





Sustainability & Resilience Task Force Meeting

June 6, 2022

Upcoming Events

MAINTENANCE, ENGINEERING & ROADWAY OPERATIONS WORKSHOP June 26-28, 2022

Cleveland, OH

2023 Conference Planning Meeting

June 25, 2022

Cleveland, OH



90th ANNUAL MEETING & EXHIBITION September 18-20, 2022
Austin, TX





Today's Agenda

- 1. Welcome
- 2. Note of Recognition
- 3. Review of IBTTA Board Meeting and RUC & Finance Conference, May 14-17, Denver, CO
- 4. Upcoming Events
 - a. 2023 Conference Planning Meeting June 25, Cleveland, OH
 - b. Maintenance, Engineering and Roadway Operations Workshop June 26-27, Cleveland, OH
 - c. 90th Annual Meeting & Exhibition September 18-20, Austin, TX
 - d. Global Tolling Summit, October 23-25, Dublin, Ireland
- 5. Coordination with the IBTTA International Committee on Green Mobility
 - a. Proposed 90-minute session of October 6, 11am-12:30pm EDT
 - b. Invited presentations with discussion
- 6. Revival of the IBTTA International Tolling Newsletter
 - a. Proposed semi-annual blog format focused on a specific topic
 - b. First topic: Resilience and Sustainability (August / September 2022)
- 7. Sustainability & Resilience Task Force Website Review
- 8. Featured Presentation Christine Weydig







Sustainability + ESG

Considerations for what the transition means for transportation

5/14/2022

Agenda

- Context: Climate, ESG, Environmental Justice/Climate Equity
- PANYNJ Sustainability Journey
- EJ/Climate Equity
- PANYNJ EJ Efforts
- ESG: History, Trends, Disclosure, Management
- Discussion



2022: Climate Emergency Worsens

Science

Earth is warming faster than previously thought, scientists say, and the window is closing to avoid catastrophic outcomes

Climate Change May Fuel "Devastating"

Disease Outbreaks

"Eight years left to turn the ship": Scientists share how climate change could change daily life

The climate crisis is supercharging rainfall in hurricanes, scientists report

Global politics & commitments



COP26 Ends With Promises, but Not Nearly Enough Progress

Money for poorer nations, fossil fuel subsidies cause rifts at UN climate summit

Climate crisis could cost US \$2 trillion each year by the end of the century, White House warns







2022: Federal Climate Agenda

Policy ambitions



Biden bets on net zero

Biden pledges to slash greenhouse gas emissions in half by 2030

After going dark on the climate stage, United States reclaims leadership role at

COP26

Kerry warns world is on track to surpass key climate threshold unless global leaders step up

Implementation Challenges

Pandemic, war, politics hamper global push for

climate action

Biden Crafts a Climate Plan B: Tax Credits, Regulation and State Action



US Infrastructure Bill Makes Headway on Climate, But More is Needed

Biden promises bold climate action, but Build Back Better bill still in question



Environmental Sustainability

Sustainability pillars gateway to ESG, build upon CSR

United Nations (circa 1987): "meeting the needs of the present without compromising the ability of future generations to meet their own needs."

USEPA: "Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. To pursue sustainability is to create and maintain the conditions under which humans and nature can exist in productive harmony to support present and future generations."





ESG/CSR/Sustainable Investing

Evolution of ESG

3 PARADIGM SHIFTS IN THE EVOLUTION FROM CSR TO ESG

from Message to Meaning

ESG incorporates transparent and specific metrics that bring a new layer of meaning to impact storytelling.

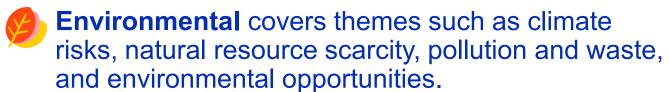
from Silos to Systems

ESG issues are intersectional by nature and requires a system-based approach to management.

from Cost Saving to Value Creation

ESG acts as a strategic lever to deliver on a company's Purpose, thereby driving growth and performance.

Utilizing three key factors (triple bottom line) to measure the sustainability and ethical impact of investment in a business or company.







Corporate sustainability is an approach aiming to create long-term stakeholder value through the implementation of a business strategy that focuses on the ethical, social, environmental, cultural, and economic dimensions of doing business.



