

ILC-WG5 (SRF cavities, couplers, modules) – Industrialisation

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- Basic assumptions on industrial production worldwide (might change through the workshop upon discussion)
- ILC-Industrialisation and the European XFEL
- ACCEL's view as a company supplying the accelerator labs worldwide

Basic assumptions on industrial production worldwide

(might change through the workshop upon discussion)

- Fullfillment of cavity/module specifications will be demonstrated by the regional ILC labs on several prototypes, produced in cooperation with specialised industry (R&D phase).
- For series production (including pre-series) cavities/modules will be produced completely by industry. For cost and timing reasons only cavity and module testing will be performed at the regional labs and/or at the host.
- After technology transfer from the regional labs regional industry is powerful enough to supply such cavities/modules cost effective and in time.
- There will be substantial cavity/module contributions from each region.
- So it looks for a regional industrialisation approach (at least on the key works), but we should not forget to discuss possible advantages of global industrial cooperation.

ILC-Industrialisation and the European XFEL

TTF (starting some 10 years ago)

- Production of some 50 cavities, couplers, few cryostats by industry (build to print, intense cooperation lab-industry)
- Preparation, testing, string/module assembly by DESY

XFEL (industrial production to start 2007)

- Production of 1000 cavities, couplers, He tanks, 125 cryostats etc. (build to print?)
- Preparation of 1000 cavities for cold test at DESY (best effort or perf. guaranty?)
- Preparation and conditioning of 1000 couplers (best effort or perf. guaranty?)
- String and module assembly (best effort or perf. guaranty?)
- Module cold test at DESY

Still big steps to accomplish:

- DESY to demonstrate performance (>28 MV/m etc.) on several complete modules
 - Final discussions/work outs with specialised industry on performance responsibilities (Implementation on prototyping and pre-series at least for preparation and assembly, early investment on eb welding machines for keeping the schedule)
- Experiences from LHC, LEP200 etc. should be taken into account

ACCEL's view as a company supplying the accelerator labs worldwide

ACCEL's Partners and Customers in Fundamental and Applied Research (not complete)



ACCEL today:

120 physicists/engineers, 130 manufacturing specialists

substantial specialised manufacturing capabilities

2000 person years know how, 0,5 Bio € integrated business volume

We work hard to serve ILC in the future - worldwide