

# Design Technology Readiness Level

Product Name:

Technology Evaluated:

Evaluator:

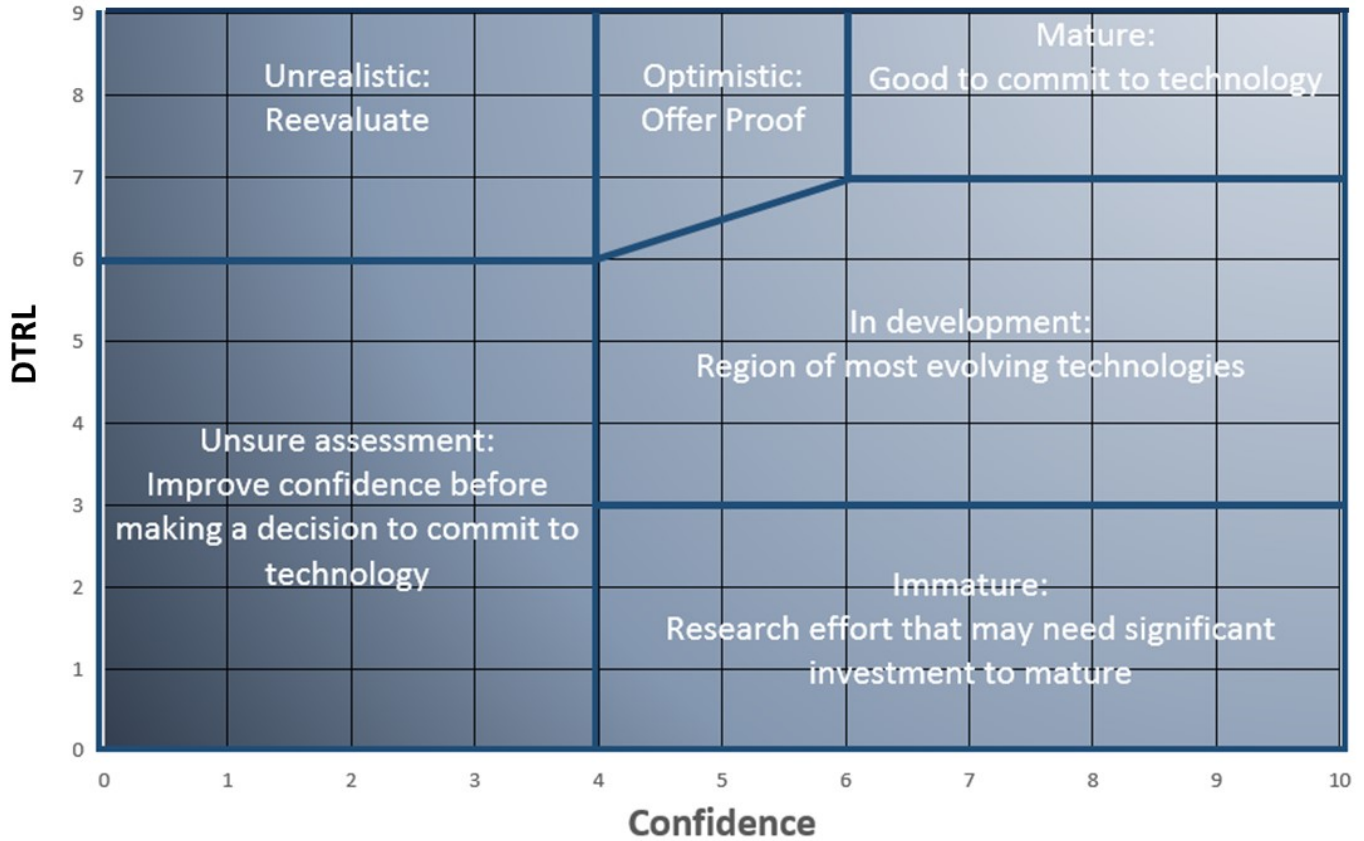
Date:

Summary of technology:

Enter appropriate numbers in green boxes

1. What is the technology maturity in the organization?	$M_o =$	Scoring rationale- Why did you score this measure as you did?								
Common technology in group responsible for design effort. Or, New product final testing complete	9									
Common technology in other group(s) in the organization. Or, New product Beta testing complete in customer installations.	8									
Uncommon but previously used in organization in group responsible for current design effort. Or, New product Alpha testing complete and supplier capability proven.	7									
Uncommon but previously used in organization in other group(s). Or, New product tested with real materials, made with real processes, and tested in organization environment.	6									
Tried in organization but not productized. Or, Prototype tested successfully in lab for high-risk function and reliability.	5									
New to organization but with examples from similar applications. Or, Benchtop prototype passed first testing	4									
New to organization but used in non-similar applications. Or, Models of key subsystems tested on paper or computer.	3									
New application of technology Or, Principles of achieving the goal are understood.	2									
New to the world	1									
2. What is the technology maturity of vendors or consultants? (This only applies if organization maturity is < 7)	$M_v =$	Scoring rationale- Why did you score this measure as you did?								
Strong relationships with vendors or consultants expert in technology.	10									
Vendors or consultants with technical expertise known to organization.	6									
No vendors or consultants with knowledge known to organization but thought to exist.	4									
No vendors or consultants with knowledge known to organization. May not exist.	1									
3. Do we know how we will <b>validate</b> it? Is there high confidence that all variables will be tested over all conceivable realistic conditions?	$V =$	Scoring rationale- Why did you score this measure as you did?								
Fully	10									
Partially	7									
Poorly	4									
4. Are the <b>interfaces</b> to adjacent systems known and stable?	$I =$	Scoring rationale- Why did you score this measure as you did?								
Fully	10									
Partially	7									
Poorly	4									
5. How similar are the expected <b>manufacturing</b> methods and tolerances on them to those currently used (hardware only, software projects = 10)?	$M =$	Scoring rationale- Why did you score this measure as you did?								
Manufacturing and tolerances are identical to existing methods: <ul style="list-style-type: none"> <li>In-house made with stable, proven manufacturing methods</li> <li>Purchased off-the-shelf from proven suppliers</li> </ul>	10									
Manufacturing and tolerances are very similar to existing methods: <ul style="list-style-type: none"> <li>In-house needing small change to existing methods</li> <li>Purchased parts require small changes to off-the-shelf parts from proven suppliers</li> <li>Purchased off-the-shelf from new vendor</li> </ul>	8									
Different from existing but no expected challenges with manufacturing process, tolerances or vendor	6									
Different from existing and challenges expected with manufacturing process, tolerances or	4									
Weak idea on how to make in volume be it in-house or by vendor	2									
6. Are the design <b>specifications</b> sufficiently complete, stable, and up-to-date?	$S =$	Scoring rationale- Why did you score this measure as you did?								
Fully	10									
Partially	7									
Poorly	4									
7. <b>Level of confidence</b> in answers given above.		What makes you certain or uncertain about this technology?								
Indicate your I Level of confidence in the answers given above .										
1	2		3	4	5	6	7	8	9	10
Very low	Low		So-so	Medium	High	Very High	Sure			

$$DTRL = M_o + K_1 * M_v - K_2 * (40 - (V + I + M + S)) \text{ Default } K_1 = K_2 = .1$$



$$DTRL = M_0 + K_1 * M_v - K_2 * (40 - (V + I + M + S)) \quad \text{Default } K_1 = K_2 = .1$$