Stronger Government focus on ESG

Recent focus areas for the Biden administration with respect to ESG disclosures

"There is room for discussion as to which specific ESG risks and impacts should be disclosed and how. But the time for silence has passed. It's time for the SEC to lead a discussion—to bring all interested parties to the table and begin to work through how to get investors the standardized, consistent, reliable, and comparable ESG disclosures they need to protect their investments and allocate capital toward a sustainable economy." - SEC Commissioner Allison Herren Lee ESG Watch: 'Writing is on the wall' for U.S. companies with SEC's tough new rules on reporting climate risk

Forbes

Mar 15, 2021, 01:00am EST, 1, 702 views

Five Ways The Biden Administration Advanced Sustainable Investing In Its First 50 Days, Including Two Last Week



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I write about public policy and sustainable and impact investing





Stronger Investor focus on ESG

Larry Fink's annual letter to CEOs – aimed at business leaders and anticipated by investors, companies – is a bellwether of where finance is going



- It's been two years since I wrote that climate risk is investment risk. And in that short period, we have seen a tectonic shift of capital. Sustainable investments have now reached \$4 trillion.
- Every company and every industry will be transformed by the transition to a net zero world. The question is, will you lead, or will you be led?
- As stewards of our clients' capital, we ask businesses to demonstrate how they're going to deliver on their responsibility to shareholders, including through sound environmental, social, and governance practices and policies.
- We need governments to provide clear pathways and a consistent taxonomy for sustainability policy, regulation, and disclosure across markets.



PANYNJ Journey

Strong sustainability practice leads to early steps towards ESG platform

2018 Port Authority Sustainability Targets

- Embraced Paris Climate Accords (first U.S. transportation agency to do so)
 - 35% greenhouse gas reduction (GHG) by 2025, for PA <u>direct</u> emissions
 - 80% x 2050 for <u>direct</u> and <u>indirect</u> emissions
- Approved 12 new initiatives to reduce PA emissions and facility user emissions ("Clean Dozen")



Net-Zero Roadmap

"Net-Zero" refers to a state in which GHG emissions are eliminated or offset

The path to net-zero is conceptually simple

- All vehicles become electric vehicles
- Buildings are efficient
- On-site solar
- Grid power all from renewable sources
- The most challenging nuts to crack are aircraft, ships, and to a lesser extent building heating/cooling

Partners in all segments have adopted or are moving toward net-zero goals, enabling real collaboration



Raising Climate Ambitions: November 2021

Revised Port Authority targets to align with Biden-Harris climate goals:*

- Re-affirmed interim target of 35% by 2025 for emissions under direct control
- Established <u>new</u> interim target of 50% by 2030 for emissions under direct control
- Raised 2050 target to net-zero for all emissions (from 80% by 2050)

Adopted 12 new initiatives as tangible, near-term steps towards goals



^{*} President Biden commitment (Earth Day 2021): 50-52% by 2030, net-zero by 2050, economy-wide

Initial Steps: 2018 "Clean Dozen"

Category	Initiatives	Status
Electrification	1) 36 intra-airport shuttle buses	Completed
	2) 50% of PA's light vehicle fleet to electric models	In progress (50% by 2023)
	3) JFK fast-charging hub	Completed
Renewable energy	4) Solar and fuel-cell initiatives at 6 Port Authority facilities	Completed (1 project) In progress (4 projects)
	5) 5MW community solar project at JFK	In progress
Sustainable buildings / energy efficiency	6) LED re-lamping initiatives/upgrades	Completed (3 projects) In progress (2 projects)
	7) \$100 million for multiple energy efficiency projects	In progress
	8) Sustainability measures in airport redevelopment projects	Completed (in leases)
Indirect emissions and partnerships	9) Pilot straddle-carrier at the Elizabeth-Port Authority Marine Terminal	In progress
	10) Extend the Ocean-going Vessel Clean Vessel Incentive Program	Completed
	11) Offshore wind support for NY and NJ	In progress
	12) Join and partner with 6 sustainability coalitions	Completed



