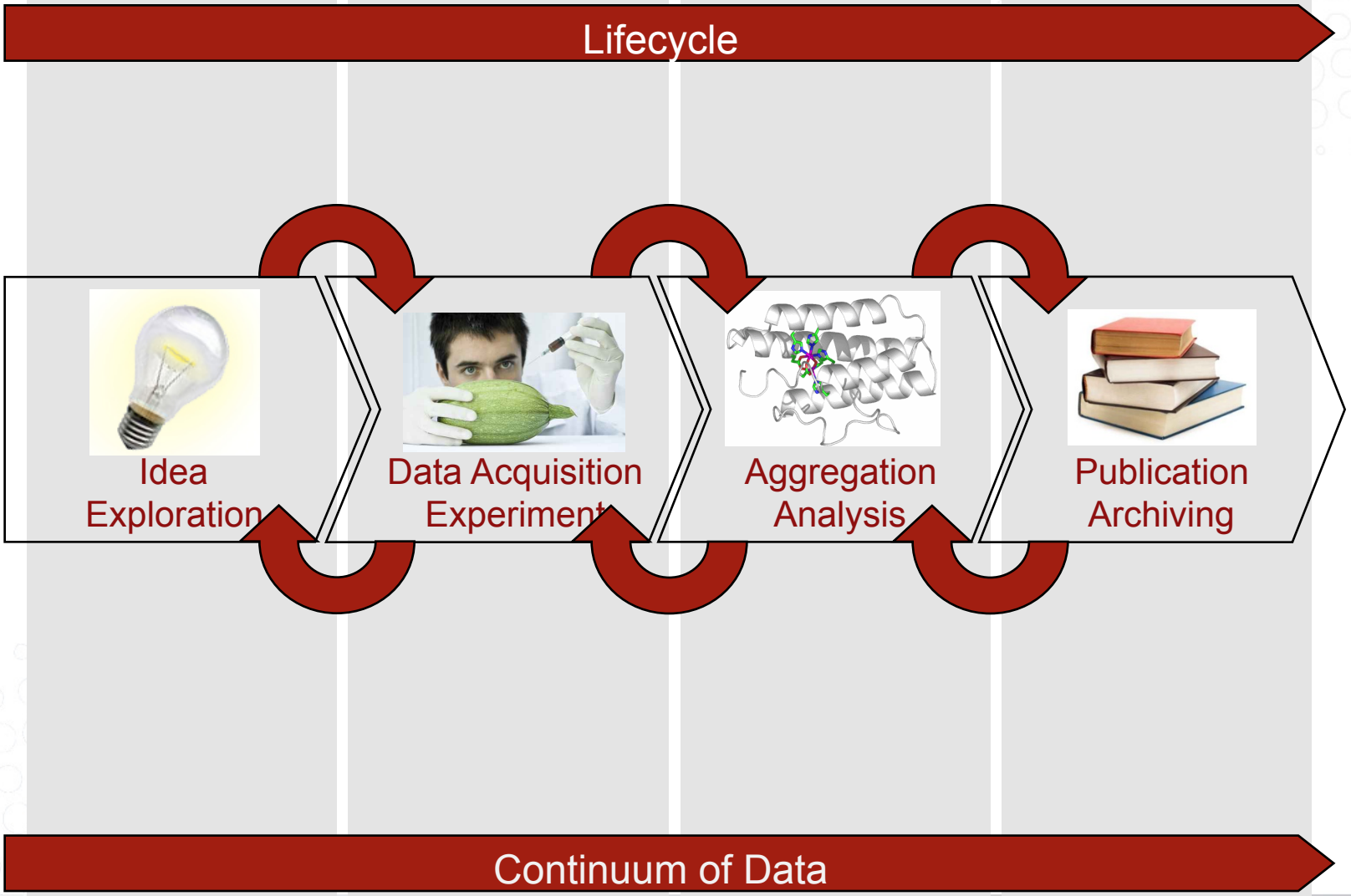
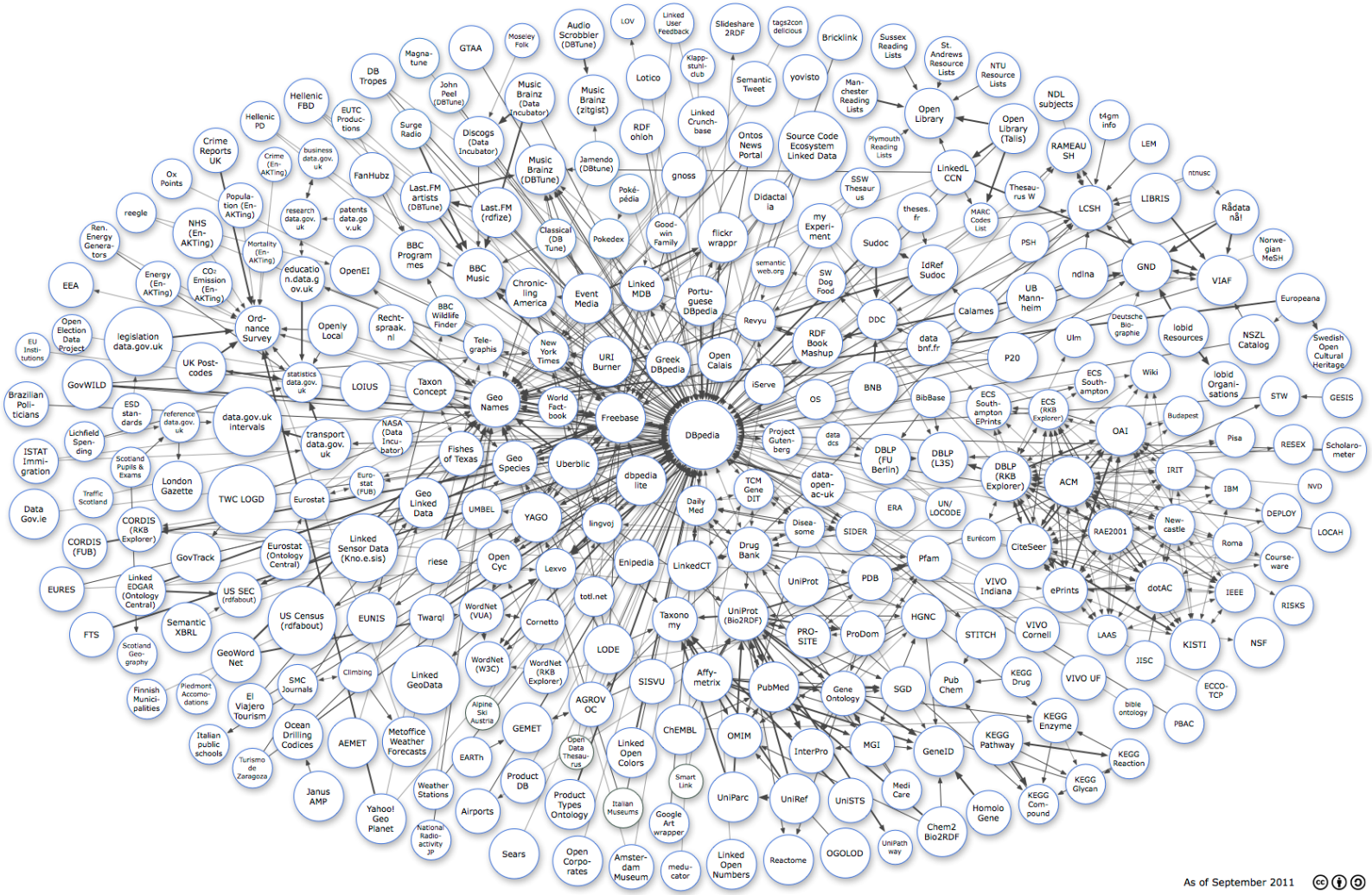
Publication and Research Data

