

Five-Dimension Scoring Rubric of TCRLAS

Concise Five-Dimension Scoring Rubric

Purpose. Assess commercialization readiness using five independent dimensions. Each dimension is scored from 0 to 6 using demonstrated evidence. The overall Technology Commercial Readiness Level Access System (TCRLAS) level equals the lowest of the five dimension scores.

1. Technical Maturity

Purpose: Evaluate whether the technology works reliably, reproducibly, and beyond the laboratory.

Score	Descriptor
0	Not demonstrated
1	Conceptual / theoretical
2	Lab feasibility shown
3	Reproducible & differentiated
4	Functional prototype
5	Pilot-proven
6	Reliable & scalable

Criterion	0–1	2–3	4–5	6
Reproducibility	Hypothesis only	Repeatable in lab	Consistent in prototype	Consistent in real world
Robustness	Unstable	Sensitive to conditions	Tolerant to variation	Predictable under stress
Scalability	Unknown	Hypothesized	Engineered path	Demonstrated

Reviewer guidance: Penalize one-off results; Reward honest failure modes; Do not confuse potential with demonstration.

2. Market Validation

Purpose: Assess whether the technology solves a real problem for real users who would adopt or pay.

Score	Descriptor
0	No user defined
1	Hypothetical user
2	Problem acknowledged
3	Prototype feedback
4	Intent to adopt
5	Pilot usage
6	Paying / repeat users

Criterion	0–1	2–3	4–5	6
User definition	Vague	Role identified	Target segment clear	Repeatable segment
Pain point	Inventor-stated	User-acknowledged	Measurable	Costly if unsolved
Alternatives	Ignored	Listed	Compared honestly	Displaced
Willingness to pay	None	Hypothetical	LOI / pilot	Actual payment

Reviewer guidance: Behavior > opinions; Interest is not willingness to pay; No competitors is a red flag.

3. Intellectual Property (IP) Strength

Purpose: Evaluate whether the innovation can be owned, protected, and defended commercially.

Score	Descriptor
0	No IP awareness
1	Novelty claimed
2	Disclosure drafted
3	Provisional filed
4	Freedom to Operate considered
5	Protection strategy
6	Defensible position

Criterion	0–1	2–3	4–5	6
Ownership	Unclear	Identified	Contracted	Enforceable
Prior art	Ignored	Aware	Analyzed	Strategically navigated
Defensibility	None	Patent hope	Strategy defined	Barrier to imitation

Reviewer guidance: Patent does not equal protection; Reward honesty about risks; Penalize magic-patent thinking.

4. Business & Team Readiness

Purpose: Assess whether there is a credible execution path and a capable team.

Score	Descriptor
0	No execution thought
1	Conceptual idea
2	Execution hypothesis
3	Roles identified
4	Team forming
5	Team executing
6	Scalable organization

Criterion	0–1	2–3	4–5	6
Business logic	Absent	Narrative only	Coherent	Repeatable
Regulatory awareness	Ignored	Mentioned	Mapped	Managed
Team capability	Solo inventor	Gaps unknown	Gaps acknowledged	Redundancy built

Reviewer guidance: Beware hero-inventor dependency; Reward realism over ambition; Execution matters more than vision.

5. Funding & Resource Alignment

Purpose: Evaluate whether capital requests are realistic, efficient, and appropriate for the project stage.

Score	Descriptor
0	No funding logic
1	Vague estimate
2	Rough budget
3	Milestone-linked
4	Capital-efficient
5	Fundable
6	Sustainable

Criterion	0–1	2–3	4–5	6
Capital need	Unknown	Estimated	Justified	Optimized
Use of funds	Undefined	Listed	Milestone-based	ROI-driven
Resource access	None	Hypothesized	Secured	Redundant

Reviewer guidance: Penalize premature scale; Reward milestone discipline; Capital efficiency > capital size.

Overall Scoring Rule

Declared TCRLAS Level = lowest score across all five dimensions. A strong technical score cannot compensate for weak market validation, IP, execution, or funding readiness.

Dimension	Score Range
Technical Maturity	0–6
Market Validation	0–6
IP Strength	0–6
Business & Team Readiness	0–6
Funding & Resource Alignment	0–6

Core review principles: Evidence over claims • Actual behavior over stated interest • Reproducibility over one-time success • Execution over vision • Defensibility over patents alone • Milestone discipline over premature scale.