



Beyond AI Answers

Improving strategic thinking for innovation teams

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CEO

Agenda

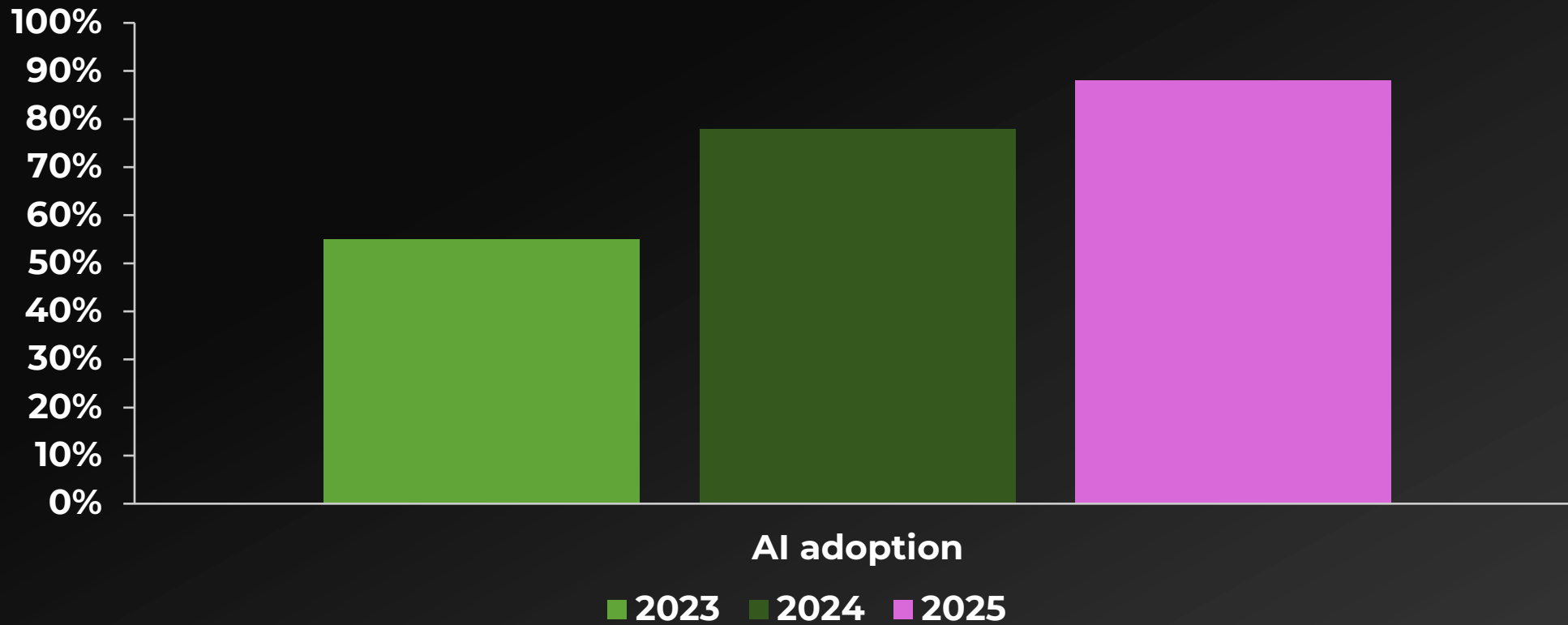
01 | What's missing from today's AI models

02 | Moving beyond AI answers

03 | How Lux is tackling these challenges

Everyone is using AI

Global organizational adoption of LLMs



Just throwing AI at this problem isn't a real solution

What are your main concerns and perceived threats or issues related to the use of AI?



Innovation teams have an information management problem

“...Scientists and executives don’t necessarily understand or question where the information is coming from...”

“...Employees could use nonsourced AI data for decision-making...”

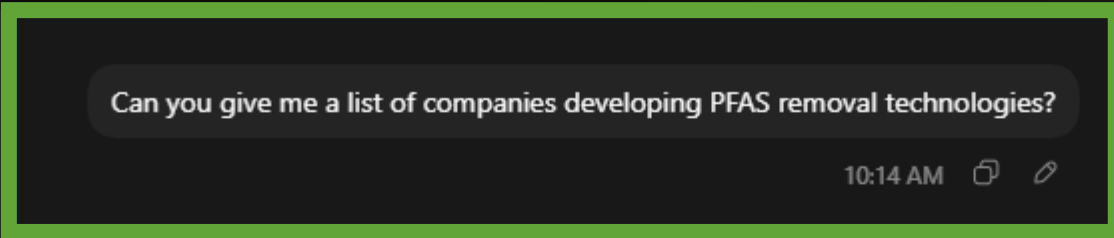
“...AI is still reliant on the quality of input data...”

