



Electronic Lab Notebook with connected Archive (ELNA)

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IT

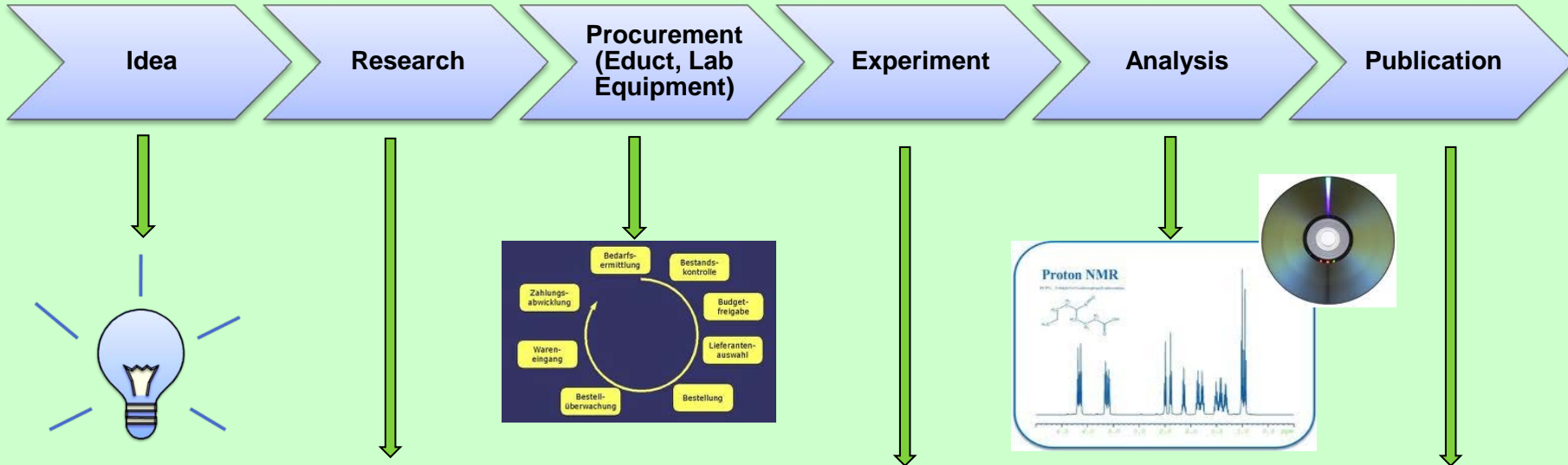
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Topics



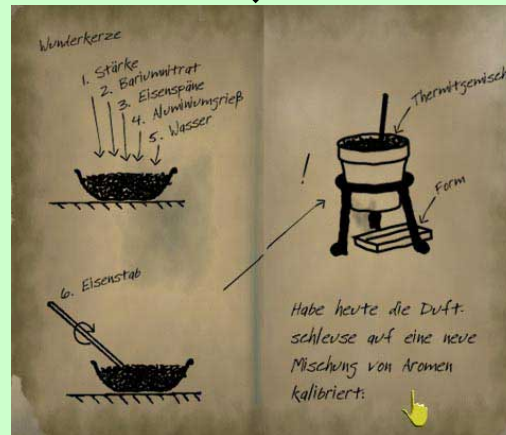
- **Scientific Lifecycle**
- **Objectives**
- **ELNA: Overview**
- **Electronic Archive**
- **Authorization Concept**
- **Demonstration**

