

Joint Optoelectronics Working-Group

Valencia, 27 Sep 2006

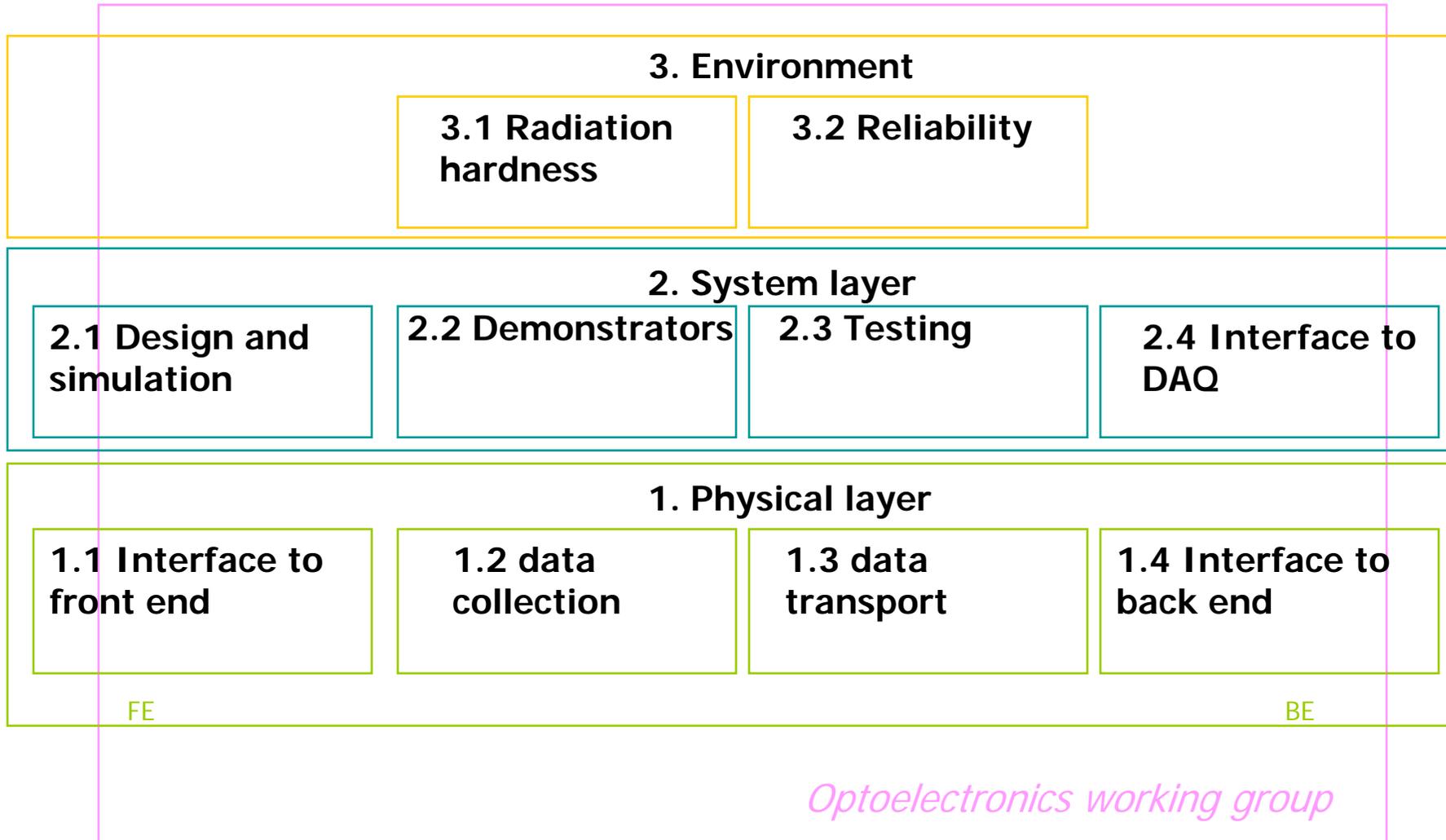
1. Survey results and analysis
2. Comments and discussion
3. Joint projects?
4. Links to management

Proposed way forward

23 June 2006

- By Aug 31st, Institutes express their interest to participate to WPa.b and indicate their available resources
- On Sep 27th (LECC06 Valencia), the work-packages which have reached critical mass and group two or more institutes can be launched
- ATLAS and CMS Funding requests for optoelectronics R&D are commonly reviewed by WG members who sit in CMS or ATLAS SLHC review committees.

