



**autm**

*Transforming Ideas into Opportunities*

December 13, 2023

# Pulling Back the Curtain on Deep Tech Due Diligence



## Lessons learned from 250+ reviews of IP/technology

1. Explain ideas and IP in attractive ways to investors
1. Analyze markets and identify the most attractive
1. Explain why tech matters from a commercial perspective
1. Critique and improve one's own pitch to investors



# What is a venture studio?

- Build companies from soup to nuts — business plan/product -market fit, legal, operations, fundraising, office space, etc.
- Started in the 1990s, now there are more than 800+ studios
- Built -in advantages for fundraising / exits
- Ex. Moderna, Dollar Shave Club, Snowflake.



**Roadrunner Venture Studios** transforms cutting-edge deep tech into new products and builds companies for the benefit of our partners, communities, and the American people.



Quantum  
Science



Semiconductors



Advanced  
materials



Space tech



Energy



High-performance  
computing



Advanced  
Manufacturing



Clean Tech

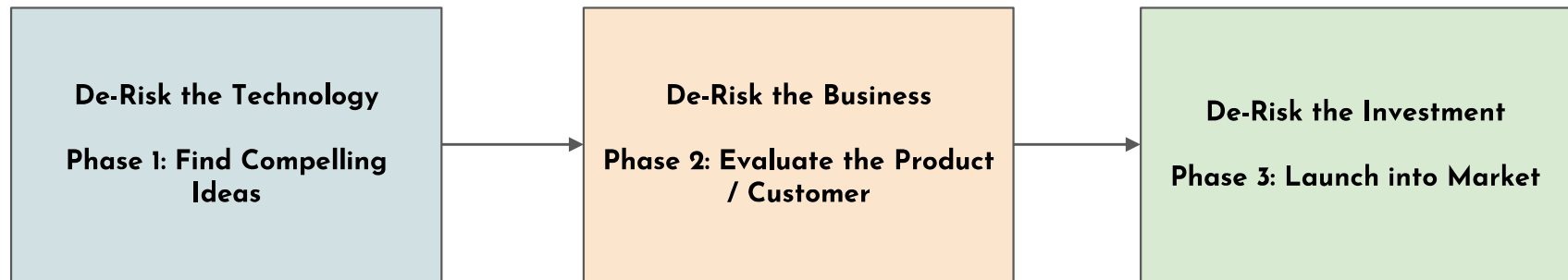


## Experience as a deep tech venture studio

- “Deep tech” are novel technological insight / invention based on significant years of research
- Primarily out of universities and national labs; primarily patented
- Our evaluation: Could we co -found a profitable company with the inventor that can reach market in 2 -3 year?
- We reviewed 250+ patents, papers, nascent companies, and founders over ~6 months



# Our Process



Key Question

Is this technology, and the product it enables, real, differentiated, valuable, and aligned with Roadrunner's mission and value proposition?

What would it take for Roadrunner to build a viable, valuable, venture backed company based on this technology?

What would it take for Roadrunner to recruit the talent and funding necessary to launch the company out of the Roadrunner Studio?



# Phase I- due diligence

Is this viable, valuable, venture -backable, and aligned with our mission and value proposition?

- **Viable**: Does science pass the “sniff test” (i.e. reasonably plausible)? Is there a reasonable path to market in 2 years? Are there any major open scientific/technological questions?
- **Valuable**: How does this tech / idea compare to other things on the market? Is it a total innovation, tackling a challenge from a new way? An incremental improvement?
- **Venture -backable**: What sort of value (qualitative and quantitative) does this provide to end users? How big is the pool of people that would benefit from this idea? How easy is it for them to take advantage of it? Is this an incremental improvement or a step change?
- **Aligned with our mission & values**: Do they have funding yet? Is the scientist willing to come on board in some capacity? Do we have access to IP? Is it aligned with our focus areas?





# Phase I- activities

## Our diligence activities

- Initial discussion with inventor
- Review of materials from inventor or tech transfer office
- Email follow up
- Online research on market & comparable technologies
- Review with expert advisor

## What makes diligence easier?

- Clear, simple explanation of technology pictures often help
- Relevant keywords
- Comparisons to “current state”
- Connection to inventor/scientist
- Patent, research papers, public materials
- Introductions to other experts, investors, customers
- Initial read on target market

Is this technology, and the product it enables, viable, valuable, venture-backable, and aligned with Roadrunner’s mission and values?



# Phase II- validation

What would it take for Roadrunner to build a viable, valuable, venture backed company based on this technology?

- **Product development:** How might we convert this technology into a product?
- **Customer deep dive:** Who would buy this product? What challenge does it solve? What constraints do they currently face? What motivates them? How much money do they have available? Often looking at a few classes of customers
- **Market analysis:** How big is the overall market opportunity? What segment of that market might this technology fit into? What companies might serve as case studies for the trajectory of this technology? What does that reveal about potential challenges to be faced? Who are the competitors? What business models might be familiar to customers & investors in this space? What business models might work best for this product?
- **Tech validation:** What are the key milestones to get from lab to market? What are the major risks? What will it take to get there? What needs to be true for the final product to be better than alternatives?



# Takeaways

- **Investors are not experts.** Provide ways for them to understand quickly & conduct independent validation easily
- **Venture funds focus on high growth, high returns.** Commercial viability is not the same as venturebacked viability.
  - Is there a path to 10x returns?
  - For studios, just need to be directionally right. Finding a market 10% off easier than starting from scratch.
- **Not all novelty matters.** Ground tech in tangible customer problems.
  - The tech is probably real. Does it matter?



## Our first PortCos



- Solve real world problems with cutting -edge technology.
- Validated in the lab, supported by experts.
- Infinite upside and unlikely downside.
- Clear pathway to product and large TAM.
- Excitement amongst scientists and team.





Technology doesn't change the world; products do.

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