Scientific Lifecycle

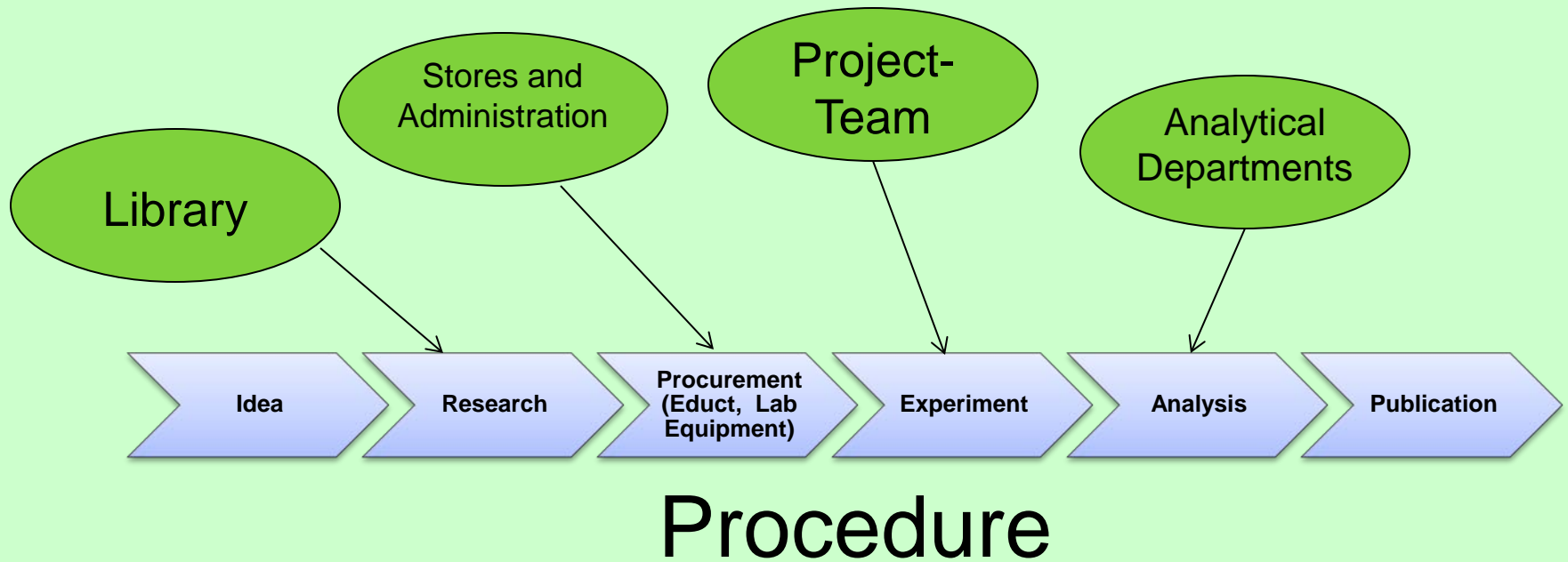


Literatur

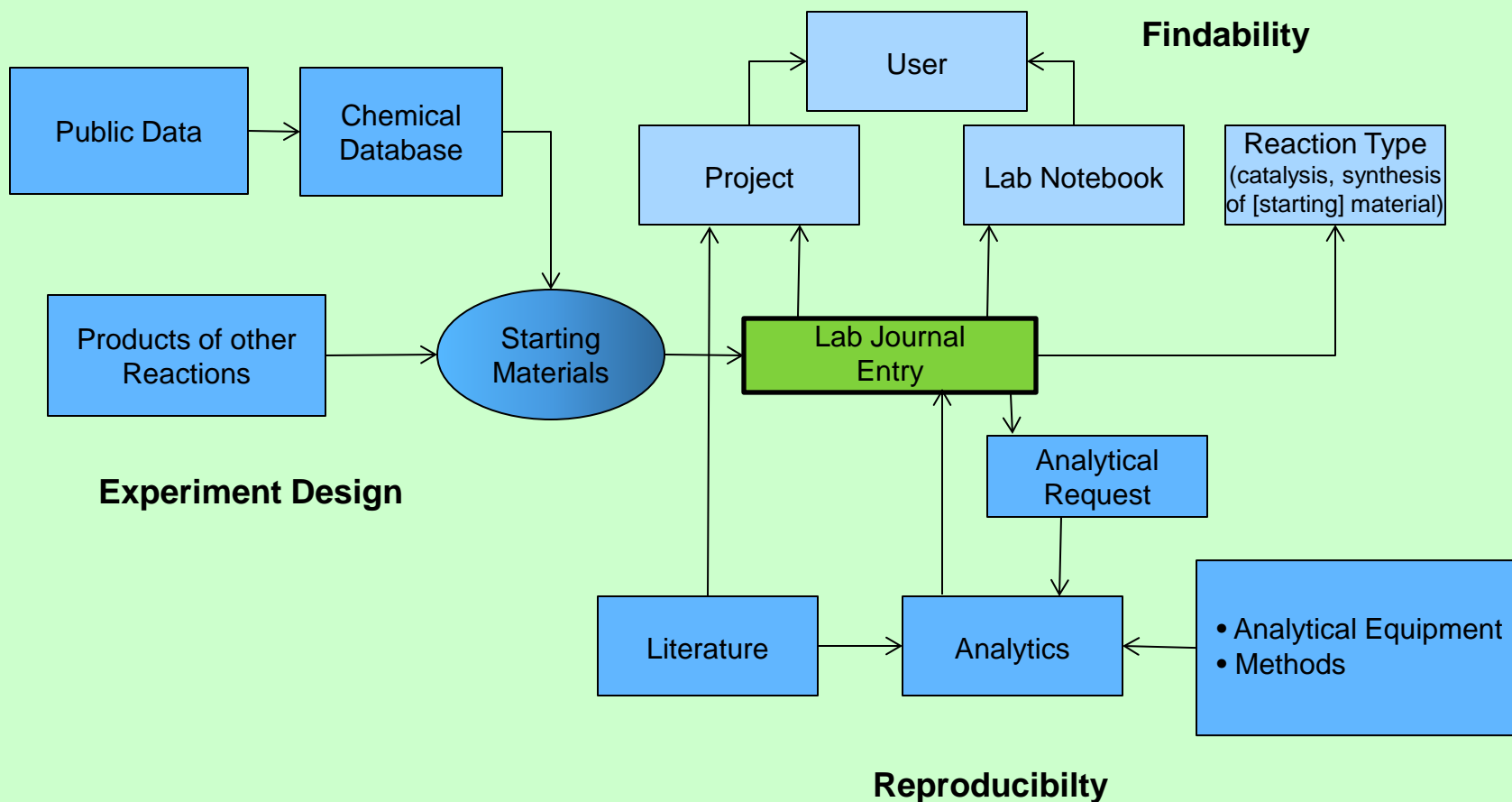
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Objective: Enhancing Collaboration



Objective: From the Point of View of a Chemist



Objectives (Summary)



1. Relieving the scholars from the burden of routine tasks
2. Enabling the management of a large amounts of data
3. Ease of teamwork
4. Avoiding unnecessary duplication
5. Improving the quality of the documentation (completeness, readability)
6. Establishing a knowledge base for future employees
7. Setting up of an electronic archive

Challenges



1. Chemical structural formulae as „Language“: There are often many synonyms:
 - Acetophenone
 - Methylphenylketone
 - Acetylbenzene
 - Hypnon
 - innumerable terms in different languages (e.g., Acetylbenzol)
 - CAS-Nr. 98-86-2
2. Analytical data exists in a large number of different formats
3. Precise and intuitive usable authorization concept
 - Patent Law
 - Information Security
 - Teamwork in Projects

ELNA: Overview



1. Chemical Database:

- Logistics / warehouse management
- Inventory management for experimental departments
- Search functions
- Controlling functions for chemical commissioners
- Permissions