Joint Optoelectronics Working-Group Proposed Work-package Breakdown



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Interested Institutes

ATLAS origin

- **Academia Sinica (?)**
 - S.C Lee, TBD
- **Ohio State University**
 - K.K. Gan, 1.5 FTE
- **University of Oklahoma**
Oklahoma State University
 - Patrick Skubic, 1.4 FTE
- **Southern Methodist University**
 - Jingbo Ye, 8 FTE
- **University of Ljubljana**
 - Igor Mandic, 0.3 FTE
- **University of Oxford**
 - Cigdem Issever, 1.6 FTE

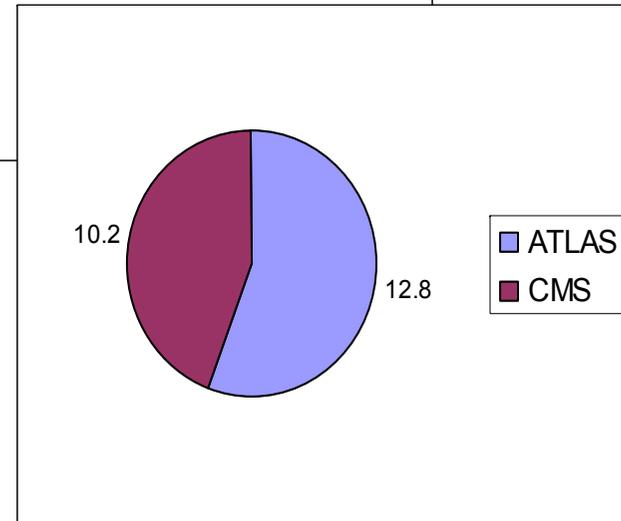
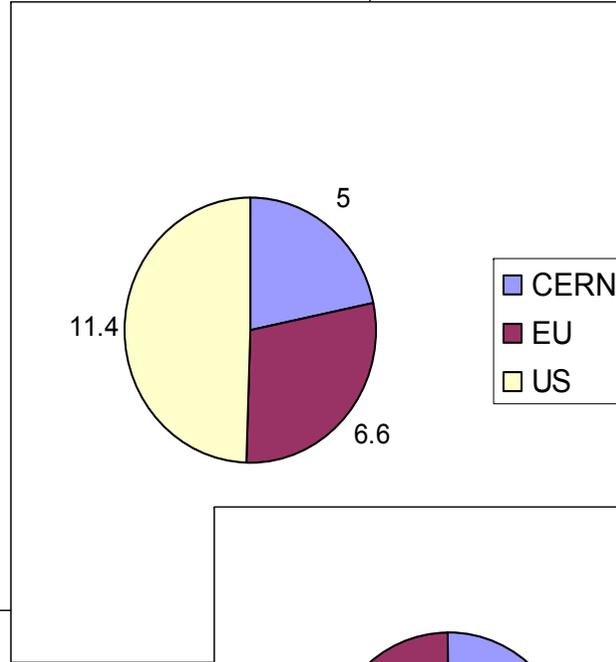
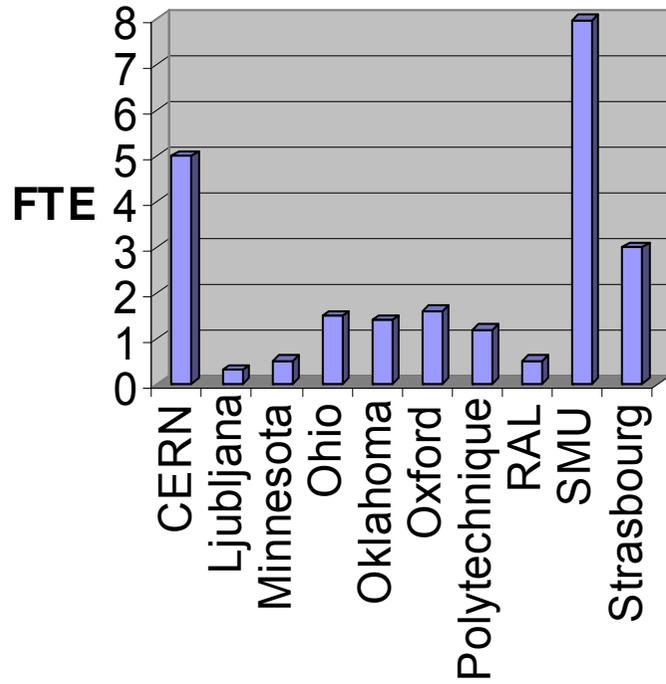
CMS origin

