Milestone: Stack is operated at high pressure over >1000 h

- Due to technical challenges, stack test at high pressure was not possible
- All test results obtained so far indicate that stack degradation and single cell degradation are similar under the co-SOEC conditions studied in the ECo project, in other words, the durability of cells represent very well the durability of stacks

- ✓ **Cell** durability test was successfully carried out for the first time on a state-of-the-art SOEC single repeat unit under co-electrolysis of steam and CO_2 for 1600 h at 750 ^{o}C and 3.7 bar at CEA
- ✓ Long-term degradation rate: 20 mV/1000 h; 1.4%/1000 h, which is similar to the rate measured at atmospheric pressure

Milestone: Stack is operated at high pressure over >1000 h

CEA Durability test of a SoA cell with an active area of 3 cm^2 in single repeat unit configuration operated in co-SOEC mode at 750°C, -0.72 A/cm^2 and 3.7 bar, 65/25/10 vol% of $H_2O/CO_2/H_2$ +N_2 with (H_2O+CO_2) flow rate of 14.4 Nml/min/cm^2 at the fuel electrode side, conversion rate 35%, air at the oxygen electrode side