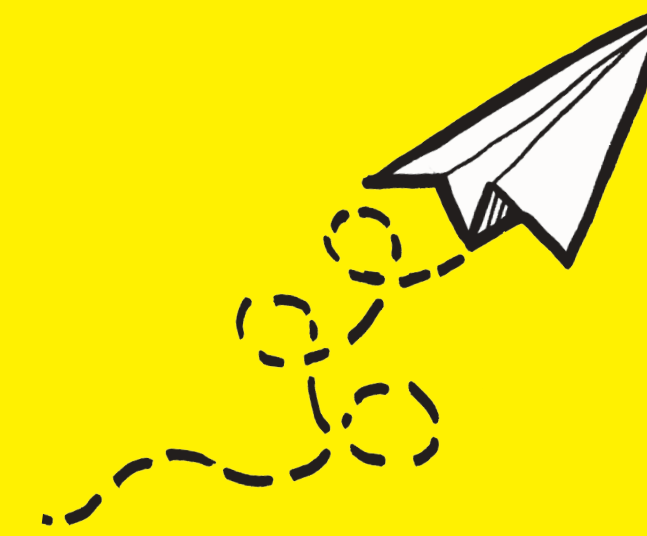


## Technology readiness levels

Technology Readiness Level's (TRL's) are used to define the maturing of a technology, ranging from TRL 1, when research has been initiated, to TRL 9, once technologies have entered the market. The table provides stage descriptors for different sectors, i.e. science and engineering, health sciences/medical and software.

Level	TRL 1	TRL 2	TRL 3	TRL 4	TRL 5	TRL 6	TRL 7	TRL 8	TRL 9
Science & Engineering	Basic idea	Concept developed	Experimental Proof of Concept	Lab Demonstration	Lab scale validation (early prototype)	Prototype demonstration	Capability validated on economic runs	Capability validated over range of parts	Capability validated on full range of parts over long periods
				Component and / or system validation in laboratory environment			Laboratory scale, similar system validation in relevant environment		
Software			Software to test and evaluate basic concepts on simple model problems representative of final need	Escalate model to more realistic representation of industrial system. Confirm basic formulation	Model contains all major elements of need. Solve industrial strength problems by code developers OR achieve functionality by expert users. Document performance. GUI.	No specialist intervention required from programmers / developers. This includes basic GUI interface. If required, programming to be according to ISO standards.	Install, run and evaluate software in actual goal environment (e.g. prospective client's computers). Demonstrate use by clients	Evaluation done by target representative clients on representative hardware platforms. Complete GUIs, users manuals, training software support etc. Typical user driven 'bug hunting'	Product proven ready through successful operations in operating environment
Medical Science	Basic Research		Preclinical Research		Late Preclinical Research	Phase I Trials	Phase II Trials	Phase III Trials	Phase IV Trials
Phase	Research		Translation / Development			Commercialisation			



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UCT appreciates and acknowledges the support that the National Intellectual Property Office (NIPMO) provides for IP awareness raising which has enabled this brochure to be published.

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