# Today's schedule

| Time | Topic |
|------|-------|
| 16:05 | Dave Wong – Applying for Post Docs Tips and Tricks |
| 16:50 | Food break |
| 17:15 | Alexa Ruppertsberg – Engaging with the community |
| 18:00 Onwards | Further networking |

# Applying for postdoctoral positions, tips and tricks

# Careers in Academia

Dave Wong

# Overview

Who am I (an appeal to authority)

A warning to ignore my advice

An overview of academic jobs

What I look for in a postdoc

Advice for applying for postdocs

Advice for applying for fellowships

# About Me

- Associate professor in health data science

- Engineer by training

- ML/AI signal processing
  - Vital signs
  - ECG/PCG
  - Symptom checkers
  - Video

# My journey so far…

2002:
Started Uni
(Meng)

2011:
Postdoc

2019:
Lecturer @UoM

**2002**

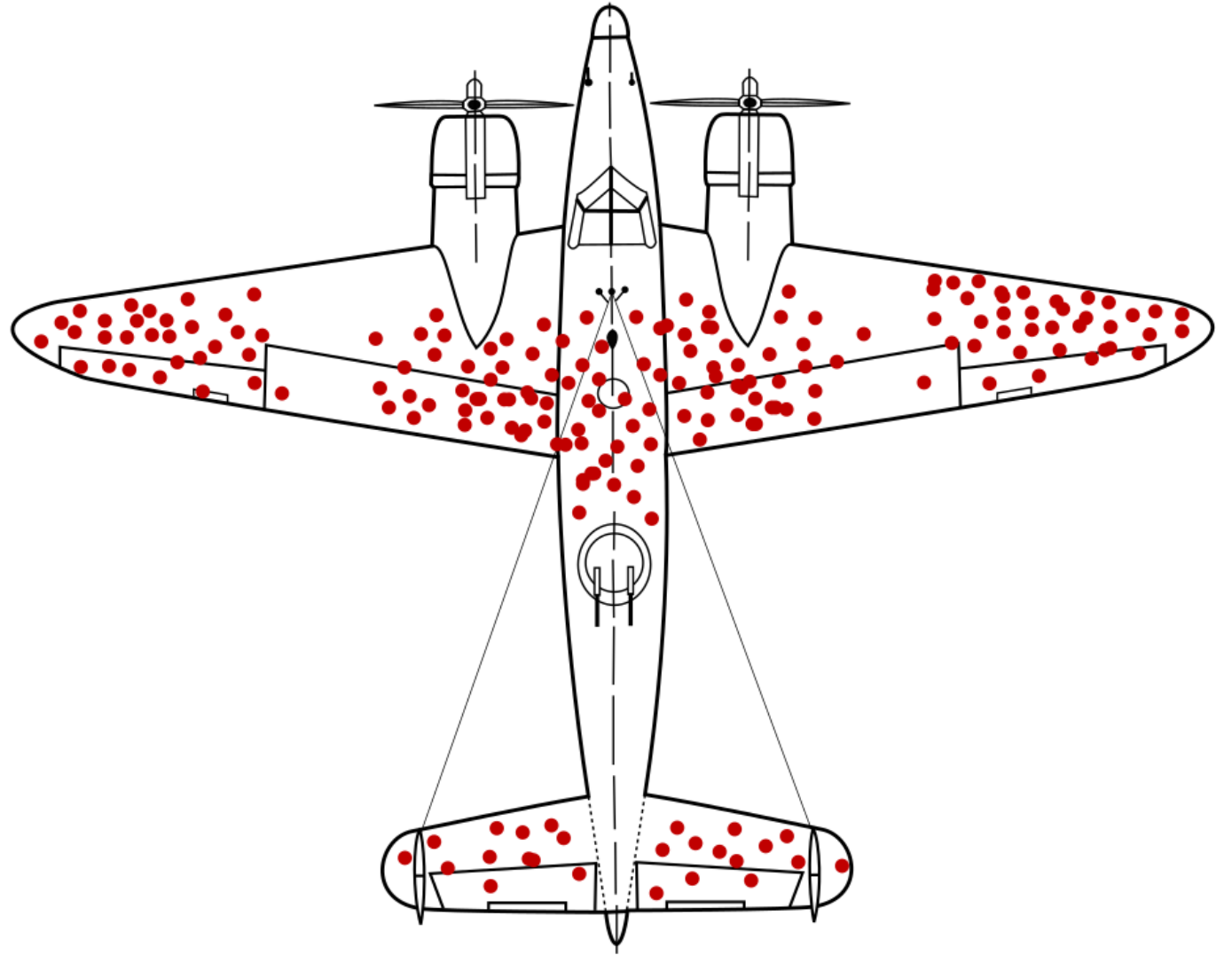**2012**

2015:
Lecturer @UoL

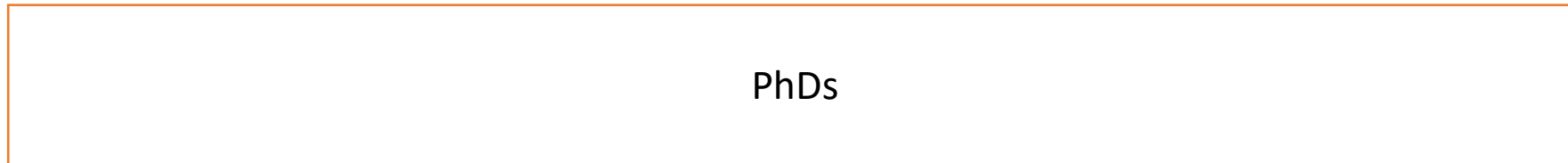**2022**

2006:
Started PhD

A. Prof @UoL

Don't
Trust Me!

