

Technology transfer and learning through supply-relationship

- Case study about a supplier making
the best out of it

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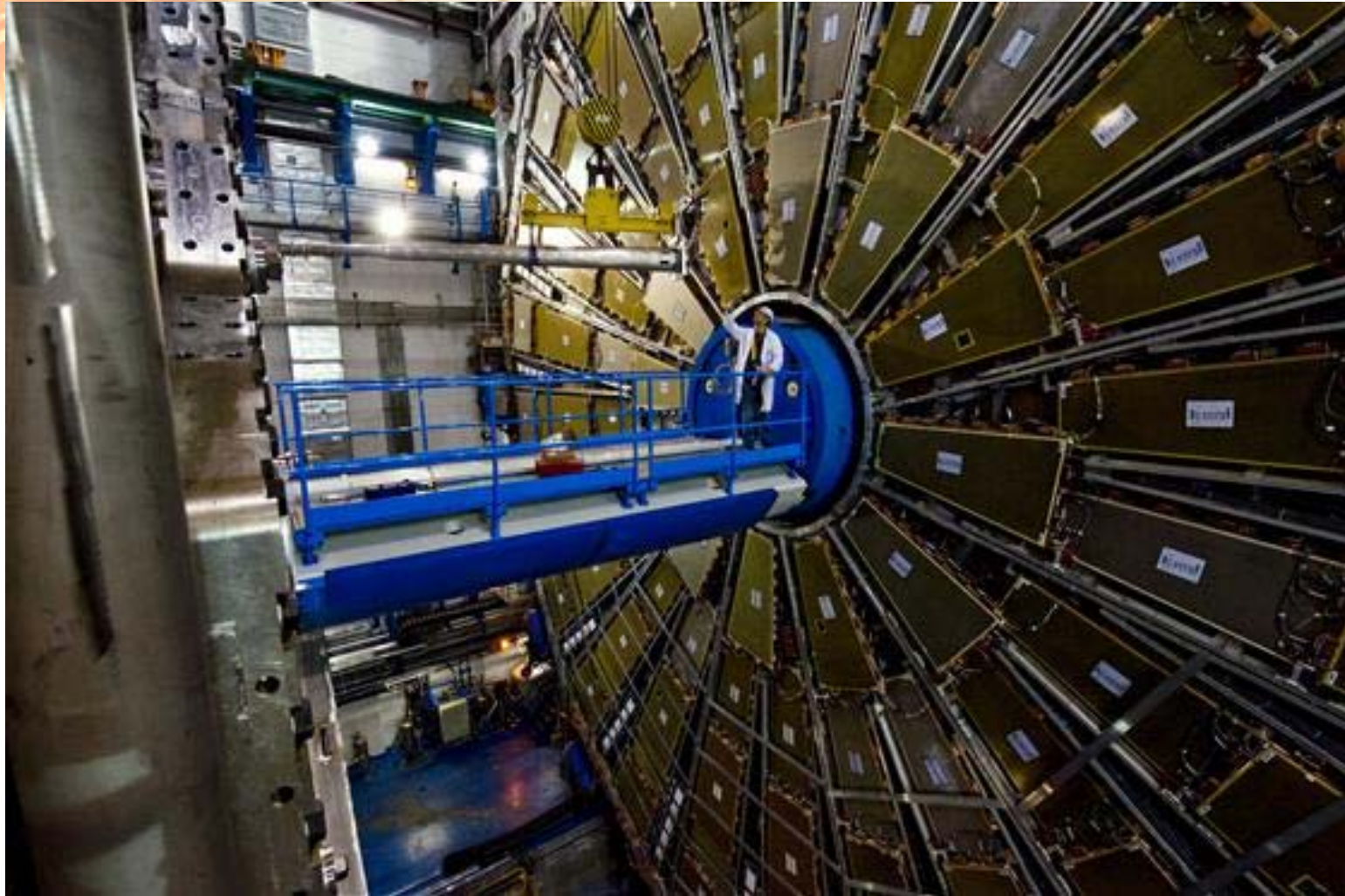
² CERN, The European Organization for Nuclear Research, Geneva, Switzerland

- Technology transfer
 - Participants CERN and supplier firms
 - Interactive model of technology transfers
 - "Big Science" (not uni or gov research - ind)
- Technological learning
 - The context provides a learning environment for industrial companies
 - How to scale competencies to level required in Big Science?

- European Organization for Nuclear Research
- Founded in 1954, now 20 member states
 - Finland joined 1991
- One of the world's largest and most respected centers for scientific research
 - Fundamental physics, focusing on what the Universe is made of and how it works
 - Engineering needed to build the facility (around 2600: 3% scientists, ~7900 associates, overall 70% with technical background)

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ATLAS experiment detector



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Purpose of the study

- Describe through a successful case how a regular Finnish manufacturing firm can adapt itself to carefully documented supply process (process defined by CERN)
- Based on a case description, we aim to detect what are the key turning points which made this particular case successful

- Recent studies of Big-Science – Industry collaboration:
 - Autio et al. 1996: found six different motivation for collaborating
 - Hameri & Nordberg 1999: of tendering and contracting of new, emerging technologies
 - Vuola & Hameri 2006: a longitudinal case, nine in-depth on innovation processes at interface

- A single case study
 - One delivery project from the very beginning (pre-tender) to after care
 - Activities started 1999, ended 2005
- Data acquiring: Interviews of key personnel from both sides
 - Company-side (3)
 - CERN (3)

- Key success factors
 - ILO-contacts
 - Focus on right things
 - Found market potential to develop (need)
 - Parent company performing well in financial terms
 - Possibility to risk-taking
 - Financial and contractual support was available
 - TEKES funding for R&D/Competence development unique in European level
 - Excitement, commitment, risk tolerance before anything official

- Theoretical frame
 - Extract the best out of single case study
 - KSFs, Key success factors?
- Complementing investigations?
 - Survey on importance of identified key success factors
 - Comparison of this case with other similar cases?

- Finnish mentality
 - Good job, Kempower 😊
- Going forward without prejudices
 - “regular manufacturing company” in Big Science environment
- Policy implications to Finnish decision-making
 - Importance of public funding to support “ladunavaajia”