

Who are we?

Blazej Pindelski

OME Core Software Developer

University of Dundee

College of Life Sciences

Working on the server code and
test infrastructure



Douglas Russell

OME Software Developer

University of Oxford

Department of Biochemistry

Embedded developer in The
Department of Biochemistry



Data in Life Sciences

Vast data amounts in *biological imaging*

University of Dundee: ~13 TiB, monthly increase: 300 GiB

University of Oxford: ~13 TiB, monthly increase: 1 TiB

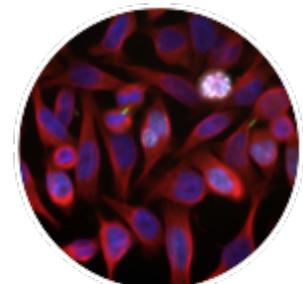
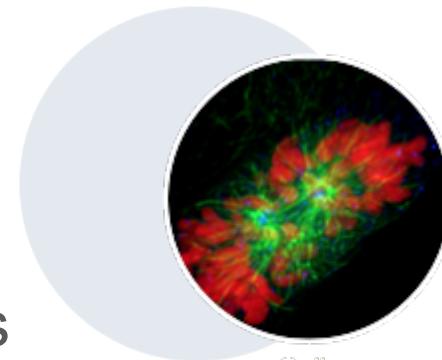
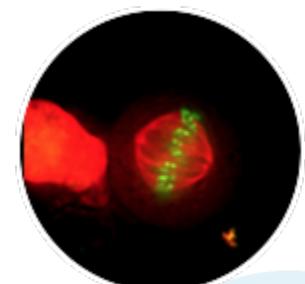
An image is a measurement