# The Academic Pyramid

PhDs

# The Academic Pyramid

postdocs

PhDs

# The Academic Pyramid

prof

Snr. Lecturer/ assoc. prof

Lecturer/ assistant prof

postdocs

PhDs

# The Academic Pyramid



prof — 0.45%

Snr. Lecturer/ assoc. prof

Lecturer/ assistant prof — 3.5%

postdocs — 30%

PhDs
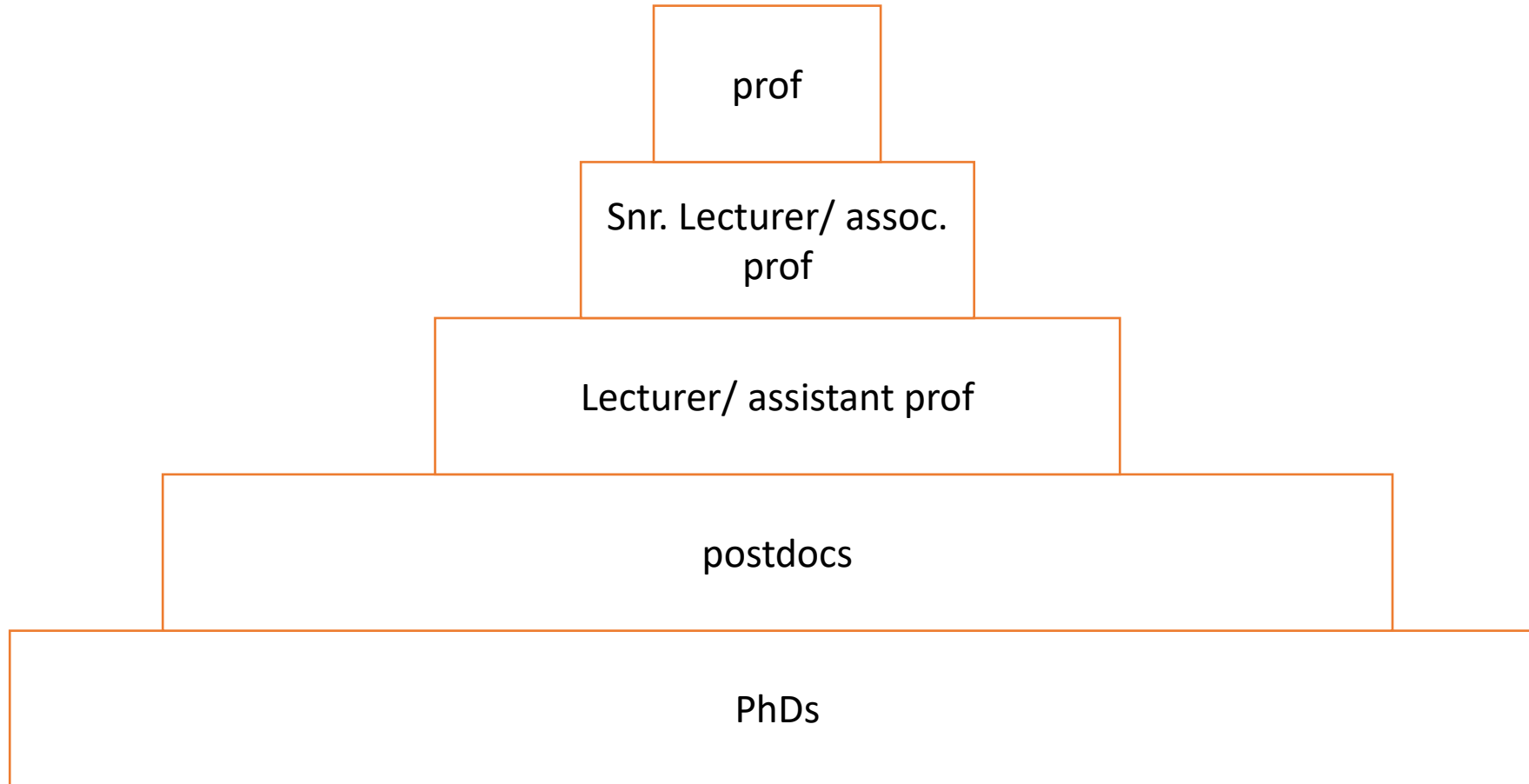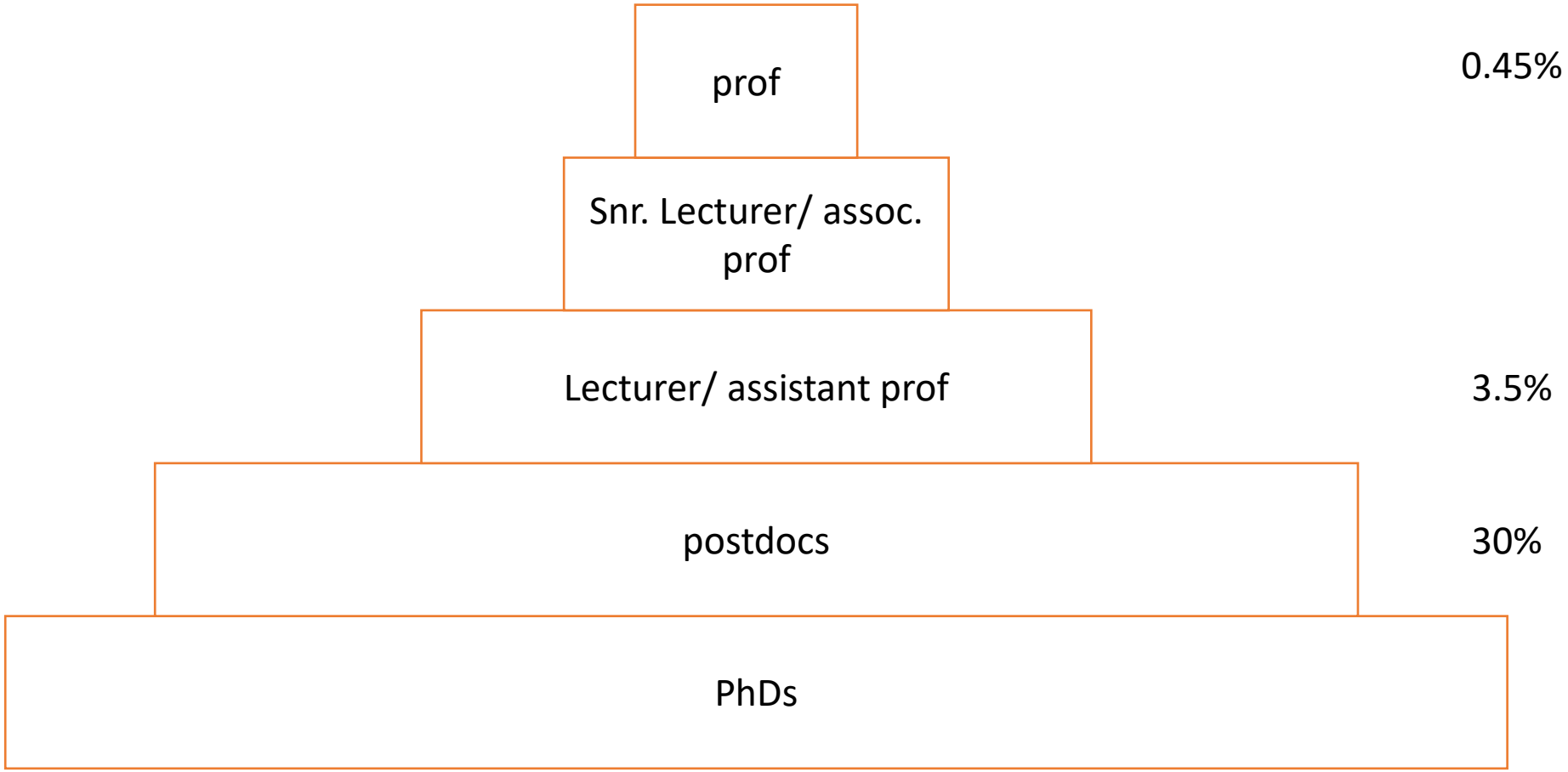
# What is a post-doc?

