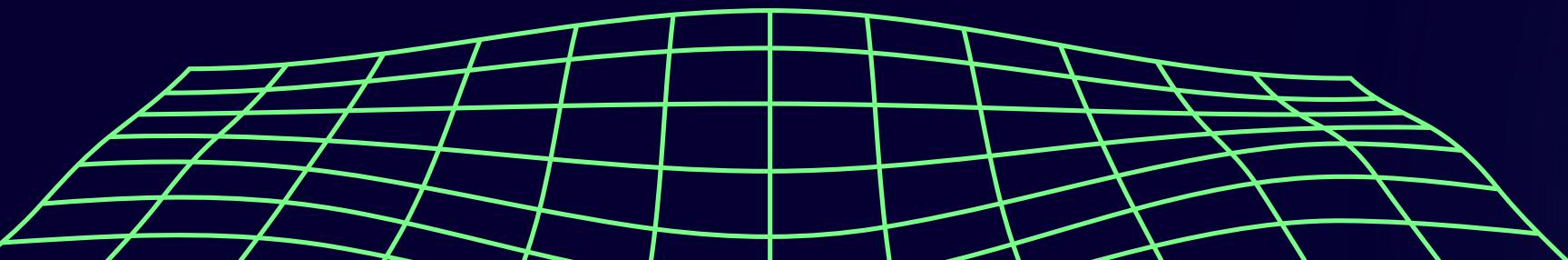
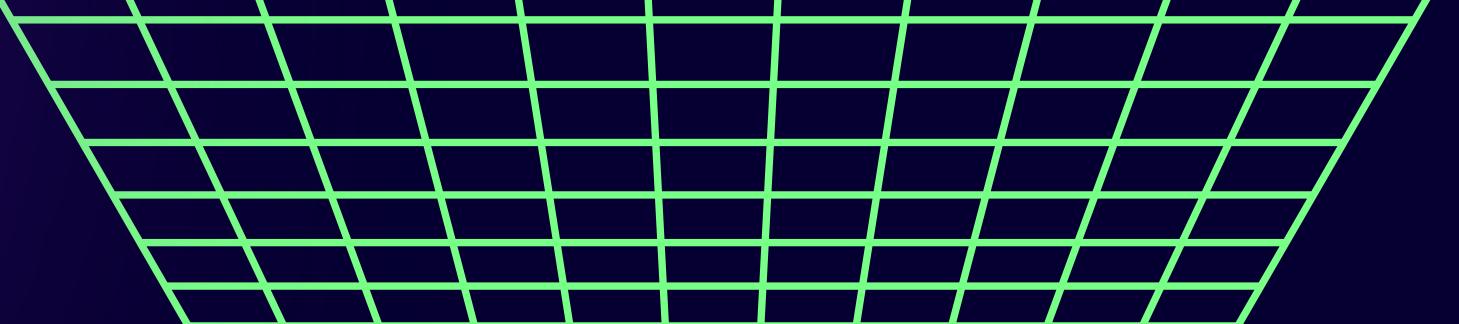


