

Sustainability

What to watch: Four trends for 2024

22 January 2024

Key takeaways

- From clean tech and decarbonization, to the risks and opportunities of biodiversity - or from an increased focus on the social aspects of ESG to ongoing developments in regulation - ESG (environmental, social and governance) will remain a strong focal point into 2024.
- Yet, as we move into the new year, global geographies will look to prioritize and implement their own rules. Furthermore, populations representing 60%+ of global GDP will head to the polls next year, potentially leading to policy uncertainty and a stronger need for clarity.
- As priorities and practices evolve, four trends will continue to be in focus when it comes to sustainability, each having implications for investors, corporates, consumers, and ultimately the world.

The landscape

In 2023, several major regulators and governments passed climate-related bills and reporting requirements into law. This move set up 2024 to be an important year for ESG (environmental, social and governance) and corporate sustainability. As priorities continue to evolve, BofA Global Research has identified four sustainability-focused trends that it expects to continue to be top of mind as we move into the new year. Each of these themes has implications for investors, corporates, consumers, and ultimately the world.

#1: Clean tech and decarbonization: The IRA and NZIA in motion

The net zero transition requires significant investment in clean energy technologies. Asia Pacific is leading this market with China attracting 90% of current investments, making the US and Europe's green transition dependent on the Asia supply chain. To incentivize companies to re-shore manufacturing of green technologies to their respective geographies, build self-dependency, drive investment and create employment, the US introduced the Inflation Reduction Act (IRA) (see [IRA ripple effect: 10 areas of impact](#)) and the European Union (EU) introduced the Net-Zero Industry Act (NZIA).

The US IRA allocates approximately \$400 billion in direct investment to ensure energy security, increase energy innovation and support environmental justice objectives – all while reducing emissions by 40% by 2030. Europe responded to the US policy by introducing the Green Deal Industrial Plan in February 2023, followed by the NZIA in March 2023 with the aim to “enhance the competitiveness of Europe's net-zero industry and support the fast transition to climate neutrality.”

In late June 2023, the European Community (EC) announced the creation of the Strategic Technologies for Europe Platform (STEP) to support and boost investment in critical technologies in Europe. The platform should reinforce and leverage existing EU funds (including InvestEU, Innovation Fund, and Horizon Europe) while developing new funds (up to €160 billion). Meanwhile, the EU created the Sovereignty portal to “help project promoters and companies seeking funds to find the relevant information about funding opportunities under EU budget programmes.” Overall, of the €2,018 billion budget over 2021-27 (EU seven-year budget + NextGeneration EU funds of €807 billion), 30% will be dedicated to climate change and digitalization and support will be provided in the form of grants and loans.

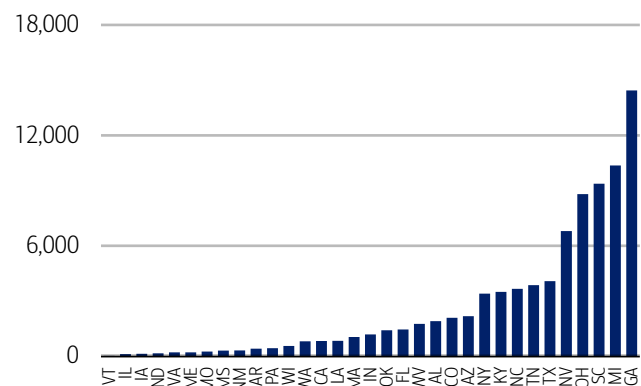
In November 2023, the EU adopted a “framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act).” The latest version proposes to broaden the scope of net zero to nuclear, sustainable aviation fuel (SAF) and recycling technologies, and the EU is targeting to cover 25% of global clean technology production by 2030.

