G7 ENVIRONMENT Financial Centres and Sustainability

Expert Roundtable

Borsa Italiana, Piazza degli Affari 6, Milano Thursday 23 February





Session 1: Introductions and Overview

Welcome: Aldo Ravazzi (Ministry of Environment, Italy)

Participants' introductions

Meeting overview: Nick Robins (UN Environment)







Session 2: **Greening Financial Centres - The Challenge**

Toby Heaps, Corporate Knights Milan, February 2017



OVERVIEW



Harnessing financial centres will be critical for progress with sustainability for policy, market and economic reasons

A growing number of financial centres are mobilizing on sustainability and green finance

A review of leading G7 centres highlights some key features of sustainable financial centres

The G7 could support this trend through encouragement for action at the national and international levels



GREEN FINANCE: THE OPPORTUNITY



"Green finance is a major opportunity.

By ensuring that capital flows finance long-term projects in countries where growth is most carbon intensive, financial stability can be promoted.

By absorbing excess global saving, equilibrium interest rates can be raised and macroeconomic stability enhanced.

And by allocating capital to green technologies, the prospects for an environmentally sustainable recovery in global growth will increase."

- Mark Carney, Governor, Bank of England, Berlin, 2016



THE GLOBAL MOMENTUM







WHY ARE FINANCIAL CENTRES IMPORTANT?



Financial centres are places where there is "an intense concentration of a variety of financial businesses & transactions."

Key reasons for focusing on financial centres:

- **Policy:** local and national governments are interested in how their financial centres are mobilizing capital to deliver key environmental, climate and sustainable development targets.
- Market: financial centres themselves are interested in how sustainability factors could create new opportunities & risks.
- **Economic:** how financial centres are serving the real economy as it makes its sustainability transition



FINANCIAL CENTRES ARE MOBILIZING



Several financial centres are seeking to harness momentum: new initiatives to promote competitiveness & support coherence across diverse stakeholder groups



City of London CorporationGreen Finance Initiative



Casablanca Finance City Authority
Promoting CFC as regional green finance hub



Hong Kong Financial Services Development CouncilRegional Green Finance Hub



Luxembourg Stock ExchangeClimate Finance Task Force



Paris Europlace
Paris Green and Sustainable Finance Initiative



G7 REVIEW: EMERGING TRENDS



- 1. **Diversity**: Each G7 country has distinct factors driving financial centre development; no single template for green finance.
- 2. Multi-Asset Opportunity: Green bonds have been a green finance catalyst, but are just part of a much wider trend.
- 3. Institutions matter: Progress requires involvement of anchor institutions and key public authorities.
- **4. Policy dynamics:** Policy & regulation important both for spreading good practice & creating demand for green financial services.
- 5. Market mainstreaming: Sustainability factors are relevant and potentially significant for financial centre performance.

10 DIMENSIONS OF SUSTAINABLE FINANCIAL CENTRES





NEXT STEPS



National action:

G7 and other countries could encourage their financial centres to develop strategies that scale up sustainable finance.

International cooperation:

G7 countries could encourage the formation of a network of financial centres working on sustainability.

Work areas could include:

- I. Building convergence on key definitions, principles & measurement
- II. Strengthening the pipeline of green assets
- III. Collaborating on developing green financial markets

Session 3: Financial Centre Perspectives

Mike Manning

Canada – Toronto: France – Paris:

France – Paris: Philippe Zaouti

Germany – Frankfurt: Kristina Jeromin (via video)

