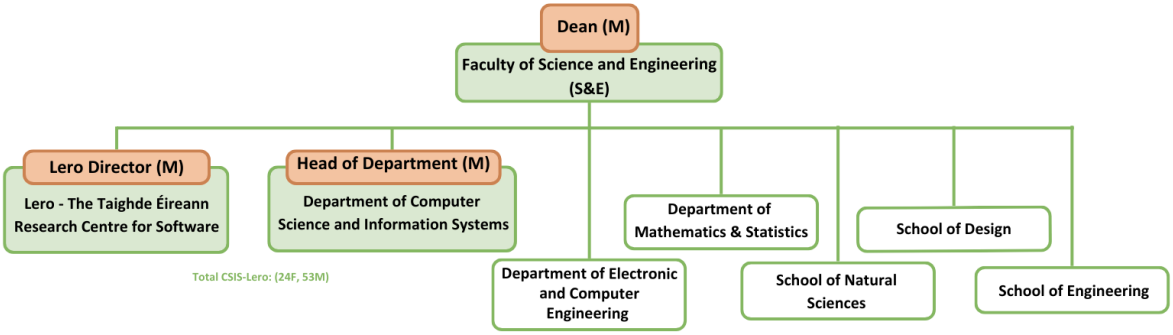

Figure 1.2.1: CSIS-Lero within the Faculty of Science & Engineering

Some CSIS academics and PMSS are employed specifically to work on the UG course LM173, Immersive Software Engineering (ISE). ISE students are taught in specifically designed classrooms in the International Business Centre (IBC).

CSIS-Lero has 84 staff and 869 students.

Table 1.2.1: Staff and student numbers in CSIS-Lero, June 2024

Staff/Student group	Female	Male	NB-PNS*	Total	% Female
Academic staff	10	30		40	25%
Research staff	5	16		21	24%
PMS staff (PMSS)	12	11		23	52%
Total staff	**27**	**57**		**84**	**32%**
PGR (postgraduate research) students	12	39		51	24%
PGT (postgraduate taught) students	90	108		198	45%
UG students	130	483	7	620	21%
Total students	**232**	**630**	**7**	**869**	**27%**

*Non-binary/Prefer not to say

1.2.2 CSIS-Lero structures supporting AS



Figure 1.2.2: Institutional EDI reporting structure 2023/24 and level of AS recognition

CSIS-Lero has a SAT in place since 2017. Following an unsuccessful application in 2018, we received a Bronze award in 2021.

The SAT continued to be a dynamic group, with turnover of members, such that many CSIS-Lero members of different levels and experiences have fully engaged for periods, informing our needs and expanding the impact of our activities to different committees in the department and at institutional, local and external levels. There are currently 9F and 10M SAT members.

Lero's EDI Committee includes members from CSIS-Lero and Lero nationally, some of whom sit on SATs in their HEIs.

In preparation for submitting this Silver award application, the most recent constitution of the CSIS-Lero SAT was in October 2023, when co-chairs Motti Ader (F, academic) and Prendergast (F, PMSS) were appointed. As well as continuing with Bronze Action Plan (BAP) actions, the SAT focused on impact assessment and writing this submission. Senior SAT members include the CSIS HoD (M) and Lero Deputy Director (F – stepped down as Deputy Director on 01/09/2024). De Wille, department Equality Officer **(BAP 1.7)**, is also a member.

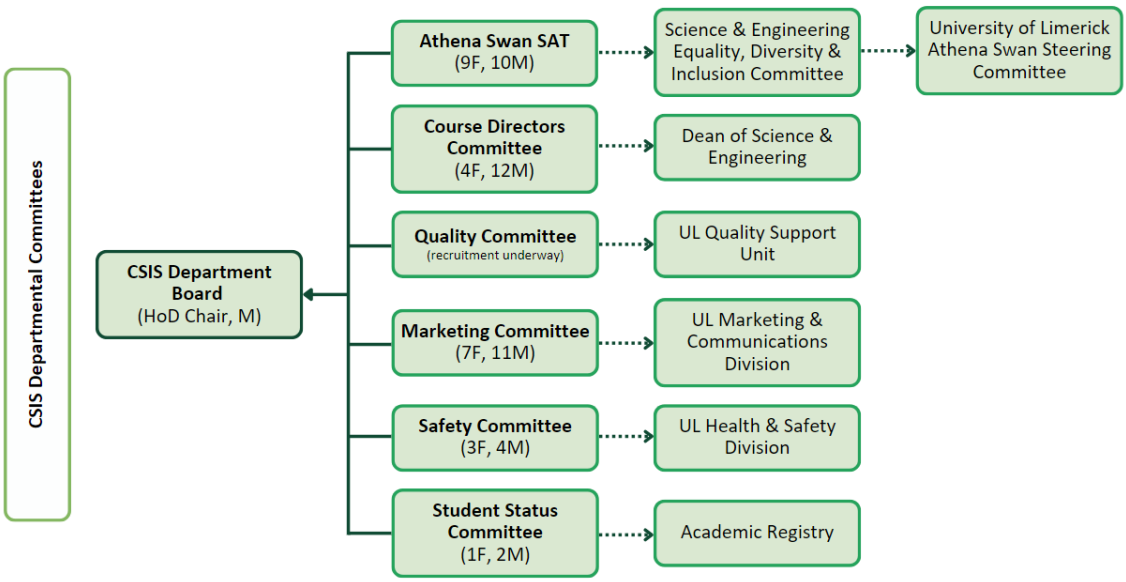

Figure 1.2.3: CSIS department structure

All academics, CSIS PMSS and Lero's General Manager are members of the department board.

Lero's Governance Committee reports to TERI through the UL President and works with Lero Executive Committee and management to ensure the implementation of Lero's strategy.

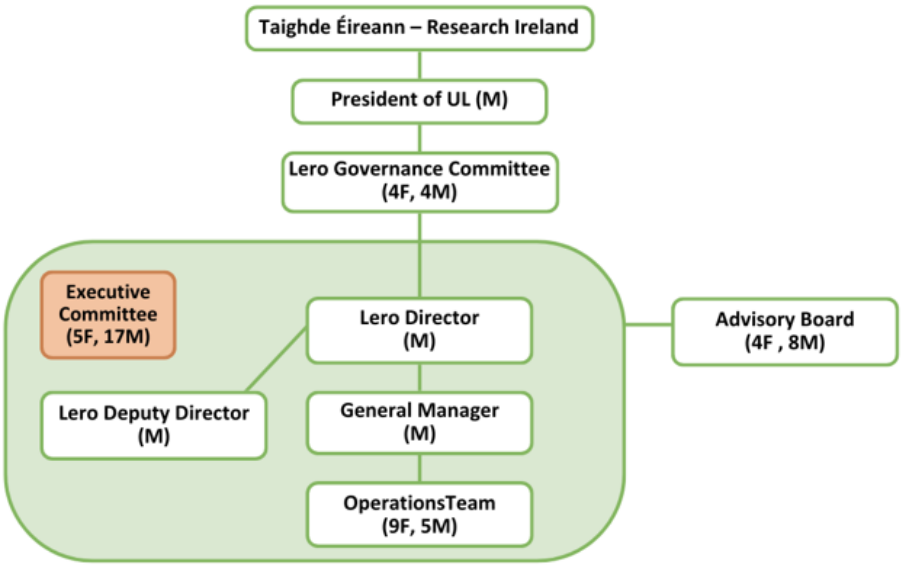

Figure 1.2.4: Lero governance structure

Lero's Advisory Board (4F, 8M, 33%F) provides an informed external perspective on Lero activities. Given the importance of EDI, Professor Yvonne Galligan, Director of EDI, Technological University Dublin, has been a member since 2019.

With national HEI representation, the UL Executive Committee (5F, 17M, 23%F) has overall responsibility for Lero management and includes seven CSIS-Lero academics (2F, 5M, 29%F).

Lero is committed to improving the gender balance of its Advisory Board and Executive Committee. Two recognised leaders in the area of fostering female talent have been appointed to those two Lero boards in the past 12 months to help us in this effort. In 2024, Narmada Guruswamy was appointed to the Lero Advisory Board. Narmada is TechWomen100 award holder and is on the Women in Tech in UK (Advisory) committee, Cherie Blair Foundation Mentor, and is advising Lero on further potential female appointments to the Advisory Board. Also, in 2024, former President of Dell for Europe, the Middle East and Africa (EMEA) Aongus Hegarty was appointed as Governance Chair of Lero. Hegarty co-led Dell's EMEA Women's Network and was a member of the Dell Global Diversity Council. He was appointed by the Tánaiste to co-chair the Balance for Better Business, an independent review group tasked with improving gender balance in senior business leadership in Ireland. Hegarty is advising Lero on the promotion of female Funded Investigators (FIs) to Co-Principal Investigators (Co-PIs) who make up the Executive Committee. Lero is identifying female leaders and working with them to encourage and support them to become Co-PIs. He is also providing advice on creating gender balance across all management and research structures. Lero is working with Hegarty and Guruswamy on succession planning for both the Advisory Board and Executive Committees.

The integrated structure and management of CSIS-Lero ensures that gender initiatives, policies, decisions and actions are shared across CSIS-Lero and, more broadly, UL.

The CSIS-Lero co-chairs are members of the S&E EDI committee, which holds four meetings annually. The meetings facilitate the sharing of resources and discussions on institutional and national EDI initiatives. This structure encourages a bottom-up approach and enables specific needs and interests from CSIS-Lero to be discussed. Denny, chair of the CSIS Quality Committee, is a SAT member, which ensures that AS data and actions will be accounted for in the forthcoming departmental review.

SILVER ACTION PLAN (SAP) ACTION(S)
1.1.5: Ensure Athena Swan actions are incorporated into departmental objectives via the Quality Review. 1.1.6: Improve the gender balance on Lero Advisory Board and Executive Committee

AS involvement of CSIS-Lero members at UL level includes:

- Academic Storni (M) contributed to developing the UL Human Rights, Equality, Diversity & Inclusion Strategy 2023-2027 and co-chaired the UL Autism Special Interest Group.

- Prendergast (F) and Richardson (F) were members of the UL AS Silver Award submission team, 2022; Richardson was a member of the team that developed UL's Gender Identity and Gender Expression policy.
- O'Brien (M) was a member of two other UL AS SATs, including co-chairing the successful CONFIRM-ECE bronze award SAT.

SAT members have participated in the AS Practitioners' Network (Ireland), where best practice and issues that arise nationally are discussed. They have been involved in presenting good practice within other institutions (e.g. UCC, MICE) and reviewing submissions for others. Both co-chairs have applied to be observers on AS national panels, and Richardson was a reviewer and panel chair for Advance HE. Motti Ader and McInerney attend Irish Network for Gender Equality in Computing (INGENIC) meetings and participate in its events, and McInerney represents CSIS-Lero on the national Third-Level Computing Forum. Motti Ader and Prendergast represent UL at the All-Ireland Computer Science and Electronic Engineering AS forum led by Queen's University Belfast.

Initially comprising 62 actions, we added four actions **(BAP 2.7, 8.7, 8.8, 8.9)** since receiving the Bronze award due to requirement changes. CSIS-Lero structures facilitated the achievement of 52 actions. Progress was made on seven, while seven have not progressed (see section 3).

As UL is a Silver AS recipient, EDI has become mainstreamed, and CSIS-Lero follows UL policies. For example, all CSIS-Lero recruitment committees are gender-balanced, women are given time and expenses to attend conferences, and outreach and education (O&E) has a strong EDI focus.

UL HREDI and the S&E AS/EDI SAT committee provided CSIS-Lero with guidance and shared resources, including access to relevant staff and student data. UL HREDI supported the development of our action plan and application and partially covered costs for an external focus group facilitator and reviewers. UL HR provides EDI and AS courses, which the HoD encourages staff to undertake. Online shared UL resources and regular meetings facilitate communication between different SATs and adherence to the institutional framework. Within Lero@UL, actions align with wider governance strategies and the work of the Lero EDI committee.

As agreed between academics and the HoD, academics' involvement in AS/EDI is recognised as being part of academic service and is accounted for in UL policies, such as promotion. The equivalent of a 50% teaching-load reduction over two semesters has been shared between two academics. 5.5 people work full-time on outreach and student support – 5 full-time equivalents (FTEs) are employed through competitively sought grant funding and 0.5 FTE through mainstream funding. AS/EDI is recognised as part of PMSS workload.

Funding was provided by CSIS-Lero for particular actions **(e.g. BAP 1.3, 8.6)**. Specific initiatives have been funded as the need arises. For example, conferences attended by senior and early-career (ECR) women include Women in Leadership and Women Mean Business, and funding

has been available to travel to events such as the launch of the Centre for Protecting Women Online at the Open University, Milton Keynes, UK. Students volunteer to be part of the committee due to EDI interests. Apart from this being career development, we encourage students to apply for the President's Volunteer Award **(BAP 2.6)**.

We requested volunteers when reconstituting the SAT. As the need for other competencies arose, other people were requested to join to help with, for example, data analysis. Progress on the action plan is discussed at department monthly meetings. Actions that arise are progressed by the SAT.

CSIS-Lero is regularly involved in O&E events, such as TeenTurn and CodePlus. We work with local and national companies (e.g. Johnson & Johnson (J&J), Transact, Ei Electronics, Analog Devices) to obtain and implement scholarship programmes and Final-Year Project (FYP) prizes and to have internships with industry (see section 2.1e).

UL records the gender with which individual staff and students identify. Because presenting this detail can identify individuals, where there are five or fewer in a category, this data is not presented in this application.

1.3 The self-assessment process

a. Provide information on the preparation and delivery of this application by the department. This should include:
   - a description of the self-assessment team (SAT), including comment on the roles and responsibilities of individuals, and how these were assigned. The gender of SAT members, their professional/student role in the institution and their specific role in the SAT should be noted in a table;
   - information on how the chair was appointed and on what supports or resources the institution and/or department has given the chair to lead the self-assessment process;
   - comment on whether the self-assessment team is representative of the department, including if there is adequate representation of senior staff.

b. Outline the process of self-assessment undertaken in preparation for this application. This section should include:
   - an overview of the approach taken to evidence-gathering and analysis. Details of consultation response rates, disaggregated by gender, should be provided;
   - information on plans for evaluating progress, including action plan implementation, over the coming four-year period. This should make reference to how often the SAT will meet, and how SAT succession and turnover will be planned and managed;

+ information on how the findings and activity of the self-assessment team are, and will continue to be, communicated to senior management and the wider department.

1.3a Preparation and delivery of application

Table 1.3.1: SAT members and roles (alphabetical order by surname)

Name	Gender	Position	Role on committee	
Faeq Alrimawi	M	Assistant Professor, Lero academic member Lero researcher to 2022	Member, Writing group Edited submission	
Nicola Corless	F	Communications and Marketing Manager, Lero	Member, Writing group Edited submission	
Patrick Denny	M	Associate Professor B, Lero academic member	Member, Data Analysis Group Chair, CSIS Quality Committee	
Tabea De Wille	F	Associate Professor B	Member, Steering Group Equality Officer Member, Silver Action Plan group	
Chris Exton	M	Professor, Lero academic member	Member, Writing group Edited submission	
Patrick Healy	M	HoD, CSIS	Member, Steering Group Regular meetings with Co-Chairs	

Lilian G. Motti Ader	F	Associate Professor B Lero academic member	Co-Chair, CSIS-Lero SAT Chair, Data Collection group Managed AS process in CSIS-Lero Coordinated submission tasks	
Dilina Nawarathne	M	University Teacher and PhD Student	Member, Data Collection group	
Nikola Nikolov	M	Associate Professor A	Member, Data Analysis group	
Seán O'Brien	M	Programme Manager	Member, Steering Group Member, Silver Action Plan group	
Clodagh O'Leary	F	Undergraduate and Lero Cooperative education student	Member, Writing group with responsibility for diagrams	
Guillaume Petit	M	PhD student	Member, Data Collection group	
Gillian Place	F	Public Engagement Officer (Immersive Software Engineering)	Member, Steering Group Member, Silver Action Plan group	

Martina Prendergast	F	International Funding Manager, Lero	Co-Chair, SAT Chair, Data Analysis group Managed AS process in CSIS-Lero Co-ordinated submission tasks	
Ita Richardson	F	Full Professor Lero Academic Member Lero Deputy Director to September 2024	Chair, Writing group Coordinated writing and editing	
Kirtika Thakur	F	MSc taught postgraduate student	Member, Data Collection group	
Marie Travers	F	Lero researcher to 2023 University Teacher from 2024	Member, Steering Group Member, Data Analysis group	
Gavin Wade	M	University Teacher	Member, Steering Group Chair, Silver Action Plan group	
Muadh Zibiri	M	Undergraduate student	Member, Data Analysis group	

Table 1.3.2: SAT member positions

Position	Female	Male
Academic/Researcher	4	6
Professional, managerial and support staff (PMSS)	3	1
Student	2	3
Total	**9**	**10**

Table 1.3.3: SAT members' personal responsibilities

Personal responsibilities and interests	No. of SAT members: 9F, 10M (% of SAT)
Current child-caring responsibility	5F, 2M (39%)
Prior child-caring responsibility	3F, 4M (39%)
Caring for or have cared for elderly or relative with a disability	4F, 3M (39%)
Successfully applied for progression or promotion	3F, 5M (44%)
Unsuccessfully applied for progression or promotion	2F, 4M (33%)
Moved to Ireland from abroad on their own	5F, 2M (39%)
Moved to Ireland from abroad with family	1F, 4M (28%)
Irish – has not changed citizenship	6F, 4M (55%)
Irish – has changed citizenship	1M (6%)
Involvement in equality of opportunity (for example, women, youth, minorities, LGBTQ communities, human rights)	6F, 6M (67%)

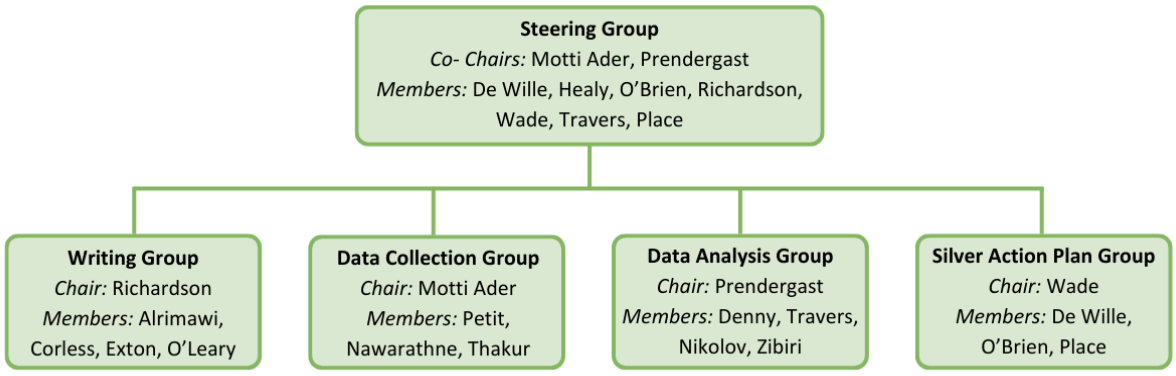

Figure 1.3.1: Structure of Athena Swan Self-Assessment Team

Table 1.3.4: Summary of department consultation, 2024

Consultation exercise	Month and other details	Response rates
Academic/researcher staff survey	January 2024 Questions around personal characteristics, contractual status, career development, training opportunities and mentorship	Total 76% representation: 6F, 26M, 6NB-PNS
PMSS staff survey	January 2024 Questions around personal characteristics, contractual status, equal opportunities for promotion, training and career development	Total 82% representation: 8F, 11M
Staff focus groups	May 2024 External facilitator All staff were invited to attend One face-to-face session, one online session	Total 22% attendance: 6F, 14M, 1NB-PNS
Student focus groups	May 2024 External facilitator All CSIS students were invited by email to participate One face-to-face session, one online session	12F, 6M representation

SAT chair requested new staff SAT members annually. Additionally, as student members left, we asked students to participate. Progressing through the action plan and submission process, as particular skills needs arose, we asked individuals to join the SAT. When the previous chair stepped down, AS SAT co-chairs were appointed by HoD and Lero Deputy Director. Both are also members of the SAT. For Motti Ader (academic), this is counted as service. For Prendergast (PMSS), this is within her role.

1.3b Process of self-assessment

Throughout the AS process, SAT members consulted with the UL HREDI Director and Statistician. Staff and student data was received from HR, Doctoral College and Student Academic Administration. For staff, this now includes appointments to June 2024. Student data up to the 2024/25 academic year is included.

We formed four sub-committees (Figure 1.3.1) – Data Collection, Data Analysis, Writing, and Silver Action Plan – within which members had specific responsibilities. The SAT Steering Group maintained oversight across the sub-committees and were involved in discussions and actions relevant to each sub-committee.

After reviewing our BAP, our data collection protocol was designed and submitted to the S&E Research Ethics committee for approval. We conducted two staff surveys – one completed by academics and researchers and the other by PMSS. We held two staff focus groups (Table 1.3.4), during which participants addressed three questions concerning leave policies and practices, flexible working hours, and career development. In addition to taking part in the discussion, some participants submitted written notes.

The two student focus groups we conducted focused on identifying enablers and barriers to course entry, progression and career planning. All CSIS-Lero students were invited to

participate. Additionally, CSIS-Lero UG students participated in the INGENIC 'Sense of Belonging' student survey (Summer, 2024). Additional data was gathered by analysing our media representation, holding discussions at SAT and department meetings, and emailing invitations to contribute.

For comparison, we used Higher Education Authority (HEA, Ireland) for students and Higher Education Statistics Agency (HESA, UK) for staff. Additionally, we reviewed the successful University of Durham Computer Science (Durham-CS) Silver AS submission and had an online discussion with the SAT chair. Durham-CS was chosen as it is similar in size (staff: 72 total, 40 academic, 22 research, 15 PMSS) and recently received the Silver award (March 2024). We also had a meeting with the chair of University College London's CS SAT, which received a Gold AS award (May 2024). We reviewed UL's successful Silver submissions from Kemmy Business School (March 2023) and Chemical Sciences (March 2024) and had discussions with their SAT chairs.

AS SAT presentations made at each department meeting provided opportunities for interactive discussion. Three drafts of the submission were circulated to all staff in CSIS-Lero between August and November with a request for everyone to review and give feedback. The final action plan was distributed before the November department meeting and was modified following discussion.

Over the next four years, the SAT Steering Group will resume bi-monthly hybrid meetings, monitoring the implementation of the new action plan. SAT succession will be managed by inviting new participants annually while focusing on maintaining gender balance and diversity and enabling the efficient handover of duties. Expressions of interest for the co-chair role will be invited from within current and previous SAT members, and co-chairs will be replaced one at a time to ensure continuity.

AS activities will remain a standing item on the departmental meeting agenda. The HoD will remain a member of the SAT to aid communication within the department, and representatives on the S&E and UL EDI committees will report on progress at faculty and university level.

Section 1 words: 2,447

Section 2: An assessment of the department's gender equality context and, where relevant, wider equality context

In Section 2, applicants should evidence how they meet Criterion B:

- Evidence-based recognition of the issues and opportunities facing the applicant

Recommended word count: 8,000 words

1. Overview of the department and its context

a. Provide a brief introduction to the department, including any relevant contextual information. This section should include information on:
   - teaching and research focus, including discipline coverage and any areas of specialism;
   - the total number of staff by gender and category of post;
   - the total number of students by programme type and gender;
   - location/s.

b. Analyse three years of data on undergraduate students by:
   - gender and degree programme, with reference to discipline-specific benchmark data;
   - gender and degree attainment;
   - gender and foundation courses.

c. Analyse three years of data on postgraduate taught students by:
   - gender and degree programme, with reference to discipline-specific benchmark data;
   - gender and degree attainment.

d. Analyse three years of data on postgraduate research students by:
   - gender and enrolment;
   - gender and application, offer and enrolment, with comment on how this data is collected and evaluated by the department and on any gender disparities in student funding;
   - gender and completion rates.

e. Comment and reflect on the relationship (if any) between the department's outreach, engagement and support activities and issues or opportunities in the student pipeline. This should include comment on how the department recognises staff and student contributions to these activities and monitors the gender balance of those involved.

f. Provide data for academic and research staff by gender and grade. Analyse and benchmark the career pipeline.

g. Provide data for professional, managerial and support (PMS) staff by gender and grade. Analyse representation, benchmarking where possible.

h. Provide data on staff on fixed-term contracts, contracts of indefinite duration/permanent contracts, and hourly-paid contracts by gender and staff category. Outline instances where fixed-term and hourly-paid contract types are used. This should include comment on:

   + whether or not numbers of fixed-term/hourly-paid contracts are representative of a typical year;
   + the rationale for the use of short-term contracts;
   + the extent to which hourly-paid staff contribute to the teaching of core modules and/or services.

2.1 Overview of the department and its context

2.1a Introduction to department

2.1a 1 Teaching focus

Table 2.1.1: Summary of undergraduate and taught postgraduate courses

Course level	Mode	No. of courses
Undergraduate	Full-time (Year 1 only)	2
Undergraduate	Full-time (years 2 to 4 only)	4
Undergraduate	Full-time (years 1 to 4)	2
Undergraduate – interfaculty with EHS	Full-time (years 1 to 4)	1
Postgraduate MSc	Full-time	8

CSIS-Lero runs 16 UG and PGT courses and partners on one UG interfaculty course, LM097 (tables 2.1.2 and 2.1.3).

- UGs undertake a common first year in one of two courses and then study one of five courses, four of which are in CSIS-Lero.
- For PGT courses, students apply through the internal UL system; course directors review applications and make offers based on qualifications.

CSIS-Lero provides service teaching on eight modules outside the department, and students from four other courses attend modules taught to CSIS-Lero students. Students from Shandong University of Technology join one course for third and fourth year and are included in statistics presented. We do not run Foundation courses.

Table 2.1.2: Undergraduate courses (all full-time), 2024/25

Code	Years	Course title
LM121	1 only	BSc in Computer Science (Common Entry) – feeding into courses LM051 or LM110 or a course in a different department (ECE) in Year 2
LM051	2, 3, 4	BSc in Computer Systems (enrolment through LM121)
LM110	2, 3, 4	BSc in Computer Games Development (enrolment through LM121)
LM122	1 only	BSc in Creative Media and Interaction Design (Common Entry) – feeding into courses LM113 or LM114 in Year 2
LM113	2, 3, 4	BSc in Digital Media Design (enrolment through LM122)
LM114	2, 3, 4	BSc in Music, Media and Performance Technology (enrolment through LM122)
LM097	1 to 4	BSc (Education) in Mathematics and Computing (interdisciplinary with EHS)
LM173/ LK315	1, 2	BSc/MSc in Immersive Software Engineering (ISE)
LM174	1, 2	BSc/MSc in Artificial Intelligence and Machine Learning

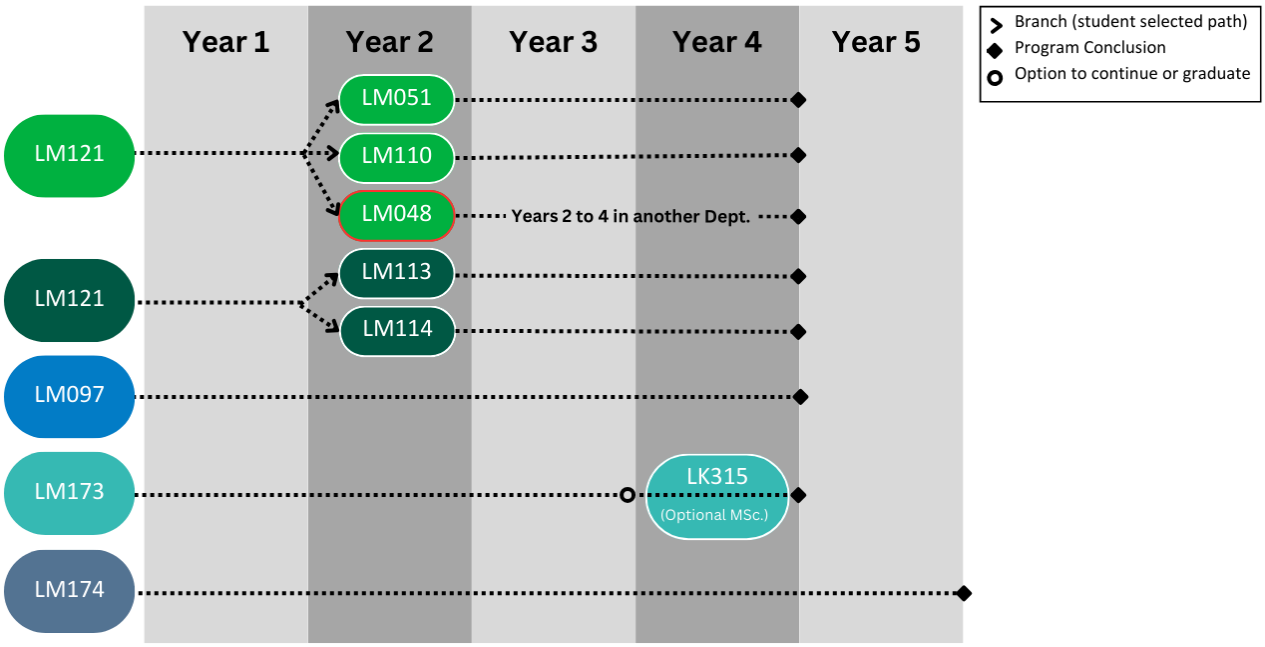

Figure 2.1.1: Undergraduate student pathways

Table 2.1.3: Postgraduate taught courses (FT – full-time, PT – part-time), 2024/25

Mode	Code	Years	Course title
FT	MScAI&ML	1	MSc in Artificial Intelligence and Machine Learning
FT	MScSDIS	1, 2	MSc in Software Development: International Systems
FT	MScSE	1	MSc in Software Engineering
FT	MScMAA&T	1	MSc/MA in Art and Technology (2021/22, 2022/23 only)
FT	MScHI	1	MSc in Health Informatics
FT	MScMAI&ED	1	MSc/MA in Interaction and Experience Design
FT	MScDHT	1	MSc in Digital Health Transformation
PT	PDEng	1, 2, 3, 4	Professional Doctorate in Engineering

2.1a 2 Research focus

Apart from Lero, academics are members of other research groups:

- Biocomputing and Developmental Systems Group (situated in Lero)
- Interaction Design Centre
- Digital Media and Arts Research Centre
- Big Data and Analytics Research Group

CSIS-Lero academics are members of UL-based institutes such as the Health Research Institute and Limerick Digital Cancer Research Centre. Membership is self-selected – there is no requirement to join. Consequently, some academics carry out their own research.

Academics and researchers are encouraged to apply for research grants through which they can develop expertise, build partnerships and employ researchers and PGR students. Some academics contribute significantly to arts and media technology, successfully obtaining funding to support creative work, compositions, curation and exhibitions. All academics are encouraged to publish their work and attend networking events and conferences, which are mainly supported through grants.

CSIS-Lero regularly hosts visiting staff and students. An assigned contact person arranges introductions with staff and ensures the visitors participate in CSIS-Lero events.

2.1a 3 Staff

UL gathers data on NB-PNS staff and students. However, numbers are so low within CSIS-Lero that they are not included in most staff/student data tables in this submission.

Table 2.1.4: Staff numbers, June 2024

	F	M	Total	% F	% total staff
Academic staff	10	30	40	25%	48%
Research staff	5	16	21	24%	25%
PMSS	12	11	23	52%	27%
Total staff	**27**	**57**	**84**	**32%**	**100%**
Staff on contracts of indefinite duration (CID)	14	29	43	33%	51%
% CID staff	63%	55%			
Staff on fixed-term contracts	13	28	41	32%	49%
% fixed-term contract staff	37%	45%			

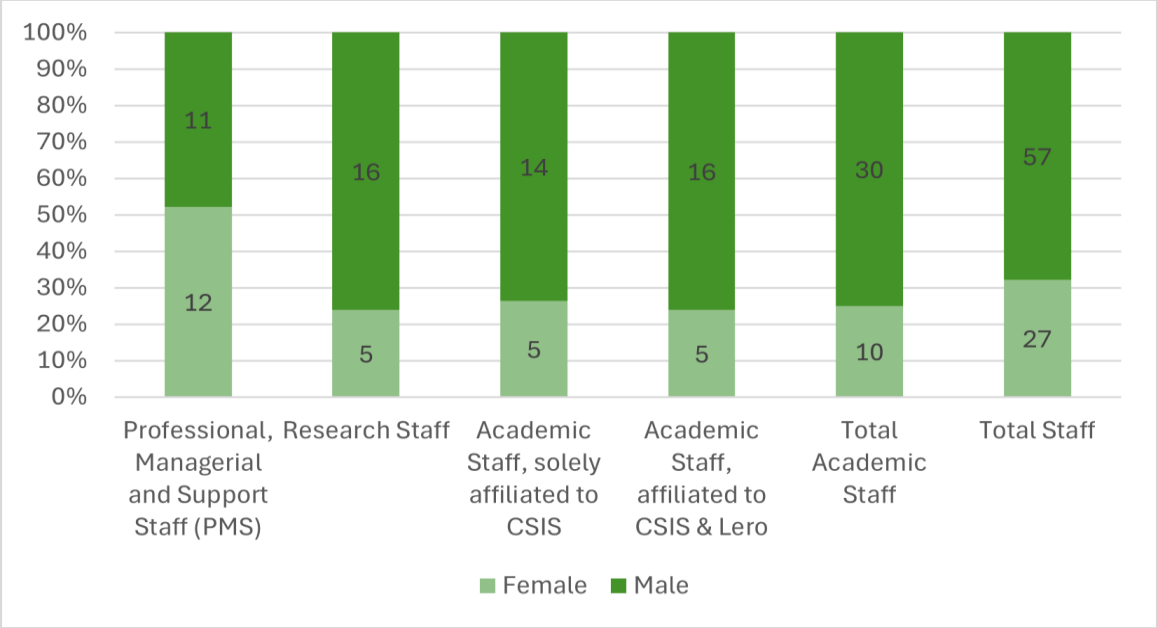

Figure 2.1.2: Staff Role/affiliation by gender breakdown, June 2024

CSIS-Lero academics teach UG and PG students, and many supervise and lead research projects. As some academics and PMSS are employed to work specifically on the ISE programme, they have externally funded, fixed-term contracts. Through personal choice, 5F and 14M academics (58%) are members of Lero and conduct their research there, while the remainder have no explicit connection to Lero. In Lero, academic members are Principal Investigators (PIs), Funded Investigators (FIs) or members.

