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TODAY'S WEBINAR WILL BEGIN SHORTLY

2023 Innovation Planning:
Reviewing Key Developments of 2022 and Predictions for the Future

QUESTIONS?

Use the questions box on your screen

AUDIO ISSUES?

Use the global dial-in number in your confirmation email

2023 INNOVATION PLANNING: REVIEWING KEY DEVELOPMENTS OF 2022 AND PREDICTIONS FOR THE FUTURE



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The
Deciding
Factor



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Agenda

- 1** | **Key trends and hot research**
- 2** | Cross-industry insights from Lux experts
- 3** | Predictions for 2023

Most-read report by sector

OIL AND GAS

The Hydrogen Economy:
The Cost of Storage &
Transport

CHEMICALS

Innovations for the Waste
Supply Chain of 2030

INDUSTRIALS

Building in 2030: The
Future of Sustainable
Building Materials

Image source: Dezeen / Paolo Fassoli

UTILITIES

Energy Storage Market
Forecast: 2022 Edition

CPG

The Landscape of Cell-
Free Biomanufacturing

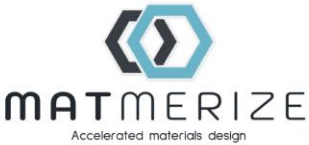
DIGITAL

Reinventing the Global
Supply Chain: The Role of
Warehouse Robotics

Most-clicked startups by sector

OIL & GAS	CHEMICALS	INDUSTRIALS	UTILITIES	CONSUMER PRODUCTS
				
				
				

DIGITAL



Beyond industry: Hottest reports and presentations

Top Priorities of Innovation Leaders



Marisa Kopec
Chief Research Officer

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Transforming Open Innovation: Opportunities from Innovation Clusters



Anthony Vicari
Analyst



Holly Hay
Senior Researcher

THE LUX DEBATES

SUSTAINABILITY IS THE ENEMY OF GROWTH

Featuring

Ujwal Arkaigud, MotivBase
Michael Kearney, The Engine
Volker Sick, University of Michigan
Gerald Stokes, Stony Brook University
Paul Lightfoot, BrightFarms
Scott Kirsner, The Boston Globe
Anthony Schiavo, Lux Research
Chris Robinson, Lux Research
Josh Haslun Ph.D., Lux Research
Kristin Marshall, Lux Research

BLOCKCHAIN: HYPE VS. REALITY



Anthony Schiavo
Research Director



Josh Haslun, Ph.D.
Research Director



Shriram Ramanathan, Ph.D.
VP & Group Director



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Lux's first Inspire Reports for innovation strategy

“

INSPIRE REPORT

THE LUX CARBON CREDIT PORTFOLIO TOOL

CARBON CREDITS: BLESSING OR CURSE?

“

INSPIRE REPORT

THE LUX NET-ZERO STRATEGY FRAMEWORK SURVIVING THE ENERGY TRANSITION

“

INSPIRE REPORT

THE LUX SUSTAINABLE POLICY FRAMEWORK

COMING
SOON!

