

# UU - WP3 activities plan



- ✓ Analysis of the similarity law for momentum dominated cryogenic jets for use in calculation of hazard distances: validation against SNL tests
- Analysis of the applicability of notional nozzle theory and volumetric release source concept for prediction of concentration decay in cryogenic under-expanded jets:
  - ✓ Low pressure releases ( $P < 10$  bar): validation against SNL tests
  - High pressure releases ( $P > 10$  bar): validation against ICESAFE and PRESLHY experiments performed by KIT (E3.1)
- Perform simulations of experiments on multi-phase releases:
  - Contemporary engineering tool for evaluation of mass flow rate from LH2 tank with inclusion of conjugate heat transfer: HSE experiments
- Studies on formation of cryogenic mixtures of H<sub>2</sub>/O<sub>2</sub> and H<sub>2</sub>/air (connected to WP4-Ignition)