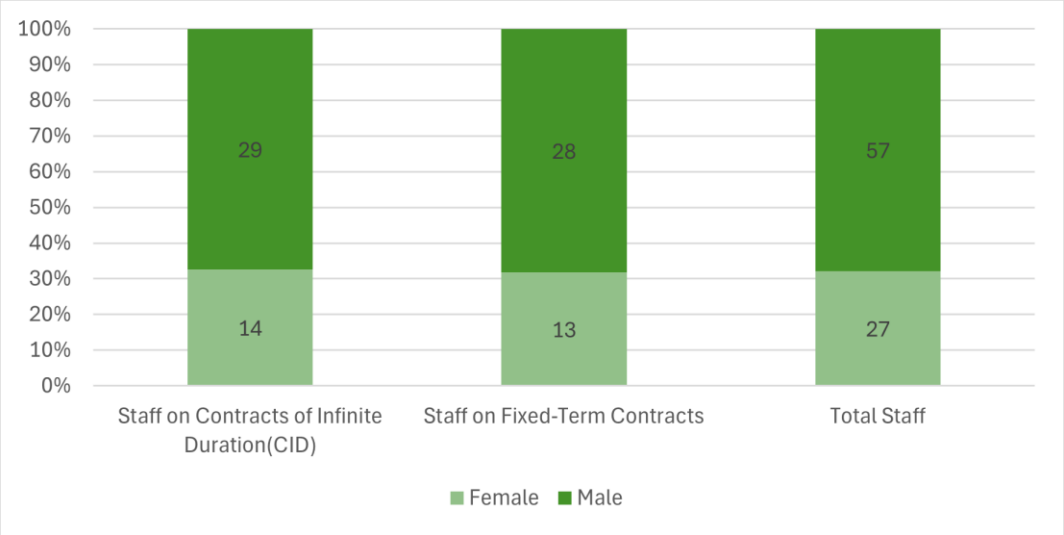

Figure 2.1.3: Staff contract type by gender breakdown, June 2024

PMSS are employed exclusively to work in either CSIS or Lero. Research fellows (RFs), senior research fellows (SRFs), postdoctoral researchers (PDRs) and research assistants (RAs) are employed on research contracts in CSIS-Lero and report to the HoD through PIs or FIs.

A CSIS HoD is normally recruited every five years in line with UL recruitment. The post is advertised internally by the Faculty Dean, and interviews are held. Healy (M) was appointed in September 2023. Positions such as course director are appointed by the HoD for two to five years. The Lero Director is an externally advertised Professor position to which Briand (M) was appointed in January 2024. The Lero Deputy Director is an internal appointment by the Lero Director – Richardson (F) held this position until her term completed in September 2024. She was replaced by Ryan (M).

2.1a 4 Student numbers

Student numbers on UG courses are increasing (20%F in 2023/24) – the number of Year 1 females (48F) is double that in Year 4 (24F). The female percentage has increased from 5 to 12 (140%) since 2020/21.

Table 2.1.5: Undergraduate student numbers, 2023/24

Year 1			Year 2			Year 3			Year 4			Total		
F	M	%F	F	M	%F	F	M	%F	F	M	%F	F	M	%F
48	211	18%	35	124	22%	19	83	19%	24	76	24%	126	494	20%

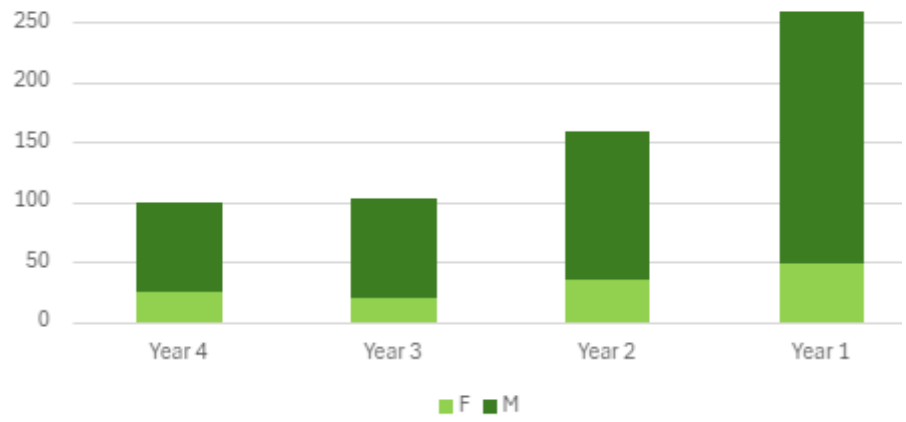

Figure 2.1.4: Total CSIS-Lero undergraduate students, 2023/24

Women are studying taught master's courses at an equal rate to men.

Table 2.1.6: Postgraduate taught students, 2023/24

Year 1			Year 2			Total		
F	M	%F	F	M	%F	F	M	%F
90	108	45%	2	3	40%	92	111	45%

Table 2.1.7: Student numbers across all years and courses, 2020/21 (previous Bronze application) and 2023/24

Student level	2020/21			2023/24		
	F	M	%F	F	M	%F
UG	95	444	18%	126	494	20%
PGT	79	150	34%	91	101	47%
PGR	5	36	12%	12	39	24%

We are proud of our students, including Róisín Allen and Amy McMahon, Year 3, who won the prestigious Generation Google Scholarship for women in computer science; Dr Lisa Kelly, who was shortlisted for PhD student of the year 2024 (Postgrad awards) and Gauri Vaidya, PhD student who was runner-up in S&E Thesis-in-Three competition.



Figure 2.1.5: Year 3 students Róisín Allen, Computer Systems, and Amy McMahon, ISE, who received a Generation Google Scholarships in 2023 and 2024 respectively



Figure 2.1.6: Gauri Vaidya (RHS), PhD student, runner-up in S&E Thesis-in-Three, 2023, pictured with her supervisors Dr Meghana Kshirsagar and Professor Conor Ryan

2.1a 5 Location

CSIS-Lero is situated in three buildings – Computer Science (CS) (since 1999), Tierney (since 2012) and IBC (since 2022), all located within 50m of each other. These accommodate CSIS-Lero academics, PMSS, researchers and PhD students and are used jointly. For example, CSIS and Lero have hosted joint public engagement initiatives for second-level female students in the IBC and Lero has hosted industry days in CS.

2.1b Undergraduate student data

Table 2.1.8: Enrolment on UG courses, 2023/24 (LM121 feeding into LM110/LM051 and LM122 feeding into LM113/LM114)

Courses	F	M	Total	%F
LM121 Year 1	27	130	157	17%
LM051 Year 2, 3, 4	25	154	179	14%
LM110 Year 2, 3, 4	6	27	33	18%
LM122 Year 1	11	26	38	30%
LM113 Year 2, 3, 4	15	26	41	37%
LM114 Year 2, 3, 4	10	24	34	29%
LM173 Year 1, 2	13	51	64	20%
LM174 Year 1, 2	3	39	42	7%
LM097 Years 1-4	16	17	33	48%
Total UG	**126**	**494**	**620**	**20%**

UG interdisciplinary courses (LM122, LM113, LM114, LM097) have higher female representation.

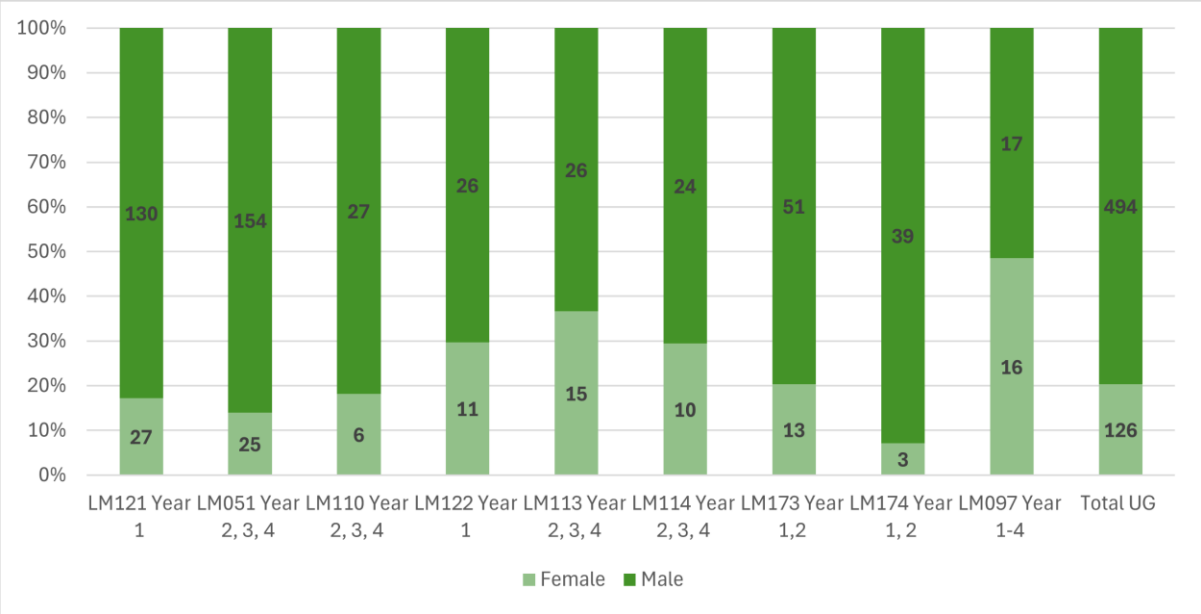

Figure 2.1.7: Enrolment on UG courses, 2023/24 (LM121 feeding into LM110/LM051 and LM122 feeding into LM113/LM114)

Table 2.1.9: Total UG students, 2020/21 through to 2023/24

Year	Year 1			Year 2			Year 3			Year 4			Total		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F	F	M	%F
UG students 2020/21	32	143	18%	15	103	13%	22	78	22%	25	100	20%	94	424	18.1%
UG students 2021/22	32	118	21%	28	96	23%	16	101	14%	23	77	23%	99	392	20.2%
UG students 2022/23	49	140	26%	18	93	16%	27	79	25%	19	102	16%	113	414	21.5%
UG students 2023/24 (see Table 2.1.5)	48	211	18%	35	124	22%	19	83	19%	24	76	24%	126	494	20.3%

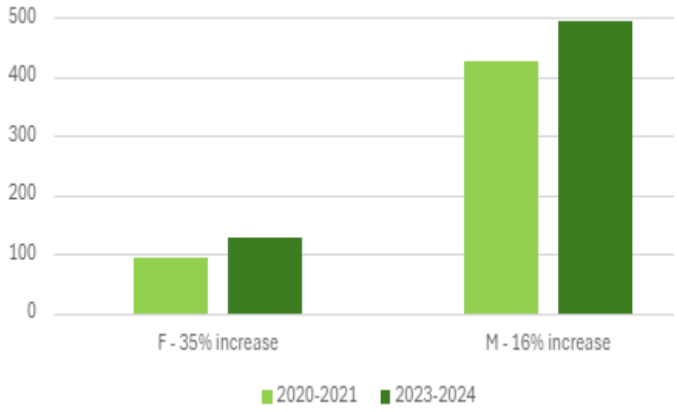

Figure 2.1.8: Increase in UG student numbers 2020/21 to 2023/24

Table 2.1.10: Three-year category trend by gender for all students studying UG honours degrees in Software and ICT courses (as defined in the glossary) at all Irish HEIs (HEA statistics available to 2022/23 only)

Gender	2020/21	2021/22	2022/23
% Female	17.3%	18%	18.9%
% Male	82.6%	81.7%	80.5%
% NB-PNS	0.2%	0.3%	0.6%

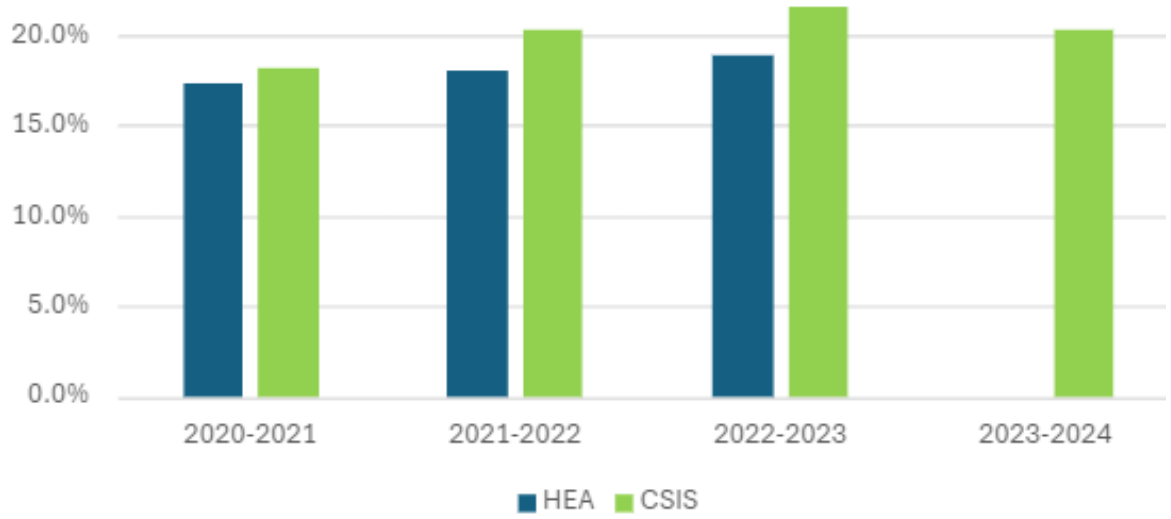

Figure 2.1.9: Comparison with category trend for all female students studying UG honours degrees in Software and ICT courses at all Irish HEIs

Table 2.1.11: Year 1 UG enrolments, 2020/21 to 2023/24

Course	2020/21			2021/22			2022/23			2023/24		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F
LM121 BSc in Computer Science	18	94	16%	13	84	13%	23	99	19%	30	127	19%
LM122 BSc in Creative Media and Interactive Design	9	36	20%	8	16	33%	12	12	50%	11	26	30%
LM097 BEd in Mathematics and Computer Science	4	8	33%	6	9	40%	5	5	50%	1	4	20%
LM173/LK315 BSc/MSc in Immersive Software Engineering							5	18	22%	7	33	18%
LM174 BSc/MSc in AI and Machine Learning							0	21	0%	2	18	10%
Total	**31**	**138**	**18.3%**	**27**	**109**	**19.9%**	**45**	**155**	**22.5%**	**51**	**208**	**19.7%**

Table 2.1.12: Three-year category trend by gender for all students first-time enrolling in UG honours degrees in Software and ICT courses at all Irish HEIs

Gender	2020/21	2021/22	2022/23
% Female	17.4%	17.0%	19.4%
% Male	82.2%	82.2%	79.7%
% NB-PNS	0.4%	0.7%	1.0%

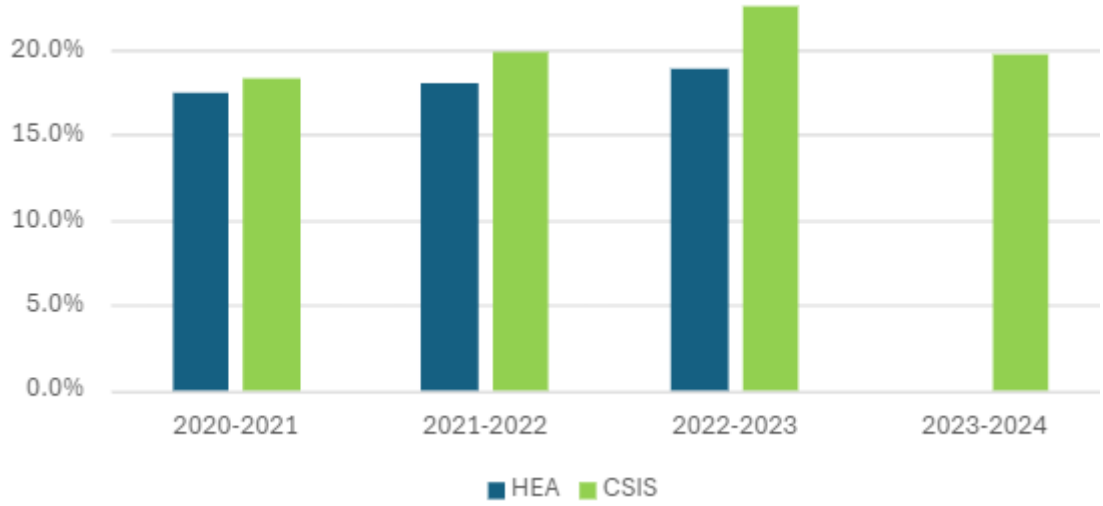

Figure 2.1.10: Comparison with category trend for all female students enrolling in UG honours degrees in Software and ICT courses at all Irish HEIs

From tables 2.1.8 to 2.1.12 and figures 2.1.7 to 2.1.10, we note:

- An increase of 35% from 94F UG in 2020/21 to 126F in 2023/24.
- In 2023/24, 20.3% UGs are women, an increase from 18.1% in 2020/21. This is only slightly lower than Durham-CS, which has 21%F enrolled.
- New courses LM097 and LM173 are above the national average at 48%F and 20%F respectively. However, at 7%, LM174 (BSc/MSc in AI and Machine Learning) is well below the average.
- We have been consistently ahead of the national HEA female percentage for student numbers and female enrolments.
- Overall female enrolment in CSIS-Lero courses increased by 61% (from 31 to 51) over four years.
- CSIS-Lero UG enrolment of 22.5%F (2022/23) is higher than the national average of 19.4%F.
- LM173, which has a different teaching philosophy and which we expected would attract more females, did not have a greater %F on enrolment.
- LM097 numbers decreased in 2023/24 to five students (1F).

We were unable to get data for other AI and Machine Learning courses. However, a 2021 Alan Turing Institute report states “22% of data and AI professionals in the UK are women”, which implies that we should work to increase the low percentage of females on LM174.

SAP ACTION(S)
2.1.1: Continue CSIS-Lero outreach to improve female enrolment in computing subjects, with a focus on LM174 Bachelor/Master of Science in Artificial Intelligence and Machine Learning.

Table 2.1.13: Degree attainment by gender on UG courses 2020/21 to 2022/23 (data for 2023/24 not available)

Gender	Degree class	2020/21	2021/22	2022/23	Overall
Female	H1 (First-class honours)	48%	41%	59%	48%
	H2:1 (Upper second-class hons.)	48%	45%	35%	44%
	H2:2 (Lower second-class hons.)	4%	14%	6%	8%
	H3 (Third-class hons.)	0%	0%	0%	0%
Female total		**25**	**22**	**17**	**64**
Male	H1	45%	40%	32%	39%
	H2:1	30%	29%	40%	33%
	H2:2	18%	21%	22%	21%
	H3	7%	10%	6%	7%
Male total		**98**	**70**	**100**	**268**

Table 2.1.14: Degree attainment by gender on UG courses, 2020/21 to 2022/23 combined

Gender	Degree class	LM110	LM051	LM113	LM114
Female	H1	38%	67%	50%	29%
	H2:1	38%	33%	46%	57%
	H2:2	25%	0%	4%	14%
	H3	0%	0%	0%	0%
Female total		8	18	24	14
Male	H1	31%	43%	38%	42%
	H2:1	31%	28%	49%	39%
	H2:2	29%	20%	10%	15%
	H3	9%	9%	3%	3%
Male total		77	119	39	33

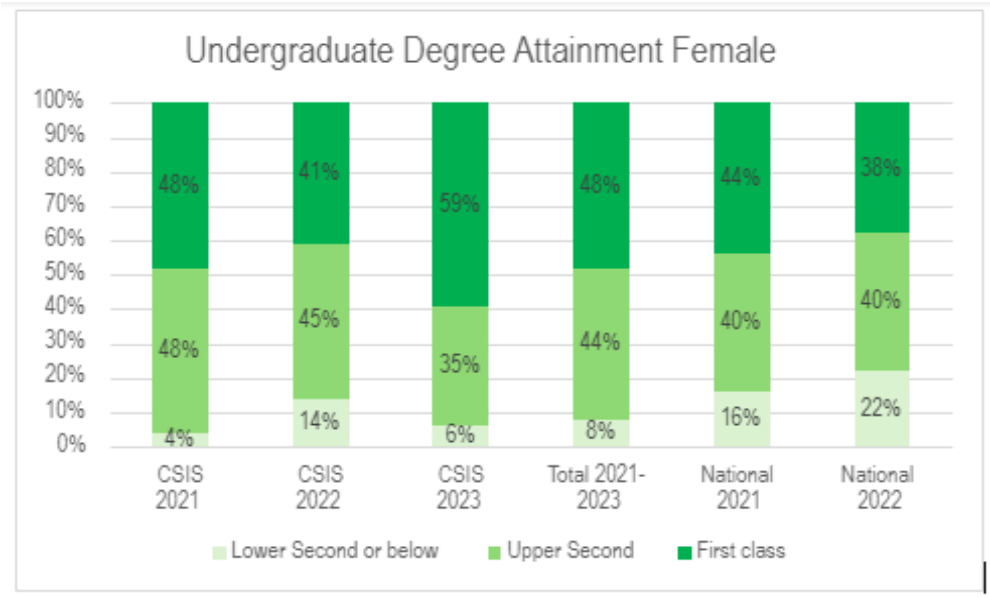

Figure 2.1.11: Degree attainment by CSIS-Lero UG female students, 2021-2023, and in Software and ICT courses at all Irish HEIs, 2021 and 2022 (2023 HEA data not available)

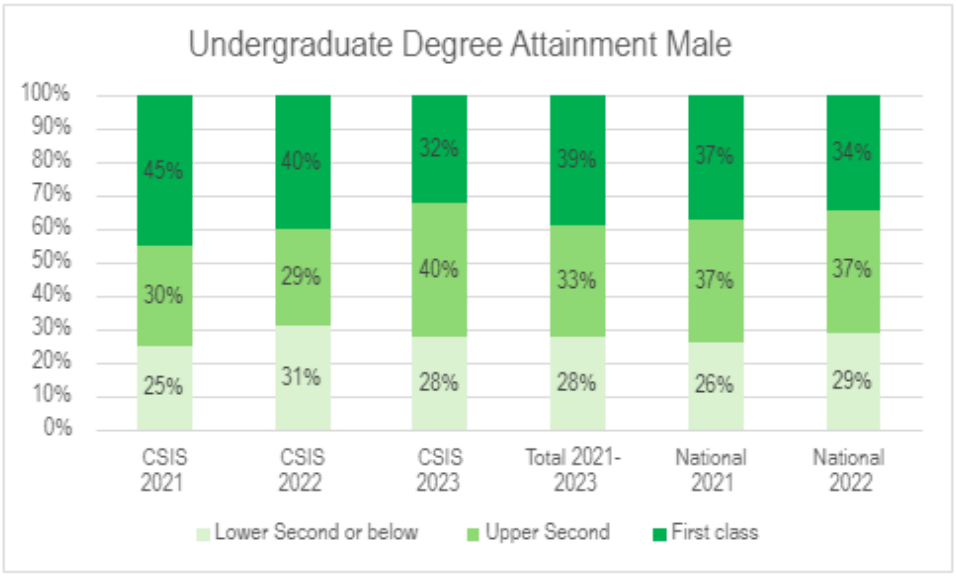

Figure 2.1.12: Degree attainment by CSIS-Lero UG male students, 2021-2023, and in Software and ICT courses at all Irish HEIs, 2021 and 2022

From tables 2.1.13 and 14 and figures 2.1.11 and 12:

Impact:

- %F H1 (first-class honours) and H2:1 (upper second-class honours) attainment is better than that of males. The 2022 figure is comparable to HEA (86% vs 78%).
- Female attainment of H1 degrees rose from 41% in 2022 to 59% in 2023, which compares to 40% in 2022 and 32% in 2023 for males. However, in 2022, CSIS-Lero male attainment (40%M) was higher than the HEA statistic (34%M).

We also note:

- In 2022, 59%F and 60%M obtaining H2:2 or below is similar to the HEA figures of 62%F and 66%.
- Females are slightly more likely than males to achieve a higher award.
- During the 2020-2023 period, 48%F gained H1 awards compared to 39%M.

BAP 2.3 is included in the SAP. (No action on it had been taken to date.)

SAP ACTION(S)
2.1.2: Assess the factors giving rise to differences between female and male UG degree outcomes.

CSIS-Lero does not run foundation courses. UL has drop-in centres listed on the website for other STEM subjects but none specifically for computer science.

2.1c PGT student data

Table 2.1.15: Postgraduate taught enrolments by course and gender, 2020/21 to 2023/24

Course	2021/22			2022/23			2023/24		
	F	M	%F	F	M	%F	F	M	%F
MSc in Artificial Intelligence and Machine Learning	8	20	29%	3	16	16%	9	41	18%
MSc in Software Development: International Systems (MScSDIS)	2	3	40%	2	4	33%	15	6	71%
MSc in Software Engineering	12	27	31%	7	20	29%	19	20	49%
MSc/MA in Art and Technology	3	2	50%	2	2	50%			
MSc in Health Informatics (MScHI)	10	5	67%	2	3	40%	14	7	67%
MSc/MA in Interaction and Experience Design	5	8	39%	8	8	50%	12	9	57%
MSc in Digital Health Transformation (MScDHT)	30	16	65%	26	16	62%	20	15	57%
Professional Doctorate in Engineering (PDEng)	3	4	43%	1	2	33%	1	10	9%
Total	**73**	**85**	**46%**	**51**	**71**	**42%**	**90**	**108**	**45%**

Table 2.1.16: Total PGT students, 2020/21 to 2023/24

Year	F	M	%F
2020/21	93	77	55%
2021/22	81	70	54%
2022/23	59	40	60%
2023/24	91	101	47%

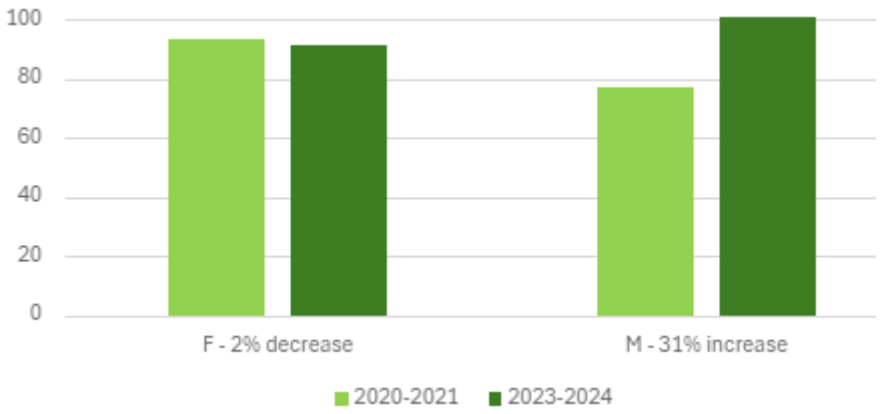

Figure 2.1.13: Total PGT students 2020/21 compared to 2023/24

Table 2.1.17: Three-year category trend for all students studying PGT degrees in Software and ICT courses at all Irish HEIs

Gender	2020/21	2021/22	2022/23
Female	27.5%	28.0%	29.3%
Male	72.5%	71.7%	70.4%
NB-PNS	0.0%	0.1%	0.3%

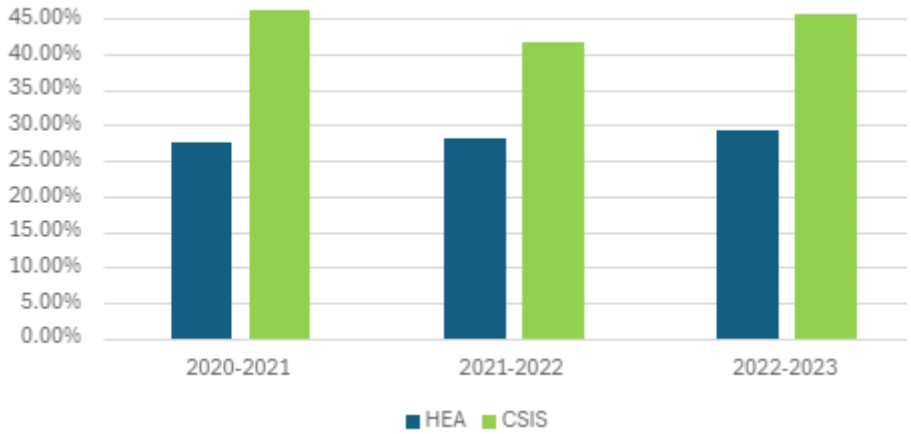

Figure 2.1.14: Comparison with category trend for all female students enrolling in PGT degrees in Software and ICT courses at all Irish HEIs

Table 2.1.18: Degree attainment by gender on PGT courses 2020/21 to 2022/23 (Note: PDEng degrees are not graded)

Gender	Degree class	2020/21	2021/22	2022/23	Overall
Female	H1	88%	67%	65%	72%
	H2:1	10%	30%	33%	25%
	H2:2	2%	2%	2%	2%
	H3	0%	2%	0%	1%
Female total		48	66	51	165
Male	H1	68%	58%	63%	62%
	H2:1	20%	26%	31%	27%
	H2:2	5%	14%	3%	8%
	H3	7%	1%	3%	3%
Male total		44	72	67	183

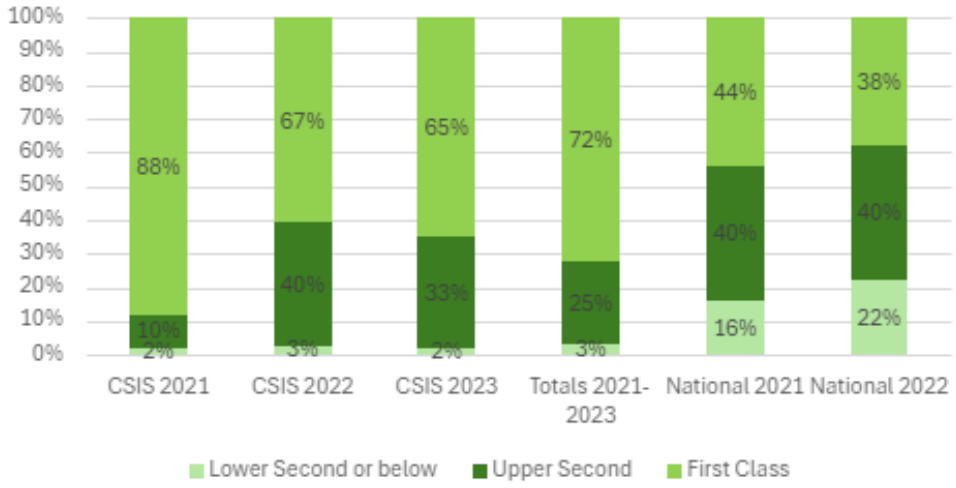

Figure 2.1.15: Degree attainment by CSIS-Lero PGT female students, 2021-2023, and in Software and ICT courses at all Irish HEIs, 2021 and 2022

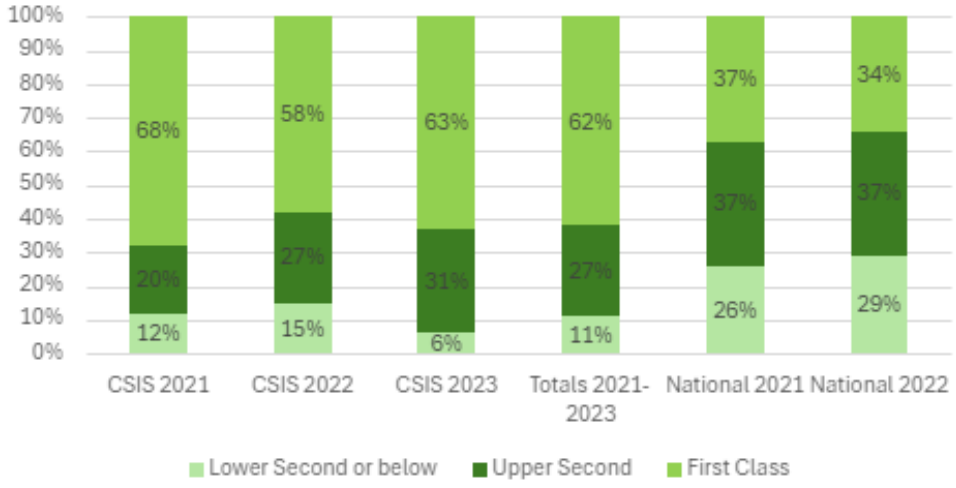

Figure 2.1.16: Degree attainment by CSIS-Lero PGT male students, 2021-2023, and in Software and ICT courses at all Irish HEIs, 2021 and 2022



Figure 2.1.17: Postgraduate students in MSc/MA Interaction and Experience Design 2022/23

From tables 2.1.15 to 2.1.17 and figures 2.1.13 and 14:

Impact:
• At 42%F, enrolment of PGT females in 2022/23 was higher than the national figure (29.3%F). In line with national trends to 2022/23, CSIS-Lero %F rose in 2022/23. • PGT female numbers increased by 23% between 2020/21 and 2023/24 while male numbers increased by 27%.

We note that some PG courses should focus on gender imbalance:

- MScSDIS female enrolment in 2023/24 was 71%F, over double that in 2022/23. This conversion course is undertaken by those with prior degrees in other subjects. It is common for such courses to have more women than men, often because the women did not choose ICT courses initially. We believe the increase in female enrolment may be because in 2023/24, the course director (F) introduced one-on-one online meetings with potential students, and it is possible they saw her as a role model.
- MScHI and MScDHT generally attract high female representation, reflecting female students' healthcare backgrounds.
- PDEng is an industry-based level 10 programme. During the three years, 21 students registered, of which 5 (31%) are women. Potential students meet the course board, which currently has 33%F membership.

SAP ACTION(S)
2.1.3: Develop a better understanding of fluctuations in female engagement in PGT courses.
2.1.4: Increase the percentage of females enrolling on the PDEng degree.

From Table 2.1.18 and Figure 2.1.15, we note that while 72%F and 62%M achieved a H1 from 2021-2023, in 2022/23 alone, 65%F and 63%M achieved a H1. While PGT courses are varied

and attainment levels vary annually, our students' attainment of H1s is higher than national figures (38%F/34%M in 2022).

2.1d PGR student data

PGR degrees are mainly PhDs, although we have MSc research students occasionally (currently 3F, 1M). The current registration of 51 PGR students (12F, 39M; 24%F, Table 2.1.7) is comparable to national figures.

Students deal directly with supervisors to complete applications before applying to the UL Doctoral College. Potential supervisors would usually not allow an application to progress until they had worked with the student to complete the application, which will then usually be accepted by UL. Therefore, application and offer numbers are the same.