“

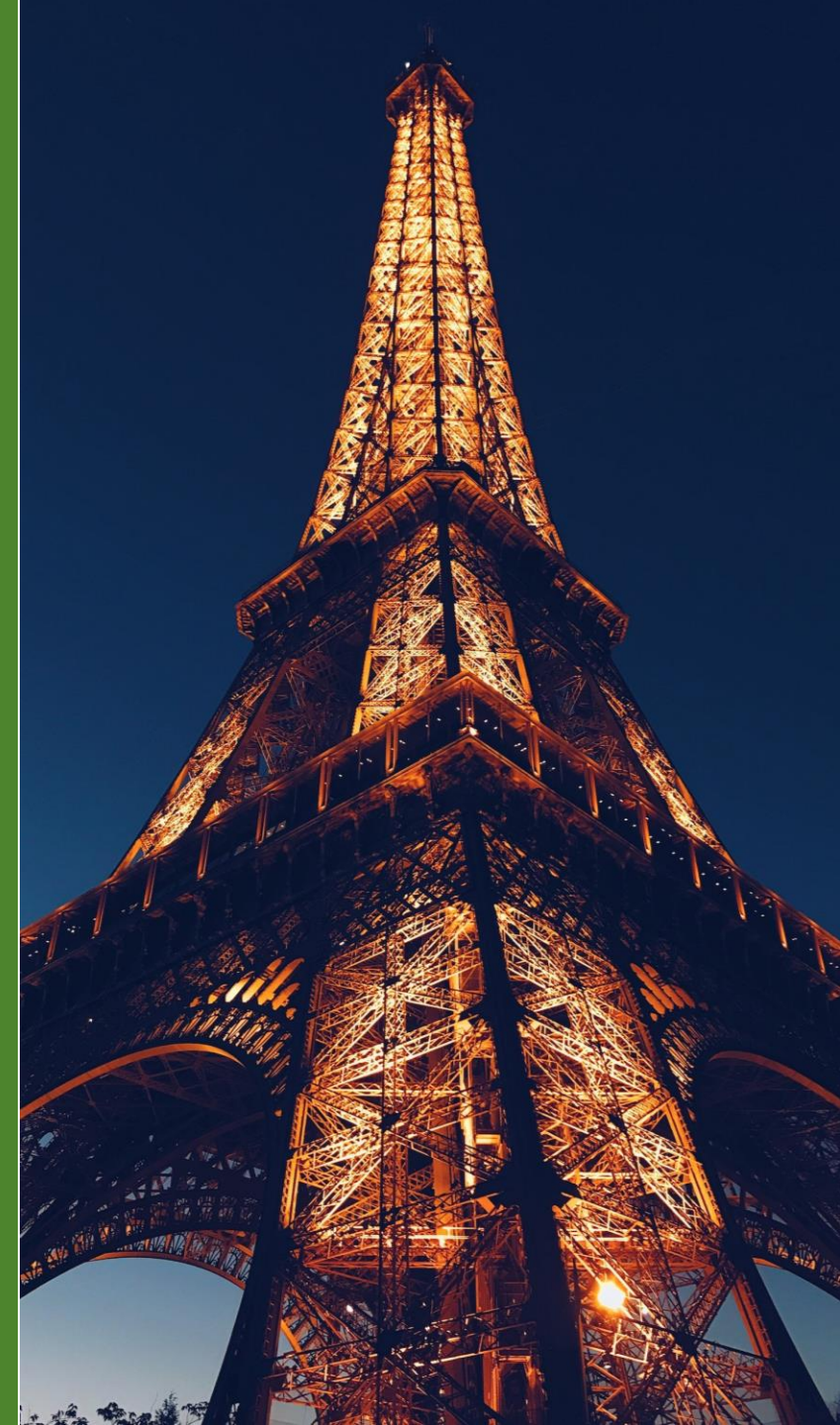
INSPIRE REPORT

THE LUX SUSTAINABLE MANUFACTURING RADAR

Agenda



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- 2 | **Cross-industry insights from Lux experts**
- 3 | Predictions for 2023



A global perspective on innovation



Ian Rinehart
Industrials Team Captain



Kristin Marshall
Chemicals Team Captain



Cecilia Gee
Oil and Gas Team Captain



Harini Venkataraman
CPG Team Captain



Nardev Ramanathan
Digital Team Captain

Cross-industry trends from 2022 impacting your 2023 innovation planning



Cecilia Gee
Oil and Gas Team Captain

Volatility in
oil and gas



Kristin Marshall
Chemicals Team Captain

Materials and
product transparency
and traceability



Ian Rinehart
Industrials Team Captain

Circular
manufacturing and
waste valorization



Cecilia Gee
Utilities Stand-In

Energy capacity and
grid storage



Harini Venkataraman
CPG Team Captain

Synthetic biology and
fermentation



Nardev Ramanathan
Digital Team Captain

Accounting, tracking,
and trading carbon
emissions

Volatility in oil and gas

How does the war in Ukraine affect industry?



The gas crisis is here — find alternatives that are more dependable long term, like hydrogen.



Industrials

Beyond the energy crunch, governments are crafting industrial policy for a more competitive world.



Digital

AI and automation tools will be vital in 2023 to better mitigate volatility risks and workforce crunch.



Cash competition and scaling

How and where can we scale supply to meet demand?



Invest in energy capacity, keeping in mind the energy storage, grid capacity, and sheer amount of land needed to do so.



Digital

Data monetization will unlock new opportunities to moderate energy consumption on the demand side.



Carbon management

How can emerging digital technologies boost your carbon management strategy?



Partner or invest now in digital tools to meet your net-zero goals.



