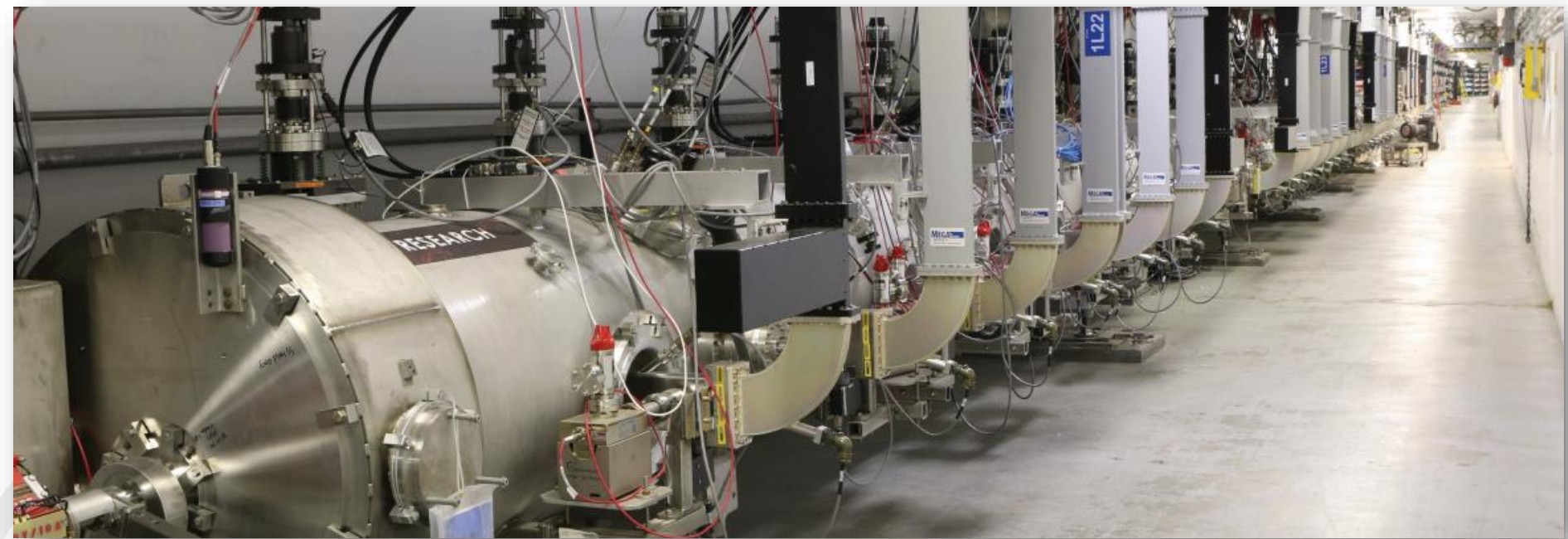


Jefferson Lab and ILC



Jefferson Lab has decades of experience in developing, building and operating superconducting linear accelerator machines, with high quality polarized beams, and have wealth of experience on accelerator R&D on SRF, positron production, collider design, etc. – many of which is relevant for International Linear Collider – the basis for Jefferson Lab active participation in the ILC Global Design Efforts and now in the ILC International Development Team

