From ICFO
BioNanoVision
Barcelona

To OME
Dundee

MAX PLANCK INSTITUTE
for the science of light

FAU FRIEDRICH-ALEXANDER UNIVERSITÄT ERLANGEN-NÜRNBERG

OME

as a backbone in a complex IT infrastructure

Challenges
of multi-user & multi-system integration

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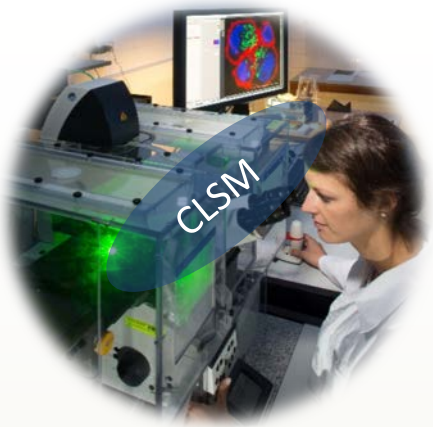
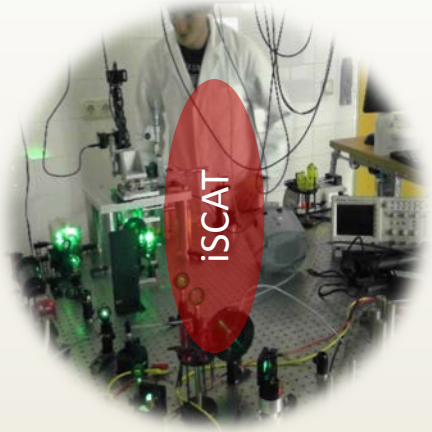

