

# Libraries and the Research Culture Lens at the Universities of Glasgow and Leeds

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# What do we mean by Research Culture?

Research culture encompasses the **behaviours, values, expectations, attitudes and norms** of our research communities. It influences researchers' career paths and determines the way that research is conducted and communicated.

<https://royalsociety.org/topics-policy/projects/research-culture/>

# Who does research culture apply to?

People and culture are fundamental to research and innovation because they drive the creative and dynamic system that we need to support the community to thrive.

Positive cultures support not just researchers and innovators but also the **entire ecosystem** which supports the research and innovation endeavour.

We strive to foster a system where **everyone is appreciated and valued**, that works for everyone, by everyone

<https://www.ukri.org/what-we-offer/supporting-healthy-research-and-innovation-culture/research-and-innovation-culture>

# Why do we need to look at research culture?

We want to help build a better research culture – one that is creative, inclusive and honest. **Current practices prioritise outputs at almost any cost.** This is damaging people's wellbeing and undermining the quality of research. We can all help to **reimagine** how research is conducted.

<https://wellcome.org/what-we-do/our-work/research-culture>

# Wellcome Trust survey findings

## Words that researchers would use to describe research culture

Survey, n = 2839 – research community, UK and international.



<https://cms.wellcome.org/sites/default/files/what-researchers-think-about-the-culture-they-work-in.pdf>

# Research Culture at University of Glasgow

## RESEARCH CULTURE

At the University of Glasgow we are creating an environment that produces research of the highest quality. Good research happens within a community that supports, incentivises and rewards a positive research culture.

At the University of Glasgow, we define a positive culture as one in which colleagues

- are recognised and valued for their varied contributions to research
- support each other to succeed
- are supported to produce work that meets the highest standards of academic rigour

All of our actions are aligned to advancing these three key priorities, but a positive culture cannot be achieved in a single step.

Our approach is to focus on a series of actions to further key values, such as research integrity, open research, recognition for varied contributions to research, fair approaches to evaluation and collegiality. These values are now embedded in our promotions and individual performance criteria.

Our aim is to recognise not just what research is done but also how it is done.

# Research Culture at University of Glasgow (2)

## Research Culture Action Plan

→ Our 2020-2025 institutional strategic priorities to promote a positive research culture