– Paraphrased responses from our survey of innovation leaders

LLMs need 2 things to move beyond autocomplete

What happens when you ask an LLM a question?

1. Your prompt
2. System prompt
3. Reasoning text



Worked for 43s >


Here's a sourced, non-exhaustive list of companies developing or commercializing PFAS removal, concentration, or destruction technologies:

Company	Technology focus
 Cyclopure	DEXSORB, a PFAS-selective cyclodextrin adsorbent for water filtration
 Allonnia	SAFF foam fractionation for PFAS separation and concentration; North American distributor for EPOC Enviro's SAFF

Outputs

No artifacts yet

Sources

 Web search

LLMs need 2 things to move beyond autocomplete

What happens when you ask an LLM a question?

Sources



Outputs

No artifacts yet

Sources

🌐 Web search

Can you give me a list of companies developing PFAS removal technologies?

10:14 AM

Worked for 43s >

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Context

Public sources are biased and incomplete — limiting the utility of LLMs for analysis.



THE SOLUTION TO FOREVER CHEMICALS

PFAS contamination of water is a global problem affecting people everywhere.

DEXSORB® is a renewable adsorbent designed to remove PFAS from water. It provides simple and affordable protection to individuals and communities from PFAS exposure.



Style

Public sources have a biased tone and style — and these can infect the responses of LLMs.

Large Language Models Just Want To Be Liked

Sycophantic AI decreases prosocial intentions and promotes dependence



**Context and style are critical to leveling
up your AI use**

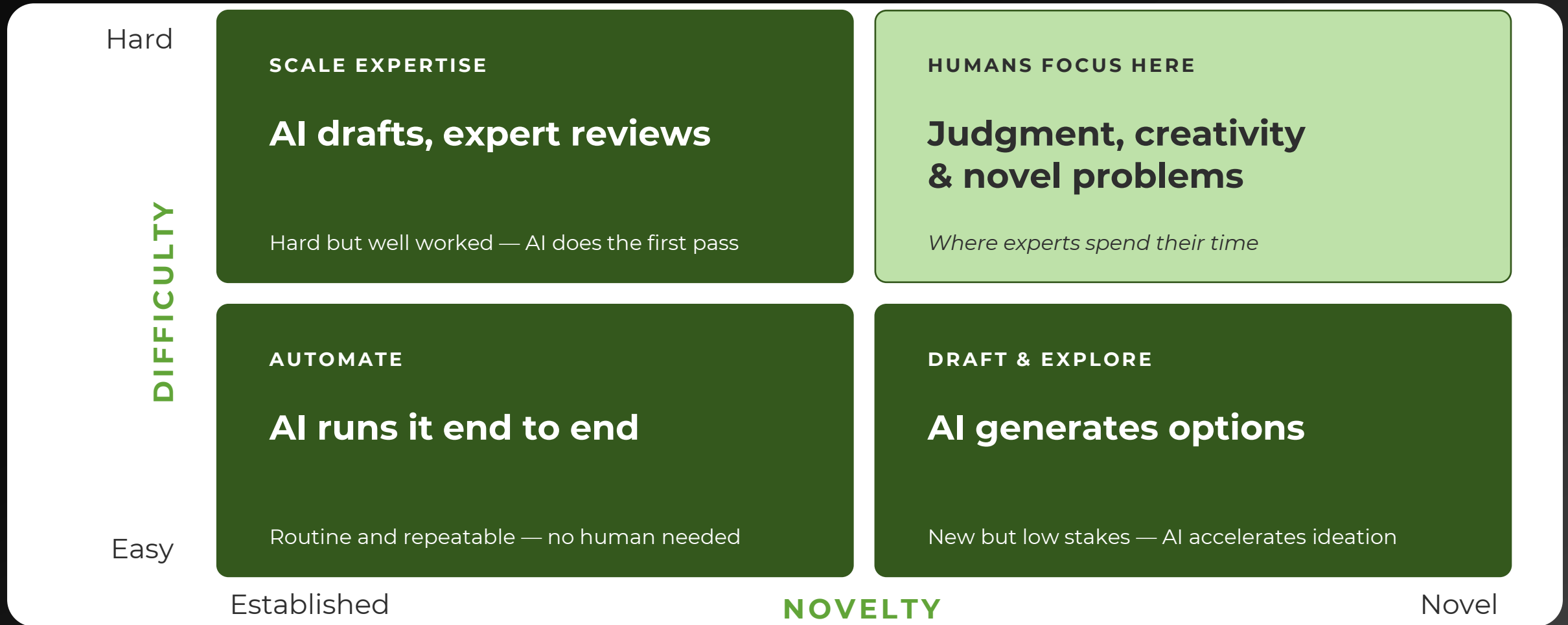
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Mapping use-cases to innovation functions



