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Early Landscape Scan Checklist

A practical ScienceDocs worksheet for checking whether an early idea fits a real technical, market, funding, stakeholder, and commercialization landscape.

How to Use This Checklist

Purpose	Use this as an early, lightweight scan before investing significant time in proposal writing, prototyping, licensing discussions, pilot planning, investor outreach, or commercialization strategy.
Recommended users	Founders, university spinouts, scientific teams, innovation leads, technology transfer offices, SBIR/STTR applicants, commercialization teams, and AI/technology organizations.
Suggested timebox	Complete the first pass in 2-4 hours, then assign follow-up research items for the next 3-10 business days.
Output	A short go/no-go/learn-more view of the landscape, plus evidence gaps and next-step actions.

1. Idea Snapshot

Idea / technology name	
One-sentence description	
Primary problem area	
Likely users or customers	
Scientific or technical basis	
Current stage	[ ] Concept [ ] Research finding [ ] Prototype [ ] Pilot ready [ ] Existing product/service
Owner / team / date	

2. Problem and Need Scan

Done?	Scan Item / Prompt	Notes / Evidence Link
[ ]	Describe the problem in plain language, without relying on the technology as the starting point.	
[ ]	Identify who experiences the problem and who has authority or budget to solve it.	
[ ]	List current workarounds, substitute tools, manual processes, or accepted pain points.	
[ ]	Find at least three sources indicating the problem is persistent, costly, risky, inefficient, or strategically important.	
[ ]	Note whether the problem is urgent now or likely to become urgent because of regulation, funding priorities, workforce constraints, competition, or technology change.	
[ ]	Identify whether the problem is concentrated in a niche market or appears across multiple sectors.	

3. Stakeholder and Customer Landscape

List the people or organizations that would influence adoption, purchase, piloting, implementation, or funding.

Stakeholder group	Pain / motivation	Decision role	Evidence or source

4. Existing Alternatives and Competitive Signals

Done?	Scan Item / Prompt	Notes / Evidence Link
[ ]	Search for direct competitors, adjacent competitors, open-source tools, services, manual workflows, and status quo alternatives.	
[ ]	Identify whether users already pay for solutions or whether they mostly tolerate the problem.	
[ ]	Compare the idea against at least three alternatives on cost, ease of use, performance, risk reduction, speed, accuracy, compliance, or adoption burden.	
[ ]	Look for evidence of recent investment, grants, pilots, procurement activity, partnerships, publications, or acquisitions in the area.	
[ ]	Note where existing alternatives appear weak, outdated, too expensive, too complex, insufficiently validated, or poorly adapted to the target users.	

5. Scientific, Technical, and IP Landscape

Done?	Scan Item / Prompt	Notes / Evidence Link
[ ]	Identify the core scientific, technical, engineering, data, or clinical principle behind the idea.	
[ ]	List the strongest existing publications, patents, datasets, prototypes, or internal results supporting the idea.	
[ ]	Flag whether the technology requires additional validation, benchmarking, safety testing, regulatory review, reproducibility work, or engineering scale-up.	
[ ]	Search for related patents or university technologies that could affect freedom to operate, licensing options, or partnership strategy.	
[ ]	Identify whether there are defensible advantages such as know-how, data, IP, domain expertise, workflow integration, speed, cost, or specialized access.	

6. Market and Commercialization Fit

Done?	Scan Item / Prompt	Notes / Evidence Link
[ ]	Define the first likely use case rather than the entire long-term market.	
[ ]	Identify the most realistic early buyer, sponsor, adopter, or pilot partner.	
[ ]	Note whether the target customer has budget, grant eligibility, reimbursement potential, procurement pathways, or strategic incentives.	
[ ]	Estimate whether the idea is best suited for a product, service, platform, software tool, licensing pathway, university spinout, internal process improvement, or sponsored research path.	
[ ]	Flag whether adoption would require workflow redesign, training, data access, integrations, regulatory clearance, security review, or leadership approval.	
[ ]	Identify obvious go-to-market obstacles such as long sales cycles, conservative buyers, unclear payer, weak urgency, crowded market, or high implementation burden.	

