

LIV.INNO


EuPRAXIA
Doctoral Network

Outreach

Naomi Smith

University of Liverpool

What is outreach?

- Engaging others with your research, specifically those who would not otherwise be engaged
- Can be friends/family, but more often people who you engage with at an organised event
- Engaging people who know about or want to know about your work anyway doesn't count!
- Outreach can take many different forms (more about that later)



Why do we do outreach?

- To be transparent about what we are doing and why
- To help us better understand the public and the public understand us
- To show a commitment to our work having a wider societal benefit
- To allow the public to take part in informed debate about what we do
- To show the relevance of research to people's every day lives
- Public engagement/outreach is usually a requirement of any funding. It should be seen as an integral part of the project and not just as a small add on which is required to satisfy funders.

Opportunities for outreach in LIV.INNO/EuPRAXIA-DN

- Our Symposium on 10 July 2026 !
- School visits
- Open weeks at your institution
- In UK:
 - STEM ambassador opportunities
 - RI Christmas lectures – 14th December



Taking a professional approach

- We would like all UK-based students/Fellows to train as STEM ambassadors
- Opportunities to go into schools etc
- How many are already STEM Ambassadors?
- Those based in other countries should try to join an equivalent scheme where they are – most institutions do outreach!



Types of outreach

- Talk/lecture/presentation
- Lesson in school/workshop
- Science Fair
- Busking
- Pint of Science
- Science Show
- Online (blogs, citizen science etc)



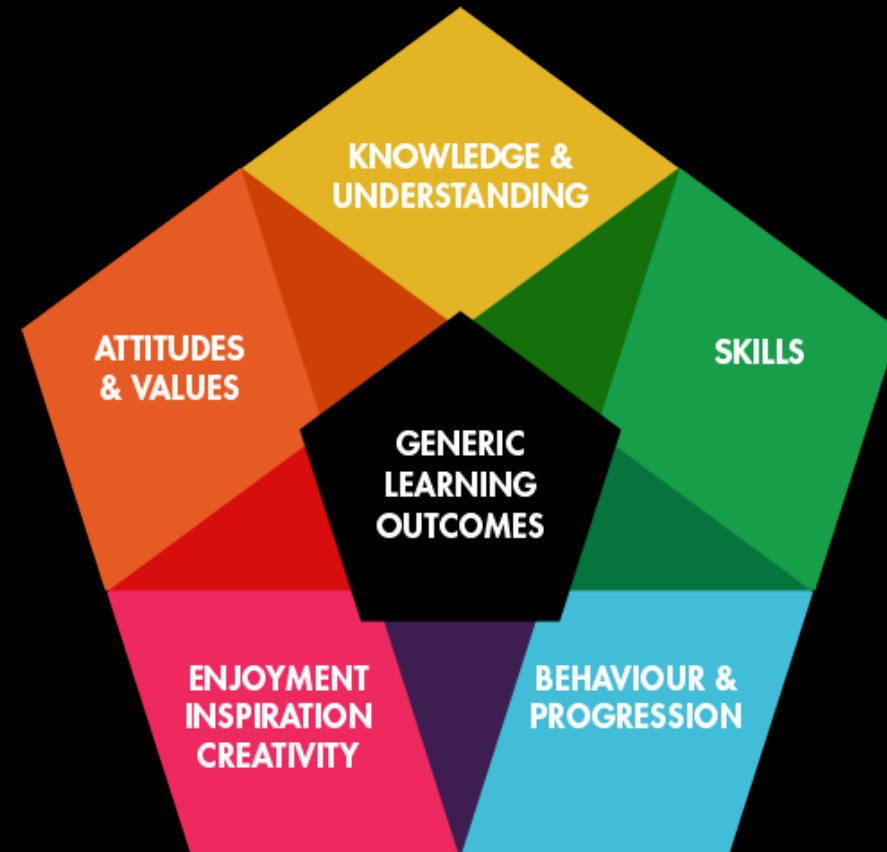
Audiences

- Most common audiences
 - School children
 - Families
 - Adults
- Outreach can be targeted at people with a particular characteristic such as:
 - Gender
 - Age
 - Science Capital
 - Socio-economic status
 - Where they live
- Target audience is rarely the 'general public'!



