Industrialization SMTF/Fermilab View

Superconducting Module Test Facility Collaboration

Nigel Lockyer
University of Pennsylvania
July 12/05
SMTF ILC Industrial Strategy

• Really at the beginning of forming an industrial strategy in US

• Approach so far: work hand-in-hand with industry at Fermilab and within SMTF collaborating institutions to train industry personnel and begin transferring technology.
SMTF ILC Industrial Strategy

- View being developed by Helen Edwards, Shekhar Mishra, Hasan Padamsee, Warren Funk, Pat Kelley, Chris Adolphson and SMTF Collaboration

- “SMTF” committed to developing entire cavity/cryomodule chain with industry

  - Will work with “forming” US industrial consortium Tony Favali, Ken Olsen,….
  - US industry is “self organizing”
  - SMTF role is supplying consortium information
SMTF ILC Industrial Strategy

• High priority for SMTF is understanding the cavity processing parameters that will provide reliable, repeatable results—collaboration of Cornell, JLAB, ANL, LANL, Fermilab….. and industry

• Starting to work with several companies

Large ramp up needed
SMTF ILC Industrial Strategy

• Cryomodule assembly and cavities a large fraction of the ILC cost
  – Must understand cost
  – Must build several cryomodules soon and some completely in industry (US industry)
  – Pursue GFA program helps industry with infrastructure
• Fermilab Proton Driver may be a vehicle for developing industry for ILC
• Other US SRF projects are opportunities too
SMTF ILC Industrial Strategy

• Have yet to convince leaders of GDE that industrialization is an immediate high priority
  – Discussions to begin at Snowmass
• Funds for industrialization “miniscule”

Large ramp up needed and is expected in next few years