- First academic job after a PhD (usually)
- Fixed term contract
  - Up to 5 years, but commonly 1-3 years
- Employed by:
  - A permanent member of staff
  - For a specific project – to do research

- Alternative – post-doctoral fellow

# Permanent academic positions

- Lecturer -> Associate Professor -> Professor

- Traditionally Teaching & Research
  - Admin
  - Research
  - Teaching

- Teaching-focused track (and research only)

- University roles
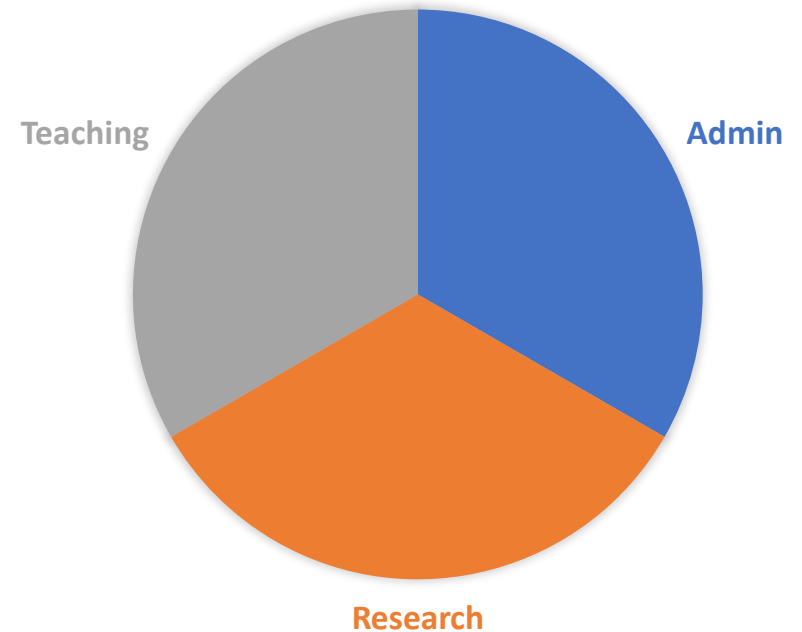
# Is academia worth it?

| Pros | Cons |
|---|---|
| Working with interesting people | Relatively few academic jobs |
| Diverse work | Pay isn't as good as industry |
| Autonomy – I can go home if I have an 'off' day | Teaching is not for everyone |
| Flexibility in what I choose to research | |

# Why bother with a post-doc?

The freedom of doing a PhD, but without the thesis!

Get paid a real salary

None of the admin that goes with a permanent position

# The purpose of a post-doc (academic's view)

- Postdoc usually attached to externally-funded project

- Project has goals

- Goals need to be met

- **Therefore: best candidate to deliver the project goals**

# Tip 1: the job description is king

**If there is a formal application process, read the guidance**
The number of people who don't read - and therefore don't answer - the questions that we've set as part of the application process is unbelievable. That's the most common factor for rejections. If you're applying for a position it's really important to read the questions and guidance in detail. (*Ken Emond, head of research awards, British Academy*)

# Tip 2: no really – read the job description

- Candidates selected for interview *have* to be objectively assessed against the job description criteria

| Name | redeployment? | Can start? | skills - comp vision | skills - apps | skills - research | |
|---|---|---|---|---|---|---|
| x | | x | 8 | 6 | 5 | |
| x | | x | 3 | 2 | 3 | |
| x | | x | 0 | 1 | 5 | |
| x | x (not actually) | x | 0 | 0 | 0 | can't see cv, didn't list phd supervisor as referee |
| x | x (not actually) | x | 3 | 1 | 6 | |
| x | | Jan-23 | | | | |
| x | | x | 1 | 1 | 3 | |
| x | | x | 4 | 6 | 6 | |
| x | x (not actually) | x | 5 | 2 | 6 | |
| x | | x | 7 | 4 | 8 | |
| x | | november | | | | |
| x | | x | 2 | 1 | 2 | |
| x | x (not actually) | x | 7 | 1 | 2 (not reputable journals) | |

# Tip 3: Common things in ML/AI

- Evidence of coding experience in a statistical programming language
  - Maintain and share a github repo

- Ability to use source control

- Underlying understanding of methods
  - Anecdotal evidence: 90% of interview candidates don't have a good understanding of the job topic

# Tip 4:  Write papers

- Talk to your supervisor about your career plans

- Plan thesis with papers in mind

- Consider side-projects
  - Paper
  - Team coding skills

# Tip 5: Networking

- PhD examiner

- Conferences
  - Don't treat a conference as a holiday!
  - See who else is attending, and message beforehand

| Competency & interviewer | Question |
|---|---|
| Communication & qual research skills + experience<br><br>*Asked by: all (moderated by S)* | Five minute presentation by applicant followed by questions to assess verbal communication skills (C9)<br><br>Follow-up questions to assess:<br>- Knowledge of range of qualitative research methods (C6) - *L*<br>- Knowledge of relevant theories/frameworks (C10) -D<br>- Experience of applying for ethics & governance approvals (C3) - *R* |
| Comment & rating | 1   2   3   4   5 |
| Motivation / career trajectory<br><br>*Asked by: S* | Tell us briefly about your past experience and how this led up to you applying for this particular role<br><br>At a high level, what relevant experience and skills do you see as being your particular strength?<br><br>To assess:<br>- Experience of conducting, analysing and writing up qualitative research in health/social care settings independently (C2)<br>- Ability to search, read, critique and synthesise academic and grey literature (C7) |
| Comment & rating | 1   2   3   4   5 |