Proposed New Initiatives – Clean Dozen 2.0

Category	Initiatives
Electrification	1) Deploy 20+ more electric airport shuttle buses JFK, EWR (up from 36 in service)
	2) Achieve 100% electric PA light vehicle fleet by 2030; 50% medium/heavy duty fleet by 2035
	3) Adopt airport policy for zero-emissions Ground Support Equipment (GSE)
	4) Adopt port policy for zero-emissions Cargo Handling Equipment (CHE)
	5) Implement airport fast-charging hubs for taxis and For-Hire-Vehicles (EWR, LGA)
	6) Develop "Getting to Zero" electrification strategy, issue RFI
Renewable energy	7) Maximize on-site solar; additional solar installations at 4 PA facilities
	8) Increase purchase of electricity from clean renewable sources
	9) Advance use of Sustainable Aviation Fuel; issue Logistics and Production report for PA airports
Sustainable buildings / energy efficiency	10) Set net-zero building standards; expand energy efficiency program (launch 8 new projects); strengthen low-carbon construction requirements
	11) Issue Airport recycling policy, PA Zero Waste target
	12) Set net-zero vision for new PABT, accommodate all-electric bus fleets
Indirect Initiatives and Partnerships	Join Global Commercial Drive To Zero, Clean Skies for Tomorrow coalition



Environmental Justice & Climate equity

Addressing racial inequalities through the lens of sustainability

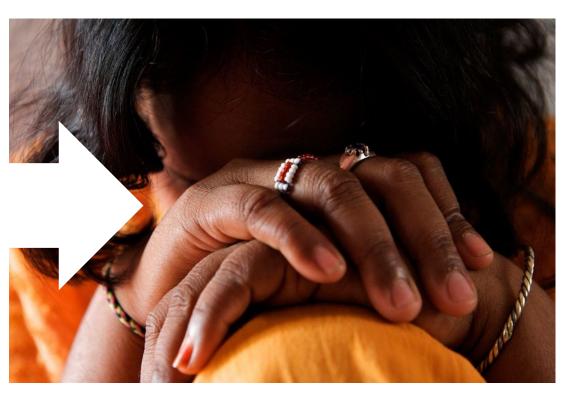
Environmental justice



Social license to operate and grow depends on relationship with communities



Nature is separate from us and is therefore exploitable



Some people are different to us and therefore exploitable



Real world examples

Environmental justice and climate equity



Local Example: Environmental injustice

Local air pollution due to surrounding industries – leading to increased rates of asthma. Ironbound community – illnesses contributing to more sick days in students, exacerbating economic divide



Global Example: Climate inequity

Developed countries are responsible for 79% of historical emissions while many developing nations will feel the direct impact – particularly low-lying islands in the pacific and those reliant on agriculture



Biden priority

EJ is central in plans towards economic growth, Infrastructure investment and climate action