Mapping use-cases to innovation functions



Innovation teams struggle with info overload

Bloomberg
TE TechCrunch

c&en
CHEMICAL & ENGINEERING NEWS

nature

crunchbase
Google Scholar

UNITED STATES
PATENT AND TRADEMARK OFFICE
uspto

You can do this one by one...

Can you evaluate this news article?

[CATL launches world's largest energy storage testbed, starts mass production of sodium-ion batteries](#)

Score it from 1 to 5 on each dimension:

1. Event specificity

Does the headline describe a clear, concrete event?

2. Technology relevance

Is it connected to emerging technology, commercialization, industrial innovation, energy transition, chemicals, gas, industrials, or agri-food?

3. Strategic importance

Could the event meaningfully affect technology development, adoption, investment, regulation, or competitive

4. Commentary potential

Is there enough implied context for an analyst to form a point of view?

5. Client relevance

Would corporate innovation, strategy, R&D, or sustainability teams plausibly care?

Here is a structured evaluation of the article headline "**CATL launches world's largest energy storage testbed, starts mass production of sodium-ion batteries**", grounded in Lux Research's coverage of CATL and the broader battery/energy storage landscape:

Article Evaluation: CATL Energy Storage Testbed & Sodium-Ion Mass Production

1. 📌 Event Specificity — 5 / 5

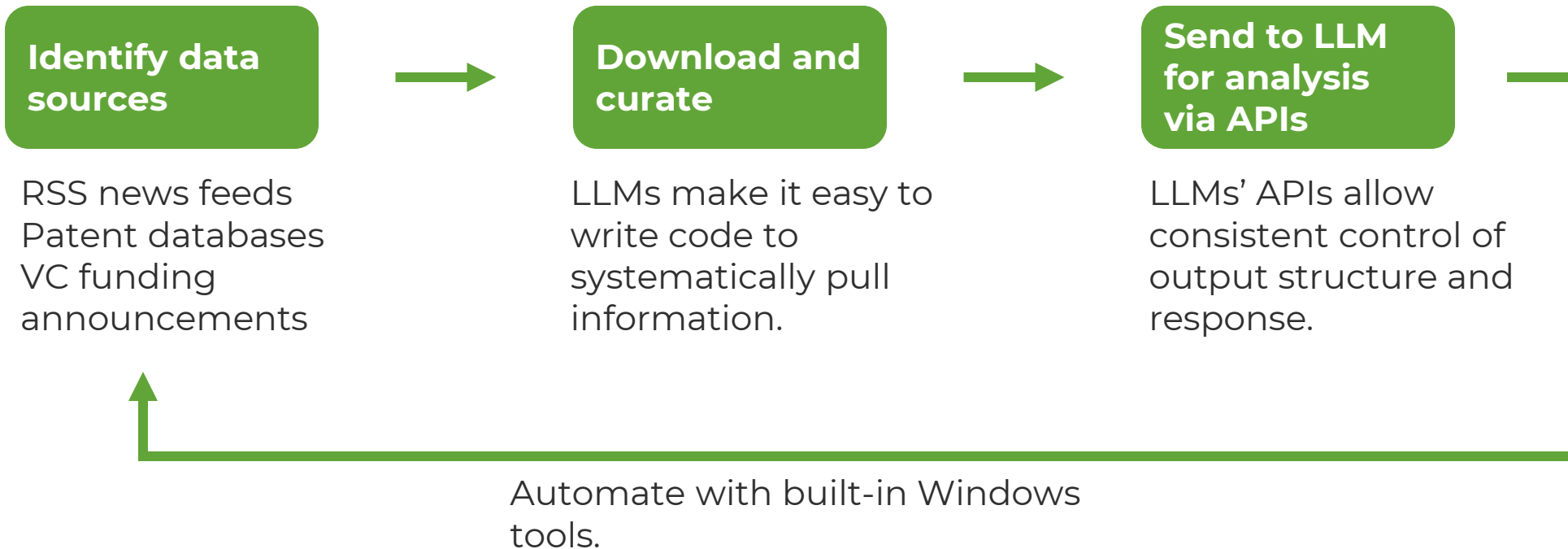
The headline describes **two distinct, concrete events** with a named actor (CATL), clear actions (launching a testbed, starting mass production), and a specific technology (sodium-ion batteries). Both claims are verifiable and unambiguous. The "world's largest" qualifier adds a measurable superlative that elevates specificity further.

