



COGENCY AI-COSCIENTIST

"Cogency AI" is the name of our company, and "AI Co-Scientist" is the name of our product, positioned as a competitor to Google's AI Co-Scientist.

The name Cogency was chosen because it denotes logical reasoning. Additionally, it can be interpreted as a combination of "Co"—symbolizing cooperation between humans and Al—and "Agency", reflecting agentic Al.

We are building an Agentic Reasoning Cooperative AI Scientist.

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Learnings to Action

Project Moving Forward

- Based on the PMR analysis, the project will focus on refining the AI Co-scientist to meet the needs of Academic & Research Institutions, which have the highest strategic value
- Continuous PMR will be performed over the semester by gathering direct feedback from potential users and refining the product's features to enhance adoption
- Regular validation of assumptions through surveys, interviews, and targeted studies with research institutions

Future PMR Activities

- Conduct targeted surveys with researchers and institutions
- Analyze adoption barriers and adjust the product accordingly
- Continue monitoring AI research tool trends and competitor developments

BHM Selection

Chosen Market Segment

- Academic & Research Institutions (Universities, Research Institutes, Labs)
- This segment offers:
 - High strategic value and credibility
 - Alignment with the team's expertise (even with moderate per-user revenue)

Further Segmentation

- Focused on research-intensive institutions actively seeking AI tools to enhance research efficiency
- Segmentation ensures the product targets high-adoption environments with scalable opportunities

Comparison to Other Candidates

- Private R&D Organizations: High accessibility and innovation-driven but lacks credibility and alignment
- Pharma & Biotech Companies: High revenue potential but complex sales cycles and compliance issues
- Government & Public Research Agencies: Prestigious but bureaucratic, with limited adaptability to AI tools

Why This Segment Works

Academic & Research Institutions share similar purchasing behaviors, with streamlined sales cycles and strong word-of-mouth potential through research networks and conferences

The Process

Workflow & Collaboration

- Team leader (Chrysis) assigns tasks based on team strengths
- Communication via Slack, GitHub, and regular post-lecture meetings for progress updates
- Independent work on separate tasks, collaborative approach on related deliverables
- Collaborative tools (Miro, Canva) employed for interconnected tasks

Team Dynamics Assessment

- Strengths: Strong consent-based decision making; mutual respect for team member choices
- Values: Honesty as first priority; commitment to quality deliverables
- Engagement: Team collaborating with passion and mutual trust
- Effective task allocation system demonstrated in previous assignments

Norms Assessment & Future Plans

- Current workflow norms functioning effectively no updates needed
- Identified Challenge: Delivery/pitching of progress needs improvement
- Fine-tuning Plan: Enhance marketing knowledge and presentation skills through practice
- Continue leveraging individual strengths while maintaining collaborative assessment

TAM (Step 4)

Top-Down Estimate of Number of End Users in Beachhead Market

Number of People In Your Largest Demographic or Psychographic Characteristic = 10,000,000

> 1st Segmentation Based on End User Profile = 5,000,000

> > 2nd Segmentation Based on End User Profile = 4,000,000

> > > 3rd Segmentation Based on End User Profile = 3,000,000

> > > > End Users in Beachhead Market = 600,000

Based on End User Profile Characteristic: Globally distributed academic researchers

Assumption(s): Approximately 10 million academic researchers exist worldwide. This estimate aligns with global data on research personnel

Source(s): https://www.adscientificindex.com/h-index-rankings/

https://ec.europa.eu/eurostat/statistics-explained/index.php?title=R%26D_personnel#Researchers

Based on End User Profile Characteristic: Academic Researchers working in Academia **% of Previous Segment:** 50%

Assumption(s): Approximately 50% of the researchers work in Academia per the below

Source(s): https://www.nature.com/articles/d41586-021-03567-3

https://www.science.org/content/article/first-us-private-sector-employs-nearly-many-phds-schools-do

Based on End User Profile Characteristic: Researchers using digital research tools

% of Previous Segment: 80%

Assumption(s) for Calculation: We can assume an estimate of 85% of the researchers are using digital research tools

Source(s): https://fdslive.oup.com/www.oup.com/academic/pdf/Researchers-and-Al-survey-findings.pdf
https://pmc.ncbi.nlm.nih.gov/articles/PMC9046901