THE BIDEN PLAN TO

SECURE ENVIRONMENTAL

JUSTICE AND

EQUITABLE ECONOMIC

OPPORTUNITY



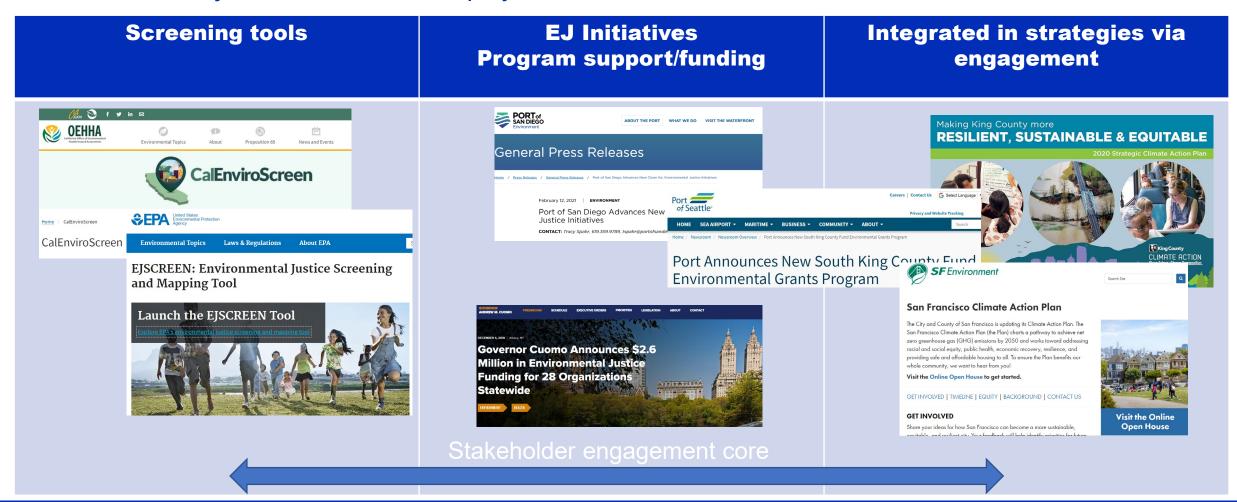


- Environmental justice is a top priority of the Biden-Harris administration
- EO to "Secure Environmental Justice and Spur Economic Opportunity" Under this first step to deliver on his campaign's EJ commitments
- EO takes two critical steps in identifying and targeting benefits to disadvantaged communities
 - Identifying: development of an EJ screening tool that will build upon EJSCREEN, (EPA's existing tool)
 - ➤ **Targeting:** "government-wide Justice40 Initiative" 40% of overall benefits of "relevant federal investments to disadvantaged communities"



Examples of EJ / Climate Equity

Environmental justice and climate equity





New York State

Environmental justice programs

- The Office of Environmental Justice (OEJ) works to address environmental issues and concerns that affect primarily low income and minority communities through:
 - Grant opportunities,
 - enforcement of environmental laws and regulations,
 - consultation,
 - guidance,
 - and enhance public participation.

Environmental Justice Programs

- Indian Nation Consultation
- Green Infrastructure
- Operation ECO Quality
- Grant Opportunities

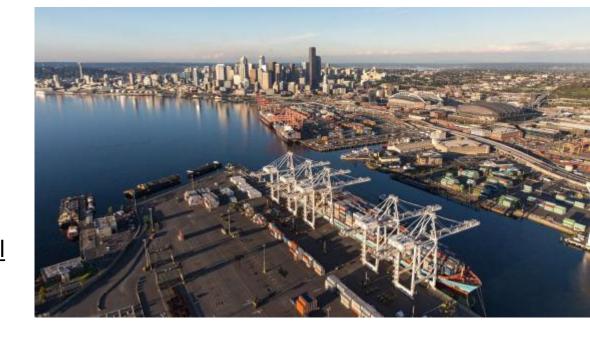




Port of Seattle

Inclusive climate action planning

- Community-led groups can apply for funding to improve the local environment in near-airport communities
- The new <u>South King County Fund (SKCF) Environmental</u>
 <u>Grants Program</u> supports activities such as
 - public space improvements,
 - equipment or artwork installations,
 - or neighborhood or environmental stewardship projects
- "Environmental stewardship and community investment are at the heart of our COVID-19 response and recovery strategy," said Commissioner Stephanie Bowman.
- The South King County Fund prioritizes communities most impacted by environmental justice and prioritizes equity-based investments in near-airport communities
- Provide resources and support to historically-underserved near-airport communities, addressing noise mitigation, environmental health and sustainability.





King County SCAP

2020 Strategic Climate Action Plan Update

 King County's Strategic Climate Action Plan (SCAP) is a fiveyear blueprint for County climate action, integrating climate change into all areas of County operations and work with King County cities, partners, communities, and residents.



- The 2020 SCAP includes a new Sustainable & Resilient Frontline Communities (SRFC) section focused on climate equity and community-driven policy.
- The SRFC framework was developed through a community-driven process with leaders of frontline communities, as part of the <u>Climate Equity Community Task Force (CECTF)</u>
 - established the goals and identified the priority areas for climate action based on climate justice values and community needs
- Frontline communities are those communities that often experience the earliest and most acute impacts of climate change, face historic and current inequities, and have limited resources and/or capacity to adapt.



