

HFS WINTER SUMMIT

THE GREAT ENTERPRISE REGENERATION

A series of green leaves are arranged horizontally across the word 'REGENERATION' in the title. The leaves are stylized with a light green outline and a darker green fill, pointing towards the right.

**Is AI Amplifying... or Addressing
the Climate and Sustainability
Emergency?**

Josh Matthews

Practice Leader, Sustainability, HFS Research

AP

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WORLD

U.S.

ELECTION 2024

POLITICS

SPORTS

ENTERTAINMENT

BUSINESS

SCIENCE

FACT CHECK

ODDITIES

B

• Quincy Jones dies

Election 2024

Oklahoma storms

Matt Chapman

Dak Prescott injury

AP FACT CHECK

Climate change doesn't cause hurricanes.

SCIENCE

WEATHERICEIPCCOCEANSPEOPLETEMPERATURE

STORMS

27 June 2022 16:43

Tropical cyclones now '13% less frequent' due to climate change

f

in

CLIMATE EXPLAINED

How climate change is making hurricanes more dangerous

Stronger wind speeds, more rain, and worsened storm surge add up to more potential destruction.

The New York Times

Climate Change Is Making Hurricanes Stronger, Researchers Find

An analysis of satellite imagery from the past four decades suggests that global warming has increased the chances of storms reaching Category 3 or higher.

How climate change makes hurricanes more destructive

The Economist explains

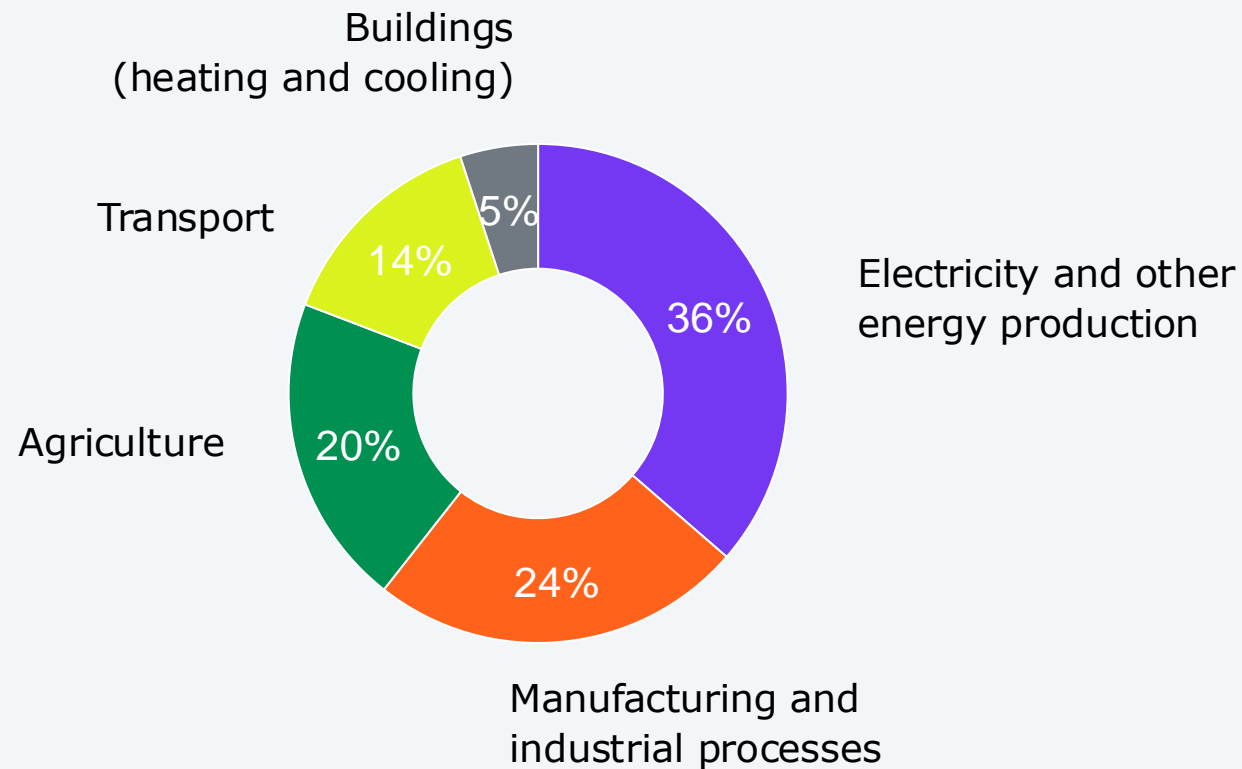
Is climate change making hurricanes worse?

