

Sprint Review

Sustainable Use of AI



Ministerie van Financiën

12 November, 2025

New Hats We're Wearing



Cora
*Storyteller &
Visual
designer*



Mirai
*Storyteller &
UX Designer*



Zahra
*Researcher &
Analyst*



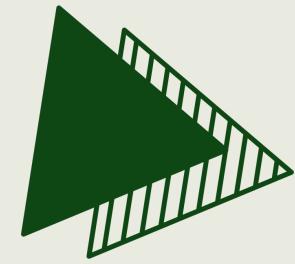
Moses
SCRUM master



Ali
*Researcher &
Analyst*

AGENDA

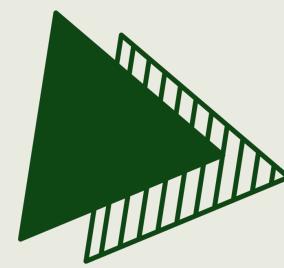
- Sprint 1 Recap
- Sprint 2 Theme
- Sprint 2 Planning
- New Hats We're Wearing
- Brainstorming Prototype Ideas
- Morphological Chart
- Shortlist of Concepts
- Our prototypes
- Field Research at Ministry of Finance
- Next Sprint



Sprint 1 Recap:

Quick overview of what we learned in Sprint 1

- Defined core question
- Mapped key focus areas
- Guerrilla Research: Collected early insights

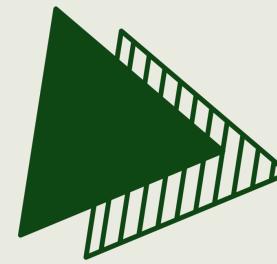


Sprint 1 Recap:

Quick overview of what we learned in Sprint 1

- 136 students surveyed
- 5 expert interviews

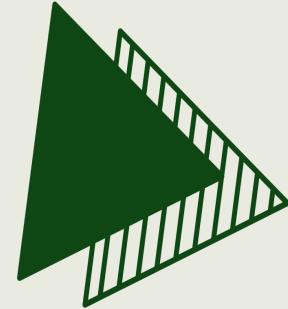




Sprint 1 Recap:

Why Guerrilla Research?

- Fast, real-world validation of assumptions
- Captured authentic behaviors in natural settings
- Tested awareness vs. action gap immediately
- Low-cost, high-impact early insights
- Informed prototype direction before heavy investment



Sprint 1 Recap:

Why Guerrilla Research?

1. Usefulness Trumps Environmental Cost

Users prioritize immediate utility over abstract sustainability concerns

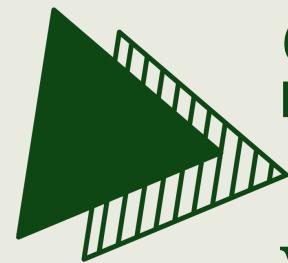
2. Awareness Alone Rarely Changes Behavior

41% aware & willing to change, but 29% aware yet won't change behavior

"I know AI is bad...But I still use it." - Student

3. Impact is Too Abstract

Can't quantify or compare impacts in meaningful, relatable terms



Sprint 1 Recap:

Why Guerrilla Research?

Start with "Why"

Question the need for AI before using it

Integrate, Don't Interrupt

Solutions must fit existing workflows seamlessly

Use Proven Frameworks

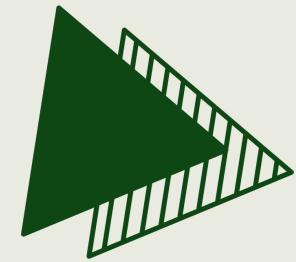
Build on established sustainability methodologies

Measure Impact - Keep It Simple

Use tangible, understandable metrics

Make the Invisible Visible

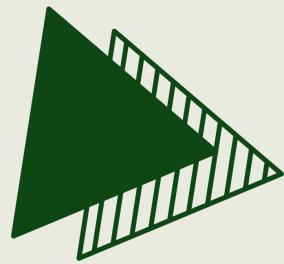
Translate abstract impacts into relatable terms



Sprint 2

Quick overview of Sprint 2

- Develop the first tangible research
- Engage MoF employees through playful interaction
- Build a foundation for future prototype



Sprint 2

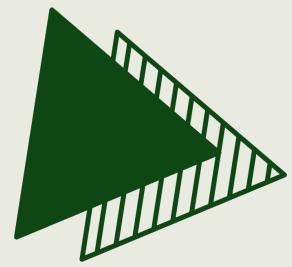
We took our findings to the field

We visited the Ministry of Finance and interviewed numerous employees.