SF Climate Action Plan

Inclusive climate action planning



- San Francisco Climate Action: 0-80-100-Roots is San Francisco's climate action framework
 - Zero Waste
 - 80% Sustainable Trips
 - 100% Renewable Energy
- The San Francisco Climate Action Plan (the Plan), to be released in 2021, charts a pathway to achieve net zero greenhouse gas (GHG) emissions by 2050
- works toward addressing racial and social equity, public health, economic recovery, resilience, and providing safe and affordable housing to all.
- Extensive stakeholder engagement and multiple opportunities for feedback



Port of San Diego

Inclusive climate action planning

- Development of the County of San Diego's Regional Carbon Sustainability Plan – uncertain if this will address climate equity
- Port's Maritime Clean Air Strategy (MCAS) to identify and prioritize projects to further reduce emissions and improve air quality on and around San Diego Bay



- The Port and The San Diego Foundation have entered a MOU to advance a collaborative partnership to
 - explore opportunities for program alignment and investment support coastal access,
 - climate initiatives and coastal resiliency,
 - environmental conservation and stewardship,
 - environmental justice, and a thriving, sustainable waterfront

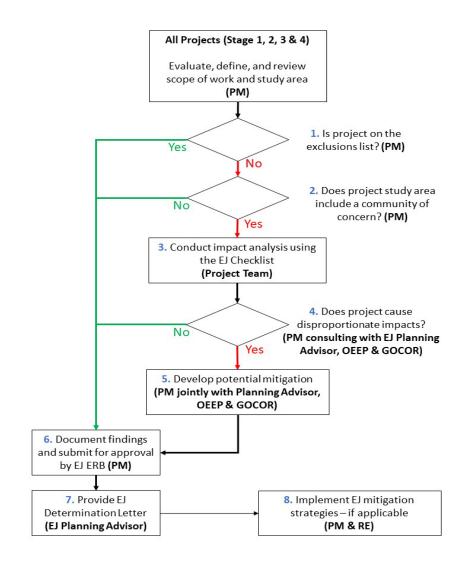


PANYNJ EJ efforts

Current practice and future opportunities

PA EJ Guide

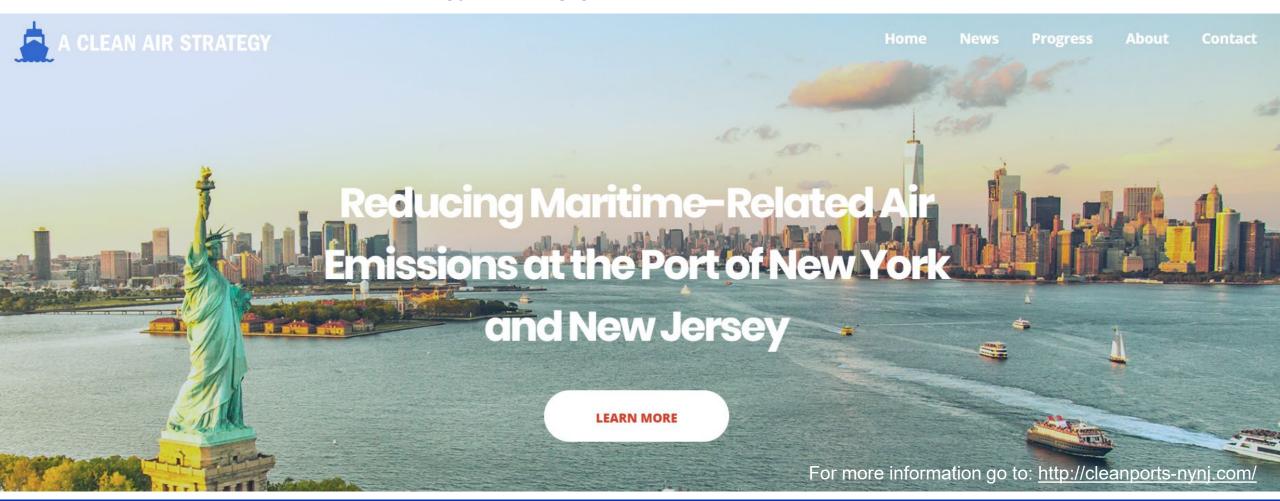
- The project review process is integrated with project development to identify issues early
- The process has been streamlined to focus staff attention on significant impacts that require mitigation
- This should work together closely with public participation through GOCOR





Port Authority Programs

Port Department Clean Air strategy working group





Inclusive & equitable climate action

Delivering on 80% by 2050 through inclusive and collaborative community engagement

Can we co-develop projects with local EJ communities?