Italy – Milan: Sara Lovosilo

Japan – Tokyo: Takejiro Sueyoshi

UK – London: Fred Packham

USA – New York: Cary Krosinsky

Session 3: Financial Centre Perspectives

Canada - Toronto





Province of Ontario

G7 Financial Centres for Sustainability

Milan, Italy February 2017





Financial Centre Perspectives – Toronto

- Toronto is Canada's largest city in terms of population and economic activity:
 - With 6.1 million people, the Toronto metropolitan area accounts for 44 per cent of Ontario's population. By 2040, the region's population is projected to grow by 41 per cent to almost 9.4 million people.
 - Real GDP was estimated at \$318 billion in 2015¹, accounting for about 48 per cent of Ontario's output, and the financial services sector in the Province generates almost 10 per cent of Ontario's GDP.
- Toronto is the financial capital of Canada and has the second largest employment in finance and insurance in North America.
- Banker Magazine ranks Toronto 7th as an international financial centre and Toronto ranks 13th on the Global Financial Centres Index².
- The Toronto Stock Exchange is the world's 8th largest stock exchange by market capitalization.
- The 2016 PWC Cities of Opportunity global study, which benchmarks 30 cities against an extensive set of social and economic qualities ranked Toronto 3rd in the world to live and work, after London and Singapore.

Ontario

¹ Conference Board of Canada Spring 2016 Metropolitan Outlook ² As of September 2016



Ontario Green Bond Program

- In 2013, Ontario's Premier announced that Ontario would be the first province in Canada to issue Green Bonds.
- The Province's Green Bond Program commenced in 2014, followed by two subsequent issues in 2016 and 2017. To date, total Green Bond financing amounts to CAD 2.05 billion. Ontario remains committed to the Green Bond market and expects to continue to access the Green Bond market on an annual basis.
- Ontario's Green Bonds are used to help finance transit and other environmentally friendly infrastructure projects across the Province and are supported by Ontario's infrastructure spending plan of more than \$160 billion over 12 years starting in 2014–15.
- Canadian dollar global format was used for all three issues to promote domestic and international investor participation and to continue helping establish a Canadian dollar Green Bond market and attract new investors.
- All three Green Bond issues help fund the Eglinton Crosstown LRT project in Toronto (CAD 5.3 billion), the largest public transit expansion in the history of the region.

	Inaugural Green Bond (1.75%, October 9, 2018)	Second Green Bond (1.95%, January 27, 2023)	Third Green Bond (1.95%, January 27, 2023)
Size:	CAD 500 Million	CAD 750 Million	CAD 800 Million
Pricing Date:	October 2, 2014	January 22, 2016	January 26, 2017
Project Categories:	Clean Transportation (1 project)	Clean Transportation (3 projects); Energy Efficiency & Conservation (5 projects)	Clean Transportation (6 projects); Energy Efficiency & Conservation (6 projects)
Green Mandates/ UN PRI Signatories:	85%	70%	78%
Domestic/ Foreign Investors:	83% / 17%	65% / 35%	79% / 21%
>			

Promotion of Green Finance

Dealer Engagement

- The Province utilizes the 12 dealers in Ontario's domestic underwriting syndicate to optimize both primary issuance and secondary market-making.
- Ontario's domestic syndicate members compete to be part of Ontario's Green Bond syndicate. They submit a
 written proposal on the best approach for issuing Green Bonds. This approach ensures that the dealers in
 Canada are up to speed on developments in the Green Bond market.

Investor Engagement

- The 2016 Canadian Responsible Investment Trends Report indicates that responsible investments in Canada have surpassed \$1.5 trillion as of December 31, 2015. There have been encouraging signs of growth in the Canadian-dollar space, with new issuers and investors entering the market, mirroring the global market expansion in Green Bonds.
- Ontario's Green Bonds meet the high transparency standards required by both investors and Green Bond indices.
 Ontario expects to continue to meet the reporting standards of the Green Bond Principles.
- · A Green Bond conference sponsored by a major Canadian dealer is held in Toronto annually.

Government Involvement

 The Green Bond program promotes collaboration with other Agencies and Ministries such as the Ministry of the Environment and Climate Change.





Ontario Addressing Climate Change

In June of 2016, Ontario's Five Year Climate Change Action Plan was released with a goal of achieving its greenhouse gas (GHG) emissions reduction target of 80 per cent below 1990 levels by 2050. Through the following initiatives, the Province is well positioned for a move towards a low-carbon economy:

Cap-and-Trade Program

Starting 2017, the Province is implementing a cap-and-trade program to place a cap on GHG emissions, create limited tradable
emissions allowances for a given period and require covered emitters to hold allowances equal to their emissions. Ontario's first
cap-and-trade auction will be held in March 2017.