They voted on the matrices we provided, and based on their votes, we asked them follow-up questions.

We also designed a game to collect insights.





Sprint 2 :

Survey Results: Your Audience Profile

70%

Aware & Willing

15%

Unaware but Willing

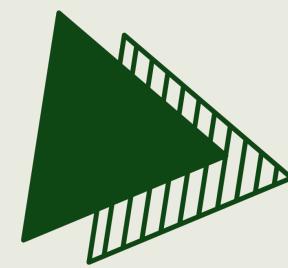
What This Means

- Highly environmentally conscious audience
- Strong alignment between awareness and action
- Only 15% resistant or unaware + unwilling

Audience Strengths

- 80-88% engagement vs. 30-45% general population
- Most prioritize the environment over pure utility
- Ready for sustainable AI solutions now

The ministry employees are remarkably informed and action-ready – a rare opportunity!



Sprint 2 :

The core Challenge

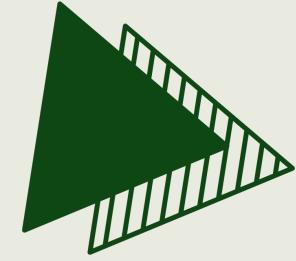
*"I've known about the impact for a long time,
and I still ask the stupid questions to AI."*

**Knowledge doesn't automatically
change behavior**
awareness alone isn't enough

Guilt is present but not actionable
People feel bad but don't know what to do

**Immediate benefits outweigh abstract
costs**
convenience wins over vague concerns

Can't quantify or compare impact
"I know it's bad, but I don't know exactly"



Sprint 2 :

Building the solution: 4Key Principles

1 Respect User Intelligence

Provide information, not restrictions.
Trust users to make good decisions
when given clear data.

3 Seamless Integration

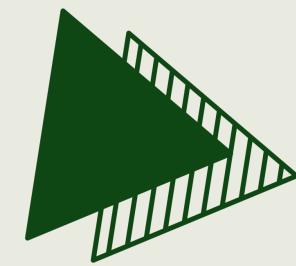
Embed in existing tools. Browser
extensions, not separate apps. Meet users
where they work.

2 Make It Immediate

Show environmental cost before submission
with visual, intuitive displays at the point of
decision.

4 Celebrate Progress

Track improvements, show wins. Positive framing
instead of guilt. Make sustainability rewarding.



Sprint 2 :

Guilt-Free AI usage (Include in Prototype)

Using AI in return for positive environmental actions

The Concept

Balance AI usage with tangible positive environmental actions, creating a permission-based system that transforms guilt into empowerment.

Instead of feeling bad about AI usage, users can "earn" their AI interactions through sustainable choices.

Example Exchanges

- **One week of plant-based meals**
= 50 AI queries
- **Commuting by bike for a month**
= 200 queries
- **Switching to renewable energy**
= unlimited sustainable AI
- **Completing sustainability training**
= 100 queries

Moving Forward: Action Plan

1

Browser Extension First

Show real-time impact with relatable comparisons before query submission.

2

Empower, Don't Restrict

Provide decision support tools and alternatives. Avoid AI budgets or prompt limits.

3

Multi-Level Approach

Individual dashboards, team insights, executive reporting. Address all stakeholders.

**Success = Making invisible impacts visible in relatable ways
that respect user intelligence and celebrate progress**

Strategic Implications from Survey

Focus on the 70%

Your aware & willing majority are ready now. Launch tools that empower their existing commitment to sustainable AI.

Act Fast

High awareness + high willingness is rare. Don't lose momentum – implement sustainable AI practices before enthusiasm wanes.