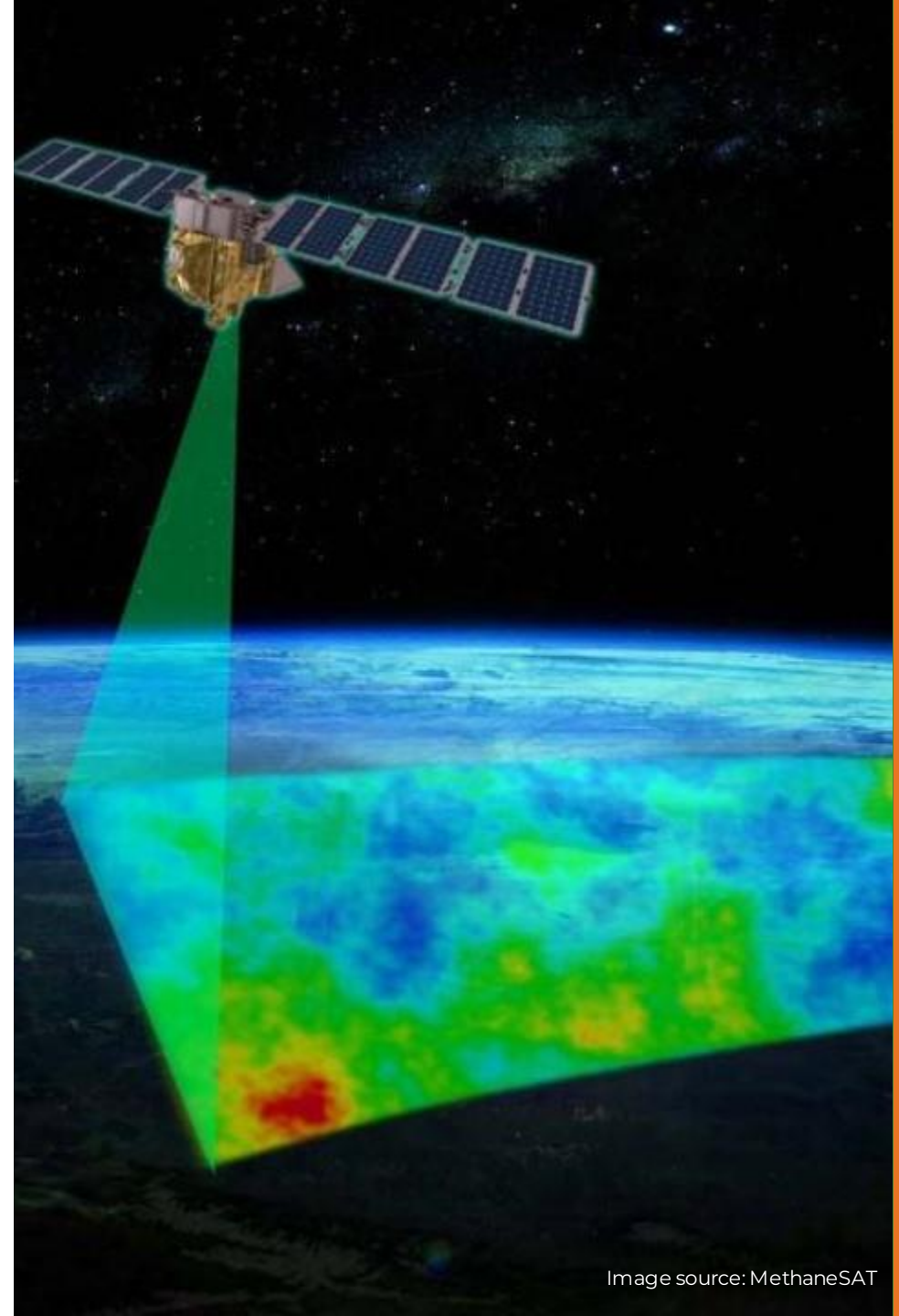
Utilities

Digital tools are critical for assessing the reliability of new technologies. They can also be key for CBAM.



Industrials

Robust, multiparty software solutions will be necessary to track Scope 2 and 3 emissions.



Biomanufacturing momentum

How are companies looking to implement biomanufacturing for their sustainability efforts?



Engage with the right players to bridge the know-how gap and complement your technology expertise.

“

Chemicals

Geno is showing us that you can succeed in higher-volume markets.

“

Oil and Gas

LanzaTech, Cemvita Factory, and Electrochaea show strong emissions-reduction potential.



Waste valorization

How are manufacturers using other companies' byproducts as inputs?



No-emissions-attached wastes can reduce products' carbon footprint.