Green Investment Fund

• In 2015, the government announced a \$325 million Green Investment Fund to commit to projects that will fight climate change.

"Green Bank"

 Ontario has announced its intention to establish a "green bank" to deploy and finance readily available low-carbon energy technologies to reduce carbon pollution from Ontario buildings.

Green Bond Program

- Ontario had investor meetings last year which focused on Ontario's environmental policies and programs in addition to the regular fiscal and economic updates. This allowed investors to include environment factors into the Province's overall credit assessment.
- For more information on Ontario Green Bonds, please visit: http://www.ofina.on.ca/greenbonds

Ontario's green initiatives make it well positioned to transition to a low-carbon economy.







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SUSTAINABLE FINANCE AT THE HEART OF THE INTERNATIONAL AND FRENCH AGENDA



UN Sustainable development goals (SDG's)































G20 2016 Green Finance Study Group and B20 2017 Task Forces on Financing Green Growth





COP21 and Paris Agreement

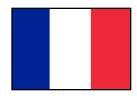






High Level Expert Group (HLEG) on sustainable finance





- Energy Transition Law (TEEC), article 173 VI
- Energy transition and SRI Labels
- · 1st sovereign green bond



- 2008 : Conference on how to mobilise the financial sector for a more responsible finance with the Pdt of the Republic and the Pdt of the European Commission
- 2013 : "Responsible Finance : 10 proposals for Europe"
- · 2015 : 1st Climate Finance Day in Paris
- · 2016: Launching of the Paris Green and Sustainable Finance Initiative, publication of a report with 15 recommendations, 2nd Climate Finance Day in Casablanca



THE PARIS FINANCIAL MARKET PLACE: WHAT CONTRIBUTION?





View of the French Market players

 42 interviews from july to september 2016

Review of the main and most recent data and studies

3 OBJECTIVES

1/ Understand the context in which the sustainable and green finance market is developping

2/ Make a general overview of the strength of the Paris financial marketplace in terms of green finance

3/ Make recommendations

- 3 strategic axes/workstreams
- 15 recommendations





The Paris Green and Sustainable Finance Initiative THE 3 STRATEGIC AXES OF THE REPORT



@europlace





- strengthen expertise and offering
- capitalize on existing expertise



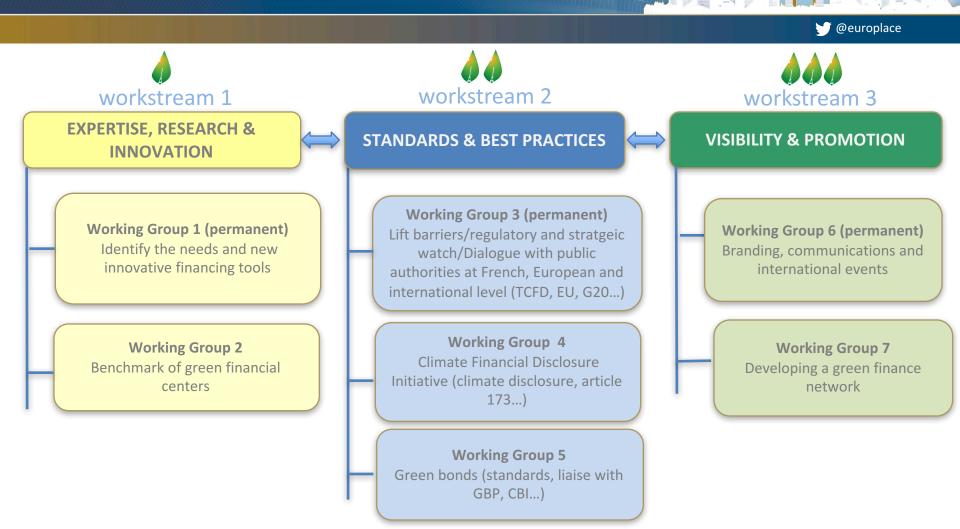
Strengthen public-private synergies and define standards and best practices



Strengthen international influence and visibility of the French marketplace approach



3 WORKSTREAM – 7 WORKING GROUPS





Session 3: Financial Centre Perspectives

Germany - Frankfurt



Financing the real economy for sustainability: opportunities and barriers in Italy.