Table 2.1.19: PhD student offers and enrolments, 2021/22 to 2023/24

Year	Gender	Applications & offers (same)	Enrolments	Enrolments: offers
2021/22	Female	8	3	38%
	Male	11	4	36%
	% Female	42%	42.9%	
2022/23	Female	2	1	50%
	Male	6	2	33%
	% Female	25%	33%	
2023/24	Female	5	2	40%
	Male	10	4	40%
	% Female	33%	33%	
Total	**Female**	**15**	**6**	**40%**
	Male	**27**	**10**	**37%**
	% Female	**36%**	**38%**	

Table 2.1.20: PhD student graduations, 2021-2024

Year	Female	Male	Total	% Female
2021	1	1	2	50%
2022	0	4	4	0%
2023	1	2	3	33%
2024	1	6	7	14%
Total	**3**	**13**	**16**	**19%**

Table 2.1.21: Three-year category trend by gender for all students enrolling on PhD and master's research degrees in Software and ICT courses at all Irish HEIs

Gender	2020-2021	2021-2022	2022-2023
Female	34.9%	35.0%	34.9%
Male	65.1%	65.4%	64.6%

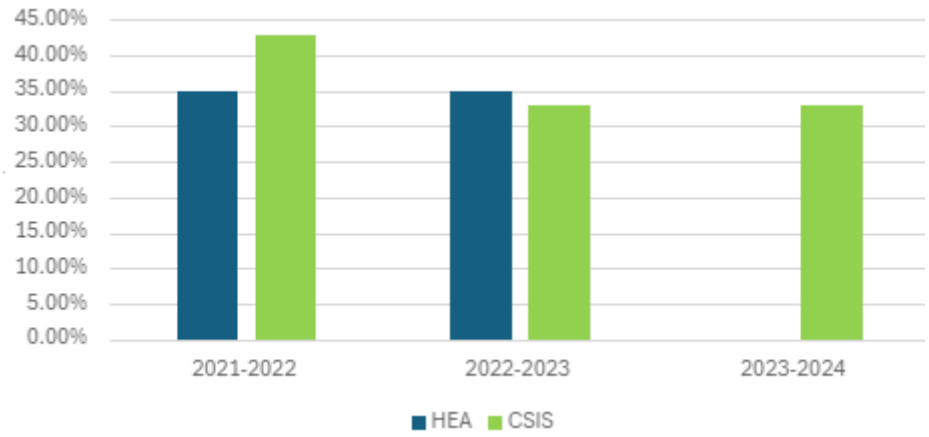

Figure 2.1.18: Trend by gender for female students enrolling on PhD and master's research degrees in Software and ICT courses at all Irish HEIs (to 2022/23) and in CSIS-Lero

Research grants fund 90% of students, and females and males are equally likely to be funded. PhD students can register anytime during the year, and graduations occur three times annually. Over 60% of PhD students are international.

- Female and male students are equally likely to enrol after being offered a place (40%F, 37%M).
- Female graduation numbers (19%F) reflect low enrolment before 2021.
- Having increased our %F enrolment significantly from 2020 to 2023, we are now comparable to sector data. While this trend continued in 2023/24, we need to support its growth.
- We reflect the national trend in %F enrolments (Figure 2.1.18).

SAP ACTION(S)
2.1.5: Increase the number those from underrepresented groups, including women, engaging in full-time PGR research.
2.1.6: Ensure a level playing field for those accessing funded PhD opportunities.

CSIS-Lero hosts a large TERI-funded research project (R@ISE), which is led by four CSIS-Lero academics (2F, 2M) in collaboration with academics from Kemmy Business School (1F, 1M). The project manager (M) is on the CSIS-Lero AS SAT. By ensuring that PhD advertisements are gender-proofed, there have been 22%F applicants for PhD positions. PhD interview committees are gender-balanced.

2.1e Outreach, engagement and support activities



Figure 2.1.19: Yodith and Zeytuna Moloney, Laurel Hill Coláiste, FCJ, Limerick, build a simple circuit to monitor heart rate during a Cybercamp workshop

CSIS-Lero considers that the pipeline of women participating in computer science and related subjects is of the utmost importance, reflecting UL's commitment to access and widening the participation of underrepresented groups. Our O&E programme is presented as a key achievement in gender equality (Sliver outcome: section 3.2a, **BAP 2.7**).

Along with CSIS-Lero volunteers, we employ 5.5 FTEs on O&E activities (4.5 FTEs funded through grants and industry). Our outreach includes school visits, open days, summer camps and science week activities (primary and second-level pupils), CodePlus and TeenTurn (second-level female students), scholarship support (third-level female students), Junior Cycle curriculum support (teachers) and presentations to the public, including Pint of Science (general public). We present detail on two O&E illustrative activities (CodePlus and ISE).

Impact:
Female student representation increased from:

- 18% to 21% for UG students
- 34% to 45% for PGT students
- 12% to 24% for PGR students

2.1e 1 CodePlus: Outreach for girls



Figure 2.1.20: CodePlus project



Figure 2.1.21: CodePlus seminar and participants



Figure 2.1.22: CodePlus won the Diversity and Inclusion Initiative of the Year Award at the Women in STEM awards 2024 run by iQuest and Business Post LIVE

Lero's Education and Public Engagement Manager received SFI Discover Programme funding (€142,000) to develop CodePlus, building on Trinity College Dublin's programme. In 2022 and 2023, Lero engaged over 10,000 girls in CodePlus (3,000+ through Lero@UL). This included:

- Coding sessions: over 1,000 attendees, in groups of 28, each student attending 20 hours of coding through hybrid delivery
- Webinars: 8,000 attendees; women from industry speak about their career paths

- Site visits by 1,200 attendees to technology and software companies, helping to demystify stereotypical views of the tech sector

Transition Year schoolgirls are targeted through social media campaigns, press releases and direct contact with schools.

2.1e 2 ISE EDI outreach



Figure 2.1.23: 2023 recipients of ISE residency partner-sponsored EDI scholarships:
Left: Rosie Kennelly and Emily Roys with Intercom co-founder Des Traynor
Right: Pardis Norouzi with Transact Vice-President Dr John Burton

One female is employed full-time to support O&E for the ISE course. Actions include:

- 22 second-level school visits, including 39% DEIS schools, engaging with over 900 pupils (65% of schools being all-girls or mixed gender)
- Partnering with the UL Access Office, Academy for Children, All-Ireland STEM Passport for Inclusion Programme, Youthreach Mentoring for Equality Programme, and Engage-EDU, which, collectively, offer access to software engineering for ~5,000 students
- Working with Junior Achievement Ireland to deliver the Energizer programme to local primary schools to encourage the next generation of problem solvers and engineers

In 2023 and 2024, eight (4F, 4M) ISE Year 1 students were presented with EDI-fostering scholarships worth €30,000, contributed by three ISE partner companies. One of the scholarships is exclusively reserved for female students.

Students studying ISE are encouraged to participate in O&E by mentoring DEIS students.

2.1e 3 Support activities

We encourage students in their studies through our teaching methods, using techniques such as universal design, interactive teaching, small-group tutorials and problem-based learning. We also encourage students to join relevant societies – many CSIS-Lero students are members of societies such as the Computer Society, Games Society and Women in STEM society.

Impact:

CSIS-Lero appointed an Equality officer (De Wille, **BAP 1.7**), whose role is to:

- Increase students' awareness of available career and education opportunities and help them pursue them.
- Advertise opportunities to students at all levels and answer queries.
- Organise talks by industry presenters.
- Identify and approach eligible scholarship students and support them with the application process.

Each UL faculty has a Student Engagement and Support Officer (SESO). From 2022 to 2024, the S&E SESO interacted with 148 CSIS-Lero students (24%F, 74%M, 2%NB-PNS). Of these, 42 (33%F, 67%M) were considering withdrawing while 20 did withdraw (25%F, 75%M). We encourage students to meet with the SESO early in their studies.

CSIS-Lero's ICT Learning Centre provides online and face-to-face supplementary learner support for the department's students. Annually, approximately 26% of students who engage with the centre are female. As we have observed that when female tutors are working, female students look for support. Therefore, 25% of tutors employed in the centre are female.

For the past four years, CSIS-Lero has administered the Johnson & Johnson Ireland's (J&J) Women in STEM^{2}D (WiSTEM^{2}D) award, which is presented annually to 16 female students. Awardees are mentored by J&J employees, attend workshops, visit the local J&J site, and often proceed to cooperative education or graduate positions within J&J. The S&E website features 10 WiSTEM^{2}D alumni videos. In 2023/24, we organised a hackathon with J&J scholarship recipients to ideate unique ways of encouraging second-level female students to pursue careers in STEM. Among the suggested proposals was the use of social media platforms like TikTok and Instagram to share engaging content created by peers pursuing STEM courses. This research project is being continued in 2024/25.



Figure 2.1.24: UL J&J scholarship awardees pictured with Anna Rafferty, J&J; Ita Richardson, CSIS-Lero; Kieran O'Connell, J&J; Jenna Bromell, J&J (previous awardee); and Marie Travers, CSIS-Lero

Impact:

- Students who received the WiSTEM^{2}D awards founded the Women in STEM society in UL. The society now has over 200 members and is publicised through the UL Clubs & Societies website, Facebook and Instagram.
- Academics and researchers have published three papers on WiSTEM^{2}D.

We worked with Ei Electronics to ensure that CSIS-Lero students were included in its Women in Engineering scholarship. We support CSIS-Lero students to apply and help them with their applications by holding a CV and application workshop.



Figure 2.1.25: Sinéad O'Boyle and Ciara Beaton pictured with Katie Crowley, CSIS-Lero and Kevin Moore, Ei Electronics. Sinéad and Ciara received Ei Electronics Women in Engineering scholarships while studying the BSc in Computer Science (Common Entry).

Impact:

- CSIS-Lero students were recipients of the Ei Electronics Women In Engineering scholarship in three of the past four years. The scholarship includes a stipend and the opportunity to work in the company on the recipients' cooperative education placement.

2.1e 4 Staff and student contributions

Table 2.1.22: Outreach, education and public engagement (EPE) instances of staff and student engagement by gender (excludes those employed to undertake EPE)

Organised by	2021			2022			2023		
	F	M	%F	F	M	%F	F	M	%F
Lero EPE	56	55	50%	68	62	52%	44	67	40%
ISE Public Engagement Officer	-	-	-	2	4	33%	10	10	50%
ICT Learning Centre workshop tutors (online 2021)	5	5	50%	5	4	56%	5	5	50%
Total	**61**	**60**	**50%F**	**76**	**70**	**52%**	**59**	**82**	**42%**

Apart from the full-time employees involved in O&E, the importance of O&E activities is recognised by being a core part of academic, PMSS, researcher and PGR duties. For example, such activities are explicitly mentioned in references for researchers and PGs, and participating in open days, giving talks and setting up research demonstrations are recognised as service contribution. Within Lero, outreach participation is a key performance indicator – 50% of researchers are expected to conduct two or more EPE events per year. Outstanding contribution is recognised through the annual Lero Director's award for EPE and through the Lero EPE Champions TERI scheme, where recognition is given to those who participate in five or more events per year. Students who plan and engage with O&E are encouraged to apply for the UL President's Volunteer Award; 32 CSIS-Lero students received awards in 2024.

Table 2.1.23: CSIS-Lero President's Volunteer Award recipients 2024

Gender	Postgraduates	Undergraduates	Total
Female	7	3	**10**
Male	12	7	**19**
NB-PNS	0	3	**3**
Total	**19**	**13**	**32**

SAP ACTION(S)
2.1.7: Increase CSIS student engagement in supporting school-age students' understanding of STEM subject areas.

2.1f Academic and research staff

Table 2.1.24: Academic staff data by gender, 2021 to June 2024. Note: Because UL internal titles are different to HEA titles, we present the HEA title in brackets.

Role	2021			2022			2023			Jun-24		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F
Full Professor (HEA Professor)	2	4	33%	2	4	33%	2	4	33%	2	4	33%
Professor (HEA Associate Professor)	0	1	0%	0	1	0%	0	3	0%	0	3	0%
Associate Professor A (HEA Senior Lecturer)	0	3	0%	0	3	0%	0	2	0%	0	2	0%
Associate Professor B (HEA Lecturer)	6	11	35%	5	12	33%	4	11	31%	4	14	22%
Assistant Professor (HEA Lecturer below the Bar)	1	3	25%	1	1	0%	1	3	0%	2	3	40%
University Teacher	0	3	0%	0	1	0%	0	2	0%	1	3	25%
Teaching Assistant	1	0	100%	0	1	0%	0	1	0%	1	1	50%
Total	**10**	**25**	**29%**	**8**	**23**	**26%**	**7**	**26**	**21%**	**10**	**30**	**25%**

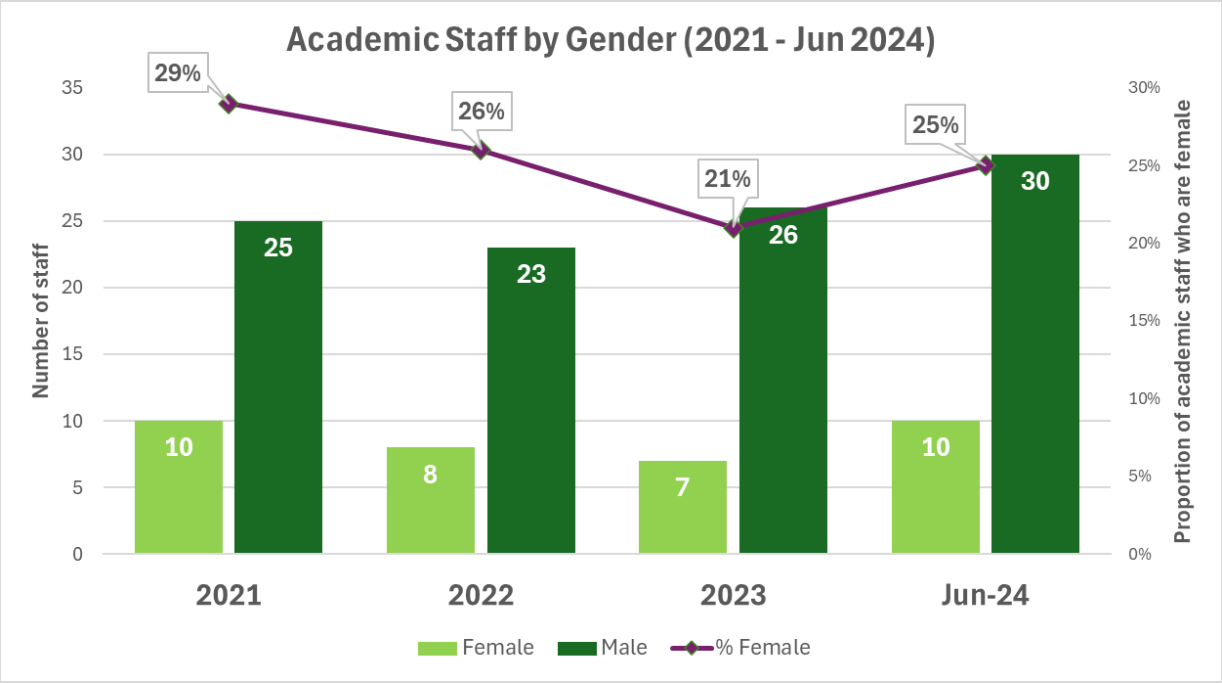

Figure 2.1.26: Academic staff data by gender, 2021 to June 2024

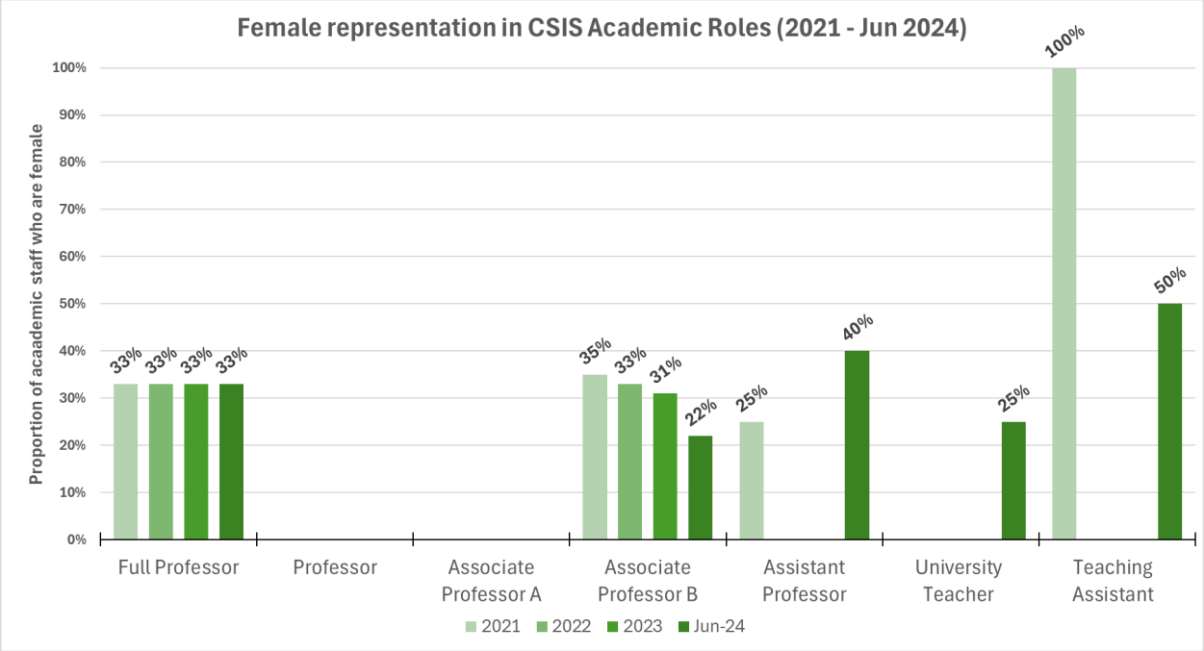

Figure 2.1.27: Female academic staff data by role, 2021 to June 2024

Table 2.1.25: Comparison of CSIS-Lero percentage of female academic staff with UK

Comparator	%F
CSIS-Lero, June 2024	25%
IT, Systems Sciences & Computer Engineering, HESA, UK, 2022/23	25%
University of Durham Computer Science (Silver Award, 2024)	25%

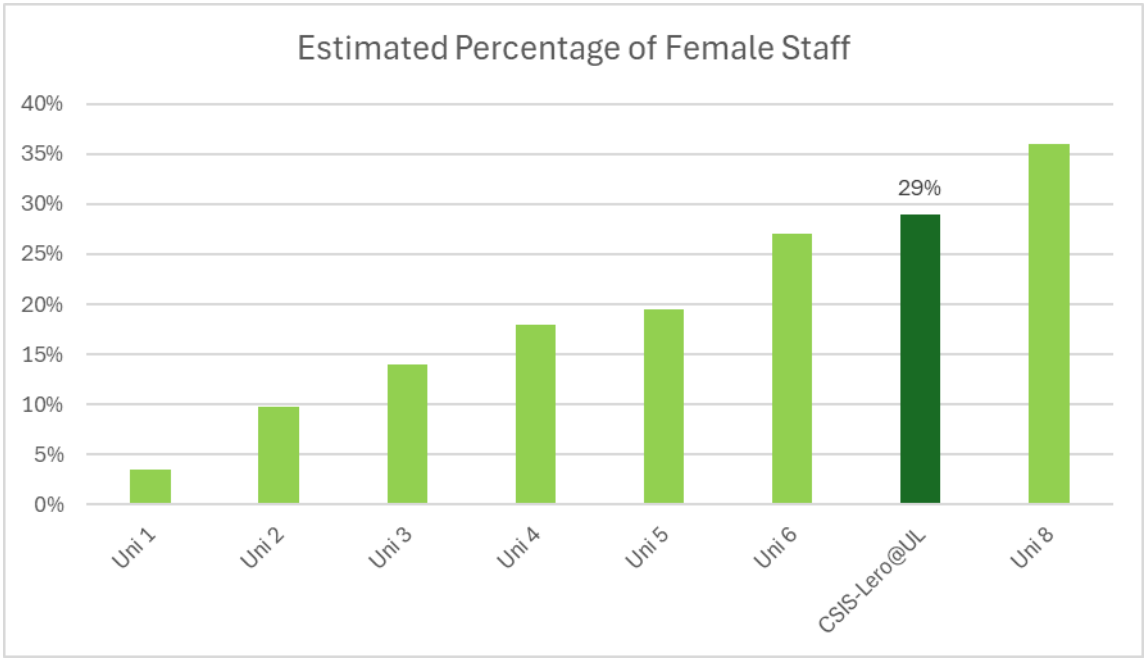

Figure 2.1.28: Proportion of female staff in computer science in Ireland's university sector, gathered by INGENIC, 2021 (most recent published data) and published by McKeever and Lillis, Technological University Dublin

Table 2.1.26: CSIS-Lero research staff data by gender, 2021 to June 2024

Role	2021			2022			2023			June 2024		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F
Senior Research Fellow	0	1	0%	0	0	0%	1	0	100%	1	0	100%
Research Fellow	1	3	25%	2	2	50%	1	2	33%	2	1	67%
Postdoctoral Researcher	4	7	36%	3	6	33%	3	6	33%	1	11	8%
Research Assistant	0	1	0%	1	2	33%	2	2	50%	1	0	100%
Total	**5**	**12**	**29%**	**6**	**11**	**35%**	**7**	**10**	**41%**	**5**	**16**	**24%**

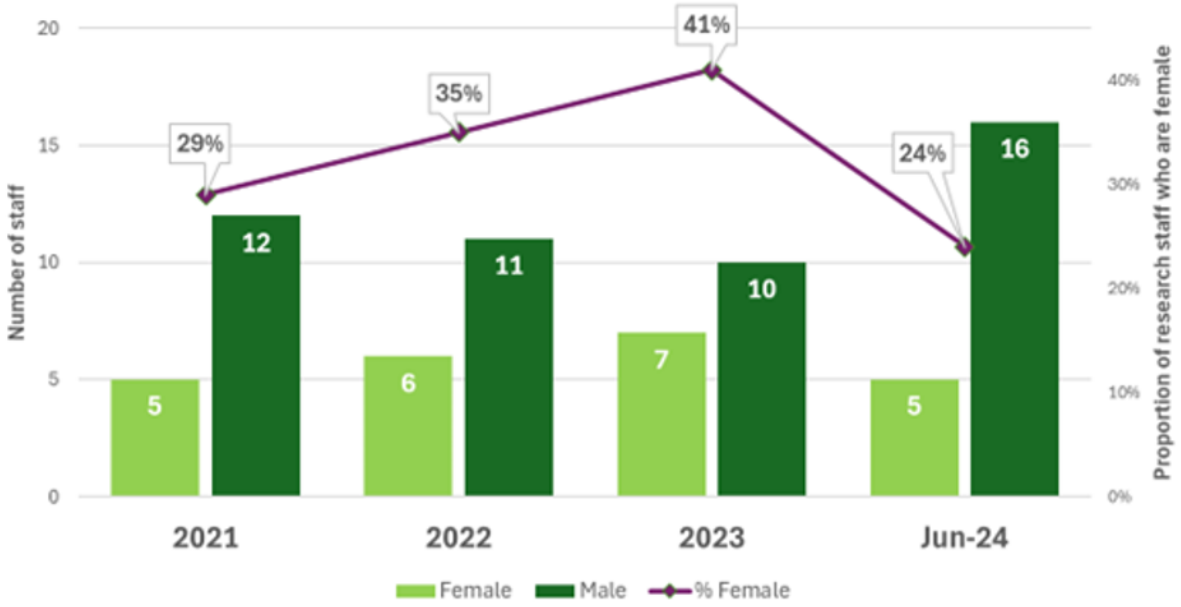

Figure 2.1.29: CSIS-Lero research staff data by gender, 2021 to June 2024

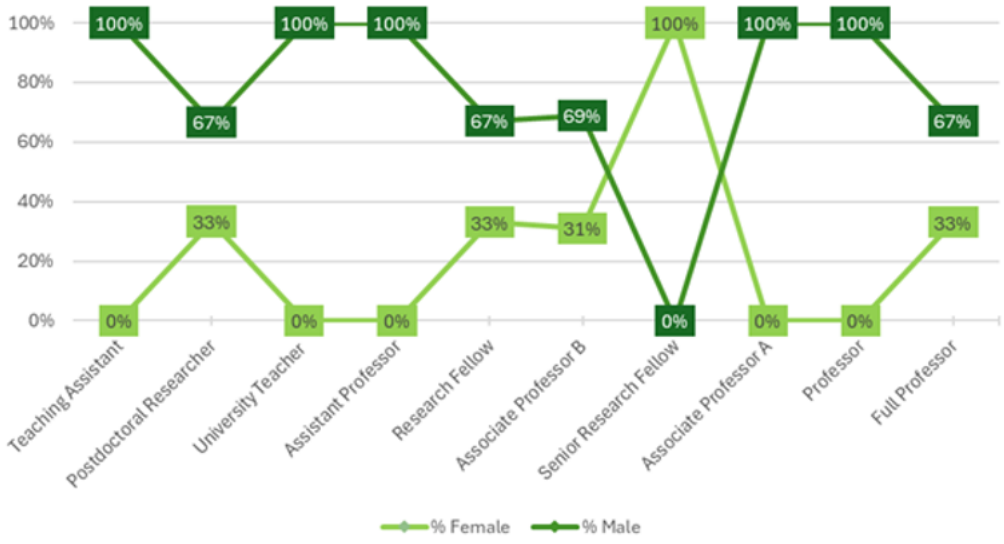

Figure 2.1.30: 2023 full academic career progression pipeline

From tables 2.1.24 and 25 and figures 2.1.26 to 28, we note:

- Academic positions are 'teaching and research' positions, with the exception of University Teachers (UTs) and Teaching Assistants (TAs). UTs are CID positions. TAs are 10-month contract positions – UL stipulates that an individual cannot hold this position more than twice.
- Between 2021 and June 2024, the proportion of academic female staff varied; overall, it fell from 29% to 25%. Our female representation is broadly in line with that in Ireland and the UK, and 33% of our Full Professors are female.
- Although there are no females at AssocProfA or Professor levels, women are represented at AssocProfB (4F), SRF (1F) and RF (2F) levels, suggesting that there is a need to support women's development and progression so that they can move to higher levels. As mentoring has been shown to be very successful in UL, we need to develop career/mentoring plans for females at RF and AssocProfB levels.

SAP ACTION(S)
2.1.8: Create a 'Staff Career Development Officer' role within the AS SAT to support staff career development.
2.1.9: Addressing barriers to female appointments at higher levels.

Our number of female researchers increased from 29% in 2021 to 41% in 2023 and dropped in the first six months of 2024. We are comparable to Durham-CS, which had 31%F researchers in 2022/23, and as numbers are low, we expect variation. Female representation among SRF and RF (senior roles) increased from 20% to 75%.

Additionally, we need to increase the number of females who apply for academic positions. In the past, we have ensured that our advertisements are gender neutral, and CSIS-Lero members have distributed these to women they know. Researchers from CSIS-Lero are encouraged to apply for positions, but this practice is *ad hoc* rather than strategic.

SAP ACTION(S)
2.1.10: Increase the number of female academics within CSIS-Lero.

2.1g Professional, managerial and support staff

PMSS who work in CSIS work for UL while those who work in Lero@UL have responsibility to Lero nationally.

Table 2.1.27: PMSS by role and gender, 2021 to June 2024

Role	2021			2022			2023			June 2024		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F
Senior Executive Administrator	1	1	50%	1	1	50%	1	1	50%	1	1	50%
Executive Administrator	2	1	67%	2	3	40%	2	3	40%	2	3	40%
Senior Administrator	2	0	100%	3	0	100%	4	0	100%	4	0	100%
Administrator	1	0	100%	0	0	0%	0	0	0%	1	0	100%
Senior Administrative Officer 3	0	1	0%	0	1	0%	0	1	0%	0	1	0%
Senior Administrative Officer 1	4	1	80%	3	1	75%	3	2	60%	3	2	60%
Total administrative staff	**10**	**4**	**71%**	**9**	**6**	**60%**	**10**	**7**	**59%**	**11**	**7**	**61%**
Chief Technical Officer	0	1	0%	0	1	0%	0	1	0%	0	1	0%
Senior Technical Officer	0	3	0%	0	3	0%	0	3	0%	0	3	0%
Technical Officer	0	1	0%	0	1	0%	0	1	0%	1	0	100%
Total technical staff	**0**	**5**	**0%**	**0**	**5**	**0%**	**0**	**5**	**0%**	**1**	**4**	**20%**
Total PMS	**10**	**9**	**53%**	**9**	**11**	**45%**	**10**	**12**	**45%**	**12**	**11**	**52%**

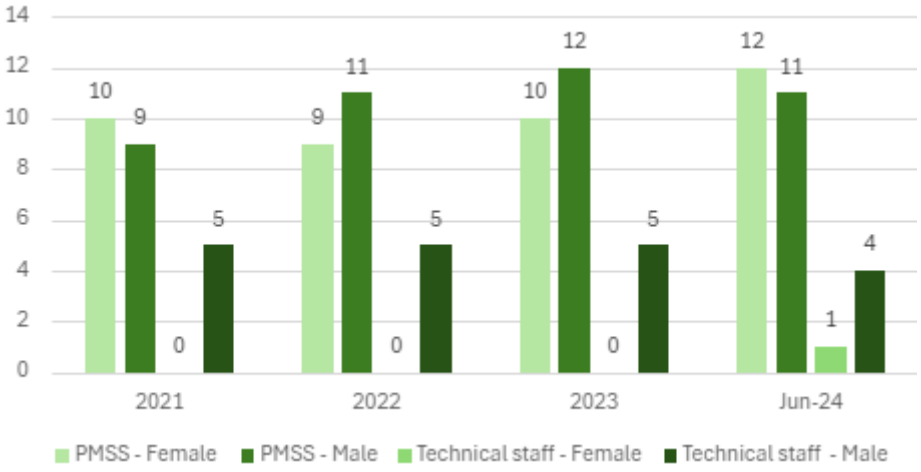

Figure 2.1.31: PMSS by role and gender, 2021 to June 2024



Figure 2.1.32: Career progression for administrative staff (June 2024)

While all staff at Administrator and Senior Administrator levels are female, there is a more equitable mix at the more senior administrator levels. There are more females than males at Senior Administrative Officer 1 level, and the one Senior Administrative Officer 3 (the highest level) is male. Because the numbers of staff at each level are low, it is difficult to draw conclusions about the pipeline.

Until 2024, all the technical staff were male; a female was recently appointed at Technical Officer grade. We would like to increase female representation among technical staff as they have many dealings with students and as such, we would like more female role models with whom our students can identify.

PMSS from other sections in UL have been seconded to administrative positions. For example, CSIS-Lero staff have been replaced when they are on maternity leave or when particular research projects recruit for a fixed length of time. Such secondments give others in UL a chance to gain experience at a more senior level for their CVs, which can enhance their career opportunities. In CSIS-Lero, secondments have been mainly for administrative positions.

SAP ACTION(S)
2.1.11: Provide better support for PMSS career development.
2.1.12: Increase the representation of female staff in technical grades.

2.1h Contracts

Table 2.1.28: Academic staff on CID and contracts (specific-purpose or fixed-term) by gender, 2021 to June 2024

Year	Type	F	M	Total	%F
2021	CID	8	19	27	30%
	Contract	2	3	5	40%
	% Contract	20%	14%	23%	
2022	CID	8	20	28	29%
	Contract	0	3	3	0%
	% Contract	0%	13%	10%	
2023	CID	7	19	26	27%
	Contract	0	7	7	0%
	% Contract	0%	27%	21%	
June 2024	CID	6	21	27	22%
	Contract	4	9	13	31%
	% Contract	40%	30%	32%	

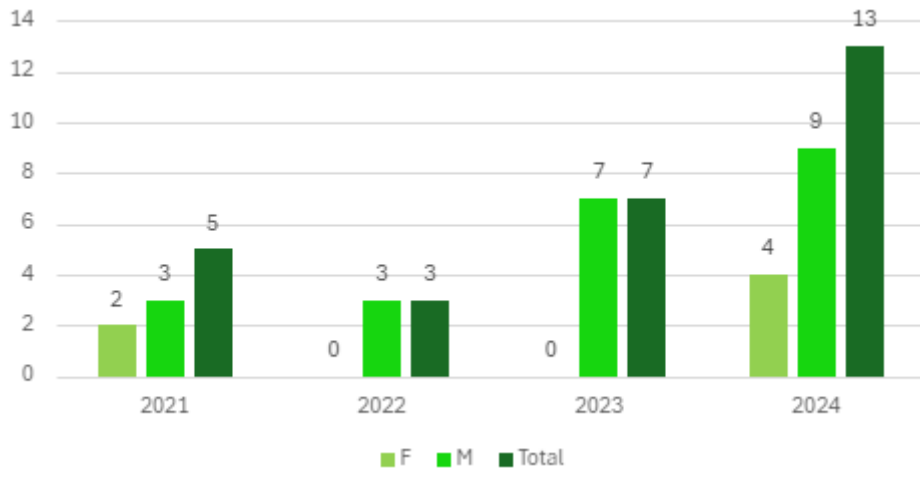

Figure 2.1.33: Academic staff on CID and contracts (specific-purpose or fixed-term) by gender, 2021 to June 2024

Table 2.1.29: PMSS on CID and contracts (specific-purpose or fixed-term) by gender, 2021 to June 2024

Year	Contract	F	M	Total	%F
2021	CID	7	7	14	50%
	Contract	3	2	5	60%
	% Contract	30%	22%	26%	
2022	CID	6	7	13	46%
	Contract	3	4	7	43%
	% Contract	33%	36%	35%	
2023	CID	8	9	17	47%
	Contract	2	8	10	20%
	% Contract	20%	47%	37%	
June 2024	CID	8	8	16	50%
	Contract	4	3	7	57%
	% Contract	33%	27%	30%	

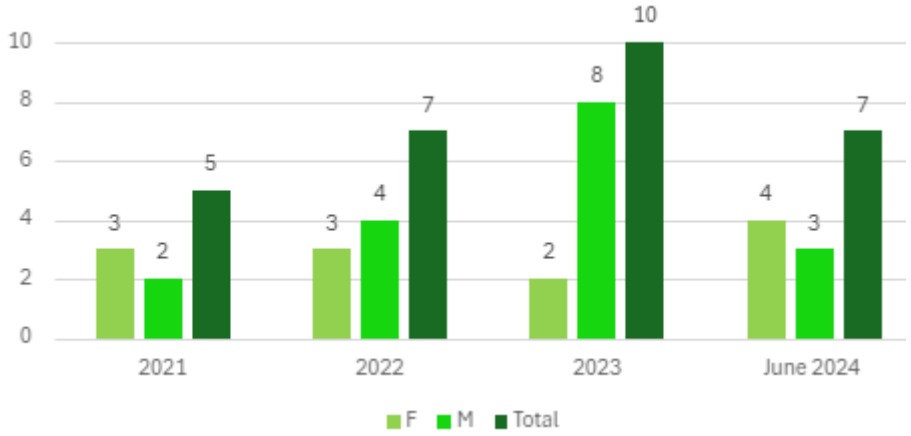

Figure 2.1.34: PMSS on CID and contracts (specific-purpose or fixed-term) by gender, 2021 to June 2024

In June 2024, 32% of academic staff were on contract, of whom 31% are female. The percentage on contract has risen continually since 2022, mainly because the LM173 funding structure imposes specific-purpose academic contract positions. As academics retire and student numbers grow, we expect the academics on contract will have opportunities to apply for CID positions.