# The Interview Process (it's still the job description!)

- Interviewers ask pre-prepared questions

- Each question graded

- Highest overall score
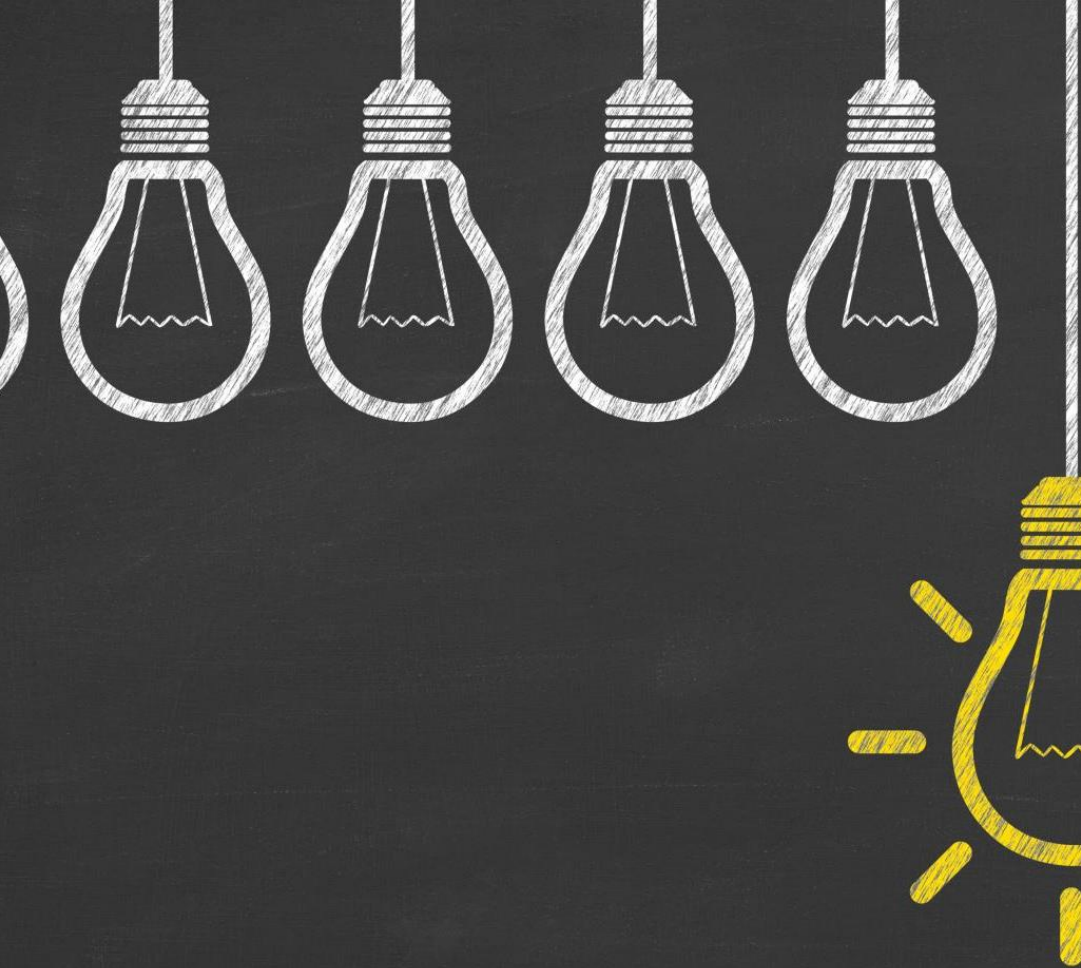
# Fellowships

- Key difference: funding goes directly to *you* to do your own research

- Funders typically look for:
  - Clear research idea
  - Independence from PhD supervisor
  - "potential" in the candidate

# Timescales

- 8 weeks to produce a polished application

- Review from more senior academics

- Practice interviews

# Jazz Hands
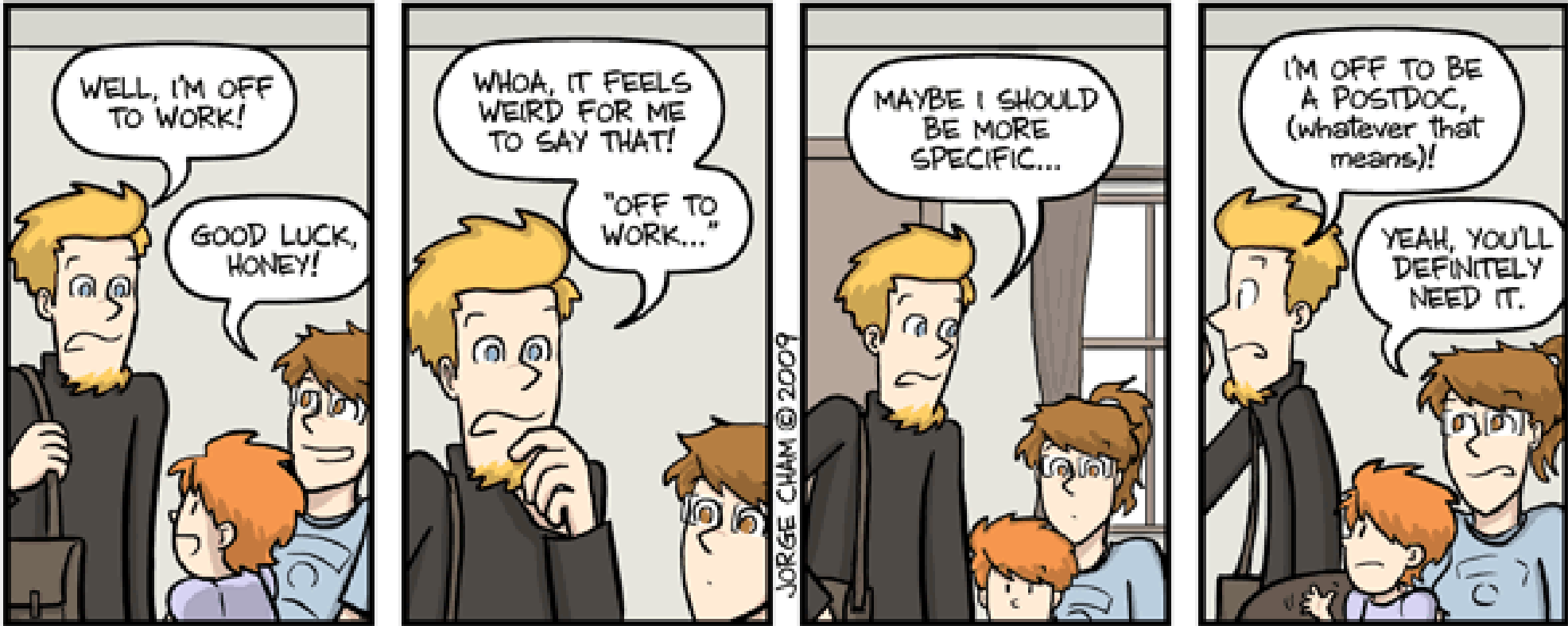
**Methods for researchers to get involved with engagement opportunities at the University**

