



Industry & EUDAT

PPP Options in Collaborative Data Infrastructures

Morris Riedel et al.

Juelich Supercomputing Centre

Track 2 – Interoperabilities

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Outline

- EUDAT 101
- Service Product Portfolio
- Thinking about Options
- Examples in Context
- Summary



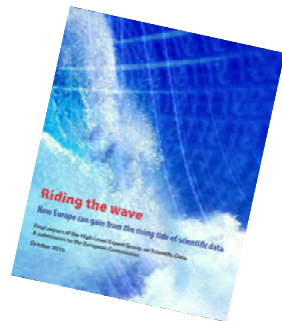


EUDAT: A collaborative Data Infrastructure

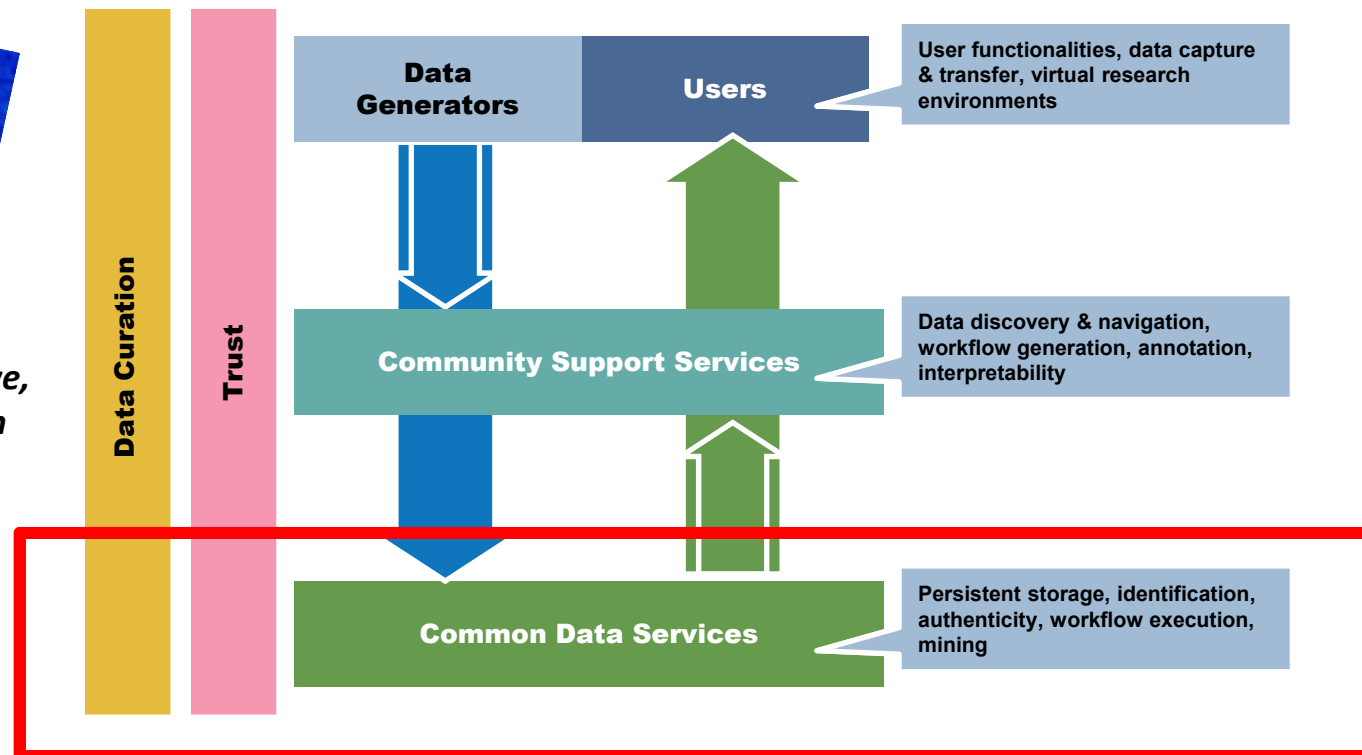
Commercial exploitation

How can the infrastructure benefit from commercial developments in data management?

How can the revenue-generating expertise of the commercial world be brought into play for the long-term sustainability of these resources?