Based on End User Profile Characteristic: Researchers actively using AI tools for their research **% of Previous Segment:** 75%

Assumption(s) for Calculation: Surveys indicate that approx. the 75% of the researchers are using AI powered tools for their research

Source(s): https://fdslive.oup.com/www.oup.com/academic/pdf/Researchers-and-Al-survey-findings.pdf
https://www.edithlaszny.eu/WorkProductList/WUR/OnSemanticWeb/pdf/nature20230927 Al and science.pdf

Based on End User Profile Characteristic: Early adopters of advanced AI tools

% of Previous Segment: 20%

Assumption(s): We can consider that a 20% of the researchers are early adopters

Source(s): https://eprints.gla.ac.uk/252471/

https://fdslive.oup.com/www.oup.com/academic/pdf/Researchers-and-Al-survey-findings.pdf

Persona (Step #5) Chrysis Andreou

Age & Study: 30, Master's in Al

Why persona? Founder & Early Adopter (Al Co-Scientist), provide ongoing critical feedback.

Demographics: Active in academic/tech communities

Psychographics:

- Rational: Al advancement, open-source AGI
- Emotional: Fear of falling behind, innovation drive
- Social: Active on X, university events, tech meetups

Priorities:

- Academic excellence (30%)
- Al innovation : Build Al Co-Scientist (20%)
- Deep learning research (20%)
- Research impact (15%)
- Collaboration & funding (15%)

Watering Holes: Campus, conferences, tech events, online communities



Full Life Cycle Use Case (Step #6):

Need Recognition

 Researchers identify inefficiencies in current methods (time-consuming literature reviews, error-prone experimental design, resource-intensive analysis)

Discovery & Adoption

 Researchers learn about our system through academic conferences, peer recommendations, and online research communities

Usage Flow

 [System Diagram - Agentic Reasoning Scientist]

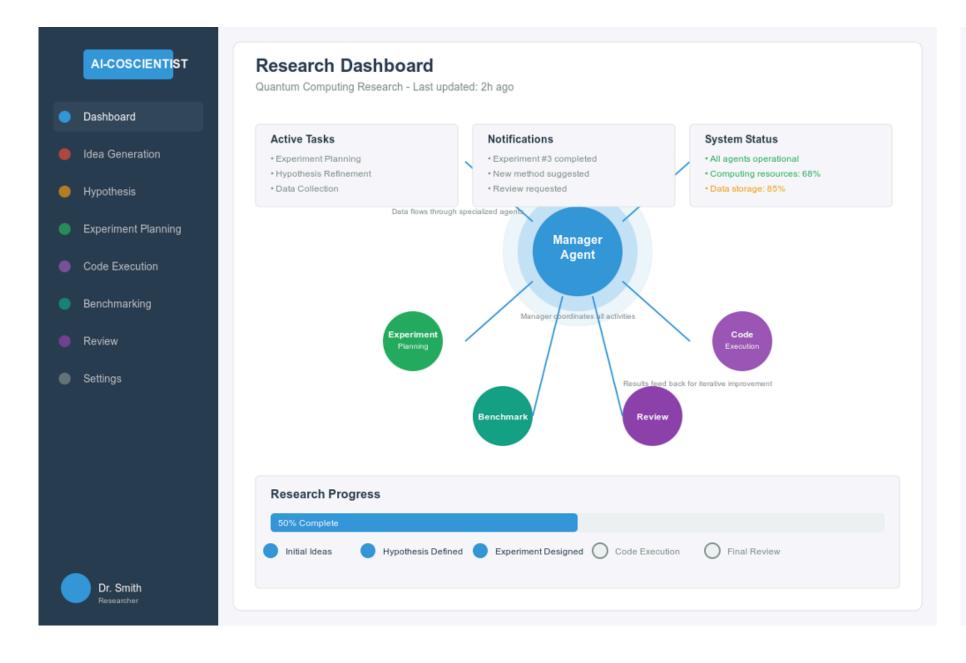
Value Measurement

- Quantifiable metrics: Research speed (30-50% faster), publication quality, novel insights generated
- Success determined by comparing pre/post-adoption outcomes and breakthrough discoveries

