

Physical Chemists' Attitudes towards Management of Laboratory Data



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Introduction

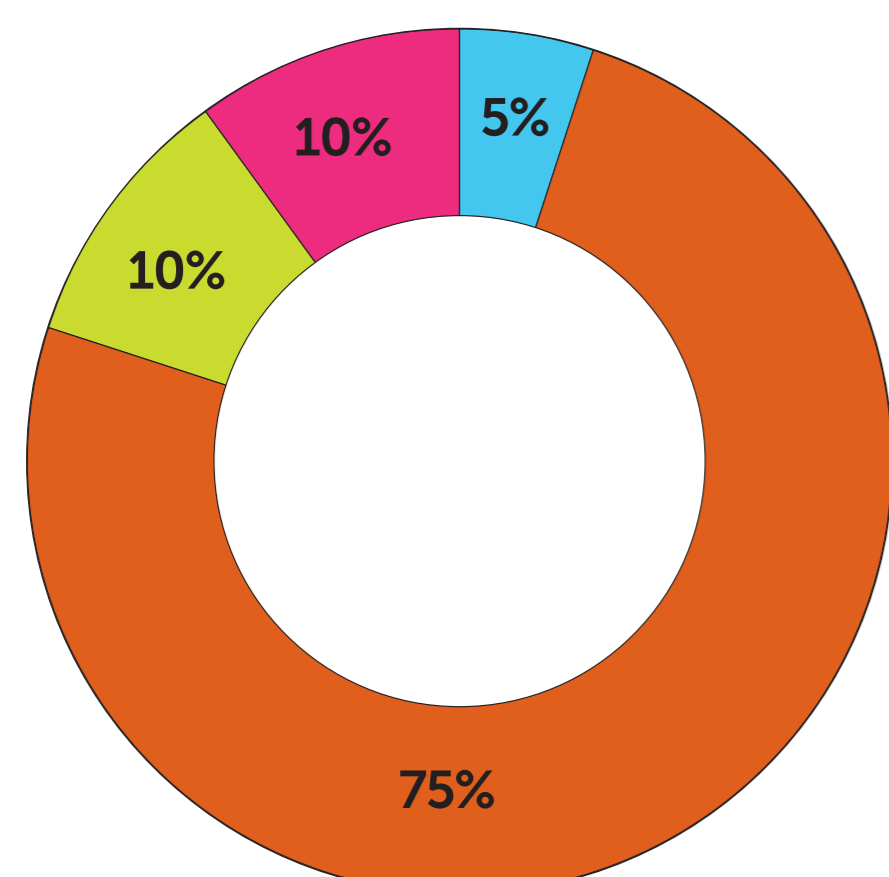
- **Electronic laboratory notebooks** (ELNs), are increasingly replacing traditional laboratory notebooks
- Primarily developed for synthetic organic chemists
- We investigated the opinions of **physical chemists** to find out:
 - if their needs for data management are being met
 - how they manage **large data sets**
 - **what challenges** they face
 - Potential **improvements** in data handling and acquiring information and knowledge