- Meet environmental concerns of local communities
- Meet climate/sustainability ambitions of the agency
- Meet diversity/societal ambitions of the agency
- Impact is long lasting and measurable



ESG

Changes in the regulatory and investment environments

History of ESG

ESG builds upon the **Socially Responsible Investment** approach of ethical and moral criteria and moves away from negative screens (e.g. firearms, alcohol, tobacco). ESG has financial relevance.

2004	UNGC, IFC and Swiss Government convenes over 50 CEOs to find ways to integrate ESG into capital markets
2005	"ESG" was first coined in the landmark study "Who Cares Wins"
2006	Launch of the Principles for Responsible Investment (PRI) at the NY stock exchange – 3,038 signatories representing US\$103.4 trillion as of 31 March 2020
2006-2007	Sustainable Stock Exchange initiative (SSEI)
2013-2014	Good ESG management linked to good financial results
2015	Task Force for Climate Related Financial Disclosure
Now	Investors recognize ESG information as vital to understanding corporate purpose, strategy and management quality; SEC proposes new rules for climate-related disclosures; Municipal Securities Rulemaking Board solicits input on standardizing ESG reporting for muni bonds ESG investing in 2021 was \$120 billion, more than double \$51.1billion in 2020. Global ESG fund assets increased to \$2.74 trillion in December 2021, up from \$1.65 trillion in 2020

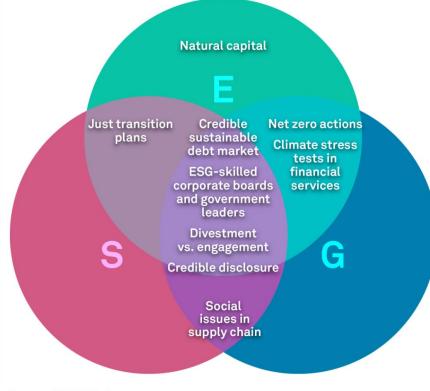


2022 ESG Trends

Headwinds to ESG focus in financial markets

- Corporate boards must demonstrate that they are equipped to understand and oversee ESG issues — from climate change to human rights to social unrest.
 Shareholder activism will grow and expectations to diversify boards will continue to evolve
- Global standard-setting bodies such as the <u>newly formed</u> International Sustainability Standards Board can establish a common baseline for disclosure standards consistent across jurisdictions and industries.
- Governments and companies will have to provide <u>credible</u>, <u>achievable near-term</u> <u>signposts</u> on their path to decarbonization and will be doing so in a <u>broader</u> <u>economic and geopolitical climate</u> marked by inflationary trends, higher energy costs, and tightening monetary policy, which will sharpen attention to social implications of the transition.

The intersection of key ESG trends for 2022



Source: S&P Global



Changes to ESG disclosure (Corp.)

If demands from shareholders aren't enough to move companies to improve ESG performance, then regulators will. Indications from the US Federal Government, the EU and standards converging.







US Federal Government

- One of the biggest areas to be addressed by the Biden Administration is on disclosure
- SEC will require public companies to disclose climate-related financial risks and greenhousegas emissions in their operations and supply chains

International Government

• The **EU Taxonomy** established in 2020 and **Sustainable Finance Disclosure Regulation** ("SFDR") came into force on 10 March 2021. It will impose ESG disclosure requirements for financial services focusing on ESG risk and opportunity management.

Countries Ramp Up Rules Regarding ESG Disclosure

The SEC has proposed rules to make more formal the current voluntary 'alphabet soup' approach



International standards on ESG disclosure

- Calls for **international agreement on sustainability reporting standards** recognize that businesses and investors operate across borders and need the ability to compare data and information across jurisdictions.
- International Financial Reporting Standards Foundation (IFRS) brings together main reporting bodies to create a unified reporting approach. Currently climate focused, building upon TCFD but will bring in ESG. Aspects that are financially material.