They are becoming more damaging, but not more frequent



Breaking down global emissions by sector outlines the path to decarbonization

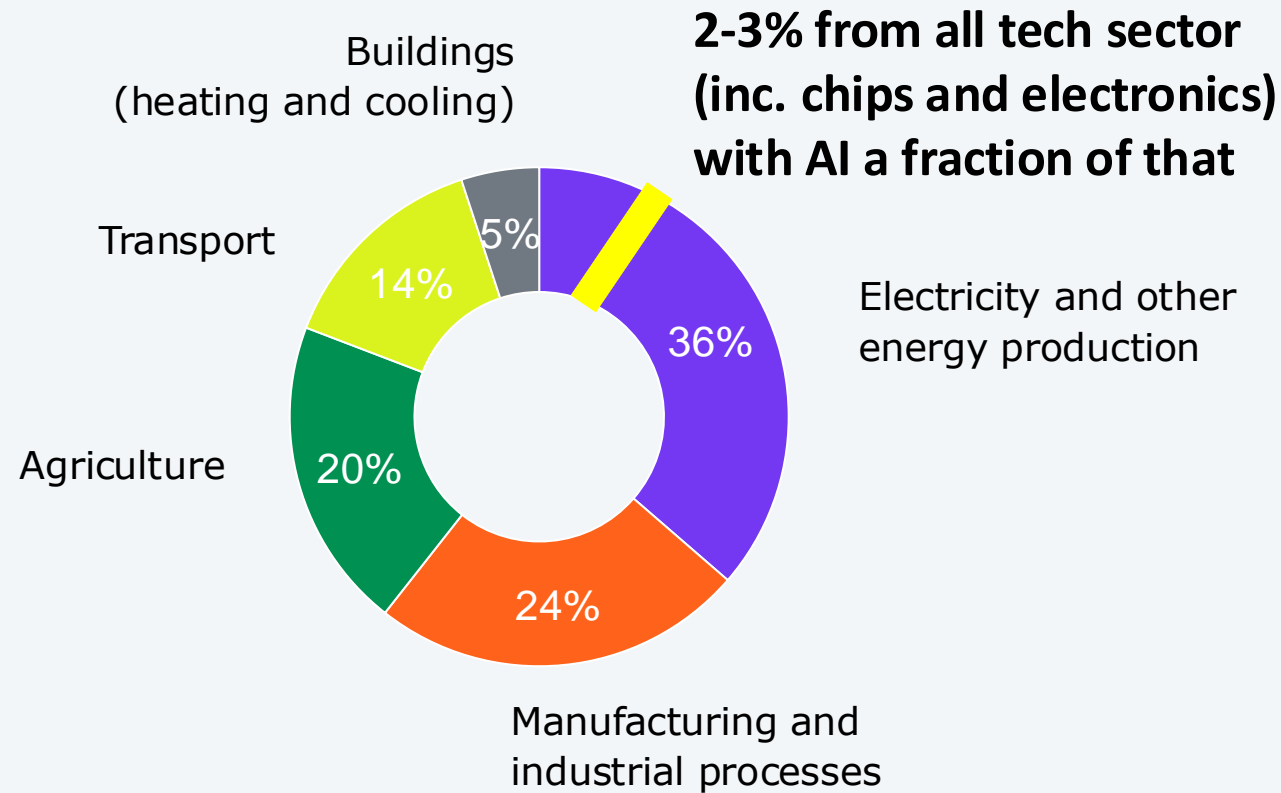
Global emissions breakdown by sector (CO₂ equivalent)



Source: [World Emissions Clock \(World Data Lab\)](#), 2024

Breaking down global emissions by sector outlines the path to decarbonization

Global emissions breakdown by sector (CO₂ equivalent)



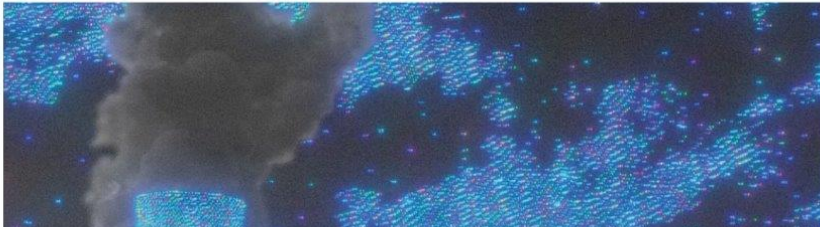
Source: [World Emissions Clock \(World Data Lab\)](#), and [World Economic Forum](#), 2024



Reports predict that AI has the potential to help **mitigate 5-10% of global GHG emissions** by 2030. So what needs to happen to strike the right balance?