Sara Lovisolo, London Stock Exchange Group

23 February 2017

Taking a systemic approach



The recommendations of the National Dialogue on Sustainable Finance fall into four broad action areas:

Putting in place supportive policy frameworks

Stimulating financial innovation

Improving market infrastructure

Building capacity, awareness and knowledge

More systemic alignment of sustainable investment demand and supply sides

The Italian ecosystem: addressing the gap between SMEs and finance.



An economy dominated by SMEs

3.9m

EU largest enterprise population

\$1.83tn GDP 95%

Firms with fewer than 10 employees

27.5%

«Core green» firms, in line with EU average

Bank loans the main source of finance

10%

household saving rate

€2tn Ioans **SME SF**

Promoted by the Banking Association

€27bn

Bank funding for renewable energy (2007-2014)

Institutional investors catching up

€140bn

Pension fund assets, or 10% of mandates

€1.9tn AUM €0.7tn

Insurance assets, or over 66% of mandates

22%

Insurance business supporting the PSI

Evolving capital markets

321

Companies listed on the Italian Exchange

€0.5tn market cap

217

Mini-bonds on ExtraMOT Pro (2013-2016)

11%

Green revenue factor of Borsa Italiana

Sustainable investment demand side: real economy drivers.



Demographics, economic and technological life-cycles, regulation, fiscal policy and local government contracting play a key role in determining the levels of funding to be channeled towards the real economy for sustainability purposes.



Case studies

- In 2015 Italy saw renewable energy investment of just under \$1bn, down 21% on 2014 and far below the peak of \$31.7bn recorded during the PV boom of 2011
- This is equivalent to +0.3% in solar PV and wind power capacity added in 2015, contributing to 51 GW in total renewable installed capacity
- 120 GW total installed capacity, against 51 GW peak electricity demand
- Demographic decline: -139,000 residents in 2016
- In 2014 gross inland energy consumption decreased by 5.3%
- Weak carbon price formation through the ETS scheme



- Adoption in 2015 of the so-called Minimum Requirements Decree on the energy efficiency of buildings
- Incentive schemes such as the 'White Certificates' and tax deduction schemes worth €3bn per year on average
- Sector identified by banks as «the next investment opportunity»

Sustainable investment supply side: removing barriers to flows.



1

Stronger mandates

Standardized asset classes

Investee ESG performance

Streamlined dialogue

Banks report on sustainability status of 80% of total assets

Law 252/2005 mandates pension funds to disclose ESG integration

Retail investors' proven demand for sustainable assets

Sustainability in policy approach of the National Promotional Institution, CDP

€738m climate aligned bonds outstanding

Admission procedure for green bonds on Borsa Italiana fixed income markets according to ICMA GBPs under development

Green revenues on Borsa Italiana tracked by FTSE Russell

30% of AIM market cap is green

Italian Corporate Governance Code recommends ESG integration into strategy and risk assessment

NFR Directive mandates ESG disclosure for large listed companies

LSEG guidelines on voluntary ESG disclosure across asset classes and for SMEs just released National Dialogue on Sustainable Finance promoted by the Ministry of the Environment

Italian SIF, FFS

Borsa Italiana's first Sustainability Day in July 2017

Potential creation of an Italian Sustainable Finance initiative under consideration

References



- Climate Transparency, Brown to Green: Assessing the G20 Transition to a Low Carbon Economy. Italy, 2016
- ENEA, Italy's Energy Efficiency Annual Report, 2016
- Eurobarometer, SMEs, Resource Efficiency and Green Markets, 2013
- Frankfurt School-UNEP Centre/BNEF, Global Trends in Renewable Energy Investment 2016, 2016
- MATTM/UNEP, Financing the Future. Report of the National Dialogue on Sustainable Finance, 2016
- REN21, Renewables 2016. Global Status Report, 2016