Method

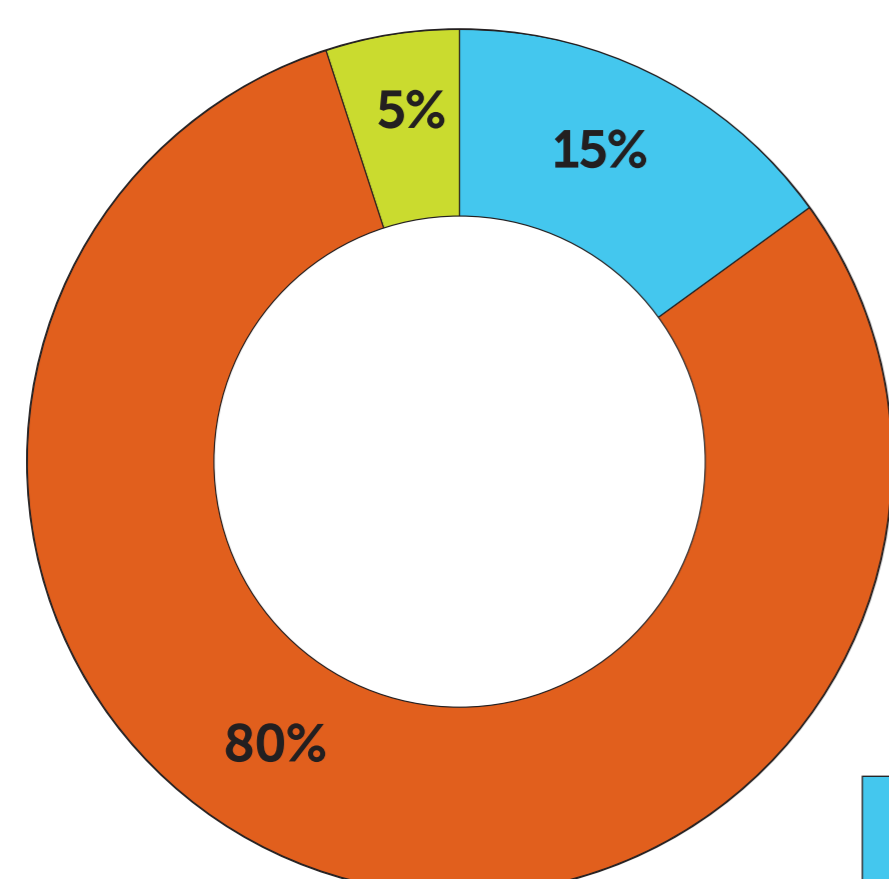
- 20 telephone interviews with physical chemists
- 50% supervisors
- 50% group members (post-graduate students & post docs)
- Academics
- UK based
- Interview themes:
 1. Problems with **current ways** of working
 2. **Experiences** of ELNs
 3. **Attitudes** to data sharing
 4. **Requirements** for ELNs

Problems

Researchers who have problems finding archived data



Researchers who would welcome a helpful data organisation system



"Very few people leave behind one comprehensive source where all their data is"

"I need a program that makes recording and managing all information related to my research easy and quick"

"A better archiving process would save me hours of time"

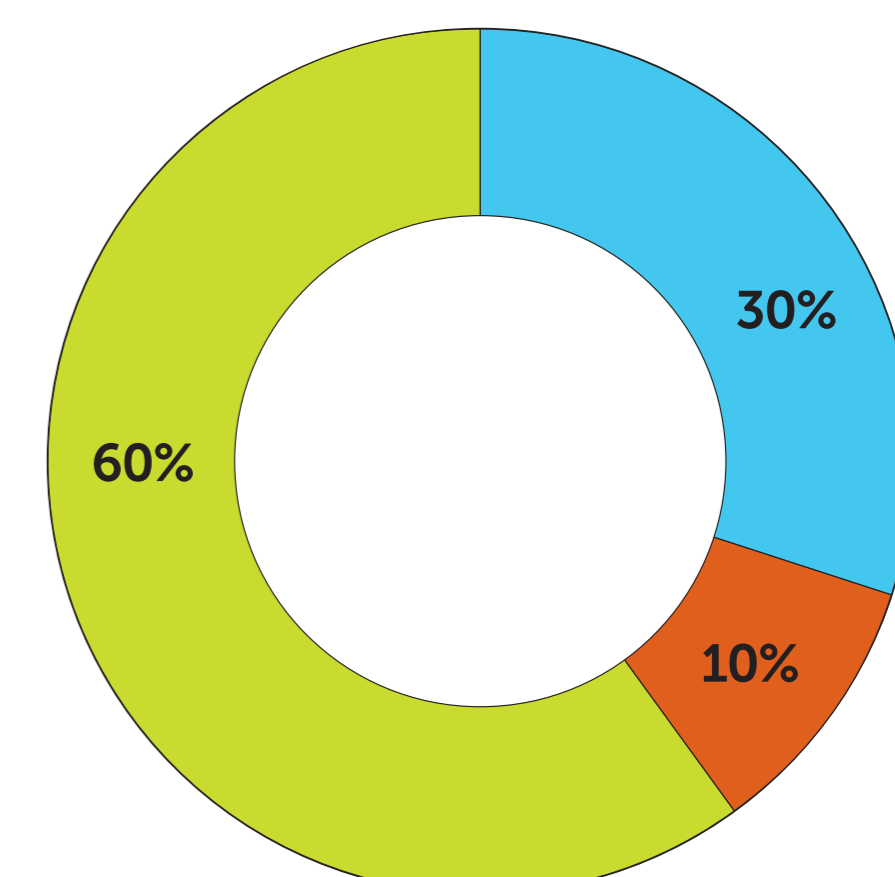
"I'd be very open to the idea of using one [an ELN] but none of the teams I've worked in have had them"