## Research Culture Statement

→ What we are doing to promote and support a positive culture

## Research Culture Awards

→ Research Culture Award Winners

## Lab for Academic Culture

→ Launched in 2020, the Lab aims to enhance research and teaching culture

## Research Culture and Careers Group

→ Key contacts in Colleges and Services for research culture projects

## Research Culture Survey

→ Learn more about our 2019 and 2021 Research Culture Surveys

# Research Culture at University of Leeds

<https://www.leeds.ac.uk/research-and-innovation/doc/research-culture-statement>

## **Research culture statement**

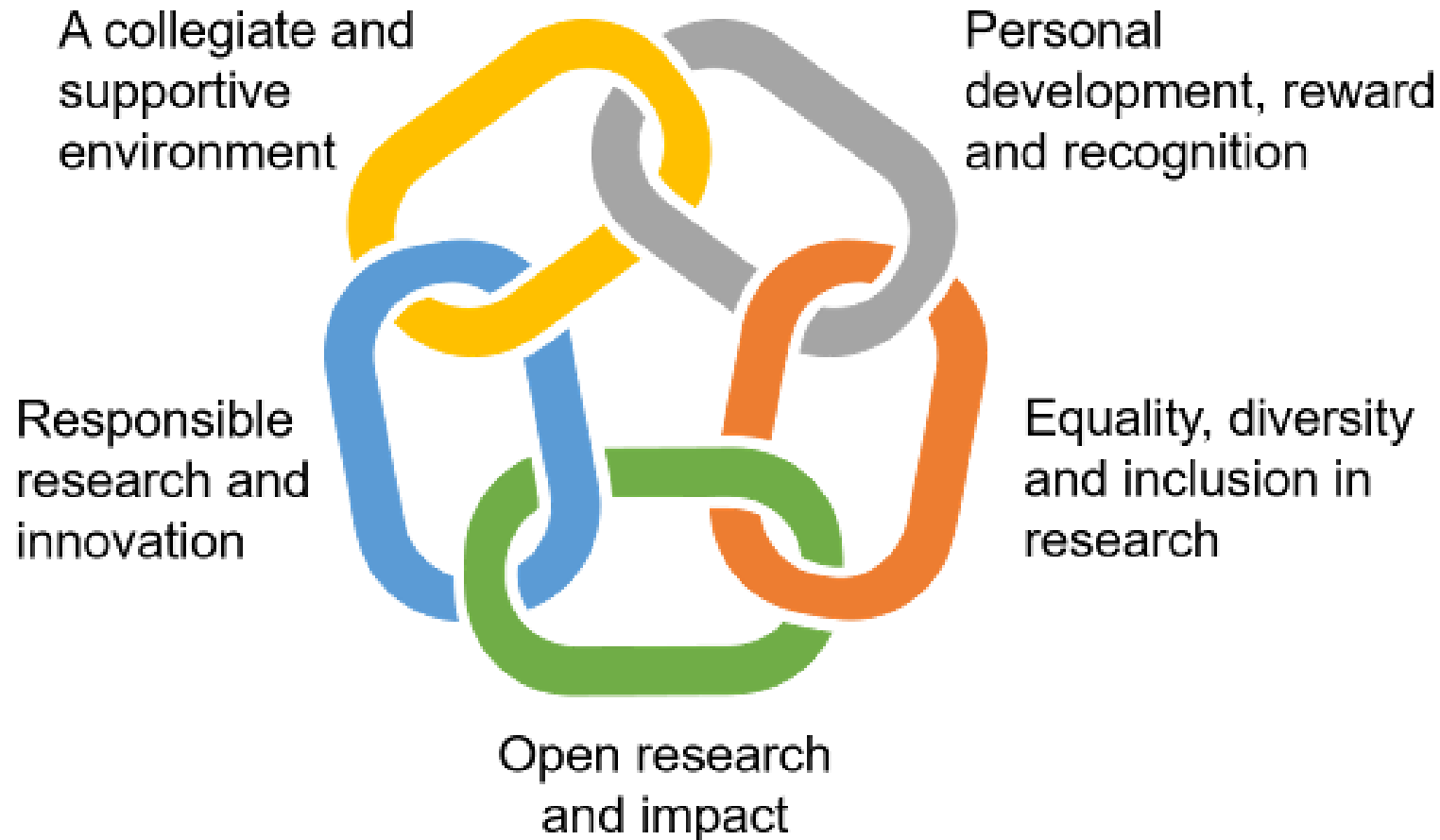
**Our University Strategy, Universal Values, Global Change: University of Leeds Strategy 2020 to 2030, provides a blueprint for a values-driven university that harnesses its expertise in research and education to help shape a better future, working through collaboration to tackle inequalities, achieve societal impact and drive change.**

Focusing on three core themes – Community, Culture, and Impact – it sets out our ambition to offer a collaborative, supportive and safe environment for the entire University community and emphasises the importance of teamwork and diversity. Our Statement on Research Culture reflects these values. Our research culture initiatives – starting formally in 2021 – will be key to delivering the University strategy.





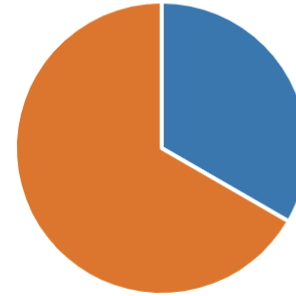
# Research Culture at University of Leeds (2)



# LIBER and RLUK ADN Survey findings

1. Does your institution have a Research Culture statement?

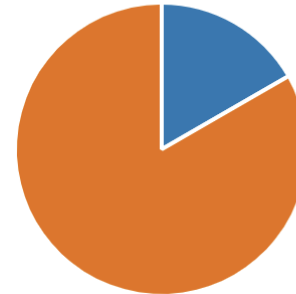
[More Details](#)



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2. Was the Library involved in the creation of the Research Culture Statement?