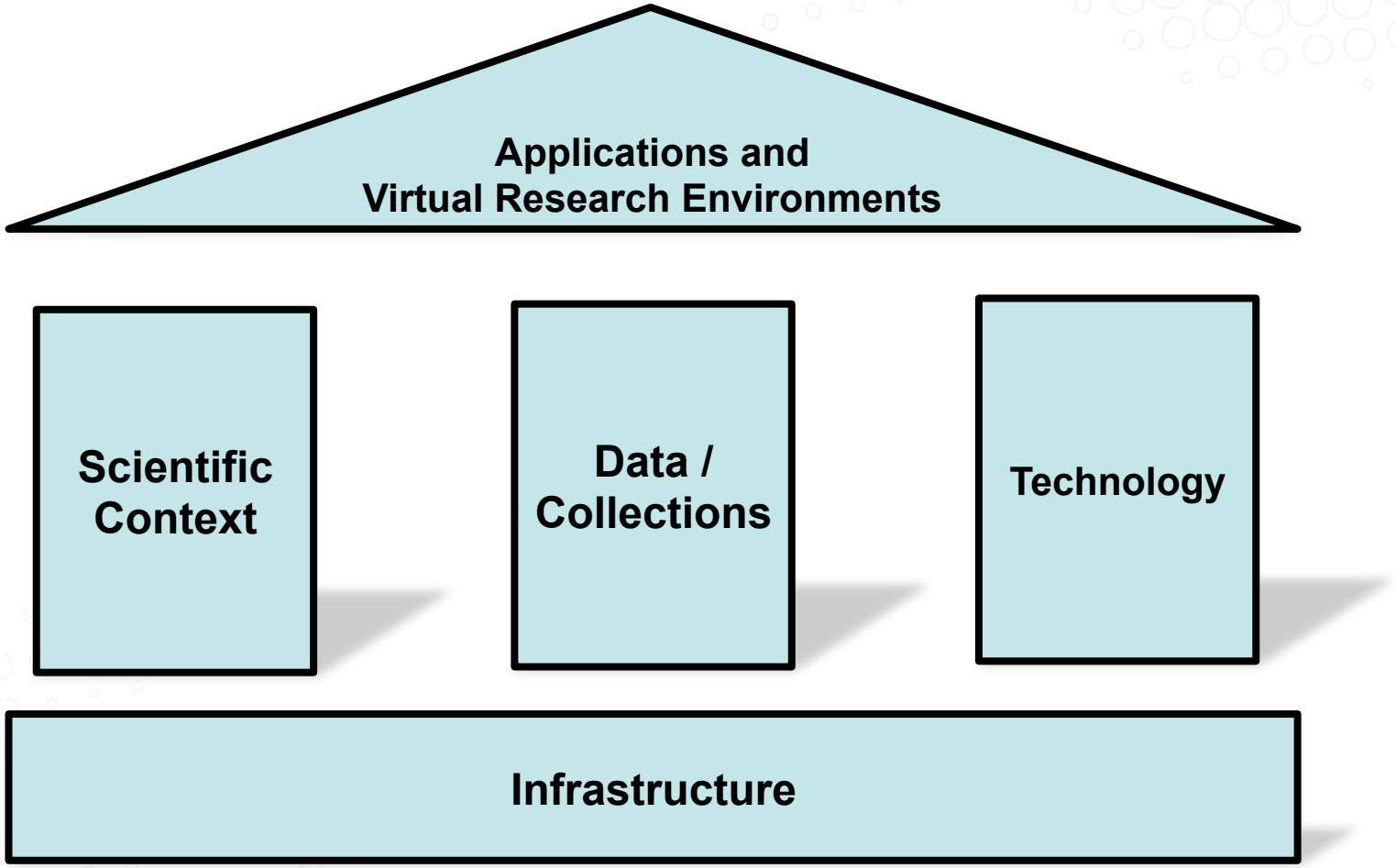


Data Formats, Contents and Files: So Many

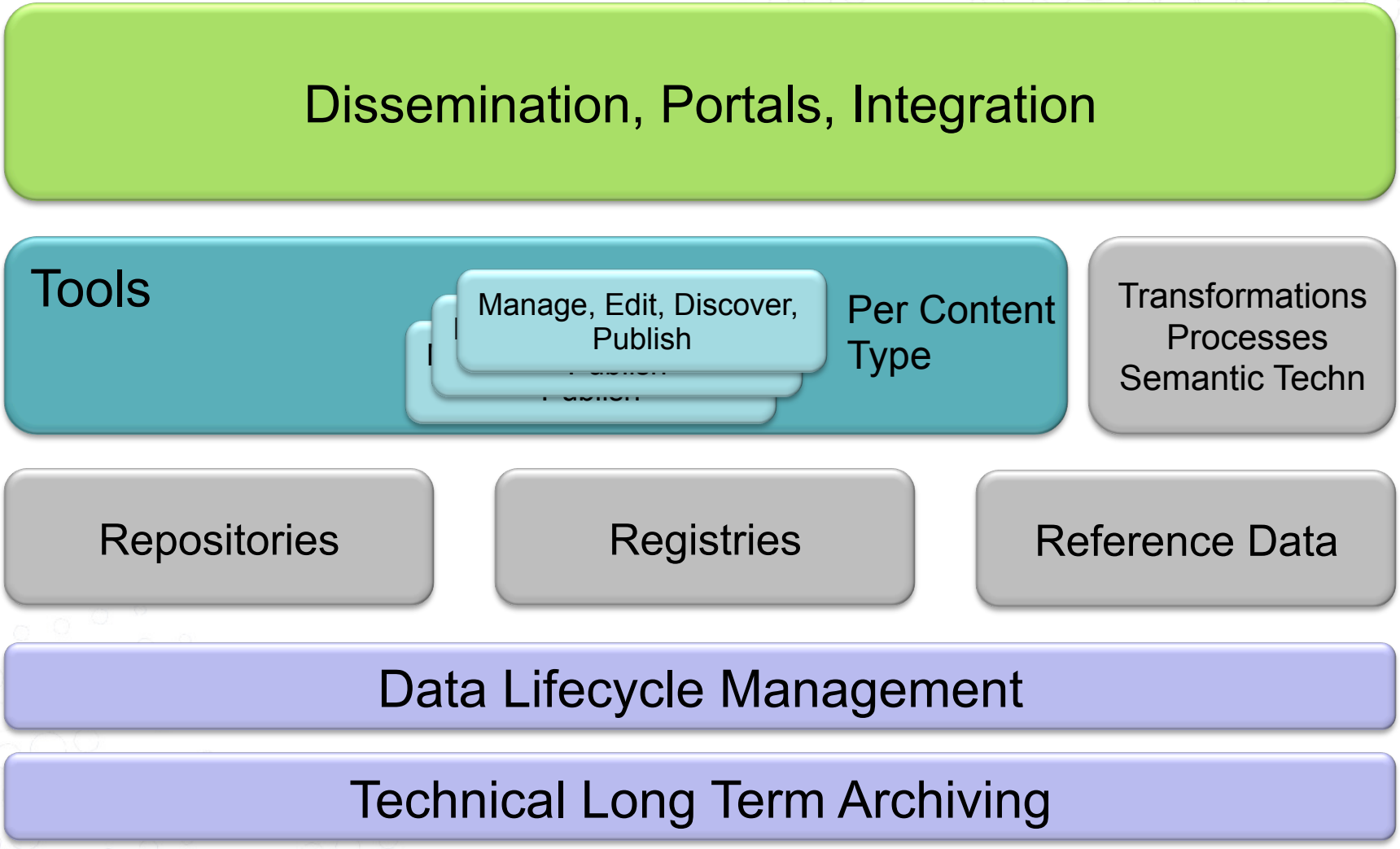


As of September 2011

Transparency of Scientific Discourse



Transparency to Which Extend?