Educate the 15%

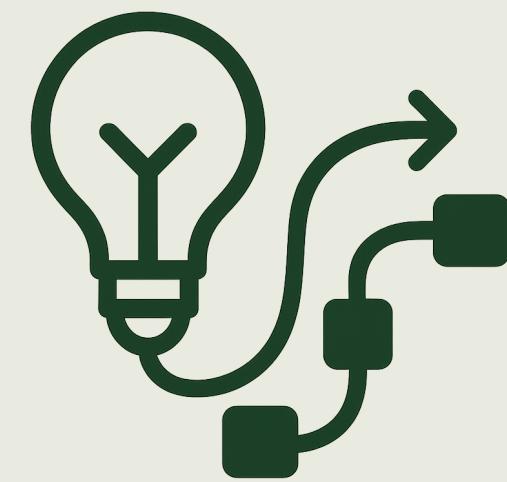
Unaware but willing segment just needs information. Simple awareness campaigns will convert them quickly.

Study the Resistant

The small 5% aware but unwilling group holds key insights. What barriers prevent their action? Address these systematically.

Your audience is ready for sustainable AI solutions
The question isn't whether they'll support it, but how quickly you can deliver

Next Sprint



*Combine
insights
into
prototypes*



Test



Refine prototype

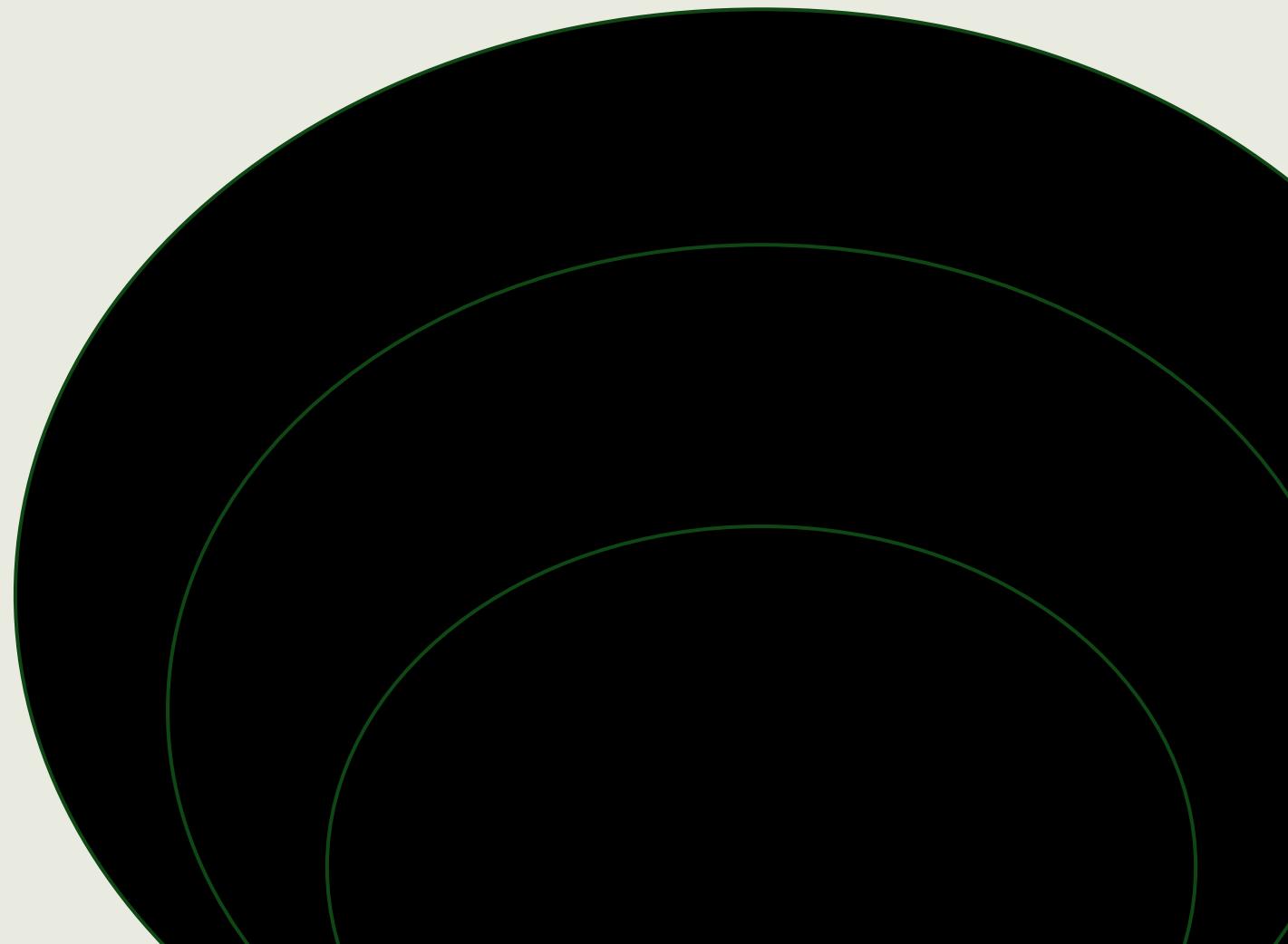
Sprint 4

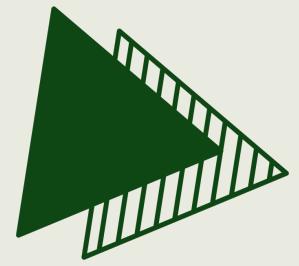
Brainstorming Prototype Ideas

We conducted a team ideation session to explore how we can make AI's impact visible.

We generated over 30 ideas categorized under:

- Awareness & Visualization
- Behavior & Reflection
- Playful Learning & Nudging





Prototypes and Concepts

Morphological Chart

Created a Morphological Chart to structure possible design dimensions:

- **Medium (physical/digital / hybrid)**
- **Interaction style (game/visualization / quiz)**
- **Data type (energy / CO₂ / water)**
- **Tone (serious/playful / reflective)**

Shortlist of Concepts

Digital Forest Wall

pixel trees representing
AI usage

Prompt Coach

browser-based reflection
tool

Magic Mirror

A mirror that detects your face and
shows your level of AI usage.

GAIA framework

A white board/screen where a line is
drawn on it after every use of AI.

Black Frame

A white board/screen where a line is
drawn on it after every use of AI.