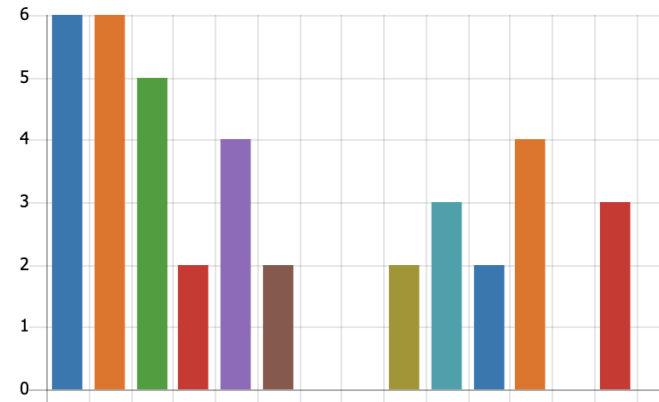
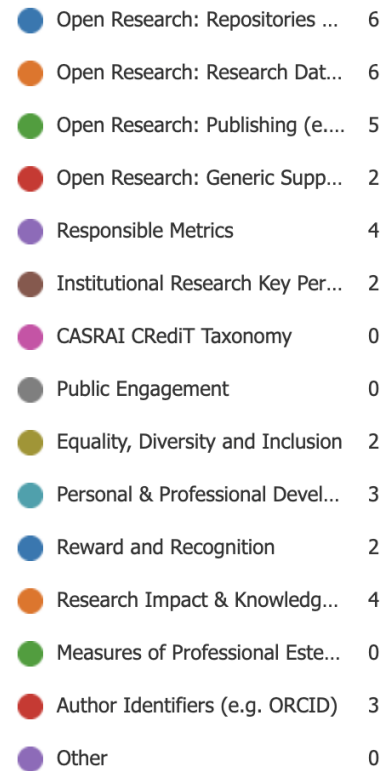
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# LIBER and RLUK ADN Survey findings (2)

## 3. What areas of Research Culture does the Library support?

[More Details](#)



# Areas of research culture

## INITIATIVES TO PROMOTE AND SUPPORT A POSITIVE RESEARCH CULTURE

+ Collegiality

+ Career development

+ Research recognition

+ Open research

+ Research integrity

# Open Research

## – Open research

Supporting transparency, rigour, and reproducibility by facilitating early sharing of e.g. research data, software, code, and materials to a wider audience. Valuing different research output types.

### What we have done:

- **Research data management.** Our research data management team provides [advice](#), training, data storage, and support for depositing data in public repositories, including [our own](#). Data records are given a DOI and linked to publications as appropriate. Datasets are visible on staff webpages alongside other outputs (e.g. see this [example](#)).
- **Open access.** Provided one-step support for making publications open access, as a result of which Glasgow is the institution with the highest proportion of open access outputs worldwide, among institutions with >10K outputs (Leiden Ranking, 2014–2017).

### What we will do:

- Help researchers to enhance their digital footprint (e.g. through the [Research Jigsaw seminar series](#)), thus enhancing the visibility of research and researchers.
- Embed planning and costing for data management, storage and sharing at grant submission stage.
- Identify open research stewards with defined job role to provide leadership.

# CWTS Leiden 2022 OA Rankings

**Time period, field, and region/country**

Time period:

Field:

Region/country:

Min. publication output:

**Indicators**

Type of indicators:

Indicators:

Order by:

	University	P	P(OA)	PP(OA)					
1	London Sch Hyg & Trop Med	9697	9114	94.0%					
2	Bilkent Univ	1908	1789	93.8%					
3	Univ E Anglia	5972	5543	92.8%					
4	Univ Dundee	4050	3749	92.6%					
5	Durham Univ	7860	7261	92.4%					
6	Univ Portsmouth	3363	3105	92.3%					
7	Sheffield Hallam Univ	1733	1598	92.2%					
8	Liverpool John Moores Univ	3856	3553	92.1%					
9	Univ Stirling	2530	2330	92.1%					
10	Univ St Andrews	6292	5792	92.1%					
11	Nottingham Trent Univ	2466	2270	92.1%					
12	Univ Glasgow	15862	14493	91.4%					
13	City Univ London	2724	2486	91.3%					
14	Univ Strathclyde	6562	5978	91.1%					
15	Univ Southampton	16489	15011	91.0%					
16	Bournemouth Univ	1863	1695	91.0%					
17	Univ Reading	5586	5077	90.9%					
18	Cardiff Univ	12110	11005	90.9%					
19	Lancaster Univ	7475	6786	90.8%					
20	Univ Bristol	16792	15199	90.5%					
21	Univ Leeds	15070	13615	90.3%					
22	Keele Univ	2828	2545	90.0%					
23	Univ Coll London	42702	38368	89.9%					
24	Cranfield Univ	3150	2827	89.7%					
25	Univ Huddersfield	2155	1930	89.6%					

