
HIRES software/hardware concepts

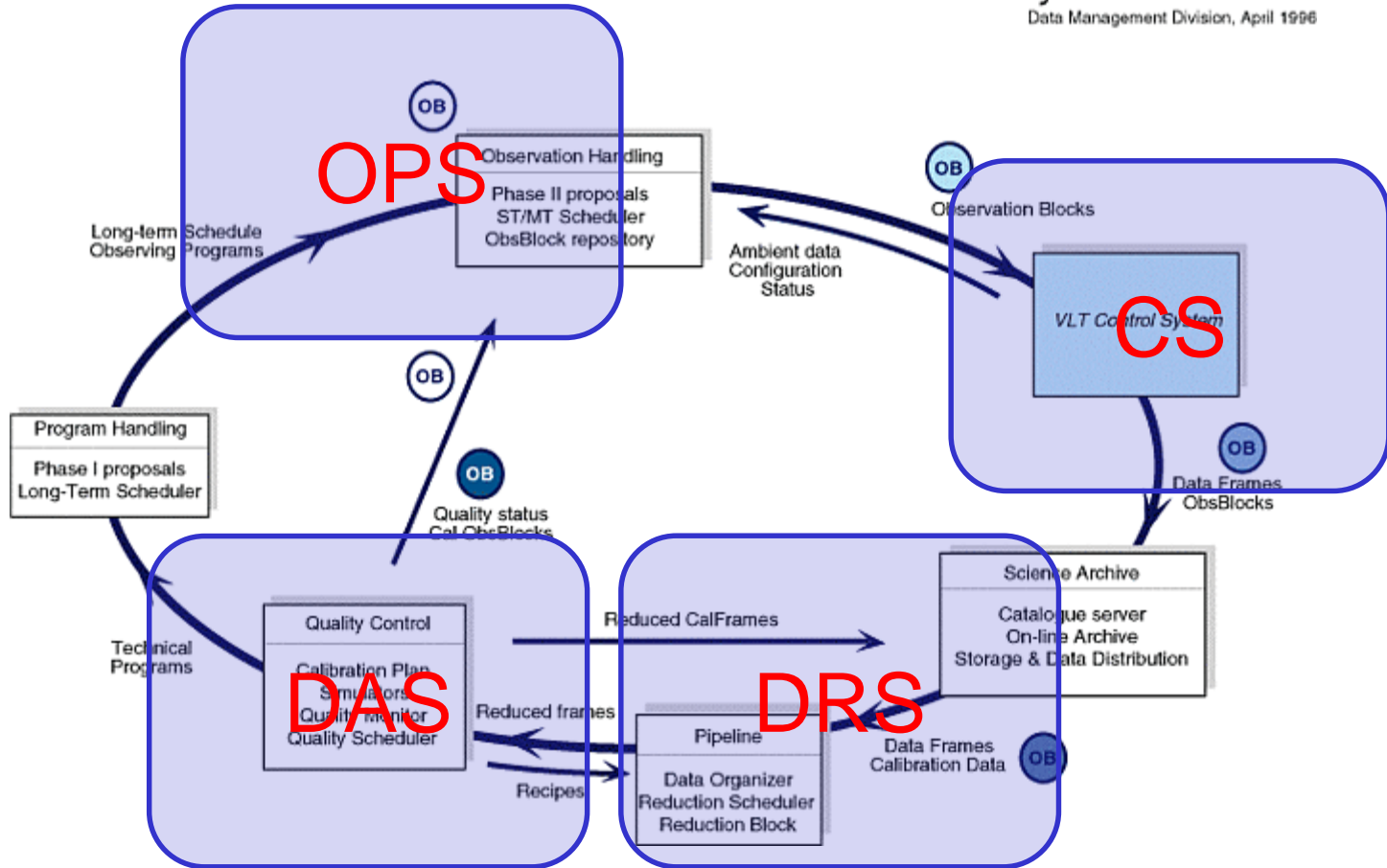