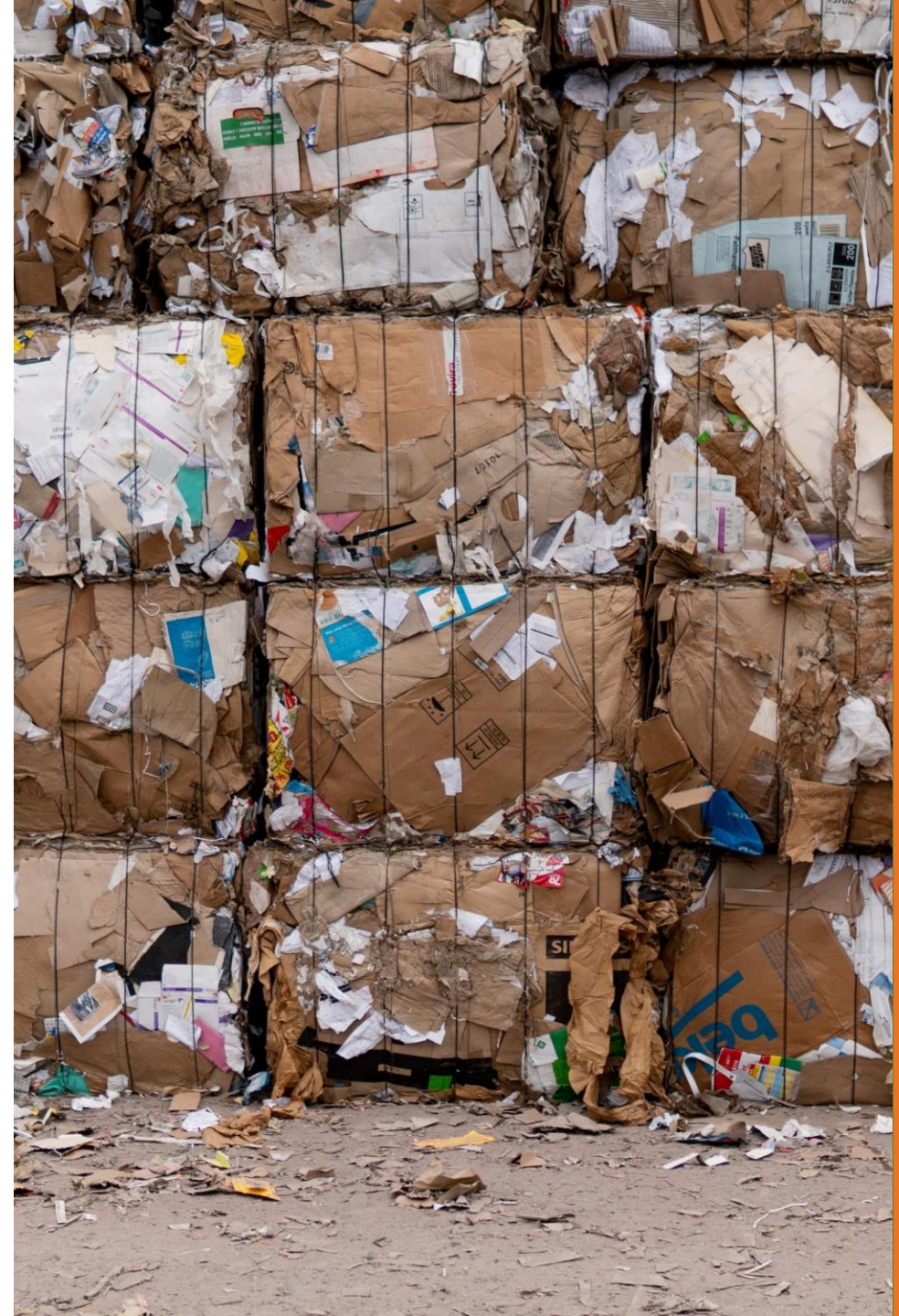
CPG

Evaluate resource availability, regulations, and market demand to make a tangible impact.



Chemicals

Be mindful of how different opportunities compare; beyond market potential, think of core competencies.



Traceability in the supply chain

How important is traceability for enabling circularity?



Beyond product disclosures, understand where traceability can create value for your business.



Digital

Blockchain can help, but you need to understand its strengths and limitations.



CPG

Traceability solutions enabling direct impact on sustainability will gain traction.



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Startups to monitor in 2023

OIL AND GAS



—twelve

S Y Z Y G Y
P L A S M O N I C S

CHEMICALS

21st
BIO



POLYSECURE
Preserving Resources by Innovation



INDUSTRIALS



I :: N :: MR

ELECTRA

metalenz

UTILITIES



voltus

Principle Power
Globalizing floating wind

CPG

PIVOT BIO



DIGITAL



Thank You

A link to the webinar recording will be emailed within 24–48 hours.

KEEP IN TOUCH

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UPCOMING WEBINARS

November 22nd

[Product Innovation: Balancing Sustainability, Risk, and Returns](#)

December 20th

[The Top Technologies Enabling the Net-Zero Grid of the Future](#)

January 24th

[Market Opportunities in Emerging Consumer Health and Wellness Ecosystems](#)

February 21st

[Sustainability Driving New Business Models in Manufacturing](#)