2. Lab Notebook:

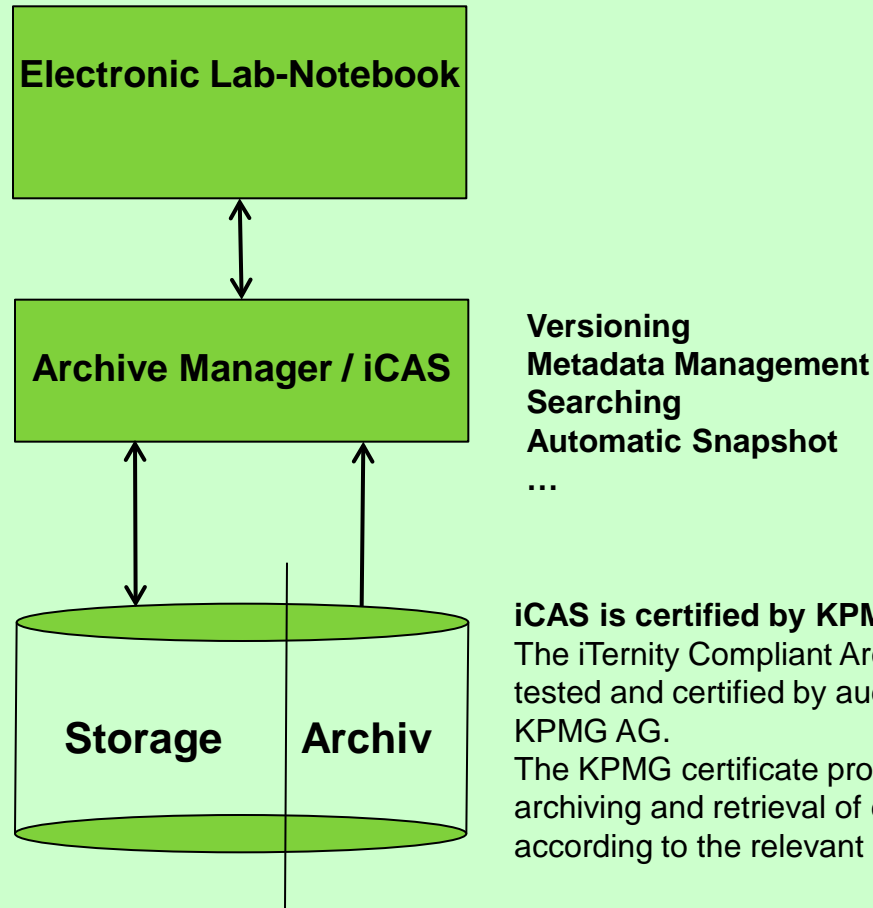
- Reaction
 - create and manage
 - screening
 - management of analytical results
 - reference management
- Workflows (warehouse, analytical departments)
- Permissions

What do we demand of an archive?