In the US, since the passage of the IRA, newly announced projects in clean energy have resulted in close to 120,000 reshoring and FDI (foreign direct investment) manufacturing jobs being announced (Exhibit 1). The act has also led to significant developments in the ‘battery belt’ region of the Midwest and South (Exhibit 2). In fact, more than 340 new projects worth over \$168 billion have been announced in this area. Of total investment dollars, close to half has gone to electric vehicles

(EVs)/batteries, while the rest went to renewable energy (solar, wind, nuclear), grid and storage, carbon capture, utilization and storage (CCUS) and clean fuels.

Exhibit 1: Jobs generated by private clean economy projects announced post-IRA, 8/2022-6/2023

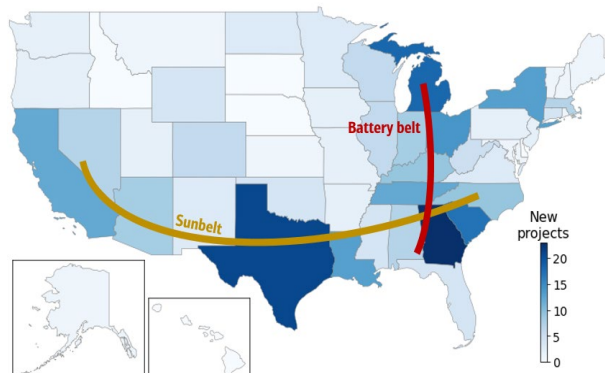
IRA driving job creation, particularly in GA, MI, SC, OH



Source: BofA Global Research, E2 Clean Economy Works project tracker, The White House (invest.gov), IEA CCUS Projects Database. Not all projects disclosed the number of jobs.

Exhibit 2: Number of private clean energy projects announced since the passage of the IRA by state, 8/2022-6/2023

South and Midwest states have seen the highest number of new projects related to the clean economy



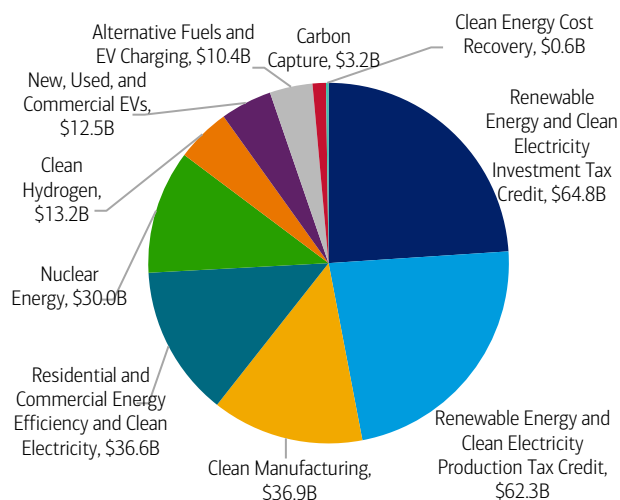
Source: BofA Global Research, E2 Clean Economy Works project tracker, The White House (invest.gov), IEA CCUS Projects Database

Clean energy tax credits have played a vital role in incentivizing wind and solar investments, with the combined capacity of newly announced renewable projects reaching at least 25GW (gigawatts), enough to power 22 million homes. The IRA extends both the Production Tax Credit (PTC) and Investment Tax Credit (ITC) for clean energy projects placed in service from 2021 through 2024.

Starting in 2025, the tax credits will transition from their current form to a new technology-neutral tax credit that is based on emissions. Renewable projects with zero emissions would qualify for the same PTC or ITC tax credit value as the 2021-2024 projects. More importantly, for the first time, the bill has made two methods of monetization for commercial and utility-scale energy projects available – transferability and direct pay. See [IRA ripple effect: 10 areas of impact](#) for more.