Objectives

- What are you trying to achieve with your outreach?
 - Learning?
 - Enjoyment?
 - Change in attitude or behaviour?
 - Never: Ticking a box for a project
- Generic Learning Outcomes are a good way to think about this
- Your objectives should always include some these



Learning Styles

- Many different theories of learning style, but all break down roughly into three categories:
 - Hearing/Listening
 - Reading/Seeing
 - Doing
- There is no right or wrong learning style, just remember other people may learn differently to you!
- Not everything can be taught (efficiently and effectively) using every learning style
- Try to incorporate as many styles as you can into your outreach

Capturing your audience's attention

- Good demos:
 - Hydrogen balloon
 - Plasma ball
 - Magnets
- Fascinating/unbelievable facts:
 - The CERN Data Centre stores more than 30 petabytes of data per year from the LHC experiments, enough to fill about 1.2 million Blu-ray discs
 - Everything that you are made of was once part of a star
 - Time slows down and objects become heavier when you travel at very high speeds

Do you need a PowerPoint presentation?

- No, not always. But it can be helpful. Often hands-on activities will be more engaging.
- The most important point is to interact with the participants, rather than just talking to them.
- A combination of a talk and other activities can work very well (e.g. *Physics of Star Wars*)



Outreach symposium

- Will takes place at The Spine on 10th July 2026
- The audience will be industry
- There will be talks and an exhibition where you engage with industrial partners
- All of you are expected to take part



The challenge

- During this week, you will work in groups and develop different outreach proposals, seeking (up to) £10k funding
- All outreach ideas should be connected to LIV.INNO or EuPRAXIA
- You will need to submit a written proposal and talk by COP Thursday
- You will present your ideas in teams to each other on Friday
- There will be sessions throughout the week to develop these ideas

Your outreach proposal

Needs to follow the format of an STFC SPARK award:

- **Rationale** – includes overall aims and anticipated outcomes and how the activities will contribute to strategic communication of our research
- **Engagement activity plan** - details of your plans to deliver these activities, including how you will effectively engage your target audiences, how the activities link to the R&D in the project/s and identification of potential risks and appropriate mitigation strategies
- **Evaluation plan** - showing details of how the outputs, outcomes, and impacts will be captured and evaluated
- **Dissemination plan** - detailing how resources, learning outcomes and outputs will be made available to wider audiences
- **Justification of resources** – explaining what you seek funding for

More details will be in the document which you will be sent to fill in.

Tight deadline

Each group must submit a written proposal by the end of Thursday (17:00) to naomi.smith@liverpool.ac.uk and c.p.welsch@liverpool.ac.uk

Each group will also give a 15-minute presentation to everyone else about their idea on Friday morning; this also needs to be ready by Thursday 17:00.

You will need to split tasks in your teams and coordinate activities!

Groups

Group 1

- Divya
- Ana Maria Guisao Betancur
- Sakircan Beyazit
- Luke Detraux

Group 3

- Marina Maneyro
- Phani Deep Meruga
- Emily Costello
- Sam Godwood

Group 2

- Andrés Leiva Genre
- Ana Costa Pereira
- Joseph Hadley
- Qiyuan Xu

Group 4

- David Gregocki
- Alex Whitehead
- Mehul Depala
- Sinead Eley

Peer review

- Following the group presentations, each group will review and discuss the merits and challenges of the other proposals and presentations on Friday morning.
- All groups will give feedback saying what they liked and where they found challenges and how they think a proposal could be further improved. Groups will also decide which idea they liked best and why.
- You will have ~30 minutes to discuss the other groups' proposals and presentations and then 5-10 minutes to provide feedback.

LIV.INNO


EuPRAXIA
Doctoral Network

Outreach

Naomi Smith

University of Liverpool