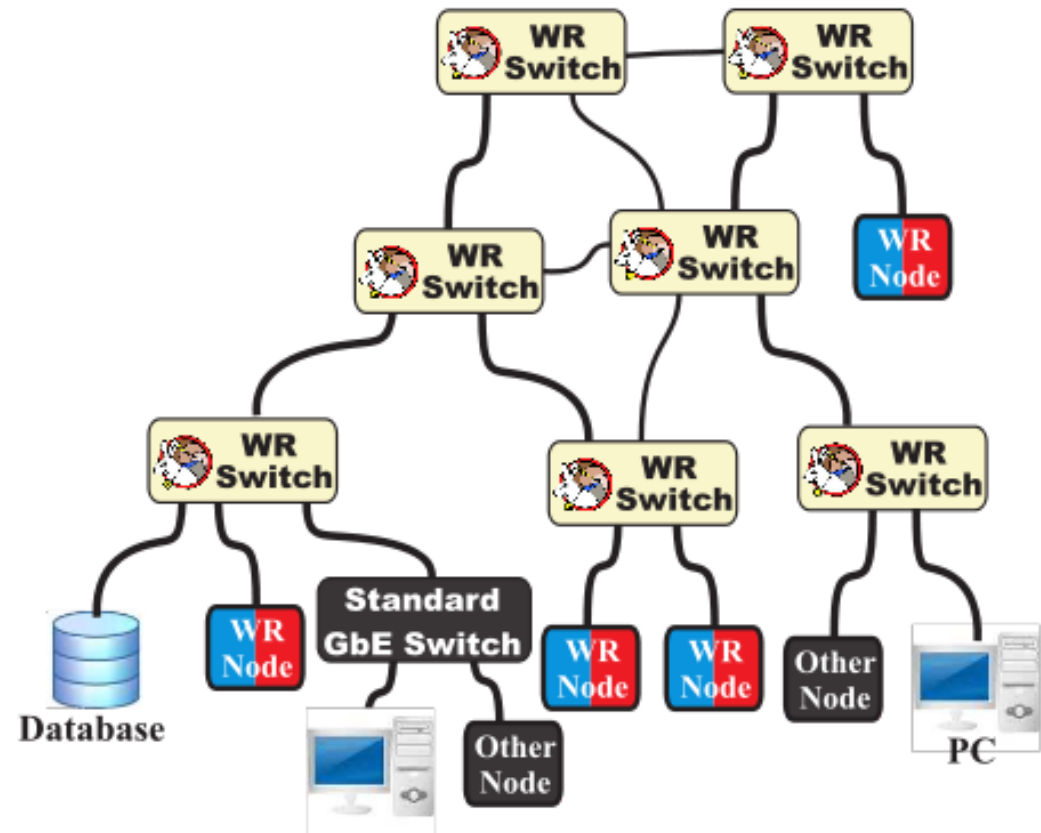