- **CCLRC RAL Technology-ESD**
 - John Coughlan, 0.5 FTE
- **CERN-PH-MIC**
 - Francois Vasey, 5 FTE
- **Imperial College (?)**
 - Geoff Hall, TBD
- **IN2P3-IRES Strasbourg**
 - Abdenour Lounis, 3 FTE
- **Polytechnique LLR**
 - T. Romanteau, 1.2 FTE
- **University of Minnesota** (at CERN)
 - R. Rusack, 0.5 FTE

7 institutes, 12.8FTE

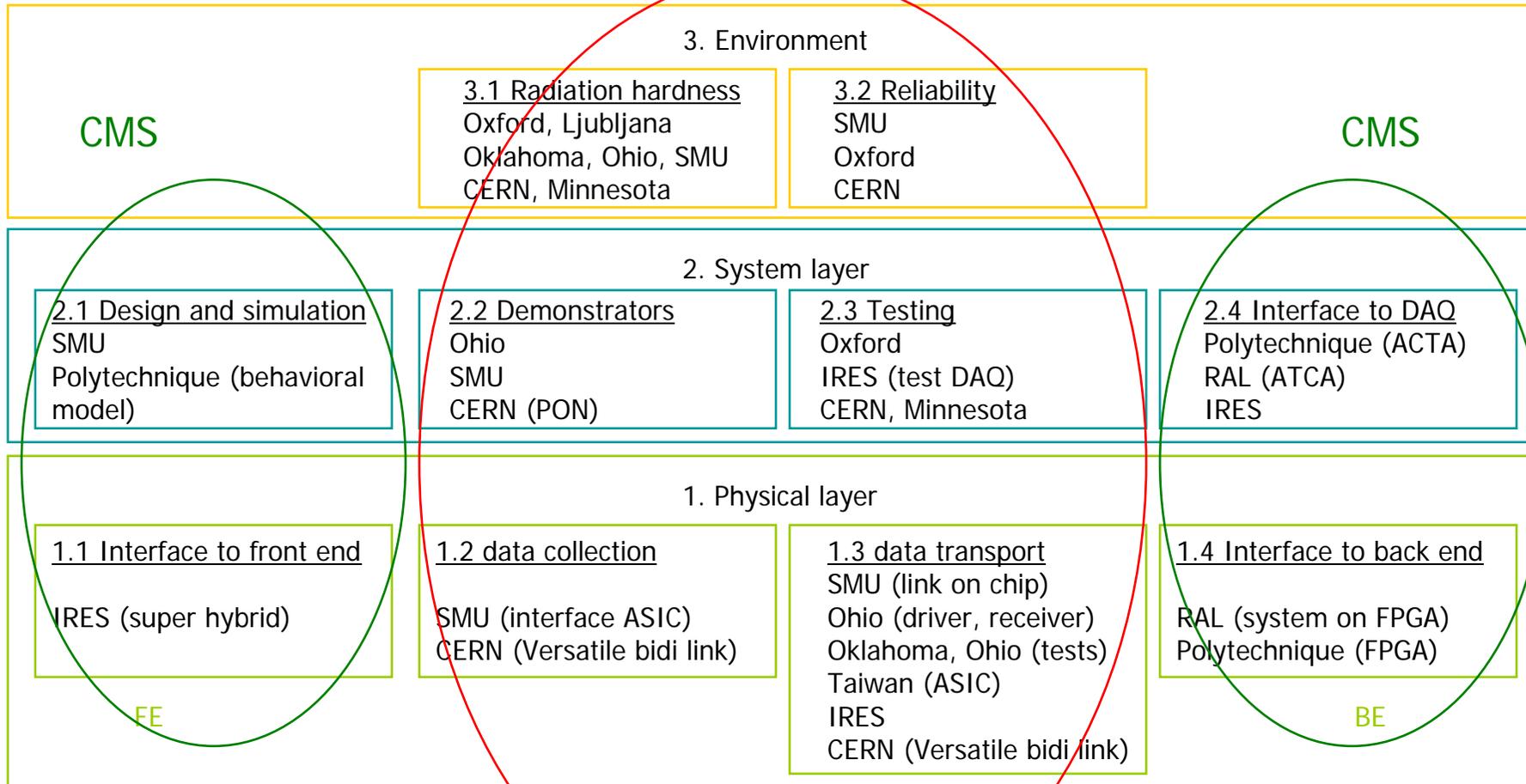
6 institutes, 10.2FTE

Joint Optoelectronics Working Group Resources Distribution

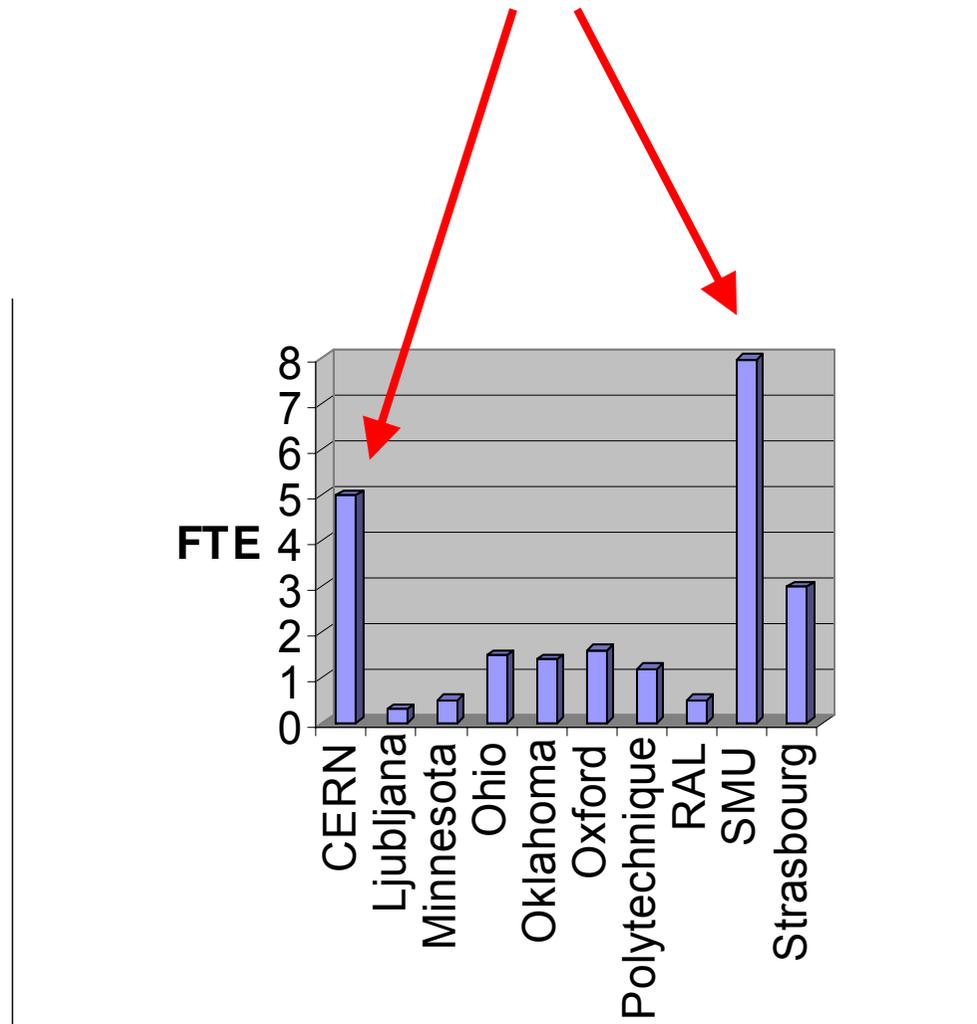


Joint Optoelectronics Working-Group Survey Results

ATLAS+CERN

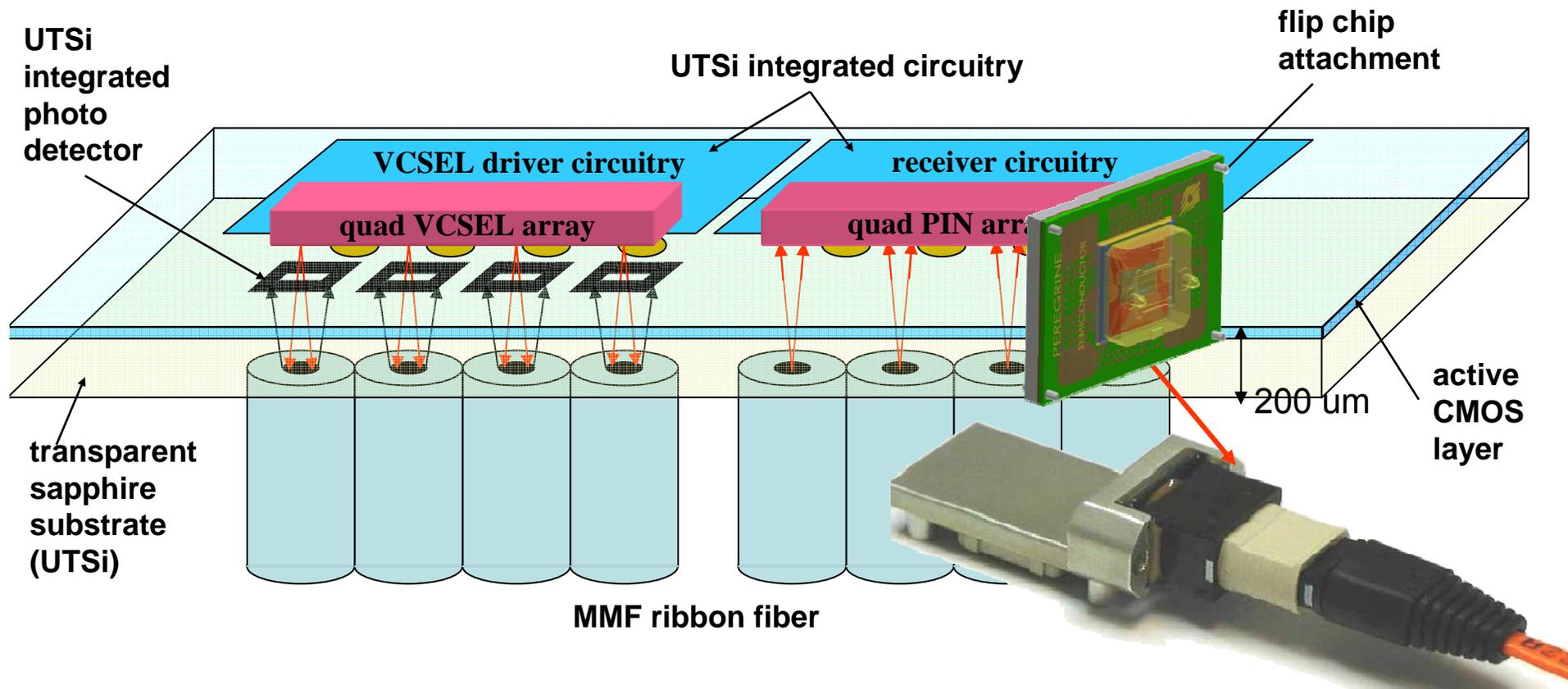


Announced Development Projects

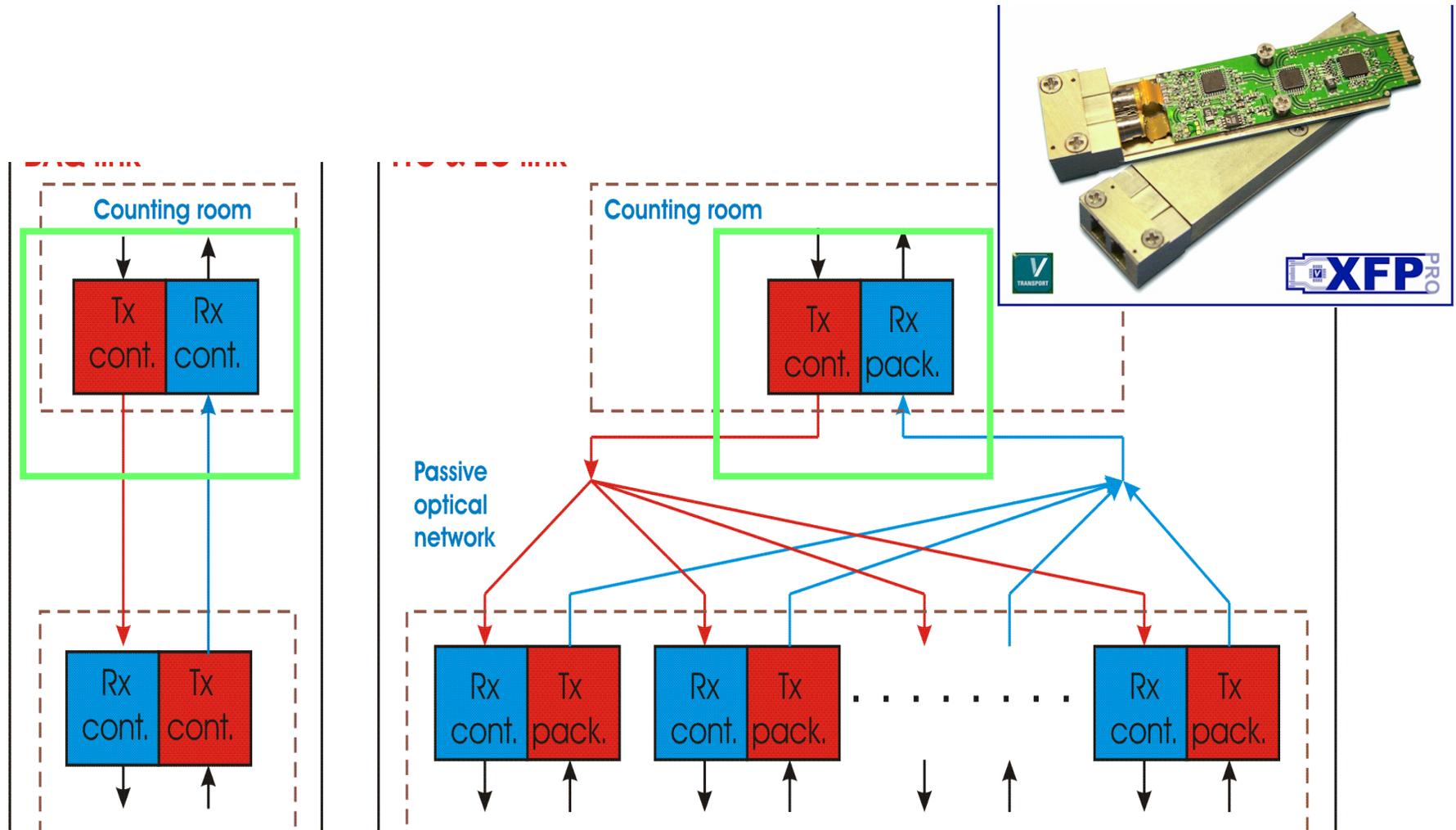