Qualitative and quantitative analysis

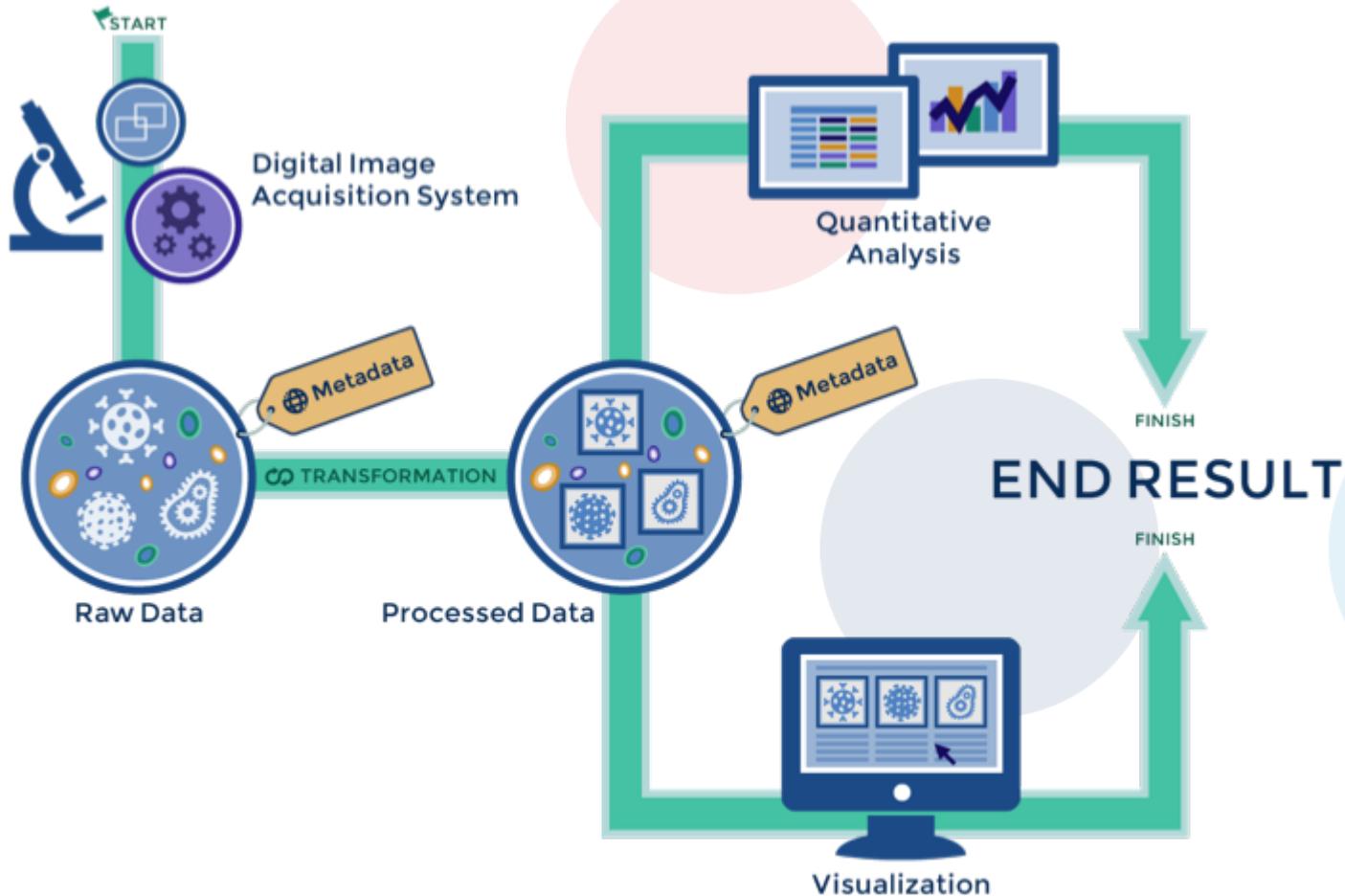
Drive towards *shareable* resources

“How can I reproduce this experiment
and compare my results with the paper?”

