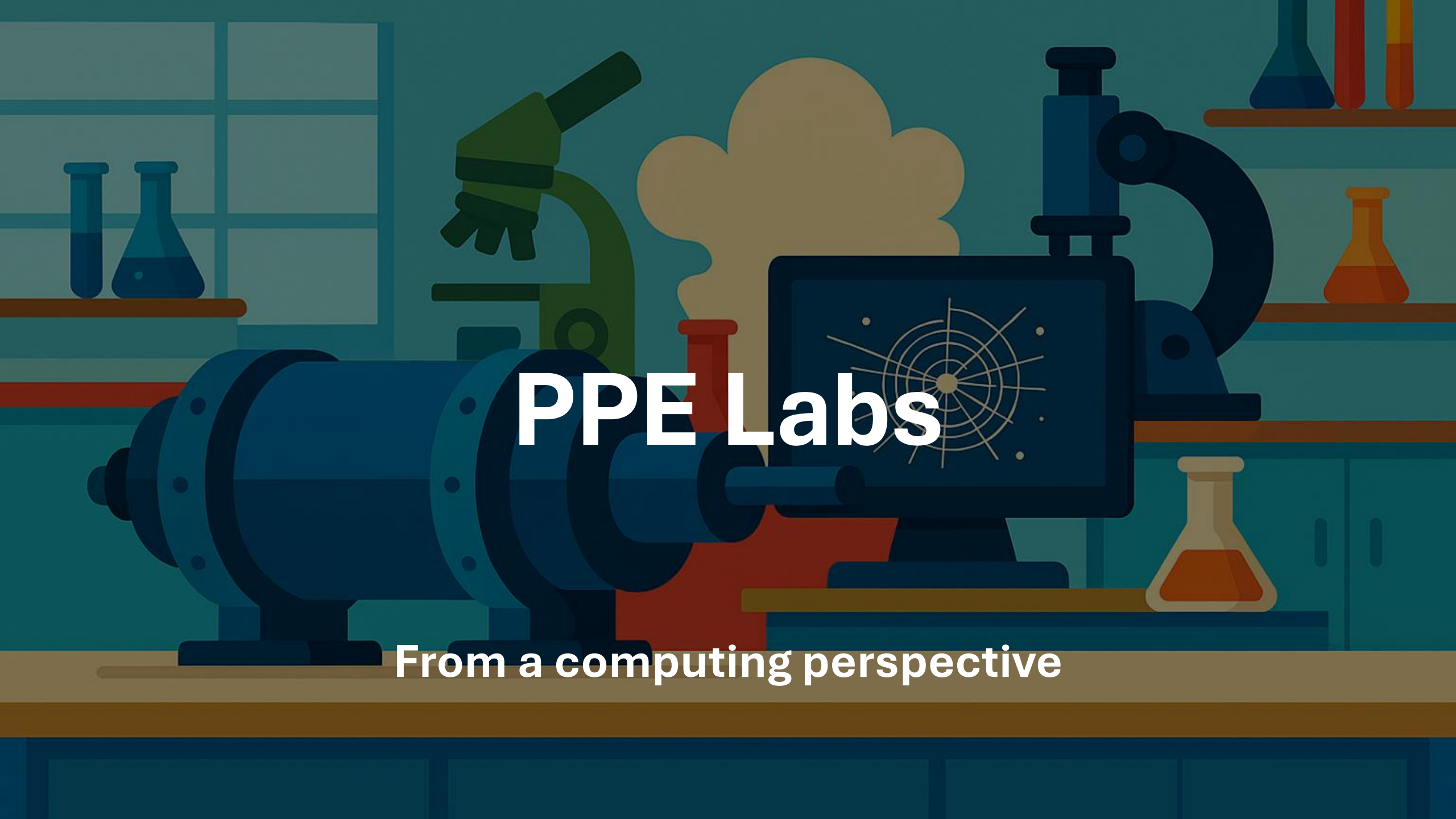
PPE Labs
From a computing perspective

# PPE Labs – Computing

1. **State of the nation (as I see it).**

   *Please shout if I'm wrong.*

2. **Biggest problems we encounter day to day.**

   *Again, shout if I'm wrong(!).*

3. **Solutions I'm proposing.**

   *Finally, speak up or forever hold your peace…*


# PPE Labs – State of the Nation

# PPE Labs – State of the Nation

*NB: These are **some** of the reasons why computing models are different between "at-home" and "in-the-office".*

A friendly reminder. We are working in a university.
Our employer (UoE) has certain obligations.

