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## 1) Background

The EQIPD Quality System (QS)

- is an intervention to improve research quality directly in the laboratories<sup>1</sup>
- consists of 18 Core Requirements which need to be addressed by the research lab

The IoP at the CIMH implements the EQIPD QS

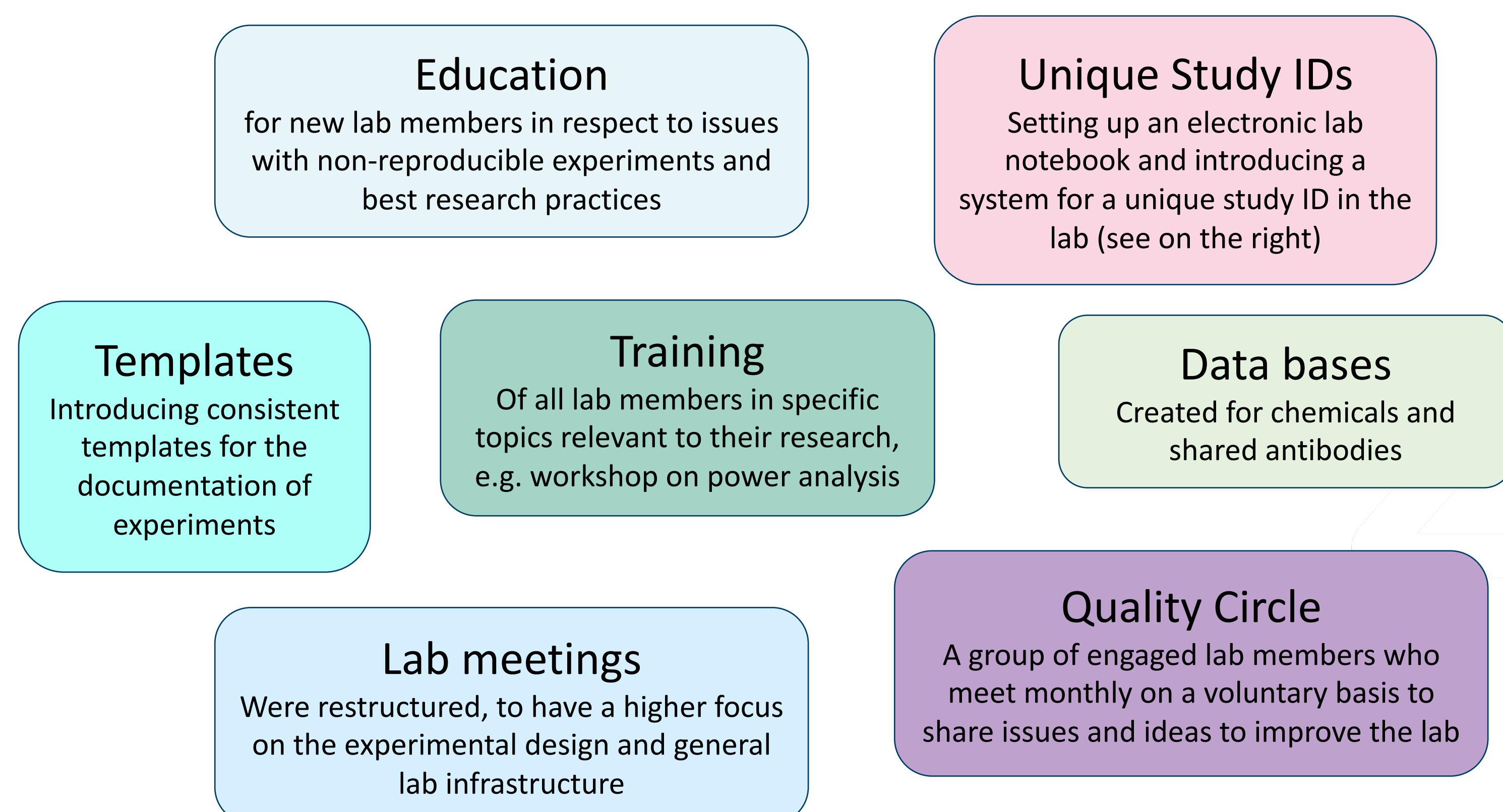
- with approx. 10% of the time by a dedicated person for two years
- with the goal to introduce a cultural shift and get certified

