

## LHC & S-LHC

The engineering design team has widely shown his skills in the design of cryostats through his collaboration with CERN for the construction of the LHC. Indeed, from 1996 up to 2006, the group was in charge of the design and follow-up of the manufacturing of the short straight sections (SSS) of the accelerator. Over one hundred variants along with their cryostat assembly tools were developed. The work involved the design, the sizing calculations, the drawing files, the technical specifications, the assembly procedures, the follow-up of the manufacturing in a quality assurance process. The recognition of the group's expertise in the design of cryostats and cryomodules is largely due to the success of this program.

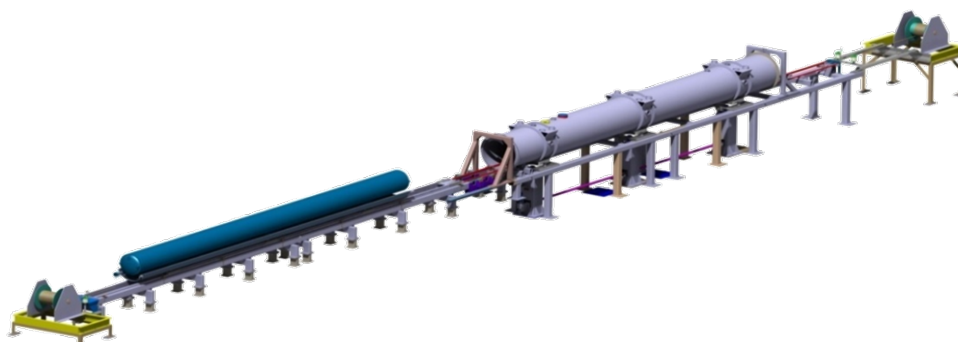


SSS type quadrupole



Assembly tooling

The design team continued his collaboration with CERN first in 2008 within the S-LHC program aimed at increasing the brightness of the accelerator. The mission was to realize the quadrupole cryostats and the assembly tools.



Bench cryostatting (insertion of the cold mass in the vacuum chamber) S-LHC.

The study was completed in 2011. The manufacturing was not carried out due to the reorientation of the scientific policy of CERN and the end the program. However, the group continues his activities with CERN, including within the SPL (Superconducting Proton Linac) project initiated in 2009.