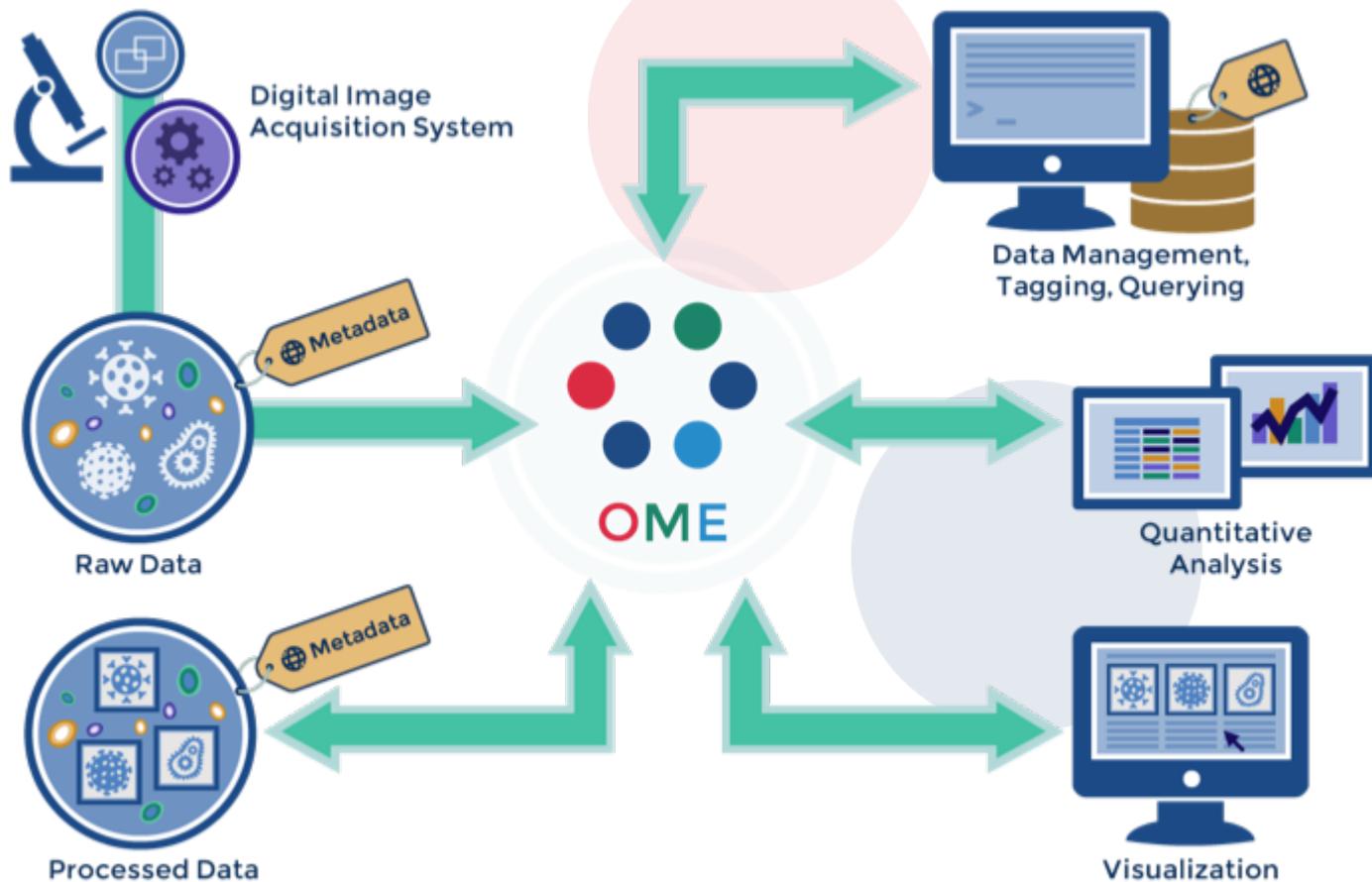
Cells



Standard workflow



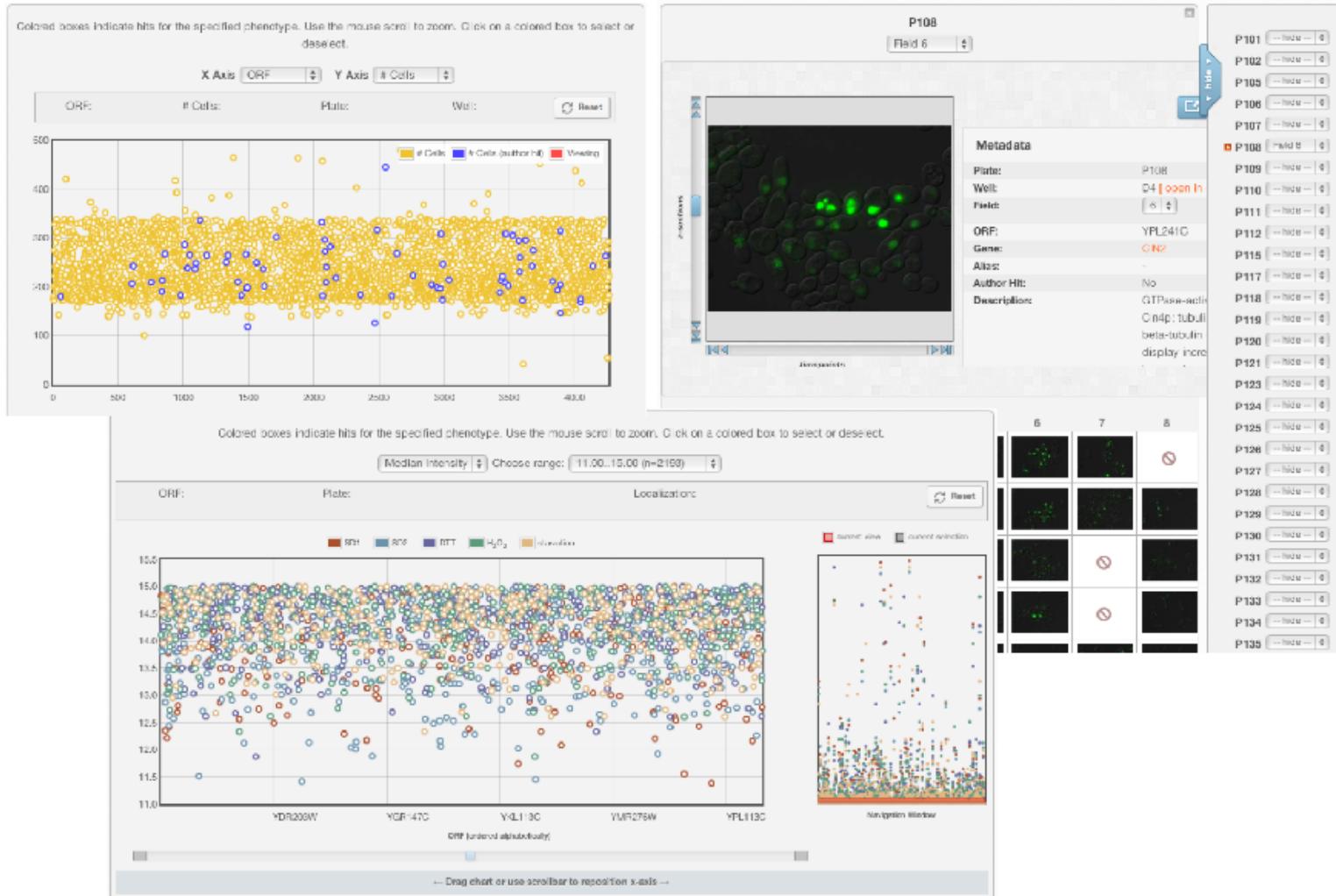
What is OME?