All research staff are employed on fixed-term contracts. The constancy in the number of fixed-term contract researchers is a direct result of research income success. At times, researchers may do some teaching to aid their career development by building up their teaching portfolios. A requirement of UL PhD student funding is that students undertake up to six paid hours weekly as TAs within their host department.

Academics and researchers on contract should be given opportunities to engage in research activities, such as participating in grant proposals, supervising PhD students and publishing, to enhance their chances of being able to apply for CID positions.

PMSS contracts in CSIS-Lero are tied to the non-permanency of Lero and ISE funding. There are no gendered patterns. PMSS should also be given opportunities for career development through secondment to higher positions in other UL departments or elsewhere nationally or internationally.

SAP ACTION(S)
2.1.13: Improve the mobility/progression of academics with contracts of indefinite duration.
2.1.11: Provide better support for PMSS career development.

2.2 Embedding policy, practice and supports to advance academic and research careers

a. Reflecting on recruitment practices in the department, answer the following:

	Yes	No
Recruitment to academic and research posts in the department adheres to institutional policy on recruitment, which includes gender-balanced panels and training for assessors.	☒	☐

If you answered 'no', please comment.

b. Provide three years of data on application, shortlist and appointment rates for recruitment by gender and grade. Where data suggests opportunity for improvement, comment and reflect. Include any other relevant information relating to recruitment processes and practice for academic and research posts in the department.

c. Reflecting on academic promotion in your institution, answer the following:

	Yes	No	N/A
Academic promotion processes, including eligibility criteria, are managed centrally by the institution.	☒	☐	☐

If you answered 'no', please comment on the department's role in academic promotions processes. If you answered 'N/A' (not applicable) because prescribed promotion pathways are not in place in your institution, provide comment and reflection on alternative routes for academic career progression.

d. Provide three years of data on application and success rates for promotion by gender and grade and present results from staff consultation by gender. Where data suggests opportunity for improvement, comment and reflect.

e. Reflecting on opportunities for staff development reviews, answer the following:

The institution operates a development review process, or equivalent, for academic and research staff.	Yes	No
	☒	☐

If you answered 'yes', comment and reflect on the implementation of this institution-level process in the department. This should include:

+ data on uptake by gender;
+ results from staff consultation presented by gender;
+ information on any additional department-level opportunities for staff to discuss professional development.

If you answered 'no', provide detail on department-level opportunities for staff to discuss professional development, including data on uptake by gender and results from staff consultation presented by gender.

f. Comment and reflect on department engagement with institution-level supports for academic and research staff career progression as well as any department-level support available. This should include results from staff consultation presented by gender and may include, but is not limited to, support given to staff to:

+ apply for research funding;
+ develop excellence in teaching and learning.

g. Comment and reflect on how workload is allocated and managed in the department (e.g. via a workload allocation model). This should include information on how the breadth of academic and research roles and responsibilities are captured in workload planning and allocation and results from staff consultation presented by gender.

2.2a Recruitment practices

Recruitment to academic and research posts in the department adheres to institutional policy on recruitment, which includes gender-balanced panels and training for assessors.	Yes	No
	☒	☒

Recruitment always adheres to institutional policy for academic and PMSS posts and normally does so for researcher posts. However, when EU MSCA (Marie Skłodowska-Curie Actions) grant funding for researchers is received, applications must be reviewed internationally before interviews are held. One of these grants, SyMeCo, is described in section 2.2b 3.

2.2b Recruitment data

2.2b 1 Academic recruitment

Table 2.2.1: Recruitment process to academic positions

Position	How position is filled	Potential applicants	Notes
Assistant Professor	Advertisement	PDR, RF, external applicants	Unlikely, but possible, that SRF would apply
Associate Professor B	Progression	Assistant Professor	
Associate Professor B	Advertisement	AssistProf, PDR, RF, SRF, external applicants	Unlikely, but possible, that PD would get this position
Associate Professor A	Promotion	AssocProfB	
Associate Professor A	Advertisement	AssocProfB, RF, SRF, external applicants	Unlikely, but possible that RF would get this position
Professor	Promotion	AssocProfA	
Professor	Advertisement	AssocProfA, SRF, External Applicants	These are very rarely advertised
Full Professor	Advertisement	AssocProfA, Professor, SRF, External applicants	Unlikely, but possible, that AssocProfA would get this position
Full Professor	Promotion	Professor	

Table 2.2.2: Academic staff recruitment by year and gender, 2021 to 2023. Data for recruitment is available only to December 2023.

Year	Gender	Applied	Shortlisted	Job offer	Shortlisted: Applied	Job offer: Shortlisted	Job offer: Applied
2021	F	16	2	1	13%	50%	6%
	M	86	12	4	14%	33%	5%
	NB-PNS	1	1	0	100%	0%	0%
	%F	16%	13%	20%			
2022	F	7	1	0	14%	0%	0%
	M	59	18	2	31%	11%	3%
	% F	11%	5%	0%			
2023	F	12	3	1	25%	33%	8%
	M	98	22	10	22%	45%	10%
	% F	11%	12%	9%			
Overall	F	35	6	2	17%	33%	6%
	M	243	52	16	21%	31%	6%
	NB-PNS	1	1	0	100%	0%	0%
	% F	**13%**	**10%**	**11%**			

For the 18 job offers over the three-year period, the data shows a low percentage of female applicants (13%) given the percentage of women in academic posts in CSIS-Lero (25%, Table 1.2.1) and that 25%F work in IT, systems sciences and computer software engineering in UK universities (HESA, 2022/23, Table 2.1.25). No clear gendered patterns are apparent in the

recruitment process, highlighting that the way to increase female representation is to increase the number of female applicants, particularly for senior positions.

The need to increase the number of female applicants for academic positions can be deduced from the data presented in Table 2.2.2.b, showing academic recruitment by grade and gender (SAP 2.1.10). There were no job openings for senior positions in that period.

Table 2.2.2.b Academic staff recruitment by grade and gender, 2021 to 2023. Data for recruitment is available only to December 2023

By grade	Gender	Applied	Shortlisted	Job offer	Shortlisted: Applied	Job offer: Shortlisted	Job offer: Applied
T.A.	F	9	2	0	22%	0%	0%
	M	15	8	1	53%	13%	53%
	NB-PNS	0					
	% F	**38%**	**20%**	**0%**			
Teacher/UT	F	1	0	0	0%	0%	0%
	M	6	5	2	83%	40%	42%
	NB-PNS	0					
	% F	**14%**	**0%**	**0%**			
AssistProf/ AssProfB	F	11	4	2	36%	50%	18%
	M	92	18	6	20%	33%	3%
	NB-PNS	3	1	0			
	% F	**11%**	**18%**	**25%**			
AssProfA/ Pro	F	14	0	0	0%	0%	0%
	M	120	14	5	12%	36%	2%
	NB-PNS	4	0	0			
	% F	**10%**	**0%**	**0%**			
Overall	F	35	6	2	17%	33%	6%
	M	233	45	14	19%	31%	1%
	NB-PNS	7	1	0	14%	0%	0%
	% F	**13%**	**12%**	**13%**			

In the previous two rounds for Senior Academic Leadership Initiative (SALI) professors, CSIS-Lero proposed within UL that we would submit an application for the appointment of one female professor. However, this was not chosen internally to be submitted nationally – a limited number was allowed from each HEI. We plan to submit an application when the next round is announced.

SAP ACTION(S)
2.2.1: Increase female representation at Professor level.

Progression to/within academic positions is through open advertising or by promotion (Table 2.2.1). AssocProfA and Professor positions are rarely advertised – following retirements, they are normally filled at AssocProfB or AssistProf level.

2.2b 2 Researcher recruitment

Table 2.2.3: Researcher recruitment by year and gender, 2021 to 2023

Year	Gender	Applied	Shortlisted	Job offer	Shortlisted: Applied	Job offer: Shortlisted	Job offer: Applied
2021	F	28	12	7	43%	58%	25%
	M	58	18	6	31%	33%	10%
	%F	33%	40%	54%			
2022	F	11	6	3	55%	50%	27%
	M	27	11	4	41%	36%	15%
	NB-PNS	1	1	0	100%	0%	0%
	%F	28%	33%	43%			
2023	F	20	3	0	15%	0%	0%
	M	61	20	7	33%	35%	11%
	%F	25%	13%	0%			
Overall	F	59	21	10	36%	48%	17%
	M	146	49	17	34%	35%	12%
	NB-PNS	1	1	0	100%	0%	0%
	%F	**29%**	**30%**	**37%**			

From 2021 to 2023, 29% of applicants for researcher positions were female. Given that 25%F work in IT, systems sciences and computer software engineering in UK universities (HESA, 2022/23), this compares strongly to the pool of potential applicants. Women and men are equally likely to be shortlisted, but women shortlisted are more likely to receive job offers.

We aim to increase the numbers of female applications through a dissemination strategy that involves targeting social media profiles (e.g. LinkedIn) supporting female researchers, women in STEM and the STEM LGBTQI+ community, in collaboration with both the Faculty of Science and Engineering and Human Resources. Adverts will be shared with female researchers involved in initiatives such as European Platform of Women Scientists, Women in Technology and Science, the Trinity Centre for Gender Equality and Leadership, Association for Women in Science, and Stemettes.org. In an effort to increase our reach to potential female applicants we will tag the social media accounts of organisations that support female researchers and women in STEM, e.g., 4womeninscience, @WITSIreland, @AWISNational. This approach has increased the number of female applicants in Lero's three EU-funded MSCA Cofund programmes (SAP 2.1.5A).

SAP ACTION(S)
SAP 2.1.5.A: Increase the number of applications for postgraduate positions from underrepresented groups, including women. SAP 2.1.5.B: Develop a better understanding of the factors influencing applications for research positions from underrepresented groups, including women.

Impact:

- Twenty-nine percent of applicants for researcher positions over the three-year period were female, which increased from 22% in 2017-2020.

2.2b 3 Other relevant information: targeting women



Figure 2.2.1: Professor Brian Fitzgerald, Lero Director; Professor Norelee Kennedy, Vice President Research, UL; Mr Niall Collins, Minister of State at the Department of Further and Higher Education, Research, Innovation and Science; Ms Mariana Clohessy, Programme Manager; and Dr Ciarán Seoige, Deputy Director General, SFI at the launch of SyMeCo in June 2023

Table 2.2.4: SyMeCo Marie Sklodowska-Curie COFUND Fellowship Programme, Lero 2023/24

Recruitment stage	Total	F	M	%F
Eligible applicants	45	13	32	30%
Interviewees (Interviewees: Applicants)	35 (78%)	10	25	29%
Initial awards (Initial Awards: Interviewees)	10 (29%)	4	6	40%
Accepted awards	10	3	7 (one 2nd-round offer)	30%
Accepted awards: Applicants	22%	23%	22%	

Because of their nature, some positions in Lero are not required to follow standard recruitment procedures.

Lero PI and FI are unpaid positions taken up by academics in TERI research centres. They are TERI-approved, sought-after prestigious positions and support the academic's career trajectory. During AS work, we identified that the PI/FI cohort did not reflect our gender

balance. We continually review our statistics, encouraging women to apply for funding. This has resulted in there now being 29%F PIs and 18%F FIs in Lero. We continue to explore avenues to increase this representation.

SAP ACTION(S)
2.2.2: Improve the ratio of females in Lero PI and FI positions.

Coordinated by Lero, the SyMeCo MSCA COFUND Postdoctoral Fellowship programme funds 16 research fellowships for two years. Focusing on women, our international communications campaign to attract high-quality eligible applicants resulted in 30%F applicants. This compares to a similar programme (ALECS, 2018), to which 23%F applied.

We appointed reviewers to SyMeCo, 36% of whom were female. Each application was reviewed by a three-person international review panel. Of the 46 review panels, 36 had at least 1M and 1F; 10 panels were male-only, illustrating the international difficulty with appointing women in computing. Interview panels for those who passed the review had at least 1F/1M.

Parnas fellowships, which are similar to adjunct professor positions, are awarded through open competition. To increase our female applicant base, we ensured advertisements were gender-proofed and selection panels were gender-balanced, published answers to FAQs, and targeted potential applicants. This resulted in 4F (50% of fellows) being appointed since 2021.

Impact:

- In 2024, 40% of Parnas fellow applicants were women, the highest percentage of women to apply since the instigation of the fellowship. In years 1-3, no woman applied **(BAP 5.4)**.
- Four women (50% of fellows) were appointed as Parnas Fellows since 2021. Prior to then, all six appointed fellows were men.

2.2c Management of promotion processes

Academic promotion processes, including eligibility criteria, are managed centrally by the institution.	**Yes**	**No**	**N/A**
	☒	☐	☐

2.2d Promotion data

2.2d 1 Application and success rates for promotion

Table 2.2.5: Academic staff progression from AssistProf to AssocProfB, 2021-2024 (year or gender not included as this would identify individuals)

Applications	Total	Note
Eligible to apply	7	Could include an individual more than once
Applied	7	Could include an individual more than once
% Eligible who applied	100%	
Successful	3	
% Successful	43%	

Table 2.2.6: Academic staff promotion from AssocProfB to AssocProfA and AssocProfA to Professor, 2021-2024 (year or gender not included as this would identify individuals)

Applications	Total	Note
Applied	7	Could include an individual more than once
Successful	3	
% Successful	43%	

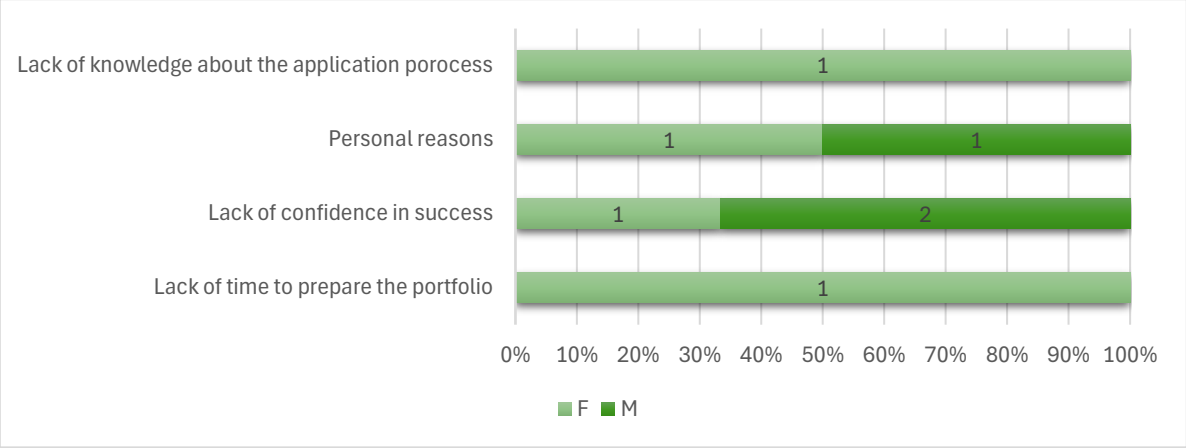

Figure 2.2.2: Staff survey responses: Reasons that academic staff did not apply for promotion

Reasons that academic staff did not apply for promotion included lack of knowledge about the application process, personal reasons, lack of confidence in success and lack of time to prepare the portfolio but the numbers of respondents are too low to draw conclusions regarding gender.

Academic staff progression/promotion committees are convened at institutional level, with a required 40% gender balance. Faculty boards elect academics to these committees. For the past three elections, CSIS-Lero nominated a woman, two of whom were successful. Calls for progression and promotion are made, normally annually, by email. When presented in the application, career breaks such as maternity leave are taken into account. UL policies state that there will be no discrimination against any employee.

CSIS-Lero staff members who are eligible for progression/promotion are encouraged by the HoD to apply and attend relevant UL training, which three people have attended. Those applying are made aware that senior department members will give them feedback on their CVs **(BAP 7.4)**. Additionally, from 2021–2023, 11F and 13M attended career development courses and 15F and 12M attended professional development courses.

All eligible staff applied for progression from AssistProf to AssocProfB. Numbers are too small to draw conclusions regarding gender. The success rate in S&E in 2023 was 33%; CSIS-Lero figures are higher.

In 2022, the HEA success rate was 51% for AssocProfB to AssocProfA and 50% for AssocProfA to Professor promotions. We can see that in CSIS-Lero, the percentage success is lower at 43%. Additionally, the percentage of applications is very low. For example, in 2023, there were 7F and 19M with CIDs at AssocProfB level (see Table 2.1.28) yet only one person applied (4%) for promotion. The reasons for not applying for promotion are concerning. Based on the 2024 survey, apart from personal reasons (12%), most academics cited a lack of time, knowledge and confidence in their potential for success. More information needs to be available to staff about the process and ways to increase self-confidence.

2.2d 2 Results from academic and research staff consultation

Results from the focus groups (summarised below) raise issues that need to be addressed at UL level.

1. **Dissatisfaction with promotion policies:** The current promotion and progression policies were widely criticised for being opaque and inconsistent, leading to significant dissatisfaction.

"There are those numbers that fly around the table and you do not know where they come from because there's no rubric."
". . . I scored less in research. Now somebody ought to demonstrate to me that my research is going down. It's an impossible endeavour."

2. **Academic promotion favours a specific profile:** Some academic participants felt promotion was more difficult if you don't have a specific profile oriented towards a typical research type.

"As a person who has a research profile that part of my research is practice-based, that I often feel that I have to work three times as hard as other people in the department."
"I don't know how a process would pick up on those things [patents] and be fair. I think it's very difficult to quantify a lot of the work, that the great diversity of work and the value of it that people do in a formal manner."

3. **Working group committee on promotion regulations:** Participants showed dissatisfaction with the lack of information about and transparency of a working group on promotion.

"I've been told that in UL there is a working group committee that has been working for a year and is working for another year, who's looking precisely and rewriting the regulations. Nobody knows about this."

4. **Need for benchmarking on promotion regulations:** Participants would like to see UL benchmarking against other institutions.

"But in all, all promotion regulations across all universities are public and easily accessible, and you can compare. In UL, I wouldn't even call them regulations, to be honest."

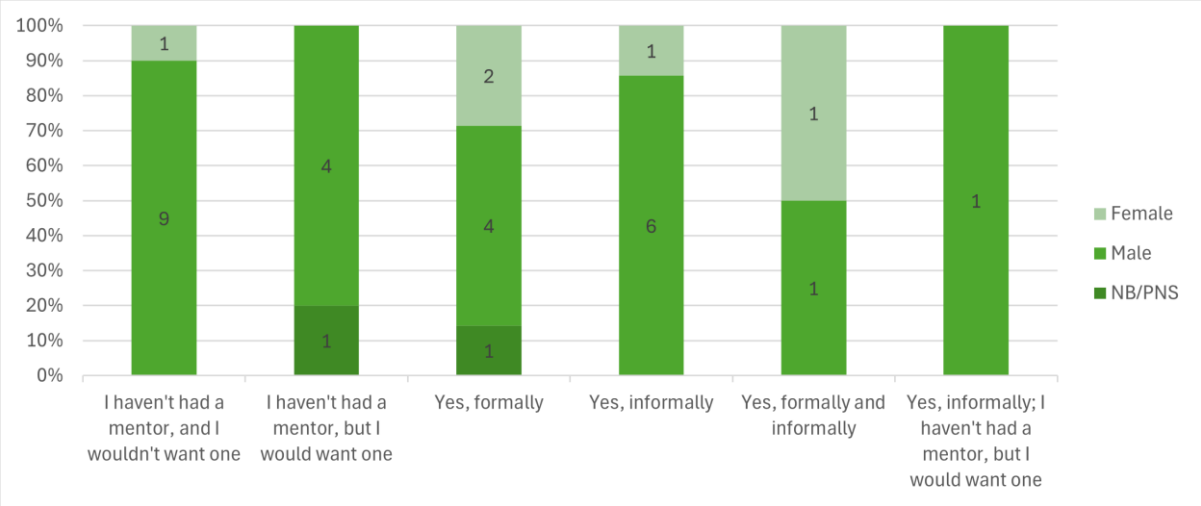

Figure 2.2.3: Academic staff responses to "Have you been offered any mentoring support in the past 2 years?"

UL and CSIS-Lero support academics to take training courses.

"UL waives fees for staff to undertake a graduate diploma."

Three members of staff (1F, 2M) attended funded courses in 2021-2023. In 2024, 1F and 2M took the Graduate Diploma in Teaching, Learning and Scholarship while 4M registered for the Postgraduate Diploma in Teaching, Learning and Assessment.

2.2e Staff development reviews

The institution operates a development review process, or equivalent, for academic and research staff.	**Yes**	**No**
	☒	☐

UL requires each employee to attend a Performance and Development Review System (PDRS) meeting with their line manager annually. The focus is on improving performance, enhancing professional/career development, and discussing career objectives and training goals for the year ahead. For academics and PMSS, the meeting is led by the CSIS HoD or a Lero@UL manager, as appropriate, and for researchers, by the academic to whom they report. The two

people involved retain the documentation so it is difficult to collect completion data. UL HR sends regular reminders to staff to request a meeting if one has not been offered and requires each department to provide annual PDRS reports. In 2024, all CSIS-Lero academics and PMSS were offered PDRS meetings. In 2024, the CSIS HoD PDRS academic staff meetings were attended by 30.4% females, reflecting the gender profile of the dept (25%F). The breakdown by job categories was: 4 Full Professor, 1 Professor, 2 AssoProfA, 11 AssoProfB, 2 AssistProf, and 3 U.T. Regarding PMSS staff, the F:M breakdown of those who completed a PDRS review in 2024 was 67% F: 33% M.

The Lero Summit is an annual gathering of all Lero academics, researchers, PMSS and PGR students. In 2022, the summit included a career development workshop to help PDRs employed on contract (often international) to maximise their career development opportunities while in Lero. A guest speaker from University of Galway presented on the importance of developing a career development plan. Attendees then discussed their previously prepared skills audit and completed their own PDRS. PIs acted as mentors and circulated among the groups to ensure that both skills and the PDRS were completed, giving the researchers the documentation required to request a review with their supervisor.

Concerningly, only two people (1F, 1M) have attended PDRS training since 2020.

SAP ACTION(S)
2.2.4: Encourage academic and research staff to complete PDRS training and reviews. 2.1.11: Provide better support for PMSS career development.

The only means of promotion for research staff is to apply for advertised positions either in CSIS-Lero, UL or other institutions. Research staff move to other positions, including to PI and academic positions, and 42% have moved to industry since 2020. We will provide researchers with an awareness of opportunities in industry.

2.2f Career progression

UL data for CSIS-Lero shows courses run by the HR Talent Development section were attended 46 times by women and 50 times by men during 2021-2023. Topics included research (7F) and (gender not specified) unconscious bias (20), dignity & respect (19) and data protection (20).

From the academic/researcher staff survey, we note that when staff were asked ‘How much do you agree with the following statement: All staff in my department are provided with equal opportunities for promotion and career development’, there is no clear view on the statement. This reinforces the conclusion that more communication about promotion and career development is needed for academic staff.

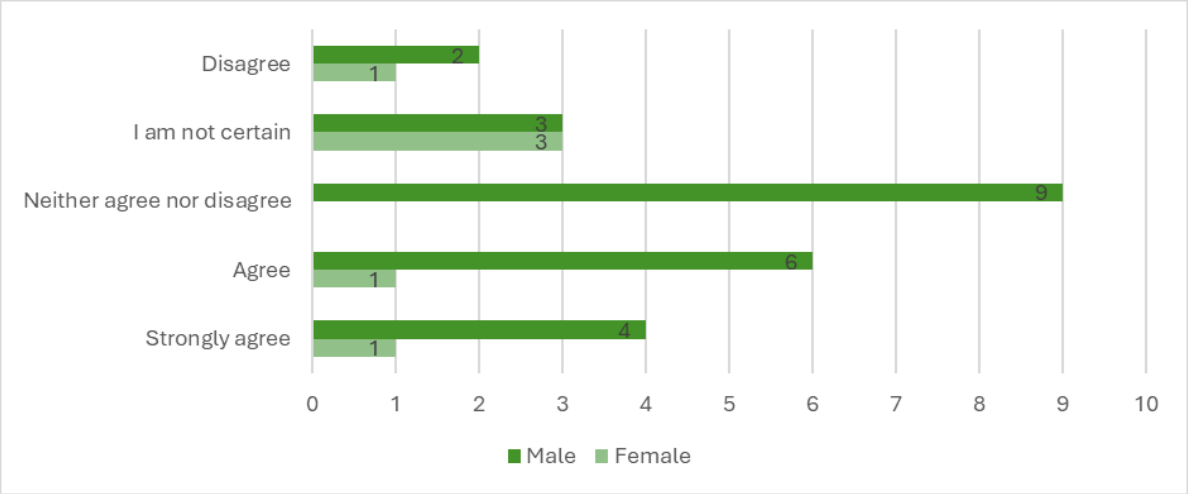

Figure 2.2.4: Academic staff responses to “All staff in my department are provided with equal opportunities for promotion and career development”

Academics were asked to ‘Evaluate the level of support given to your career development rating how often you feel supported in the following activities: time to undertake training activities, financial support to undertake training programmes, encouragement to undertake seminars and conferences relevant to my area, time to write scientific publications, time to write funding applications, time to attend seminars and conferences relevant to my area, and encouragement to attend networking events. There is a trend, particularly among male staff, to not ask for support. However, if support is asked for it, is usually given. It is rarely not given.

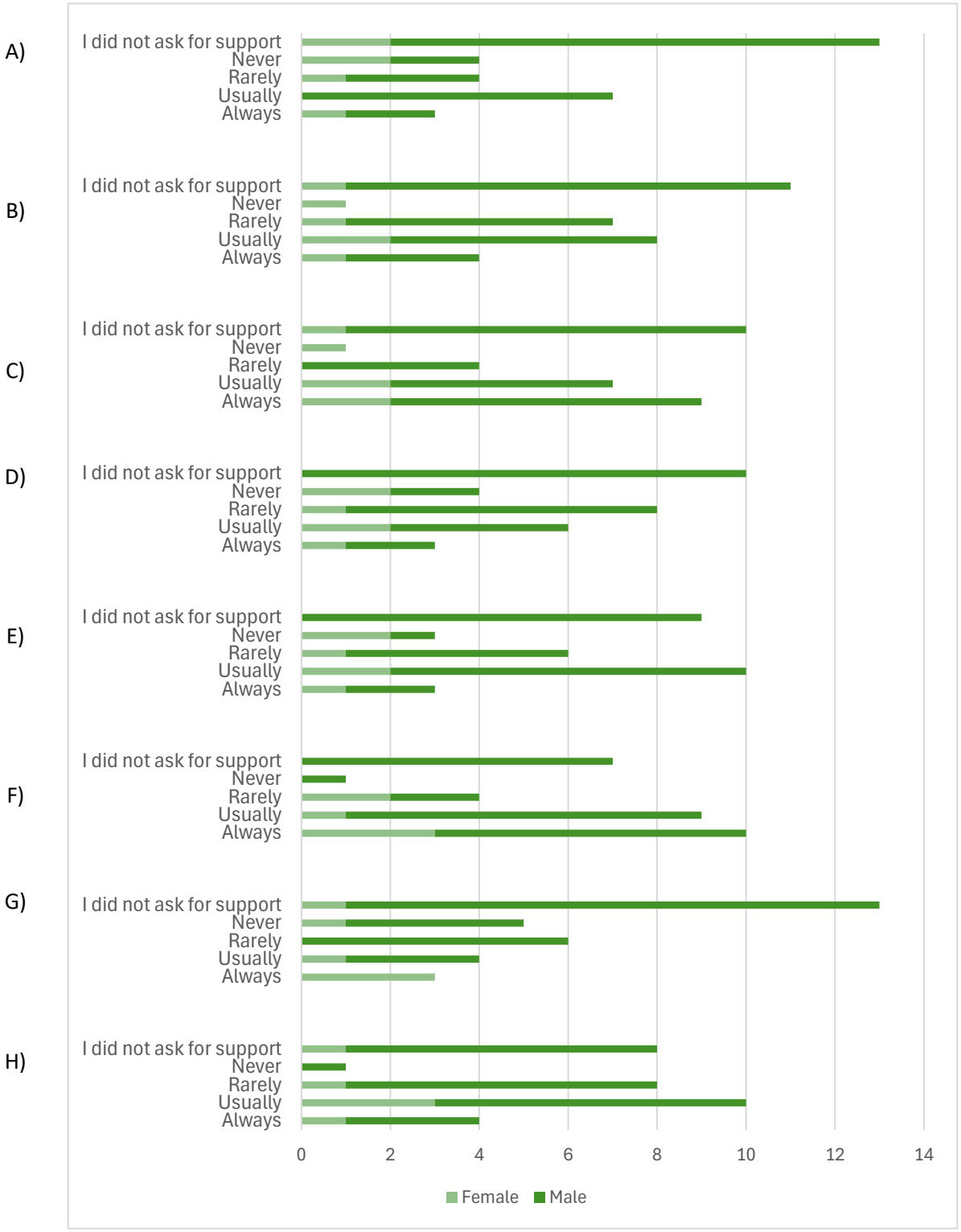

Figure 2.2.5: Academic staff responses regarding the level of support given to career development evaluating the following: A) Cover for teaching or work allocation; B) Encouragement to attend networking events; C) Time to attend seminars and conferences relevant to my area; D) Time to write funding applications; E) Time to write scientific publications; F) Encouragement to undertake seminars and conferences relevant to my area; G) Financial support to undertake training programmes; H) Time to undertake training programmes

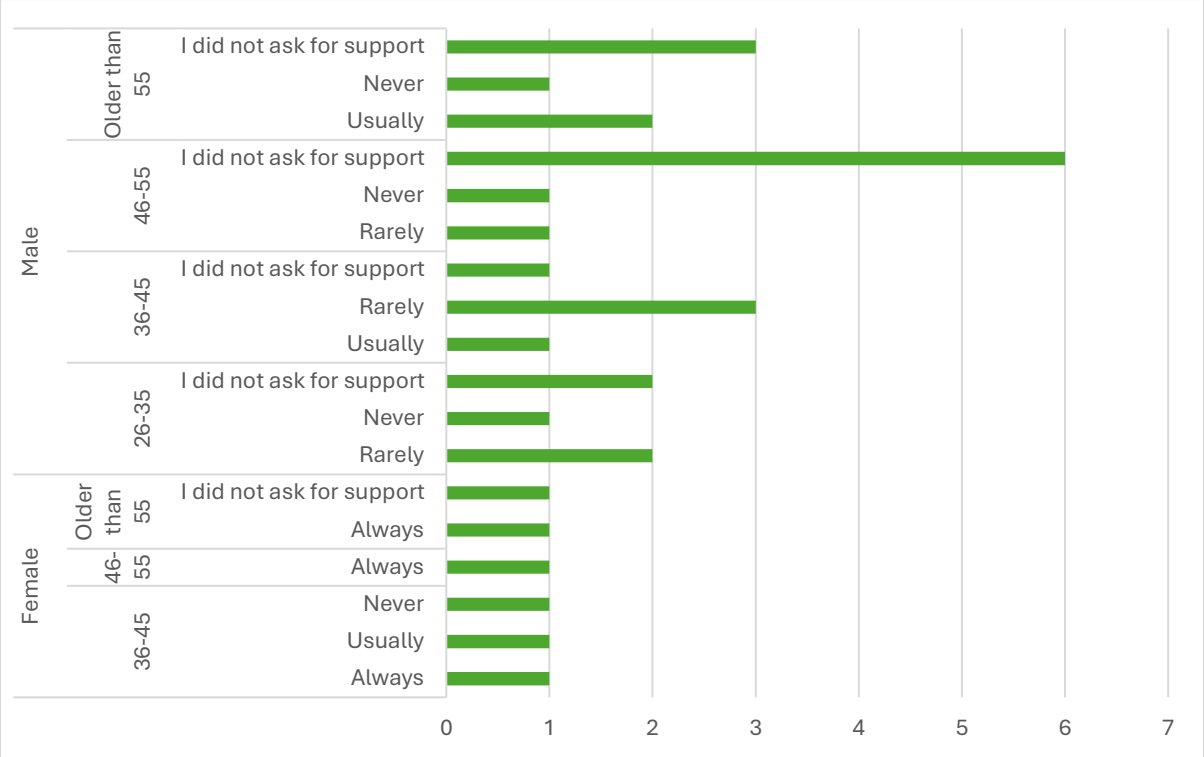

Figure 2.2.6: Academic staff responses to "Please evaluate the level of support given to your career development, rating how often you feel supported in the following activity: Financial support to undertake training programmes"

As shown in the figure to above, males in the age range 46–55 tended not to ask for financial support but may not have needed it for UL-based training programmes.

SAP ACTION(S)
2.2.5: Through the PDRS, encourage more staff to take training opportunities, especially optional choices.

Lero researcher career development has always been very significant. Seminar series across Lero institutions include 'How to Publish', 'Managing Your Academic Career' and 'Formulating Your Research Proposal' along with discipline-specific seminars.

For our Bronze AS submission, we established that the monetary value of grants received by men in Lero is, on average, more than double that received by women. In line with **BAP 8.6**, we commissioned a report on 'Differentiating factors that influence males and females when applying for research funding'. We then gave presentations to ensure that Lero's female PIs and FIs are aware of this differential, and we offered mentorship to help women apply for funding **(BAP 8.7)**. We are unable to undertake a similar exercise to measure the impact for this submission as grant-reporting requirements have since changed.

2.2g Workload allocation

UL's workload allocation policy requires the HoD to ensure that each academic staff member has a balanced and reasonable workload relative to others in the department in terms of

teaching, research and service (internal and external). Workload is based on balancing teaching and administrative load within CSIS-Lero. Teaching is balanced among the academics, the norm being to teach four modules per year. We also balance work such as supervision of FYPs and master's dissertations, course directorship and cooperative education visits. While each task is currently looked at in isolation, UL is piloting a more holistic workload allocation model to be implemented in 2025.

Often, the HoD works with an individual academic to support their career. For example, the academic may be allocated specific service duties or have their teaching covered by someone else if they have a research grant.

AS involvement is counted as service within CSIS-Lero workload.

Focus group participants cited that teaching-research workload balance is important for promotion, and there was a perception that professors have too many teaching hours. Academics can discuss unfair distribution of work informally with the HoD or Dean or formally in accordance with UL's grievance procedure. Data on this is not available for confidentiality reasons.

