



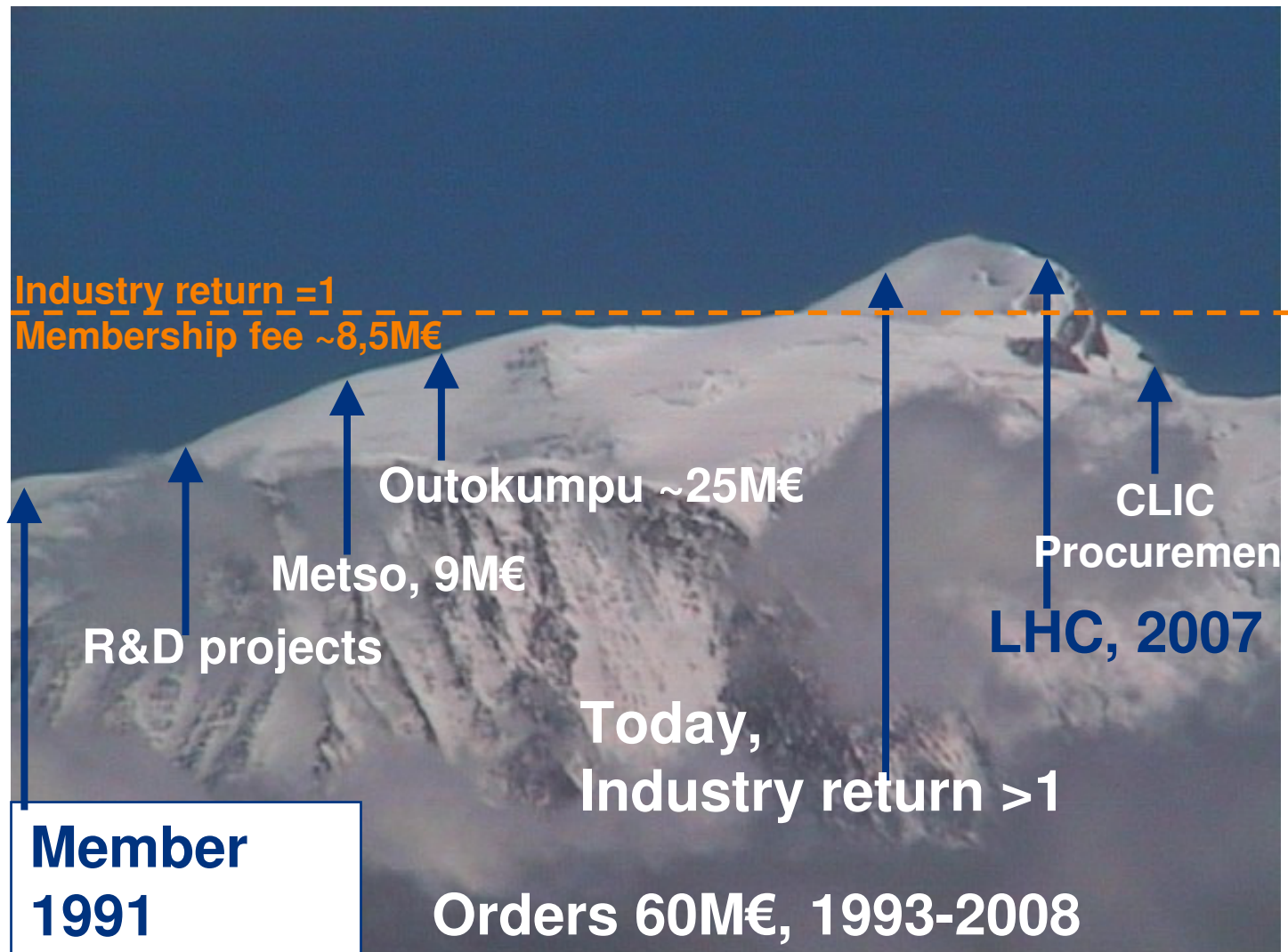
GRID Entrepreneurship day: Case Finland

Antti Heikkilä

Innovation and Collaboration Activities

26.7.2006

Finland and LHC



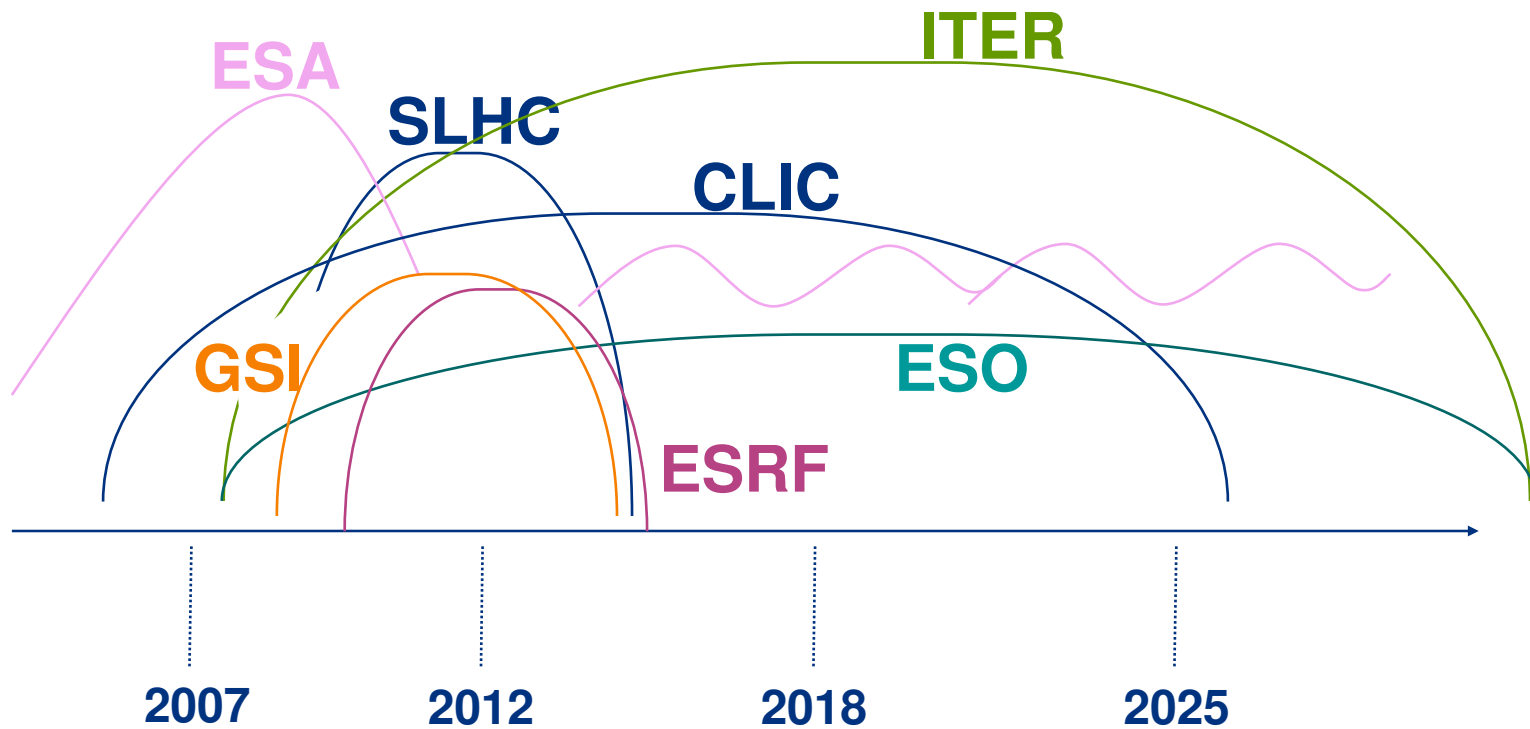