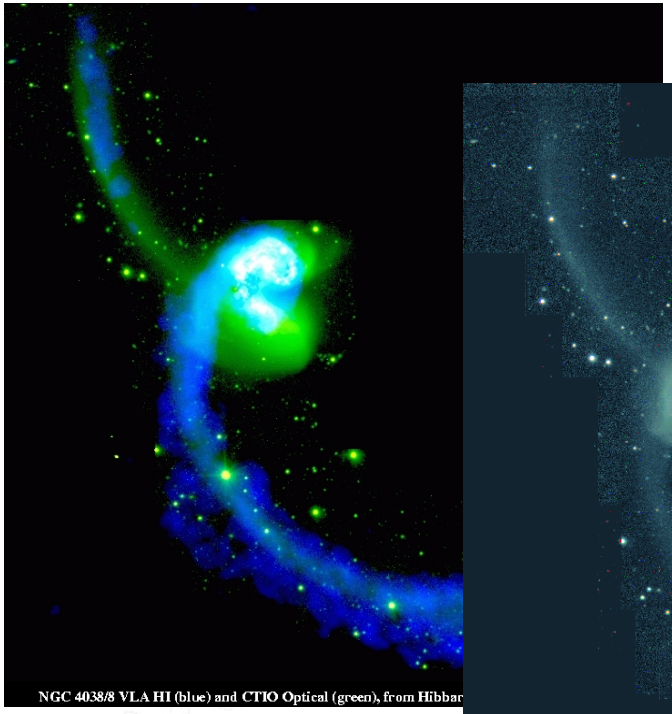


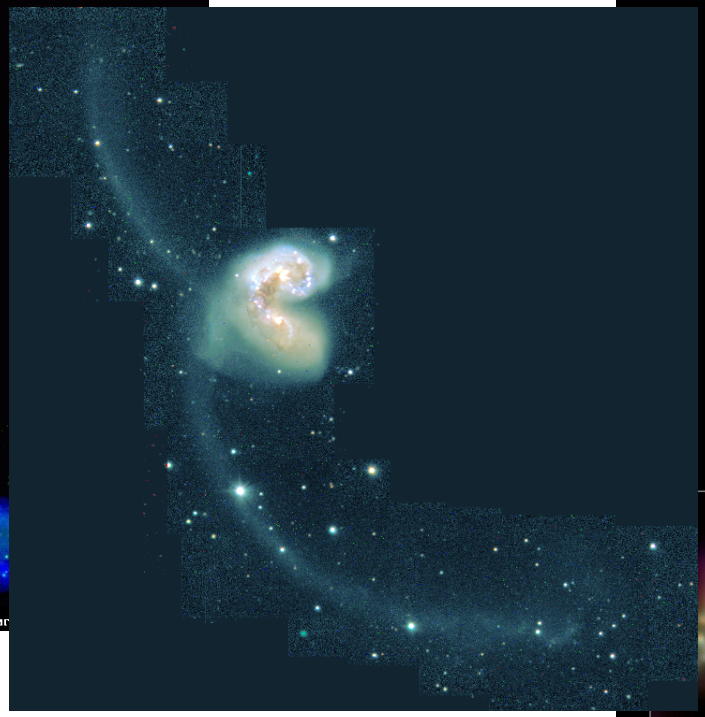
Resarch Data /1: Astrophysics

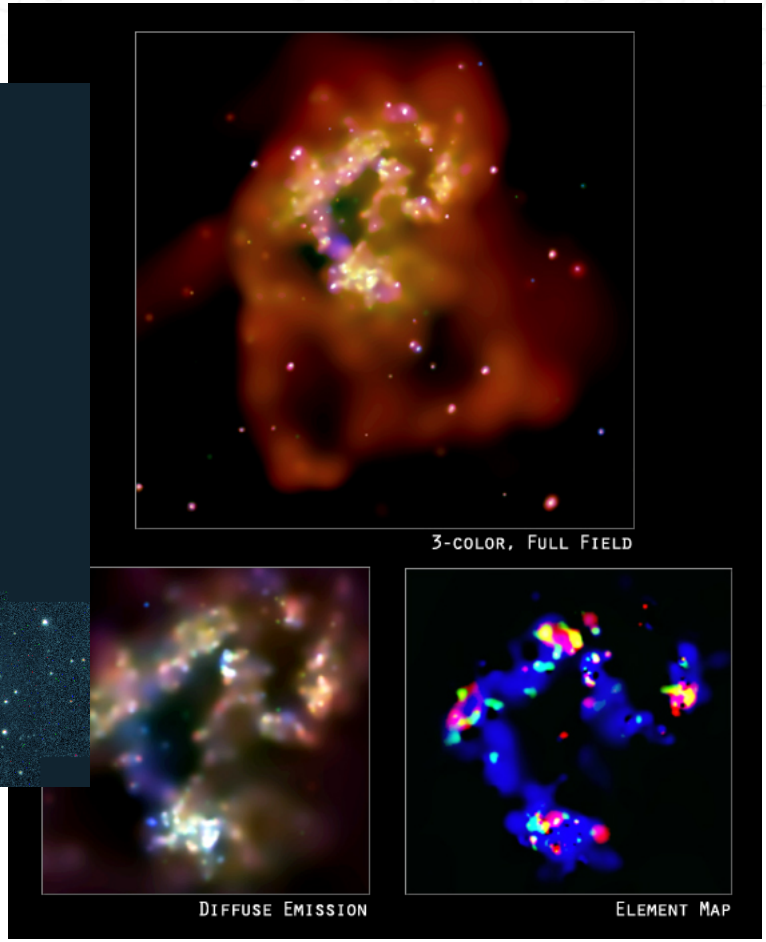
Radio

Optical

X-Ray



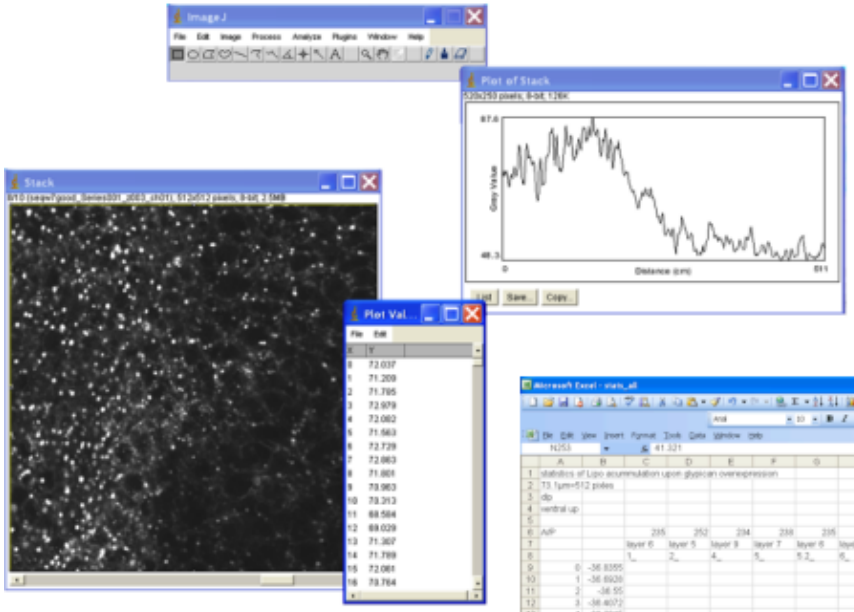




John Hibbard
http://www.cv.nrao.edu/~jhibbard/n4038/n4038.html

NASA/CXC/SAO/G. Fabbiano et al.