SMU Project

Flipped OE devices on SoS substrate



CERN project proposal: Versatile Bi-directional Digital Link



Joint Optoelectronics Working-Group Interpretation of Survey Results

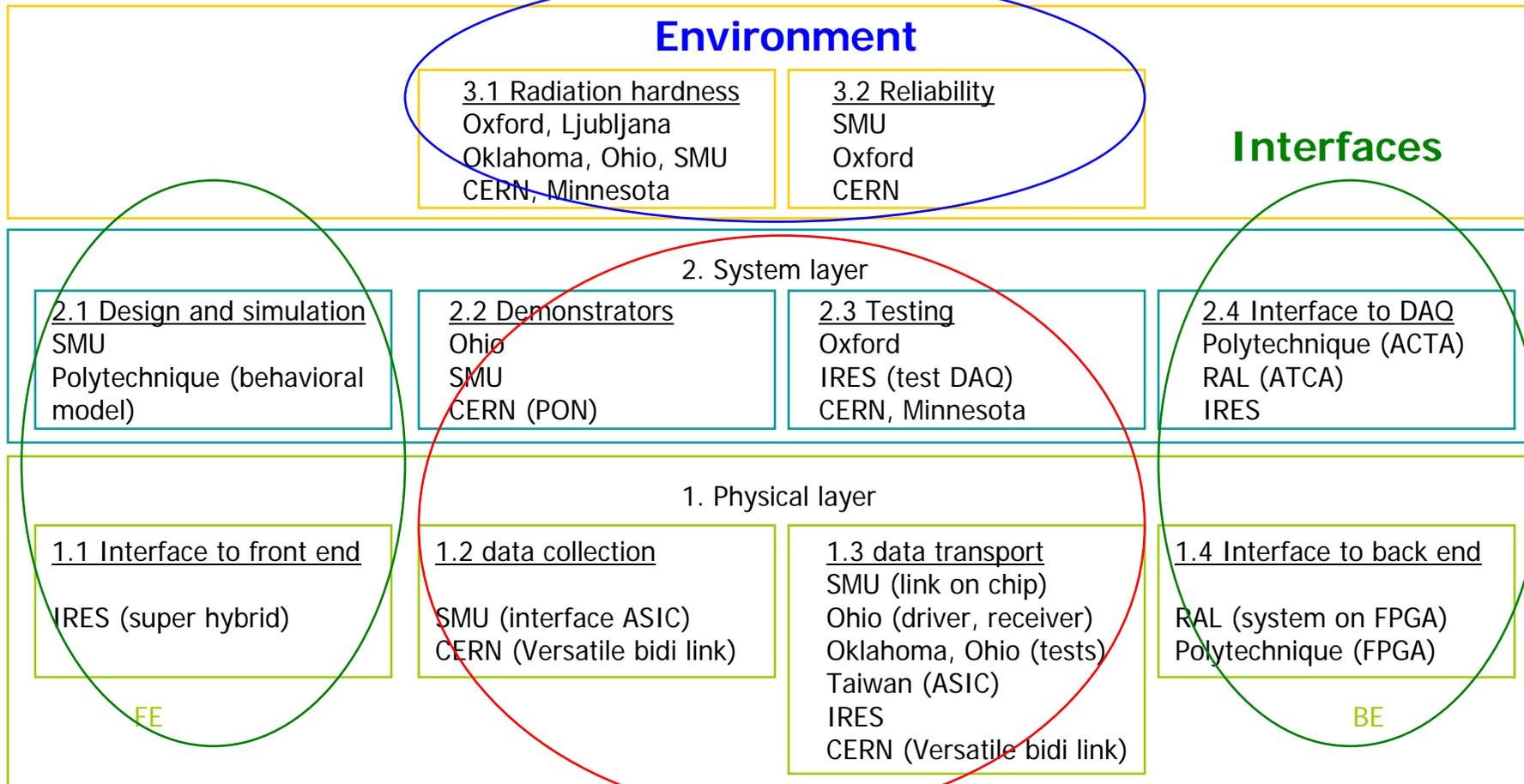
- 13 institutes, 23 FTE
- 3 institutes above 3 FTE: SMU (8), CERN (5), IRES (3)
- 2 development projects announced:
 - Link on chip SOS (SMU, ongoing)
 - Versatile bidirectional link (CERN, proposal)
- 10 institutes below 3 FTE (0.8 average)
 - Mostly involved in testing
- Core activity: ex-ATLAS and CERN
 - Optoelectronics developments and testing
- Periphery: ex-CMS
 - Hybrids, Backends, system modeling
- No system level work

Proposal for a different operating mode, 23 June 2006

- Move from reporting to collaborating mode
- Identify the areas of expertise of collaborators
- Collaborate in smaller subgroups, organize topical meetings?
- Prepare common R&D proposals?
- Report at bi-yearly plenary meetings

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Possible Sub Groups ?