Minor note: Packing two separate stories into one headline slightly dilutes focus — both events are individually newsworthy enough to stand alone — but this does not reduce specificity.

2. 📌 Technology Relevance — 5 / 5

This article sits squarely at the intersection of **battery technology commercialization, energy storage, and the energy transition** — all core Lux coverage domains. Sodium-ion batteries are a high-interest emerging chemistry specifically because they offer an alternative to lithium-ion using abundant, lower-cost sodium. CATL launched its first-generation sodium-ion batteries in 2021 at 160 Wh/kg and has been working toward a second generation targeting 200 Wh/kg. † The move to mass production represents a direct commercialization milestone for this technology.

Use LLMs programmatically to curate news and other data sources



Mapping use-cases to innovation functions



You can just ask an LLM for ideas...

Can you help me brainstorm business opportunities in critical minerals?

Yes. One useful way to think about critical minerals is that the biggest opportunities are often *not* mining itself. Mining is capital-intensive, slow, and difficult to differentiate. Many of the highest-return opportunities sit in bottlenecks around the supply chain.

Here are several categories I'd explore:

1. Mineral Intelligence & Risk Software

Problem

OEMs, battery manufacturers, defense contractors, and utilities increasingly need visibility into supply chains for lithium, graphite, rare earths, copper, nickel, and other critical materials.

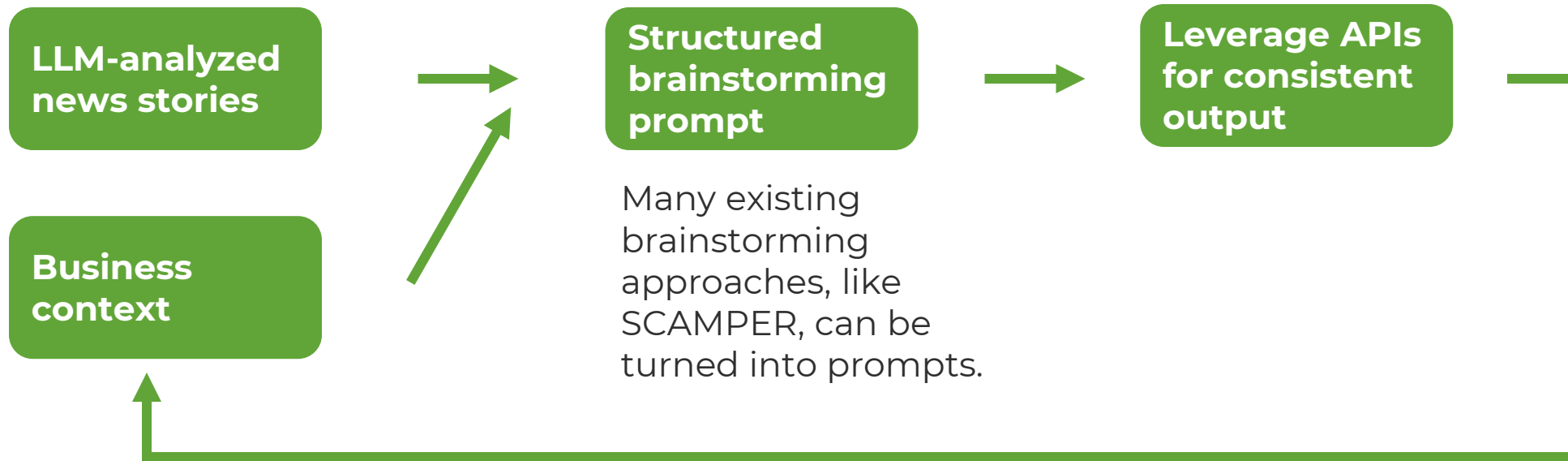
Opportunity

Build a platform that provides:

- Supply disruption forecasting
- Project development tracking
- Trade flow intelligence
- Geopolitical risk scoring
- Price forecasting
- Scope 3 and traceability reporting

This is simple and easy, useful for one-off ideas, but in many businesses, many good ideas are already well understood.