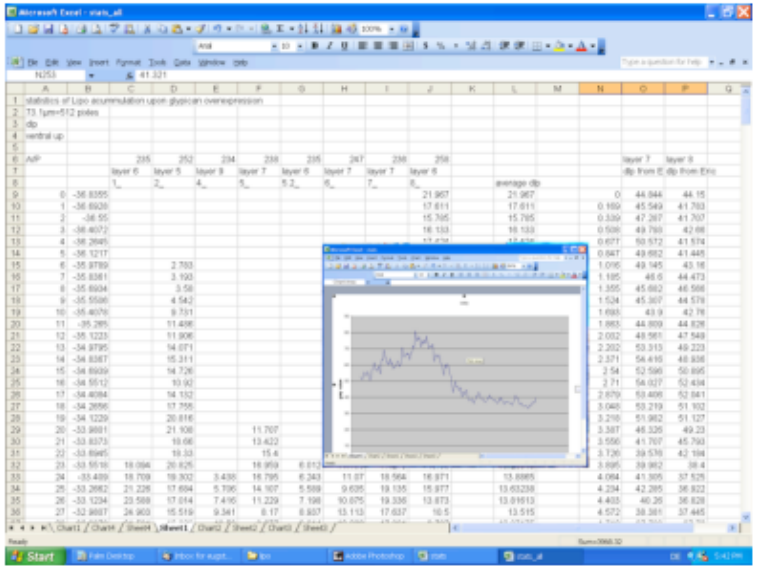
Research Data /2: Analysis Data



Analyzed using a variety of tools - Example ImageJ

Many other tools are used and generate a variety of files - Metamorph, MATLAB, Huygens, Definiens, Deltavision, etc.

Here the concentration of lipoprotein, as indicated by the light dots, is being examined and plotted.