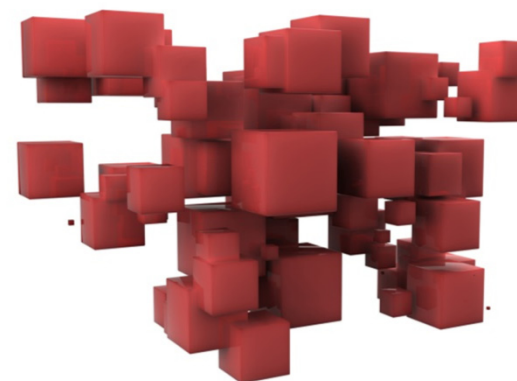
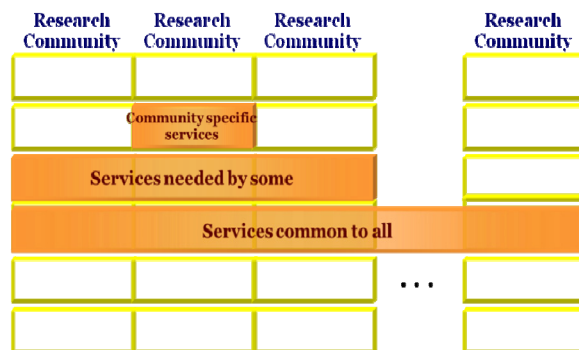


'Riding the Wave, How Europe can gain from the rising tide of scientific data', Report for EC





Listening to Requirements of Communities



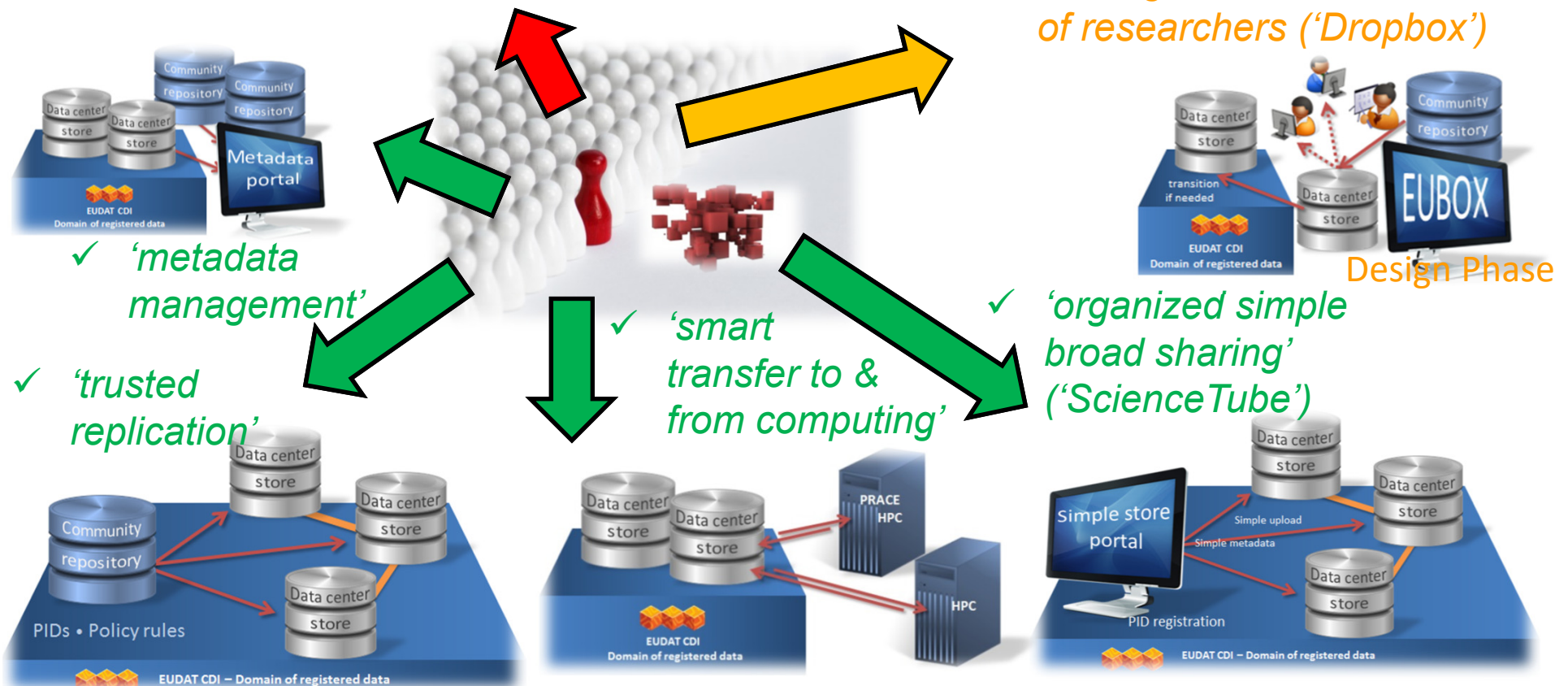
Common Services	CLA RIN	LW	VPH	EN ES	EP OS	IN CF	EC RIN	Bio Vel	Dixa	CESS DA	DAR IAH	Pan Data	BB MRI	EM SO
Safe Replication	X	o	X	X	X	X			x		x			
Data Staging	o	o	X	X	X									
SimpleStore	X	X	X	X	X	x	x	x	x	x	x		x	
Metadata	X	X	o	X	x	x	x	x	x	x	x	x	x	x