JAPANESE PERSPECTIVES

~ Market Development, Green Fund, and Tokyo Metropolitan Government Policy ~

23 FEBRUARY 2017 MILAN

Takejiro Sueyoshi
CEO of The Green Finance Organisation JAPAN



Green Finance in Japan

1. Market Development

- Japanese market participants and their activities

2. Public Private Partnership

- Case of The Green Fund

3. Policy Actions

 Action plan by Tokyo Metropolitan Government (TMG)



Market Development

- Infrastructure market in TSE
- Growing green asset finance US\$6.7bil (2016)
- Green bond, DBJ's sustainability bond, JICA's social bond
- Disaster Risk finance CAT bond, weather derivatives for droughts
- Rapidly growing long-term responsible investors in Japan (e.g. banks, life insurers, pension funds)
- Domestic Rating Company's progress (e.g. R&I's green assessment methodology)



Market opportunities and Challenges

Opportunities:

Japan to be one of the most prospective markets for green, sustainability or SDGs-themed assets, and/or ESG investments - both domestic and foreign entities
 e.g. NRI's Yen Green Bond (2016), EDF's Samurai Green Bond (2017), World Bank's Shogun Green Bond (2016)

Challenges:

- To attract more foreign companies and entrepreneurs.
- Fewer Green projects thus less financing needs by domestic entities.
- Decarbonizing Japanese economy is lagging behind.



Green Finance in Japan

1. Market Development

- Japanese market participants and their activities

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- Case of The Green Fund

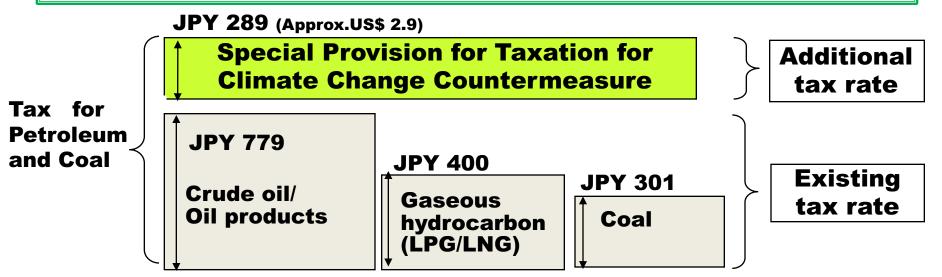
3. Policy Actions

- Action plan by Tokyo Metropolitan Government (TMG)



Carbon Tax in Japan

- **♦** Special tax from Oct. 2012 called "Climate Change Countermeasure Tax"
- **◆Tax rate corresponding to the amount of CO2 emissions for all fossil fuels (JPY 289/t-CO2) (Tax rate increases over 3 and a half years)**
- **♦**All the tax revenues will be allocated for curbing energy-origin CO2 emissions



Tax Revenue

[Year 2016 and after] Annual tax revenue is JPY 262.3 billion (approx. US\$2.6 billion)



The Green Fund

Develop projects which reduce CO2 emissions and benefit local communities

<u>Create a new stream of private capitals which</u> <u>realize Green economy and Low carbon society</u>

Spread the models to the regional private sectors

Establish "success models"