Providing sources and structures powers up brainstorming



Many existing brainstorming approaches, like SCAMPER, can be turned into prompts.

Automate during the year and then review during brainstorming sessions.

Mapping use-cases to innovation functions



LLMs are good at building basic models but lack context

Can you help me build a basic cost model for recycling plants, based on capex, opex, and production?

Yes. A simple recycling plant cost model can be built around three blocks:

1. **Production model** (how much saleable product is produced)
2. **Operating cost model (OPEX)**
3. **Capital cost model (CAPEX)**

From those, you can calculate:

- Cost per tonne processed
- Cost per tonne produced
- EBITDA
- Payback period
- Required selling price

Step 1: Define Key Inputs

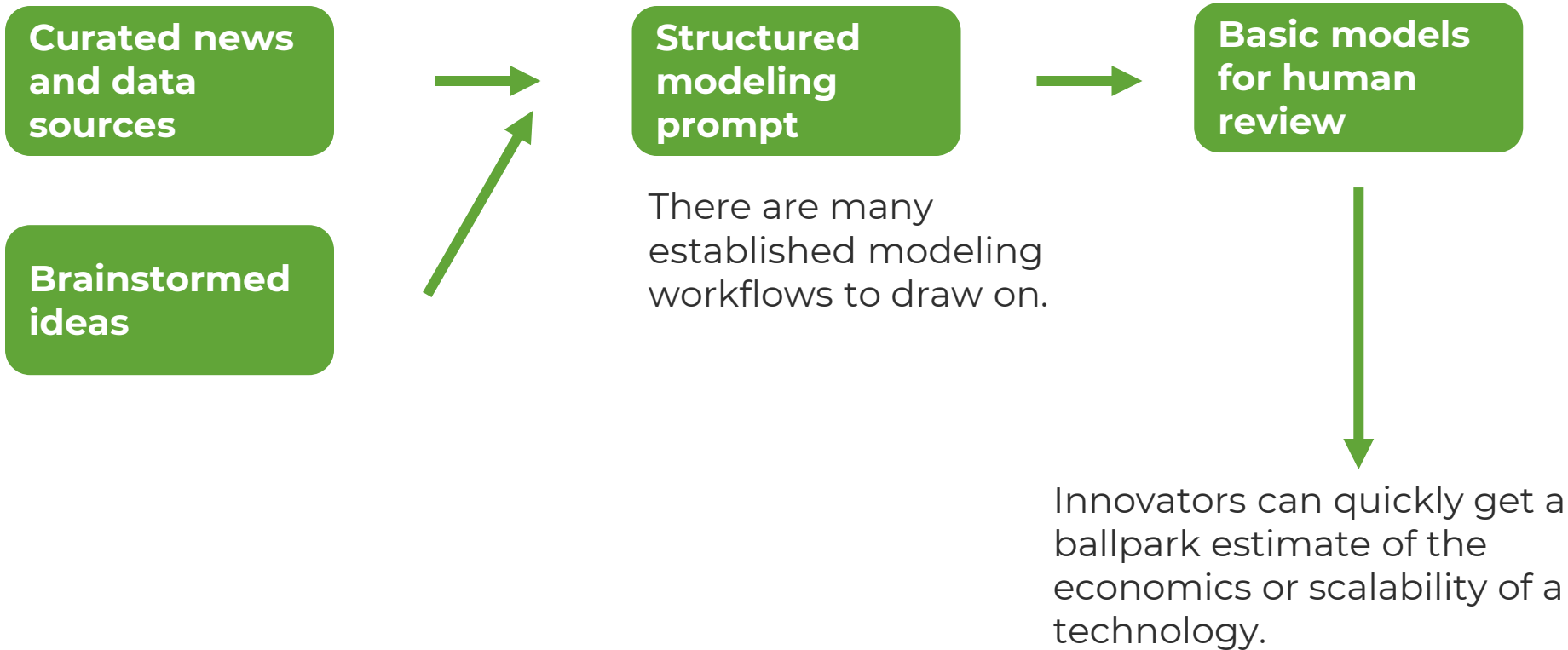
Plant Capacity

Variable	Units	Example
Nameplate throughput	t/y feed	100,000
Operating uptime	%	90%
Actual throughput	t/y feed	90,000

