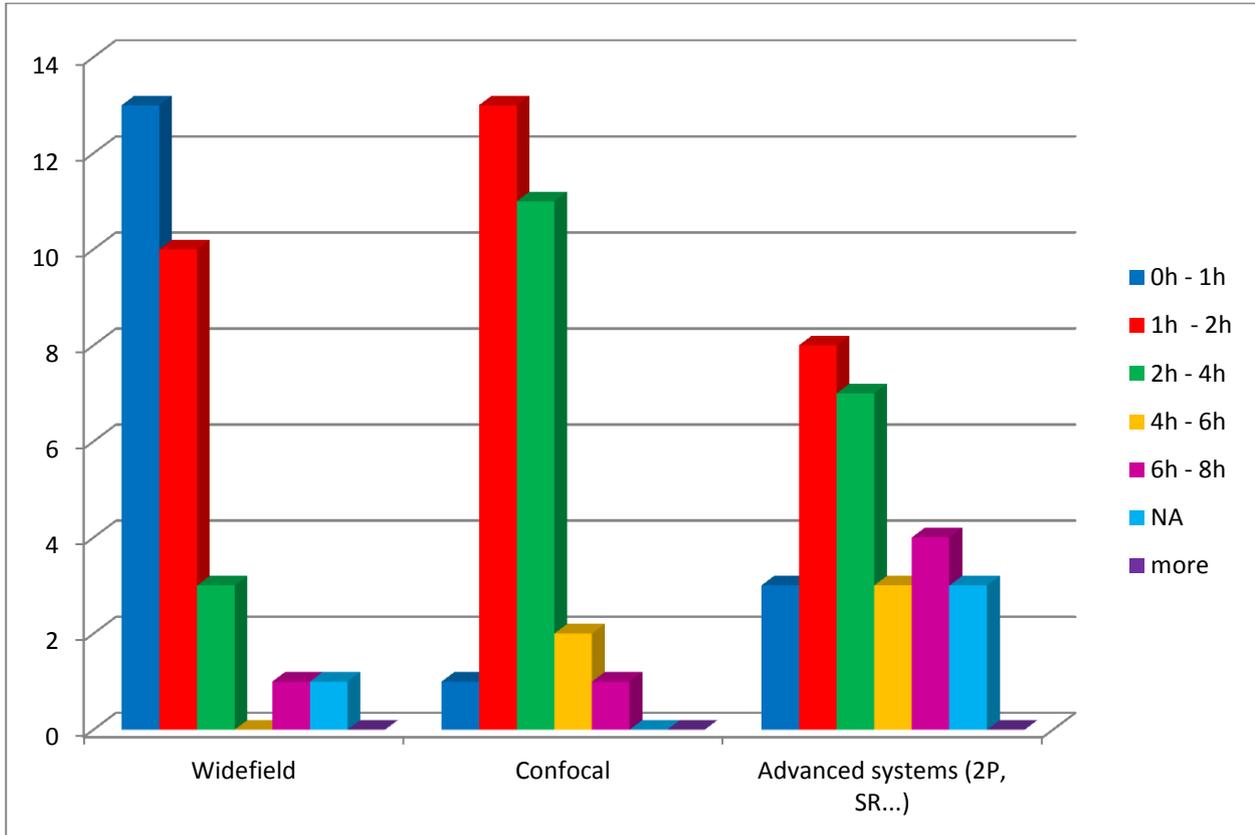


## ELMI 2017 core facility session

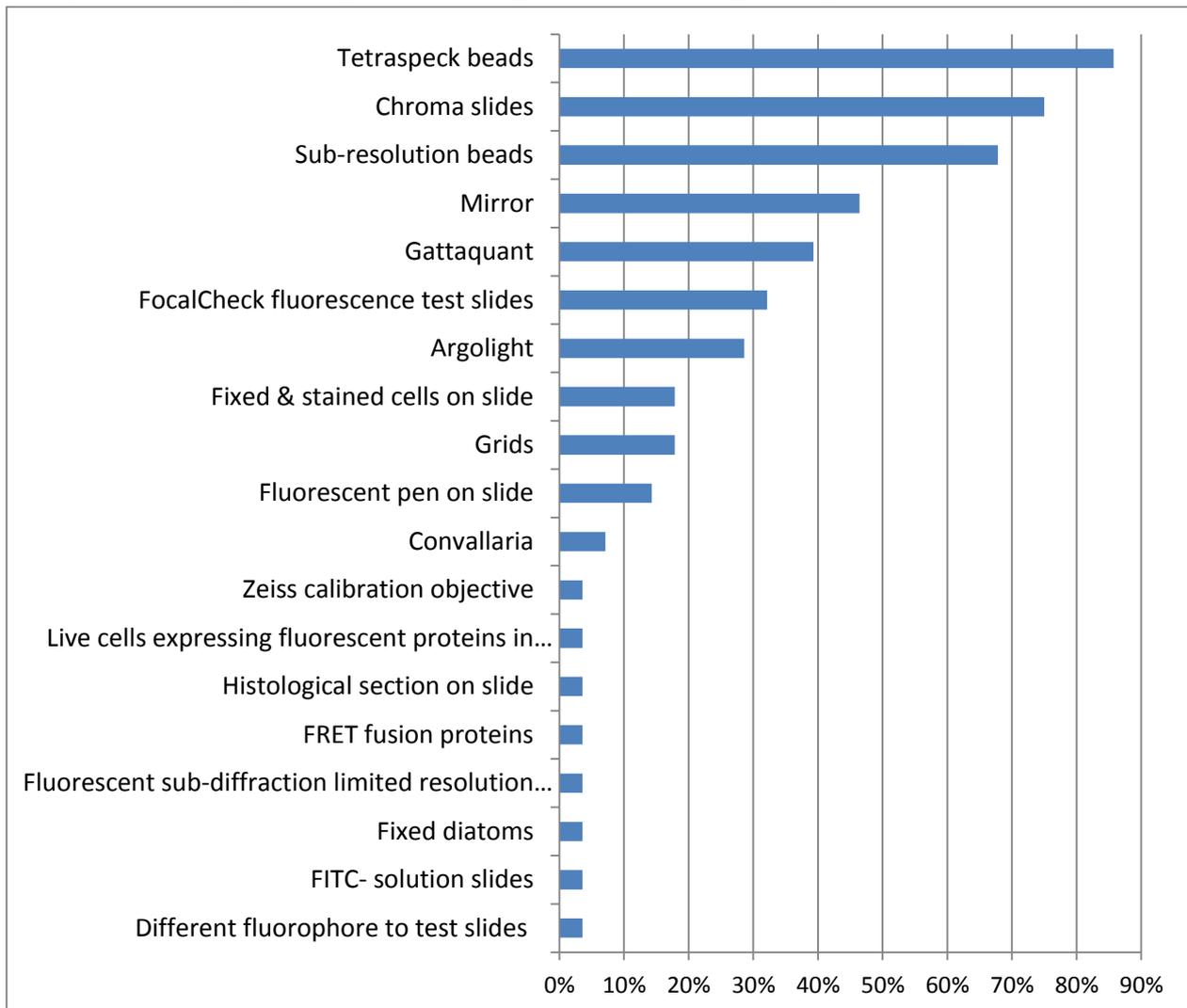
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### *Results of the Survey on microscope maintenance*

**How much time do you spend on maintenance\* per system per month?**



## Proportion of participants using the following samples



### Additional comments:

Subres/tetraspeck - distance to coverslip. Should be possible to get a sample with a fixed/close, or maybe multiple, positions to the coverslip.

Good protocols for preparing bead samples would be very useful! 3D test samples would be useful.