Generate low carbon societies

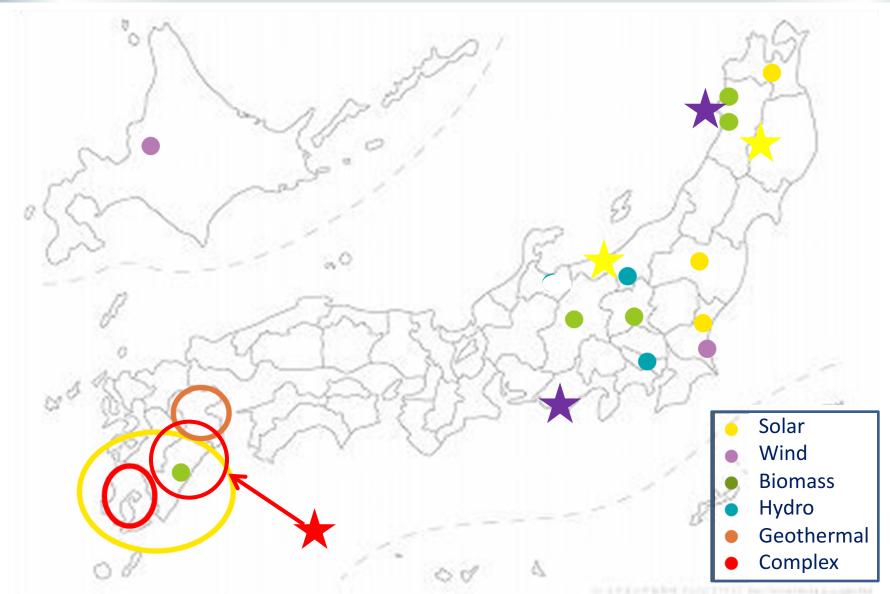
Green Investment



- + Decrease Debt Equity Ratio to facilitate loan financing
- + Support implementation of new business models to expand the green investment



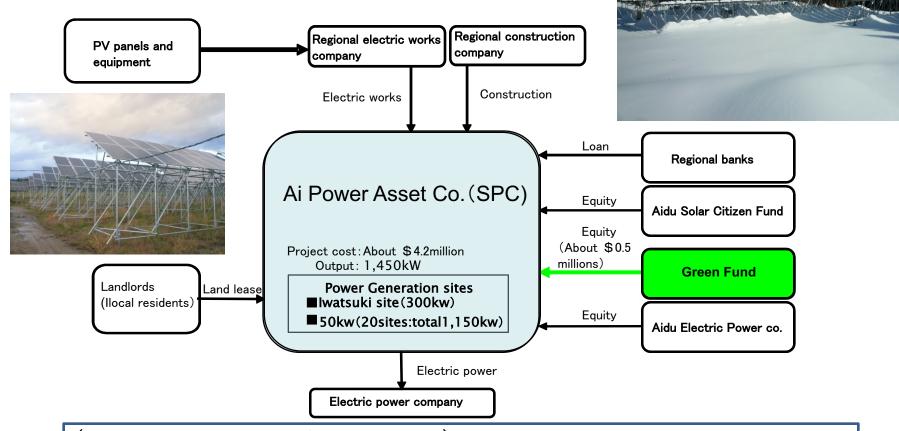
FY 2015 projects★





Green Finance Organisation

Actual example of our investment to smaller projects (Solar Power Project)



(Distributed Solar Project for snow region)

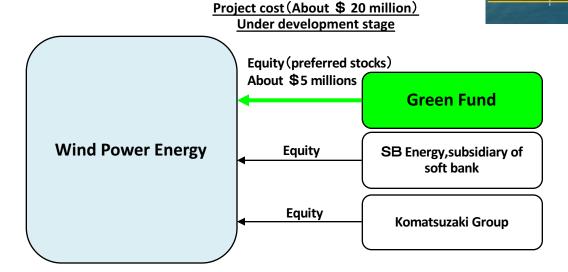
Investment from the Green Fund to the Aidu area in Fukushima is going to support
not only the promotion of renewable energy but also restoration from the disaster of
Tohoku Earthquake in 2011. This project is a model of <u>widely distributed</u> smaller solar
power generations designed for **snow and ice regions.**



Actual Example of our investment to large scale project (Off-shore wind farm project under development stage)

15 onshore wind farms are operating.

About 600-1,600m from the shore bank.



(Off-shore wind farm project under development stage)

• This is the first commercial off -shore wind farm project in Japan.

Green Fund made an investment with the hope that wide knowledge and intelligence obtained through this project would contribute to the growth of Japanese technologies, relevant industries, and employment generation in the new area of the off -shore wind farm.



