Demo Maturity and TRL Gate Criteria



TRL

Project mode

Demo

echnology

TRL TRL TRL **CONCEPT & VERFICATION VALIDATION** Demo model Demo model Establish data room and initial Map dependencies. Risk and uncertainty commercial model. Map end user analysis. Draft commercialisation plan and requirements. Technology and estimate implementation cost. Benchmark competency gap analysis. against alternatives. Funding Funding Research Research Paper study not involving physical Experimental proof of concept using models, but may include R&D physical model tests, Materials testing and experimentation; Verification through reliability testing is performed on key empirical data from existing technology parts or components in a testing laboratory prior to prototype construction TRL gate TRL gate TRL gate

Demo model Establish technology qualification and implementation plans. Finalise commercialisation plan and NPV analysis. Funding Research Item prototype is built and put through (generic) functional and performance tests in relevant laboratory testing environments; Tests are carried out without integration into a broader system RL gate

PROTOTYPING

UNPROVEN CONCEPT

Hypothesis formulated. Reference case and Focal Point identified. Initial Freedom to Operate and IPR.

PROVEN CONCEPT

Benefit confirmed and demo requirements established.

VALIDATED CONCEPT

Commercial viability confirmed and implementation challenges described.

PROTOTYPE TESTED

Sign off on final demo model by Focal
Point. Finalize Freedom to Operate
and IPR agreement

Concept formulated; Basic scientific/engineering principles observed, reported and peer reviewed.

Technology and application concept formulated; Concept and functionality proven by analysis or reference to features common to existing technology

Concept design or novel features of design is validated by a physical model, a system mock up or dummy and functionality tested in a laboratory environment System function, performance and reliability tested; The extent to which application requirements are met are assessed and potential benefits and risks are demonstrated