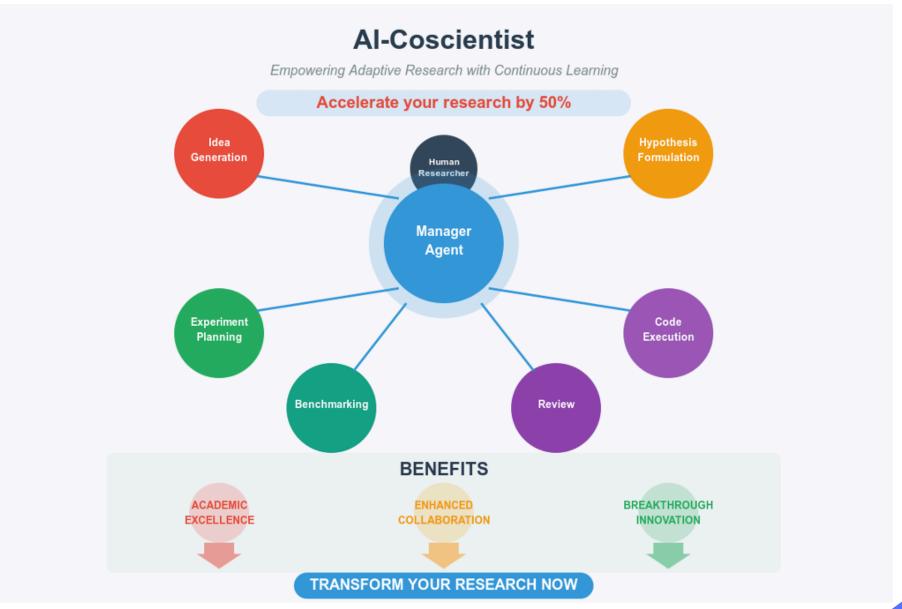
How Researchers Will Use Agentic Reasoning Scientist Self-improving AI Co-scientist with Human Oversight **Agentic Reasoning Scientist System Human Researcher** Research Problem **Initial Input Manager Agent** oversight Specification Iterative guidance Meta-reasoning & Orchestration **Review & Validate Idea Generation Hypothesis Experiment** Proposed Approach Planning Agent Agent Agent **Provide Feedback** Benchmarking **Code Execution Critical Review Guide Direction** Agent Agent Agent Receive Results feedback loop Human-in-the-**Review Findings** Loop Agent **Process Flow Key Advantages** 1. Submit research problem • Faster discoveries • Human-guided control Self-improving Al 2. Review Al-generated approach 3-4. Iterative feedback loop

High Level Product Specification (Step #7)

Dashboard



Brochure



Quantified Value Proposition (Step #8)

"As is" state

Component 1 = Literature Review	Component 2 = Experiment Planning	Component 3 = Data Analysis	Component 4 = Information Aggregation	Component 5 = Progress Tracking	
Task Completed = Manual review	Task Completed = Basic planning	Task Completed = Basic analysis	Task Completed = Manual collation	Task Completed = Manual tracking	
Units = 10 hours	Units = 10 hours	Units = 10 hours	Units = 10 hours	Units = 10 hours	Total Units = 50 hours
#1 Priority of Persona = Academic Excelence					
Units = 5 hours	Units = 5 hours	Units = 5 hours	Units = 5 hours	Units = 5 hours	Total Units = 25 hours
Task Completed = Automated review	Task Completed = Al-driven planning	Task Completed = Advanced analytics	Task Completed = Seamless integration	Task Completed = Real-time tracking	Summary of Benefits = 50% time saved
Improvements = A utomated literature sourcing, filtering, and summarizing.	Improvements = AI-powered experiment design optimizing hypothesis testing.	Improvements = Real-time, precise insights from complex data analysis.	Improvements = Integrated data streams for comprehensive insights.	Improvements = Continuous progress updates with milestone tracking.	Reason for Benefits = Automation and integration reduce manual work

"possible" state

Summary of Benefits
Significant time savings,
enhanced research
quality, and accelerated
breakthroughs

Reason for Benefits
Automation and
integration
streamline workflows,
cutting manual effort and
error.



THANK YOU