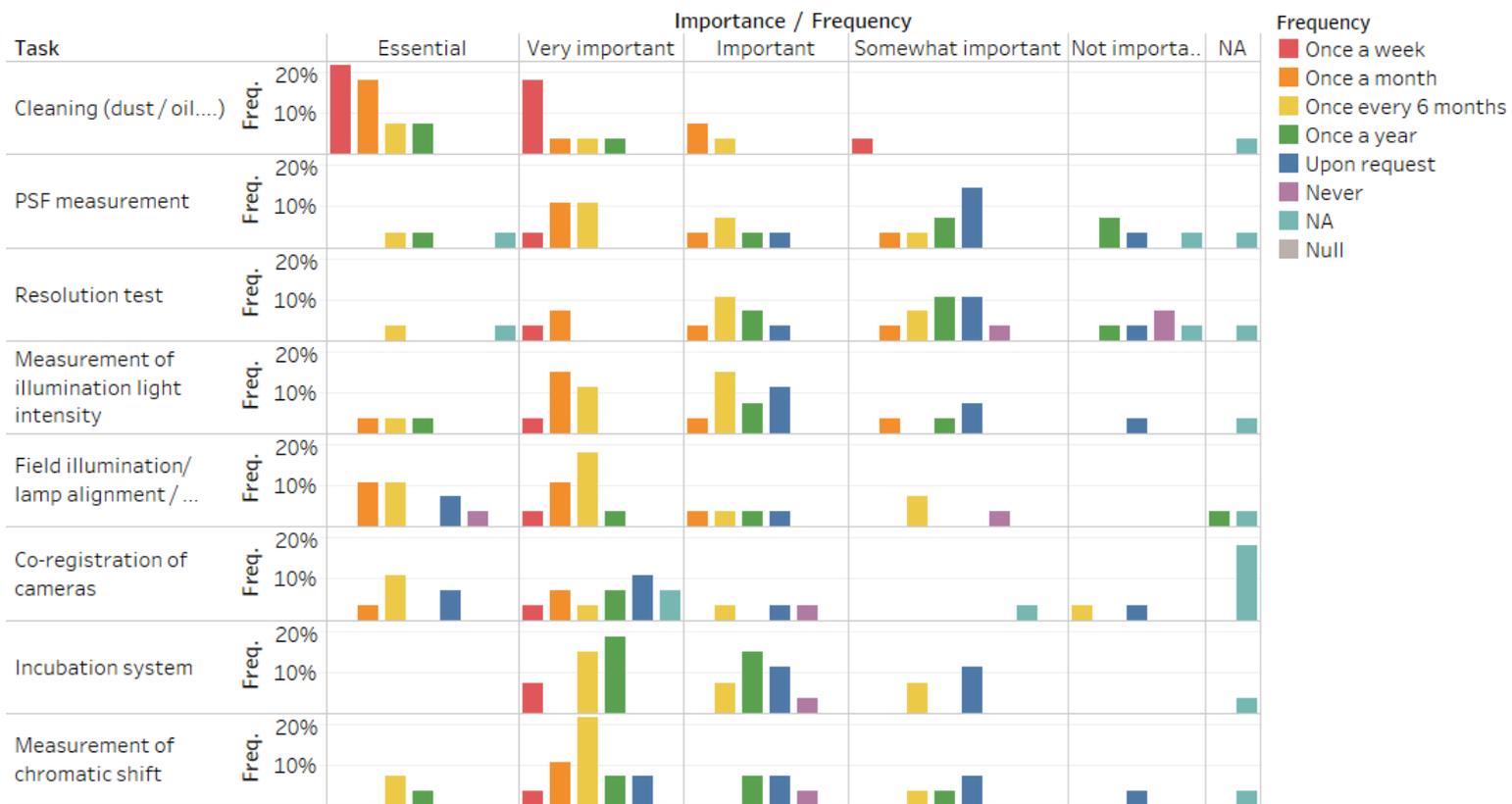
The shelf-life is too short for certain test samples - gattaquant,

How to exclude the human factor in QC? We need an automated approach for the QA/QC for the test samples

How to define specification? e.g. when do you consider a psf not good? specs from supplier. Need cheap test slide.

Doesn't mimic the sample prep;

# Maintenance of widefield microscopes



For each task, % of total count of frequency, broken down by importance rating. Color show details about frequency.