on behalf of INAF-OATs HiRes team

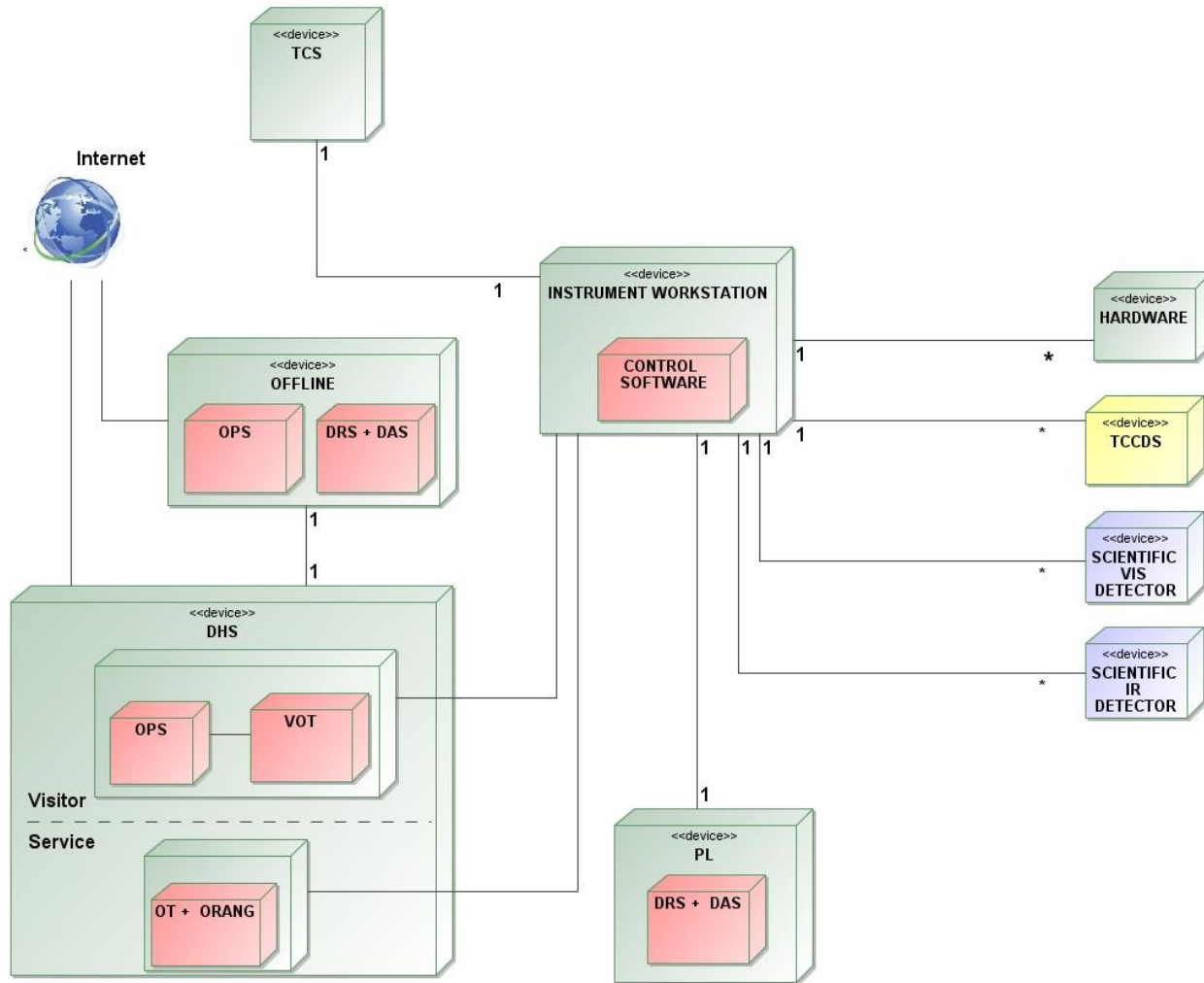
Key aspects:

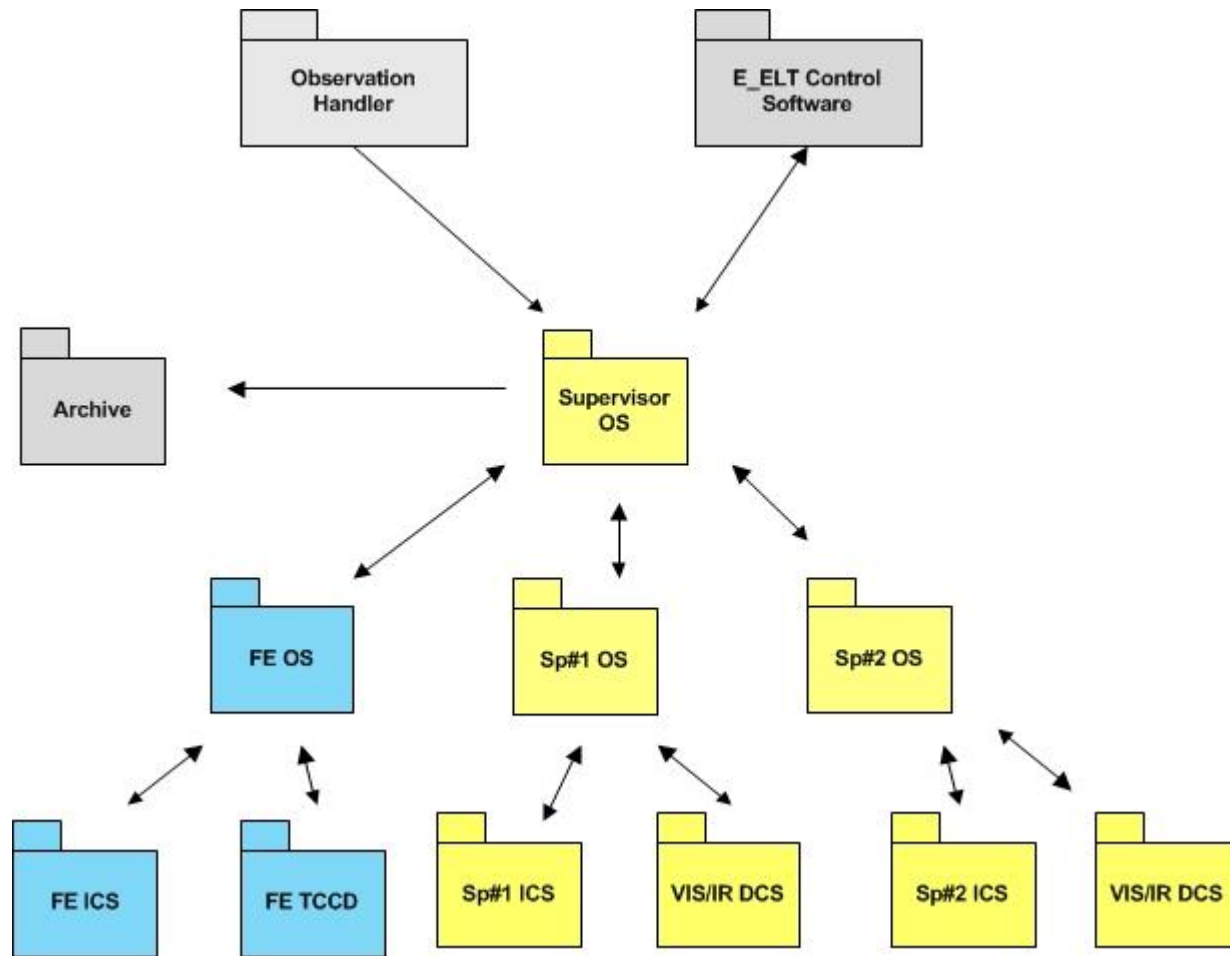
- **DFS:** fully automatized, end-to-end operations
- **SW:** modular and distributed approach using most up-to-date design and development techniques
- **HW (control):** industrial solutions (standards), whenever is possible