Research Data /3: Network of Interrelated Objects

© Institut Catholique, Paris, France

Metadata

Annotation

Transcription

Metadata

Translation

Metadata

Annotation

Challenges

Additional Needs

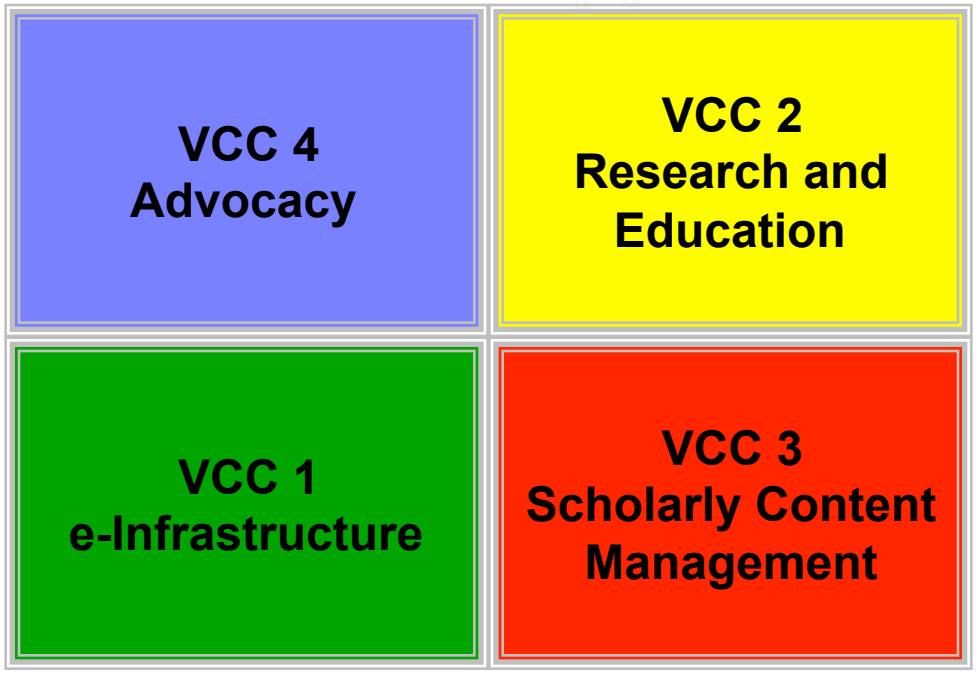
- Data Management Plans
- Data Citation
- Metadata
- Legal Constraints
- Data Sharing
- Cost Transparency
- Interoperability
- Extended Scholarly Record

For

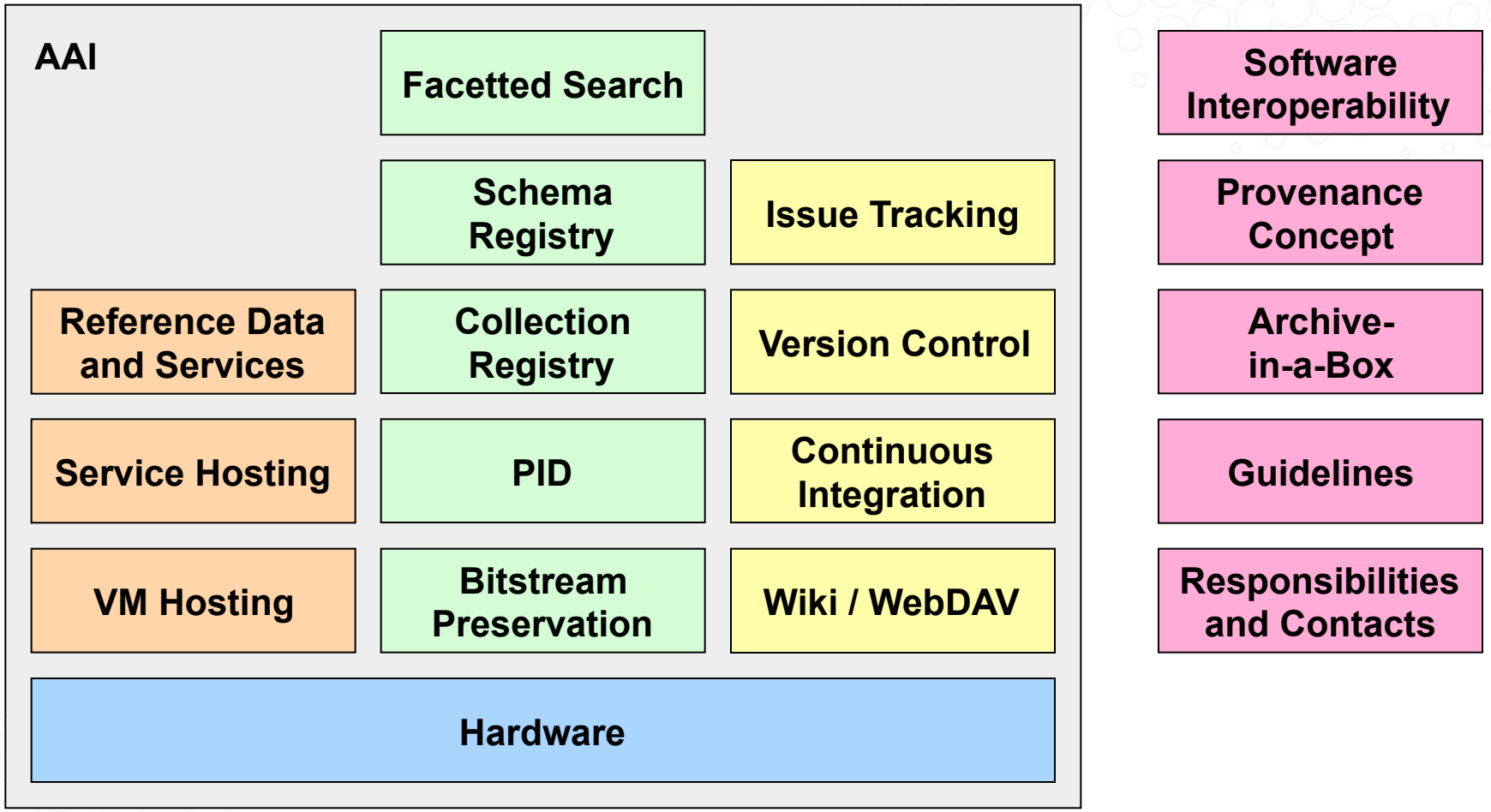
- Funders
- „Safeguarding Good Scientific Practice“
- Enabling for Re-Use and Re-Purposing
- OA Paradigm
- Higher Efficiency
- Open Science
- Scholarly Impact Measurement