EUDAT Common Data Services

➤ Next required products on the horizon

❖ *trusted & simple ad-hoc data sharing with limited number of researchers ('Dropbox')*





Selected Questions to Ask

- *What can EUDAT offer...*
 - ... in terms of **products** and services to industry?
 - ... in terms of **unique know-how** for the commercial work-force (e.g. data-scientists; 'Simulation Labs')
 - *What role could industry take...*
 - ... in supporting/benefitting from EUDAT and its **long-term partnerships**?
 - ... in being a partner alongside the **EUDAT network of trusted centers**?
 - ... on which levels of **commitment** (e.g. reduce in revenue → shutdown)?
 - *Will EUDAT consider the 'secondary use of data...*
 - ... as a possible business model together with its user communities?
 - ... how could this look like (e.g. correlations/overlays of long./lat. data)?
- **Panel discussion, here only some thoughts**

What could be commercial options?

- ❖ *Benefits for industry*
- ❖ *Benefits for EUDAT communities*

Evolution of SimpleStore → ScienceTube

Selected commercial options:

- ❖ Hooks for offerings around commercial software packages such as specific analysis tools (e.g. HYPERCUBE, NeuroScience → Keynote talk this morning)
- ❖ Products around visualization packages and dedicated viewers
- ❖ Easy links to 'added value data', e.g. available market statistics
- ❖ Hosting services or deliver expandable storage in 'peek times' (e.g. cloud storage)
- ❖ Seamless links to the publishing industry (e.g. literature in context, new annotation forms)
- ❖ Enable potentially an 'App Market' for scientific and commercial R&D activities

M. Riedel and P. Wittenburg et al. 'A Data Infrastructure Reference Model with Applications: Towards Realization of a ScienceTube Vision with a Data Replication Service', 2013

Forming strong collaborations

- *E.g. Advancing products based on strong industry products*



➤ E.g. Powerfolder SME provides one of the candidate technologies

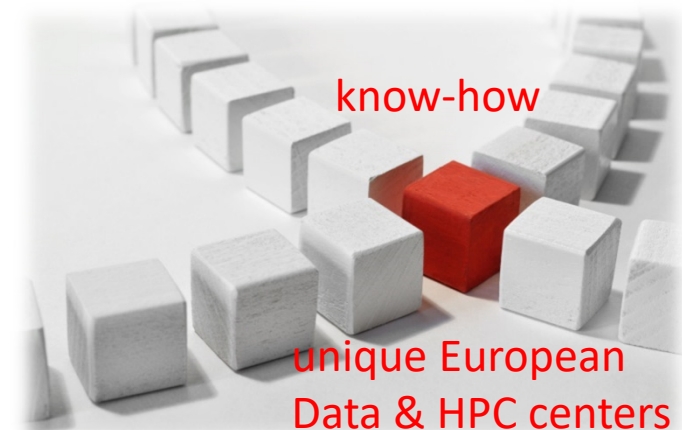
Selected commerical options:

- ❖ ***Industry gets: New use cases across organizational domains and advancing products together***
- ❖ ***EUDAT gets: harmonized license options for large European research organizations***