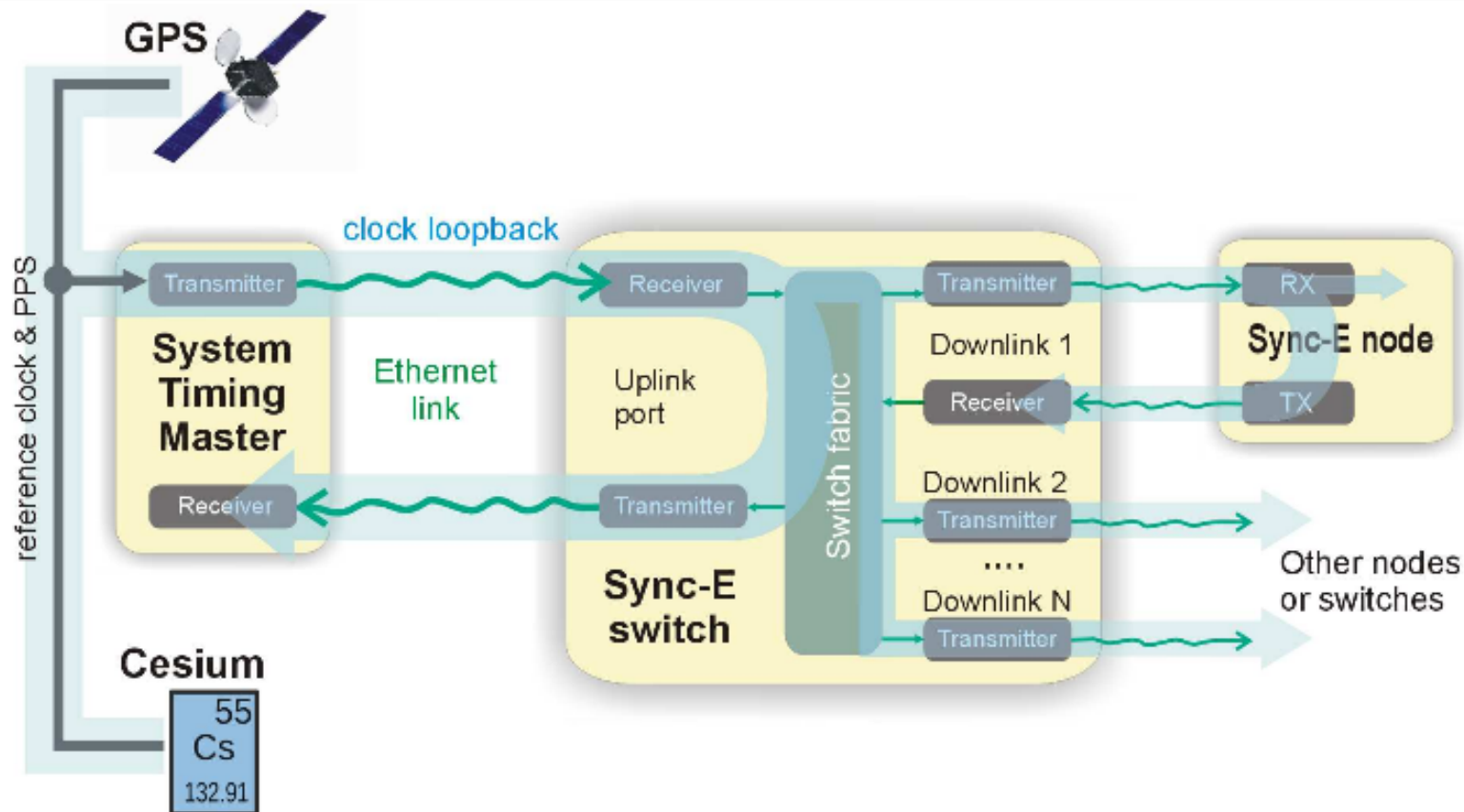# From Cesar Prados (GSI, Darmstadt)