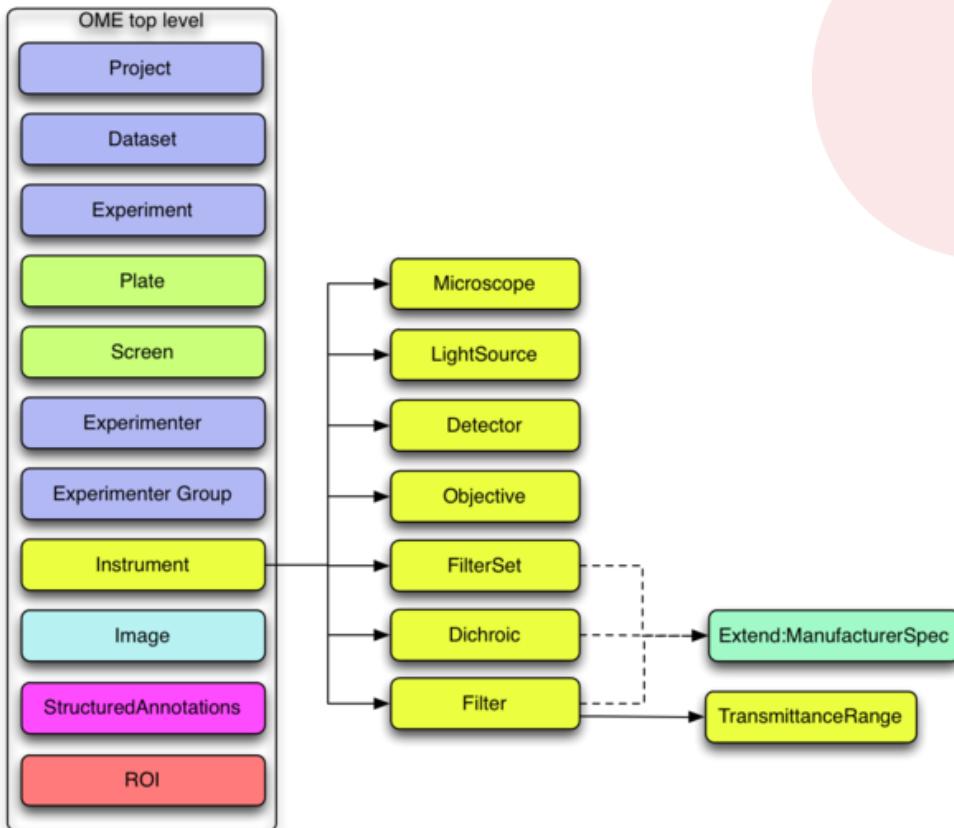
Increasing image complexity



Increasing image complexity



Metadata exchange standard