Formula:

$$\text{Actual Throughput} = \text{Nameplate Capacity} \times \text{Uptime}$$

Providing curated context lets LLMs get much further in model building



Key thoughts for innovation leaders

1. Using LLMs programmatically makes the outputs a lot more consistent, and a lot more useful over time
2. Building pools of curated and analyzed information makes more complex LLM use-cases easier
3. You don't need programming expertise, but you will need to work with your IT teams to enable many of these use-cases

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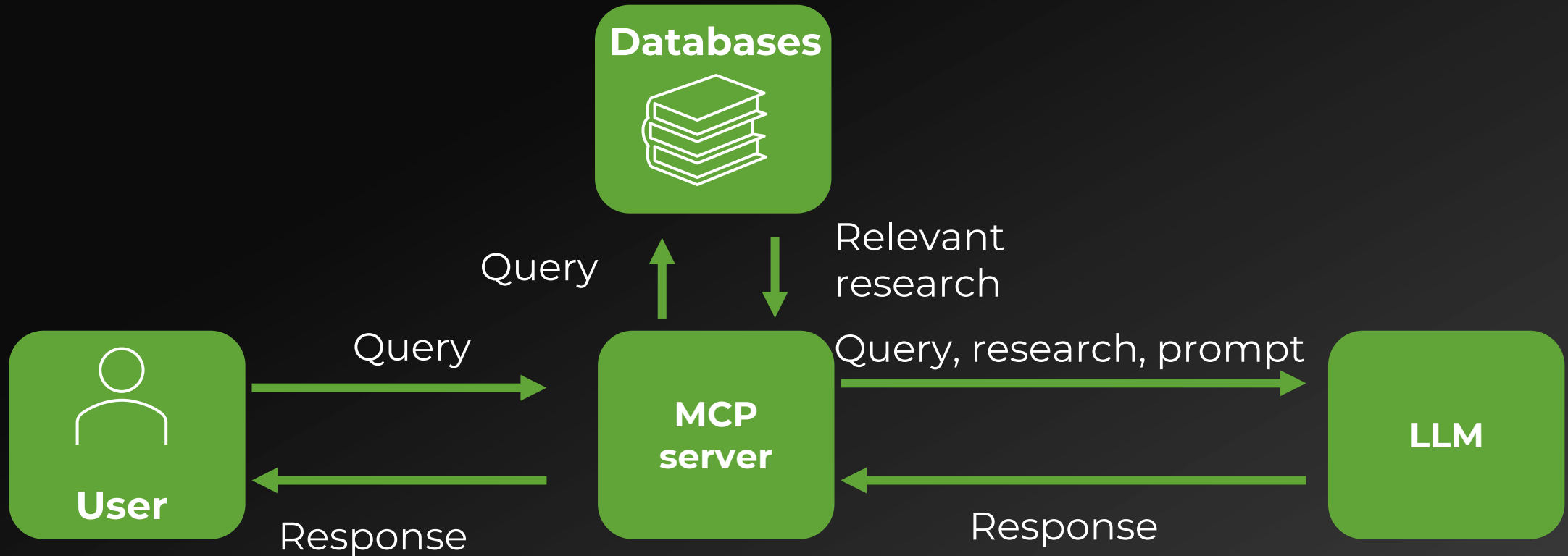
Defensible Decision-Making at Speed

Lux AI adds a trusted intelligence layer to the AI tools your teams already use.