"So for this semester I had less load, which allowed me to do more research. I think they would listen and take that into consideration, as long as they can, because there's a lot involved in trying to really distribute the loads in the department."
"Although it's not meant to happen, there's a tradition still ongoing where [AssistProfs] become course directors. So not only have you got your teaching and your research, you've also got fairly heavy admin load."

Most academic survey respondents agreed that workload tends to balance out over the year.

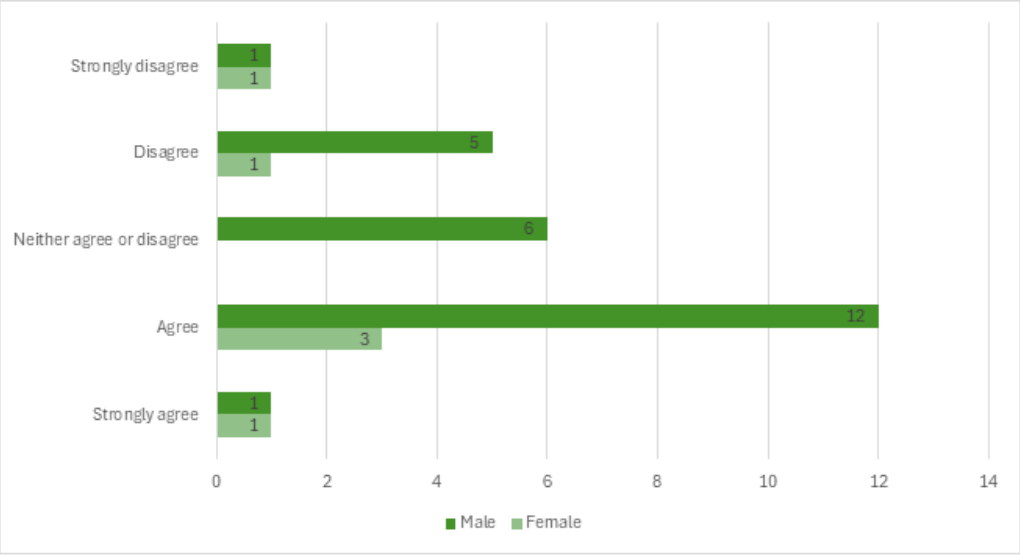

Figure 2.2.7: Academic staff responses to "My workload tends to balance out over the year"

We asked participants if they felt pressure to work outside of normal working hours, within the department/centre or externally.

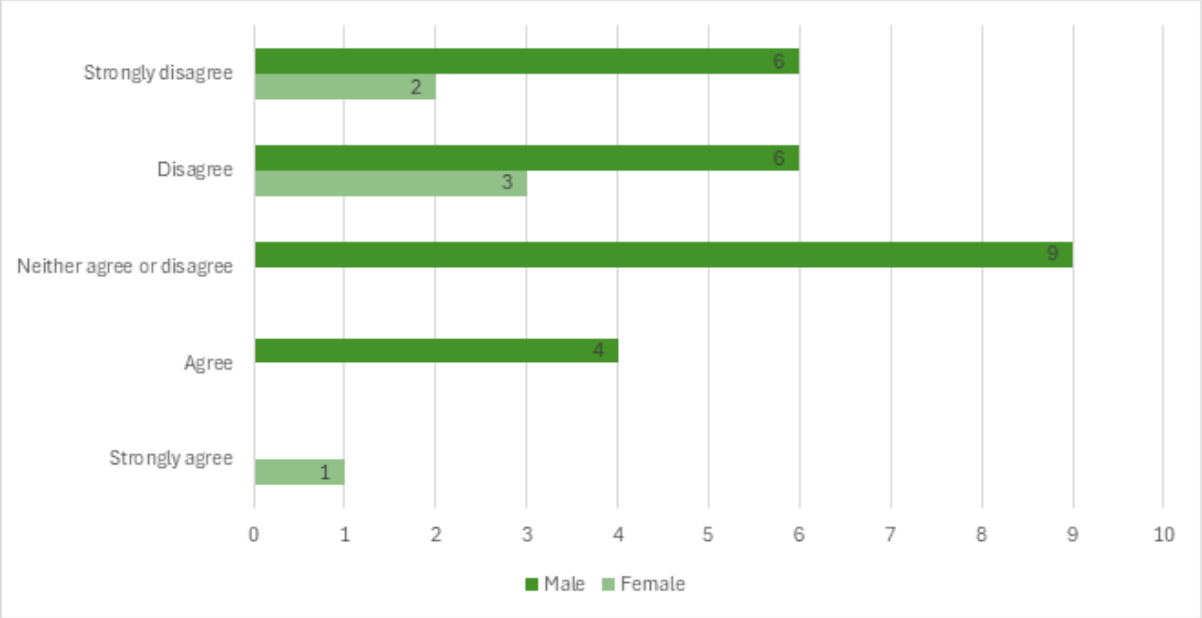

Figure 2.2.8: Academic staff responses to "I frequently feel pressurised by groups or individuals in my department/centre to work outside of normal working hours"

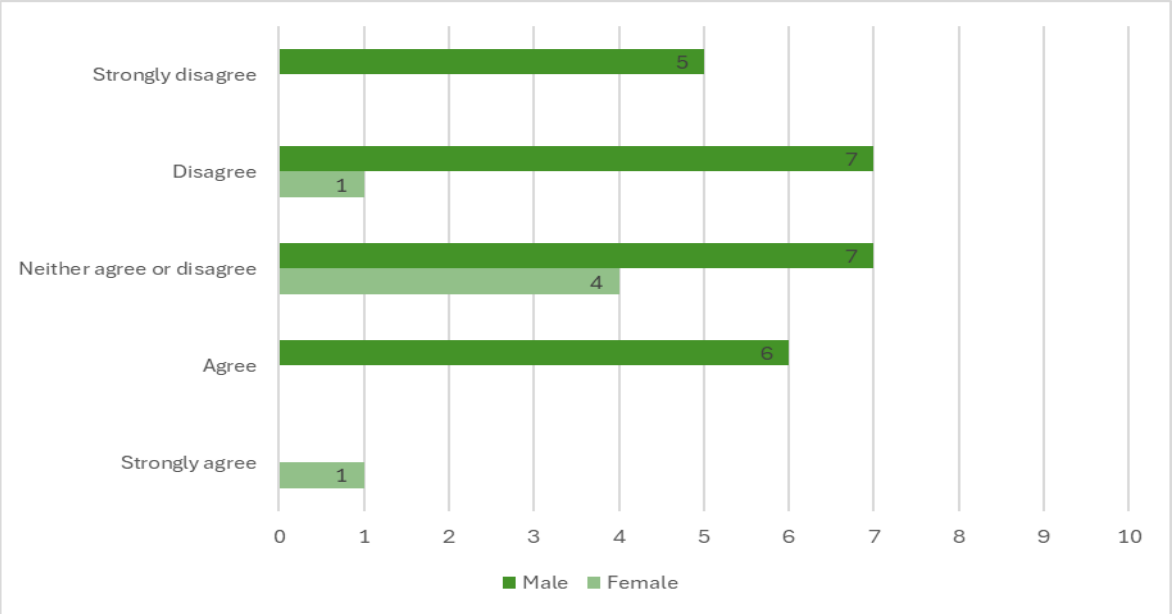

Figure 2.2.9: Academic staff responses to "I frequently feel pressurised by groups or individuals outside of my department/centre to work outside of normal working hours"

A high proportion of males/females disagreed that workload was allocated transparently. This will need to be addressed and included in the action plan.

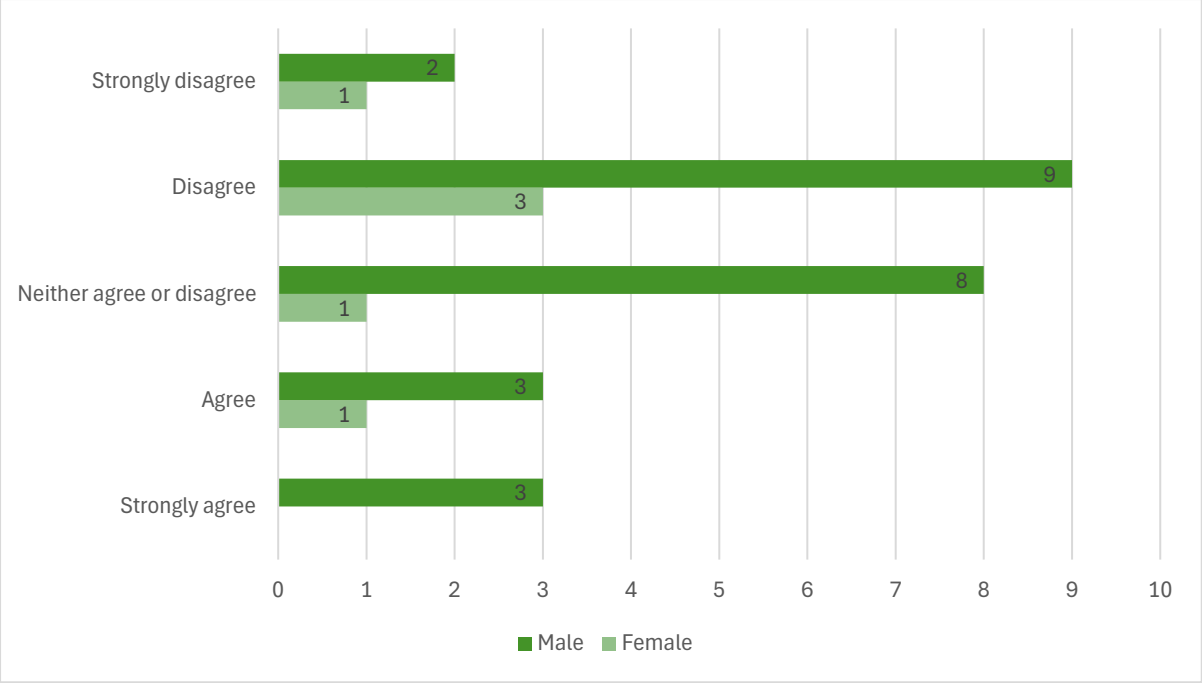

Figure 2.2.10: Academic staff responses to "My department/centre has a clear and transparent way of allocating workload"

2.3 Embedding policy, practice and supports to advance professional, managerial and support staff careers

a. Reflecting on recruitment practices in the department, answer the following:

	Yes	No
Recruitment to PMS posts in the department adheres to institutional policy on recruitment, which includes gender-balanced panels and training for assessors.	☒	☐

If you answered 'no', please comment.

b. Provide three years of data on application, shortlist and appointment rates for recruitment by gender and grade. Where data suggests opportunity for improvement, comment and reflect. Include any other relevant information relating to recruitment processes and practice for professional, managerial and support staff in the department.

c. Reflecting on progression in your institution, answer the following:

	Yes	No
Career progression opportunities for PMS staff are centrally managed by the institution (e.g. internal vacancy competitions; regrading; promotions pathway).	☒	☐

If you answered 'no', please comment on the department's role in career progression for professional, managerial and support staff.

d. Reflecting on opportunities for staff development review, answer the following:

	Yes	No
The institution operates a development review process, or equivalent, for PMS staff.	☒	☐

If you answered 'yes', comment and reflect on the implementation of this institution-level process in the department. This should include:

+ data on uptake by gender;
+ results from staff consultation presented by gender;
+ information on any additional department-level opportunities for staff to discuss professional development, where different to above (2.e).

If you answered 'no', provide detail on department-level opportunities for staff to discuss professional development, where different to above (2.e), including data on uptake by gender and results from staff consultation presented by gender.

e. Comment and reflect on department engagement with institution-level supports for PMS staff career progression as well as any department-level support available, where different from above (2.f). This should include results from staff consultation presented by gender.

f. Comment and reflect on how workload is distributed and managed. This should include information on how the breadth of professional, managerial and support roles and responsibilities are captured in workload planning and allocation and results from staff consultation presented by gender.

2.3a Recruitment practices

	Yes	No
Recruitment to PMS posts in the department adheres to institutional policy on recruitment, which includes gender-balanced panels and training for assessors.	☒	☐

2.3b Recruitment data

The table below gives PMSS administration recruitment only – no technical staff were recruited during this time. While we have employment data to June 2024, recruitment data is available to December 2023 only.

Table 2.3.1: PMSS recruitment, 2021 to 2023

Year	Gender	Applied	Shortlisted	Job offer	Shortlisted: Applied	Job offer: Shortlisted	Job offer: Applied
2021	F	24	12	4	50%	33%	17%
	M	16	8	2	50%	25%	13%
	NB-PNS	2	1	0	50%	0%	0%
	%F	57%	57%	67%			
2022	F	11	3	1	27%	33%	9%
	M	15	6	2	40%	33%	13%
	% F	42%	33%	33%			
2023	F	9	4	2	44%	50%	22%
	M	7	1	1	14%	100%	14%
	% F	56%	80%	67%			
Overall	F	44	19	7	43%	37%	16%
	M	28	15	5	54%	33%	18%
	NB-PNS	2	1	0	50%	0%	0%
	% F	59%	54%	58%			

Most applicants for administrative roles were female. Male applicants were more likely than females to be shortlisted, although shortlisted female were more likely to be given job offers. Overall female and male applicants were equally likely to receive offers.

2.3c Progression

	Yes	No
Career progression opportunities for PMS staff are centrally managed by the institution (e.g. internal vacancy competitions; regrading; promotions pathway).	☒	☐

2.3d Staff development reviews

	Yes	No
The institution operates a development review process, or equivalent, for PMS staff.	☒	☐

The development review process described in 2.2e applies equally to PMSS.

2.3e Career progression

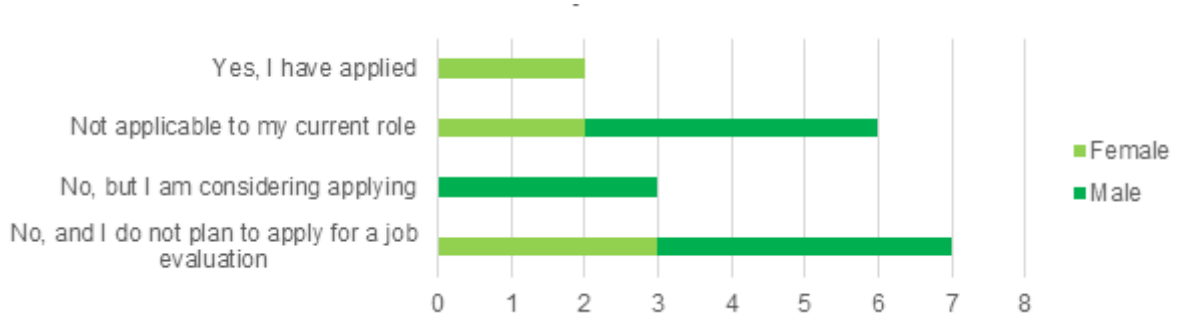

Figure 2.3.1: PMSS responses to "Have you applied for job evaluation in the past two years?"

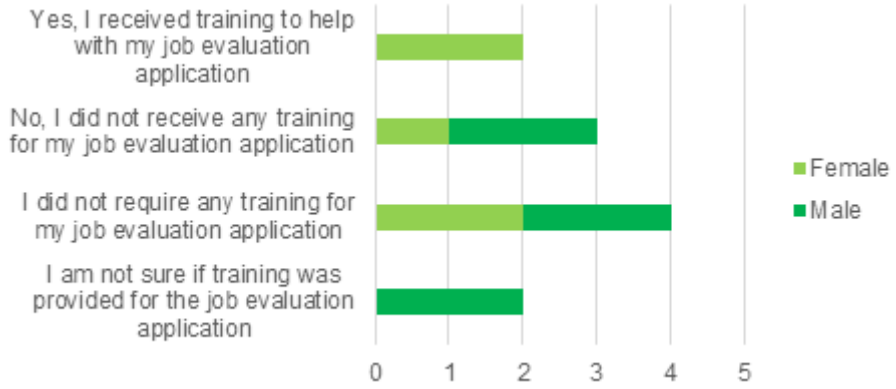

Figure 2.3.2: PMSS responses to "Was any training provided to assist you with your job evaluation?"

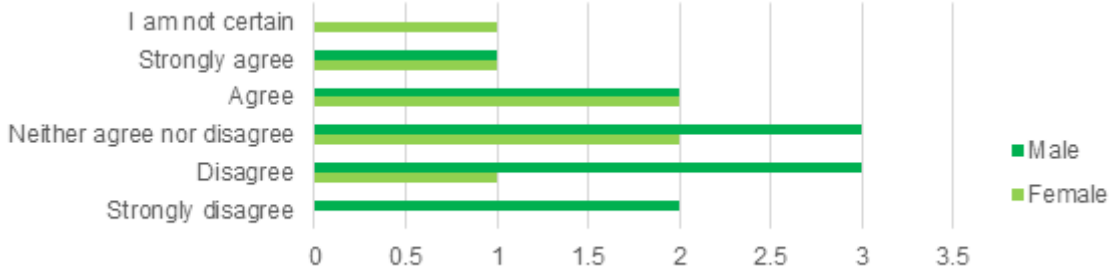

Figure 2.3.3: PMSS responses to "There are adequate opportunities for my career advancement and growth within CSIS-Lero"

From 2017 to 2022, PMSS were dependent on vacancies arising as the job evaluation scheme was stopped nationally in 2017. Following national negotiations between Irish HEIs and the Department of Further and Higher Education, Research, Innovation and Science, which was supported by CSIS-Lero **(BAP 7.2)**, a new process of job sizing progressed to final negotiation in 2022. Under the process, an individual can apply to have their post re-evaluated after a minimum of four years in the role. If the application is unsuccessful, they can reapply after three years. To date, two CSIS-Lero PMSS have applied and of those who have not applied, three are considering applying.

PMSS have concerns that not all staff are provided with equal opportunities for promotion. Only 56% agreed that they were, and comments included:

"I think academic staff have more opportunity to go for promotion."
"I think job evaluation should be available to technical officers/senior technical officers/CTOs."
"There are limited opportunities for promotion, however I believe the processes in place do provide all staff with equal opportunities."

The two PMSS who applied for job evaluation received training. The three who are considering applying need more information about the training.

Impact:

- We lobbied internally in UL to ensure that our voice was heard regarding job evaluation. The scheme has now been reinstated nationally **(BAP 7.2)**.

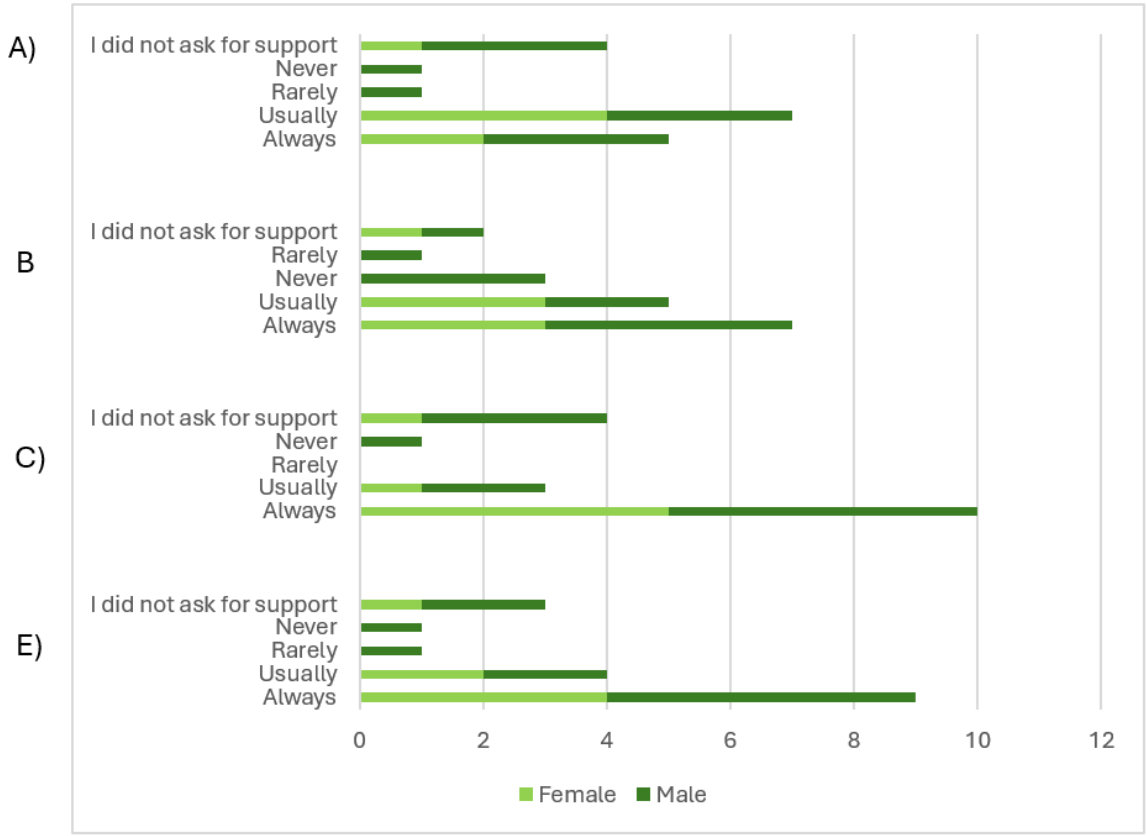

Figure 2.3.4: PMSS responses regarding their agreement to support A) Administrative support, e.g. work allocation; B) Encouragement to undertake seminars and conferences relevant to my area; C) Financial support to undertake training programmes; D) Time to undertake training programmes

PMSS can avail of funding to job shadow at over 350 EU universities through the Erasmus+ Staff Mobility scheme. Apart from one female applicant, who was ultimately unable to take up the position due to caring responsibilities, CSIS-Lero has never participated in this scheme, although doing so would be of benefit to individuals who want to progress their careers.

SAP ACTION(S)
2.3.1: Raise awareness of the Erasmus+ Staff Mobility scheme to bring people to CSIS-Lero and to have CSIS-Lero staff travel to other universities.

We support the career development of PMSS on contract to enable them to apply for advertised positions in CSIS-Lero or across UL.

Under the UL Further Study Policy, PMSS may apply to undertake further formal qualifications part-time; 50% of the cost will be covered by the relevant faculty/division and 50% by HR. PMSS staff can discuss and apply for external and internal training subject to CSIS-Lero funding and are encouraged to attend UL courses, including courses up to PhD level. Five people (2F, 3M) have been supported over the past three years.

PMSS focus group participants reported feeling well supported to pursue training and attend courses. However, discussions highlighted disparities between the experiences of academic staff and PMSS, with the latter facing more rigid structures and fewer opportunities for flexibility and progression.

“I've been doing things basically above the grade, but it's just a shame that however much I like the department, I won't be able to move up within it. I'd have to go somewhere else. So, if I want to progress my career and move up, I can't do it within CSIS, which is a bit of a shame.”
"Administrative staff have it tougher because they don't have the same level of flexibility as academics, and their promotion pathways are even more unclear."

2.3f Workload allocation

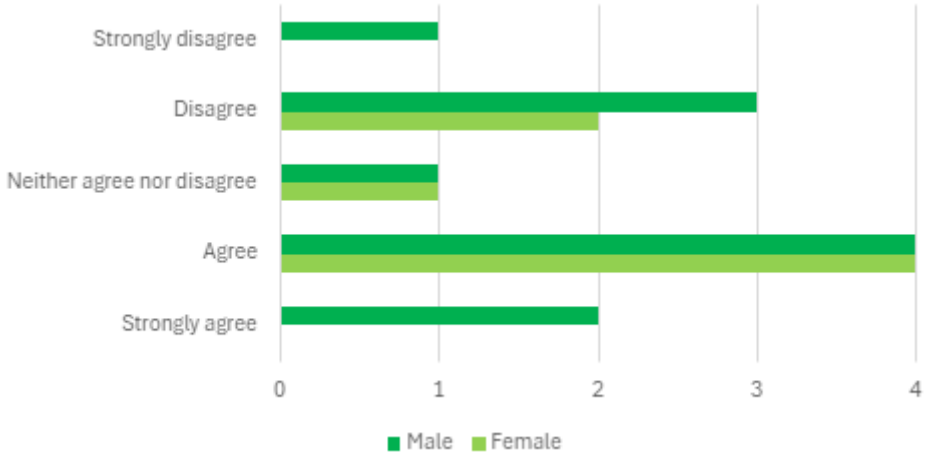

Figure 2.3.5: PMSS responses to “My workload tends to balance out over the year”

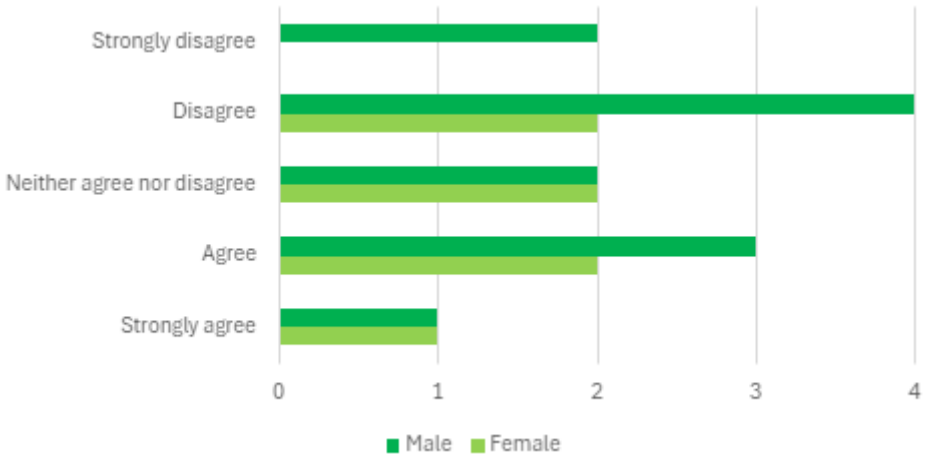

Figure 2.3.6: PMSS responses to “My department has a clear and transparent way of allocating workload”

There are clear definitions of the roles and responsibilities of each PMSS position, which, in consultation with PMSS, are regularly reviewed by CSIS-Lero management. However, survey results indicate some dissatisfaction with this. PMSS staff do not have a workload allocation model. Workload is determined by line managers based on job descriptions. All PMSS staff take an annual PDRS which is designed to support excellence in employee and organisational performance. It is an opportunity to discuss training needs, goals for the year ahead and workload. Line managers will be encouraged to use this annual process to explore the work allocation and work balance among their teams.

2.4 Evaluating culture, inclusion and belonging

a. Provide information on how the department ensures that culture and practices support inclusion and belonging. This should include, but is not limited to, information on how the department actively considers gender equality, and EDI more broadly, in:

   + organisation of meetings and events;
   + images and text used in department spaces and on the department's website;
   + student curricula, pedagogy and assessment.

b. Comment and reflect on the department's current understanding of, and capacity to identify and address, issues and opportunities relating to equality grounds in addition to gender, as well as capacity to identify and address intersectional inequalities for staff and students.

c. Provide information on the department's culture as it relates to gender equality and, where relevant, EDI more broadly, by presenting consultation findings by gender and staff category on the following areas:

   + values and traditions of the department;
   + formal and informal structures and interactions that characterise the working and learning environment of the department, including leadership practices and behaviours;
   + negative practices and behaviours and how these are managed by the department;
   + flexible working opportunities in the department;
   + management of, and attitudes towards, family leave in the department.

   Where data suggests opportunity for improvement, comment and reflect. This should include reflection on any gaps between institution-level policy and practice in the department, including if the institution's approach meets the requirements of department staff.

2.4a Inclusivity

2.4a.1 Meetings and events



Figure 2.4.1: Lero panel event, at which there is equal number of F/M participants

CSIS-Lero meetings and events are either online or hybrid. We encourage people to attend in person by providing lunch at specific times, such as end-of-semester. Decision-making meetings are held between 10am and 4pm to accommodate those with caring responsibilities. Smaller meetings are arranged by attendees with caring responsibilities in mind. Since AS became embedded in UL, people can reasonably raise concerns about meeting times if they cannot be available. Research talks occur between 10am and 4pm, and the number of speakers is gender-balanced.

At meetings and through email, new staff are introduced and successes like promotions, exhibitions and publications are celebrated. Staff and postgraduates are invited to formal and informal events, such as Lero industry and CSIS FYP demonstration days.

"Up to 10 years ago, women were often questioned as to why they would not be available at a certain time – she could not say it was to do with her children. Now though, parents, men or women often say 'I have childcare'. That's really great."

Being cognisant of the international community and to give people an opportunity to mingle in a non-work environment, Lero hosts a summer and winter outing, which normally takes place from mid-afternoon into the evening. We host a Christmas daytime event to which people are invited to bring food from their home country; this stimulates discussions about international employees' home countries, which is appreciated by them. CSIS usually hosts a Christmas lunch, to which everyone is invited.

Lero's annual summit brings people together nationally. This includes one overnight stay, and transport is provided if required. We ensure a gender balance of at least 40% among speakers

and include a session on EDI. In 2022, we held a Gender Considerations in Research workshop and in 2023, a panel session on Responsible Software Engineering, which covered projects that investigate gender issues in social media.

SAP ACTION(S)
2.4.1: Provide childcare at Lero Summit events.

2.4a 2 Images and text



Figure 2.4.2: ISE web pages showing a mix of female and male students working collaboratively (left) and the full class with females predominant at the front (right)



Figure 2.4.3: ISE student Rosie Kennelly and Course Director J.J. Collins featuring in RTÉ's My Uni Life

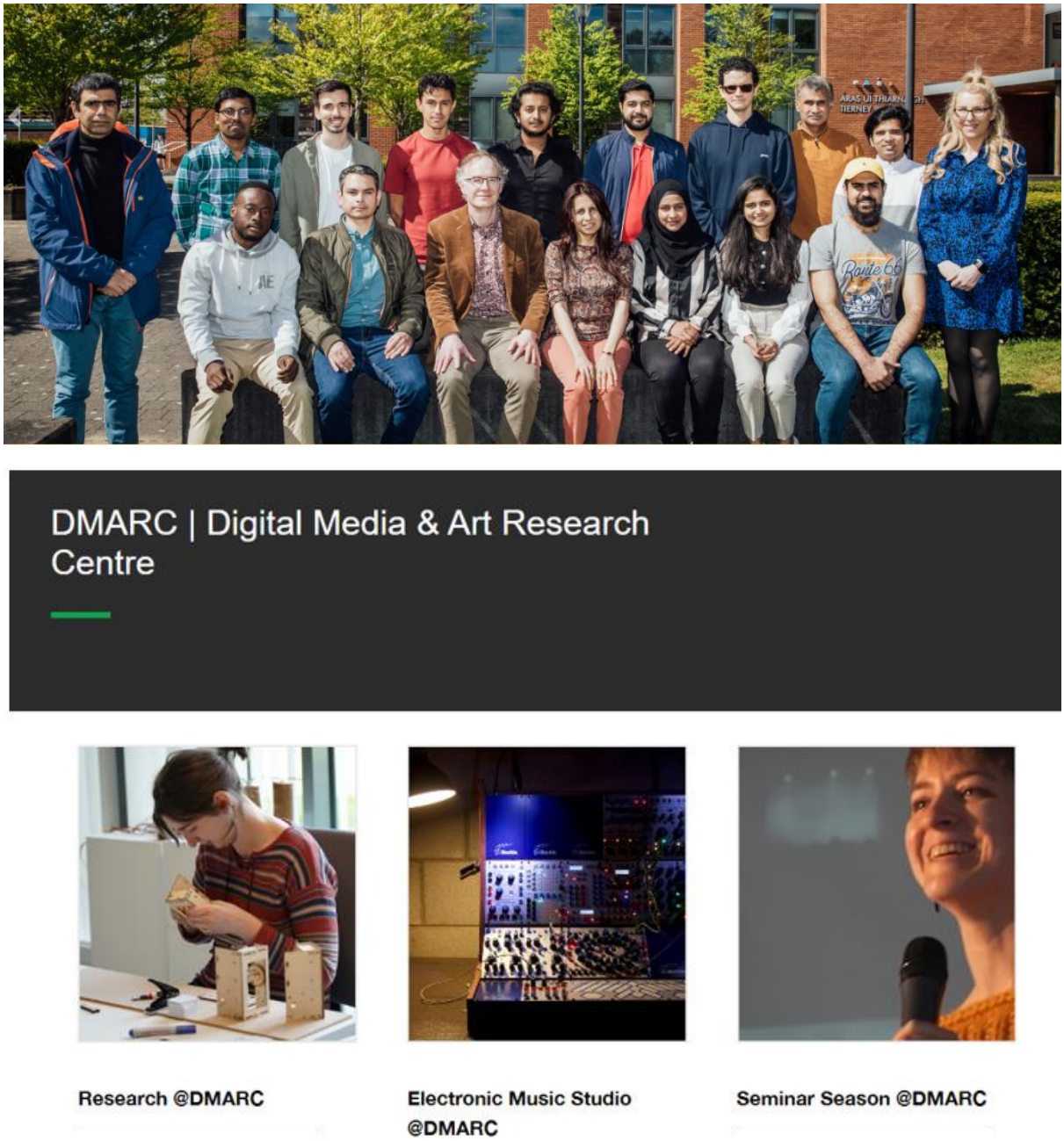

Figure 2.4.4: Biocomputing and Development Systems (BDS) (top) and DMARC (bottom) CSIS research group web pages featuring photographs of women



Figure 2.4.5: Lero@15 media campaign



Figure 2.4.6: International Women's Day 2023 and 2024

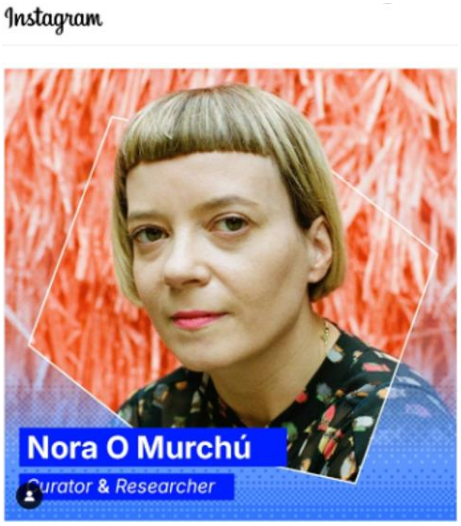

Figure 2.4.7: Dr Nora Ó Murchú, Artistic Director of the transmediale festival (2021-2024), featured on Instagram

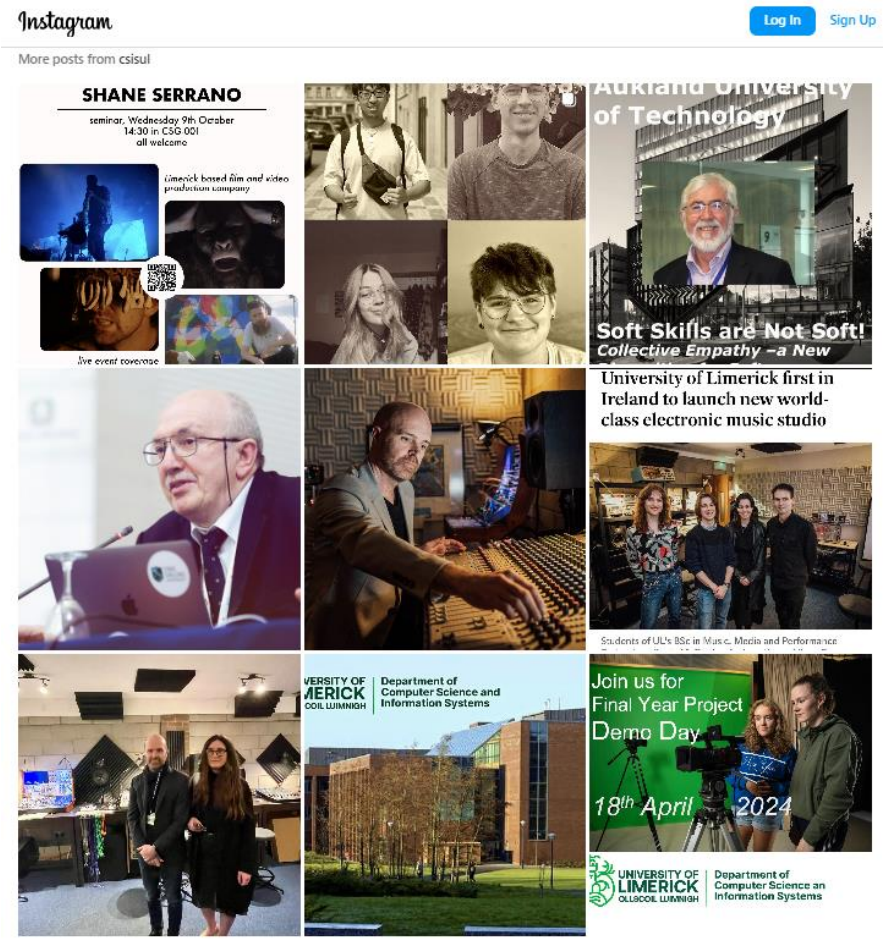

Figure 2.4.8: Instagram posts illustrating the gender diversity of CDIS-Lero staff and students, many of whom are represented on the UL website.