1. **"Computer misuse act – 1990"**

   The university must **prevent** its computing **systems** from **being mis-used**.
   This means knowing who is using a given system.

2. **"Data protection; GDPR – 2018"**

   The university must **prevent** any sensitive **data being leaked**.

3. **"H&S concerns"**

   In labs computers are attached-to/control equipment.
   Some of this equipment is ***dangerous*** in the wrong hands.

# PPE Labs – State of the Nation

- Requirement **1)** means:

  - Knowing who has access to a system
  - Knowing who is using the system
  - Preventing a malicious user abusing this system
    (Yes, this means tracking of users' activities)

- Requirement **2)** means:

  - Keeping all personal data private
  - Keeping personally identifying information private
    (This includes credentials!)

# PPE Labs – Desktops

- I want to reduce maintenance effort.
- I want to reduce time required to do stuff.
- I want to reduce waste.
- We must work within the constraints placed on us by UoE.

  Exceptions will and are granted, but there needs to be a good use-case.

- Computing security is not:

  “one of those challenges to be worked around”

# PPE Labs – Desktops

- ***Do we have any managed Linux systems in labs?***
  (Last I looked we don't)

- ***Do we have any modern self-managed Windows systems in labs?***
  (only 1 or 2 afaik)

- **We have a quite a few managed Windows systems in labs.**

- **We have a lot of self-managed Linux systems in labs.**


Digital storage capacity
Challenges
Managed Windows PCs – MakeMeAdmin
Handing-over / Sharing
Support

# Biggest Problems I'm aware of

**Digital Storage capacity**

**Managed Windows PCs – MakeMeAdmin**

**Handing-over/Sharing experimental setups**

**Networking? –** *Not for today(!)*

**Support?**

# Biggest Problems – Storage

- We as a group have ~10s TB+ of unused storage capacity which we can be making much better use of.
- I'd like to explore mounting this into the lab PCs over this year to make data from labs more accessible remotely.
- I would like to provide access to the extra storage capacity whilst minimizing potential risks.

# Biggest Problems – MakeMeAdmin

- I did recently spend a day setting up a system in labs to have software on it for Windows 11. **I share your pain.**

  ***Also, it just works…***

- How often is this really needed on the managed windows systems?

  ***a) daily  b) weekly  c) occasionally  d) almost never  ?***

- If any ticket is opened in the morning (10am) then it's almost certainly addressed by the early afternoon of the same day.

  → Is this good enough?

# Biggest Problems – Handing-over/Sharing

- This encompasses 2 aspects of the lab workflow:

  - ***Sharing 1 experiment between multiple-users daily***

  &

  - ***Passing the reigns off to a new people***

- I would like to try and resolve issues arise from multiple users on 1 workstation.

  - *This **might** be to introduce 1 account per-workstation?*

# Biggest Problems – Support

- In terms of computing support, it can be confusing to know who to turn to and when.

- I'm not able to provide instant admin support on UoE services. Helpdesk are unable to provide support for non-managed systems.

  And work in labs can be computationally challenging often requiring expert knowledge just to get some equipment setup.

- ***Would it be beneficial to have a lab-related drop-in session once a week when any problems that have cropped up can be looked at in more detail?***

  ***E.g. Bi-Weekly Wednesday lunchtime come find me I'm around and ask me to take a look at something with a fresh pair of eyes?***



# Supporting the labs better

# Solutions I’m proposing

- **Mounting PPE network storage into lab PCs.**

  *This is complex to get correct so may take some time*

- **Service accounts on Managed PPE systems.**

  *There are security and other considerations*

- **(bi-)Weekly drop-in sessions for computing?**

# Conclusions

- We’re in a good place to improve how computing works across the PPE labs.
- Security and safety come first — and we can meet those requirements without slowing down research.
- Huge opportunities exist to make better use of our storage capacity and streamline how data flows from labs to desktops to remote work.
- Sharing experiments and workstations can become far more seamless with smarter account and handover approaches.
- Aims: less friction, more experimentation, and happier researchers, all while staying aligned with university guidance and safety practices.

# COMPUTING IN THE PPE LABS