ESO VLT Data Flow Subsystem Breakdown

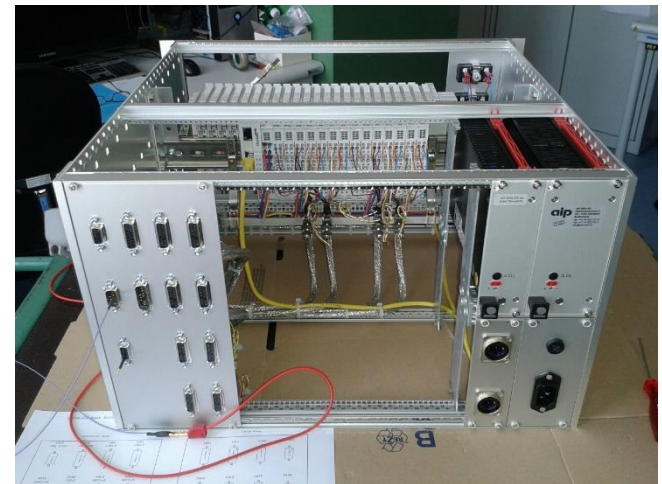
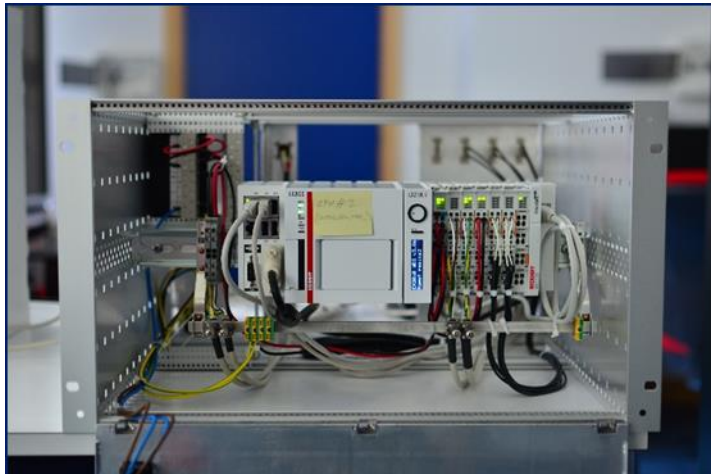
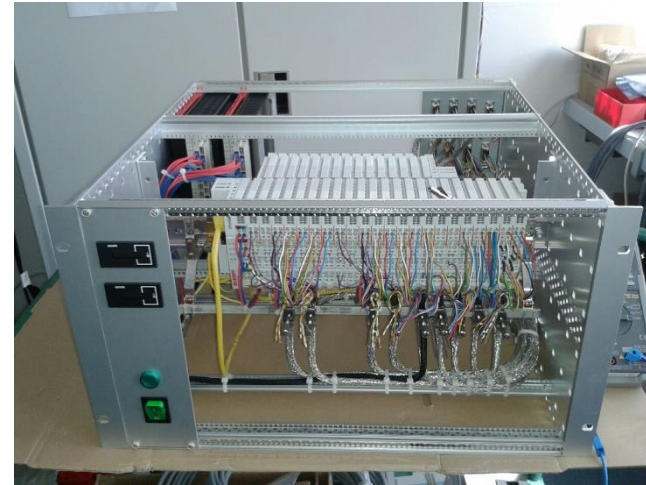
Data Management Division, April 1996