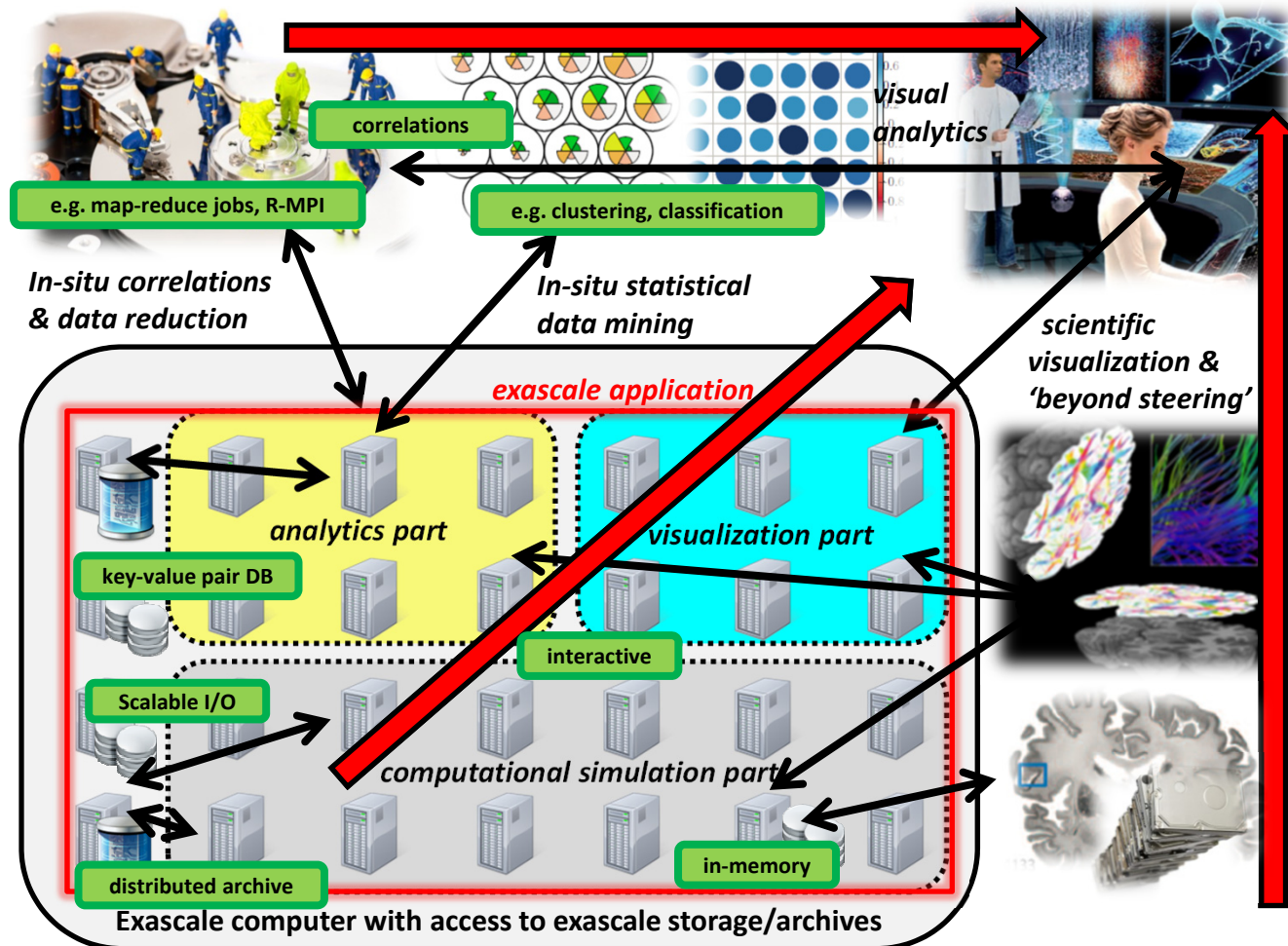
- *E.g. Innovation Labs with Industry*



➤ E.g. NVIDIA and Juelich form partnership to explore GPGPUs



Lots of potentials towards Exascale



Selected commercial options:

- ❖ **Software and Hardware for 'in-situ analytics':** HPC applications with combined characteristics of analytics, visualization & large-scale simulations
- ❖ **New innovative sw/hw designs** to enable scalable I/O, interactivity, or in-memory data processing
- ❖ **Advanced analytics techniques, and software packages** using applied statistical data mining algorithms (e.g. Google!)