Exhibit 3: ITC and PTC make up nearly half of the IRA green tax credits

Green tax credits in the Inflation Reduction Act



Source: EESI, Congressional Budget Office

Exhibit 4: EU NZIA, eight technologies so far in focus

From photovoltaics to carbon capture

Technology	Description
Solar photovoltaic and solar thermal technologies	Electricity and heat storage technologies including solar thermal collectors
Onshore and offshore renewable technologies	Wind technology. Also includes wave and other ocean energy, ambient energy, tide, hydropower, biomass, landfill gas and sewage treatment plant gas.
Battery/storage technologies	Electricity and heat storage technologies including solar thermal collectors
Heat pumps and geothermal energy technologies	Electricity and heat storage technologies including solar thermal collectors
Electrolysers and fuel cells	Electrolysers and fuel cells; advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle, small modular reactors, and related best-in-class fuels
Sustainable biogas/biomethane technologies	renewable fuels of non-biological origin technologies; sustainable alternative fuels technologies (i.e. fuels for sustainable air transport and renewable and low-carbon fuels in maritime transport)
Carbon capture and storage (CCS) technologies	Carbon capture, utilization, and storage technologies
Grid technologies	Smart grids and smart electricity meters

Source: BofA Global Research

EU NZIA narrower scope vs. US IRA

Although the aim of Europe’s Net-Zero Industry Act is to drive investments in Europe and avoid capital flight to other geographies, starting with the United States, its scope is narrower than that of the US’s IRA.

Outside of environmental goals, the IRA also supports various social policies. Over 10% of total IRA spending is dedicated to environmental justice commitments, which support marginalized communities that tend to be disproportionately affected by

pollution and negative health impacts. Another social initiative included in the IRA aims to tackle the issue of medicine affordability and accessibility.

On the other hand, the EU NZIA focuses on eight renewable energy technologies that are already “available, to be launched soon and are scalable.” It may expand to nuclear, SAF and recycling technologies if eventually approved by the EU.

#2: Biodiversity: Opportunities & risks

Biodiversity is the third most important global risk over a 10-year period according to the latest World Economic Forum (WEF) Global Risk report. In fact, nature loss is intrinsically linked to climate crisis and natural resource consumption, while use of land, especially for agriculture and food production, is the main cause of animal and plant species extinction. It is therefore, without changes or investments, a major risk for ecosystem degradation and food security over the medium to long term.

Exhibit 5: Global risks ranked by severity over the short and long term

Perception Survey 2023-2024, "Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period."

Risk categories	2 years		10 years	
Economic	1st	Misinformation and disinformation	1st	Extreme weather events
Environmental	2nd	Extreme weather events	2nd	Critical change to Earth systems
Geopolitical	3rd	Societal polarization	3rd	Biodiversity loss and ecosystem collapse
Societal	4th	Cyber insecurity	4th	Natural resource shortages
Technological	5th	Interstate armed conflict	5th	Misinformation and disinformation
	6th	Lack of economic opportunity	6th	Adverse outcomes of AI technologies
	7th	Inflation	7th	Involuntary migration
	8th	Involuntary migration	8th	Cyber insecurity
	9th	Economic downturn	9th	Societal polarization
	10th	Pollution	10th	Pollution

Source: World Economic Forum, Global Risks Report

According to the WEF, nature-positive solutions could create \$10 trillion in incremental revenue across three ecosystems: (1) Food, land and ocean use; (2) Infrastructure and the built environment; and (3) Energy and extractives. This is in conjunction with cost savings and 395 million new jobs by 2030.

There are numerous emerging opportunities for businesses to adopt nature-positive models. Some of these innovative models are already being pursued with the backing of private capital, such as alternative proteins and food waste-saving technologies. Others, such as land restoration and sustainable fisheries, are still in their early stages but are gaining support from impact-oriented investors, social enterprises, and blended capital. Nature-based solutions are also drawing significant interest from large corporations, although scaling up may require regulatory and policy development.

BofA Global Research believes the trend will accelerate in 2024 as:

- Halting and reversing biodiversity loss has become a key focus since the adoption of the Kunming-Montreal Global Biodiversity Framework (the Paris Agreement for Nature) targets in December 2022 at the UN Biodiversity Conference COP15 (Conference of Parties). Governments of 196 countries are now expected to translate the framework into national plans and policies by the end of 2024. In fact, one of the key discussions at COP28 (Nov.-Dec. 2023) was the extent to which nature is being embedded within countries’ nationally determined contributions (NDCs) and the progress made on updating their National Biodiversity Strategy and Action Plans since COP27.
- The European Commission adopted a new law on nature restoration in November 2023, with the aim of restoring degraded ecosystems across member states’ land and sea habitats while making sure the issue of food security is addressed. Member states will have to restore at least 30% of habitat types by 2030 and introduce measures (grassland butterfly index, share of agricultural land with high-diversity landscape features, and/or stock of organic carbon in cropland mineral soil) to achieve a positive trend.