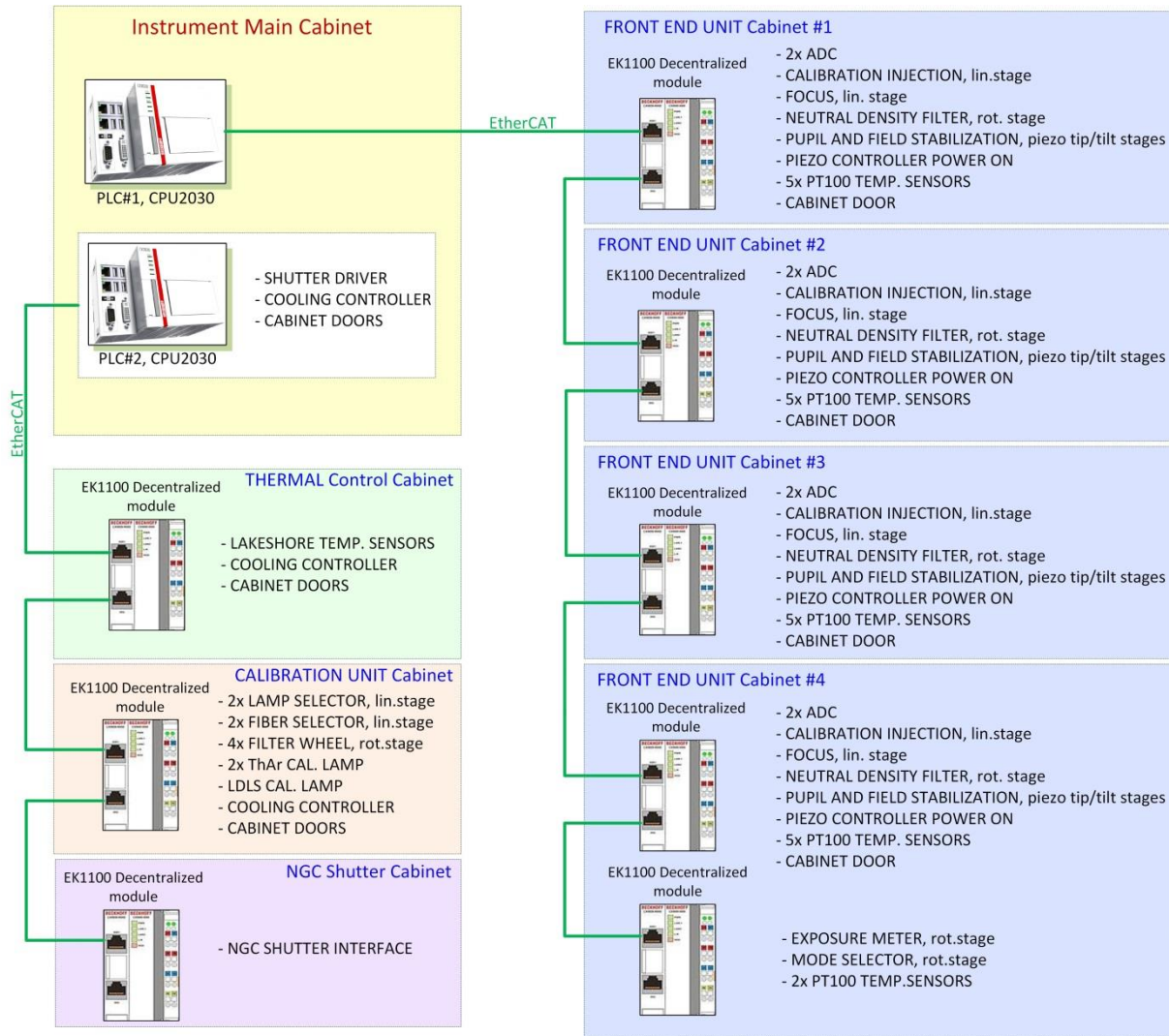


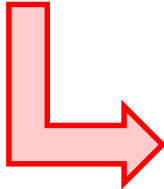
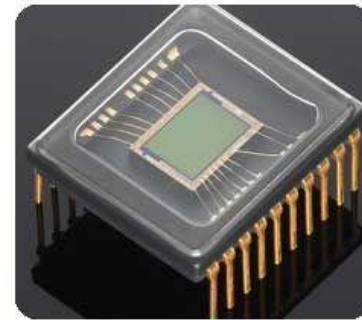
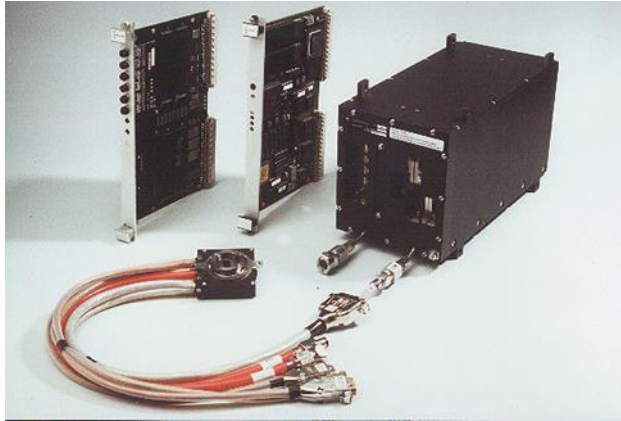