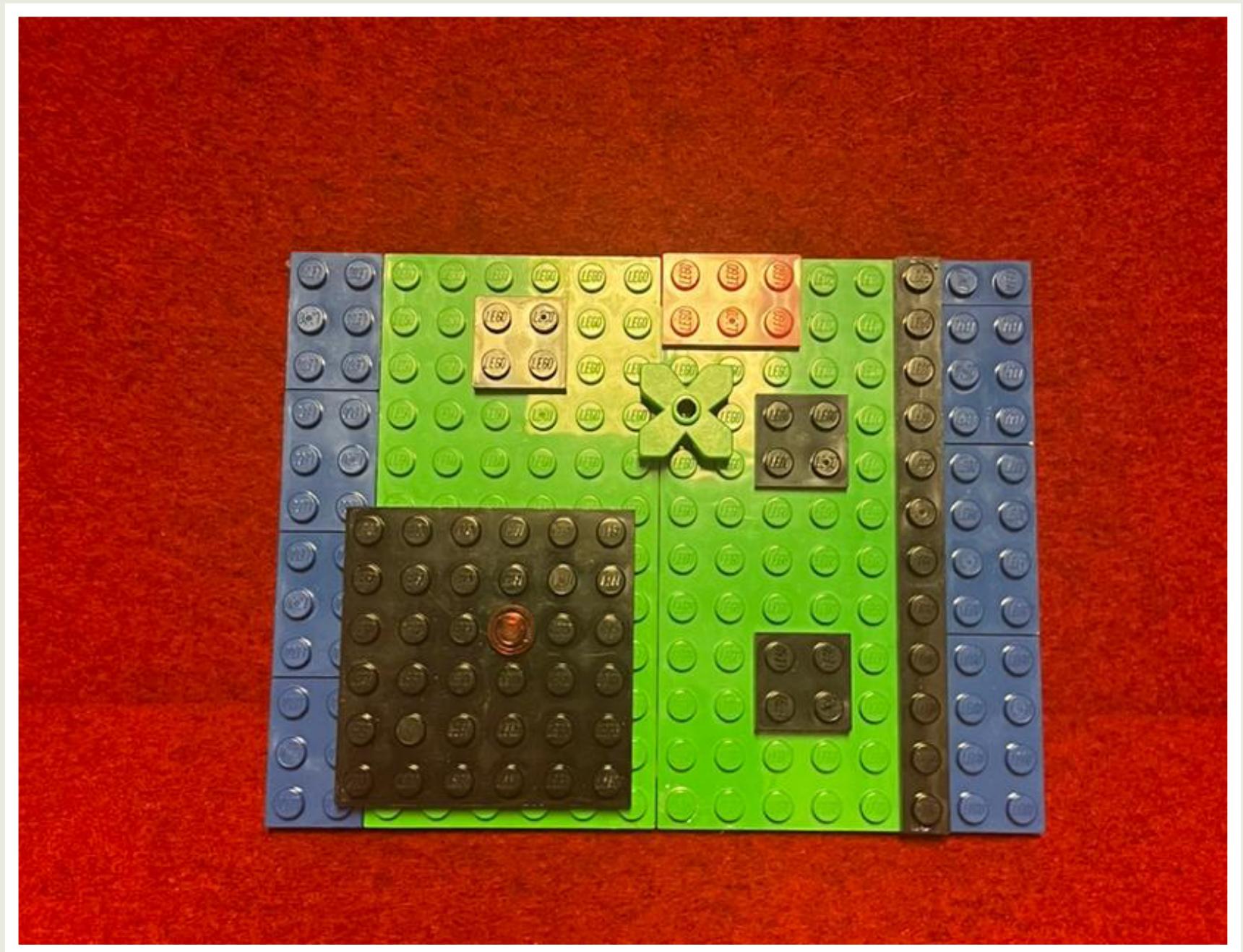
Prototype A: Magic Mirror

A smart mirror that uses face detection to recognize an employee. It displays their reflection alongside data on collective environmental impact and provides tips.



Prototype B: Digital Forest Wall

A large-screen installation displaying a digital forest. Employees' positive actions (like completing sustainability quizzes) cause new digital leaves to grow on a collective tree.