HESOYAM

BUILD A SPACE
BIOLOGY
KNOWLEDGE
ENGINE



CONTEXT

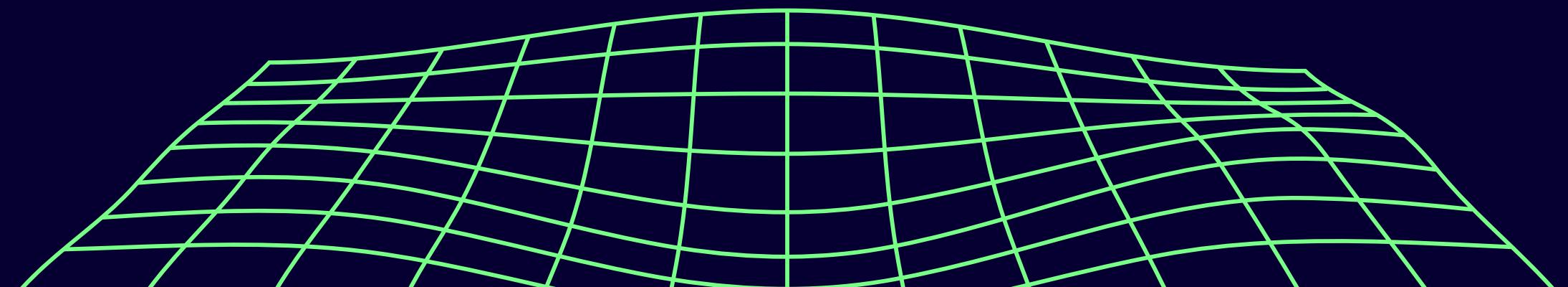
- 
- DECADES OF BIOLOGY EXPERIMENTS IN SPACE
 - THOUSAND OF TECHNICAL, DENSE PAPERS
 - PUBLIC ACCESS IS DIFFICULT; NON-EXPERTS STRUGGLE TO INTERPRET DATA
- 

PROBLEM

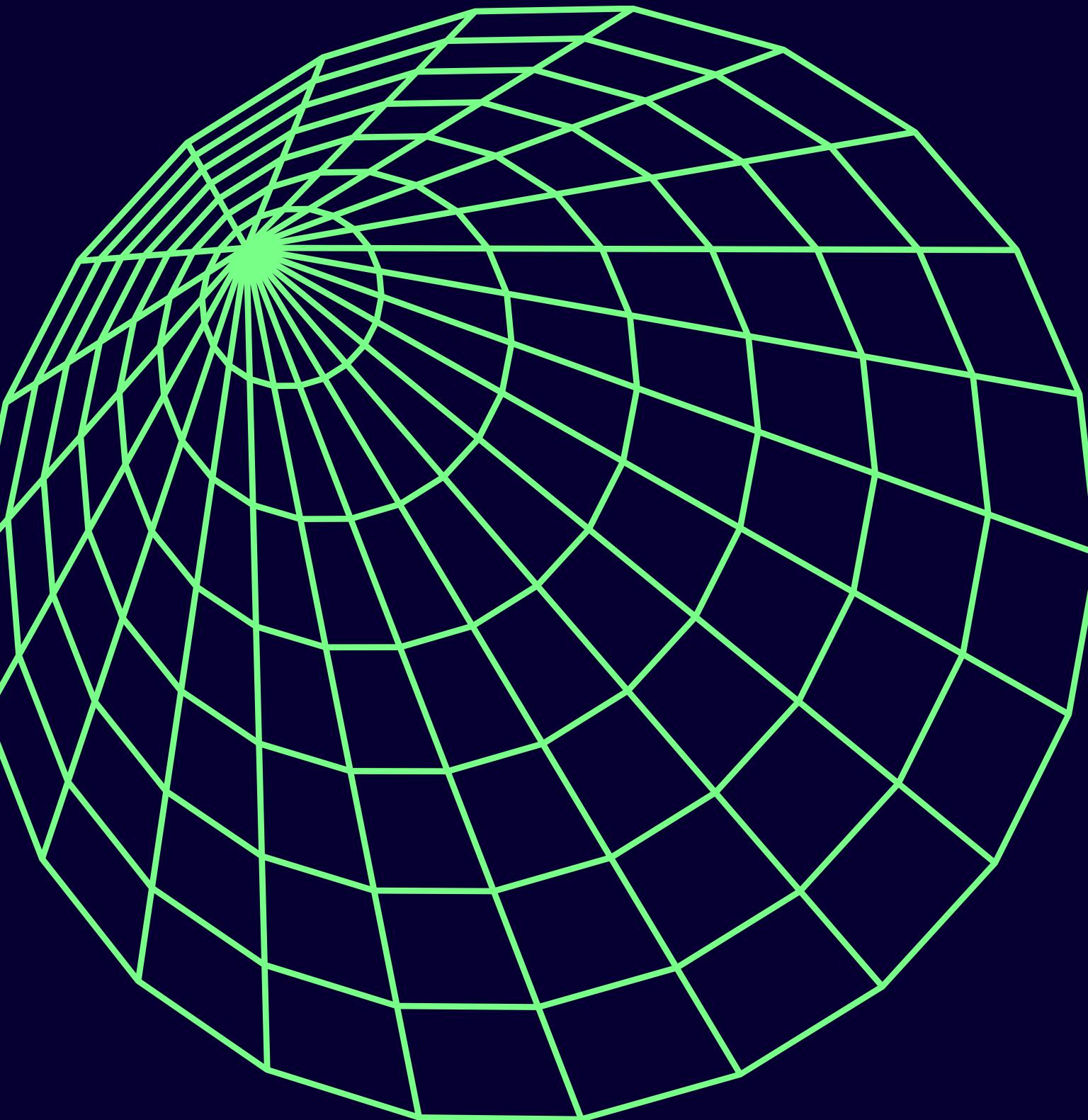
VALUABLE KNOWLEDGE IS SCATTERED ACROSS COMPLEX PAPERS

