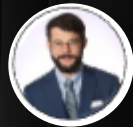


TECH INNOVATION IN 2024

Themes and technologies to monitor



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2023'S KEY THEMES

FINANCE



AI



POLICY



“ ”

What **key themes** will define
innovation in **2024**?

UTILITIES

Unlocking behind-the-meter flexibility

Expect innovation in both markets and assets providing flexibility

- Vehicle-to-grid represents massive potential load growth.
- Emerging markets will follow larger ones in market reforms that enable distributed energy resource market participation.



OIL AND GAS

Balancing financial and decarbonization pressures

Oil and gas companies will pursue opportunities aligned with the core

- Rising interest rates and investor feedback are helping to drive this shift.
- Regulations and subsidies will push firms to focus on deploying technologies today.



CHEMICALS

Finding bright spots in turbulent times

Identifying near-term opportunities for growth in times of diminishing demand

- Corporates embrace lower-hanging means to decarbonize like carbon capture and mass balancing to capture customer demand.
- Startups pivot to where the money is — energy transition, defense, and replacing materials of concern.



INDUSTRIALS

Huge markets are coming into focus: Hydrogen, carbon, batteries

The energy transition is a materials transition

- The need for new infrastructure and equipment for hydrogen economy and carbon capture utilization and storage creates large opportunities.
- The critical minerals supply chain — mainly but not only for electric vehicle batteries — will be a nexus of innovation and competition.



CONSUMER

Urgency as tech, promises, and policy align

Two areas dominate in a year that requires progress

- More rapid, more accurate innovation to deliver business impact.
- Delayed promises and advancing policy require partnerships that move the needle on sustainability.



OPEN INNOVATION IS SHIFTING TO SHARED INNOVATION

Focus is shifting from early stage development to scale-up

- Climate change means that scale-up of sustainable tech is becoming a priority.
- Interest rates will cut funding for startups from venture capital, meaning corporates won't get a free ride.

Industrial players will struggle to adapt to this new mode of operation

- Practices attuned to competitive innovation will need to adapt.
- Geopolitical competition means policy is driving collective innovation — but could also derail it.

KEY TAKEAWAYS

1

Challenges from 2023 will continue.

The macroeconomic and industry-specific factors that made 2023 tough are likely to persist.

Companies need to execute on the transition despite leaner budgets for innovation.

2

Companies will split off transformative businesses.

Firms are refocusing on their core business, and innovation teams will follow.

Expect companies to spin out innovative businesses and activities in 2024.

3

The sustainable transition is getting real.

The billions invested in 2023 are beginning to turn sustainable ideas into real businesses.

The backlash for failure or greenwashing is intensifying as well.

THANK YOU



UPCOMING WEBINARS

JANUARY 25

You, Me, GPT: Unpacking Generative AI's Impact on Innovation

FEBRUARY 8

The Future of Aviation: Opportunities in SAFs, Hydrogen, and Electric Aviation



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