CLSM

Intravital

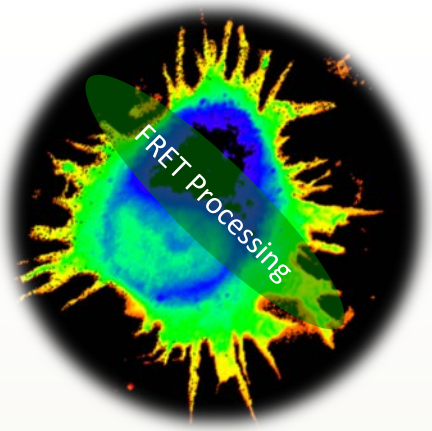

iSCAT

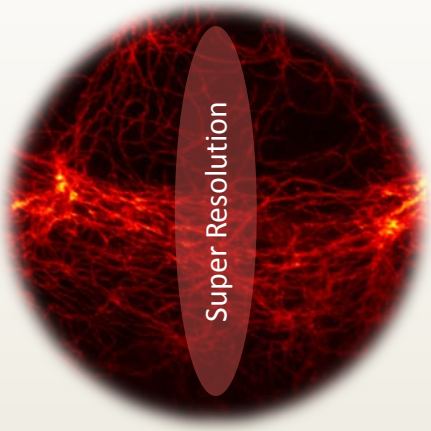
Optics

STED Resolft

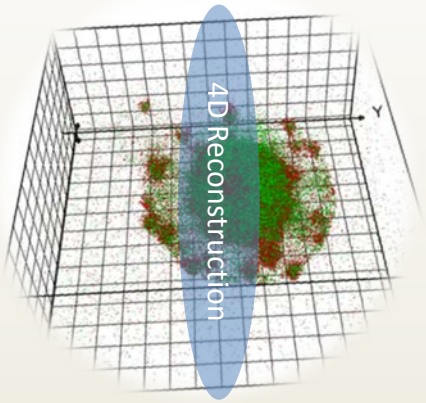
Life Imaging

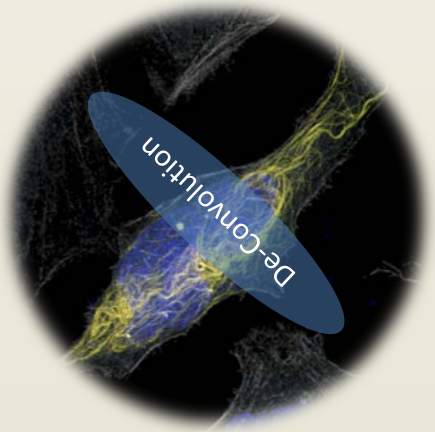
3D SR
Reconstruction

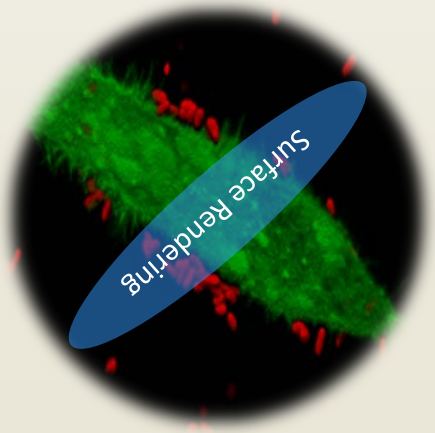

FRET Processing


Super Resolution

Neuronal Trafficking


4D Reconstruction
Y


De-Convolution


Surface Rendering

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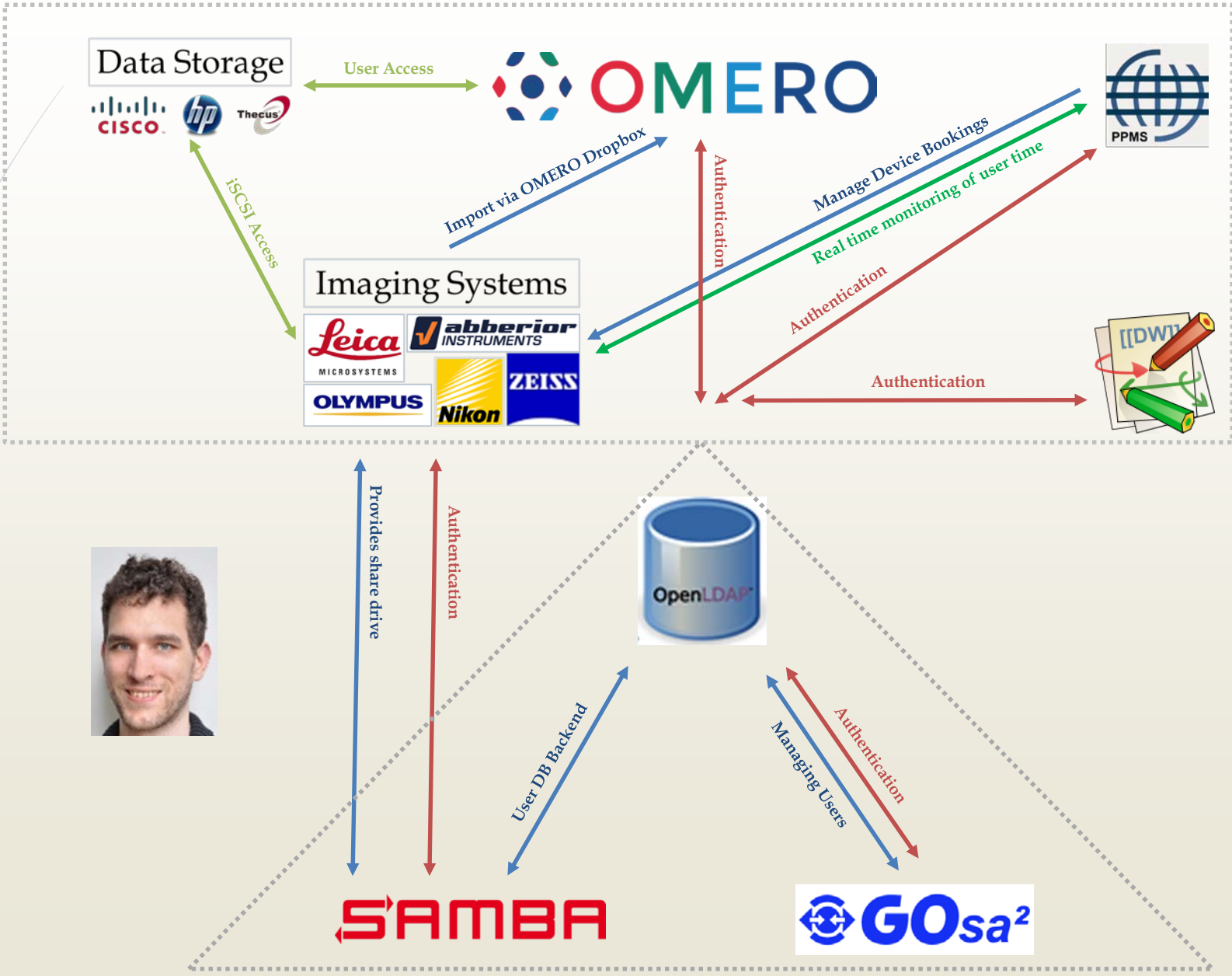
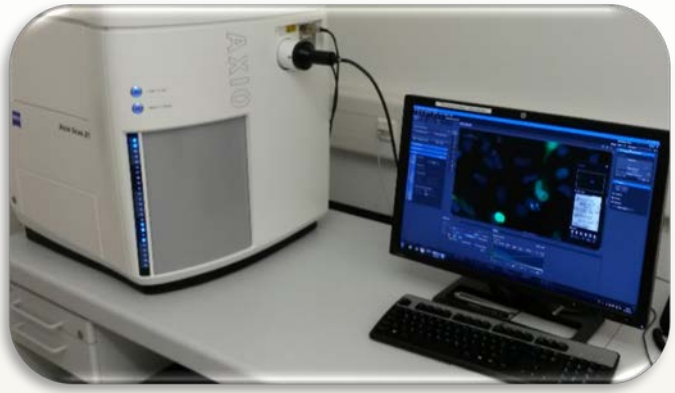
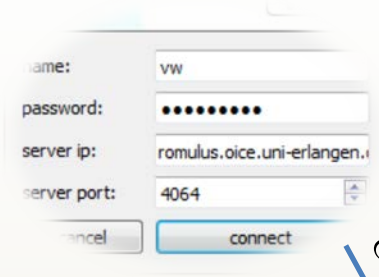