During 2023, we renovated the CS Building to include shared workspaces and a seating area in the main atrium, adding to areas where students can work and socialise. We added research posters on corridors in the Tierney Building, giving it a greater sense of belonging for workers and visitors. Screens highlight CSIS-Lero events in each building.

Web pages reflect female and male staff and students. For example, on our undergraduate courses website, which attracts school leavers, we feature videos of students (three focusing on females and two on males), and photographs of women and men (Figure 2.4.2). When ISE was featured in RTÉ's 'My Uni Life', a female student and the male Course Director participated (Figure 2.4.3). We are cognisant of highlighting women in research groups (Figure 2.4.4). We ensure gender balance among presenters at open-day stands and those visiting schools.

Media campaigns highlight women's achievements. The Lero@15 media campaign profiled 15 Lero researchers and individuals (8F, 7M), whose careers and countries of origin vary (Figure 2.4.5). The campaign won an Irish Social Media bronze award (2021), and the campaign featuring the Lero Governance Chair (M) and Deputy Director (F) appointees won a silver award (2024).

For International Women's Day, we highlighted female computer science role models in 2023 (Figure 2.4.6, left) and interventions taken to enhance the pipeline of women in STEM in 2024 (Figure 2.4.6, right). The campaign generated 23,000+ organic impressions.

Other CSIS-Lero females to feature in media:

- Ó Murchú (Figure 2.4.7) served as Artistic Director of the transmediale festival (2021-2024) and featured in Berlinartlink: Online Magazine for Contemporary Art.
- Hagan (now with University of Illinois Urbana-Champaign) led a group of practitioners to form the Irish Sound, Science and Technology Association, where she served as president. She has featured on Lyric FM.
- Margaria and Kshirsagar feature on the TERI website following receipt of research funding.
- O'Connor was published in Silicon Republic for her work on AI in healthcare.
- Motti Ader discusses her use of Universal Design for Learning (UDL) on the UDL@UL website.

SAP ACTION(S)
2.4.2: Use successful CSIS and Lero leaders as role models to showcase women's achievements.

2.4a 3 Student curricula, pedagogy and assessment

Taught programmes

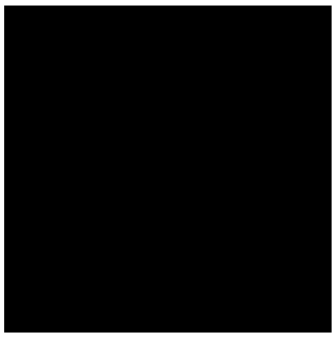

Figure 2.4.9: Pictured at an Autism@UL Special Interest Group event are, from left, Cristiano Storni from CSIS-Lero and Susan Crawford, Ginnie Breen and Elizabeth Bonker from Communication 4 ALL.

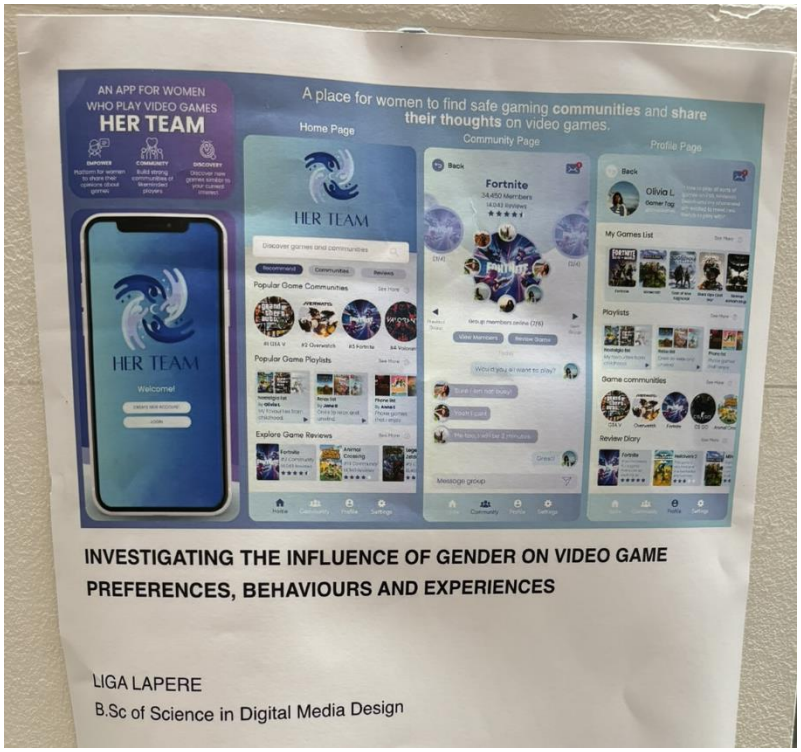

Figure 2.4.10: CSIS FYP with focus on gender issues, including the development of an app to provide a safe place for women to discuss and engage in their favourite games



Figure 2.4.11: Professor Ciara Breathnach (History & Geography, Lero), Professor Tiziana Margaria (CSIS-Lero), and Dr Rachel Murphy (AHSS), winners of the UL Excellence in Teaching Team Award 2022/23. Their module brings IT to a female-dominated constituency of historians.

Modules such as Professional Issues in Software Engineering, Information Systems, and Interaction Design expose EDI to 60% BSc, 30% MSc and 40+ Erasmus students. Topics cover representation design through personas for accessibility evaluation, the potential of computer science to improve/disimprove life for those in minority groups, and Irish legal equality grounds. Students may be explicitly required to participate in mixed-project groups, such as gender, race and nationality. Guest speakers present EDI topics. For example, LM122 students participated in an event delivered by visitors Virginia Breen and Elizabeth Bonker, whose

charity, Communication 4 ALL, helps non-speakers with autism to communicate through a programme of internet-based instructional videos.

SAP ACTION(S)
2.4.3: Integrate EDI topics into more modules and courses to reach a wider audience.

Every final-year UG student completes a one-year, capstone FYP, and every MSc/MA student completes a dissertation worth 30 credits (one-third of their course). Increasingly, projects have an EDI aspect, e.g. How to Develop Accessible Software; Experience of Queer Cinema through Colour and Floriography. An FYP was nominated for a CSIS prize (Figure 2.4.10), which gave rise to the recommendation that CSIS create an EDI prize category for student projects to encourage the consideration of EDI themes across the department.

SAP ACTION(S)
2.4.4: Award a prize for the best EDI Final-Year Project.

Research

Lero's Responsible Software Engineering agenda supports research projects on diversity. In CSIS-Lero, this includes research by Richardson (with Connolly, Lero@DCU) on gender issues in software. Norris engaged with female breast cancer survivors on the use of software. Nikolov and McGiff have published on racism and homophobia in online content. Travers, Patten and Crowley have published on outreach programmes for female STEM students.

We work with international students, including from developing countries. As examples:

- CSIS-Lero academics lead ethnic and gender diverse research groups. For example, Nikolov's research group of 8F/11M has six nationalities, and he has hosted postgraduate students from Morocco and Togo.
- Buckley, Fitzgerald and Noll are involved in an Erasmus upskilling programme in Addis Ababa and are jointly supervising three PhD students.
- Margaria hosted a 2023 summer school, which included UL and international postgraduate students with various backgrounds (design, sciences, IT).

2.4a 4 Other EDI initiatives



Figure 2.4.12: Lero PhD student Bilal Majeed (right) held five Scratch workshops with DEIS students in County Limerick. These were arranged and funded in collaboration with UL's Access office. Dr Clare McInerney, Lero's Education and Public Engagement Manager, is left of picture.



Figure 2.4.13: Motti Ader, Associate Professor, panellist at Adapt Centre, Trinity College Dublin (14/04/2023)

CSIS-Lero hosts public events, including discussions on EDI from a computer science perspective. For example, how online platforms can be unfriendly places for girls and women was discussed during Science on the Shannon (2022). Over two-thirds of attendees were female; 57% strongly agreed that it was important to them to be informed about science.

Examples of other CSIS-Lero EDI initiatives are given below.

UL:

- 4F and 3M (18% CSIS-Lero academics) gained a UDL digital badge from UL.
- Place completed a micro-credential in mentoring for EDI.
- Hodgins (UG student), Richardson and Purtill published a Lero technical report – *Gender Balance in STEM: An Analysis of Ireland's Higher Education Authority Data*.

National:

- Corless volunteers as a mentor to young women in the criminal justice system and was on the National Volunteer Committee of the Le Chéile mentoring organisation to 2022.
- Prendergast presented seminars on gender equality in research nationally to science, engineering and healthcare researchers.
- CSIS-Lero outreach programmes include DEIS schools (Figure 2.4.12).
- O'Brien provided training to the SFI research centre network on best practice on engaging young people from socio-economically disadvantaged areas in STEM education. He co-founded the Science Hub project in Limerick (2011), which aims to combat educational disadvantage experienced by those from socio-economically disadvantaged areas.
- Motti Ader participated on a panel discussion on gender in academia, organised by the Adapt Centre at Trinity College Dublin (Figure 2.4.13).

International:

- Storni received Horizon Europe funding from Cluster 1 Health for the VIPPSTAR project to carry out co-design work for and with visually impaired children and adolescents.
- Richardson has presented internationally on AS and EDI, including to the Natural Sciences and Engineering Research Council, Canada.
- CSIS-Lero plans to collaborate with the Centre for Protecting Women Online, Open University, UK.
- Motti Ader presented on accessibility and user-centred design, Universidade Federal de Sao Carlos, Brazil.
- As co-chair for the 37th International Manufacturing Conference, 2021, O'Brien advised on EDI.
- As EDI co-chair for the International Conference on Software Engineering (ICSE), 2023 (~1,500 attendees), Richardson organised childcare and its financial support, administered student grants, developed an equality statement and organised equality events. As General Chair for the International Conference on Software & Systems Processes, Richardson implemented the role of EDI chair. Briand and Fitzgerald, as General Chairs for ICSE 2025 and ICSE 2027, respectively, appointed EDI co-chairs.

- As Co-PI of an all-island project, O'Brien examined and developed educational resources to combat the factors that discourage female students from choosing engineering at third level.
- Motti Ader presented a Positionality Master Class, co-authored by Storni and international collaborators (from USA and Australia), at the ACM SIGCHI Symposium on Human-Computer Interaction Education, reflecting on how to approach topics such as identity, bias and EDI with computer science students.

2.4b Capacity to address equality grounds

When student and staff data is collected at UL, gender and other protected characteristics are identified. CSIS-Lero does not have access to protected characteristics data for students, which limits its capacity to identify and address potential issues affecting students. UL has sought to promote a better understanding of equality relating to ethnicity by establishing the Ethnic Diversity Forum. Through Storni, CSIS-Lero is kept updated on Autism@UL. Working with HR and UL Global, CSIS-Lero PMSS help international students and staff, where possible, to organise visas.

Students with disabilities are identified to module leaders by the UL Disability Support Services with recommendations for special consideration in classes and assessments, and we make all requested reasonable accommodations. We work directly with students on specific issues. For example, when a wheelchair-bound student was unable to attend class upstairs, we rearranged all class sessions to be on the ground floor.

In line with UL's commitment to access and widening the participation of underrepresented groups at third level, CSIS-Lero includes DEIS schools in its outreach programme.

2.4c Department culture

2.4c 1 Values and traditions

We recognise the importance of people meeting frequently and of creating spaces where people can meet casually. The Tierney Building has a social space and two kitchenettes for use by Lero@UL staff, and the CS Building has one staff room for CSIS staff and PGR students. The ISE space in the IBC has a kitchenette. None of the buildings has a restaurant so staff arrange to meet informally in other campus restaurants, four of which are located within 100m of the three buildings. This has become more difficult due to the flexibility of workdays – not everyone is on campus at the same time. Lero@UL organises monthly social meetings. In CSIS, this happens after department meetings.

During the COVID-19 pandemic, regular online meetings of Lero members were organised by PMSS, including a presentation from people about their home country. This was extremely beneficial in developing and maintaining interactions.

Students comment positively on the diversity of CSIS-Lero and on the visibility of computer science role models and speakers:

"I found it [CSIS-Lero] very diversified. I've seen people of different background, different ethnicity group, both genders."
"At the time I listened to seminars and there were two or three speakers. They were women, and they, you know, have opened this."
"So, there's those women . . . they kind of inspire me to say it was possible. . . . I want to make impact in this field the same way they are making impact."

There is no platform for underrepresented groups, including women, in CSIS-Lero to discuss specific issues they face. This means that people may feel that challenges are individual to them rather than systemic for many women. We plan to establish staff and student EDI networks to promote discussion and open up networking opportunities.

SAP ACTION(S)
2.4.5: Establish a CSIS-Lero staff EDI network to enable underrepresented groups (including women) to discuss issues they face.
2.4.6: Establish a CSIS-Lero student EDI network to enable underrepresented groups (including women) to discuss issues they face.

2.4c 2 Formal and informal structures and interactions

Line managers ensure new staff meet others. New members are formally welcomed at department meetings and introduced to their mentor, who meets them regularly during their first 12 months.

The academic/researcher staff survey revealed:

- 43% participated (100%F, 31%M) in the UL induction programme. 17% were informed but did not attend. 40% (86%M, 14%NB-PNS) were not informed.
- 87% felt the programme was highly effective, effective or adequate (83%F, 88%M). 13% felt it was ineffective (50%F, 50%M).

SAP ACTION(S)
2.4.7: Address issues for new starters.

To ensure AS principles are embedded in CSIS-Lero operational and strategic management, AS is a standing agenda item for all CSIS and Lero Executive meetings. We discuss AS and EDI actions, findings and impact. Staff are encouraged to contribute to AS and are assigned specific duties as they arise.

2.4c.3 Managing negative practices and behaviours

CSIS-Lero follows the UL Dignity & Respect policy on bullying and harassment. Issues are resolved informally through a designated persons panel if possible or can be reported formally to UL if not possible. Although PGR students are not staff, they research and teach in a similar

environment. While we had not previously considered PGR students taking dignity & respect training, which is compulsory for UL staff, we will now implement this.

Most respondents disagreed (males much more so) that they had been treated unfavourably due to gender.

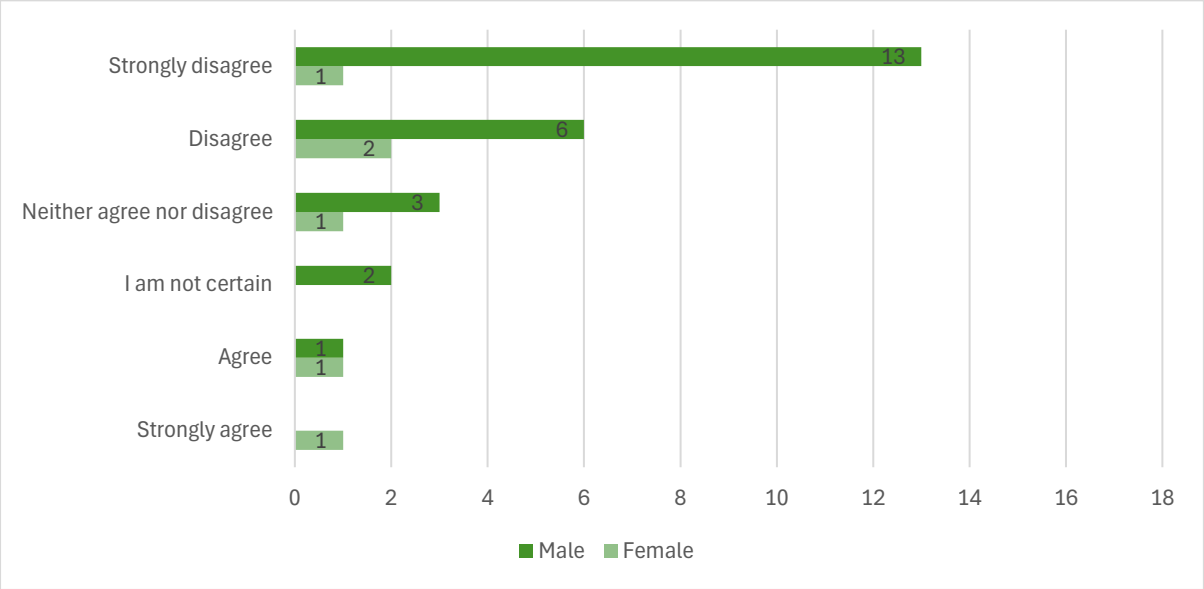

Figure 2.4.14: Academic staff responses to "Please rate how much you agree or disagree with the following statements about your work environment: You have been treated unfavourably because of your gender"

Males strongly disagreed that they had been bullied because of gender (Figure 2.4.15) or position (Figure 2.4.16).

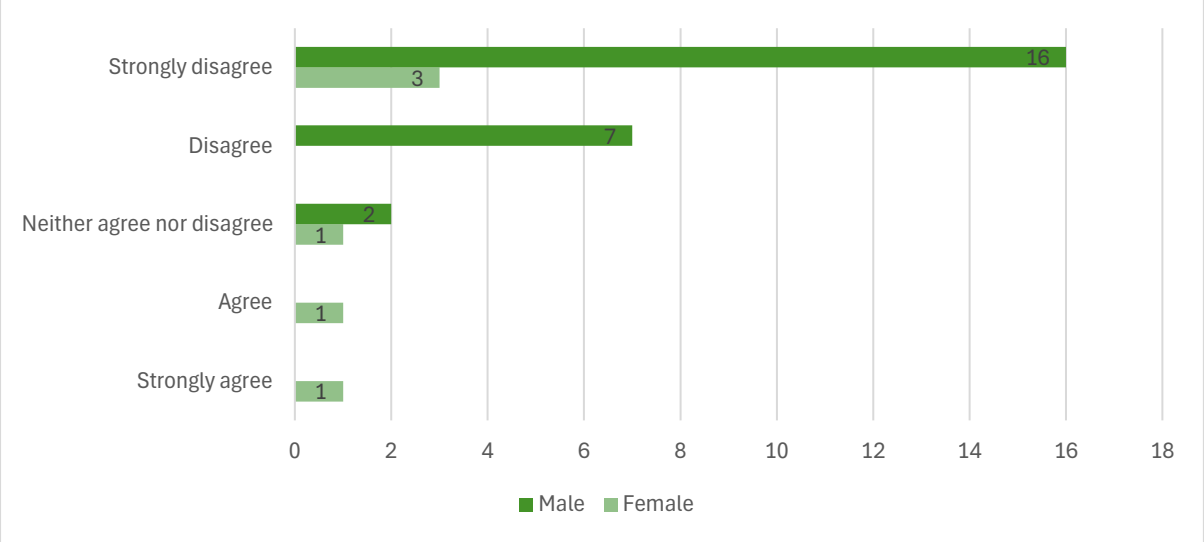

Figure 2.4.15: Academic staff responses to "You have been bullied because of your gender"

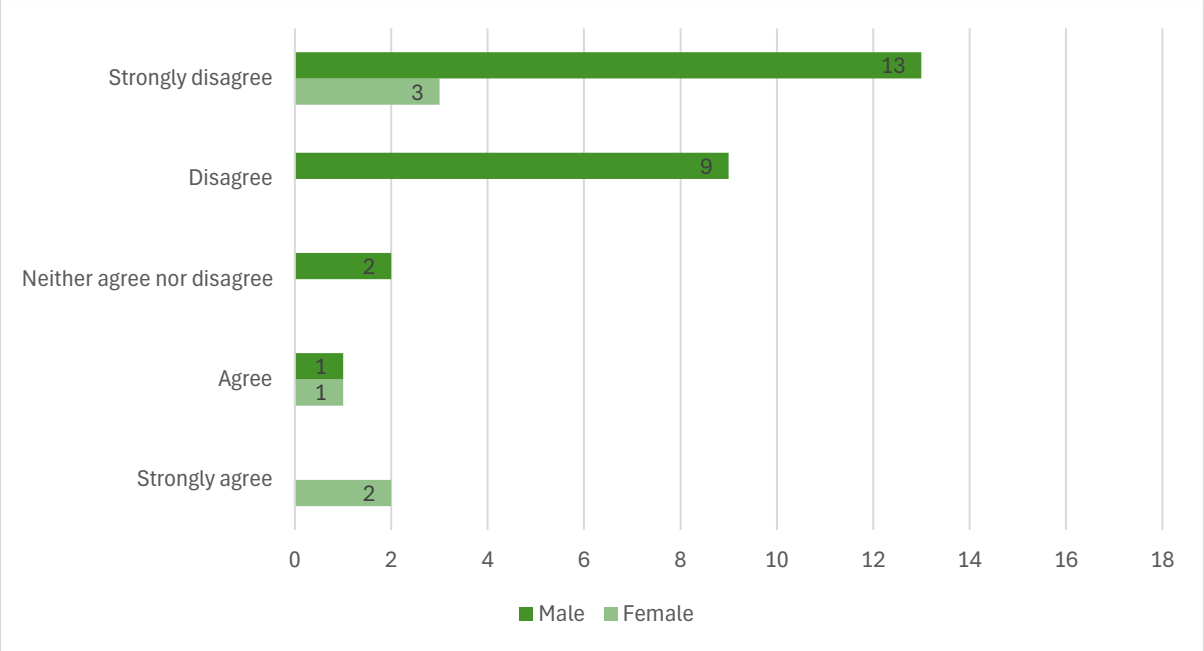

Figure 2.4.16: Academic staff responses to "You have been bullied because of your position/job role"

Most staff agreed they had equal opportunities to become involved in departmental decision-making activities (Figure 2.4.17).

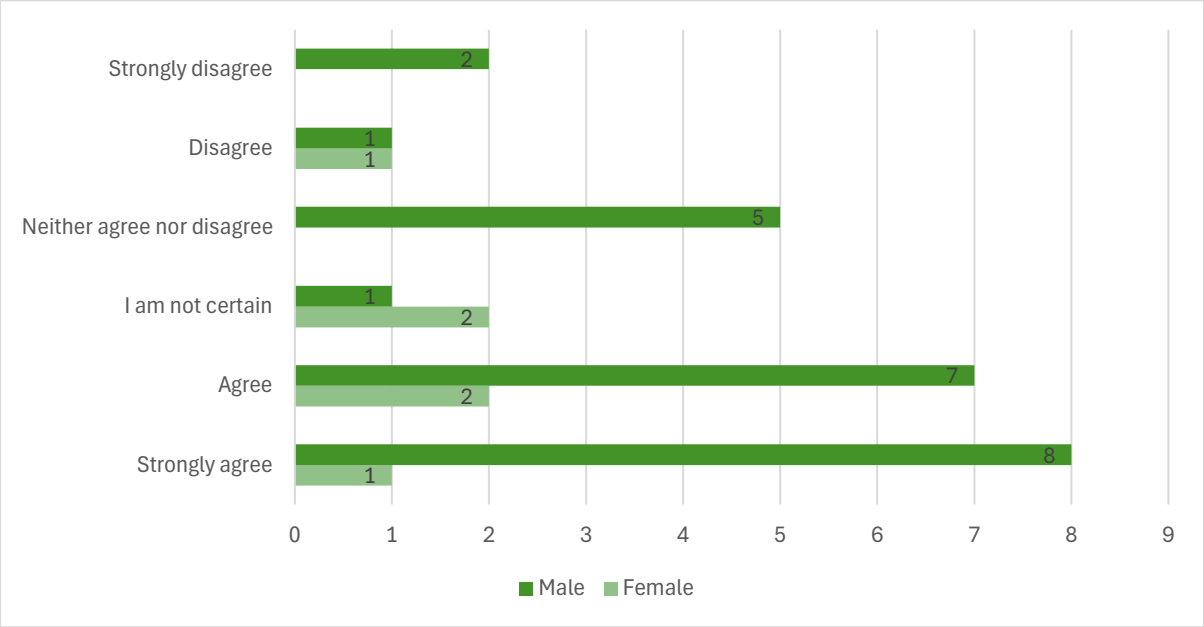

Figure 2.4.17: Academic staff responses to "All staff, regardless of gender, other protected characteristics, or job role/position, have equal opportunities to become involved in decision-making activities in my department/centre"

SAP ACTION(S)
2.4.8: Ensure PGR students who are teaching undertake dignity & respect training.

2.4c 4 Flexible working

Once days on campus are agreed with the HoD, academic staff can work flexibly because of the nature of their job. Prior approval is required for international travel.

> *"The nature of our job is flexible. I never had any pressure to be here or there or do certain hours or stop at 5."*

For PMSS, the level of flexibility depends on individual line managers. In CSIS-Lero, days on campus are decided through consultation. This flexibility includes informal arrangements for adjusting working hours and locations. Focus groups participants appreciated and felt comfortable availing of the flexibility, particularly during emergencies or personal needs.

> *"I think the flexibility depends very much on your line manager as well. I know there's policies in place, but depends on your manager's attitude that can change. I'm doing research and if I have to go out to participants that counts as my office days."*

> *"I don't want to take an hour for lunch... I can shorten my day a little bit, which is really good, but it is informal. But he seems happy as long as the work's getting done, which is, and I do appreciate that a lot."*

While staff recognise that CSIS-Lero continues to support flexible working post-COVID, there are concerns about losing a sense of community due to prolonged remote work. We have mitigations in place to guard against this, such as having in-person coffee once per month, lunch after some department meetings, and special end-of-semester events.

> *"I would wonder maybe post-COVID if a little bit too much working from home might have continued too long to the detriment of a sense of culture or identity within the department or across the university."*

2.4c 5 Managing family leave

Table 2.4.1: Leave take-up within CSIS-Lero (these are leave instances; individuals may take more than one leave type). As numbers are low, they are not disaggregated.

Leave type	2021		2022		2023		Total	
	F	M	F	M	F	M	F	M
Allowed through legislation								
Parental	2	0	3	0	0	0	5	0
Parents	3	0	1	0	0	0	4	0
Maternity (Paid)	1	0	3	0	0	0	4	0
Maternity (Unpaid)	1	0	3	0	0	0	4	0
Paternity	0	0	0	3	0	0	0	3
Adoptive Leave	1	0	0	0	0	0	1	0
Leave through UL policies								
Shorter Working Year	5	0	4	0	0	0	9	0
Sabbatical	0	0	0	0	1	0	1	0
Research (Special Research Leave)	0	0	0	1	0	0	0	1
Career Break	0	0	0	0	0	0	0	0
Total	**13**	**0**	**15**	**4**	**1**	**0**	**29**	**4**

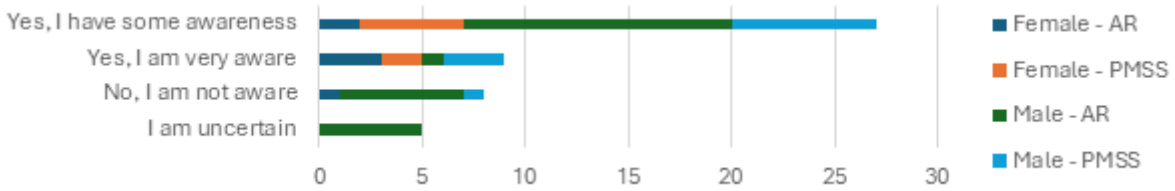

Figure 2.4.18: Staff survey responses to "How much do you consider yourself aware of UL leave policies?"

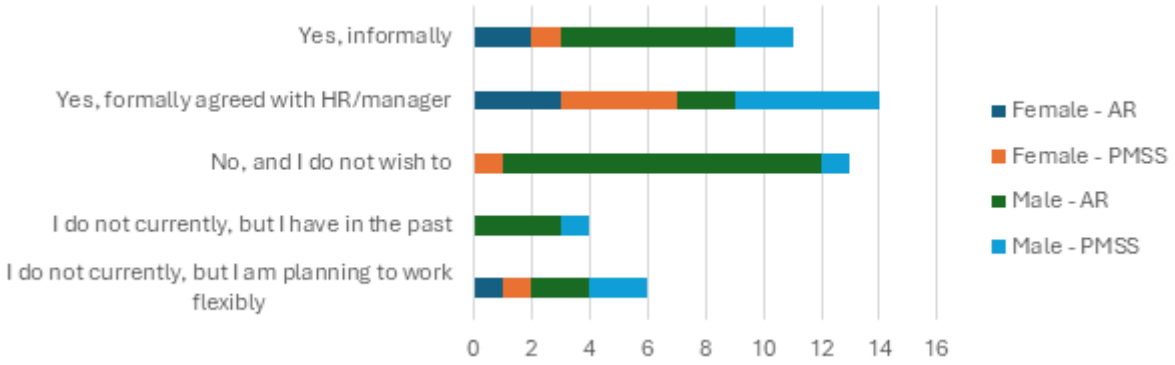

Figure 2.4.19: Staff survey responses to "Have you ever utilised any of the flexible working options offered by UL?"

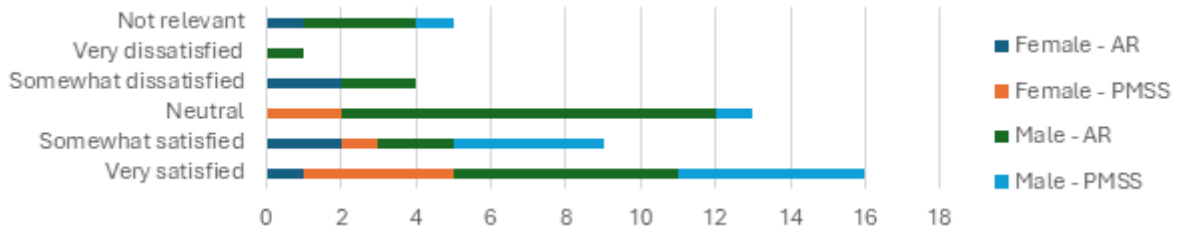

Figure 2.4.20: Staff survey responses to "Do you feel satisfied with the support available in your department/centre for flexible work arrangements, part-time work or career breaks, including sabbatical/maternity and parental leave?"

Leave policies are on the UL HR website. To date, all CSIS-Lero men entitled to leave through legislation have availed of it. UL's shorter working year scheme allows unpaid leave annually for two to thirteen weeks, with the cost of the unpaid leave taken in monthly instalments throughout the year. Only women have availed of this. Survey responses show that 88% staff, (including 100%F PMSS and 50%F academics/researchers) are satisfied or neutral with flexible working arrangements. While staff can apply to take unpaid professional leave, nobody has availed of this. Leave has been taken by more women than men over the three years. Twenty-eight percent of survey respondents (no female PMSS, one female academic/researcher) are either unaware or uncertain of leave policies.

Comments from focus groups support this:

"I don't really know about the sabbatical leave, but I think for the other types of leave, if you're early career, it's really unclear what you can do. I'm in research . . . even if I read through my [short-term] contract, it doesn't say anything other than annual leave."
"They're (specific-purpose contracts) contractually kind of pigeonholes into the funding dates. And so if the project funding ends on, we'll say after 12 months or 24 months, if you were on maternity leave for eight months, then what happens? So yeah, it's really unclear for researchers."

Taken by 1F, the Research Grant for Returning Academic Carers supports academics returning after 20 continuous weeks of caring leave. It provides funding to cover teaching/administrative duties for six months on return from leave or to hire a research assistant for the leave period to maintain progress on research.

Sabbatical leave was seen as beneficial for research but challenging due to the requirement to be abroad, which is not feasible for everyone. Some CSIS-Lero personnel are not aware that UL has a research leave policy that allows people to take six months' research leave and remain in Ireland. Academics returning from sabbatical leave are required to take up a full teaching load. The HoD often uses this as an opportunity to rotate academics to teach different modules.

Participants expressed a need for easily accessible, clear information about their leave rights.

"Being forced to leave the country is not standard. I have been evaluating other universities, and none has this as a requirement. The cut to 1/3 of the basic salary is also not standard: usually it is half."

SAP ACTION(S)
2.4.9: Ensure that all in CSIS-Lero are informed about the leave to which they are entitled, thus providing support for those taking, or planning to take leave such as maternity, adoption or parental leave.

2.5 Department priorities for future action

a. Identify the department's key issues relating to gender equality and establish key priorities for action over the next four years:

   + Select up to five key priority areas where the department will strive for impact. Selected priorities should be justifiable and based on the quantitative and qualitative evidence presented in Section 2.
   + Specific action(s) to support progress in priority areas should be identified.

b. Outline how the department's gender equality priorities align with the institution's Athena Swan action plan and, where relevant, broader EDI initiatives in the institution and/or department. This should include comment on:

   + key institutional actions that have, or will, support the department's progress;
   + any gaps in institutional supports for achieving progress and impact in the department.