Big tech is bringing nuclear power back to life

Artificial intelligence needs clean and reliable energy sources



COMPANIES / ENERGY TRANSITION

Google Signs First Nuclear Energy Deal to Address Growing AI Carbon Footprint



COMPANIES / ENERGY TRANSITION

Amazon Joins Tech Giant Peers in Move to Nuclear to Tackle AI Carbon Footprint

Microsoft chooses infamous nuclear site for AI power



COMPANIES / ENERGY TRANSITION / PRIVATE EQUITY & VENTURE CAPITAL

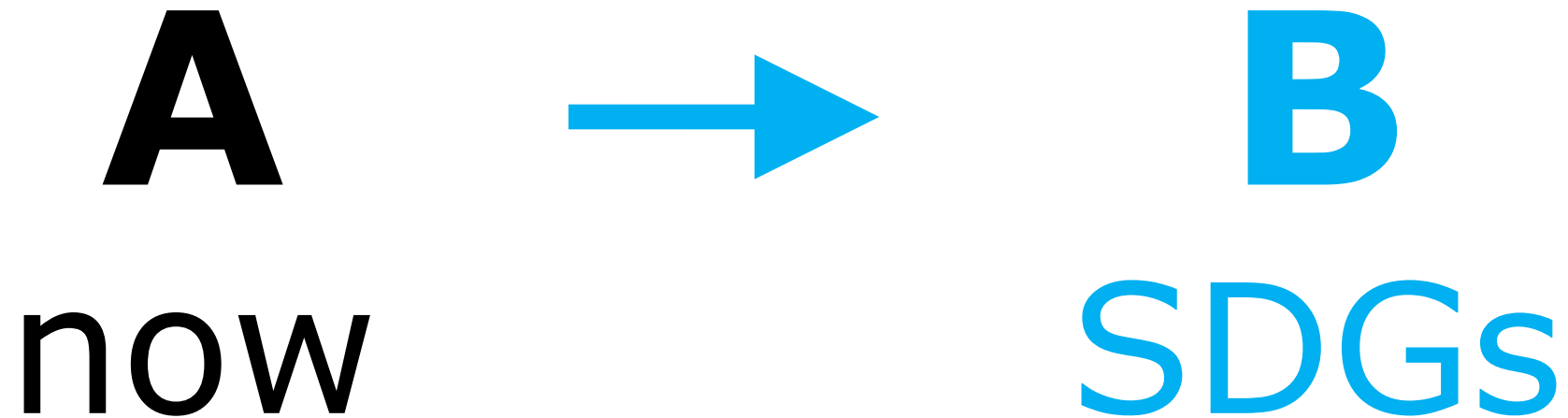
Amazon Leads \$500 Million Capital Raise for SMR Nuclear Technology Company X-Energy

Transition plans

Transition plans

A
now

Transition plans



The SDGs connect environmental, social, and economic challenges facing the planet and society

