Storage Session Introduction

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10th May 2012

- Select and then deploy a new disk only storage solution for the Tier-1 able to meet the needs of current and next generation particle physics experiments up until at least 2020.

- To align as far as is practicable with the e-Science storage strategy, if possible identifying a solution able to scale up to the size required for next generation high capacity international projects such as SKA.

- To address not only experiment requirements and middleware needs but also ensuring that the Fabric storage infrastructure is fit for purpose.

- To support the work of the GRIDPP storage group (and tap into Storage Group expertise)

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| Milestone	Date	Notes
1	May12	Capacity, performance objectives and API's agreed
2	Jun12	Shortlist of candidates finalised. Selection document complete.
3	Jul 12	Test infrastructure design complete, hardware and software requirements specified, Test plan complete.
4	Dec 12	Candidates Detailed evaluation complete, evaluation document complete – solution selected.
5	Mar13	Prototype deployed, testing with VO(s) commences
6	Oct13	Deploy early production service

- We know what we are doing
- Reducing staff effort to run
- Proven to be reliable
- Highly scalable I/O
- Excellent tape management
- Service node and database resilience against failure
- Trust we can protect and restore meta data
- Other RAL users use it
- Single solution does disk and tape

- No longer CERN's main choice for disk
- No sign of a posix filesystem
- Latency is an ongoing concern
- Draining servers is a major problem (slow and incurs load)
- Not resilient to disk server failure (as currently provisioned)
- Complexity
- Not widely used
- Oracle licensing costs
- Need for trained Oracle DBAs