Andrei Seryi, Associate Director, Accelerator Operations and R&D

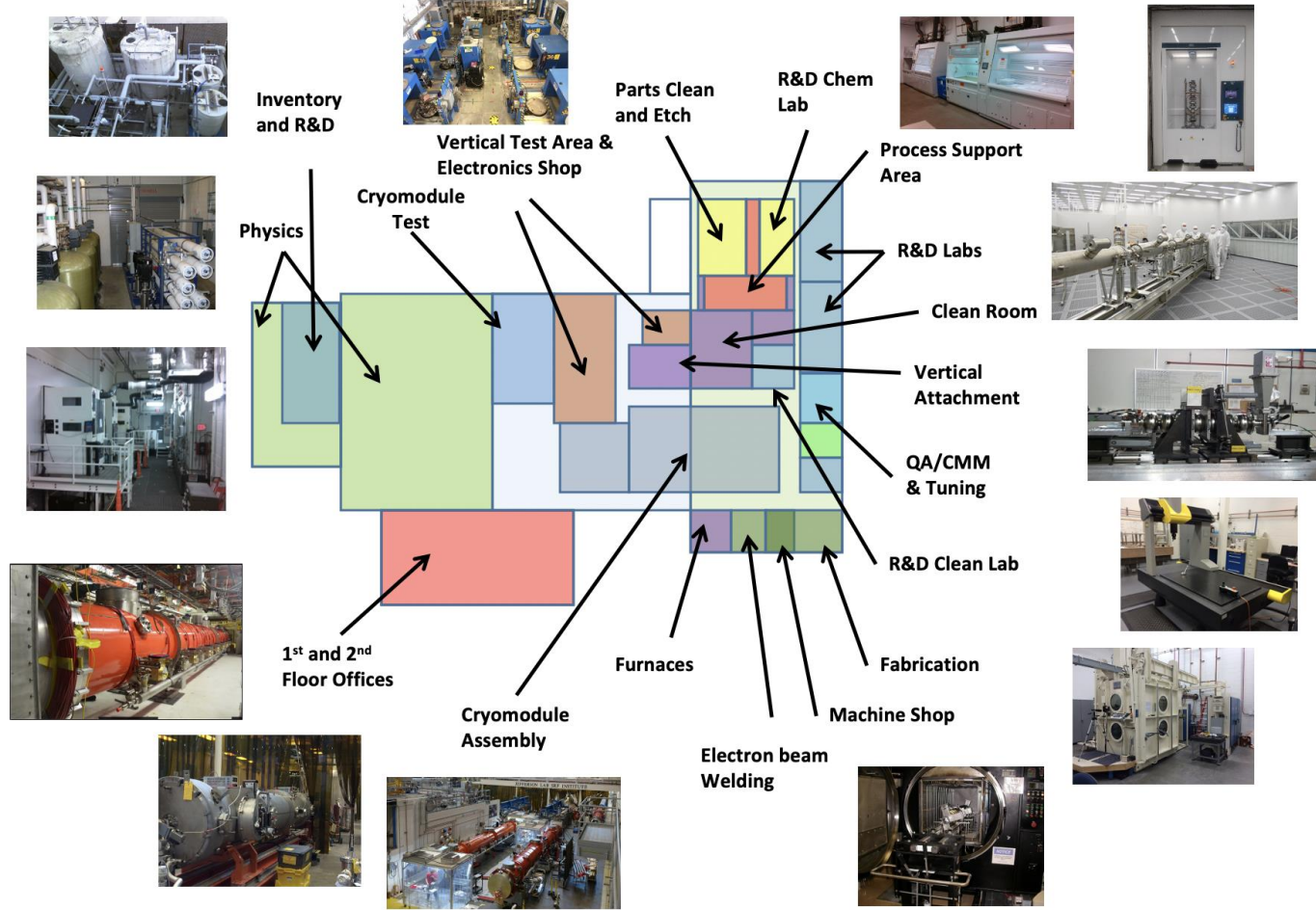
AWLC2020 panel discussion

October 20, 2020

Jefferson Lab SRF Production

JLab SRF by the numbers

- >135 cavities of various types fabricated
- >960 different cavities processed and tested
- >5300 vertical cavity tests performed
- >530 cavities and 90 cryomodules produced and in continuous operations



- Full cycle – from R&D and prototype to design, construction, operation and refurbishment
- Support NP goals and DOE partner labs programs

Jefferson Lab and ILC

- Jefferson Lab has made important contribution to R&D on ILC cavities and continuing to contribute to ILC efforts
- Jefferson Lab contributes to ILC Global Design Efforts
 - tech transfer, vendor qualification, gradient program, and now the cost-reduction program
- Jefferson Lab is participating in International Development Team
 - SRF R&D, sources (polarized positrons)
 - Can contribute to other IDT WGs – e.g. beam delivery / beam transport / damping ring
- ILC SRF cryomodule production
 - Jefferson Lab together with Fermilab will lead the ILC cryomodule production in US
 - Jefferson Lab would aim to cover 50% of the US cryomodule production
 - Infrastructure exists but assembly and testing facilities would have to be augmented to achieve the rate of 1 CM/week (total with FNAL)
 - ILC production timeline is a good match for ongoing and future production activities (LCLS-II-HE, EIC)
 - JLab has all of the technical lead staff in place