

EC scale of technology readiness as adapted by Offshore Wind innovation Hub

Technology Readiness Levels (TRL) are a type of measurement system used to assess the maturity level of a particular technology. TRL are based on a scale from 1 to 9 with 9 being the most mature technology. The use of TRLs enables consistent, uniform discussions of technical maturity across different types of technology. TRLs, by themselves, may not always relate clearly to risk, cost and schedule. For instance some technology at a low TRL can mature more quickly than another at a high TRL. Please find below detailed explanation of each TRL level:

	TRL 1	Basic principles observed: Lowest level of technology readiness. Examples might include paper studies of a technology’s basic properties.
	TRL 2	Technology concept formulated: Applications are speculative and there may be no proof or detailed analysis to support the assumptions. Examples are limited to analytic studies.
	TRL 3	Experimental proof of concept: Examples include components that are not yet integrated or representative.
	TRL 4	Technology validated in lab
	TRL 5	Technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
	TRL 6	Technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
	TRL 7	System prototype demonstration in operational environment
	TRL 8	System complete and qualified
	TRL 9	Actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)