## Comments:

Depends if the system is only a WF or if it's also used for super-resolution

# Maintenance of confocal microscopes



For each task, % of total count of frequency, broken down by importance rating. Color show details about frequency.

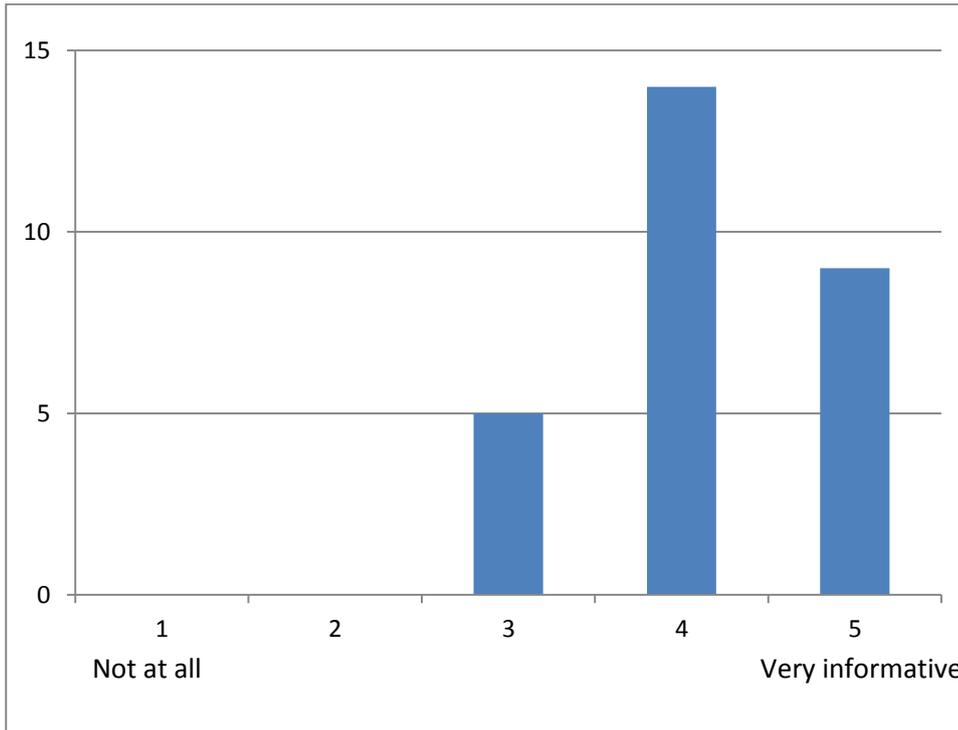
**Comments:**

Depends a bit on the usage / It depends a lot of application

## Maintenance on other systems

- ❖ Robot slide scanner
- ❖ Super Resolution:
  - Gattaquant, Gold beads, weekly
  - every day
  - STED
    - resolution test essentially before each usage
    - PSF with Gattaquant, experiment-based
    - PSF once a year, STED alignment upon request
    - same maintenance as for confocal microscopes + co-alignment checking
  - SMLM
    - every two month
    - testing every month before/after imaging
  - SIM
    - PSF measurement once every three months in average
    - same as for confocal microscopes
- ❖ Multiphoton:
  - 2PH tomography system, light path cleaning and adjusting
  - illumination field of view once every half year (other tests done on confocal part)
  - Multi Photobucket
  - every week
  - same maintenance as for confocal microscopes
  - laser alignment, power measurement, weekly to monthly
- ❖ EM
  - weekly alignment of beam (astigmatism)
- ❖ Light sheet
  - thorough cleaning of chamber,
  - lightsheet alignment
- ❖ FLIM
  - instrument response function, counts per molecule, before each session

## How much did you like this format of discussion?



### Additional comments:

- More time for questionnaire and interaction in the group
- Discussion is very helpful. The concept of filling out online forms is flawed (how to fill out as a group? Can't take average values, takes away from discussion time. Scrap that part)
- Discussion useful but questions too many
- Very good idea to use google docs