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- No idea!
- Better than current performance.
- Probably lots better than current performance??
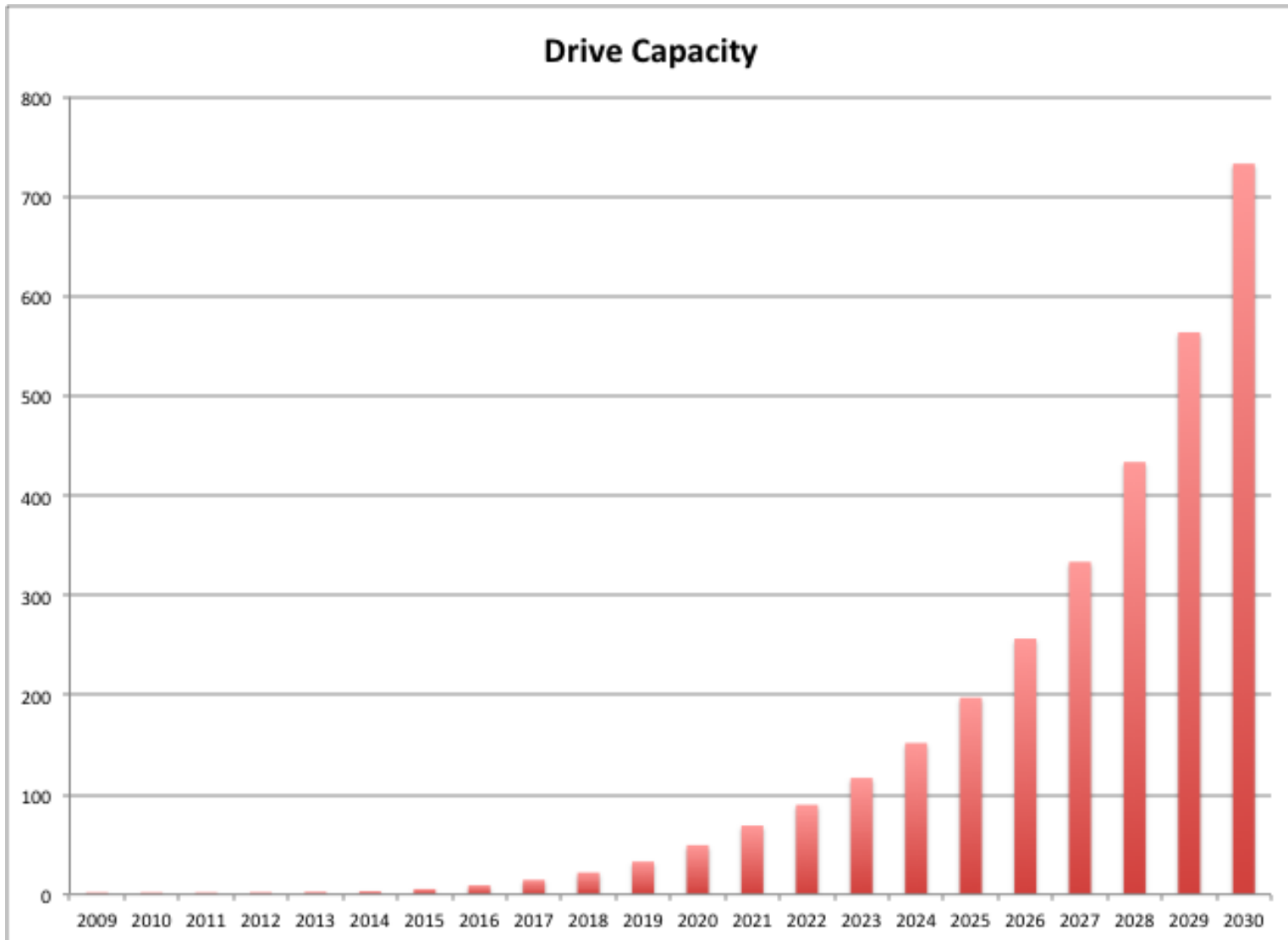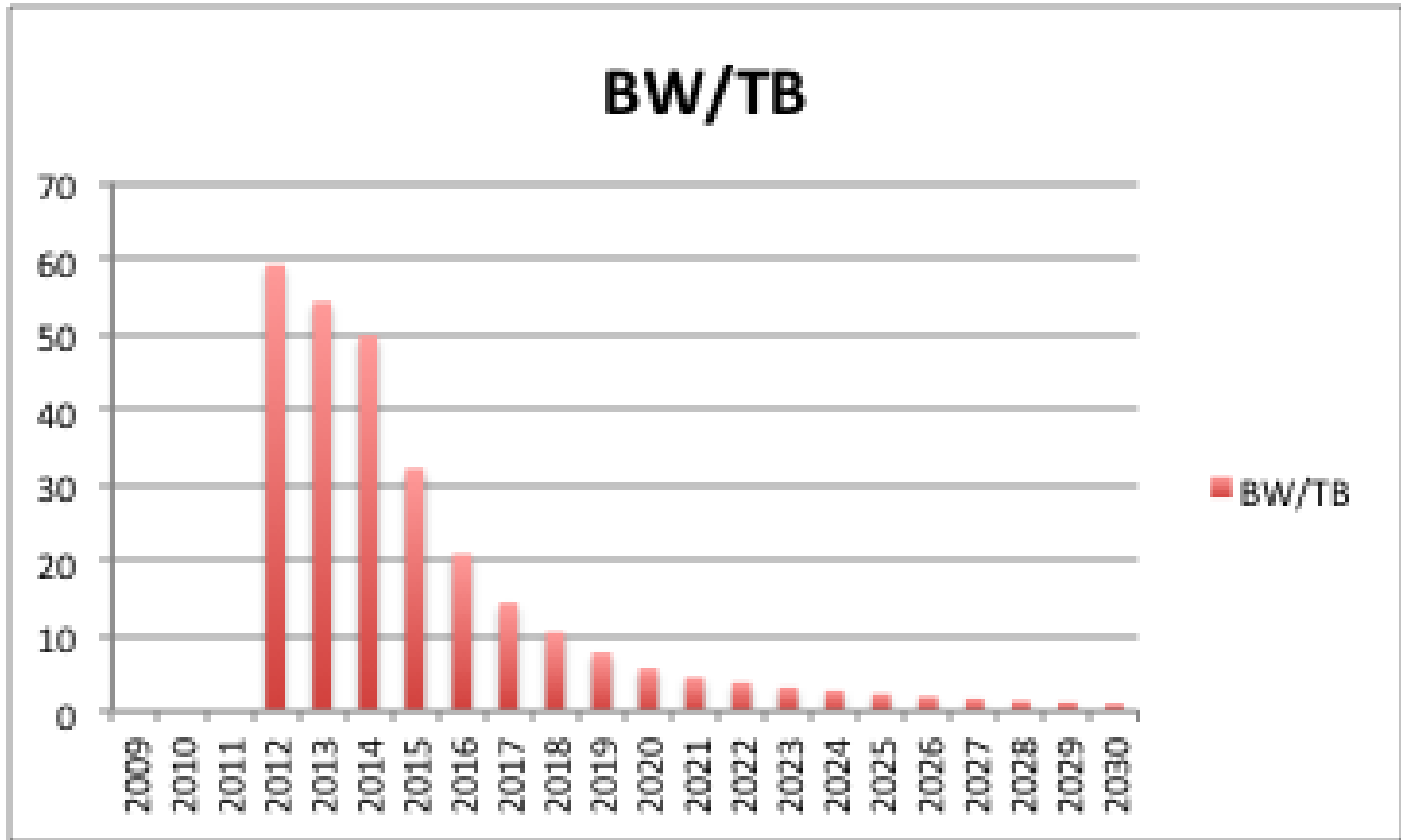- Attempting to project capacity/bandwidth requirements