Examples

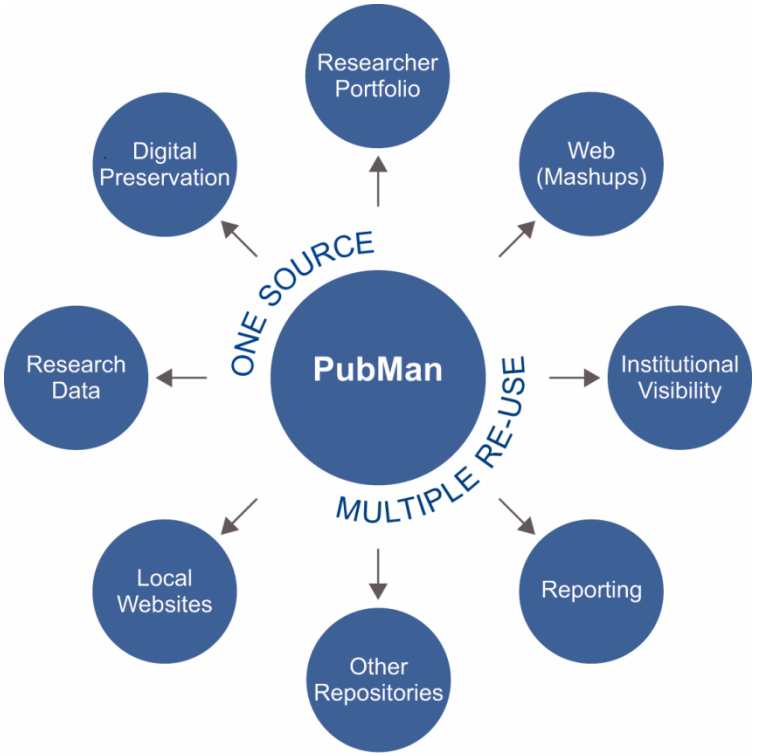
Example: Digital Research Infrastructure for the Arts and Humanities DARIAH