## 2) Starting Points to Quality System implementation

First steps:

1. Conducting an informal survey about practices by lab members
2. Completing the self-assessment form offered by EQIPD

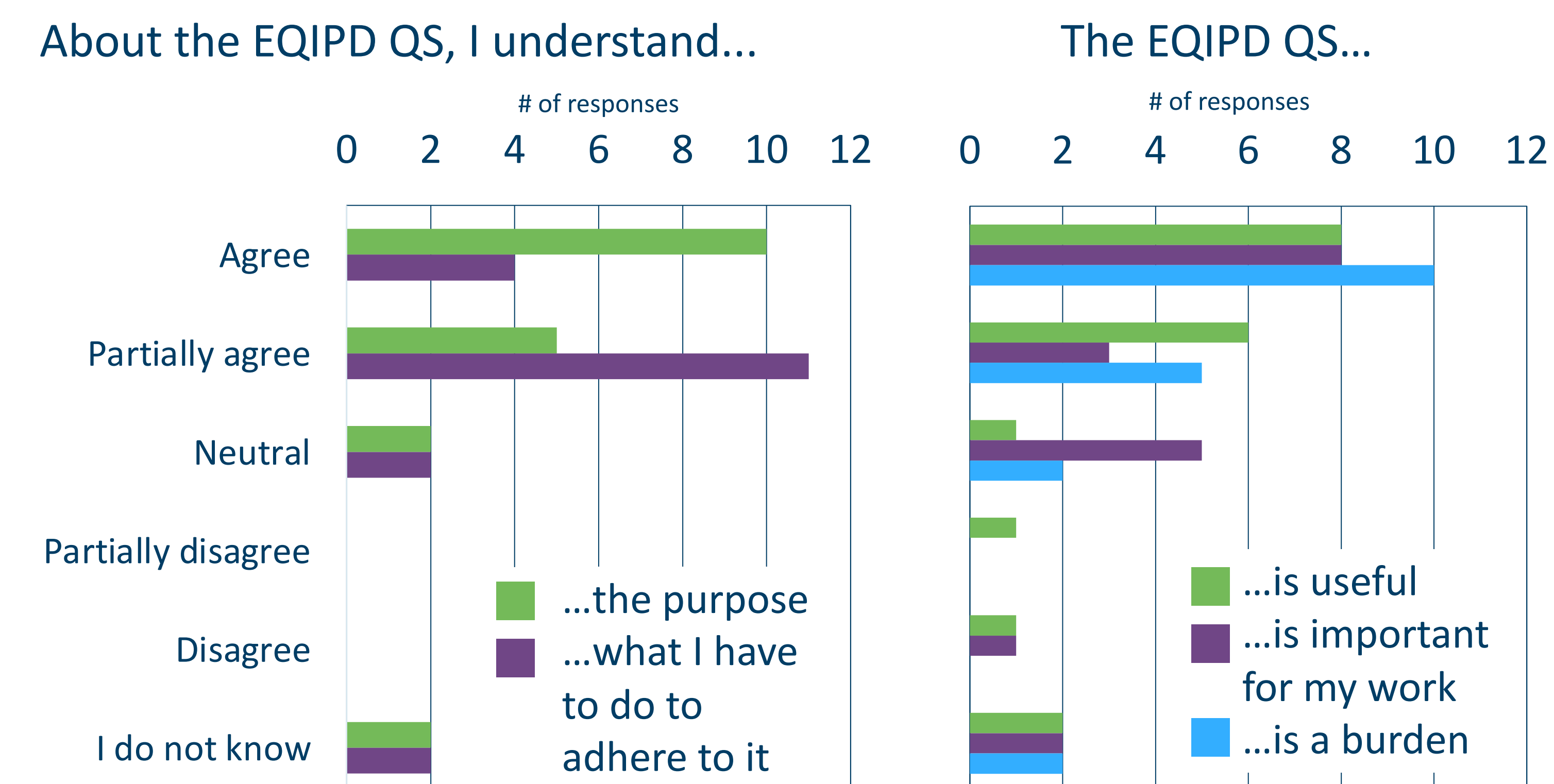
These two instruments revealed areas to be improved and were followed up by several activities. This included, e.g.:



The effect of the EQIPD QS can be described based on personal experiences and a second conducted surveys among members of the research lab after two years. The surveys included questions of qualitative and quantitative nature.