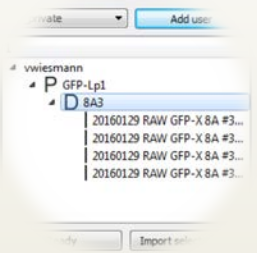
High Throughout Automated Image Quantification with CaeT2 and OME

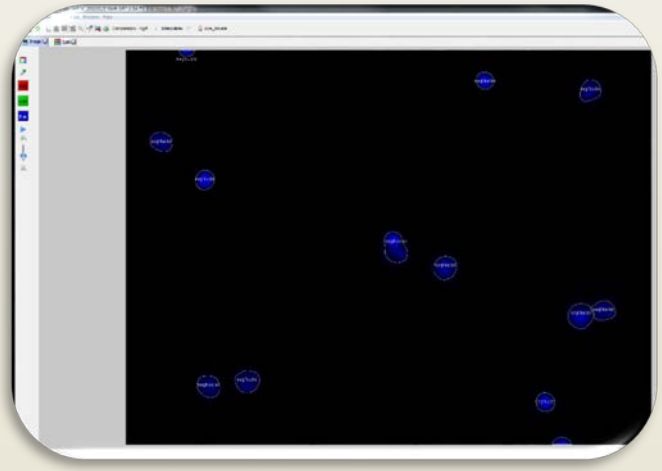


OMERO



CaeT2





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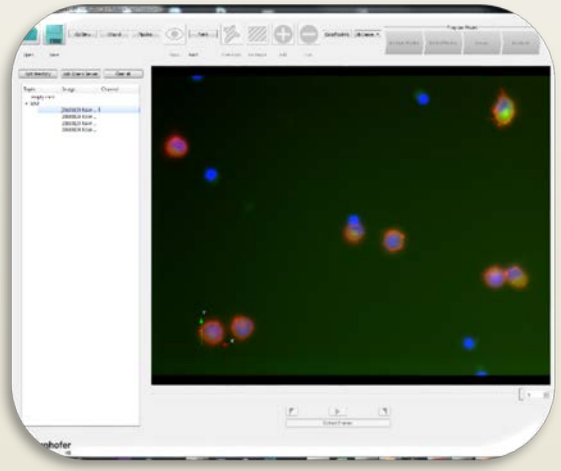