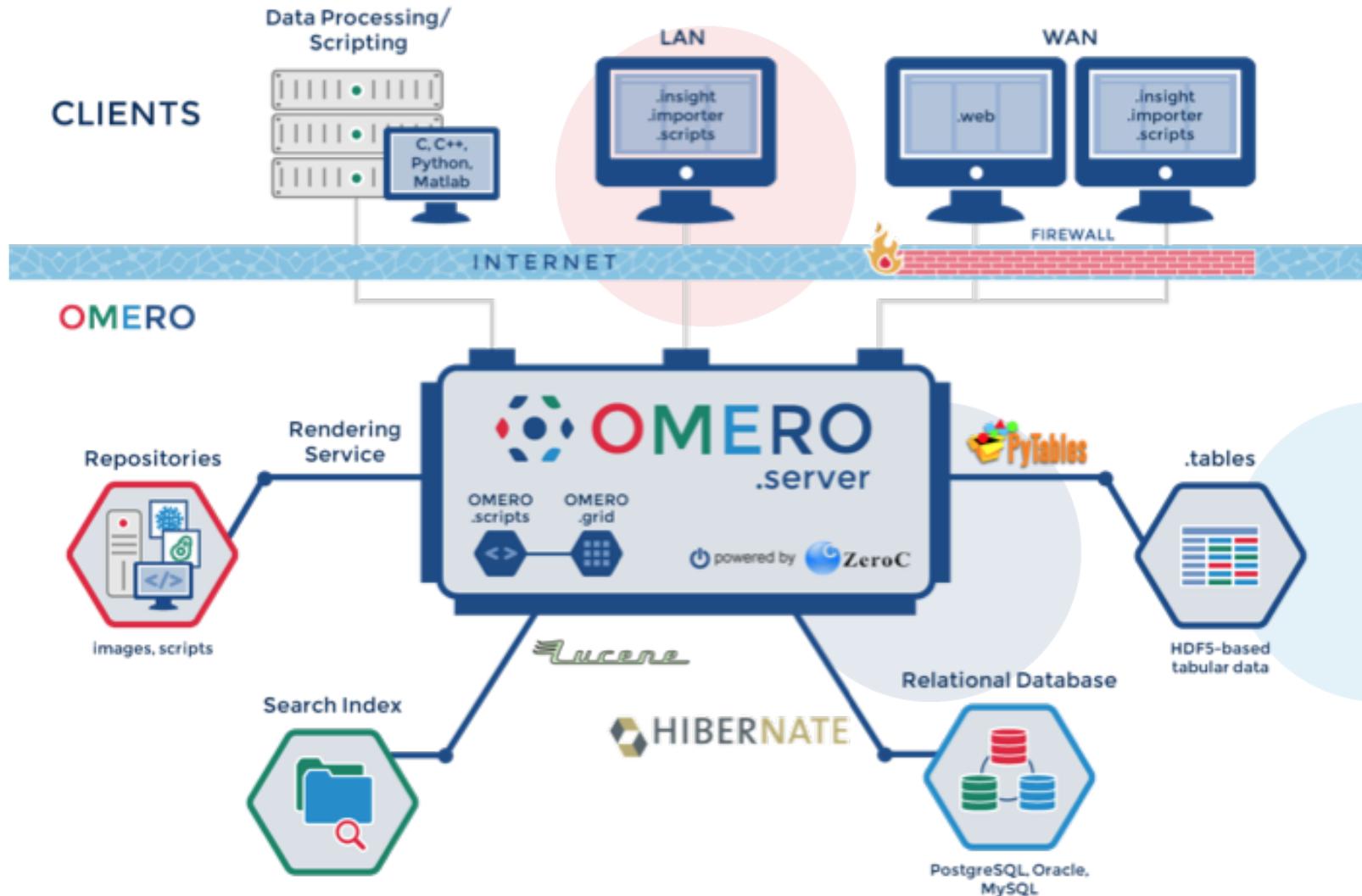
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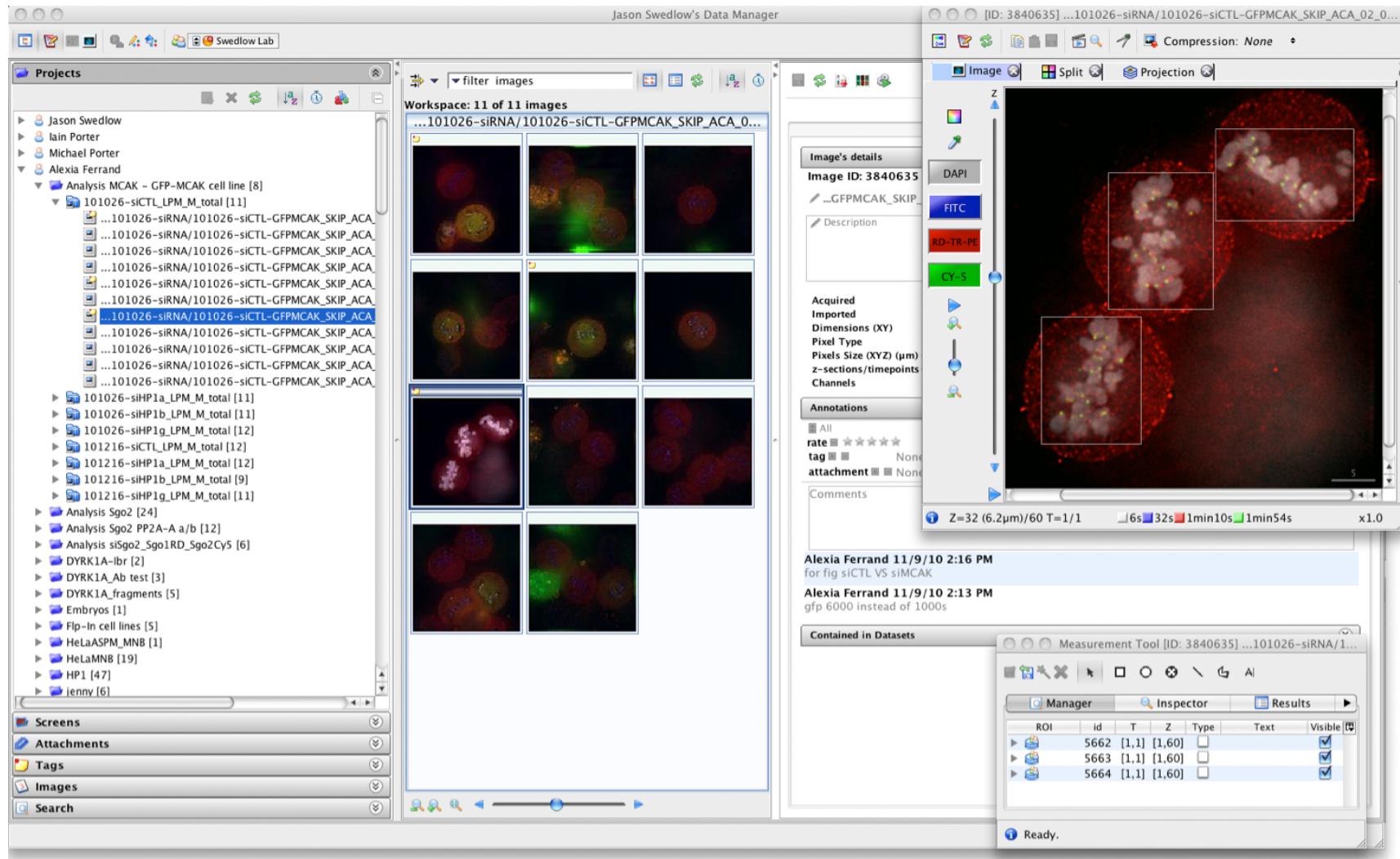