0% 25% 50% 75% 100%

**Time period, field, and region/country**

Time period:

Field:

Region/country:

Min. publication output:

**Indicators**

Type of indicators:

Indicators:

Order by:

	University	P	P(OA)	PP(OA)					
1	Univ Glasgow	15862	14493	91.4%					
2	Univ Southampton	16489	15011	91.0%					
3	Cardiff Univ	12110	11005	90.9%					
4	Univ Bristol	16792	15199	90.5%					
5	Univ Leeds	15070	13615	90.3%					
6	Univ Coll London	42702	38368	89.9%					
7	Univ Edinburgh	23669	21159	89.4%					
8	Univ Groningen	21432	18810	87.8%					
9	Univ Oxford	43264	37715	87.2%					
10	Univ Warwick	12604	10935	86.8%					
11	Univ Sheffield	14638	12684	86.7%					
12	Univ Cambridge	36473	31167	85.5%					
13	Univ Birmingham	16941	14456	85.3%					
14	Univ Helsinki	20382	17326	85.0%					
15	Univ Manchester	25332	21514	84.9%					
16	Queen Mary Univ London	12060	10118	83.9%					
17	King's Coll London	23757	19841	83.5%					
18	Caltech	14953	12462	83.3%					
19	Leiden Univ	19628	16309	83.1%					
20	Univ Exeter	10754	8926	83.0%					
21	Newcastle Univ	12517	10064	80.4%					
22	Tech Univ Denmark	13848	11104	80.2%					
23	Univ Nottingham	18018	14386	79.8%					
24	Maastricht Univ	14002	11145	79.6%					
25	Utrecht Univ	27215	21646	79.5%					

0% 25% 50% 75% 100%

# Responsible Research Metrics

## Research metrics

### Metrics in recruitment and promotion

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| 1. <a href="#">Responsible research metrics</a> | 4. <a href="#">Metrics to assess your own work</a>      |
| 2. <a href="#">Bibliometric measures</a>        | 5. <a href="#">Metrics for research leaders</a>         |
| 3. <a href="#">Altmetrics</a>                   | 6. <a href="#">Metrics in recruitment and promotion</a> |
- 

The University of Leeds position clearly states that expert judgement is the primary way to assess the contribution to knowledge that a piece of research provides. As a member of a recruitment or promotion panel you may be thinking about using research metrics to analyse the research outputs of a candidate.

# Responsible Research Metrics (2)



Responsible  
Research Metrics



Reward and  
Recognition



Key Performance  
Indicators



Planning



# Research Community and CRediT

## – Career development

We aspire to support colleagues to succeed in their chosen career path – not only academic paths. This pillar is especially relevant to Research-only staff, in line with the objectives of [The Concordat to Support the Career Development of Researchers](#); however, the processes developed to support the Concordat (e.g. tracking destinations) will benefit other staff and student groups.

### What we have done:

- **Specialist career tracks.** To support collegiality and recognise the contributions of different career paths to a research endeavour, we created [job tracks](#) for Research Scientists and for Technologists. The initiative has been commended by [The Academy of Medical Sciences](#).
- **Authorship.** Embedded the CASRAI [CRediT taxonomy](#) in our [institutional outputs repository](#) (Enlighten), allowing authors to record publicly their contribution to a publication. The [CRediT taxonomy](#) had been included in our [institutional policy on good research practice](#) since 2017. Glasgow is the only institution to be a formal signatory to CRediT.
- **Institutional coordination.** Established a University-level [Research Culture and Careers Group](#), to support the University's ongoing aspirations to strengthen its positive research culture, and lead on consultation.