- Few thousands nodes
- Copper or fiber medium
- Up to 10 km fiber links
- Bandwidth: 1 Gbps
- WR Switch: 18 ports
- Non-WR Devices
- Ethernet features (VLAN) & protocols (SNMP)

From Cesar Prados (GSI, Darmstadt)

Common clock for the entire network

- All network devices use the same physical layer clock
- Clock is encoded in the Ethernet carrier and recovered by the receiver chip (PHY).
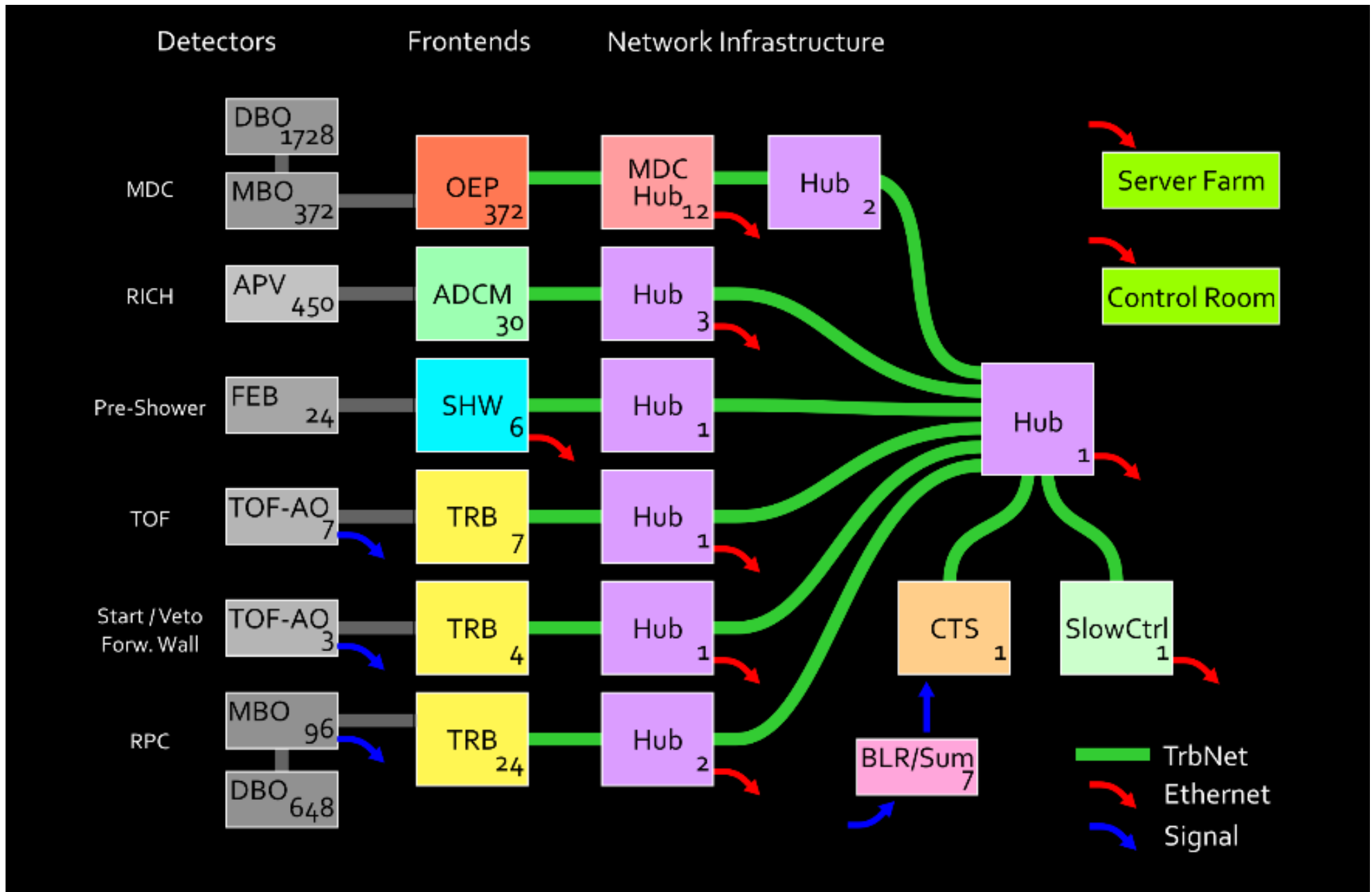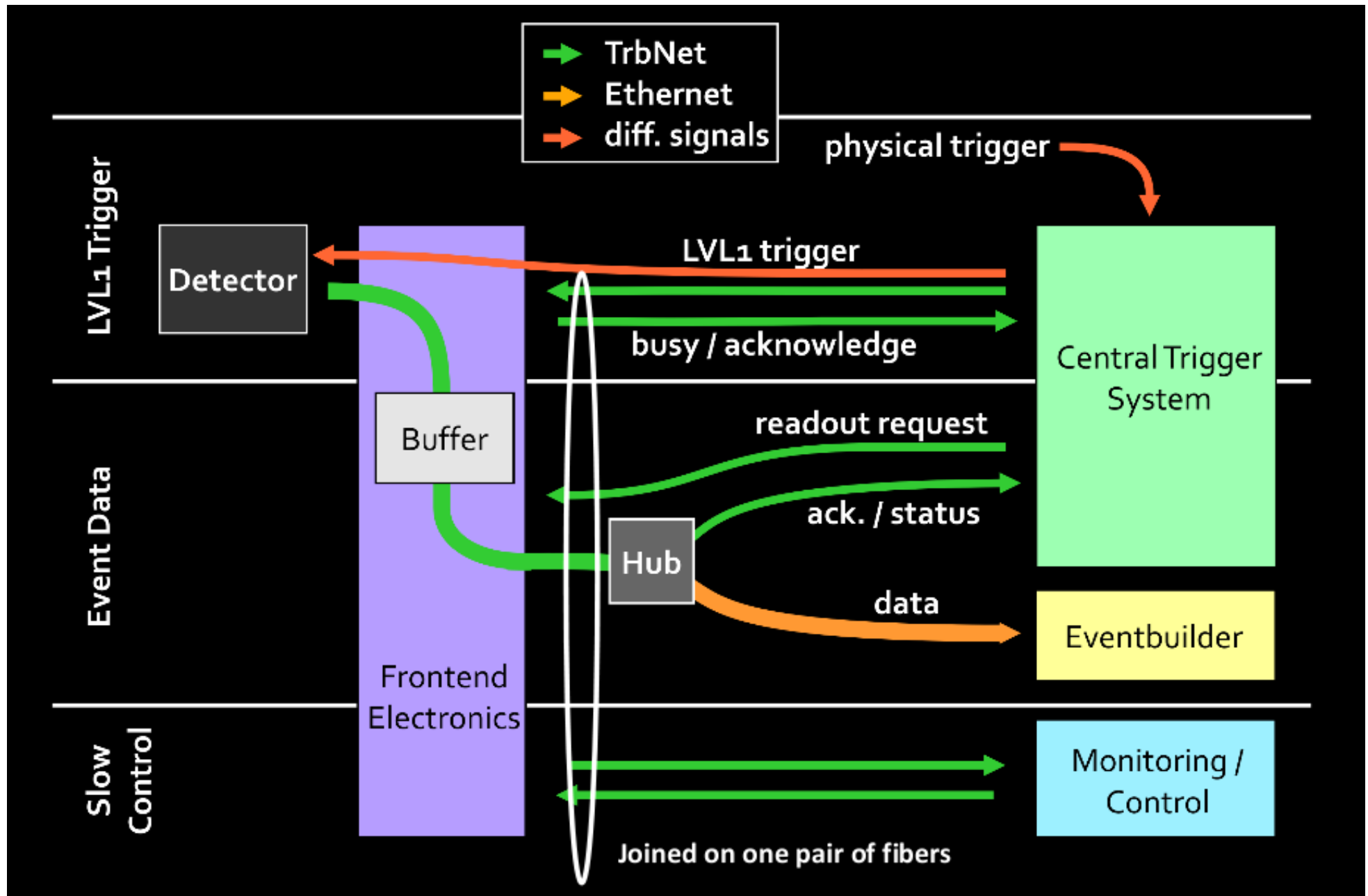
From Cesar Prados (GSI, Darmstadt)