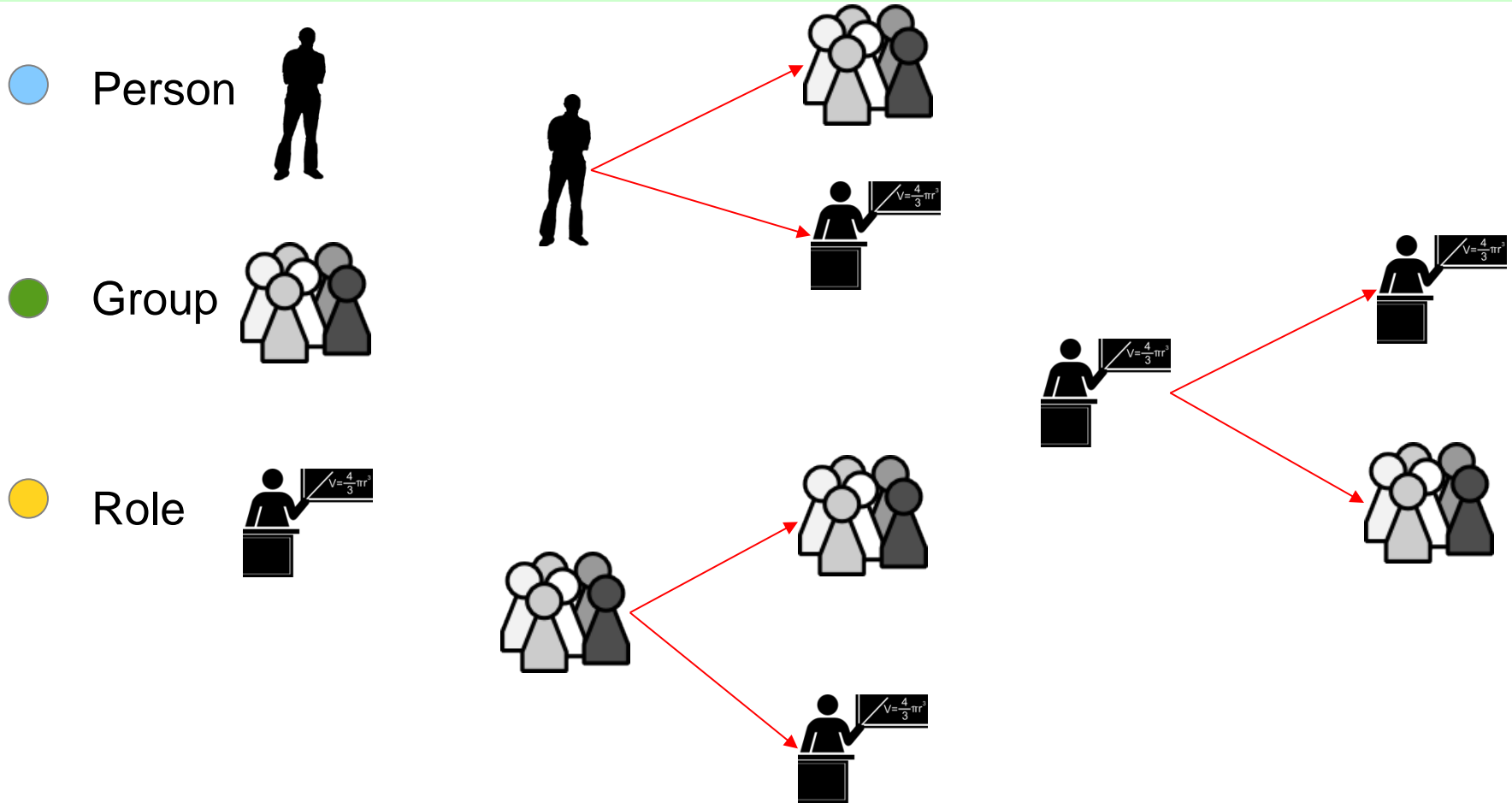


1. Every document has to be stored correctly.
2. **Archiving has to be exact – no document may be lost.**
3. Archiving has to be done at the earliest possible stage.
4. Archived documents shall conform to the originals and must be stored unaltered.
5. **Only the authorized user is allowed to have access to an archived document.**
6. **Every document has to be found within a reasonable timeframe.**
7. **Integrity of the content of archived documents must be guaranteed throughout the storage period.**
8. Every change within the electronic archive has to be understandably logged for authorized persons.
9. The organizational and technical archiving processes can be checked by independent third party experts at any time.
10. All changes and migrations of the archiving system must comply with all of the above principles.




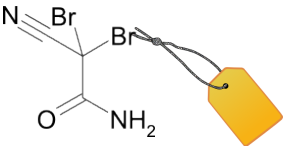
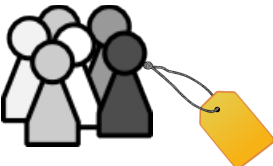
Electronic Archive (Overview)