## 3a) Perception of the EQIPD QS by lab members

It is of high interest to understand how a quality system is perceived by lab members. This was also checked with the survey:



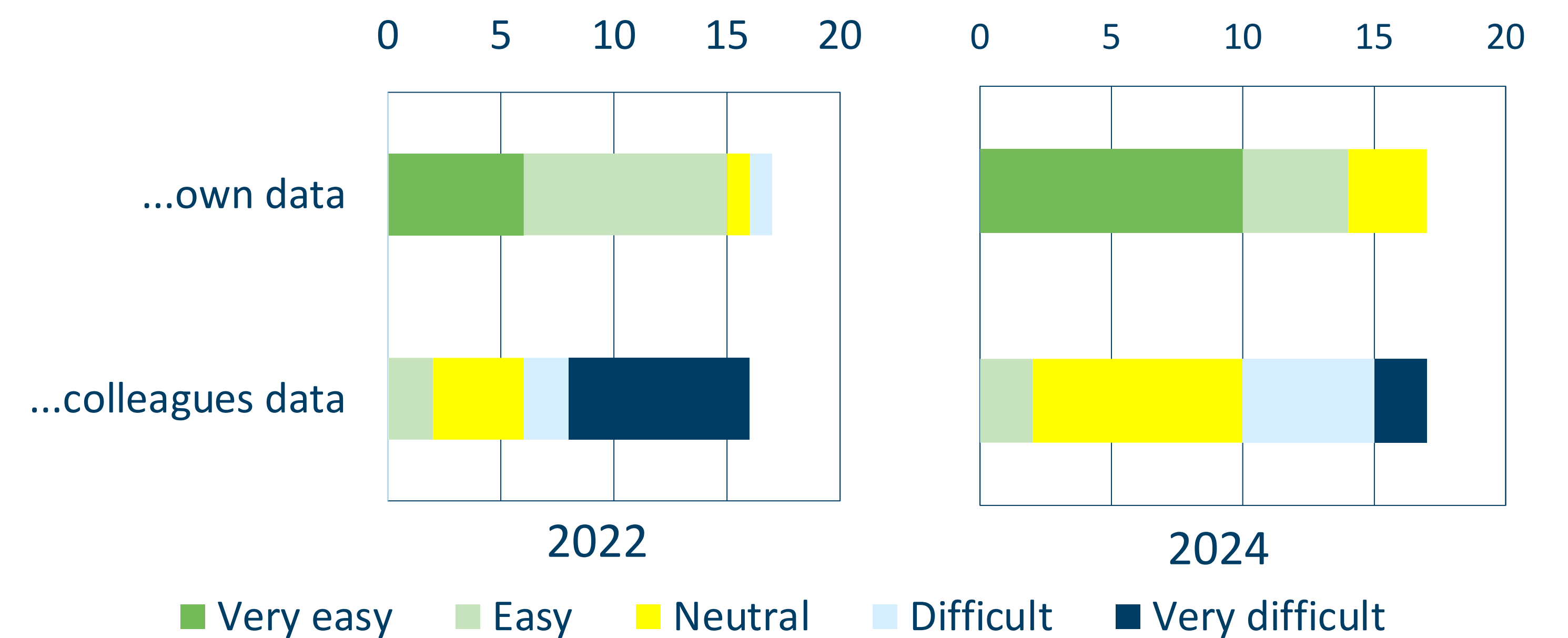
The researchers report an understanding of the purpose, and the majority at least partially agrees that they know what to do to adhere to the systematic approach (left graph).

They also find the approach useful, at the same time, they see it as a burden (right graph).

## 3b) Findability was improved: An Example

Results from two surveys:

How can you find...



There is a shift towards increased findability of research data



How was the shift achieved?

