

## Modified Technology Readiness Levels (mTRL) and their definition

<b>mTRL 0</b>	<b>Research in progress</b> Fundamental research activity before any potentially useful and validated science or technology has been established
<b>mTRL 1</b>	<b>Validated research: Start concept definition</b> At the point at which the conceptual application of the technology has been defined in outline terms
<b>mTRL 2</b>	<b>Initial concept defined</b> The conceptual application has now been converted to a definition of the product or service which can potentially be offered using the technology
<b>mTRL 3</b>	<b>Working prototype or demonstrator</b> A working prototype or demonstrator has been built
<b>mTRL 4</b>	<b>Product or service testing and concept refinement</b> The new product, service or technology has been refined/modified following feedback from the initial customer
<b>mTRL 5</b>	<b>Proven product or service</b> The product or service is ready at a functional level, without the collateral around the product including the method of deployment and the proposed business model
<b>mTRL 6</b>	<b>Deployment with early customers in real commercial environment</b> The product or service is now ready for use with early Customers, and so includes all the associated collateral, including a service infrastructure where relevant.
<b>mTRL 7</b>	<b>Product or service ready for testing in real user environment</b> Early customer feedback has been used to define the modified product or service functionality, its required performance and critically, the chosen business model.
<b>mTRL 8</b>	<b>Techno-commercial refinement of product or service</b> The refined product or service is now ready for deployment with mainstream customers.
<b>mTRL 9</b>	<b>Ready for commercial deployment with real customers</b> The final product or service is now ready for commercial launch, including go-to-market collateral and proven business model. The challenge now is growing the mainstream customer base.

*Taken from Phadke & Vyakarnam, Camels, Tigers and Unicorns: Rethinking Science and Technology-enabled Innovation, World Scientific Publications, 2017*