R&D project example, BS-Center as technology development lever

Revenue



Funding, e.g. TULI, Tekes

Estimate of industry collaboration





Examples

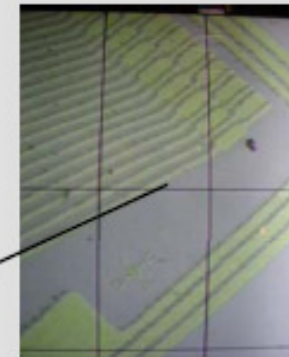
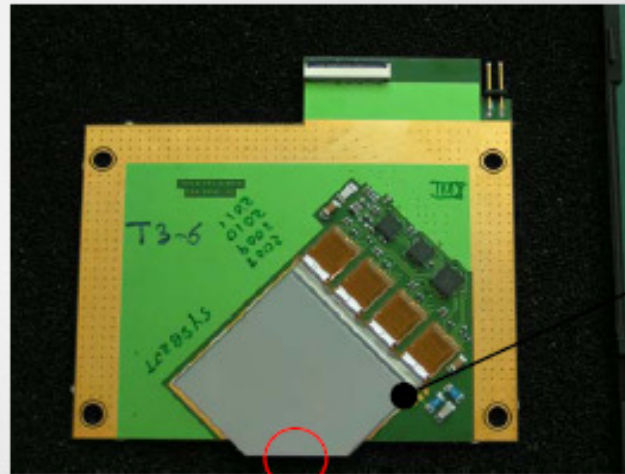
Metso Powdermet, dipole magnet end cover