### Using the unique study identifier and electronic lab notebook

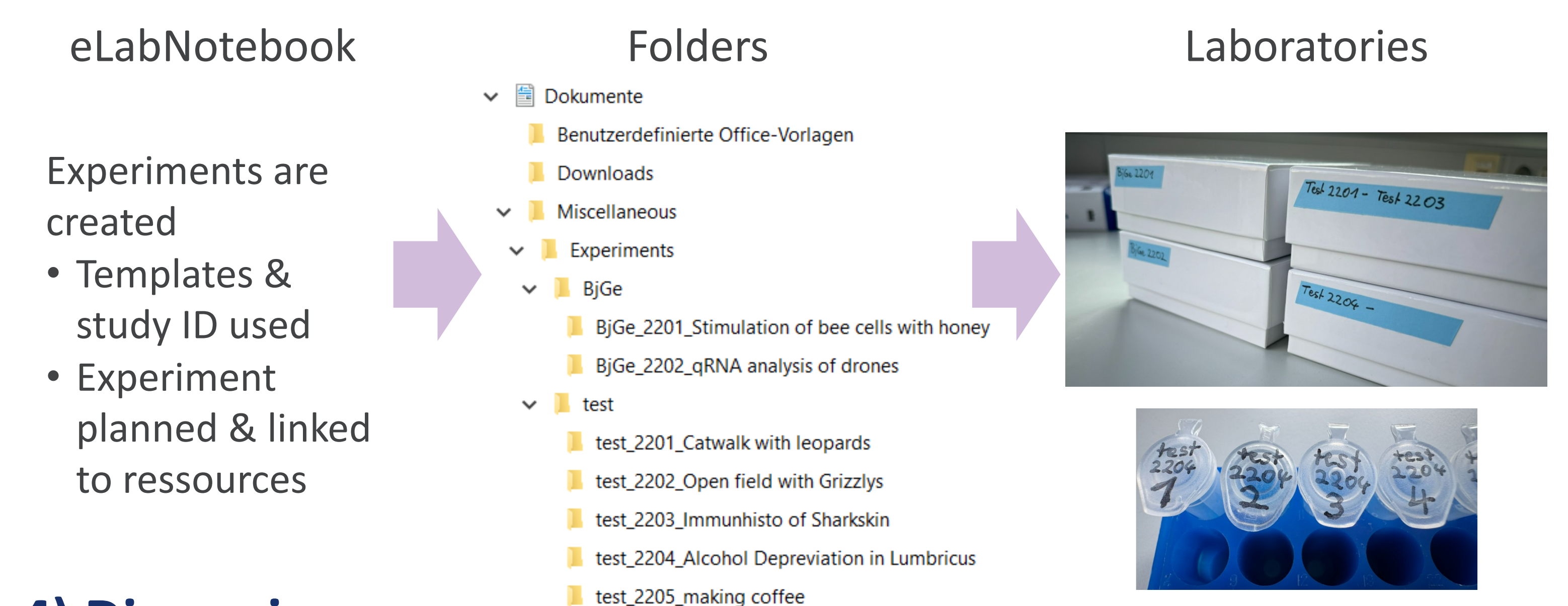
A unique identifier was created which is used by every experimenter and for every new study.

It consists of a short abbreviation of the project or name (green) followed by the year (blue) and an up-counting number for the experiment (red) and a title for the study (viola):

Structure: **project\_yearnumber\_description of the study**

Example: **test\_2204\_Alcohol Depreivation in Lumbricus**

Unique study IDs can be used on different levels for traceability of data and materials:



## 4) Discussion

The implementation of the EQIPD QS in our research group highlights both the challenges and successes in promoting best research practices in a preclinical research lab. The most immediate and impactful improvement triggered by the QS concerns research data integrity.

Our case study also underlines the importance of gradual adoption of quality practices and cultural shifts in a research lab. Communication and close exchange about best practices is mandatory for success.

## 5) Take home message

- QS introduces helpful improvement mechanisms
- Positive impact on data integrity reported
- Cultural change is observed

## 6) Literature

[1] Bepalov et al. (2021) eLife 10:e63294

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