



EDMS NO.  
1771809

REV.  
1.0

VALIDITY  
VALID

REFERENCE : NOT REQUIRED

## HL-LHC Resources request

**Date:** 2017-02-20

**Project/Activity:** WP12

**Title Position/Task:** Engineer / Physicist for the COLD bore Experiment, COLDEX

**Description Project:**

Ex. The COLD bore EXperiment, COLDEX [1, 2], is an experimental system which mimics a LHC type cryogenic vacuum chamber. It is currently installed in the SPS to study the interplay of the electron cloud induced by LHC beams with the cryogenic vacuum system.

[1] Recommissioning of the COLDEX experiment at CERN. R. Salemme *et al.* Proc. of IPAC 2015, Richmond, VA, USA

[2] Amorphous carbon coatings at cryogenic temperatures with LHC type beams: first results with the COLDEX experiment. R. Salemme *et al.* Proc. of IPAC 2015, Richmond, VA, USA

**Task:**

- Install new instruments and, in particular, Laser Engineered Structured Surfaces beam screens at the COLDEX.
- Coordinate and operate the COLDEX during the year.
- Analyse, present and publish data.
- Evaluate the impact of the observations on the HL-LHC vacuum system.
- Propose potential upgrades to the COLDEX and/or HL-LHC.

**Profile:** Engineer / Physicist

**Experience:**

Experience with ultra-high vacuum systems is needed. Hability or commitment to learn data acquisition and data analysis softwares is desired. Knowledge of cryogenics together with the coordination and operation of systems in an accelerator environment are assets.

**Specific details:** Candidates will be expected to possess a good working knowledge of either English or French.

**Requester:** TE-VSC

**Starting date:** July 2017