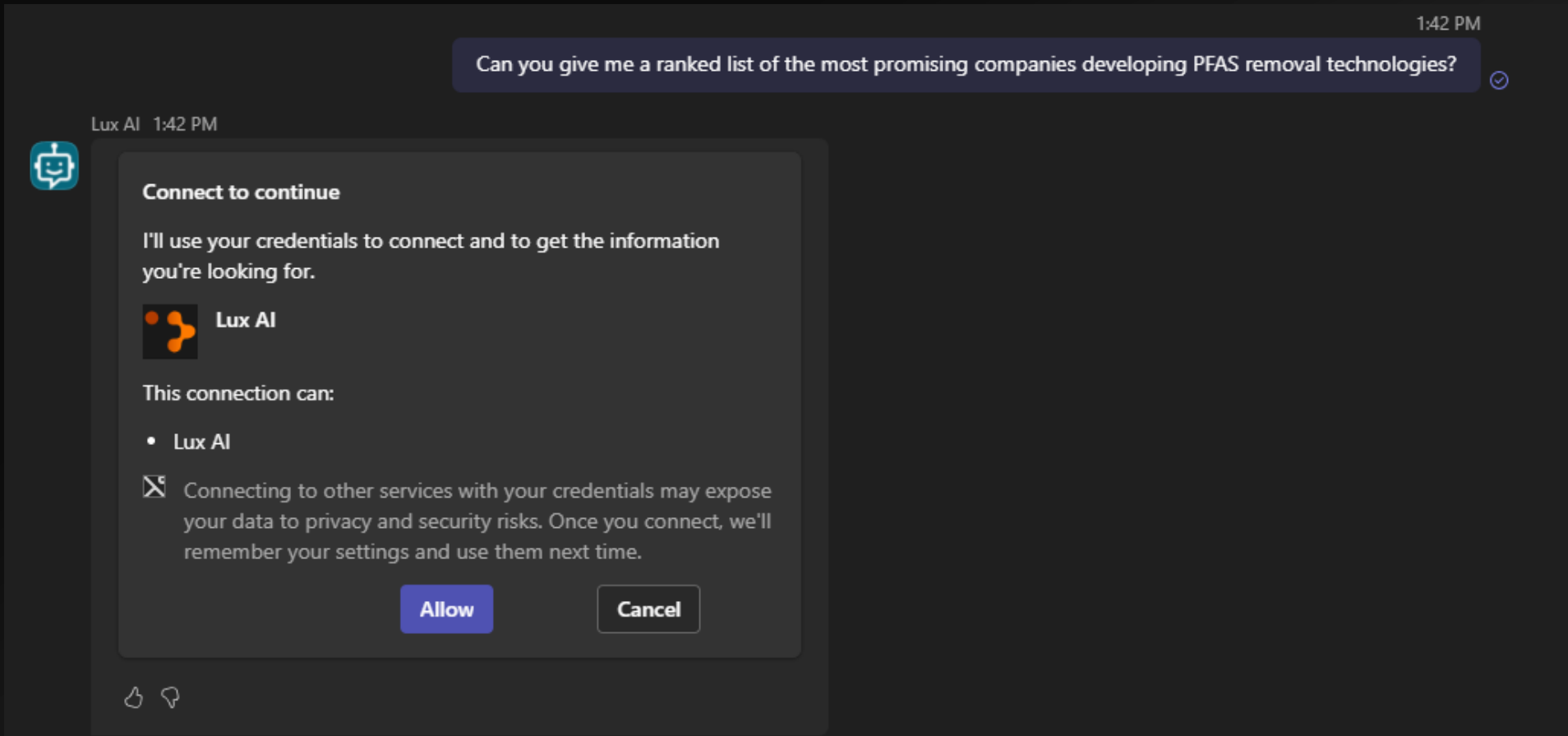


 50,000+ Proprietary research assets	 20,000+ Conversations with industry leaders	 8 Industries Cross-industry coverage	 Decades of innovation and market intelligence
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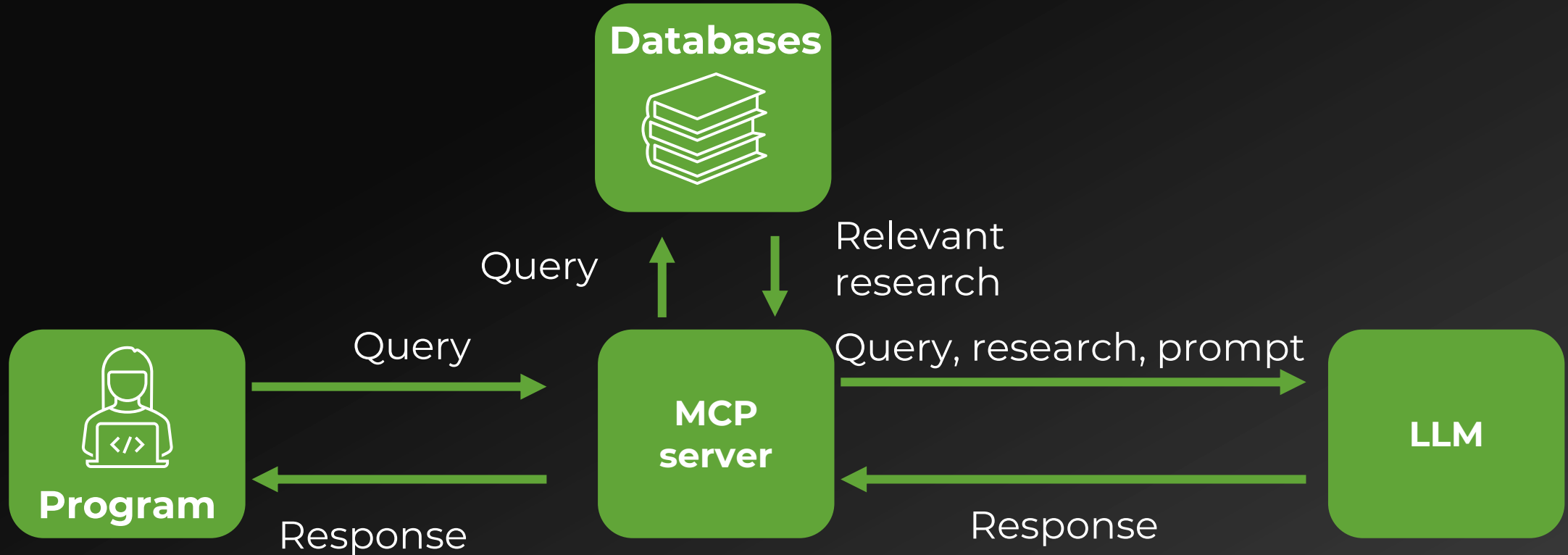
Lux AI for Copilot is based on model context protocol (MCP) architecture