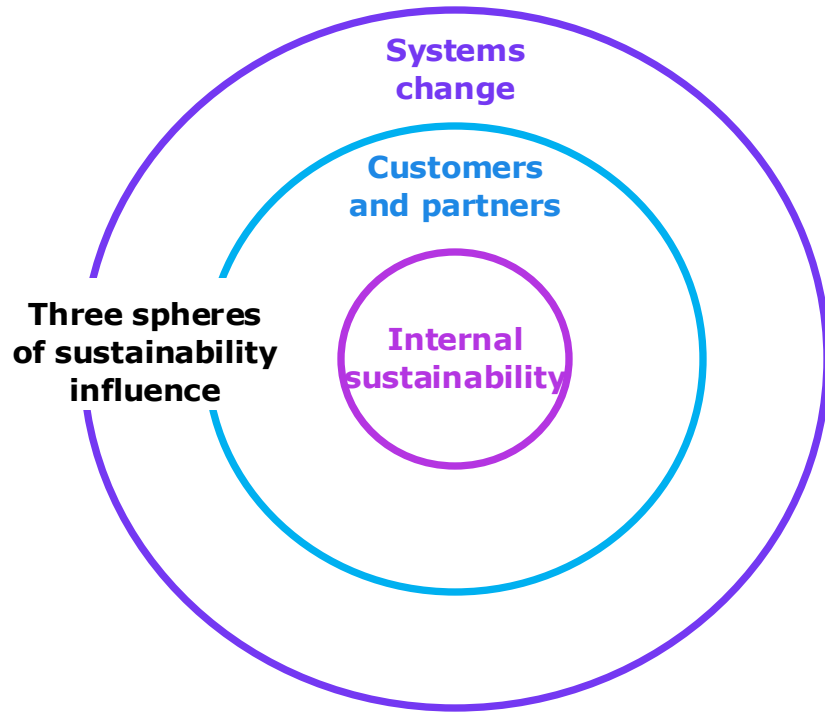


Source: [United Nations](https://www.un.org/sustainabledevelopment/)

Break down the global sustainability context and align your organization

The global sustainability context									
17 UN Sustainable Development Goals									
ESG Factors									
Decarbonization		Environmental			Social			Governance	
<ul style="list-style-type: none">• Goal setting• Footprint measurement• Benchmarking• Ongoing measuring and monitoring• Visualization• Reporting• Decision-making• Road mapping and delivering on emissions reductions		<ul style="list-style-type: none">• Biodiversity on land• Biodiversity in water• Water usage and sanitation• Affordable and clean energy• Other resource availability• Waste reduction• Circular economy• Responsible production and consumption• Spills and leaks			<ul style="list-style-type: none">• Diversity, equality, and inclusion• Education• Human rights• No poverty and zero hunger• Quality work and economic growth• Labor practices and zero modern slavery• Corporate outreach and CSR• Talent development• Impact on communities• Health and safety			<ul style="list-style-type: none">• Risk• Resilience• Supply chains• Cybersecurity• Physical security• Corporate management• Disclosure• Financial performance• Partnerships• Peace, justice, and institutions	
Geopolitics									
Conflict Economics Politics Health Cybersecurity Aging Populations Development Poverty Security Migration Safety Justice Technology Culture									
Industry Dynamics									
Financial services and insurance	Energy and utilities	Retail and CPG	Manufacturing and chemicals	Infrastructure and construction	Travel, hospitality, and logistics	Healthcare	Life sciences, incl. pharma	Agriculture	Telecom, media, and technology
Organizational-level Roadmap and Business Model									
CEO / board		Sustainability leader		Customers		Investors and shareholders		Ecosystem and supply chain partners	
Organizational functions and domain-level roadmaps									
Finance	Operations	Procurement	Supply Chain	IT	Cybersecurity	HR	R&D	Sales	Marketing
Digital and physical technologies and business processes									

Focus on material spheres of influence to maximize your impact on sustainability



Systems change

- Organizations and coalitions with the greatest influence must be first movers to show sustainability works on all environmental, social, and economic fronts.
- This leadership enables organizations to contribute to the critical mass that creates the positive tipping points and systemic change sustainability needs.
- Such a systemic change will bring policy, consumer behavior, and businesses into alignment with the global sustainability context.

Customers and partners

- Organizations must align their customer and partner engagements to the global context.
- For most industries, value chain sustainability spheres of influence overwhelm organizations' internal impact.
- Organizations can increase their positive impact by embedding sustainability across all ecosystem contact points.

Internal sustainability

- Organizations must address their own sustainability by aligning their actions and plans to the global sustainability context.
- For many organizations, internal impact is relatively small versus the spheres above, but it still must be addressed for leadership and regulatory purposes.
- The global context starts with the 17 UN Sustainable Development Goals (SDGs). Each goal is underpinned by roadmaps covering the environmental, social, and governance (ESG) factors of sustainability.

Source: HFS Research, 2024

If firms collaborate with their clients and partners to form a critical mass, they can be architects of the positive tipping points sustainability needs

The diverging sustainability spectrum for systems change



Source: HFS Research, 2024

**Despite everything,
there's still time to lead
on sustainability while
it's an option**

Thank you.

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REGENERATION



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