CaeT2 Automated Segmentation

J Microsc. 2015 **Review of free software tools for image analysis of fluorescence cell micrographs.**

Benefits

- Open source platform, well established and helpful community.
- Support for almost every image format via Bioformats library.
- Easy to organize research by directly attaching meta data to projects, data sets and images.
- Rights management and groups enable easy collaboration on data
- Central storage of data eases back ups and long term archiving.
- Data easily be accessed from any place that offers internet access.
- Online analysis possible and more powerful tools can be added by including custom Python scripts.
- ROIs can be saved alongside of images. This is especially useful for STED and other super-resolution imaging. However, currently the ROI meta data is not always properly imported.
- OMERO figure is the “killer” app to convince users.

Work to do!

- The groups feature is not yet powerful and intuitive enough. Users expect the be able to have an image in several groups, e.g. for sharing with several collaborations. Moving data between groups is slow, and unnecessary if several groups are supported.
- Organization of images that are in one raw data file needs to be clearer, e.g. by a collapsible tree view.
- DropBox needs to allow upload to Groups, Projects & datasets according to folders with fallback to *Orphaned Imaged.* It would also be highly beneficial if there would be an inplace import option à la hardlink + delete on success.
- Certain parts of the OMERO.server are not stable enough and recover baldly from errors. If there are problems with Unicode characters or erroneous permissions, the system should continue to functions if possible.
- Novel microscopy formats such as Abberior Instruments Imspector MSR format are currently poorly supported and patches to OMERO are slow despite cooperation from the developers.
- With v5.1.2, it is still not easily possible to change ownership of images or whole projects, not even for administrators.