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7. Funding and Program Fit

Use this section to identify whether the idea fits a plausible funding or commercialization pathway before committing to a proposal or pitch.

Pathway	Fit?	Why it may fit	Questions to resolve
SBIR/STTR	[ ] High [ ] Medium [ ] Low		
Federal contracts / OTA	[ ] High [ ] Medium [ ] Low		
Foundation or nonprofit funding	[ ] High [ ] Medium [ ] Low		
University licensing / spinout	[ ] High [ ] Medium [ ] Low		
Strategic partner or corporate pilot	[ ] High [ ] Medium [ ] Low		
Investor-backed startup path	[ ] High [ ] Medium [ ] Low		
Internal operational improvement project	[ ] High [ ] Medium [ ] Low		

8. Differentiation and Value Proposition

Potential advantage	Who cares?	Evidence supporting this advantage	Risk if advantage is weak

9. Key Assumptions to Test

Assumption	Category	Confidence	How to test it	Owner / due date
	[ ] Problem [ ] User [ ] Market [ ] Tech [ ] Funding [ ] Adoption	[ ] High [ ] Medium [ ] Low		
	[ ] Problem [ ] User [ ] Market [ ] Tech [ ] Funding [ ] Adoption	[ ] High [ ] Medium [ ] Low		
	[ ] Problem [ ] User [ ] Market [ ] Tech [ ] Funding [ ] Adoption	[ ] High [ ] Medium [ ] Low		
	[ ] Problem [ ] User [ ] Market [ ] Tech [ ] Funding [ ] Adoption	[ ] High [ ] Medium [ ] Low		
	[ ] Problem [ ] User [ ] Market [ ] Tech [ ] Funding [ ] Adoption	[ ] High [ ] Medium [ ] Low		
	[ ] Problem [ ] User [ ] Market [ ] Tech [ ] Funding [ ] Adoption	[ ] High [ ] Medium [ ] Low		
	[ ] Problem [ ] User [ ] Market [ ] Tech [ ] Funding [ ] Adoption	[ ] High [ ] Medium [ ] Low		
	[ ] Problem [ ] User [ ] Market [ ] Tech [ ] Funding [ ] Adoption	[ ] High [ ] Medium [ ] Low		

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10. Early Landscape Scan Scorecard

Area	Score 1-5	What a strong score means	Notes / evidence gaps
Problem urgency	1 2 3 4 5	Users clearly experience a meaningful, costly, risky, or strategically important problem.	
Target customer clarity	1 2 3 4 5	The team can name plausible users, buyers, decision-makers, and early adopters.	
Evidence base	1 2 3 4 5	The team has credible technical, scientific, user, or market evidence supporting further exploration.	
Differentiation	1 2 3 4 5	The idea appears meaningfully different from current alternatives or workarounds.	
Feasibility	1 2 3 4 5	The idea appears technically and operationally plausible for the next stage.	
Commercial path	1 2 3 4 5	A realistic product, service, licensing, pilot, grant, or partner path is visible.	
Funding fit	1 2 3 4 5	There are plausible funding pathways, programs, investors, partners, or internal sponsors.	
Adoption fit	1 2 3 4 5	Implementation barriers appear manageable or can be addressed through planning and change support.	

Suggested interpretation: 32-40 = strong candidate for deeper discovery; 22-31 = promising but needs focused validation; below 22 = clarify problem, customer, evidence, or feasibility before major investment.

11. Go / Learn More / Pause Decision

Decision option	When to choose this	Team notes
GO - proceed to deeper discovery	Problem, user, evidence, and commercialization pathway are strong enough to justify the next phase.	
LEARN MORE - targeted research required	The idea is promising, but specific assumptions need customer interviews, technical validation, market research, IP review, or funding analysis.	
PAUSE - revisit later	The problem, buyer, feasibility, differentiation, or funding path is too unclear for immediate investment.	

12. Next-Step Action Plan

Action item	Why it matters	Owner	Due date	Status

ScienceDocs Support

Need help applying this tool? ScienceDocs supports commercialization, change management, AI adoption, grant strategy, and operational optimization.