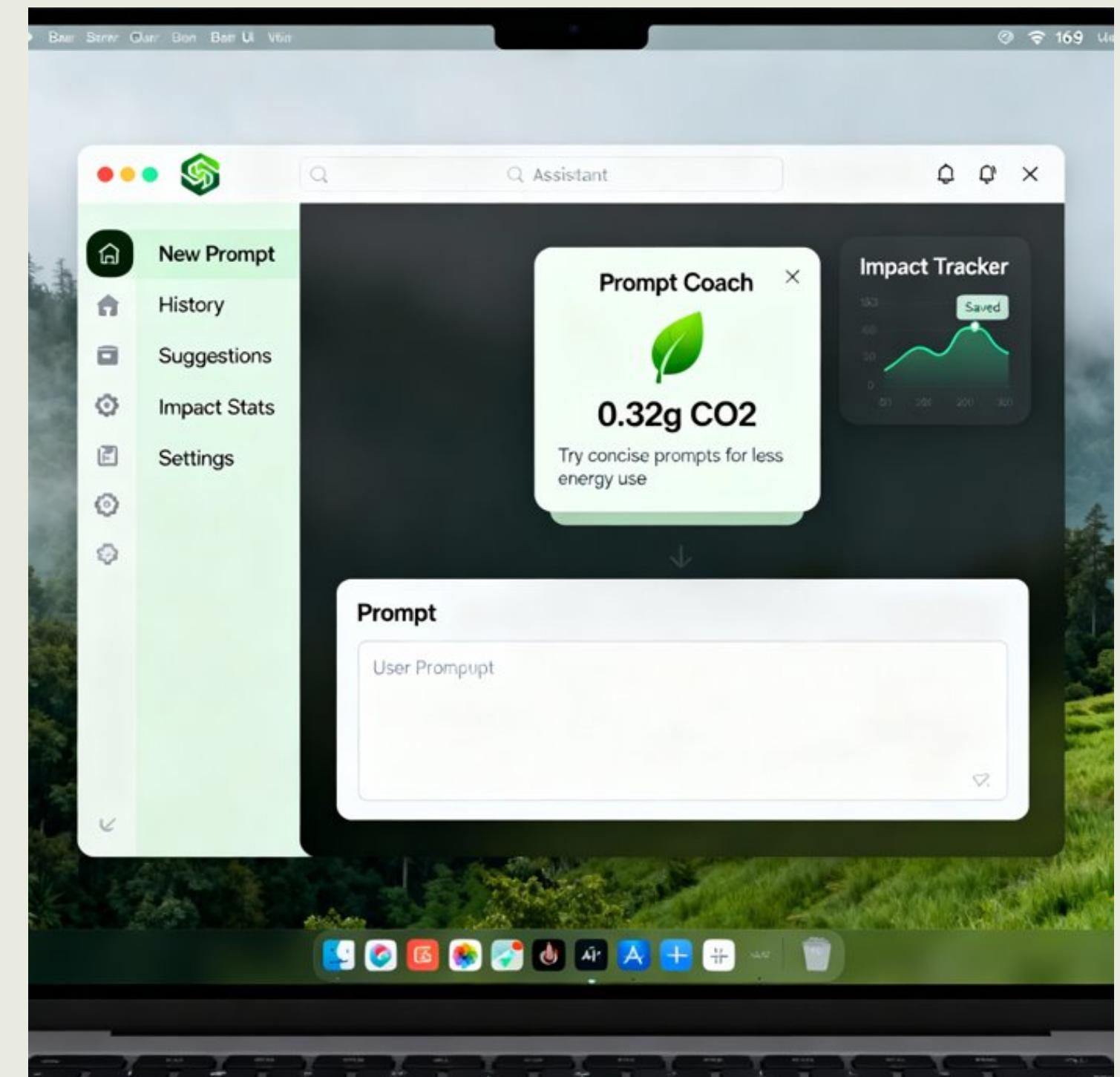
Prototype C: Black Frame

A physical whiteboard where employees manually make a mark (e.g., "draw a line") every time they use an AI tool, creating a simple, collective visualization of usage frequency.



Prototype D: Prompt Coach

A tool or coaching service that helps employees write more precise prompts. This aims to get the correct AI response on the first try, reducing the total number of computations.



Prototype E: GAIA Framework

The screenshot displays the GAIA Framework interface, featuring a dark-themed header and a light-themed main content area.

Header:

- Logo: A green stylized tree icon followed by the text "Green Artificial Intelligence Assessment (GAIA) Framework".
- Text: "Measure and reduce AI environmental impact through data-driven insights".
- Text: "Version 2.0 - Dark Mode Enabled | Updated Nov 5, 2025".
- Button: "Dark Mode" with a sun icon.

View Selector:

- Select View: "Interactive Dashboard" (selected).
- Select Model: "o3 - 21.4Wh 0.076L" (selected).

Current Assessment:

- Efficiency Score: F (Red)
- Monthly Queries: 10,000
- Status: Critical (Red)

This Month's Impact:

Category	Value	Unit
Energy	239.8	kWh
Water	228	Liters
Carbon	84.7	kg CO ₂ e
Cost	\$600	Estimated

Environmental Score: 205 / 100 (Prohibited Range)

Benefit Score: 71 / 100 (Moderate Value)

Top Recommendation:

Switch to Falcon-3-1B

- Save 99% energy (238 kWh/month)
- Save 99% water (225 L/month)
- Save 99% carbon (84.1 kg CO₂e/month)
- Save \$600/month in costs
- Improve efficiency score from F to A

Buttons: "View All Alternatives", "Compare Models", "Apply This Model".

Thank You.



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