# CRedit Example

## Design and optimization of 1.55 $\mu\text{m}$ AlGaInAs MQW polarization mode controllers

Sun, X., Ye, S., Qiu, B., Xiong, J., Liu, X., Marsh, J. and Hou, L. (2021) Design and optimization of 1.55  $\mu\text{m}$  AlGaInAs MQW polarization mode controllers. *Photonics*, 8(10), 422. (doi: [10.3390/photonics8100422](https://doi.org/10.3390/photonics8100422))



Text  
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4MB

Publisher's URL: <https://www.mdpi.com/2304-6732/8/10/422>

### Abstract

A 1.55  $\mu\text{m}$  AlGaInAs multi-quantum-well (MQW) ridge waveguide polarization mode controller (PMC) is proposed. The design is based on an asymmetric half-ridge waveguide structure in which the ridge is shallow etched on one side and has a deeply etched mesa structure on the other side. The Finite-Element Method (FEM) was used to simulate the PMC and optimize its structural parameters comprehensively. Furthermore, the fabrication tolerances were also investigated in detail. The optimized PMC has a polarization conversion efficiency (PCE) of around 92.5% with a half-beat length of 1250  $\mu\text{m}$ . When the PMC length was fixed at 1250  $\mu\text{m}$ , to achieve a PCE derivation less than 8%, the tolerances for the ridge waveguide width and shallow etch height were 1.60  $\mu\text{m}$  to 1.65  $\mu\text{m}$  and 2.13  $\mu\text{m}$  to 2.18  $\mu\text{m}$ , respectively. In order to reduce interband gap absorption loss, the quantum well intermixing (QWI) technique was used in the model to realize a blueshift (200 nm) in the PMC. QWI is a simple, flexible, and low-cost technique for fabricating a PMC integrated with a laser diode and reduces parasitic reflections, which would otherwise degrade the overall performance. QWI also eliminates MQW material anisotropy and alleviates the birefringence effect without the need for regrowth, achieving nearly uniform properties as a bulk material.

Item Type:	Articles
Status:	Published
Refereed:	Yes
Glasgow Author(s) Enlighten ID:	<a href="#">Ye, Dr Shengwei</a> and <a href="#">Liu, Professor Xuefeng</a> and <a href="#">Sun, Xiao</a> and <a href="#">Marsh, Professor John</a> and <a href="#">Hou, Dr Lianping</a>
Creator Roles:	<a href="#">Sun, X.</a> Data curation, Investigation, Software, Writing – original draft <a href="#">Ye, S.</a> Investigation <a href="#">Liu, X.</a> Conceptualization <a href="#">Marsh, J.</a> Conceptualization, Writing – review and editing <a href="#">Hou, L.</a> Conceptualization, Writing – review and editing

## Edit item: Design and optimization of 1.55 $\mu\text{m}$ AlGaInAs MQW polarization mode controllers

Type → Upload → Details → **Roles** → Subjects → Funding → Open Access → RCUK → REF CC

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Creator Roles			
	Family Name	Given Name / Initials	Role
1.	Sun	Xiao	Data curation
2.	Sun	Xiao	Investigation
3.	Sun	Xiao	Software
4.	Sun	Xiao	Writing – original draft
5.	Ye	Shengwei	Investigation
6.	Liu	Xuefeng	Conceptualization
7.	Marsh	John	Conceptualization
8.	Marsh	John	Writing – review and ed
9.	Hou	Lianping	Conceptualization
10.	Hou	Lianping	Writing – review and ed