The CSIS-Lero AS SAP was developed in line with the UL HREDI Strategy and AS Institutional SAP goals. The key institutional actions that will support CSIS-Lero progress are outlined below.

Table 2.5.1: CSIS-Lero future priorities

Priority #	Theme	Target group	Goals	Associated actions
P1	EDI activity	All staff and students	Embed EDI across all activities to build a greater awareness, recognition and understanding of AS principles across the staff and student populations.	SAP 1.1.1 SAP 1.1.5 SAP 2.1.1 SAP 2.1.5 SAP 2.1.8 SAP 2.4.5
P2	Career development	All staff	Support staff to define their career goals and training needs and develop career plans, supported by the staff Equality Officer.	SAP 2.1.7 SAP 2.1.9 SAP 2.1.10 SAP 2.1.11 SAP 2.1.13 SAP 2.2.1

				SAP 2.2.4
P3	Teaching and learning environment	All staff and students	Embed an EDI community of practice in teaching and learning to highlight role models and examples of inclusion and to foster a culture of leadership.	SAP 2.2.2 SAP 2.4.2 SAP 2.4.3 SAP 2.4.4 SAP 2.4.6

Priority 1: EDI activity

Institutional priority GE3 – Data Gathering: Gender Equality & Intersectionality – of UL's Gender Equality Action Plan 2022-2026 is to roll out an extensive self-declaration campaign to encourage staff to declare their race/ethnicity and disability through the Core Personnel system. Priority AEG2 – Intersectionality, Inclusion/Ethnicity and Belonging – is to undertake a campaign to address intersectional inequality and provide online training to improve staff and student awareness of equality.

Priority 2: Career development

Institutional priority GE5 – Career Pathways – aims to implement career pathways for staff. Our work will identify gender-related barriers to staff career progression and seek to improve gender balance at senior academic levels, e.g., AssocProfA, SRF and Prof. A Staff Career Development Officer will arrange help with promotion applications.

Institutional priority GE2 seeks to increase the number of women at full professorial level to 40% by 2026. We will lobby to secure a female SALI professor in the next round of appointments.

Priority 3: Teaching and learning environment

Institutional priority AEG5 – Enhancing culture and life at work, inclusion and belonging – measures the effectiveness of AS actions to enhance the culture of UL as inclusive and supportive through ongoing staff surveys and focus groups. In CSIS-Lero, we will embed an EDI community of practice in teaching and learning that seeks to highlight role models, particularly women in senior leadership roles. We will also provide examples of inclusion and modules across UG/PG programmes that embed EDI principles.

Section 2 words: 8,599

Section 3: An evaluation of the department's progress and success

In Section 3, applicants should evidence how they meet criteria D and E:

+ Demonstration of progress against the applicant's previously identified priorities
+ Evidence of success addressing gender inequality and, where relevant, wider inequalities

Recommended word count: 2,000 words

3.1 Evaluating progress against the previous action plan

a. Insert (on the landscape page to follow) the most recent iteration of the action plan associated with the department's previous award. The action plan should be 'RAG' rated (rated 'red,' 'amber' or 'green') depending on progress.

3.1a Previous action plan (Bronze Expanded Charter Award, March 2021)

Silver – Achieved to Silver level
Green – Achieved
Orange – Some progress made
Red – No progress / external dependencies

BAP #	Action	Rationale	Specific actions	Success measure	Outcome
BAP Goal 1: Continue to embed Athena Swan in CSIS-Lero					
BAP 1.1a	Write and approve AS CSIS-Lero SAT terms of reference.	(a) Formalise terms of reference	Develop terms of reference. Approve terms of reference at department meeting.	Terms of reference have been approved.	Terms of Reference approved.
BAP 1.1b		(b) Rotate and expand SAT membership, to ensure that members are representative of the department.		Membership changes by 40% minimum every 2 years. SAT gender balance reflects department gender balance.	SAT membership has changed by 80% since 2021. Gender balance on SAT is 47%F. CSIS-Lero staff 32F, students 27%. While we are closer than in 2021, we are not yet at department gender balance. This is now SAP 1.1.1
BAP 1.2	Establish a formal annual review of the AS action plan.	A mechanism for recording regular (annual) activities and holding datasets is needed.	Hold a formal dedicated SAT meeting to review implementation of the action plan over the previous year, as well as any amendments or proposed amendments to the plan. Prepare an annual implementation report for	Action plan has been reviewed at a SAT meeting annually. 80% of actions have been completed as scheduled. Review has been adopted at a full departmental meeting. Implementation report has	Action plan has been reviewed by SAT. Actions have been adopted by department meetings. Four actions were added as we progressed. 80% of actions have been completed as scheduled, 10% to Silver level. Implementation report

			presentation to the S&E AS SAT.	been presented to the S&E AS SAT.	presented to S&E AS SAT quarterly. This is continued as SAP 1.12.
BAP 1.3	Ensure that adequate resources are available to successfully implement the action plan.	Funding is required in order to undertake the key AS actions identified.	Allocate €10,000 from CSIS and Lero. Seek additional funding from UL as necessary. Incorporate AS activities into WAM.	Budget has been secured. AS activities are incorporated into CSIS WAM.	We have secured 2.5 times more budget than originally anticipated from CSIS-Lero: €5,000 for report on researcher funding to identify reasons for gender differences. Teaching assistant and cooperative education student allocated for 2 semesters for data analysis (value ~ €20k). Additionally, 4.5 FTEs for Outreach & Education have been employed through competitive grants (see Section 2.1e 1). While the UL WAM will only be implemented February 2025, gender equality actions are included in academic, researcher and PMSS workload within CSIS-Lero. This is continued as SAP 1.1.3.
BAP 1.4	Host an Athena Swan action plan implementation workshop.	This is to ensure that all members of CSIS-Lero are aware of actions and our plans for the next four years.	Organise CSIS-Lero Athena Swan workshop, to include discussion on workplace culture.	80% of staff attend AS workshop.	Workshop held in 2021 with 14 attendees (20%), which was disappointingly low. As replacement, AS/EDI have been included on department meeting agenda, Lero executive committee and workshops held at Lero summit. This ensures that people are up to date with AS actions and plans.

					SAP 1.1.4 ensures continued reporting at department meetings.
BAP 1.5	Undertake a staff EDI survey every two years.	It is important to collect feedback regularly from staff and to monitor progress as actions are implemented.	Review the survey instrument at an AS meeting, taking account of previous feedback/experience/evolving good practice. Deploy the survey, analyse results and present a written report to CSIS-Lero.	70% of CSIS-Lero staff have completed survey (in 2022 and 2024). Survey report has been presented at departmental meeting. Ensuing agreed actions have been incorporated into the departmental planning cycle and CSIS-Lero AS planning.	UL EDI survey completed in 2022 by 40% staff. CSIS-Lero completed in 2024 – 76% response rate. Report has been presented to department and agreed actions are included in the current submission SAP. SAP to be included in CSIS Departmental Quality Review, 2025.
BAP 1.6	Conduct (taught and research) student focus groups every two years.	It is important to collect feedback regularly from students and to monitor progress as actions are implemented.	For each of our 3 student cohorts (UG, PGT, PGR): Review focus group questions and update as necessary, to take into account previous feedback/experience/ evolving good practice. Conduct the focus groups, analyse results and present a written report to CS	Minimum of 2 representatives from each taught course are involved in focus groups. 20% of research postgraduates are involved in focus groups. Survey report has been presented to departmental meeting.	Workshops with 80% research students held annually at Lero summit. 3 postgraduate students are members of AS SAT. Student focus groups held in 2024 – 12F, 6M. Workshop and survey results have been circulated to CSIS-Lero within the AS review.
BAP 1.7	Appoint an Equality Officer in CSIS (additional action recognised since Bronze submission)	Student-related EDI tasks within CSIS-Lero can be undertaken by one person who is an AS SAT member.	One person can be the EDI point-of-contact for students within CSIS.	EDI activities are included in student activity. All students are regularly informed about EDI activities.	60% BSc, 30% MSc and 40+ Erasmus students have EDI included in their classes. Equality Officer sends regular emails about EDI activities, including information on available scholarships. Students receive support for their scholarship applications.

BAP Goal 2: Increase the number of female students on CSIS courses					
BAP 2.1	Implement promotion of CSIS undergraduate courses to women in MSAC/DARE/HEAR groups.	Women in these groups have not been targeted by CSIS, although students from these routes account for 24% of CSIS enrolments.	Guided by a similar initiative in UL CS department, publish case studies of female UGs who have previously entered CSIS courses via MSAC/DARE/ HEAR.	Minimum of 1 case study per programme has been published on the CSIS website.	No action has been taken. This is included as SAP 3.1.1.
BAP 2.2	Investigate the introduction of a new interdisciplinary course in CSIS.	Evidence shows that female enrolment on interdisciplinary courses is higher than on other courses.	Convene a team, who will report to a department meeting, to investigate the introduction of a new interdisciplinary course.	Report on potential interdisciplinary course has been presented to CSIS department meeting. Decision has been made on whether we should progress development of an interdisciplinary course.	We introduced two new courses and monitor the female intake annually. BEd in Mathematics & Computing commenced in 2021. 17F/18M, 48%F enrolled in 2023/24. BSc/MSc Immersive Software Engineering started in September 2022. 12F, 51M, 19%F enrolled in 2023/24.
BAP 2.3	Investigate why women perform better than men in UG courses and take action to improve the degree outcome of men.	Female students are more likely to receive a higher level of award (H1/H2:1) than male students.	Identify factors which could influence degree attainment (e.g., study skills, results prior to enrolment), conduct an investigation into the effect of these, and present a report for action to the department.	Factors which influence degree attainment have been identified. Report on the effect these factors have on CSIS UG student performance has been presented to department. Actions have been identified and included in the department plan.	No action has been taken. This is now SAP 2.1.3.
BAP 2.4a	Develop promotional materials targeting	Only 7% of the first cohort of	a. Modify LM174 marketing materials to include	All LM174 marketing materials include gender-	LM174 course page is now gender-balanced. It includes a

	women to consider registering for the BSc in Artificial Intelligence.	LM174students were women. Artificial intelligence is a growth area in CS in which there should be opportunities for all.	gender-balanced images of women.	balanced images of women.	video for both courses with female voiceover and visual images of women.
BAP 2.5	Provide scholarships for girls and those attending DEIS schools through the Information and Communications Technology Learning Centre.	The aim of this action is to highlight to girls and those in DEIS schools the potential of a career in computing.	Provide scholarships to girls and to those in DEIS schools for ICT camps.	20 scholarships per annum are given to girls. 20 scholarships per annum are given to those attending DEIS schools.	A greater number of scholarships than we projected were provided. Scholarships were given to girls: 2022 – 42, 2023 – 27, 2024 – 40. Scholarships were given to DEIS schools: 2022 – 24, 2023 – 31, 2024 – 38.
BAP 2.6	Develop and implement an information strategy to ensure that CSIS students are aware of the UL President's Volunteer Awards.	Participation in this UL award initiative would reward students for their participation in outreach initiatives.	Develop a strategy which can be implemented annually.	At least 5 female and 5 male students receive the UL President's Volunteer Award (PVA) each year for their participation in outreach activities.	Students are encouraged to apply for PVAs. Since 2023, ISE strategy has been implemented to ensure that students who volunteer time apply for the UL PVAs. In 2024, 10F, 19M and 3 NB-PNS received awards.
BAP 2.7	Expand outreach and education activities to further promote CS education to second-level female students (additional action recognised since Bronze submission).	There is a continued need for female second-level students to understand CS opportunities.	Develop programmes to be implemented nationally.	Apply for at least 2 grants to support outreach and education to female second-level students. Implement at least one programme nationally.	Grants have been received to support 4.5 FTEs and other costs on outreach programmes (1 FTE is on mainstream funding). Nationally, the CodePlus outreach programme has over 10,000 schoolgirls attending workshops and talks (see section 2.1 1).

BAP Goal 3: Increase the number of registered female PhD students in CSIS-Lero					
BAP 3.1	Establish collection of application/offer/ acceptance rates for PhD students.	There are currently no data available.	Document the current PhD application data, following which we will develop a process for implementation in CSIS-Lero.	Process which can be used to collect data on application/offer/ acceptance rates for PhD students has been developed.	Offer and acceptance rates are now available (Table 2.1.19). We have investigated the potential of implementing such a process for application rates. Because the norm is for potential students to apply for PhDs directly to individual professors, the process of getting a student from initial contact to point of submitting an application is so varied that data collection is not feasible.
BAP 3.2	Target women to apply for PhD positions.	Numbers of female PhD students in CSIS-Lero are 15% less than the national average of 20% in our field.	Gender-proof advertisements for PhD opportunities using gender proofing software (e.g., Gender Decoder).	All advertisements are gender proofed.	All advertisements are gender proofed through UL HR.
			Publish case studies of CSIS-Lero female PhD students and graduates.	Minimum of 2 case studies have been published on CSIS-Lero websites.	There are many examples of PhD graduates on websites, e.g. Lero-15 (https://lero.ie/lero-15) has PhD students and graduates included – Pétercsák, Birhane, Peters.
				40% of PhD applications are from women.	38%F enrolled 2021 to 2024 (Table 2.1.19).
BAP 3.3	Target female 4th year and MSc students individually regarding PhD opportunities in CSIS-Lero.	Female students need specific encouragement to progress to PhD studies. 93%F from the 2019-2020	Identify all female 4th year and MSc students who are on track for 1st /2.1 honours degrees and link them to FI/PIs who have	*Shown as 2021 / 2022 /2023 /2024:* Minimum of 50% / 75% / 100% / 100% of 1st/2.1 honours female students have been contacted by an academic.	Potential female PhD students have been contacted. Overall, PhD registration numbers are lower than expected with 16 total (6F, 10M) enrolling during the past 3 years.

		cohort received H1/H2.1 degrees, yet we only have 15%F PhD students in CSIS-Lero.	funding or potential funding for PhD students.	1 / 3 / 5 / 5 CSIS female students have commenced PhD study.	This is mainly due to lower funding being available.
BAP 3.4	Present female 3rd year students with bursary opportunities in CSIS-Lero.	Female students need encouragement to apply for bursary opportunities.	Convene a meeting of female 3rd year students at which bursary opportunities are presented by a female academic.	Shown as 2021 / 2022 /2023 /2024: Minimum of 50% / 75% / 90% / 90% female 3rd year students have attended a bursary meeting and 1 / 3 / 5 / 5 CSIS female students have received a bursary.	Bursary meetings have been held through WiSTEM^{2}D, ISE, and other scholarship programmes. We discuss bursaries during core class time, making the information available to all students. Five CSIS female students received bursaries.
BAP Goal 4: Learn from those leaving CSIS-Lero					
BAP 4.1	Work with HR to ensure that all staff who leave are issued with the UL online exit survey.	Exit interviews are not undertaken; therefore, we do not have a means to identify issues affecting those who leave.	HR issues an online exit survey. Produce a report summarising exit interviews held in the previous 12 months.	100% staff leaving CSIS-Lero are being offered exit interviews. Report is discussed annually at CSIS-Lero meeting with actions identified included in the annual AS review.	Exit interviews are offered by UL HR to everyone who leaves. We have not discussed potential actions at CSIS-Lero meetings.
BAP Goal 5: Promote the recruitment of women and men to positions in CSIS-Lero					
BAP 5.1	Create a CSIS-Lero requirement so that only those who attend interview skills training can sit on a selection board.	The percentage of women appointed to researcher positions (10%) in CSIS is not in line with applications (22%). Only 2M and 1F have undertaken	Selection board members attend interview skills training.	Requirement is established in CSIS-Lero whereby only those who have attended interview training can sit on a selection board. 100% of selection board members have completed interview skills training and	This is a UL requirement and is implemented in CSIS-Lero. 6% of F applicants and 6% of M applicants received a job offer 2021-2023.

		interview skills training; no-one has undertaken interview chair training.		100% of chairs have attend interview chair training. Percentage of each gender appointed to CSIS-Lero positions is in line with application gender percentage.	
BAP 5.2	Submit a Senior Academic Leadership Initiative (SALI) application.	The most recent professorship position advertised had no female applicants.	Form a SALI team in CSIS to develop an application for submission.	1 SALI application has been submitted to final round in 2021.	The HEA has not announced the final call for SALI professors. We have included this as SAP 2.2.1.
BAP 5.3	Appoint one female adjunct professor annually.	CSIS-Lero has no adjunct professors. This is a route we can use to increase the profile of women.	Identify candidates and follow UL procedures to make this appointment.	1 female adjunct professor has been appointed annually.	We modified this action to focus on the appointment of female Parnas Fellows (see section 2.2b 3) and appointed four female fellows over the past 4 years.
BAP 5.4	Establish and implement a process to target potential applicants of under-represented genders for CSIS-Lero positions.	29% LABs, no SLs, 25% RF and 1SRF are women. While these figures are comparable nationally and internationally (UK, USA), we need to improve the academic pipeline. 87%M applied for each of the most senior administrative positions. Only 24%M applied for a junior	Set up a CSIS-Lero committee to develop and implement this process.	100% advertisements for positions in CSIS-Lero are gender proofed. Panel of minimum of 5 potential female candidates has been drawn up and these contacted for 100% of available academic, researcher, senior administrative and technical positions in CSIS-Lero. Panel of minimum of 5 potential male candidates has been drawn up and these contacted for 100%	All advertisements are gender proofed. Potential female candidates have been successfully targeted to apply for Parnas fellows. For each post, the person hiring contacts women and encourages them to apply for positions. Departmental administrator for two years (2021-2023) is male. He has moved department within UL. The most recent technical appointee in CSIS was female.

		administrative position.		of available junior administrative positions in CSIS-Lero.	
BAP Goal 6: Support new employees					
BAP 6.1	Implement a process to ensure that all new CSIS-Lero employees attend UL induction training within their first three months.	Those who have not attended UL induction training have reported that it was "not clear who I should contact to find information".	AS SAT to identify and implement an induction training process.	Induction training process has been approved by the department and distributed to all line managers. 90% CSIS-Lero starters attend UL induction training within their first 3 months.	Induction training is provided by UL, and all new starters are given information about attendance at this training. New hires are encouraged by their department mentors (BAP 6.2) to attend induction, and HR training data shows that 90%+ of new starters have done so.
BAP 6.2	Offer mentorship to new CSIS-Lero employees.	New employees, particularly contract researchers and TAs, have indicated that mentorship would be useful to them when starting their jobs.	Assign a mentor to each new starter in CSIS-Lero, to meet with them monthly over the first six months.	100% CSIS-Lero starters have been offered a mentor.	Mentors are assigned to 100% of CSIS-Lero starters. Feedback indicates that this is a successful initiative.
BAP 6.3	Establish a procedure by which all new employees have quarterly meetings with their line manager for the first year, culminating in a PDR.	This is a UL requirement during probation, and is currently only being undertaken with academic appointees in CSIS-Lero.	AS SAT to identify and implement an introductory meeting process.	An introductory meeting process has been approved by the department and circulated to all line managers. 100% new CSIS-Lero employees have 3-monthly meetings in their first year.	The introductory meeting process is a UL process. All new employees are informed by HR that they should be having meetings, and all line managers are also aware of this requirement. We don't have the statistics to measure this. However, HR has implemented a process to gather data and so statistics

					should be available over the next year.
BAP Goal 7: Prepare all staff for progression, promotion, job evaluation and career opportunities					
BAP 7.1	Promote industry-based careers to researchers.	No researcher stated an industry position as a career goal, although 47% of Lero researchers move to industry.	Add two case studies which present industry-based research projects, to the CSIS and Lero websites. Organise a presentation from an industry-based PhD holder promoting the role of PhD researchers in industry.	2 case studies presenting industry-based research projects are published on the CSIS and Lero websites. 1 presentation per year by an Industry-based PhD holder is given to PhD students and researchers.	Industry-based projects such as Blended Autonomous Vehicles https://lero.ie/content/blended-autonomous-vehicles and Logitech https://lero.ie/industry/case-study are currently featured. Lero summit has had industry-based presenters. For example, in 2024, one afternoon of the summit focused on industry-based research.
BAP 7.2	Lobby UL management for the re-introduction of job evaluation for PMSS.	PMSS have no opportunity to benefit from any promotion with the suspension of job evaluation by the DES.	Discuss the lack of job evaluation at S&E management meetings every six months.	Job evaluation lobbying nationally continues to be done by the UL Executive Board.	Job evaluation was reintroduced by DES in 2022. This was raised by HoD regularly at Management meetings.
BAP 7.3	Initiate a process to track the development of training, career and personal development plans during all CSIS-Lero PDRs.	Academics stated lack of support, knowledge and confidence relating to promotion; Researchers and PMSS need to be prepared for career opportunities.	AS SAT to identify a process to track the development of plans during CSIS-Lero PDRs.	A process to track the development of plans agreed during PDRs has been approved by the department and circulated to all line managers. 100% of PDR records show that training, career and personal development plans have been	Tracking process for PDR has been implemented in CSIS-Lero through HR. 100% of PDRs have developed training, career and personal development plans. 100% of those applying for progression promotion, job evaluations and career opportunities have the

				developed. 100% of those applying for progression, promotion, job evaluations and career opportunities have had the opportunity to receive feedback from a senior colleague in CSIS-Lero.	opportunity to receive feedback from senior people in CSIS-Lero who volunteered to do this.
BAP 7.4	Provide portfolio feedback from senior members of staff for those applying for progression, promotion, job evaluation and career opportunities.	Academics stated lack of support relating to promotion; Researchers need to be prepared for career opportunities; PMSS have not had experience in doing job evaluation portfolios in the past two years.	Identify annually senior members of staff to review portfolios. Provide names of reviewers to applicants.	100% of those applying for progression, promotion, job evaluations and career opportunities have had the opportunity to receive feedback from a senior colleague in CSIS-Lero.	100% of those applying for progression promotion, job evaluations and career opportunities have the opportunity to receive feedback from senior people in CSIS-Lero who volunteered to do this.
BAP 7.5	Ensure that there is an awareness by CSIS-Lero academics of the UL portfolio committee, who will review portfolios.	Academics stated lack of support relating to promotion.	Distribute information on the UL portfolio committee annually.	60% of those who submit to progression and promotion are successful.	43% of those who applied for progression and promotion were successful. Additionally, others have successfully progressed through applying for positions that were advertised externally. The first round of job evaluation is in progress so no statistics are currently available.
BAP 7.6	Actively promote HR researcher development courses to research staff.	Attendance on these courses by CSIS-Lero researchers has been low.	Identify and discuss courses at PDR.	80% of researchers have attended at least 1 HR researcher development course.	Due to GDPR, we cannot get more detailed data than is given in section 2.2f. However, we know that 96 courses were attended by CSIS-Lero

					employees. Additionally, many researchers have been funded through Lero and other grants to attend conferences.
BAP 7.7	Encourage mentoring in CSIS-Lero.	The staff survey has shown that the majority of respondents would like a mentor and have not had one.	Identify and discuss mentoring opportunities at PDR.	100% of those who want a mentor have applied to the UL mentoring scheme.	All new employees in CSIS-Lero are assigned a mentor. Through this, they are all involved in the UL mentoring scheme.
BAP 7.8	Develop an information pack on how CSIS-Lero implements career progression supports, including sabbatical, research and professional development leave.	Data collection indicated that people are not aware of the various policies and departmental supports including sabbatical, research and development leave.	AS SAT to identify and develop an information package for CSIS-Lero staff on how CSIS-Lero implements career progression supports.	An information pack on supports for career progression has been circulated to all CSIS-Lero staff. As reported in the biennial staff survey, 70% of staff are aware of UL, CSIS and Lero supports for career progression.	We modified this action because (a) HR runs regular courses on these topics and (b) UL Connect (UL intranet) has been implemented, ensuring that all have access to policies and procedures and information about courses in one central location. This has negated the need for a CSIS-Lero information pack. Staff are aware of supports for career progression (Figure 2.2.5).
BAP 7.9	Develop an information pack clarifying CSIS-Lero implementation of UL leave policies.	Only women have taken parental leave.	AS SAT to identify develop an information pack clarifying CSIS-Lero implementation of UL leave policies.	An information pack on UL leave policies has been circulated to all CSIS-Lero staff. As reported in the biennial staff survey, 70% of staff are aware of UL leave policies.	We modified this action because (a) HR runs regular courses on these topics and (b) UL Connect has been implemented, ensuring that all have access to policies and procedures and information about courses in one central location. This has negated the need for a CSIS-Lero information pack.

					70% of staff reported being aware of UL leave policies (Figure 2.4.18)
BAP GOAL 8: Ensure training, career and personal development for all staff					
BAP 8.1	Implement a process to ensure that staff and PhD students take unconscious bias training and dignity & respect training.	Not all staff have undertaken these training courses; PhD students have never been asked to take this training, although they have similar research and teaching responsibilities. The staff survey revealed that individuals are experiencing and noticing favourable/ unfavourable treatment, particularly PMSS.	AS SAT to establish a process to ensure that staff and PhD students attend unconscious bias training and dignity & respect training courses.	The process to support unconscious bias training and dignity & respect courses has been communicated to all CSIS-Lero staff. Double the number of staff who have completed unconscious bias training and dignity & respect training. 100% PhD students have completed unconscious bias training and dignity & respect training.	All CSIS-Lero staff are regularly made aware by HR that these courses are mandatory. 19 people have completed Dignity & Respect and 21 people have completed Unconscious Bias courses over the past three years. There has been no effort to have PhD students complete the courses – now included as SAP 2.4.10.
BAP 8.2	Establish a CSIS-Lero process to ensure that training plans for all staff are developed during PDR and subsequently implemented.	Low numbers are taking training courses; staff are not aware of career opportunities outside of progression and promotion.	AS SAT to establish a process regarding training plan development.	Information on the training plan development process has been circulated to all CSIS-Lero staff. 100% of staff who complete PDR have had training plans implemented.	All training requirements at department level are sent to HR, which informs the overall annual plan for staff. As part of the PDRS, an action is included that addresses the implementation of the training plan.
BAP 8.3	Actively promote leadership courses to relevant staff.	Low numbers are taking leadership	Identify staff whose career development would benefit from leadership	All relevant staff have undertaken at least 1 leadership course	Five people have undertaken training on Academic Leadership, 11F and 13M on

		training courses – 11%F and 16%M.	courses. Offer support to staff for attendance at courses.		Career Development courses, and 15F and 12M on Professional Development courses.
BAP 8.4	Encourage LBBs and researchers to complete the Graduate Diploma in Teaching, Learning and Scholarship.	The Graduate Diploma is important for LBB promotional prospects.	Identify LBBs whose career development would benefit from Graduate Diploma in Teaching, Learning and Scholarship.	All relevant staff understand the importance of the Graduate Diploma.	Recognition of the value of a teaching qualification (which is now a postgraduate certificate) is evident in that 7 (21%) CSIS-Lero staff registered for the course in the AY 2024/25, while only one person registered the previous year.
BAP 8.5	Assign an academic mentor to each TA.	TAs are not currently provided with support when they join CSIS.	Identify senior member of staff to be academic mentor for TAs.	All TAs are given academic mentorship.	Every TA who joins CSIS is assigned an academic mentor.
BAP 8.6	Commission a report to identify reasons why women are not receiving similar grant amounts to men and take actions based on the results.	Men receive 2.2 times more grant value per individual than women.	Work with a consultant to identify a research process, and action the report when it is received.	Budget has been provided. Report has been completed and discussed at Lero Executive. Acton plan has been developed.	This report was funded and completed. As a direct result, actions BAP 8.7, BAP 8.8 and BAP 8.9 were added to the AS action plan and successfully implemented.
BAP 8.7	Lero members receive offer of mentorship, specifically working towards grant applications (additional action recognised since Bronze submission).	Recommendation from report commissioned in 8.6.	Identify senior Lero members to mentor female ECRs.	All female ECRs who are submitting grants are offered Lero mentorship.	One Lero executive member's role is responsibility for mentorship. All female ECRs who are applying for grants are offered mentorship.
BAP 8.8	Ensure that female researchers are made to decision making bodies	Recommendation from report commissioned in 8.6.	When researchers are being appointed, implement a search	Decision-making bodies - Governance committee	Both decision-making bodies were re-constituted in 2024: Governance committee 50%F,

	in Lero (additional action recognised since Bronze submission).		process to ensure female participation in decision making bodies in Lero.	and Advisory Board are gender-balanced.	Advisory Board 33%F. Members with EDI track records have also been appointed. (See section 3.2a.)
BAP 8.9	When submitting grant proposals from Lero as a research centre (as distinct from individuals within Lero), ensure that female applicants are included (additional action recognised since Bronze submission).	Recommendation from report commissioned in 8.6.	Identify opportunities for female researchers to participate in Lero research centre projects.	Lero research centre grant proposals include significant numbers of female researchers.	Three MSCA grants for research fellows have been received (SyMeCo led by Lero@UL, DIGI+ led by Lero@MU, Rosetta led by Lero@UG), all of which include female supervisory participation. SyMeCo – 30%F supervisors DIGI+ – 34%F supervisors Rosetta – 47%F supervisors. (See section 3.2a.)
BAP Goal 9: Improve availability and effectiveness of PDRs for all CSIS-Lero staff					
BAP 9.1	Ensure that all staff do PDR training.	35% of CSIS-Lero staff have not attended PDR training – thus, PDRs are not as effective as they should be.	Present training opportunities to those who have not undertaken PDR training. Include PDR training as an integral part of new staff induction.	90% of current staff have completed PDR training. 100% of new staff have completed PDR training.	PDR training was provided at the Lero Summit, focusing particularly on researchers (~90% attendees). All new staff are required to attend PDR (performance development and review) training.
BAP 9.2	Require all those who are supervising employees to attend PDR and other management training.	Only two line managers (10%) have completed PDR management training – thus, PDRs are not as effective as they should be. Line managers have not availed of other	Mainly through PDR, present training opportunities to those who have not undertaken training.	100% of those supervising employees have attended PDR management training. 80% of those supervising 3 employees or more have attended at least 1 other management training course.	Within Lero, we encourage researchers to ask their line managers (PIs on projects) for PDR. 100% of those supervising three or more people have attended management training courses. At least 80% of CSIS-Lero employees are managed by someone who has attended PDR

		management training.			management training.
BAP 9.3	Implement the UL process whereby all staff, whether permanent or on contract, will be offered annual PDRs to identify personal career development plans.	Staff, particularly TAs and researchers, have not been offered PDRs annually.	Schedule and hold annual PDR meetings.	100% employees, including contract staff (TAs, researchers, PMSS), have been offered an annual PDR. 80% employees undertake annual PDR annually.	100% CSIS-Lero academics and PMS are offered annual PDR. 65% employees undertook annual PDR in 2024.
BAP 9.4	Maintain statistics on researcher PDRs.	We do not track statistics on researcher PDRs.	Collect statistics on researcher PDRs annually.	Statistics on researcher PDRs are presented to HoD / LD annually.	PDR statistics are being collected centrally by HR and are presented to HoD annually.
BAP Goal 10: Provide support to current students					
BAP 10.1	Promote understanding of co-operative education opportunities to 1st and 2nd year students.	Early year students want to meet role models from more senior years.	Organise 4th year students to give talks about co-op opportunities to 1st / 2nd year students.	2 (1F and 1M) 4th year students have given a presentation to 1st / 2nd year students each year. Talk recordings are available on the CSIS website.	ISE students receive talks from students returning from residencies and from industry partners. All students were invited to talks given in BAP 10.2.
BAP 10.2	Promote understanding of industry careers from CSIS courses to 3rd year, 4th year and postgraduate students.	Senior year students want to meet role models from industry.	Organise industry talks from recent graduates for 3rd year, 4th year and postgraduate students.	2 (1F and 1M) speakers from industry have given a presentation to 3rd / 4th year students each year. Talk recordings are available on the CSIS website.	Industry talks for all students are organised and promoted. These include talks from Valeo (F), Qualcomm (M) and Piquant (M). No recordings available at speakers' request.
BAP 10.3	Provide information about UL career supports to CSIS students.	Students expressed that they are not aware of career supports in UL.	Add links on CSIS web pages to UL career supports.	Links to UL career supports are available on CSIS web pages.	This has been added to the CSIS website.

BAP 10.4	Discuss timing of English language writing courses with the International Education Division.	International students have difficulty in attending language writing courses due to timetable clashes.	Discuss timing of language writing courses with the International Education Division (IED).	Language timetables have been modified so that they do not clash with course timetables.	IED runs language courses before the start of semester.
BAP 10.5	Develop an orientation package for taught postgraduate students to introduce modules, CSIS culture and assessment types.	International taught postgraduate students find the transition to UL difficult.	Develop information on modules, CSIS culture and assessment types for taught postgraduate students.	Information on modules, CSIS culture and assessment types is available on the CSIS website.	We modified this action as culture is better discussed rather than having information on the website. Information on modules and assessment types is available on the CSIS website. Before students apply to UL, presentations are given to international agents where modules, culture and assessment types are discussed. UL Global holds international student orientation for all international students. When meeting international students, course directors and module leaders discuss modules, culture and assessment types. Informal social meetups throughout their studies are arranged by the Equality Officer, giving international students the opportunity to discuss these topics in a relaxed environment.
BAP Goal 11: Distribute workload fairly, with respect also to gender and work/life balance					
BAP 11.1	Ensure that family commitments are	Staff have been required regularly	Discuss caring responsibilities when	As reported in the biennial staff survey, no	Decision-making meetings are normally held between 10am

	considered when staff are required to work outside normal working hours.	to reorganise childcare.	individuals are asked to work extra hours. Schedule decision-making meetings within working hours.	member of staff has been required regularly to reorganise childcare. 75% of committee members have been involved in decision making annually.	and 4pm, which enables all members to attend. No-one has reported having to regularly reorganise childcare.
BAP 11.2	Compile workload allocation model (WAM) data.	There is no WAM used in CSIS-Lero, although there is a UL requirement to do so.	Working with the CSIS-Lero WAM sub-committee, identify WAM data (to include: Athena Swan activity; grant proposal writing). Discuss this issue whenever it arises.	WAM data has been approved at department meeting.	WAM is being implemented in UL currently. We recognise EDI contributions in the current workload model.
BAP 11.3	Influence the gender balance of national and international committees.	This action is required to address the low numbers of women involved in programme committees, organising committees and as keynote speakers.	Discuss this issue whenever it arises	In the biennial survey, 50% of researchers report having had success, however small, in bringing about change in gender balance at national/international level.	We have had influence at national and international levels, particularly at ICSE (see section 3.2b).
BAP 11.4	Ensure EPE load within Lero is balanced fairly between women and men.	More women than men are currently doing EPE.	Where volunteers are requested, target those who have not reached their required EPE load. Ensure gender balance for EPE events.	The EPE load in terms of gender balance is getting closer to the numbers of F/M in Lero.	In 2023 instances (most recent figures), 44 were undertaken by women and 67 by men. The %F has being dropping consistently over the past three years (Table 2.1.22).