- The launch of the Taskforce on Nature-related Financial Disclosures (TNFD) and the announcement that more than 250 global companies will be early adopters of its approach should act as a catalyst for: (1) increased disclosure on nature-related strategy, risks, opportunities and metrics; (2) debt and equity stakeholders working through potential exposures and mitigation (scope for de-/re-rating); and (3) growth in biodiversity/blue economy-related indices and financial products.

#3: Increasing focus on the ‘S’

BofA Global Research sees three main reasons underlining a greater focus on the social aspect of ESG:

Human capital as an investment factor

BofA Global Research analyzed job reviews posted on Glassdoor and found the Glassdoor postings identified shifts in employee engagement and corporate culture before it was necessarily visible in financial performance (and share prices). The analysis used Glassdoor data from an alternative data company called Thinknum, where only Stoxx Europe 600 companies are selected, and they did the same with US public companies.

The resulting analysis concludes that keeping workers happy requires more than competitive pay. In the US, employees' perception of their organization's "Culture and Values" and "Senior Management" are the biggest contributors to overall job satisfaction. Meanwhile, "Career opportunities" and "Senior Management" are the weakest areas for EU companies, according to EU employees.

Why do "Culture & Values" matter? Quite simply: better means higher valuation. Companies in top quintile of "Culture & Values" on average have traded at a 20% premium to the bottom quintile over the past 5 years (ex-COVID).

Exhibit 6: Europe – Correlation between Glassdoor overall score and each subcategory score, by sectors (1Q15-2Q23*)

Culture & Values and Senior management = biggest determinant of satisfaction

	Work Life Balance	Culture / Values	Career Opportunities	Comp. & Benefits	Senior Management
Utilities	75%	90%	82%	74%	86%
Energy	47%	87%	79%	68%	85%
Materials	71%	82%	72%	69%	78%
Inf. Tech.	81%	94%	90%	86%	92%
Cons. Staples	71%	89%	73%	67%	85%
Com. Ser.	72%	88%	84%	77%	86%
Financials	71%	87%	83%	72%	86%
Health Care	87%	93%	85%	84%	90%
Industrials	78%	89%	82%	80%	86%
Cons. Dis.	81%	91%	81%	82%	91%
Real Estate	76%	86%	82%	58%	84%
Stoxx 600	74%	89%	81%	77%	87%

Source: Thinknum, BofA Global Research Note: 2Q23 includes March, April and May data as June '23 data was not available. Data for D&I excluded as it is available only from 3Q20

