

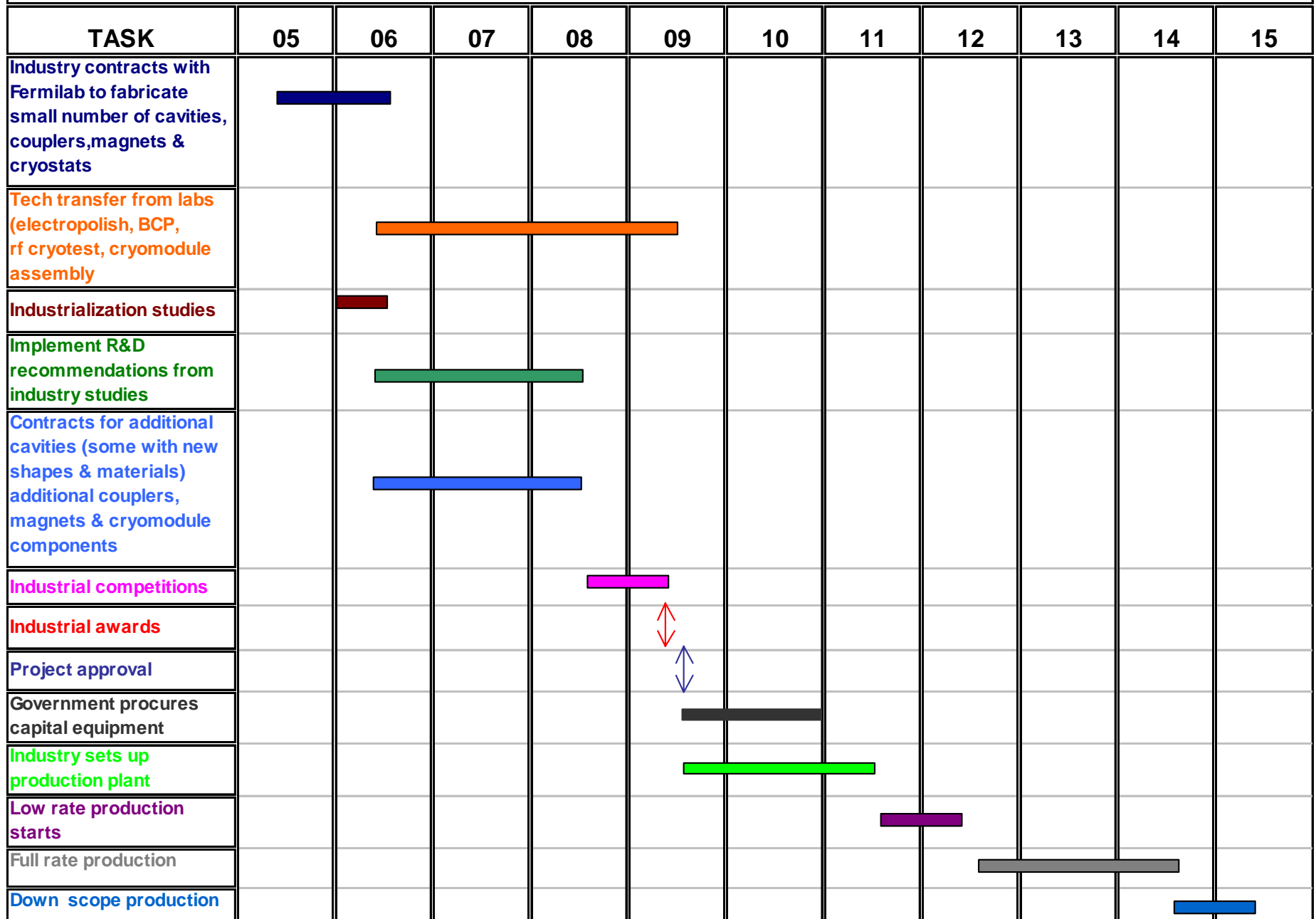
LINEAR COLLIDER FORUM OF AMERICA

INDUSTRY TIME LINES FOR
PRODUCTION OF
CAVITIES AND COUPLERS

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INDUSTRIAL EVOLUTION TIME LINE FOR AMERICA



LINEAR COLLIDER FORUM OF AMERICA

Power Coupler Industrialization A

Proposed Timeline for ILC

- Assumes that XFEL coupler is adequate for ILC
 - XFEL coupler is very similar to the TTF3 coupler
 - 40+ prototype TTF3 couplers built to date
- Assumes XFEL Industrialization Program takes place according to a schedule adapted from Serge Prat presentation dated 30 March 2005
 - Award 3 contracts in January 2006
 - Complete industrialization program in September 2007
- Assumes that XFEL coupler deliveries occur at rate of 40 per month for 2 years starting 18 months after industrialization program
- Assumes that ILC couplers are similar to XFEL couplers
- Assumes that 3 vendors each provide 3000 couplers over 4 years for the ILC

Power Coupler Industrialization A

Proposed Timeline for ILC

- 2005 - 2006
 - Industrial Cost Study (9 months)
 - Estimate costs associated with manufacturing, assembling, cleaning, and conditioning of 3,000 (and 10,000) power couplers over 4 years
 - Must take into account infrastructure requirements, automation requirements, tooling costs, conditioning requirements
 - Assume that XFEL / TTF3 coupler is baseline
- 2006
 - Fabricate 8 – 12 TTF3 couplers for SMTF (6 months)
 - Initiate conditioning R&D and tech transfer with industry (12 months)
 - Initiate cleaning, TiN technology transfer programs with industry (12 months)
 - Assume that XFEL Industrialization Program is ongoing or initiate equivalent program
- 2007
 - Implement R&D studies
 - Assume that XFEL Industrialization Program or equivalent program is complete in late 2007
- 2008 - 2009
 - Low Rate Initial Production (LRIP) of 100 couplers (2 years)
 - Include results from XFEL Industrialization Program or other Design for Manufacturability Program

Power Coupler Industrialization A Proposed Timeline for ILC

- 2009 - 2010
 - Industrialization Program similar to XFEL Industrialization Program
 - Order of magnitude higher quantities will require new program
 - Individual vendors design for manufacturability as part of this program
 - Firm cost proposals prepared
 - Prototypes built
 - Vendors prequalified in competition
- 2010
 - Project Approval
 - Select vendors
 - Government(s) purchase tooling, RF sources for conditioning
- 2011
 - Vendors hire human resources and tool up
- 2011 - 2015
 - Fabrication, assembly, and conditioning of 3000 couplers at a rate of 4 per day