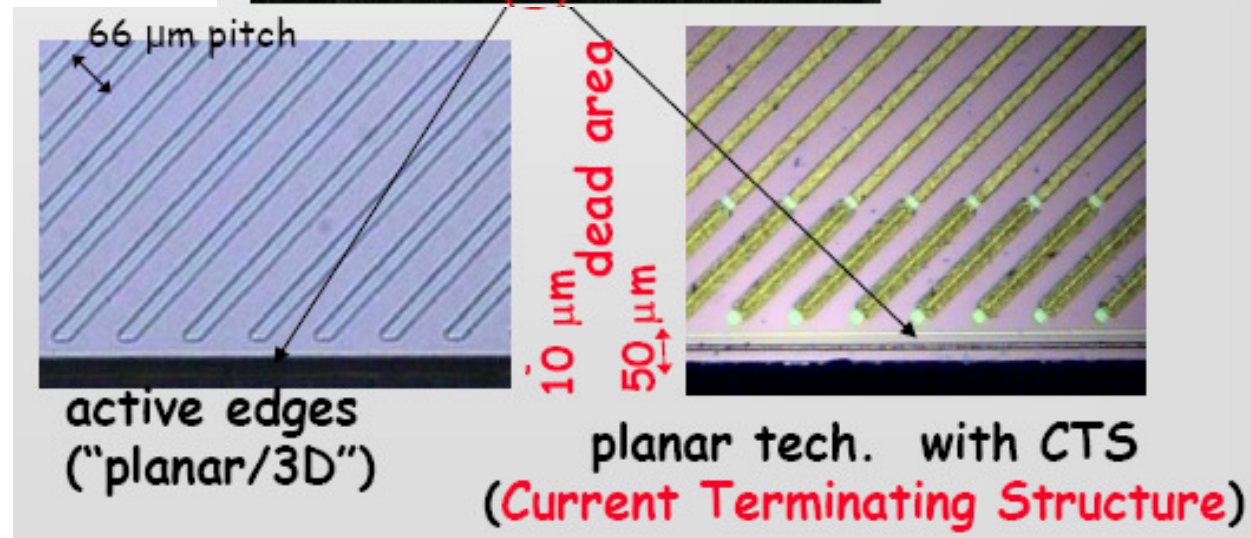
- **Co-operation with CERN for many years**
- **The firm piloted new technology (powder metallurgy) at CERN**
- **Specs drafted around the technology, 9M€ contract & learned the technology process to be exploited elsewhere**

Pitch adapters by Planar

Edgeless detector module



Pitch adapter on
detector





Rocla Robotruck





Copyright Sony Pictures

CERN and Hollywood like Rados...



“In order to be cool,
one must wear Rados”

Finland and GRID

- Helsinki Institute of Physics is the main FIN player on GRID research and development
 - Netgate (authentication, security, payments)
 - EGEE
 - Nordugrid (gLite-middleware)
 - LHC @ Home
 - JBoss
 - Spin-offs
 - Etc. etc

GRID Technology Transfer

- Technology transfer lies mainly on the shoulders of HIP-TEK programme
- Finpro has started providing services for:
 - Linking industry on the projects
 - Seeking opportunities to commercialize the technologies
- HIP-TEK introduced new partners to openlab:
 - Stonesoft and F-Secure



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Examples, GRID



The Spin-off company

- Copyright agreement between HIP and CERN in 1996
- Kronodoc Oy, founded in 1997 to support companies using the pilot product in domestic R&D projects
- Product name: Kronodoc, see: <http://www.kronodoc.com>
- Employs 27 people in October/2006
- Funding
 - OKO Bank, two rounds 2000 and 2002
 - ABB New Ventures, joined the 2002 round
- Currently ~7000 industrial users
- Applications running in various industries, biggest customers in marine and offshore industries
 - Focus on reducing process and project leadtimes through efficient workflow management - information logistics
- Estimated revenues M€ 3 - 3.5

Capacity Networks

- Participants in TEKES funded NetGate project which started 2005.
- Capacity networks is a Finnish-British information technology start-up focusing on data storages and storage services.
- Capacity Networks provides

www.fotojive.com

- An academic research project at HIP-TEK had produced a design for a state of the art grid storage. Preliminary measurements showed that the solution had potential to be applied in production use.
- The novel storage design facilitates building reliable enterprise storages with commodity hardware. The valuable functionality is achieved through the use of free open source software.
- Communication between HIP-TEK scientists and Capacity Networks revealed that technology from the academic research project could be transferred to real world use. This lead to reuse of parts of design in Capacity's next generation grid storage.
- More info: Jari Ojala at Capacity Networks, Miika Tuisku/Mikko Pitkanen at HIP

EduGRID - project

- Peer 2 Peer network
- Based on DiMaS Media Box:
 - Thinclient, PC, Digi TV, GPS, WLAN base station, fits to racks (clustering possible works as blade servers)...
- Forming clusters of DiMaS MX
- Used first at schools:
 - Media distribution
 - Computing (SBC)
 - Centralized application distribution and identity management
 - Centralized updating
- Next big step, manage the copyrights for movies and other content
- More info Tommo Reti at HIIT



DiMaS Media BoX (WxHxD, 7"x2"x10")

Conclusions

- New spin-offs expected to emerge
- National and international research organizations important base for new business – innovation, clients
- Funding and entrepreneurial activity is crucial
 - Time to enter the application level

**More active entrepreneurs
needed to grab the challenge!**