- Central element of WR network
- Original design optimized for timing, designed from scratch
- 18 1000BASE-BX10 ports
- Capable of driving 10 km of SM fiber
- Open design (H/W and S/W)

3

# From Jan Michel (University, Frankfurt)

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From Jan Michel (University, Frankfurt)

- Multi-purpose FPGA platform
- Extension via AddOn-Boards
- 200 I/O per FPGA
- Up to 32 x 3.2 GBit/s (with AddOn)
- Full control via GbE
  - Stand-alone operation
  - Read-out via GbE
- Internal trigger system
  - Logic for coincidences, delays, spike suppression, random and regular pulsers...

- In cooperation with
  - PANDA-DIRC (GSI / Univ. Mainz)
  - PANDA-STT (Univ. Krakow)
  - And many others
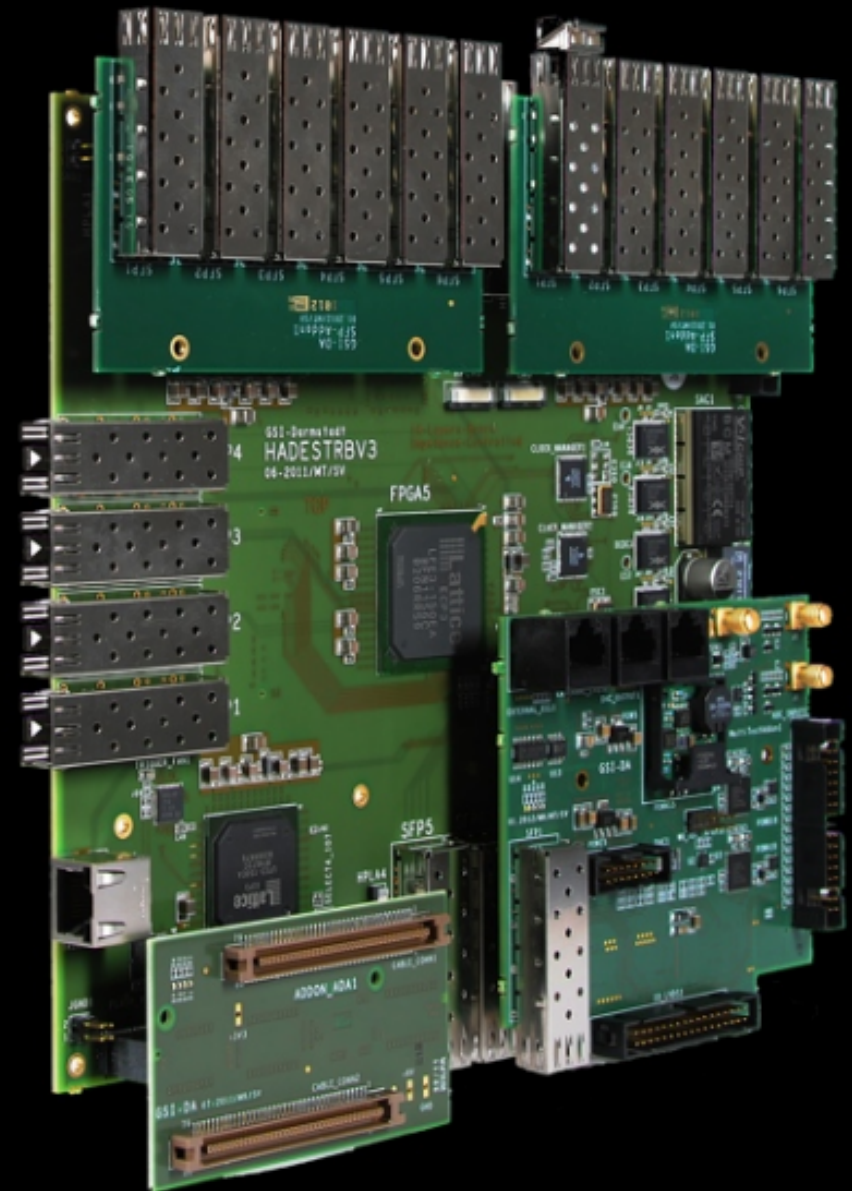
My personal minutes.

- The flow of the Synchronization Of Data Acquisition (Soda) will be unidirectional, from the source to the front end.

- The slow control will be transported by the same network of the Soda timing, but it will not be part of Soda protocol.

7

My personal minutes.

- A large commercial switch with the Infiniband technology will be evaluated, as an alternative to the Compute Nodes.

- The responsibilities for the Soda source has been assigned to KVI (Lemmens) and Krakow, and Frankfurt.

My personal minutes.

- Within February the compatibility of the TRB.net, with the requirements on the accuracy and jitter, will be verified.

- The implementation of the Soda.net hardware, for the STT and Dirc, will be responsibility of Krakow (Palka).

My personal minutes.

- The implementation of the Soda.net hardware, for the MVD (pixel and strip), will be responsibility of FJ (Kleines).

- In November a test for the prototypes of the Soda hardware with the detectors is foreseen, at FJ or GSI.