RD50 Prolongation Request

- M1: Comparison of commercial TCAD tools; preparation of a recommendation for parameters and physics models (Q4/2019)

- M2: Development of a reliable radiation damage model covering the HL-LHC fluences for protons and neutrons for a given operation temperature. The model shall be able to reproduce I-V, C-V, CCE and the E-field including double junction effects. (Q4/2020)

- M3: Model M1 extended to cover temperature dependence of the bulk-damage related effects from room temperature down to -30 °C. (Q3/2021)

- M4: Model from M2 extended to cover annealing effects (Q3/2022)

- M5: Model of the donor and acceptor removal (SiPMs, LGAD, CMOS,..) (Q3/2020)

- M6: Surface damage model with correct modelling of surface damage in p-type segmented sensors. (Q1/2021)

- M7: Evaluation of the possibility of the implementation of cluster related defects in the commercial TCAD device simulators by using a charge carrier occupation dependent energy level distribution. (Q2/2021)