# Engaged research

Dr Alexa Ruppertsberg

Head of Public Engagement with Research

**Contact us: peteam@leeds.ac.uk**
**ris.leeds.ac.uk/impact/public-engagement**

Research **+** Engagement

<span style="color:red">Why engage?</span>

**=**

Make a difference

# Examples of engagement with research

| Public engagement | Patient involvement | Schools and community outreach | Citizen Science |
|---|---|---|---|
| Participatory research | Collaboration with businesses, charities and the third sector | Partnerships with museums and galleries | Science-Art collaborations |
| Co-design | Co-production | Collaborative research development | Policy engagement |

# Engaged research cycle



**develop**

**Co-Production/Co-Design Activities**
e.g. online consultation, panels, user groups, deliberation and upstream engagement

**do**

**Co-Production Activities**
e.g. co-enquiry, communities of practice, engaging the public as researchers

**disseminate**

**Knowledge Exchange and Implementation Activities**
e.g. podcasting, delivering engaging presentations, writing for non-specialist audiences

**Engaged research cycle**

Open science,
open research,
engaged research,
responsible research

# Engagement with research at Leeds



Engagement describes the myriad of ways in which the activity and benefits of higher education and research can be shared with a range of stakeholders. These stakeholders can be the public, policy makers, businesses, the public sector and patients.

**Engagement is by definition a two-way process, involving interaction and listening, with the goal of generating <u>mutual</u> benefit.**

# Essentials of good engagement: ADA

good engagement takes many varied forms

ADA is a good starting point when planning engagement with research:

- **AIM**
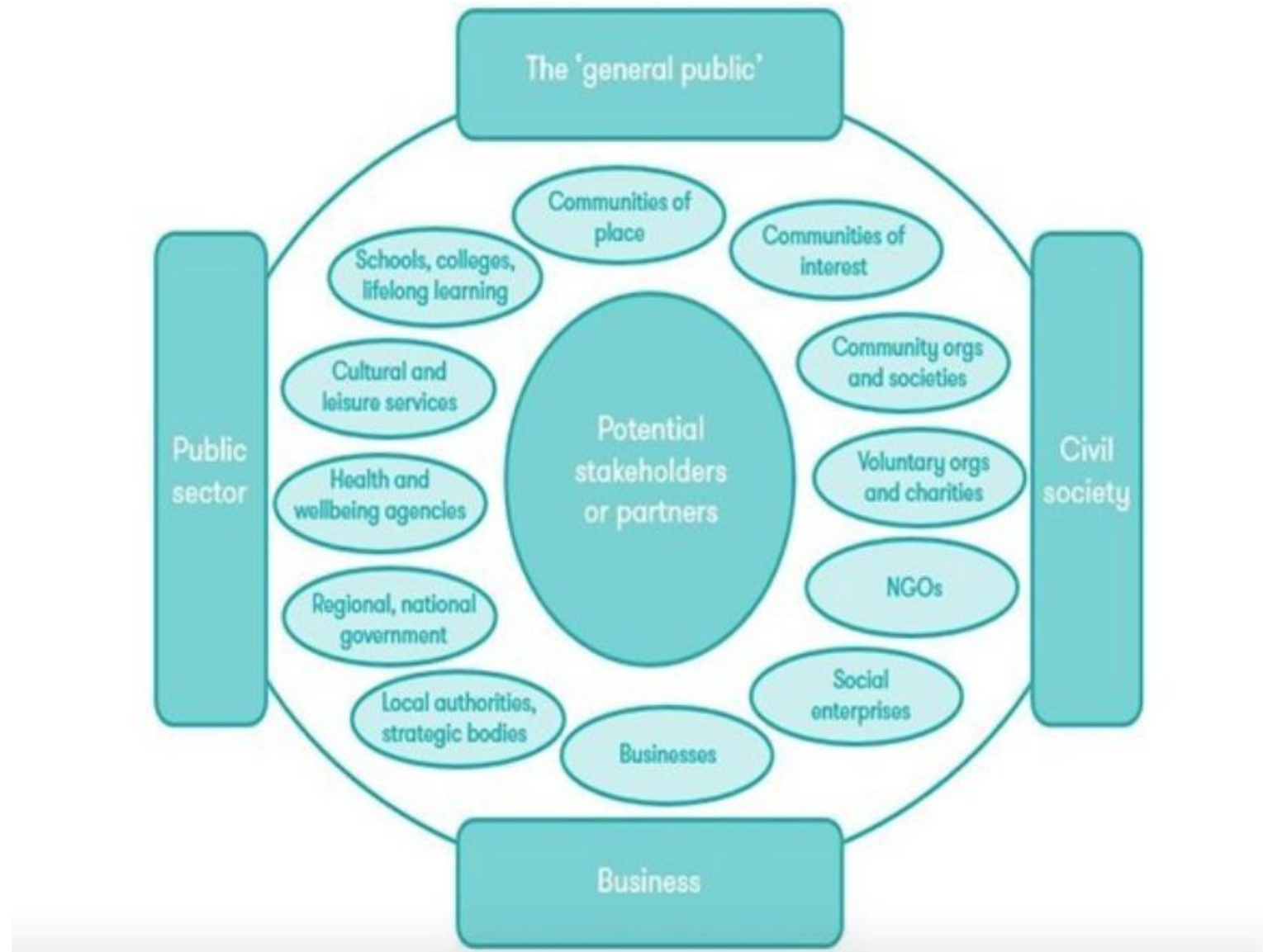- **DEMOGRAPHIC**
- **ACTIVITY**