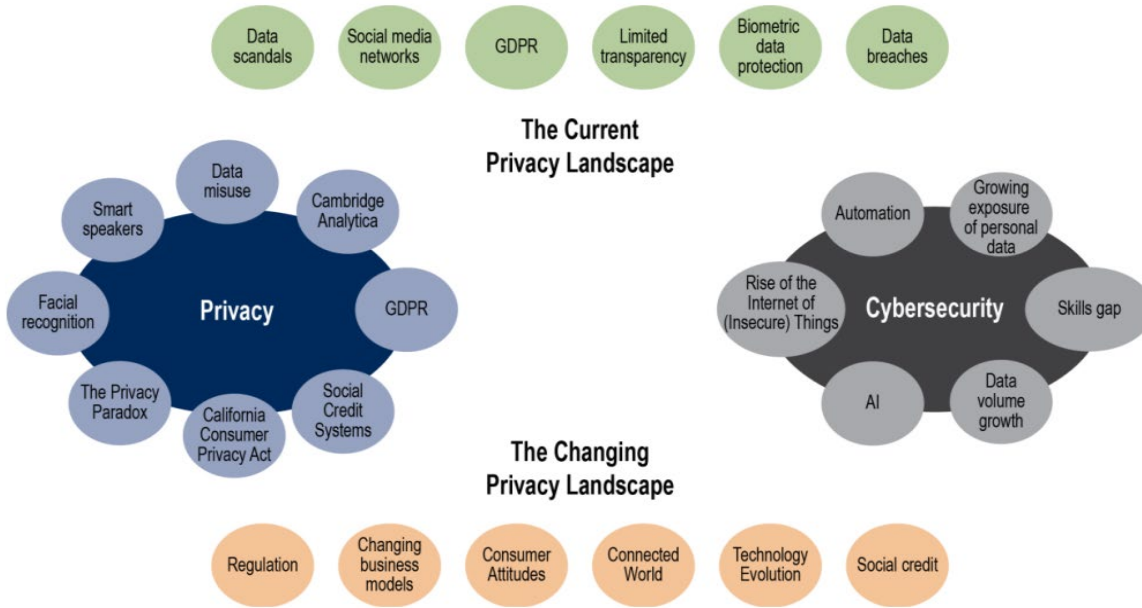
Privacy & data security

Globally, there have been more than 500,000 cybersecurity news events since 2004. According to the European Consumer Organization's 2020 survey, 45-60% of Europeans agree that artificial intelligence (AI) will lead to more abuse of personal data.

The United States, where technology and communication services constitute more than a third of market capitalization, has seen the most cybersecurity incidents and data privacy breaches, particularly in the past five years. The WEF estimates that data breaches cost corporates an average of \$3.6 million per event, and this only includes direct costs. Indirect costs, such as reputational damage, must also be a significant concern. Indeed, reputation has never been more important: the WEF estimates that intangible value may represent as much as 90% of corporates' asset value. See [Caution: Safety first](#) for more on this topic.

Exhibit 7: Privacy versus cybersecurity

Landscape comparison between privacy and cybersecurity



Source: BofA Global Research

Framework for a just transition

According to the International Labour Organization (ILO), a just transition means “greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities, and leaving no one behind. It involves maximizing the social and economic opportunities of climate action, while minimizing and carefully managing any challenges – including through effective social dialogue among all groups impacted, and respect for fundamental labour principles and rights.” Consistent with this sentiment, the transition towards a low-carbon economy has both positive and negative implications for employment.

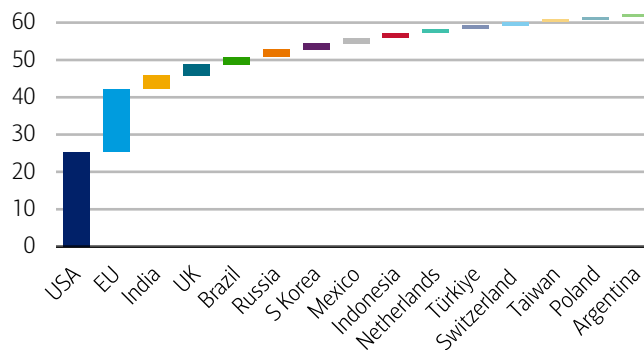
#4: Ongoing developments in regulation

As ESG regulations tighten in the EU and UK, the US faces a growing divide with states heading in different directions. BofA Global Research notes that ESG as a topic is creating a challenging scenario for both corporates and individuals as they navigate business and politics, aiming to safeguard their interests.

Yet as we move into 2024, regulation will remain a topic of conversation with varying geographies looking to implement their own rules. Furthermore, populations representing 60%+ of global GDP will head to the polls next year, potentially leading to policy uncertainty (Exhibit 8). And with upcoming elections, a continued momentum behind ESG-focused laws and regulations, may persist.

Exhibit 8: Countries with elections reach over 60% of world GDP

Cumulative share of world GDP (%)



Source: BofA Global Research, Haver

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