

STORAGE TECHNOLOGY

BRAINSTORMING

GOAL

- ▶ gather requirements
- ▶ capture ideas
- ▶ capture use-cases
- ▶ identifying potential areas of work and partners for the next three-year phase of CERN openLab

KEY POINTS

- ▶ **Performance** phase space - low/high latency, volume, bandwidth, capacity/perf. ratio, single/multi stream
- ▶ **Media** - Memory/Flash/NV-RAM/Storage Class Memory/Enterprise HD/Consumer HD/Optical Media/Tapes ... classical latency hierarchy is breaking with SCM
- ▶ **System Design & Scalability** - Filesystem, Cloud, Distributed Storage, Storage as a Service, Containerisation ... a new architecture ?
- ▶ **Hierarchy** Caching, Tiering - **Locality**
- ▶ **Data** - object, file, multi dim. tables, collections ...
- ▶ **Indexing** - lookup by name, namespace or search engine
- ▶ **Protocols** - from KV to POSIX
- ▶ **Hybrid Storage & Compute** -
 - ▶ HW: TCO optimised
 - ▶ SW: Lambda Functions, Deep-Learning, Analytics, integrated frameworks
- ▶ **Costs** - what can we actually afford