3.1b Commentary on the BAP

With 56 actions, the 2021 BAP was uploaded to the Computer Science AS SharePoint site for SAT members to track progress. During its implementation, four new actions were added **(BAP 2.7, 8.7, 8.8, 8.9)**, giving a total of 60 actions. **BAP 2.4** was modified to state the correct course – BSc (not MSc) in Artificial Intelligence. We reduced the target in some BAPs **(e.g. BAP 11.4)** as we recognised that our original targets were unattainable.

The plan was discussed at SAT meetings. Figure 3.1.1 shows the number of actions whose success measures have been achieved to silver level (6), achieved (43), showing progress but not completed (8), and not implemented (3). We could not implement one of those seven red actions as they were dependent on external factors.

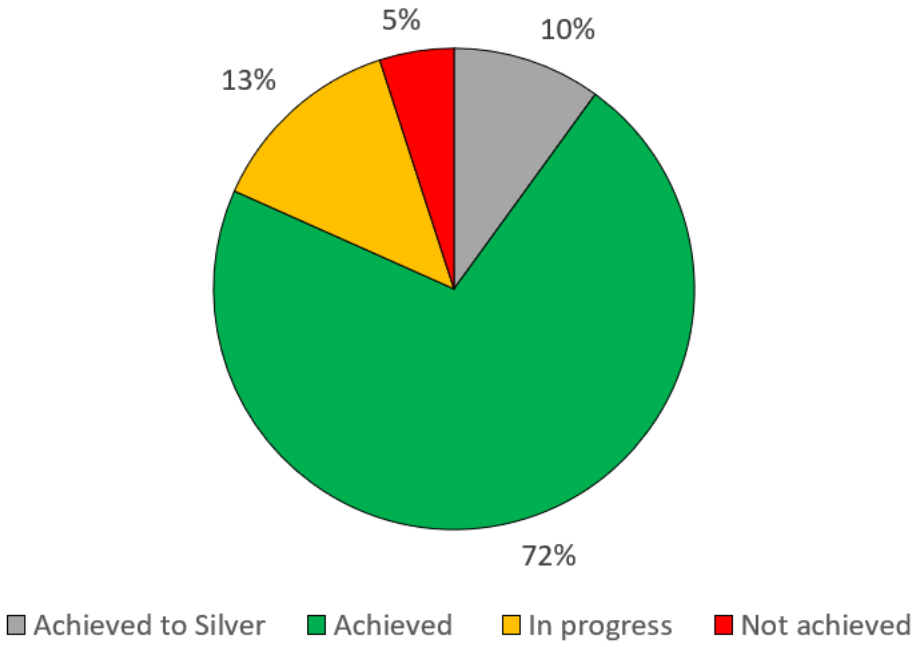

Figure 3.1.1: Status of BAP actions

Updates and progress on the action plan were discussed at monthly departmental meetings, with ongoing and proactive commitment from the HoD and Lero Director. Appropriate measures were taken to assure AS activity within CSIS-Lero, including the allocation of resources **(BAP 1.3)** and having individual contributions recognised within the department workload **(BAP 11.2)**. Our involvement with AS in UL and nationally enabled good practice to be shared, faculty and institutional support to be requested, and progress to be formally monitored and reported via quarterly reports to the S&E EDI committee.

Table 3.1: Summary of barriers and facilitators to implementing the actions and meeting the success measures of the actions in the 2021 AS Bronze submission.

Barriers to action implementation	Facilitators to action implementation
• COVID-19 • Access to timely, reliable data in requested format • Large number of actions – challenging to implement all fully	• Strong commitment to EDI issues by CSIS-Lero HoD and Lero Director, Faculty of S&E and UL • Provision of resources from CSIS-Lero and UL (administration, funding, survey design, collection and analysis, focus group) • Co-chairs are members of All-Ireland AS Practitioners Network • SAT members participate in Software Engineering equality events nationally and internationally • Live documentation of progress on SharePoint

When we submitted for the Bronze AS award in 2021, COVID-19 had been affecting us for nine months. While we anticipated that UL would return to the normality we knew prior to March 2020, this did not happen, and, over time, we have had to deal with the continuation of hybrid teaching and the evolution of hybrid processes within our work environment. This led to delays in some parts of our action plan.

Access to reliable data is a key requirement for determining baseline levels, monitoring progress in a timely manner, identifying biases and benchmarking. UL has made significant improvements in providing easily accessible online data (e.g. Researcher Performance Dashboard: quarterly update of research grants, publications; Power BI Annual Reviews: yearly update on student numbers, progression, graduates) and data access through the HREDI and S&E offices. However, there are some areas where data is either lacking, inaccessible or unreliable; for example, due to GDPR, we have limited access to HR data. Our work to get all the data needed for this submission required resources that could have been used more effectively.

Our BAP aimed to address many issues. However, a key learning is the importance of focusing on a small number of key areas to ensure full implementation. Consequently, our current action plan is more focused, with fewer actions in total. While we made some amendments to the BAP as new information arose, we need to streamline this more. Aligning the SAP with the quality review will support this endeavour **(SAP 1.1.5)**.

Incomplete actions, which are in the SAP, include:

BAP 2.3: Investigate why women perform better than men in UG courses and take action to improve the degree outcome of men.

- Low in priority. Table 2.1.13 shows that female undergraduates are still more likely than males to gain a higher-level award.

BAP 8.1: Implement a process to ensure that staff and PhD students take unconscious bias training and dignity & respect training.

- While all staff are required to take this training, we have not implemented it for PhD students.

BAP 11.2: Compile workload allocation model (WAM) data.

- UL's new WAM (2025) will account for teaching, administration and research duties. However, in trying to balance department workload without the existence of the WAM, the HoD takes equality work into account when distributing service tasks.

3.2 Evaluating success against key priorities

a. Provide information on the department's key achievements in gender equality. This should include:
   - evidence of how the department has achieved the desired outcome/s and impact/s in relation to at least two previously identified key priorities;
   - qualitative and quantitative data to evidence statements;
   - reflection on the main facilitators or factors that supported success;
   - identification of whether there are any aspects that could be translated to other areas to support success against the department's key priorities.

b. Where relevant, provide information on any key achievements on equality grounds in addition to gender. This should include:
   - qualitative and quantitative data to evidence statements;
   - reflection on the main facilitators or factors that supported success;
   - identification of whether there are any aspects that could be translated to other areas to support success against the department's key priorities.

3.2a Evaluating success against key priorities

We present two core areas of achievement in gender equality to show what we did and how we achieved the outcomes.

Key Achievement 1: Numbers of girls studying computing courses

Priority: Increase the number of girls opting to study computing courses by increasing software engineering and computer science O&E initiatives **(BAP 1.3, 2.5, 2.6 and 2.7)**.

Goal 1.1: Apply for grants to support software engineering and computer science O&E activities.

Actions:

- Identified available grants to support O&E activities, such as Lero, TERI, and industry partners
- Created teams to successfully apply for grants

Goal 1.2: Set up structures so that schoolgirls could benefit from our knowledge and learn about computing**.**

Actions:

- Appointed five FTEs on O&E
- Established links with schools, industries and other organisations nationally
- Set up identified O&E initiatives
- Ensured that contribution to O&E by non-O&E staff is recognised when department workload is being considered
- Ensured that students who contribute to O&E apply for the President's Volunteer Award.

Goal 1.3: Provide O&E to schoolgirls.

Actions:

- Through structured initiatives, such as CodePlus, TeenTurn (Figure 3.2.1), summer workshops, Science Week and other national events, provided opportunities for schoolgirls to participate in coding and design workshops, hackathons, activities with robots and software engineering project development
- Through other opportunities, such as school visits, invitations to coding clubs and visits to CoderDoJo groups, provided information and talks about software engineering and computer science activities to schoolgirls and their parents

Goal 1.4: Provide opportunities to schoolgirls to visit UL and industry.

Actions:

- Set up structured talks by industry partners during which female role models discuss their roles in industry, demonstrating that women have a strong and important role to play in the computing industry and find their jobs to be fulfilling
- When schoolgirls visit UL, on trips such as TeenTurn and Science Week, ensured they had the opportunity to meet with PGR students, researchers and academics
- Gave schoolgirls the opportunity to work in CSIS-Lero laboratories

Goal 1.5: Track outcomes from O&E activities.

Actions:

- Measured the numbers of schoolgirls who participated in CSIS-Lero O&E activities
- Presented key process indicators to O&E funders
- Collected feedback from schoolgirls who participated in O&E activities



Figure 3.2.1: TeenTurn attendees participate in CSIS-Lero events

Progress/appraisal:

- Received funding to employ five FTEs over the three-year timeframe on O&E and ancillary expenses. Additionally, 0.5 FTE is from UL mainstream funding.
- Through CodePlus: over 1,000 attendees at 20-hour coding classes, 8,000 attendees at role model webinars, and 1,200 schoolgirl visits to industry sites.
- CodePlus won the Women in STEM Diversity and Inclusion Initiative Award, 2024.
- Five TeenTurn events in CSIS-Lero attracted an overall attendance of 150 students.
- Contact with over 1,000 schoolgirls through other events such as school visits and Science Week.
- Thirty-two students received the UL President Volunteer Award in 2024.

Comments made by CSIS-Lero O&E participants included:

"I really enjoyed the course and it has made me aware of other possible career paths I may like to pursue."
"I had a lot of fun and am now more interested in computer science."
"Before I did this workshop I didn't like the idea of coding/programming but after doing this workshop my attitude changed towards it."
"I would like to go further – I am thinking about choosing computer science for my leaving cert."

Silver Impact

- Female UG student representation increased from 18% to 20% (Table 2.1.7).
- Increase in numbers and representation of female students enrolling in CSIS-Lero courses; absolute increase of 35%F over three years (Figure 2.1.8).
- Higher rate of female enrolment (21%) than the national average in 2022/23 (Figure 2.1.9).

Key Achievement 2: Advance women's careers

Priority: Advance women's careers through their research and decision-making roles by providing supports and initiatives in UL, nationally and internationally (**BAP 5.3, 5.4, 8.8, 8.9, 11.3)**.

Goal 2.1: Increase the number of senior decision-making roles.

Actions:

- Re-constitution of Lero Governance Committee and Advisory Board in 2024:
  - Identified and appointed women whose expertise would contribute to the boards
  - Ensured that specific EDI expertise is included on boards
- PI/FI cohort did not reflect our gender balance:
  - Encouraged and worked with women to apply to SFI for PI status.
  - Worked with women on funding applications, giving them FI status.

Goal 2.2: Include specific targets for female recruitment in grant submissions.

Actions:

- Identified MSCA as grants where we could include specific targets for female recruitment.
- 31% of supervisors are female.
- Included mentoring programme for ECRs to team with senior researchers.
- Applications reviewed internationally by three people, at least one of whom is female and one male.
- Interviews by female and male panellists where expertise is available.

Goal 2.3: Invite female speakers to events.

Actions:

- Identified events to which we could invite female speakers.
- Ensured there was a representative number of female speakers at the annual Lero Summit so that attending PhD students and ECRs saw women in high-profile positions.
- Panels in CSIS-Lero are gender-balanced.
- CSIS-Lero personnel have given talks on gender equality in research at UL Research Week, UL Health Research Institute, Lero Summit and ADAPT SFI Research Centre.

Goal 2.4: Increase the number of female David Parnas Research Fellows

Actions:

- Annually, identified and invited international female academics to apply for David Parnas Research Fellowships (section 2.2b 3).
- Set up FAQs to ensure that everyone understands the requirements.
- CSIS-Lero personnel had meetings with those interested.
- Review panel was gender-balanced (2F, 2M).

Progress/appraisal:

- Lero Governance Committee is chaired by Aongus Hegarty, a national leader in gender equality. Professor Yvonne Galligan, Director of EDI, Technological University Dublin, is Lero Advisory Board member. These appointments ensure that EDI initiatives are supported from the top.
- Two speakers at the 2024 Lero summit were Jeevantika Lingalwar, Microsoft Cloud Architect and Founder of Women in Tech (talk: The Unplanned Journey: Thriving Amidst the Unpredictable, Figure 3.2.2) and Gert O'Rourke, Technology Transfer Office, UL (talk: Turning Software Research into Successful Spinouts).
- Lero has a national Lero EDI Committee with members from each member institution. Chair (Trinity College Dublin) has been co-opted to the Lero Executive Committee.
- MSCA grants are managed closely so that gender balance is maintained across reviews.



Figure 3.2.2: Jeevantika Lingalwar, Microsoft Cloud Architect and Founder of Women in Tech presentation on The Unplanned Journey: Thriving Amidst the Unpredictable at the Lero Summit 2024

Silver Impact

- 4F/4M on the Lero Governance Committee, 4F/8M on the Advisory Board.
- Over three years, increased female percentage of PIs in Lero from 25%F to 29%F and of FIs from 16% to 18%.
- MSCA offers to 40%F and acceptance of 30%F in 2024 (Table 2.2.4).
- 50%F David Parnas Fellowship appointments over the past four years, 29%F total over seven years.
- A visible cohort of female leaders within CSIS-Lero and, hence, role models for ECRs.

3.2b Key achievements on equality grounds in addition to gender

It is UL policy to provide gender-neutral toilets, and there are four in the CS Building. Each building has facilities for those with a disability. We provide free period products and toiletries in the female toilets in IBC and Tierney Building.

We have been influential in EDI at ICSE, the premier international software engineering conference **(BAP 11.3)**. As ICSE 2023 Melbourne EDI chair, Richardson organised social events for different groups (women, LGBTQ+, BIPoC [Black, Indigenous, and People of Color]), childcare facilities and scholarships for parents to travel. As General Chair at ICSE 2025 Ottawa, Briand appointed programme co-chairs (1F, 1M) and included EDI co-chairs (2F) to place EDI to the fore. Fitzgerald and Pasquale are General Chairs for ICSE 2027 Dublin and appointed EDI co-chairs to the organising committee. Richardson was General Chair at ICSSP 2024 Munich and appointed an EDI chair to ensure gender balance across events. Noll chaired a panel at ICSSP 2024, which comprised 4F/2M from five countries and three ECRs.

Awareness of the importance of providing opportunities and access to all students, including students with disabilities, has increased. Supporting UL's Disability Support Services, we have worked with individual students to ensure they are supported as required, and, in one case, rearranged lecture, tutorial and laboratory timetables to suit a student with a disability. Academics use UDL principles in their classes. We have supported the UL Transgender Policy, giving feedback on its content and ensuring that transitioning students are supported within CSIS. We have undertaken research into racism and homophobia (see section 2.4a 3).

Lero@UL hosts coffee mornings once per month, where PhD students, researchers, PMSS and academics hold informal discussions. During the pandemic, when many people were working off-campus, these were held as hybrid events, and each month, people from different countries presented on 'Where I come from'. These events were paramount in building up relations across the team. Each year in December, we host an international coffee morning, where everyone is encouraged to bring in food from their home country for sharing among their colleagues. Ninety-eight percent of research staff respondents (93% of all female respondents) felt that CSIS-Lero departmental leadership is committed to EDI.

Section 3 words: 1,901

Section 4: Action plan

In Section 4, applicants should evidence how they meet Criterion C:

- Action plan to address identified issues

Present the action plan in the form of a table (on the landscape page to follow).

The plan should cover current initiatives and aspirations for the next four years. Actions, and their measures of success, should be Specific, Measurable, Achievable, Relevant and Time-bound (SMART).

Athena Swan Silver Action Plan University of Limerick, CSIS-Lero
Overview of action groups 2.1: Overview of the department and its context 2.2: Governance and recognition of EDI work 2.3: Embedding policy, practice and supports to advance professional, managerial and support staff careers 2.4: Evaluating culture, inclusion and belonging

Priority key	Actions
Priority 1: EDI activity	1.1.5, 2.1.1, 2.1.5, 2.1.7, 2.4.4, 2.4.5
Priority 2: Career development	2.1.8, 2.1.9, 2.1.10, 2.1.11, 2.1.13, 2.2.1, 2.2.4
Priority 3: Teaching and learning environment	2.2.2, 2.4.2, 2.4.3, 2.4.6

Focus	Actions
Gender Equality (GE)	1.1.1, 2.1.1, 2.1.2, 2.1.3, 2.1.4, 2.1.9, 2.1.10, 2.1.12, 2.2.1, 2.2.2, 2.4.1, 2.4.2, 3.1.1
Additional Equality Grounds (AEG)	2.1.5, 2.1.6, 2.1.7, 2.1.8, 2.4.3, 2.4.4, 2.4.5, 2.4.6, 2.4.7, 2.4.8, 2.4.9

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
SAP 1.1.1	Ensure that members of SAT are representative of CSIS-Lero gender balance (continuation of BAP 1.1b).	Rotate and expand SAT membership.	Call issued to CSIS-Lero every 2 years, requesting staff and students to participate in AS SAT.	Biannual December 2026, December 2028	Chair AS SAT	Membership changes by 40% minimum every 2 years. SAT gender balance reflects department gender balance.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
SAP 1.1.2	Establish a formal annual review of the AS action plan (continuation of BAP 1.2).	A mechanism for recording regular (annual) activities and holding datasets is needed.	Hold a formal dedicated SAT meeting to review implementation of the action plan over the previous year, as well as any amendments or proposed amendments to the plan. Prepare an annual implementation report for presentation to the S&E AS SAT.	Annually in December	Chair AS SAT	Action plan has been reviewed at a SAT meeting annually. 80% of actions have been completed as scheduled. Review has been adopted at a full departmental meeting. Implementation report has been presented to the S&E AS SAT.
SAP 1.1.3	Ensure that adequate resources are available to successfully implement the action plan.	Funding is required in order to undertake the key AS actions identified (continued from BAP 1.3).	Allocate staff to EDI initiatives to value of €10,000. Seek additional grant funding as necessary. Incorporate AS activities into WAM.	December 2028	HoD; LD	Budget has been secured. AS activities continue to be incorporated into CSIS WAM.
SAP 1.1.4	Update CSIS-Lero personnel on action plan progress.	This is to ensure that all members of CSIS-Lero are aware of actions and our plans over the next four years (continued from BAP 1.4).	Present CSIS-Lero AS actions at bimonthly		Chair AS SAT	All CSIS-Lero staff get bimonthly

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
			department meetings.			updates on AS actions.
SAP 1.1.5	Ensure Athena Swan actions are incorporated into departmental objectives via the Quality Review.	There are concerns that AS actions could be obscured by actions that arise from the forthcoming Departmental Quality Review.	Ensure actions arising from the Silver AS application are incorporated into departmental changes in the forthcoming Departmental Quality Review.	2024-26	Chair of CSIS Quality team	AS actions are incorporated into actions resulting from the AS Quality Review, ensuring that AS actions are not overlooked.
SAP 1.1.6	Improve gender balance on Lero Advisory Board and Executive Committee	Lero's Advisory Board (33%F) and Executive Committee (23%F) is male-dominated.	Identifying female leaders and working to promote them into leadership roles.	2025-26	LD	Increased representation of females on Lero Advisory Board and Executive Committee
Actions from section 2.1: Overview of the department and its context						
SAP 2.1.1	Continue CSIS-Lero outreach to improve female enrolment in computing subjects, with a focus on LM174 Bachelor/Master of Science in Artificial Intelligence and Machine Learning.	Female recruitment for LM174 Bachelor/Master of Science in Artificial Intelligence and Machine Learning at 7% is well below the national average of 19.4% (2022/23). It is important for second-level school students to see female role-models.	Implement introductory Artificial Intelligence and Machine Learning (AI/ML) content as part of CodePlus which is designed to	December 2025	CodePlus activity leader; Lero EPE program manager	Gender appropriate AI/ML content has been added to CodePlus activity. Engage at least 1 female CSIS

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
		CSIS-Lero outreach program has been successful to date, and so we will continue to work towards increased female enrolments.	engage female transition-year students in computing subjects. Engage female student volunteer(s) to ensure balanced gender representation in the delivery of this content. Successfully apply for grants to support the continuation of the CSIS-Lero outreach program.	January 2026 January 2028		student to participate in CodePlus AI/ML. 2 grants received to support CSIS-Lero outreach program Increase in the number of females engaging in LM174 by 10% each year.
SAP 2.1.2	Assess the factors giving rise to differences between female and male UG degree outcomes.	Data indicates that female students are more likely to receive a higher level or award than male students. (Table 2.1.13)	Investigate why women perform better than men in UG courses.	December 2026	Equality Officer	Investigation completed. Future actions identified if relevant.
			Apply changes based upon	December 2028	HoD	Relevant new actions are created

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
			results of departmental investigation, creating further AS actions if required.			and implementation started.
SAP 2.1.3	Develop a better understanding of fluctuations in female engagement in individual PGT courses.	MSc courses tend to fluctuate from year to year. Longer-term monitoring of enrolment might allow us to market courses to particular groups.	Review data to identify the barriers and facilitators which influence enrolment choices. Identify actions which can be taken to support marketing of PGT courses.	January 2026 January 2027	PGT course directors	Course-specific barriers and facilitators are identified. Actions identified.
SAP 2.1.4	Increase the percentage of females enrolling on the PDEng degree.	PDEng is an industry-based programme, with 31%F registered. Potential students are reviewed by a course panel whose gender balance is 33%F.	Increase female representation on PDEng course panel increases to a minimum of 40%. Ensure marketing materials reflect a minimum of 40% gender balance.	January 2026 December 2026	PDEng course director	PDEng course panel has minimum representation of 40%F. PDEng marketing materials demonstrate 40% gender balanced representation.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
						Female PDEng increases to 40% minimum.
SAP 2.1.5. A	Increase the number of applications for postgraduate positions from underrepresented groups, including women.	There are currently 51 full-time PGR research students, 24%F (12) in CSIS-Lero. We would like to increase the number of women.	Increase the visibility of underrepresented groups in CSIS-Lero PhD recruitment campaigns.	January 2027 January 2027	Marketing group Chair Chair AS SAT	2 PhD case studies from underrepresented persons made available on CSIS-Lero websites. 40%F increase in the number of underrepresented persons (including women) enrolled as PGRs each year.
SAP 2.1.5. B	Develop a better understanding of the factors influencing applications for research positions from underrepresented groups, including women.	There is a lack of data regarding applications for research positions from underrepresented groups including women.	Conduct a study investigating the factors influencing females and underrepresented groups making applications for researcher positions.	January 2027	Chair AS SAT	Increased applicaitons for research positions from underrepresented groups, including women.
SAP 2.1.6	Ensure a level playing field for those accessing funded PhD opportunities.	Reach of information regarding PhD opportunities can be restricted to an academic's personal network.	Introduce mandatory publicising of	December 2025	Chair AS SAT	All PhD funding is advertised on CSIS-Lero websites.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
			funded PhD opportunities on CSIS-Lero websites.			
SAP 2.1.7	Increase CSIS student engagement in supporting school-age students' understanding of STEM subject areas.	To engage school-age students in STEM subject areas with gender-balanced student role models with a view to increasing their interest later in life.	Create a CSIS ambassador role, held by a student. CSIS ambassador co-ordinates student volunteers to participate in departmental school outreach events run by CSIS-Lero and UL Access office.	September 2025	Equality Officer	CSIS ambassador appointed annually. CSIS ambassador becomes an AS SAT member. CSIS ambassador is supported to applied for PVA. CSIS ambassador has co-ordinated volunteers for a minimum of 3 events per year.
SAP 2.1.8	Create a 'Staff Career Development Officer' role within the AS SAT to support staff career development.	There is a need to support career development in CSIS-Lero. The post-holder would provide guidance on HR training and development opportunities. (Sect. 2.2f)	Create a specific Staff Career Development Officer role.	March 2025	Chair AS SAT and HoD	Staff Career Development Officer role created within department.
SAP 2.1.9. A	Addressing barriers to female appointments at higher levels, by raising awareness of UL HR	While there are some encouraging signs regarding CSIS-Lero female researchers applying for positions (Sect. 2.2b 2), at higher	Organise HR seminars and drop-in sessions	Annually from		One seminar held annually.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
	policies and their impact on progression.	levels there seems to be an issue with appointments and promotions.	to include UL HR policies, such as mentorship, training, PDRS, portfolio review, appointment and promotions.	January 2025	Staff Career Development Officer	Minimum of 2 drop-in sessions held annually.
SAP 2.1.9.B	Support female applicants to reduce barriers for their appointment at higher levels.	While there are some encouraging signs regarding CSIS-Lero female researchers applying for positions (Sect. 2.2b 2), at higher levels there seems to be an issue with appointments and promotions.	For each appointment advertised at higher level positions, academic or administrative, create a panel of women, national and international, to review role information and applications regarding that position.	From June 2025	Chair AS SAT and HoD	All appointment and promotion applicants have had the opportunity to have their portfolios reviewed internally. Minimum of 2 women per year attaining AssocProfA, SRF, Professor or Full Professor positions through appointment or promotion.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
SAP 2.1.10	Increase the number of female academics within CSIS-Lero.	There is a need to increase the number of females who apply for academic positions within CSIS-Lero from 13% to 30% (similar to applications for research positions).	For each appointment advertised at early career academic level, create a panel of women, national and international, to be sent information about that position. Showcase the achievements and contributions of female researchers and promote positive role models.	From June 2025	Chair AS SAT and HoD	In 4 years, increase in the number of female academics and researchers within CSIS-Lero from 25% to 30%. All CSIS-Lero events featured prominent women as speakers.
SAP 2.1.11	Provide better support for PMSS career development.	Increase the understanding of potential paths to PMSS career development and promotion. The staff survey demonstrated that people do not understand these. (Sect. 2.3e)	Organise HR seminars and drop-in sessions to include UL HR policies, such as mentorship, training, PDRS, CV review, appointment and job evaluation.	Annually from January 2025	Staff Career Development Officer	Minimum 20% PMSS have progressed in their careers. 100% have undertaken PDRS training.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
						At least 80% completed annual PDRS review.
SAP 2.1.12	Increase the representation of female staff in the technical grades.	Technical staff positions do not come up often in CSIS-Lero. An available position was filled by a woman in 2024 (first ever in a technical post in CSIS-Lero). However, when such a position arises, we would like to ensure that women take the opportunity to apply.	For each appointment advertised for technical staff, create a panel of women, national and international, to be sent information about that position. This should include CSIS graduates.	From June 2025	Chair AS SAT and HoD	If a position arises, a minimum of 25% applicants are female.
SAP 2.1.13	Improve the mobility/ progression of academics with contracts of indefinite duration.	There is a lack of mobility/progression for CID academics. University Teacher role does not have the option of promotion.	Discuss the possibility of introducing University Teacher progression at S&E management meetings every six months.	From January 2025	HoD	Provision has been made to support University Teacher progression.
Actions from section 2.2: Embedding policy, practice and supports to advance academic and research careers						
SAP 2.2.1	Increase female representation at Professor level.	There is a lack of female representation at Full Professor level. While this is currently at 33%, we are concerned that there is no female currently at AssocProfA or Prof level.	Form a SALI team in CSIS to develop an application for submission.	When SALI call is announced	HoD	SALI application submitted

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
SAP 2.2.2	Improve the ratio of females in Lero PI and FI positions.	There are 29%F PIs and 18%F Fis in Lero.	Providing support, for example, mentorship and teaching buy-out, for women who are applying for grants in Lero, as successful applications will allow them to become FIs. Providing CV review for senior women to apply for TÉRI PI status.	2024/25 onwards	HoD; Lero Deputy Director Lero PIs	At least 5 female FIs have been appointed within Lero. At least 2Fs have applied for PI status.
SAP 2.2.3	Improve transparency and information around promotion, including related policies.	There is dissatisfaction (a lack of information and transparency) regarding feedback and current promotion policies (Sect. 2.2d).	HoD to raise the issue of dissatisfaction with feedback following unsuccessful promotion applications. Organise HR seminars and drop-in sessions to include UL HR	June 2025 Annually, from January 2025	HoD Staff Career Development Officer	Staff survey to indicate 50% improvement in satisfaction.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
			policies on promotion.			
SAP 2.2.4	Encourage academic and research staff to complete PDRS training and review.	Only 65% staff members are engaging in the PDRS and so potentially miss out on any promotion-related benefits related to such.	Organise career development seminars which have a strong emphasis on the benefits of PDRS for individualised career planning.	Annually, from January 2026	Staff Career Development Officer	One seminar annually. 80% attendance at PDRS.
SAP 2.2.5	Through the PDRS, encourage more staff to take training opportunities, especially optional choices.	There is evidence that staff are engaging in 'required' (for new staff) career development & training, which is available, but less so optional courses such as 'grant writing'. A lack of training might limit career development.	PDRS reviewers make reviewees aware of the benefits of engagement with training opportunities, especially the optional choices, such as grant writing, PhD supervision training and excellence in teaching practices.	Annually, from January 2026	PDRS reviewers	Staff survey responses show awareness of benefits of engagement with training opportunities. 30% greater attendance at career development training and conferences.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
Actions from section 2.3: Embedding policy, practice and supports to advance professional, managerial and support staff careers						
SAP 2.3.1	Raise awareness of the Erasmus+ Staff Mobility scheme to bring people to CSIS-Lero and to have people travel to other universities.	It was identified that no CSIS-Lero staff member has ever benefited from job shadowing via the Erasmus+ Staff Mobility scheme. (Sect. 2.3e)	Organise information session on Erasmus+ Staff Mobility scheme.	Annually from January 2026	Staff Career Development Officer.	2 people (inwards / outwards). 50% have attended an information session.
Actions from section 2.4: Evaluating culture, inclusion and belonging						
SAP 2.4.1	Provide childcare at Lero Summit events.	To enable those with caring responsibilities to engage at the annual Lero Summit. This will help ensure those with caring responsibilities don't miss out on engaging in Lero activities and have equal access to developmental opportunities.	Ensure childcare provision e.g. facilities, childcare expenses, family rooms, at all future Lero Summit events.	From September 2025	Lero Director	Options for childcare are provided at annual Lero summit.
SAP 2.4.2	Use successful CSIS and Lero leaders as role models to showcase women's achievements.	As evidenced in the focus groups, successful female leaders have an important role to play in encouraging women and girls to pursue education and careers in STEM areas. (see quotes Sect. 2.4c 1)	Implement a strategy which showcases women's leadership achievements in CSIS-Lero throughout the year.	2024-2026	Marketing team	Minimum of 6 press releases per annum highlighting women's achievements in CSIS-Lero. Minimum of 10 web page articles per annum published

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
						highlighting women's achievements in CSIS-Lero.
SAP 2.4.3	Integrate EDI topics into more modules to reach a wider audience.	While EDI topics are already considered across a number of taught modules (Sect. 2.4a 3), there is still significant scope to raise awareness across more of our courses in taught content.	A community of practice will be set up to assess and address the need for training or material for embedding EDI in teaching. Encourage the integration of EDI topics into more modules to reach a wider range of students across many subject areas.	January 2026	Chair AS SAT	Community of practice will meet 2 times per year. EDI training materials and case studies will be available to all CSIS-Lero staff. Minimum 80% of CSIS students will be exposed to EDI in their modules.
SAP 2.4.4	Award a prize for the best EDI Final-Year Project (FYP).	We need to encourage staff and students to become more aware of EDI. One way of doing this is to further encourage students to base their FYP on an EDI topic.	Solicit funding from industry which allows us to award a prize for the best EDI FYP annually.	April 2025	FYP Module Coordinator	Annual sponsored FYP prize implemented.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
SAP 2.4.5	Establish a CSIS-Lero staff EDI network to enable under-represented groups (including women) to discuss issues they face.	There is no staff platform for underrepresented groups in CSIS-Lero to discuss issues that face them specifically.	Implement twice-yearly half-day gatherings for a speaker, discussion and networking lunch where barriers to and successes of women in CSIS-Lero are highlighted.	Biannually from June 2026	AS SAT	Biannual EDI staff Network gathering organised for underrepresented groups to discuss relevant issues.
SAP 2.4.6	Establish a CSIS-Lero student EDI network to enable under-represented groups (including women) to discuss issues they face.	There is no student platform for underrepresented groups in CSIS-Lero to discuss issues that face them specifically.	Implement twice-yearly half-day gatherings for a speaker, discussion and networking lunch where students have the opportunity to discuss issues of interest to them.	Biannually from September	AS SAT – student member	Biannual EDI student Network gathering organised for underrepresented groups to discuss relevant issues.
SAP 2.4.7	Address issues for new starters.	Some new employees are missing out on important information and training during their induction process. The academic/ researcher staff survey indicated that 57% did not participate in the UL induction programme, the majority of whom (40%) stated that they were not informed.	Present all new starters with information pack developed in BAP 7.8. Add new starters to department	From December 2024 From December 2024	Department administrator Department administrator	Staff survey results show 80% satisfaction with the department induction process.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
			mailing lists immediately upon starting. Ensure all new starters attend the probation PDRS. Ensure all new starters attend Induction training given by HR. Continue to provide all new starters with a mentor (BAP 7.8).	From December 2024 From December 2024 From December 2024	HoD HoD HoD	
SAP 2.4.8	Ensure that PGR students who are teaching undertake dignity & respect training.	While there is training available for regular (contracted) staff relating to UL's Dignity & Respect policy, we need to ensure postgraduate teachers, possibly with less experience and potentially on temporary or short contracts, do not miss out on engaging with this important training. So that the workplace can be free of bullying and harassment, it is important that all staff are aware of the dignity & respect policy and how to deal with related problems, should they occur.	HoD to inform all PGRs who are teaching know that they must attend Dignity & Respect training. PGRs to inform HoD that they have attended Dignity & Respect training.	From September 2025	HoD PGRs	All PGRs who are teaching have completed Dignity & Respect training.

Action ID#	Objective	Area to be addressed/ Issue/Evidence	Planned Action	Timescale (Time-Bound)	Responsibility /Tracking	Success Criteria/Measure
SAP 2.4.9	Ensure that all in CSIS-Lero are informed about the leave to which they are entitled, thus providing support for those taking, or planning to take leave such as maternity, adoption or parental leave.	There is a lack of awareness, possibly more so for men, relating to current leave policies, including unpaid professional leave. Women are more likely to take leave than men. (Sect. 2.4c 5)	Schedule a leave information awareness session early annually, as part of a departmental staff meeting.	2024/25 onwards	Chair AS SAT	Staff survey indicates that 80% of those who wish to do so have availed of leave.
From BAP, not mentioned in previous SAP actions						
SAP 3.1.1	Promote CSIS UG courses to women in MSAC, DARE and HEAR groups.	Women in these groups have not been targeted by CSIS.	Guided by a similar initiative in UL Chemical Science department, publish case studies of female UGs who have previously entered CSIS courses via MSAC, DARE or HEAR.	2024/25	Course Directors	Minimum of one case study per programme published on the CSIS website