# Technician's Commitment

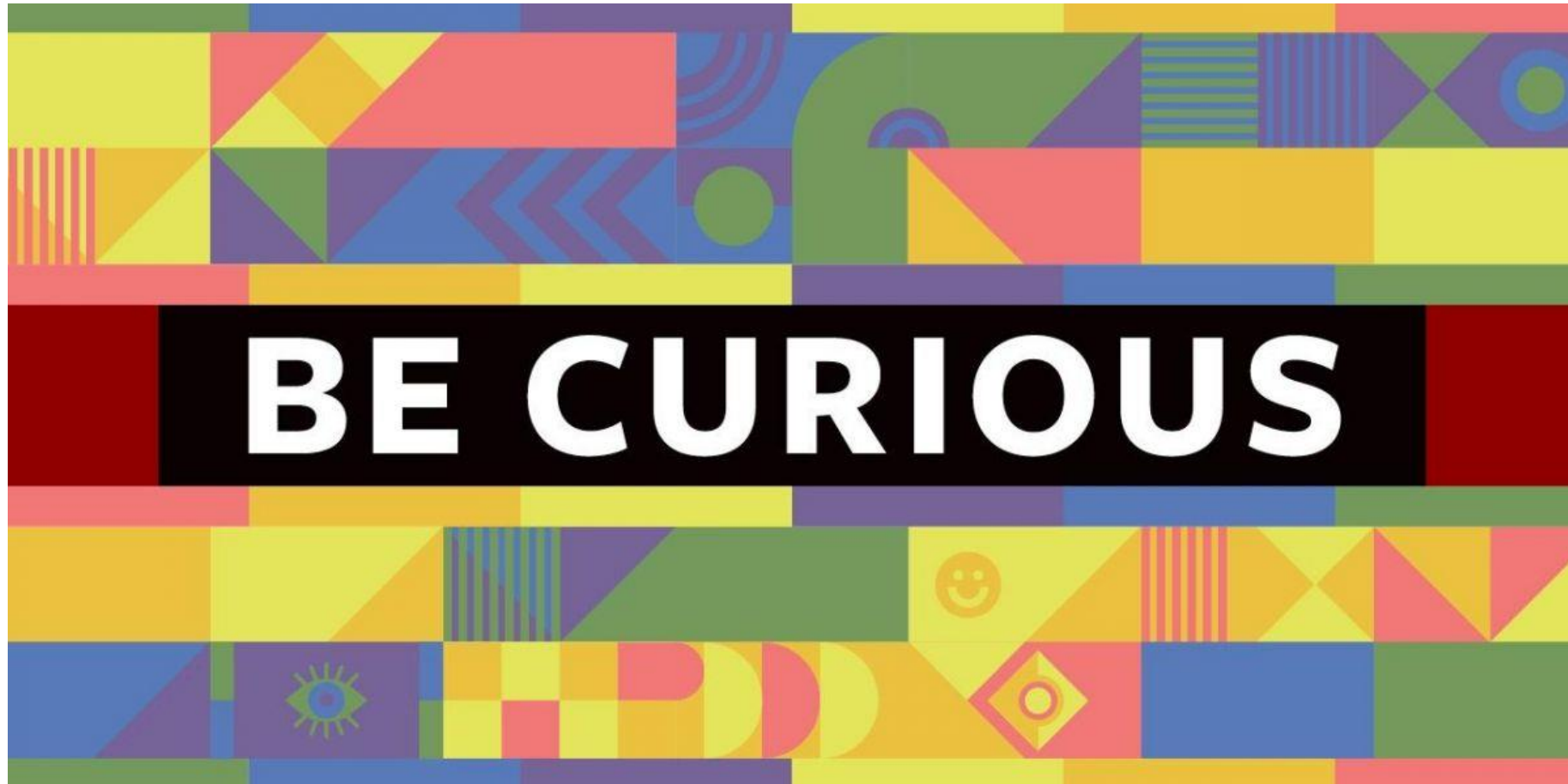
Research libraries make it happen: RLUK  
statement of support for the Technician  
Commitment