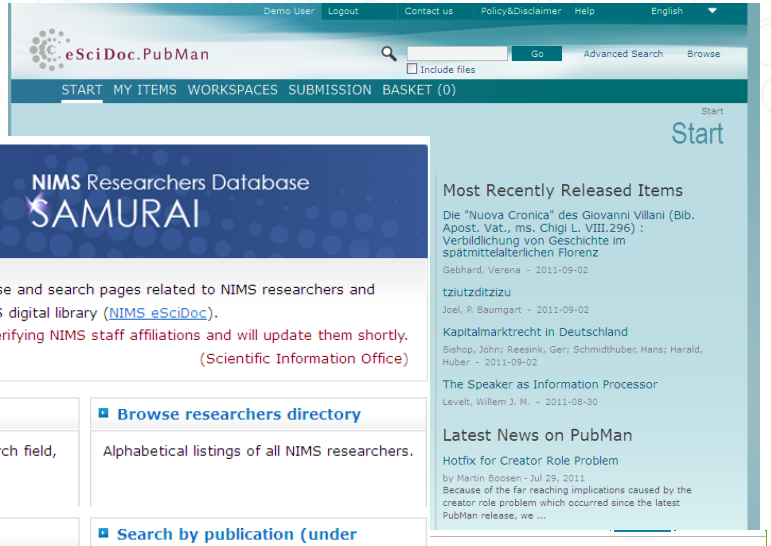


DARIAH e-Infrastructure

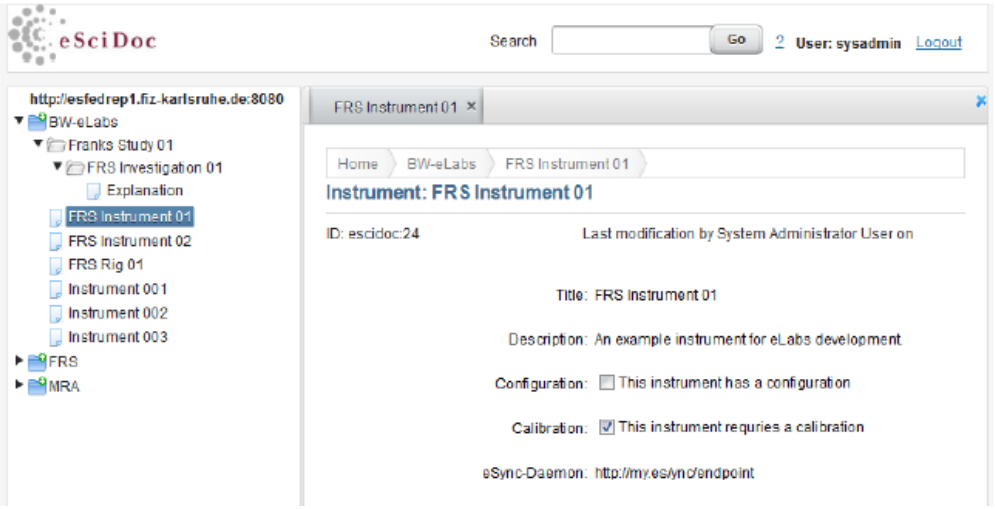


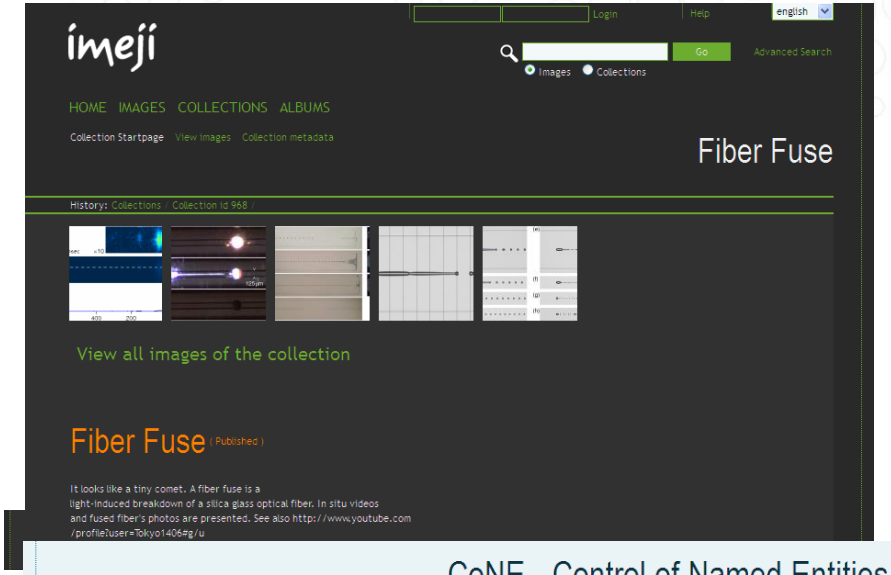
Infrastructure Technology: eSciDoc.org

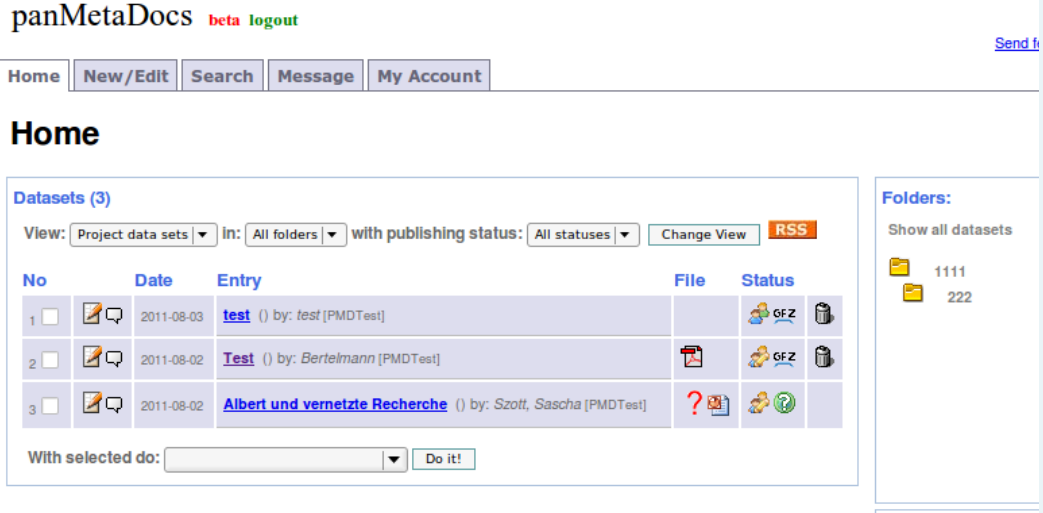


