## Worksheet

Think long, hard and creatively about what assets your team and new venture have. They can include capabilities, connections, branding opportunities, personal attributes, personal wealth, intellectual property, unique insights, key customer commitments or something else.

|  |  |  |  |
| --- | --- | --- | --- |
| Defining Your Core Worksheet | | | |
|  |  | What is your value proposition (from Step 8)?  Accelerate research by 50% (reducing cycle time from 50 to 25 hours) through an integrated, automated AI workflow featuring self-improving multi-agent reasoning, enhancing research quality and enabling faster breakthroughs.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  | What assets does your team have? Prioritize from strongest to weakest. | | |
|  | 1. | **Unique AI Architecture:** Self-improving system based on adaptive, multi-agent reasoning and continuous learning from real-world outcomes. | Strongest |
|  | 2. | **Deep AI/ML Expertise:** Specific knowledge in agentic systems, meta-reasoning, and reinforcement learning applied to scientific research. |  |
|  | 3. | **Continuous Learning Capability:** The system's inherent design to learn and improve persistently over time. |
|  | 4. | **Modular & Flexible Framework:** Enables adaptation, integration of new tools, and customization (including human-in-the-loop). |
|  | 5. | **Human-in-the-Loop Integration Design:** Provides user control and builds trust, addressing a key researcher need. |
|  | 6. | **Focus on Scientific Research Niche:** Deep understanding of the academic research process and pain points. |
|  | 7. | **Persona-Driven Development Approach:** Clear focus on the target user (Chrysis Andreou) and their priorities. |
|  | 8. | **Strategic Clarity & Vision:** Well-defined mission and product concept differentiating from competitors. |
|  | 9. | **Potential for Open-Source Alignment:** Connects with values important to the target academic community. |
|  | 10. | **Academic & Tech Network Connections:** Access to early adopters, feedback, and potential collaborators within the target market. | Weakest |
|  |  |  |  |
|  | What are your proposed moats for your business? | | |
|  | 1. | **Self-Improving System via Continuous Learning:** The system gets progressively better and more tailored with more usage and data, creating a compounding advantage difficult for competitors starting later to replicate. | Strongest |
|  | 2. | **Proprietary Multi-Agent Architecture & Meta-Reasoning Algorithms**: The specific design and coordination mechanism of the agents, potentially protectable via IP, creates a technical barrier. |  |
|  | 3. | **Network Effects (Data & Learning):** More users generate more diverse research outcome data, improving the AI's effectiveness across various domains, making the platform more valuable and harder to switch from. |
|  | 4. | **Deep Integration & Switching Costs:** Embedding Cogency AI into the core research workflow makes it inconvenient and time-consuming for users to switch to alternatives. |
|  | 5. | **Brand Trust & Human Control:** Building a reputation for reliable, controllable AI assistance within the discerning academic community. |
|  | 6. | **Niche Market Focus & Expertise:** Deep specialization in the needs and workflows of academic researchers, potentially overlooked by larger, more general AI players. | Weakest |
|  |  |  |  |
|  | What are potential Cores for your business? | | |
|  | 1. | **Self-Improving AI via Continuous Learning from Real Research Outcomes:** The dynamic ability of the system to enhance its research strategies based on success/failure data |  |
|  | 2. | **Adaptive Multi-Agent Reasoning Architecture:** The unique, flexible structure enabling complex task decomposition and execution. |  |
|  | 3. | **Human-Guided Autonomous Research Capability:** The specific blend of AI autonomy and human oversight tailored for scientific discovery. |  |
|  | 4. | **Integrated End-to-End Research Workflow Automation:** Focusing on the comprehensive nature of the automation provided. |  |
|  |  |  |  |
|  | Decision: | | |
|  | 1. | What is your proposed Core from these choices? | |
|  |  | Self-Improving AI via Continuous Learning from Real Research Outcomes. | |
|  | 2. | Why is or will this Core be unique? | |
|  |  | It's unique because unlike fixed pipelines (like Google's CoScientist mentioned) or systems learning in simulated/limited environments, Cogency AI learns persistently and adaptively from the outcomes of diverse, real-world scientific research tasks executed through its multi-agent framework. This continuous feedback loop from actual research success and failure allows it to refine complex reasoning and strategies in a way that static or less integrated systems cannot. | |
|  | 3. | Why is it important to your target customer? How does it relate to your value proposition? | |
|  |  | It's critically important to academic researchers (like Chrysis) because their primary goal is to produce high quality, novel research efficiently (Academic Excellence & Breakthrough Innovation priorities). An AI that constantly gets better at assisting with this core task—learning what strategies lead to breakthroughs, avoiding dead ends, suggesting more effective experiments—directly translates to saved time, higher impact publications, and faster progress. This directly enables the value proposition of accelerating research by 50% and enhancing quality; the self-improvement drives the increasing value over time. | |
|  | 4. | How does it grow over time relative to competitors in a way that competitors can’t simply catch up once they realize it? | |
|  |  | The Core grows stronger through a data network effect specific to research outcomes. As more researchers use Cogency AI across diverse fields and problems, the system accumulates a proprietary dataset of successful and unsuccessful research strategies and heuristics. This allows it to continuously refine its internal models (via reinforcement learning on real outcomes). A competitor entering later would lack this accumulated, outcome-linked intelligence. They could copy the architecture, but they couldn't instantly replicate the nuanced, learned strategies derived from potentially years of diverse research data, giving Cogency AI a persistent performance advantage that grows with its user base. | |
|  | 5. | What was your second (or third) choice, and why is your first choice a better selection? Compare and contrast. | |
|  |  | A strong second choice was the **Adaptive Multi-Agent Reasoning Architecture**. This architecture is fundamental – it's the engine that enables the Core. However, the architecture itself is a static asset (though flexible). **The Self-Improving AI via Continuous Learning** is the dynamic outcome and the sustainable advantage. While the architecture is a key asset and contributes to a moat, the Core should represent the central value creation engine that grows over time. Competitors might eventually replicate a similar architecture, but replicating the intelligence learned through continuous real-world application (the Core) is significantly harder and takes time and data they won't have. Therefore, the self-improvement aspect better captures the unique, compounding value proposition and defensibility over the long term. The architecture enables the Core, but the Core is the self-improvement. | |
|  |  |  |  |

The decision on the Core can take a while and may seem a bit frustrating as you want to move ahead and continue to make progress. I completely understand. Isn’t getting sales a great thing?

But you must understand that making sales without a Core is not sustainable if you want to be a high-growth company, because you success will only draw attention to the opportunity you have identified, and then competitors will rush in. At that point, your beautiful new venture will turn out to have been built on a foundation of sand and it will come sliding down.

So even if you aren’t sure what is the best selection for Core, pick a few candidates for the Core and realize you have to solve this riddle soon. Some of your potential Cores may end up as strong moats, but the most important thing is that you are thinking ahead and protecting yourself, and it is also highly relevant as you proceed to Step 11, Chart Your Competitive Position.