# General Impact framework

| SDGs | | | | | | |
|---|---|---|---|---|---|---|
| | 5 Gender Equality; 10 Reduced Inequalities; 9 Industry, Innovation and Infrastructure; 11 Sustainable Cities and Communities; 13 Climate Action; 16 Peace, Justice and Strong Institutions | 4 Quality Education; 5 Gender Equality; 8 Decent Work and Economic Growth; 9 Industry, Innovation and Infrastructure; 10 Reduced Inequalities; 11 Sustainable Cities and Communities; 13 Climate Action | 3 Good Health and Well-being; 2 Zero Hunger; 5 Gender Equality; 6 Clean Water and Sanitation; 7 Affordable and Clean Energy; 10 Reduced Inequalities; 11 Sustainable Cities and Communities; 13 Climate Action; 16 Peace, Justice and Strong Institutions | 3 Good Health and Well-being; 6 Clean Water and Sanitation; 10 Reduced Inequalities; 13 Climate Action | 2 Zero Hunger; 1 No Poverty; 6 Clean Water and Sanitation; 7 Affordable and Clean Energy; 8 Decent Work and Economic Growth; 9 Industry, Innovation and Infrastructure; 12 Responsible Consumption and Production | 6 Clean Water and Sanitation; 7 Affordable and Clean Energy; 9 Industry, Innovation and Infrastructure; 11 Sustainable Cities and Communities; 12 Responsible Consumption and Production; 13 Climate Action; 14 Life Below Water; 15 Life on Land |

| Impact | | | | | | |
|---|---|---|---|---|---|---|
| | **Social capital**<br>Civic involvement<br>Volunteering<br>Trust in others<br>Social cohesion | **Human capital**<br>Education & skills<br>Social mobility<br>Participating in learning, sport and culture | **Quality of life**<br>Personal wellbeing (happiness, life satisfaction)<br>Access to services<br>Relationships | **Health**<br>Effectiveness of services<br>Experience of services<br>Safety | **Prosperity**<br>Wealth creation<br>Income equality<br>Efficiency<br>Personal finances | **Environment**<br>Enhanced<br>• Natural<br>• Built<br>• Heritage<br>• Lived environments |

| **Type of impact** | **Conceptual**<br>Communicating the meaning of research beyond academia | | **Instrumental**<br>Influencing policies, products and services to better reflect public interests | | **Capacity building**<br>Influencing individual and collective behaviour and skills to realise public benefit | |
|---|---|---|---|---|---|---|
| **Outcomes** | **Enlightenment:**<br>Inspiring wonder, curiosity and learning; meaning and sense making | **Criticism:**<br>Provoking challenge, scrutiny and debate; holding to account | **Innovation:**<br>new ways of thinking and acting; new products and knowledge; creating, galvanising change | **Reflexivity:**<br>prompting dialogue and deliberation; exploring risk; informing decision making | **Connectivity:**<br>building networks; encouraging participation and involvement | **Capability:**<br>building skills; influencing behaviours and practices; empowering |
| **Indicators/proxies** | Challenge conventional wisdom<br>Challenge professional orthodoxies<br>Change understandings<br>Stimulate learning and reflection | | Change standards/regulation<br>Change accountability regimes<br>Influence new products and services<br>Change policies | | Inspire participation and progression<br>Teach new skills<br>Change behaviours, including participation and involvement | |

# Who?



*NCCPE*

# The 'so what?' factor...

Why would a particular <u>demographic</u> be interested in your work?

**Thinking like the people you want to engage with ….**

▶ What are they interested in?

▶ What are their values?

▶ What kind of language do they use?

▶ Which environments are they most comfortable in/familiar with?

▶ How can you support your audience to engage?

# What do you want to gain from engagement?

*What will those involved gain?*

**Examples**

▶ Developing skills

▶ Gaining the perspective of a particular community

▶ Empowering or amplifying the voice of a particular group

▶ Informing an interest group of a research finding that may benefit them

▶ Informing and influencing policy change

▶ Inspiring the next generation

▶ Evidence of impact for funding applications and REF

# Evidencing your impact

- **Evaluation methods can be very varied** – both qualitative and quantitative
- **Be creative!** Evaluation doesn't have to be limited to the traditional questionnaire format.
- **Not just at the end:** how can you incorporate feedback gathering into your activity or event?
- **Don't over-evaluate** – evaluation should be proportionate, relevant & meaningful to your activity!
- **Your specific <u>objectives</u> will determine the best evaluation methods to choose**



u/will you use your experience at Be Curious as a stepping stone to public engagement activities at other venues

| | |
|---|---|
| Yes | 16 (80%) |
| No | 1 (5%) |
| Not sure | 3 (15%) |

r activity in Be Curious, or other PE work feature when you write funding bids?

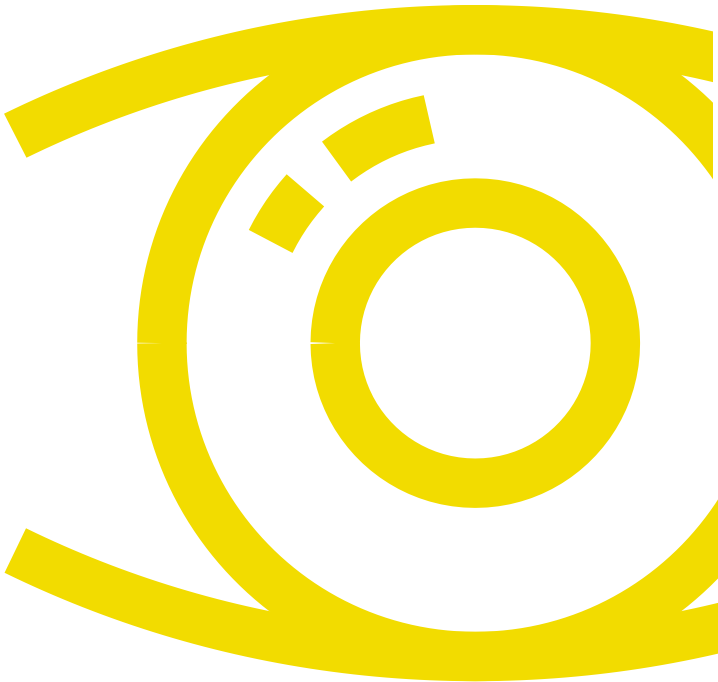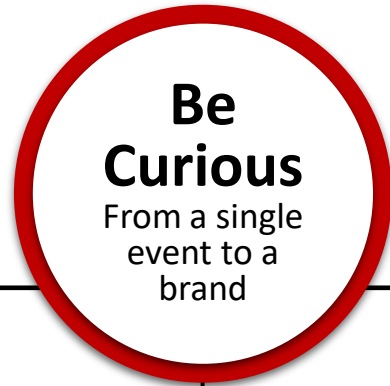| | |
|---|---|
| Yes | 12 (60%) |
| No | 2 (10%) |
| Maybe | 6 (30%) |
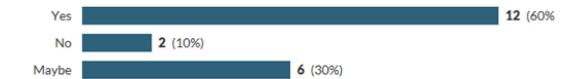
Existing Opportunities –
Be Curious