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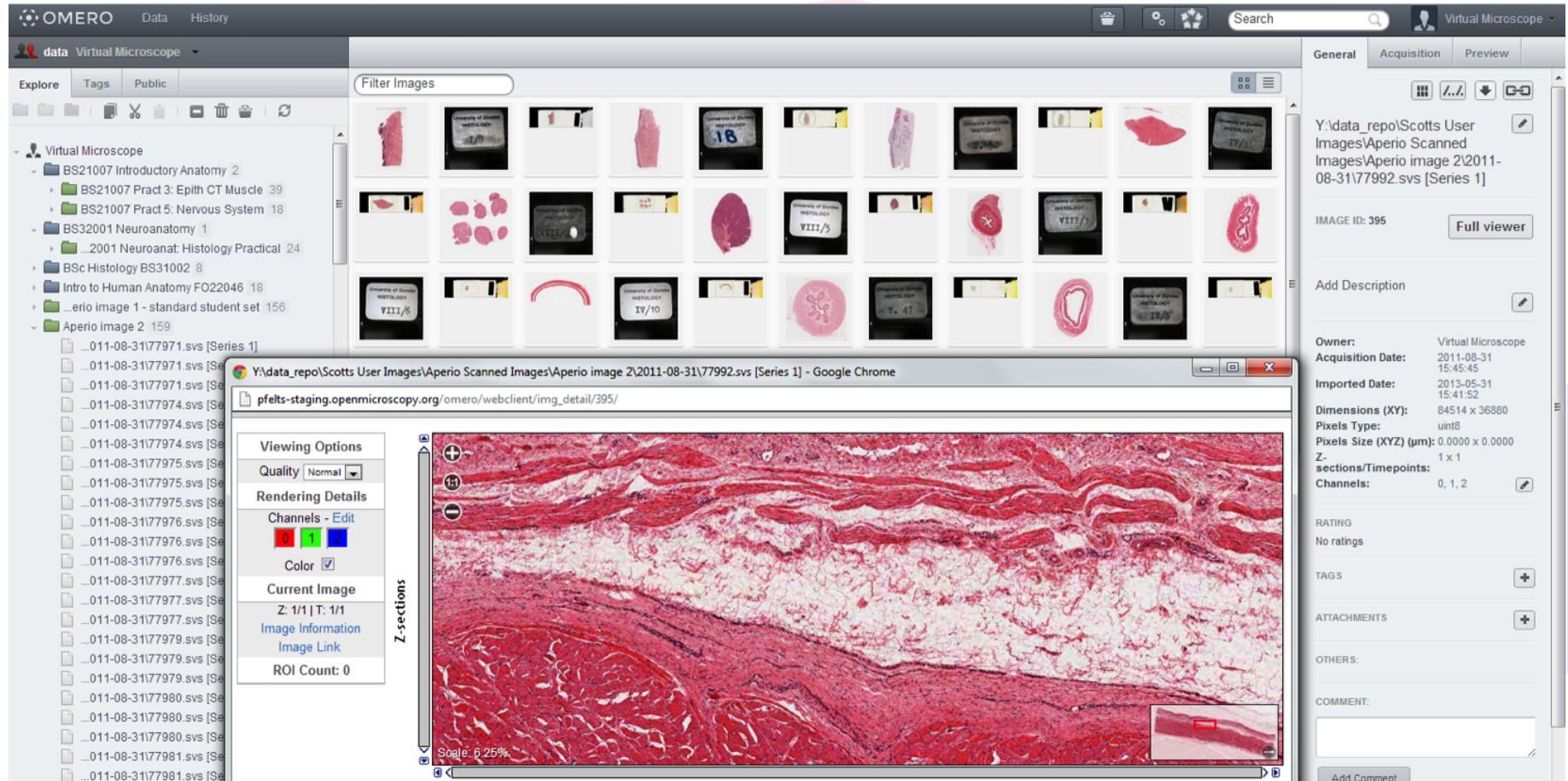
Open Data Management Platform