- ◆ COTS modules
- ◆ Field-bus (EtherCAT, ProfiNet)
- ◆ OPC-UA



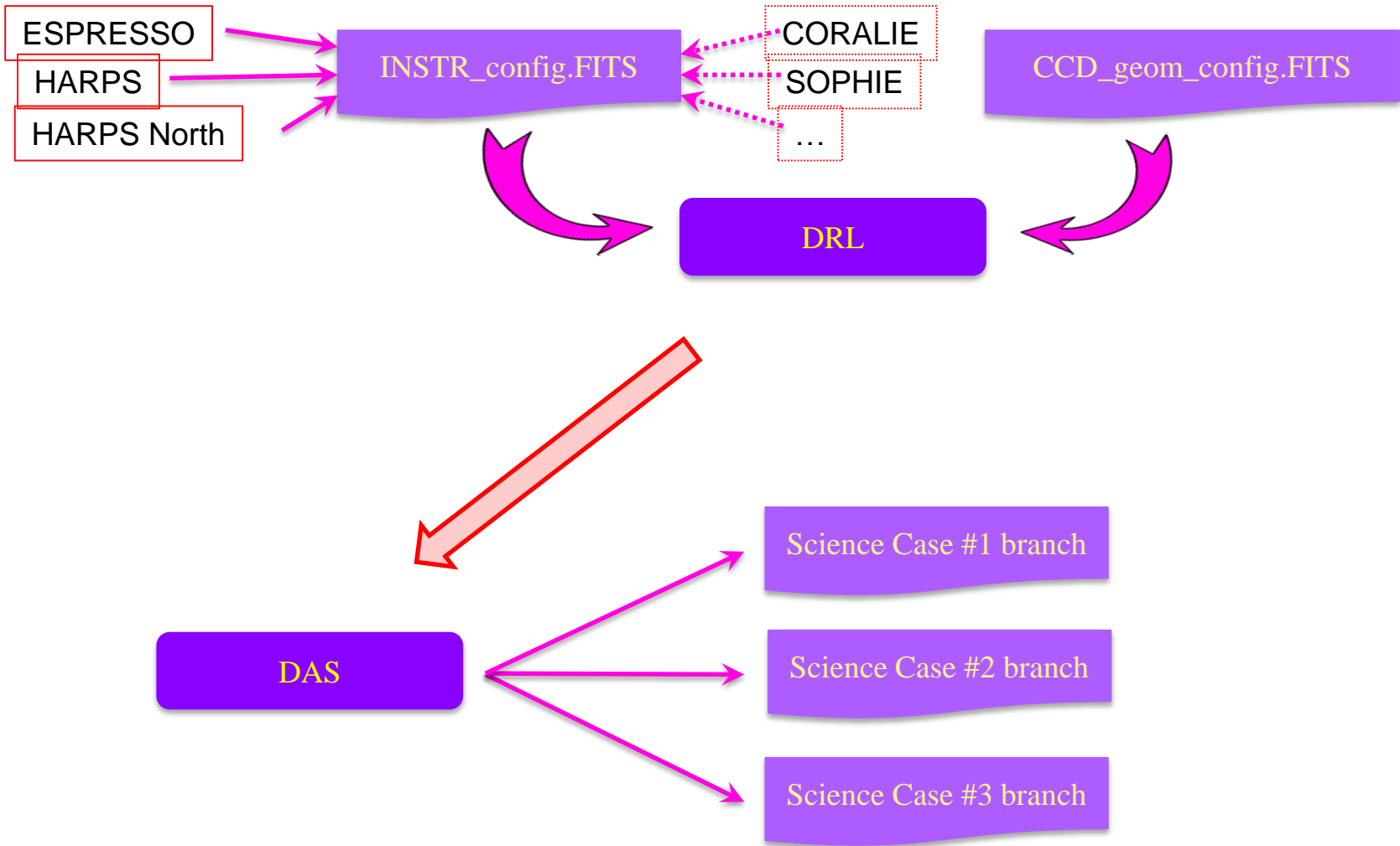
Distributed approach



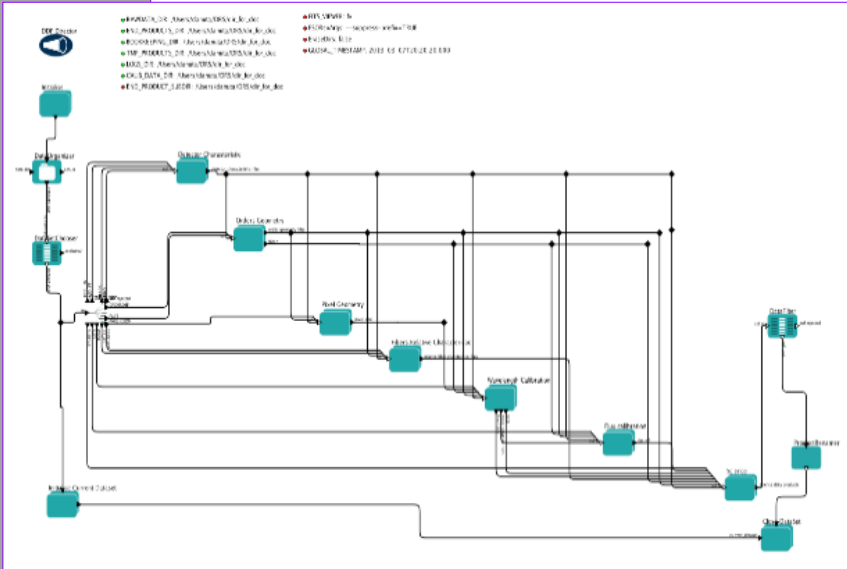
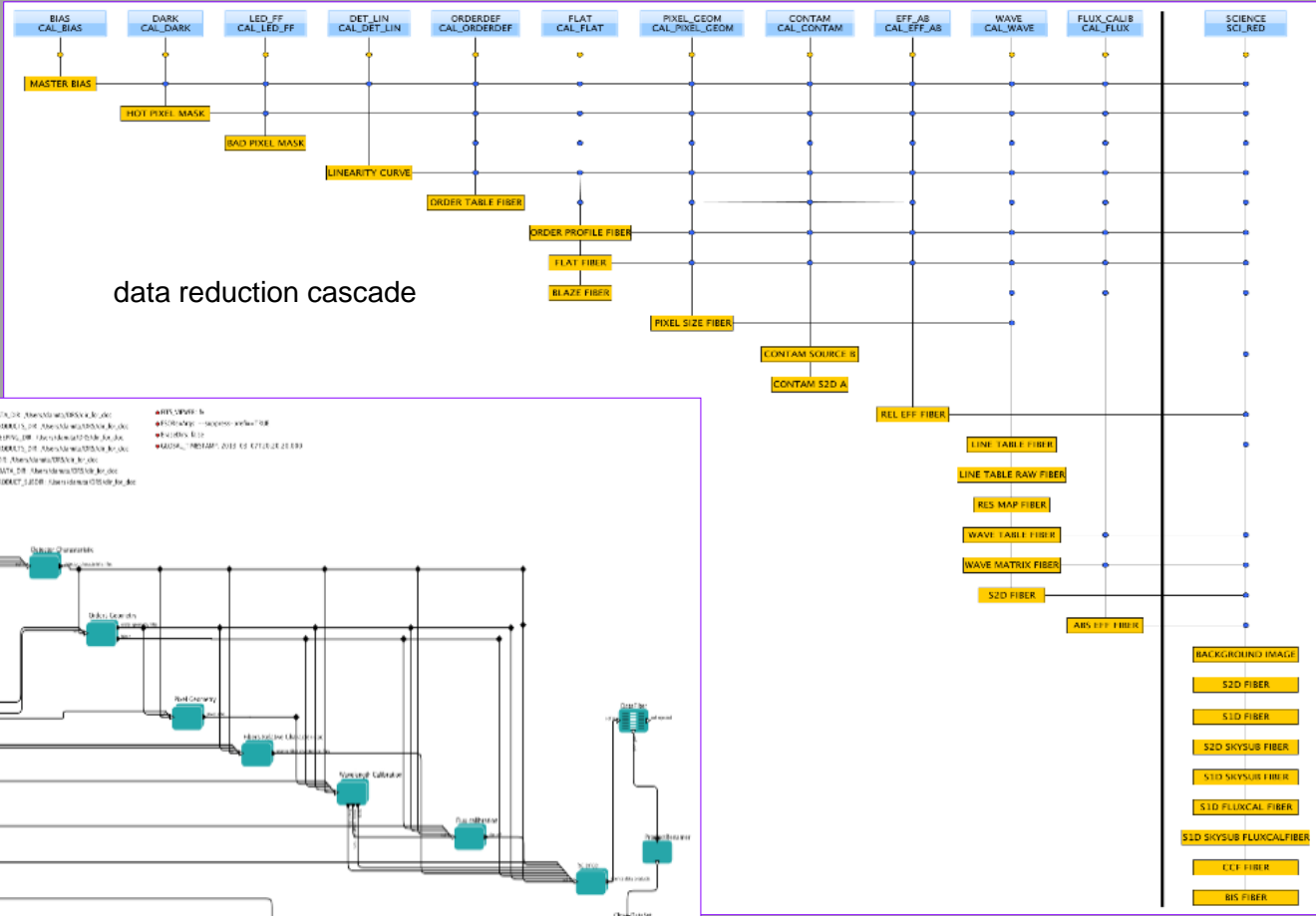


Implements the **GigE Vision® interface** standard protocol introduced in 2006 by and supported by the European Machine Vision Association (EMVA). Version 2.0 released in 2011.

At higher abstraction level, the **GenICam™ standard** also hosted by the EMVA provides a generic programming interface for all kinds of cameras.



DRS cascade



DAS workflow