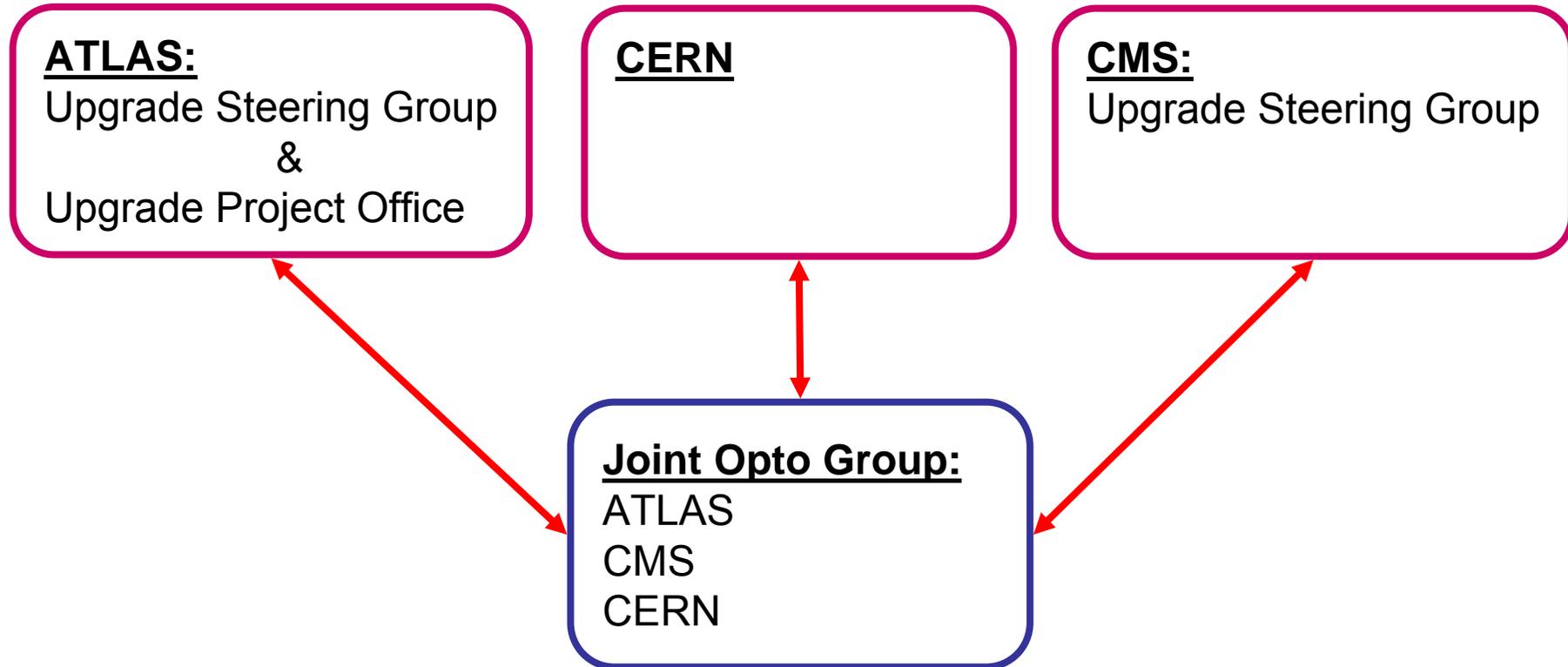
Components and system

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Possible Collaborative projects ?

- Test procedures and metrics
- Test equipment and facilities
- System level test beds
- Opto-system specifications and interfaces
- Connectivity to front and back-end
- ...
- Or crystallize around announced projects

Joint Opto Group ↔ ATLAS/CMS/CERN Upgrade Management



- Inclusion of Joint Opto Group into upgrade managements?
- Review of joint proposals? Submit to three review panels? ⚡
- **Can we simplify ?**