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Integrated Lumi at year end

Drive Capacity
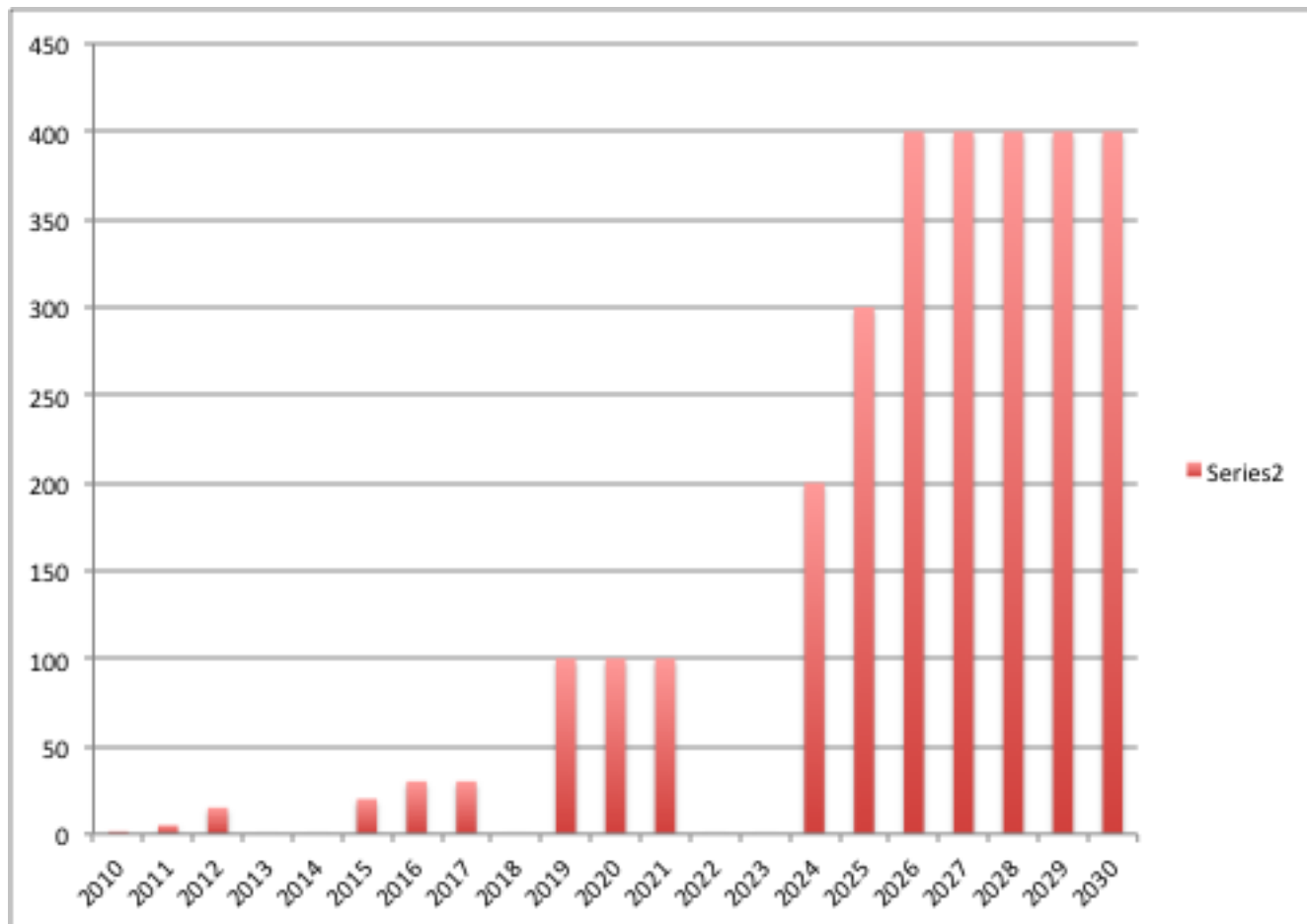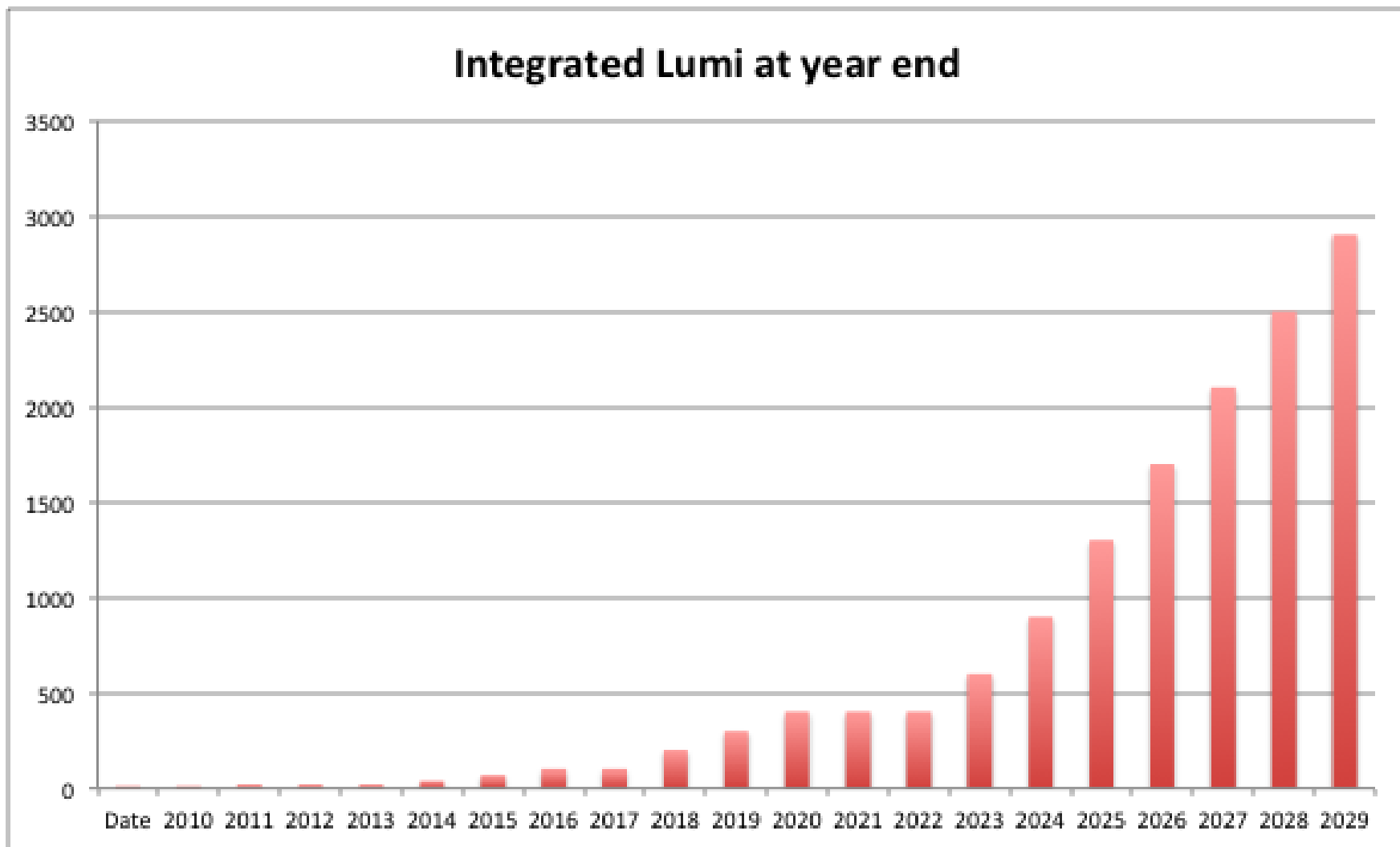
- Today is the start of a dialogue
- Need ongoing enganement between GRIDPP storage experts and storage project
- Hope we can tap into existing expertise
- Hope we can contribute to storage group objectives

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