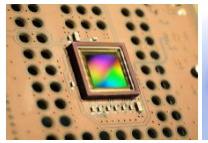
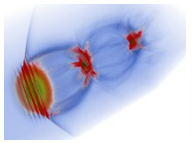
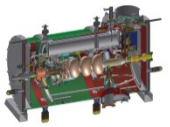
Matter and Technologies

MT-DMA ST1 introduction
The Matter Information Fabric

Kilian Schwarz, Yves Kemp

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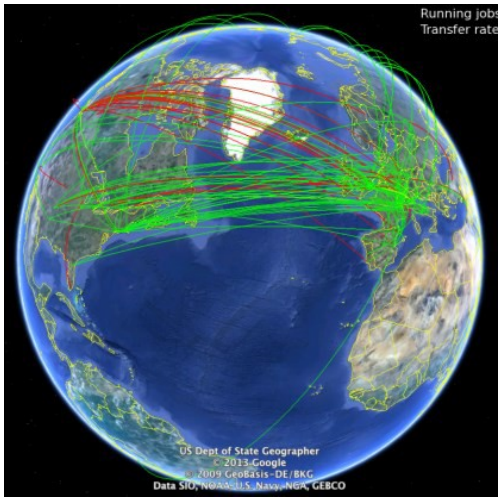
ST1 – the Matter Information Fabric
High Level Goals

- data analysis at large scale facilities
- solutions for the complete data lifecycle
  - modular, interoperable, reusable
  - scalable with increasing data rates and volumes
- data analysis platform
  - providing access to data at all levels
  - data transformation following FAIR principles



The WLCG connects analysis and simulation sites worldwide

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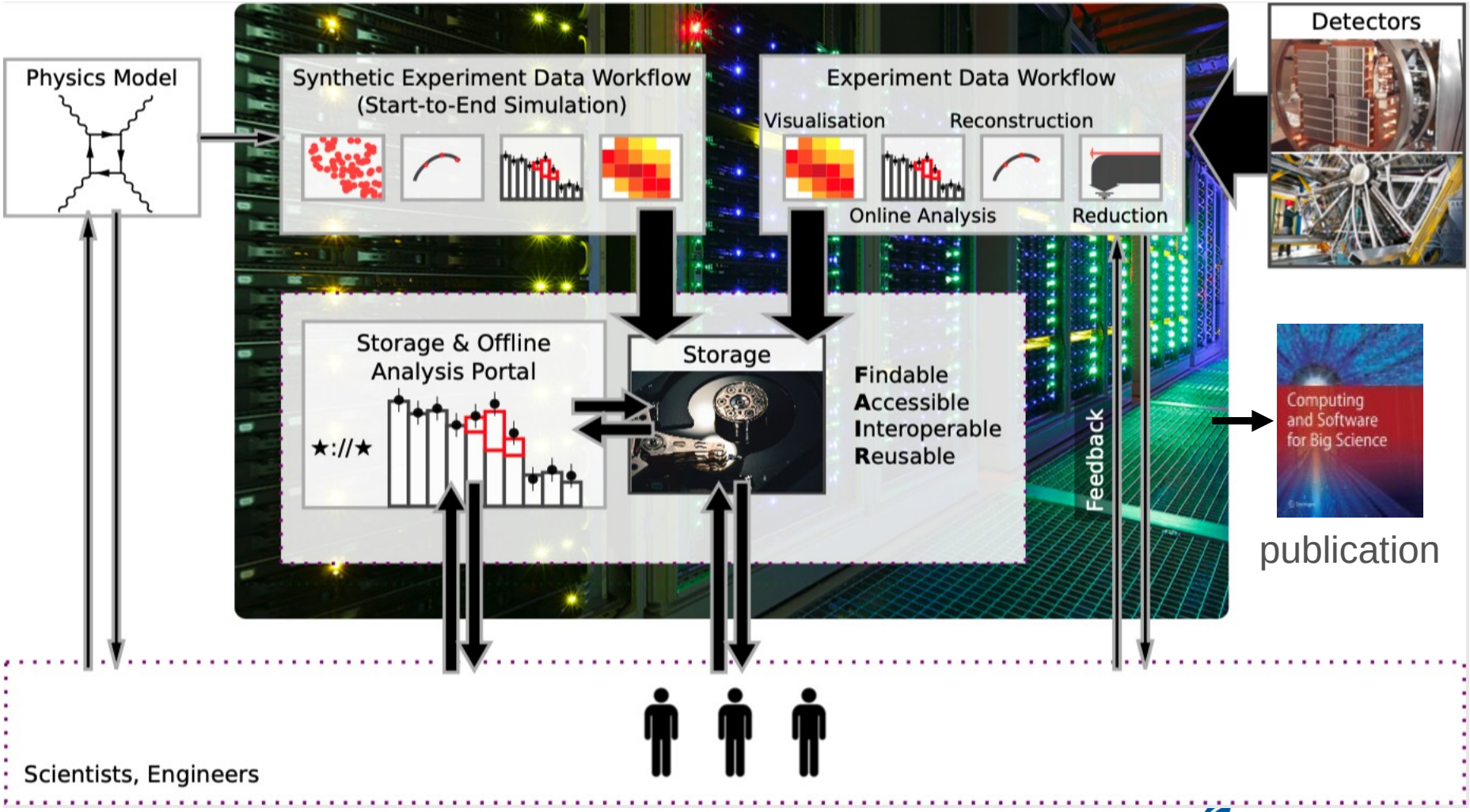
full data lifecycle



ST1 – bridges to other subtopics

- ST1 will address both technical and organisational aspects of integrated solutions
- technical interfaces to other STs have to be considered
  - on-site data reduction (ST2/3)
  - real-time online analysis (ST3)
  - new and efficient algorithms (ST2)
  - data flow models (ST3)

ST1 – how to achieve this ?

- analyse requirements from DMA communities
- identify possible synergies
- review of existing tools and tools to be developed
- gap analysis

➔ through workshops and direct engagement

- define a prototype of a data life cycle management system in a distributed computing environment
  - preferably fitting for most communities and centres in DMA
  - prototype should be modular, generic, open, portable, adaptable

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DMA ST1 – current centres involved

- Current centers involved (in alphabetical order)
  - DESY
  - GSI & HIJ
  - FZJ
  - HZDR
- Plus HZB as observer

Milestones

- From the proposal … working towards achieving these

Milestone		Subtopic	Year
DMA-1	Definition of the structure and content of the S4M portal	ST1–3	2023
DMA-2	Launch of the S4M portal	ST1–3	2024
DMA-3	Online availability of all solutions provided by MT-DMA via S4M	ST1–3	2027
DMA-4	Organization of a workshop that defines and strengthens synergies in data lifecycle management among the participating facilities and communities	ST1	2022
DMA-5	Review and gap analysis of existing common tools for implementing a data lifecycle management system in a distributed computing environment that respects FAIR principles	ST1	2024
DMA-6	Review of and documentation of “lessons learned” from the implementation of a generic prototype of a data lifecycle management system in a distributed computing environment that respects FAIR principles	ST1	2027

ST1 – plan for this workshop

- Site presentations along questionaires about tools used in communities and centres along full data life cycle
- Get point of view from outside: PUNCH4NFDI
- What did we cover with our seminar series so far ?
- Gap analysis based on presentations and discussion
- Develop proposal for upcoming DMA ST1 infrastructure
- Plan upcoming DMA ST1 workshop in October (at DESY?)
- How do we prepare ourselves for DMA ST1 in POF V