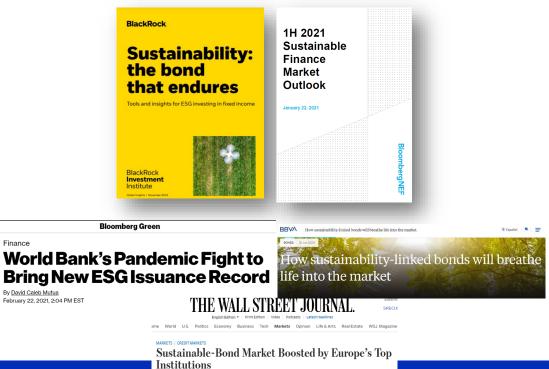


ESG and the debt market

Pressure mounting to conform reporting and standards for debt market. A review of current literature points to two emerging and related themes

Market pressure on investors

ESG investing is becoming increasingly popular - investors want to **green their portfolio** due to external demand



Plans at ECB and European Commission would significantly increase the size of the market for

vironmentally friendly honds

Credit rating agencies & insurers

ESG risks and opportunities may need to be managed

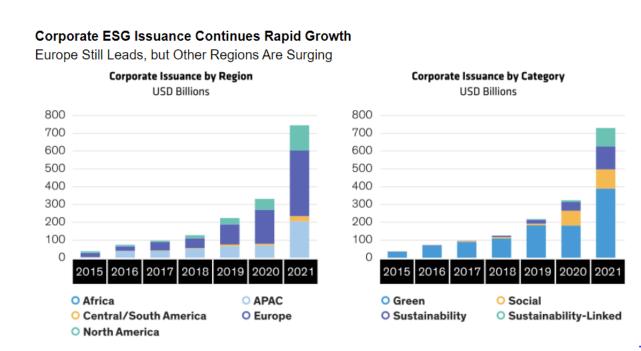




Growth in ESG related debt

The growth of the sustainable debt market is part of a bigger trend: the surge of interest in ESG (environmental, social and governance) investing and sustainability as a whole.

- Moody's: ESG bond market alone will hit about \$1.4 trillion in 2022, as issuers try to tap into seemingly insatiable demand for ethical investments
- Social bond volumes will continue to rise, but at a slower rate than in 2020 it grew 720% during the pandemic (bottom chart)
- More than 330 new ESG funds were launched during the first three quarters of 2020
- ESG assets are on track to hit \$53 trillion by 2025.
 This would represent around a third of global assets under management
- Capital markets will have to supply that surging demand



Types of sustainable debt

The activity-based debt market makes up 86% of the entire sustainable debt market, with behavior-based debt at 14%

Table 1: Sustainable debt labels and characteristics

Debt Type	Debt style	Purpose	Market size (\$bn)	Proportion of sustainable debt
Green bond	Activity-based	Environmental projects	1139.0	49.5%
Social bond	Activity-based	Social projects	192.4	8.4%
Sustainability bond	Activity-based	Environmental & social projects	143.3	6.2%
Sustainability-linked bond	Behavior-based	Institutional ESG targets	15.6	0.7%
Green loan	Activity-based	Environmental projects	501.4	21.8%
Sustainability-linked loan	Behavior-based	Institutional ESG targets	311.0	13.5%

- Green bonds are the **most popular** variety of sustainable debt, though in 2020 there was a **surge in social bond** issuance assumed due to the pandemic.
- By the end of 2020, green bonds alone made up 49.5% of the cumulative sustainable debt market, though that **proportion has been shrinking year by year**, as other debt varieties gain in popularity, and more emerge.



Activity-based debt:

finance new, or refinance existing, green projects or activities. The money raised must be used for these activities, which can be for environmental benefit, social benefit, or both. The profile of the issuer should be immaterial, as long as the activities are eligible – such as greenhouse gas emission reductions, or biodiversity conservation.

Behavior-based debt:

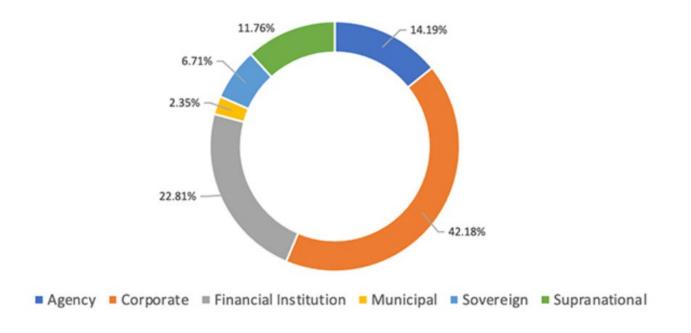
raise money for general purposes. The activities performed with the raised money are not what earns behavior-based debt types their "sustainability" label. Behavior-based debt is dubbed "sustainable" when it is tied to a sustainability target for the issuer — requiring them to modify their behavior. This could be a greenhouse gas emission reduction goal, a quota for diversity in the workforce, or many others. (e.g. Sustainability linked bonds)