The easiest way to access Lux AI for Copilot is through Teams



This becomes more impactful as you scale usage through the MCP API



MCP brings Lux's insights to programmatic LLM usage for innovation teams

source_name	published	title	link
TechCrunc	2026-06-0	Helion, the Sam Altman-backed fusion startup, raises \$465M to build a power plant for	https://tec
POWER M	2026-06-0	Americas Only Commercial Uranium Enricher Is Privately Building a New Plant Amid a V	https://ww
Renew Ecc	2026-06-0	CATL launches world's largest energy storage testbed, starts mass production of	https://re
TechCrunc	2026-06-0	Focused Energy raises whopping \$240M Series A for laser-powered fusion tech	https://tec
World Bio	2026-06-0	Switch Bioworks launches first-in-class field trials for microbial fertilizer	https://wo
Energy Sto	2026-06-0	Alsym Energy partners with Re:Build Manufacturing to scale US Na-ion BESS	https://ww

Python script

```
if not input_file.exists():
    raise FileNotFoundError(f"Could not find today's scored file: {input_file}")

df = pd.read_csv(input_file)

required_cols = ["source_name", "published", "title", "link", "interest_score", "matched_keywords"]
missing = [c for c in required_cols if c not in df.columns]
if missing:
    raise ValueError(f"Input CSV is missing required columns: {missing}")

df["interest_score"] = pd.to_numeric(df["interest_score"], errors="coerce")
eligible = df[df["interest_score"] >= 15].copy()

if eligible.empty:
    pd.DataFrame(columns=[
        "source_name", "published", "title", "link", "interest_score",
        "NC_candidate_score", "recommendation", "rationale",
        "suggested_angle", "context_to_check", "matched_keywords"
    ]).to_csv(output_file, index=False)
```

MCP server

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**Automation with contextual AI enables
innovation teams to manage information
at scale**

Key takeaways

1

LLMs can curate information but lack reasoning.

LLMs make probabilistic predictions about text; while powerful, this is no replacement for human understanding and judgment. Focus on building information flows that can be used in structured approaches.

2

LLMs needs context and style to produce better results.

Because LLMs are text predictors, what text they use matters a lot! Giving AI meaningful context and style makes it more powerful.

3

Enhancing innovation teams requires leveraging contextual LLMs at scale.

LLMs are powerful when used as tools to let innovation teams see and understand more information, but doing this requires going beyond basic LLM usage.



Thank You



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About Lux

Lux Research fuels innovators to not only imagine what's possible in the future but also operationalize innovation success in the near term. We deliver research and advisory services to inspire, illuminate, and ignite innovative thinking that reshapes and grows businesses. Using quality data derived from primary research, fact-based analysis, and opinions that challenge traditional thinking, our experts focus on finding truly disruptive innovations that are also realistic and make good business sense.

The “Lux Take” is trusted by innovation leaders around the world, many of whom seek our advice directly before placing a bet on a startup or partner — our clients rely on Lux insights to make decisions that generate fantastic business outcomes. We pride ourselves on taking a rigorous, scientific approach to avoid the hype and generate unique perspectives and insights that innovation leaders can't live without.

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