# Be Curious aims to make research accessible and relevant to people, especially those living in Leeds.

**Be Curious**
From a single event to a brand

Live in-person event
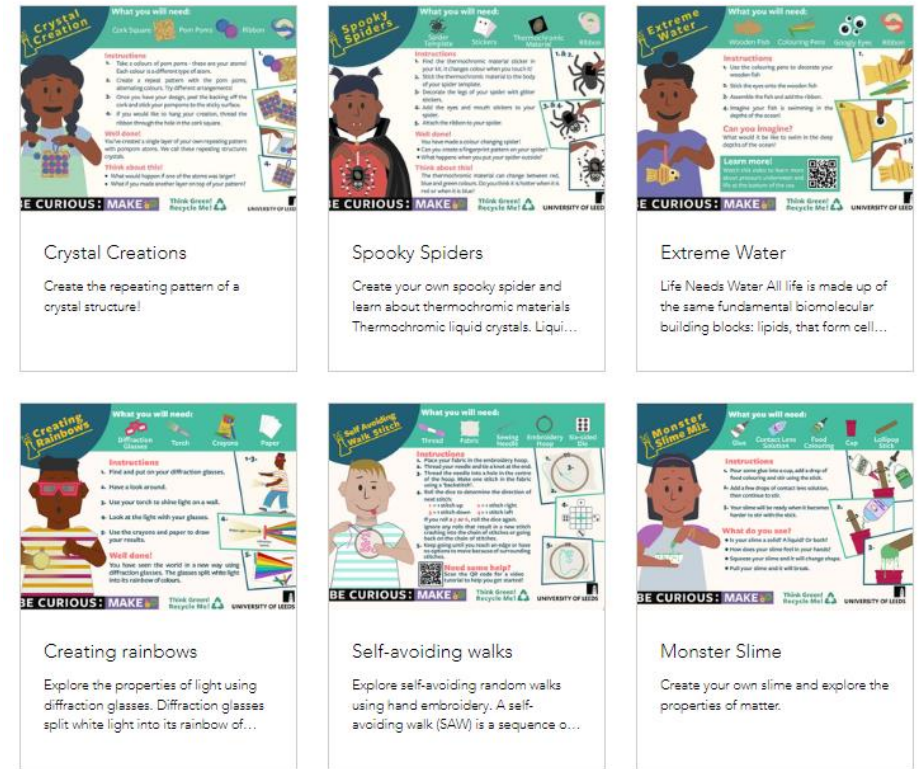
Live virtual lectures

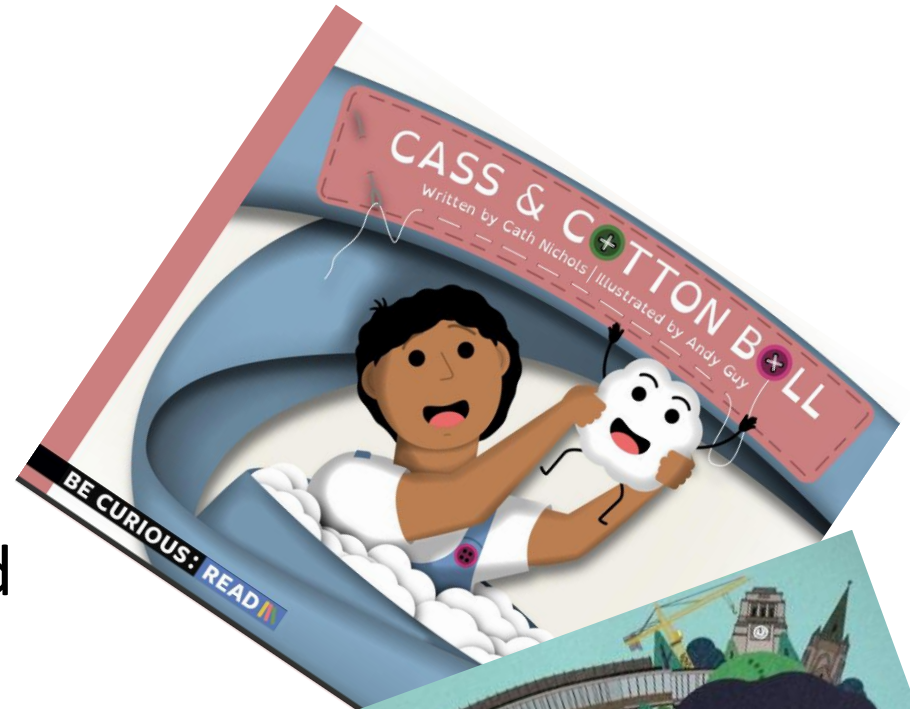Creative strands

https://www.leeds.ac.uk/becurious

BE CURIOUS: MAKE

- kits containing low-cost materials to explore a research topic through making
- Professor Lorna Dougan's idea (EPSRC PE champion)
  https://www.creatematerialsinnovation.com/maker-kits
- 7 kits produced and prize won


Crystal Creations — Create the repeating pattern of a crystal structure!

Spooky Spiders — Create your own spooky spider and learn about thermochromic materials Thermochromic liquid crystals. Liqui...

Extreme Water — Life Needs Water All life is made up of the same fundamental biomolecular building blocks: lipids, that form cell...

Creating rainbows — Explore the properties of light using diffraction glasses. Diffraction glasses split white light into its rainbow of...

Self-avoiding walks — Explore self-avoiding random walks using hand embroidery. A self-avoiding walk (SAW) is a sequence o...

Monster Slime — Create your own slime and explore the properties of matter.

British Biophysical Society

2022 Elspeth Garman Prize for Public Engagement

**BE CURIOUS: READ** 📚

- Turning research into books for children
- Over 2000 copies given away for free via primary schools, foodbanks, libraries and charities in Leeds and Bradford
- https://spotlight.leeds.ac.uk/thats-amazing-mum/



CASS & COTTON BALL
Written by Cath Nichols | Illustrated by Andy Guy
BE CURIOUS: READ



Further Together

That's Amazing, Mum!