OMERO clients - desktop



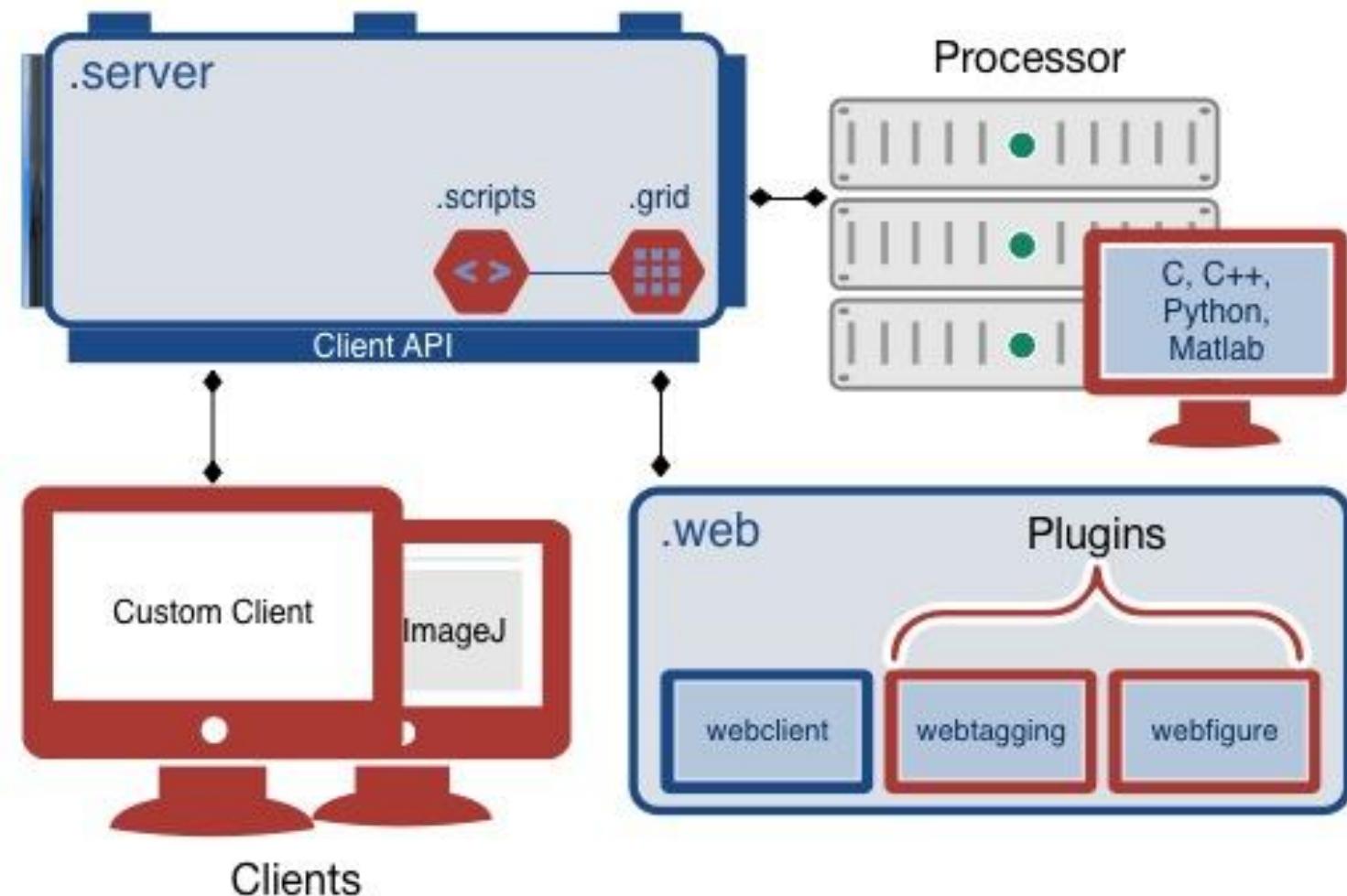
OMERO clients - web



Google “omero web plugin”