Authorization Concept

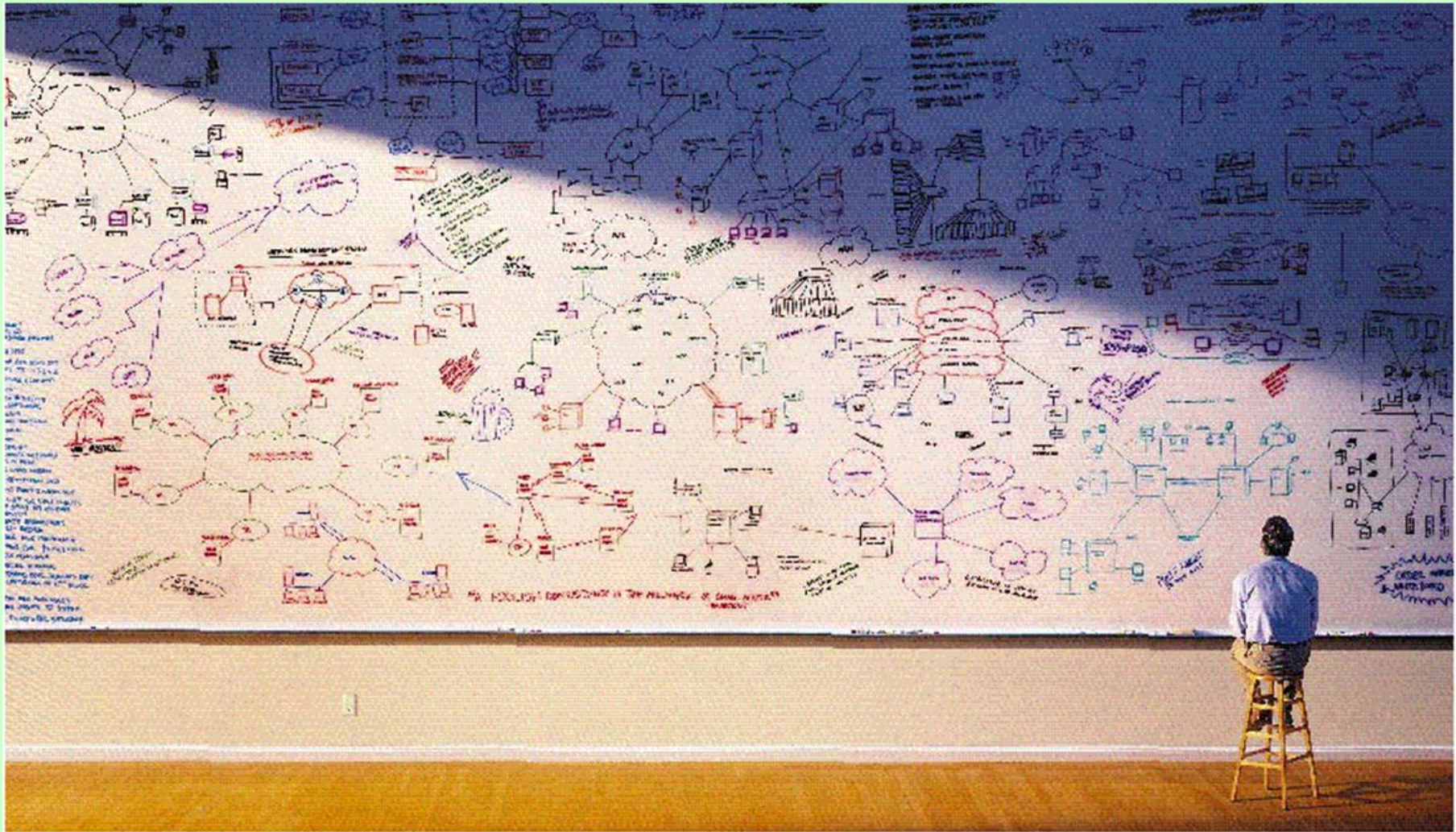


Permission for database objects

- Lab notebook 
- Reaction / Lab notebook entry 
- Container 
- Molecule 
- Group 
- ...

Demonstration

Questions?



Thank you for your attention!