



EDMS NO.  
1767951

REV.  
1.0

VALIDITY  
VALID

REFERENCE : NOT REQUIRED

## HL-LHC Resources request

**Date:** 2017-02-06

**Project/Activity:** WP10

**Title Position/Task:** Radiation to electronics studies.

**Description Project:**

In the context of the HL-LHC project, the installation of electronics equipment requires the assessment of its sensitivity to radiation as well as of the relevant radiation levels, in order to minimize downtime due to single event effects and cumulative damage.

**Task:**

You will join the FLUKA and R2E teams to:

- Liaise with the equipment groups and WP15 to keep updated the plan of the underground electronics and the indication of the sensitivity to radiation of the various devices;
- Characterize the radiation environment in all relevant locations;
- Link monitor measurements to radiation level expectations and correlate the R2E-related dump rate with operational parameters, such as integrated luminosity, beam intensity, vacuum conditions;
- Help to identify suitable irradiation tests at the available facilities;
- Contribute to radiation effects modelling.

**Profile:** Post-Doc physicist/engineer expert in radiation environment characterization and radiation effects on electronics

**Experience:**

Experience in Monte Carlo simulations of particles showers and/or sensitivity to radiation of electronics devices

**Specific details:** Familiarity with the FLUKA code, radiation monitors, irradiation tests

**Requester:** EN -STI

**Starting date:** July – August 2017