OMERO's Extensible Platform



ZeroC ICE (Internet Communications Engine)



xml



C++



<http://www.zeroc.com/>



Microscopy & Open Source



+ 119 Other Formats



Academia & Open Source

Not always a natural fit

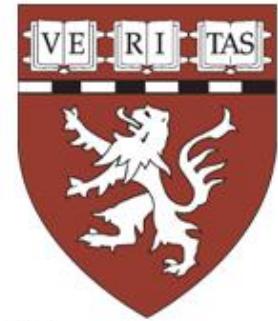
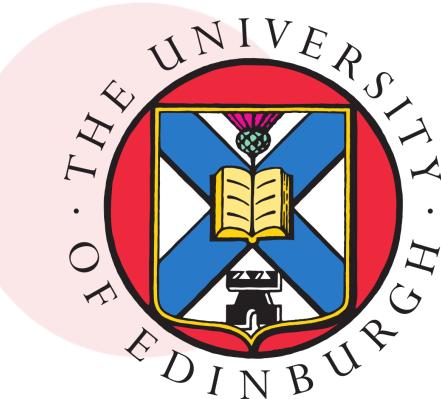
Crucial to widespread adoption

Funding Dependant

Long-term sustainable solution



Consortium



Imperial College
London

National Institute
on Aging ■ ♦ * *

Carnegie Mellon

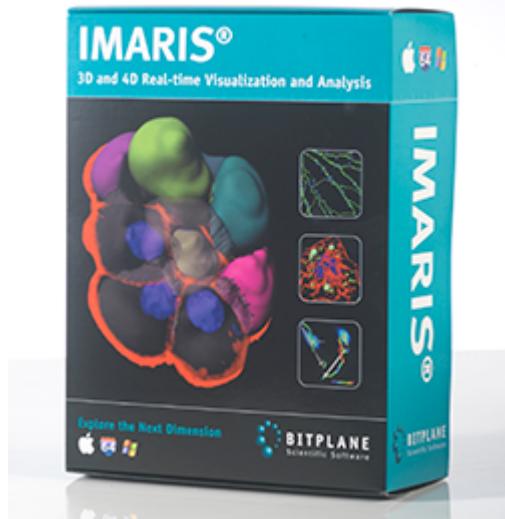


Institut Pasteur

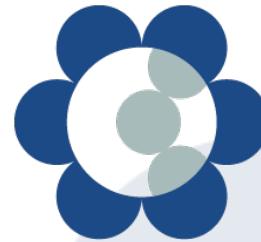


Integration with popular tools

ImageJ
Image Processing and Analysis in Java



Commercial Partners



GLENCOE
SOFTWARE

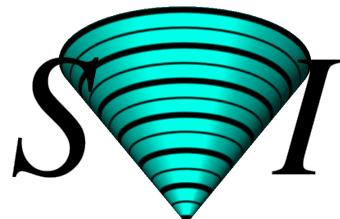


A GE Healthcare Company



3i

Intelligent
Imaging
Innovations



Scientific Volume Imaging



Open Microscopy Environment

GitHub, Inc. [US] https://github.com/openmicroscopy

Biochemistry OMERO Dev Code Git Databases Unix Backup Filesystems & Storage Virtualization Networking dpwrussell.com Windows Cycling

Search or type a command Explore Gist Blog Help dpwrussell

Open Microscopy Environment



http://www.openmicrosc...

Find a repository... New repository

openmicroscopy/openmicroscopy Java ★ 54 52
OME (Open Microscopy Environment) develops open-source software and data format standards for the storage and manipulation of biological light microscopy data. A joint project between universities, research establishments and industry in Europe and the USA, OME has over 20 active researchers with strong links to the microscopy community. Funded by private and public research grants, OME has been a major force on the international microscopy stage since 2000.
Updated by sbesson about 1 hour ago

openmicroscopy/Imperial-FLIMfit Matlab ★ 4 3
Updated by seanwarren about 2 hours ago

openmicroscopy/bioformats Java ★ 50 72
Bio-Formats is a Java library for reading and writing data in life sciences image file formats. It is developed by the Open Microscopy Environment (particularly UW-Madison LOCI and Glencoe Software). Bio-Formats is released under the GNU General Public License (GPL); commercial licenses are available from Glencoe Software.
Updated by sbesson about 4 hours ago

Members 45 >



Teams 2 >

Jump to a team

devteam 42 members · 38 repositories

<http://github.com/openmicroscopy>



Acknowledgements & Questions

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Imperial – Paul French, Chris Dunsby, Ian Munro

NIA, NIH – Ilya Goldberg, Chris Coletta

Pasteur – Spencer Shorte, Sebastien Simard, Julien Jourde

EBI – Gerard Kleywegt, Ardan Patwardhan, Ingvar Lagerstedt

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