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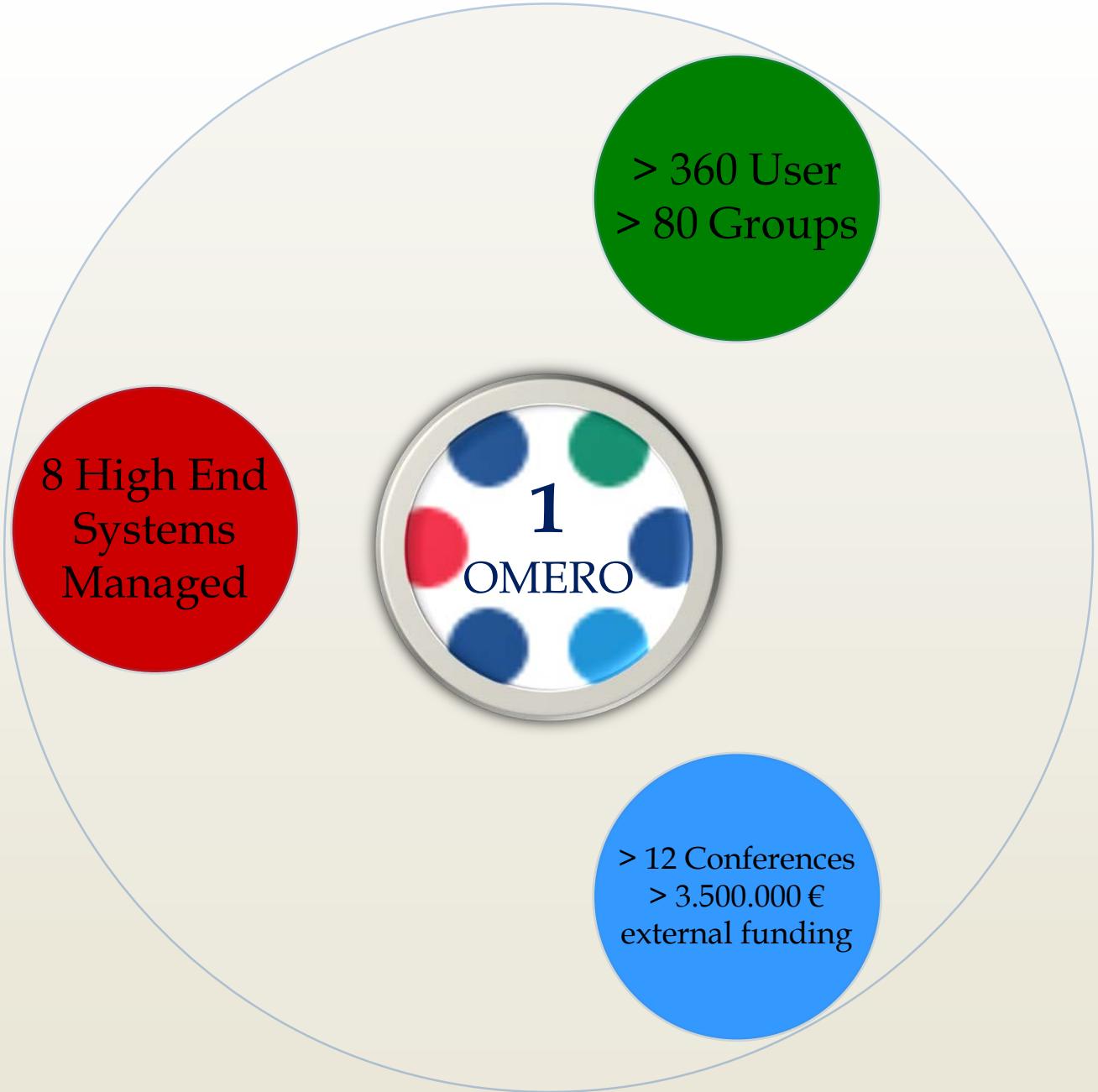
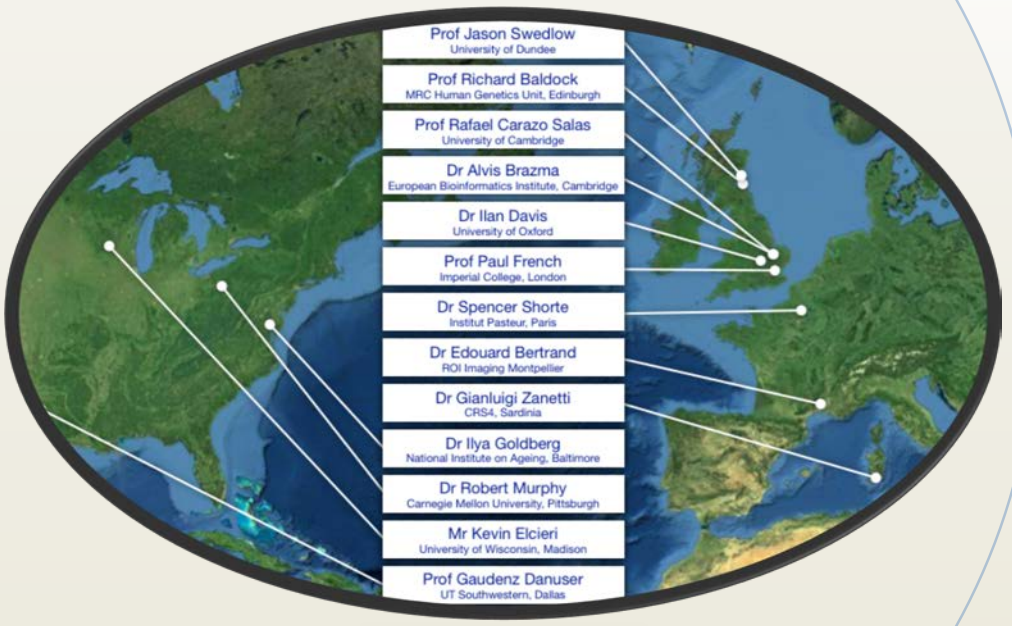
So here we are…
The plank across the goldfish pond still going strong

That's why we are all smiles!
Philipp, Benjamin, Ralph

Number crunching OICE since 2014



Thanx to OME & Supporting Groups



Let's be silly enough to walk on!