Key:

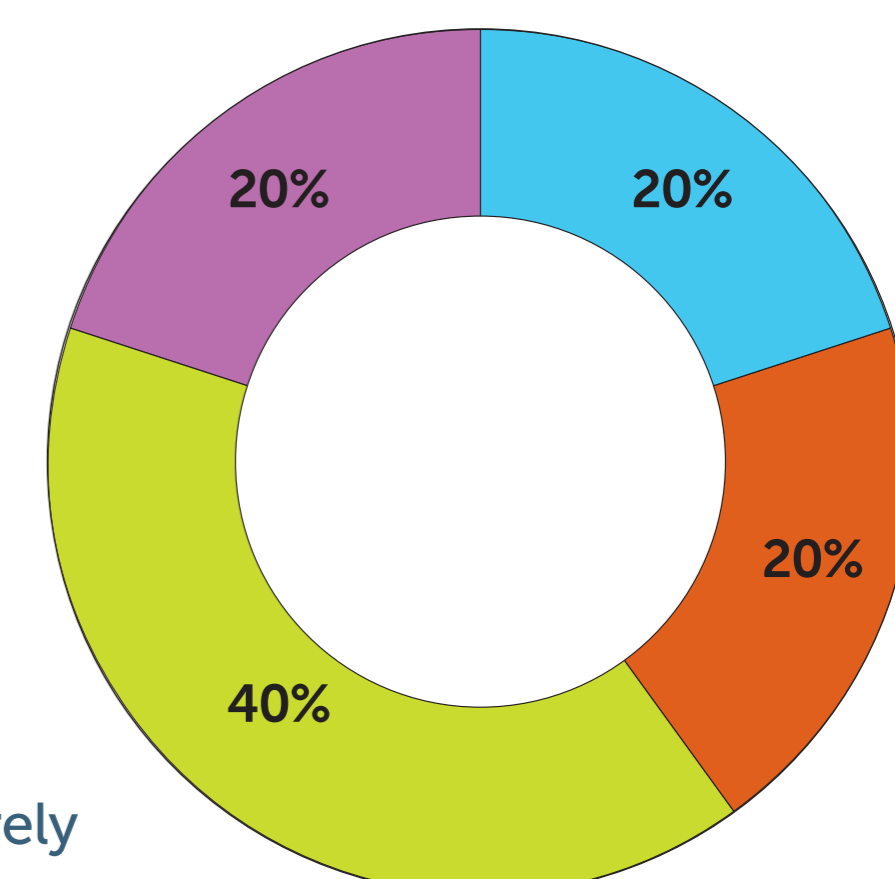


Sharing Data

Would you use other people's data before it has been published?



Would you like to share more of your own data?



Results and Conclusions

- Current working practices could be improved by:
 - Better methods for **notetaking**
 - **Enhanced data organisation**/management systems
 - A complex software system that provides **one comprehensive source** for data and includes time saving and automated features
- Ability to share data beyond your own research group is not a strong driver for moving towards electronic data management systems