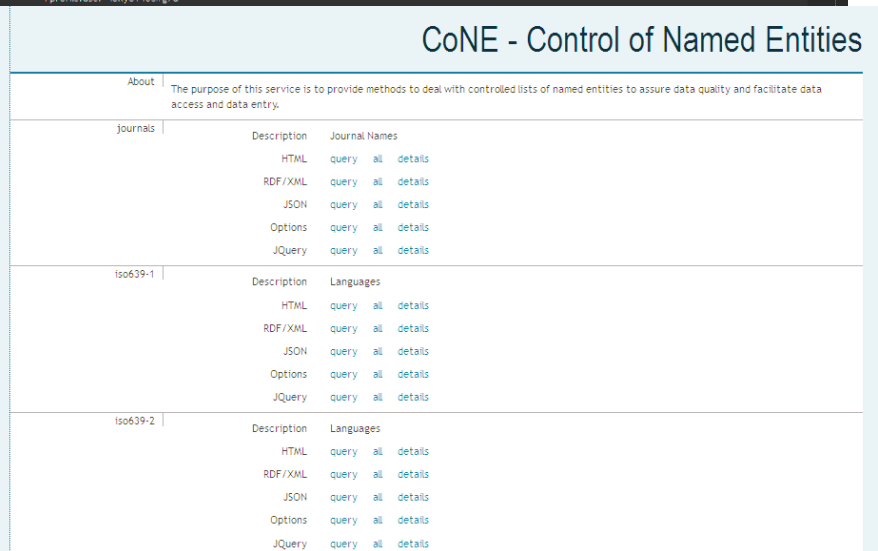


eSciDoc: Software Services and Applications









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The End

Thanks for your attention !

Malte.dreyer@mpdl.mpg.de