The Seven Rungs of the Technology Readiness Level Ladder

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This brief summary write-up has been prepared to discuss the Technology Readiness Levels (TRLs) based on a review of the concepts presented API Recommended Practice 17N (June 2017), *Recommended Practice on Subsea Production System Reliability, Technical Risk, and Integrity Management*; particularly, Annex E: New Technology Qualification.

The TRLs provide an effective means for evaluating the "operational readiness" of a specific technology. It is essential that technology function as designed to ensure that it performs reliably in service. When technologies fail to perform as designed, system integrity is placed at risk, leading to potential failures including environmental impacts and safety to the public. For investors in technology, consistent performance at optimized levels is essential for a successful and sustainable business model.

In partnering with **ADV Integrity** technology innovators, operators, and investors can reduce the time required in taking technologies from concept to field-qualified technologies. In a world where time is money, reducing the time required to bring fully-functioning technologies to market is essential.

As shown in the graphic below, the TRL Ladder ranges from TRL 0 (Basic Unproven Concept) to TRL 7 ("Field-Proven" System Operation). The goal in any process focused on technology evaluation is to raise the TRL from its initial value to the required TRL.