



Created in 2002S partnershipPhase I: 2003-2005

Phase II: 2006-2008

Phase III: 2009-2011

CERN's partnership with IT industry



- A science industry partnership to drive R&D and innovation
- Started in 2002, now in second phase, phase 3 under preparation

Motto: "you make it – we break it"

- Evaluates state-of-the-art technologies in a very complex environment and improves them
- Test in a research environment today what will be used in industry tomorrow







Two kinds of relationships:

- Partners
 - Engagement for three years
 - Contribution 800 kCHF/year (500k€)
 - 50% in cash to fund personnel, 50% in-kind or services

Contributors

- Engagement for one year
- Contribution of 240kCHF (160k€)
- 50% in cash as well



openlab phase I

- Partners: Enterasys, HP, IBM, Intel & Oracle
- CERN opencluster: a major success
- Significant contributions to the LHC Computing Grid Project
 - 10Gb/s technology and long-distance networking
 - 64-bit technology, high-performance cluster
 - CFD calculations for experiments
 - Open software, compiler technology, tuning
 - Streaming for data-replication
 - Experience with complex data storage
- Many workshops, visits and partner events
- Participation and support in conferences



openlab phase II

- Formal relation with EGEE
- Stronger emphasis on funding young scientists
- Main areas of collaboration:
 - Platform Competence Centre
 - Grid Interoperability Centre
 - Analysis and management of large complex network infrastructures
 - Security (completed in 2007)
 - Grid Monitoring
 - Marketing events
- Supported EGEE conference





openlab phase III

- Covers 2009-2011
- Extensions under preparation with present partners
- Discussions on-going with possible new partners
- New topics
 - Multi-core, many core
 - Memory optimization
 - Power reduction
 - Control systems and PLC security
 - Extended Grid monitoring
 - Green IT new data centre
- Siemens just became partner





openlab is also about people





openlab students





openlab students & supervisors





openlab fellows





openlab Board of Sponsors



Summary



- openlab has established it self as a reference
- Good balance between near-term and midterm R&D
- Continuous stream of results due to long-term partnerships
- openlab has trained many young scientists
- LHC computing has profited directly
- A big "thank you" to our partners and contributors