**RLUK** Research Libraries UK

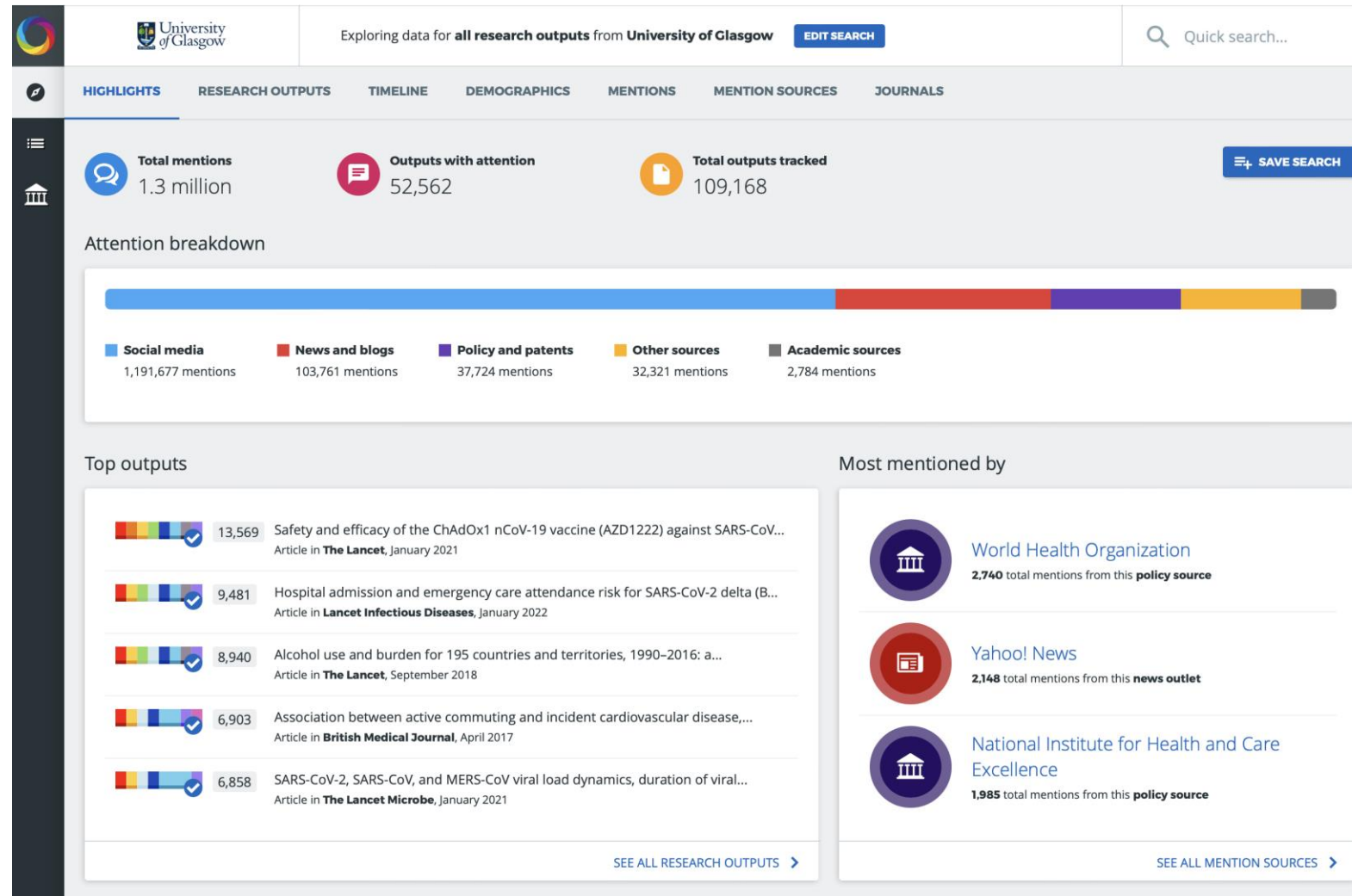


Technician **Commitment**

# Engagement with Research



# Research Impact and Knowledge Exchange



# Measures of Professional Esteem

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+ Research interests

+ Publications

– Professional activities & recognition

### Prizes, awards & distinctions

- 2021: Highly-Cited Researcher (Web of Science)
- 2021: Quantum Electronics Award (IEEE Photonics Society)
- 2021: Quantum Electronics and Optics Prize (European Physical Society)
- 2020: Highly-Cited Researcher (Web of Science)
- 2020: Optics and Photonics Prize (Institute of Physics)
- 2020: OBE (for services to Science) (UK Gov.)
- 2019: Highly-Cited Researcher (Web of Science)
- 2019: Rumford Medal (Royal Society)



### Miles Padgett on Twitter

Thank you Anton for stopping by our exhibit - finding (and fixing!) the source of those methane leaks will be a maj...  
<https://t.co/CTMjyDIHG5>

The entrance @MPI\_Light Erlangen: as inspiring as ever. Thank you 🙏  
<https://t.co/pHqFAMxeS>

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## Managing Profile and Esteem

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	Name of Board	Start Year	End Year	Private?	
1.	Optica	2018	ongoing	Yes No UNSPECIFIED	▼
2.	Open Science (Royal Societ	2015	ongoing	Yes No UNSPECIFIED	▼ ▲
3.	New Journal of Physics (Ins	2012	2017	Yes No UNSPECIFIED	▼ ▲







Thanks and  
Questions