How a cross-university team created a STEM-focused tale of jelly benches and bouncing boots



THAT'S AMAZING, MUM!
Written By Catherine Nichols
Illustrated By Andy Guy
BE CURIOUS: READ

# Existing Opportunities

- 'Engaged Research' on TEAMS (join code: fc84jre)
- Research Development Fund (RDF), funding to co-create research proposals
- pepnet meetings (4-6 per year, 1hr) for sharing best practice and exchange on all things related to engagement with research
- Make your engagement activity count: log it on **Symplectic** (https://publications.leeds.ac.uk) under the  professional activities tab.
- Just ask us! For ideas, tips, feedback, evaluation conundrums, proposal writing

# Existing Opportunities

- Be Curious Associates and Be Curious Fellowship Schemes <mark>open now:</mark> https://leeds365.sharepoint.com/sites/BeCuriousAssociates

# Existing Opportunities

- Coming in 2024:
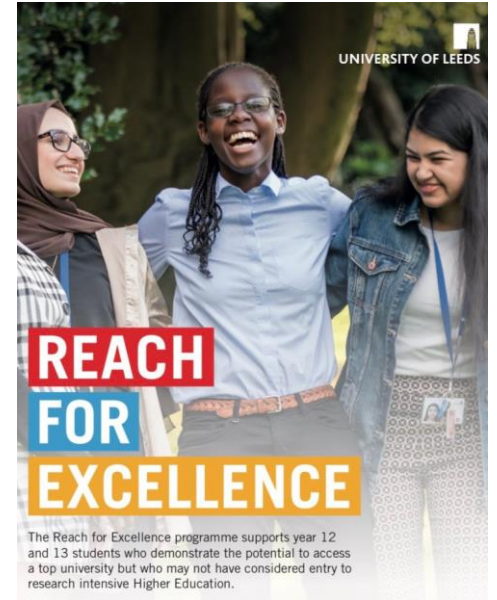'Be Curious on Tour' for Smeaton300

- Primary School Engagement

# Existing Opportunities

- *Research LIVE (PGRs only), online events hosted online by Leeds Doctoral College (contact [doctoralcollege@leeds.ac.uk](mailto:doctoralcollege@leeds.ac.uk))*
- [Bradford Science Festival](#)
- [Otley Science Festival](#) and [Otley Science Cafes](#)
- Leeds Museums and Galleries [My Learning platform](#)
- [Pint of Science - Leeds Branch](#)
- [STEM ambassador scheme](#)
- [I'm a scientist, get me out of here](#)
- [Soapbox Science](#)
- London-bound: Cheltenham Science Festival , Royal Society Summer exhibition, New Scientist Live
- [Leeds Light Night](#) (contact the Cultural Institute)
- [Ilkley Literature Festival](#) (contact the Cultural Institute)

# Existing Opportunities – Secondary School engagement

- The University's **Educational Engagement** service works with pre-entry students (secondary school and college-age) to engage learners and try to inspire future study

- Contacts:
  - **Stem Outreach Team** https://www.stem.leeds.ac.uk/, stem@leeds.ac.uk
  - **Health Sciences Outreach Team** https://www.healthsciences.leeds.ac.uk/, medicineandhealth@leeds.ac.uk
  - **Arts and Humanities Outreach Team** https://artsoutreach.leeds.ac.uk/, artsoutreach@leeds.ac.uk
  - **Social Science Outreach Team** https://socialsciencesoutreach.leeds.ac.uk/, socialscience@leeds.ac.uk
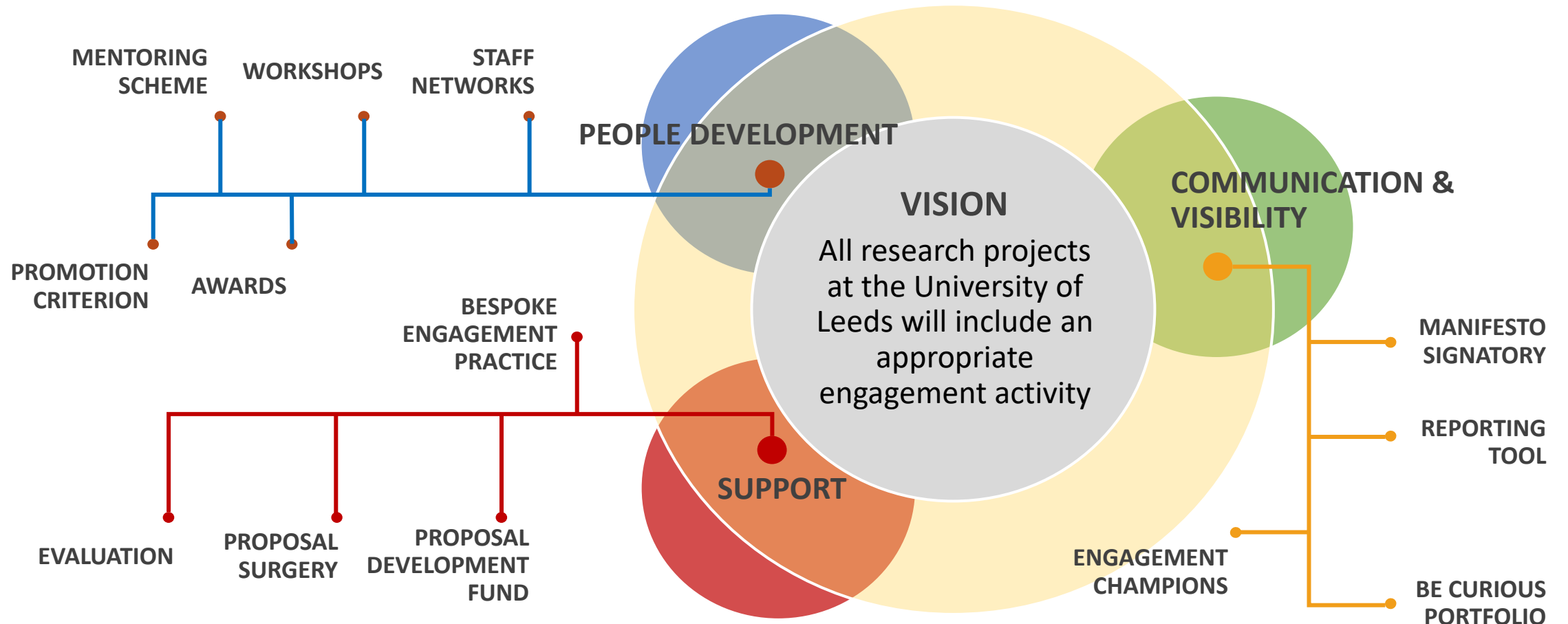  - **Contextual Outreach Team** (widening participation programmes) https://contextualoutreach.leeds.ac.uk/, contextualoutreach@leeds.ac.uk



UNIVERSITY OF LEEDS

**REACH FOR EXCELLENCE**

The Reach for Excellence programme supports year 12 and 13 students who demonstrate the potential to access a top university but who may not have considered entry to research intensive Higher Education.

# Next month:

**Wednesday 25th October 4-6pm**

**William Bragg SR (GR.25)**

**Dr Duygu Sarikaya (lecturer of data science in the School of Computing) – Surgical vision and perception and medical image computing**