HARD TO ANSWER QUESTIONS AUTOMATICALLY OR IN PLAIN LANGUAGE

LIMITS PUBLIC ENGAGEMENT AND EDUCATION IN SPACE BIOLOGY



SOLUTION



**AI-POWERED CHATBOT THAT
ANSWERS QUESTIONS**

**USES VALIDATED NASA RESEARCH
PAPERS ONLY**

**PROVIDES CLEAR, UNDERSTANDABLE
ANSWERS WITH REFERENCES TO
ORIGINAL STUDIES**

ROADMAP

- 1 SCRAPER: AUTOMATICALLY COLLECTS NASA PAPERS**
- 2 VECTOR DATABASE: INDEXES CONTENT FOR SEMANTIC SEARCH**
- 3 AGENTIC RAG + CHATGPT: GENERATES CONTEXT-AWARE, CLEAR RESPONSES**
- 4 FRONTEND INTERFACE: SHOWS ANSWER RELEVANCE AND ALLOWS VIEWING ORIGINAL PAPERS**

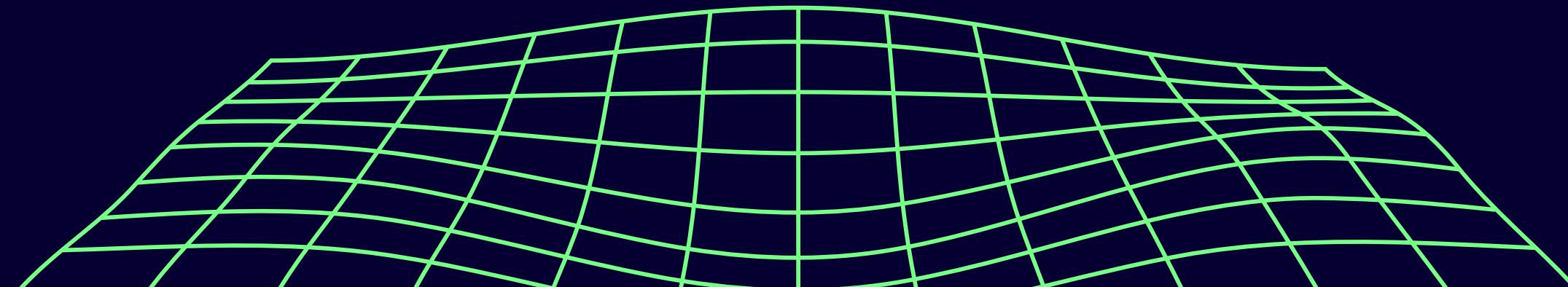
BENEFITS & IMPACT

BENEFITS

- Makes complex research accessible
- Provides reliable, verified information
- Saves time for researchers, students, and space enthusiasts

IMPACT

- Democratizes space biology knowledge
- Enhances education, outreach, and informed decision-making
- Encourages public engagement with space science



ARCHITECTURE OVERVIEW