Example Green bond issuers

Countries and agencies issuing green bonds

Share of Q1 2022 sustainable issuance by issuer type



Green bond market score card					
	2021	2020	Percent change YOY		
Size of market	USD522.7bn	USD298.1bn	75%		
Number of issuers	839	636	32%		
Number of instruments	2,089	1,749	19%		
Average size of instrument	USD250m	USD165m	51%		
Number of countries	58	56	3.5%		
Number of currencies	33	34	-3%		
The green debt market returned to rapid growth, with volumes increasing by 75% YOY. The green theme continued to attract new issuers and included a total of 839 issuers during the year. The average size of individual green bonds rose by more than 50% to reach USD250m. The addition of developed market (DM) sovereign bonds from new and existing issuers no doubt contributed to that growth.					

Source: Climate Bonds Initiative



Credit rating agencies & insurers

From a rating agency perspective, there can be a correlation between higher credit quality and the inclusion of ESG factors in a government's goals and practices.

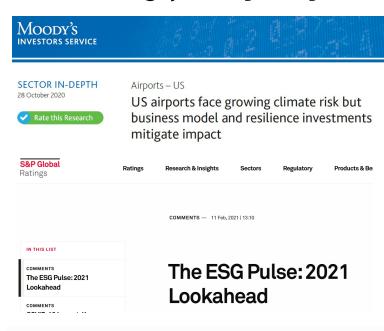
Credit Rating Agencies (Moody's, Fitch, S&P)

- The credit rating agencies are now integrating ESG data into their credit rating methodologies. While these changes are still in their early stages, over time integration of ESG factors into corporate credit ratings will have a profound long-term impact on financial markets.
- Forward-thinking organizations must keep these coming changes in mind to ensure they remain competitive.
- Does not yet impact credit ratings

Insurers

- Insurance companies in Europe and Asia Pacific are at different stages of their journey to integrate environmental, social and governance (ESG) factors into their businesses
- Report "Insurers and Reinsurers: Ignoring ESG Factors Poses Reputational Risk", majority of 100 insurance respondents recognize that proper understanding and integration of ESG factors is increasingly critical to the long-term viability of their businesses.
- However, overall there is a <u>marked lag between recognition of ESG risks and action being</u> taken to mitigate those risks.

ESG Is Increasingly Important in Credit Ratings, Moody's Says



Why Insurers Care About Your ESG Story



ESG management

ESG factors refer to specific areas that present **risks or opportunities** that could affect the credit profile of a government issuer and long-term sustainability of an investment.

Investors believe they will be able to sustain better returns over the long term and/or avoid credits experiencing distress by investing in entities that have **fewer ESG risks or are actively managing those risks**, as well as those who utilize good governance policies. .



Environmental Factors

- Extreme weather, flooding, sea level rise
- Climate change affecting agriculture, infrastructure, and water supply
- Impact of carbon emission regs
- Violations & consent decrees
- Supply chain disruption



Social Factors

- Demographic changes & population trends affecting demand for services
- Income levels, inequality
- Dependent populations
- Affordability of government services
- Tax structure, taxing ability
- Labor unrest



Governance Factors

- Federal/state framework
- Management & policy framework
- Decision making transparency
- Headline risk
- · Organizational structure
- Risk culture & risk mitigation
- Deferred maintenance
- Pension & OPEB

An ESG *risk* is identified as such because it could pose a risk to the government issuer's ability or willingness to repay its debt. An ESG *opportunity* is a little more subtle than a risk. It refers to an ESG-related credit strength.



Discussion & Brainstorming

Questions for discussion

Should we be looking into this? (Even if it doesn't look like it will be a requirement in the foreseeable future)

We all have existing initiatives – should we consider collaborating and internally streamlining efforts across E, S and G?

Is there a risk in doing this work?

How can we incorporate ESG into corporate strategy and processes?