Green Finance in Japan

1. Market Development

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 Action plan by Tokyo Metropolitan Government (TMG)



TMG's Action Plan beyond 2020

3 Goals to achieve "Citizens FIRST" Safe City, Diverse City, Smart City

Smart City is aimed at:

- Environmental Advanced City
 - by promoting innovation and transition to Environmentally Friendly businesses.
- Asia's No.1 Global Financial City
 - Being explored and strategized by The Advisory Panel for Global Financial City Tokyo (GFCT), chaired by Governor Koike.



GFCT Advisory Panel Meeting



Source: http://www.metro.tokyo.jp/tosei/governor/governor/katsudo/2016/11/25_03.html



TMG's promoting Environmental Finance

In order to achieve Environmentally Friendly city and Global Financial City,

Green Bond is seen as one of the most effective policy tools.



My observation of the state of green finance in Japan

- Growing momentum in green and sustainable financial market, led by market leaders.
- Appreciate the Ministry of the Environment's strong support for green finance.
- Large potential of Tokyo's becoming green global financial center in the near future.

THANK YOU!



Session 3: Financial Centre Perspectives UK - London

New York City and Green Finance



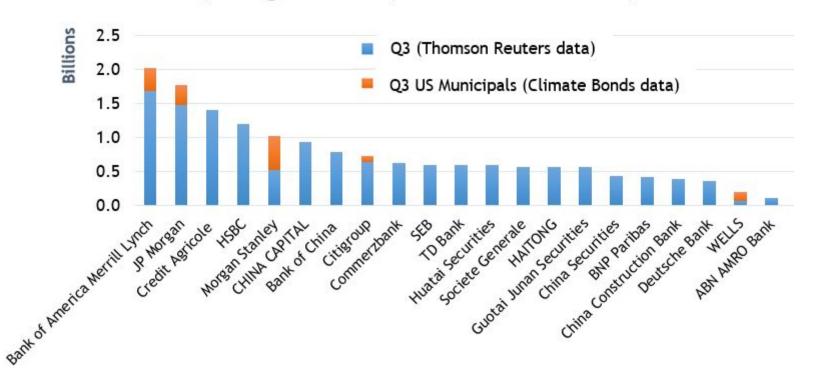
Globally, NYC is #1

- In public equity and debt capital markets
- In hedge funds
- In private equity and VC investment
- In M&A activity by monetary volume
- Is the HQ of the three major credit rating agencies
- Is #2 in Startups (vs. Silicon Valley)

*** New York City seeks to maintain its long held position as co-head of global finance w/London – others are rising NA/EU/across Asia ***

Momentum behind Climate Bonds

Q3 league table (amount issued USD)



The Sustainable Trillion

- BofA \$125B in low carbon business thru 2025
- GS \$150B in clean energy financing by 2025
- Citi \$100B financing activities that reduce climate change impacts and create solutions that benefit people and communities
 (JPM/Morgan Stanley also among largest green bond underwriters)
- European PFs \$100B additional commitments to existing allocations
- Issued Climate Bonds approach \$100B
- Sustainable Investing as primary now \$600B (as much as \$7T of US investment looks at one form or another of sustainable investing)

*** studies show 75-90T required over next 15 years, or 5-6T per year on average (5T/year = all new debt issuance per year at present)

Sustainable Finance in NY

Public Pension Plans

- NY State Common US\$5bn out of US\$180, Low Carbon commitment increasing. Direct sustainable investments in public equity and assets cUS\$1bn. A global leader (#1 ranking AODP) + joined PDC
- NY City driven mostly by NYCERS (largest of 5 funds), recently joined PDC, committing to carbon footprinting & understanding carbon risk w/ Mercer

Credit Agencies

 S&P, Moody's, Fitch – all NYC based and active on climate risk & ratings

Also on Climate Bonds

- US largest issuer of climate bonds (among G7)
- 16% of 750B climate-aligned bond universe issued in US (2nd largest global market, includes 200 renewable energy issuers = 28B)
- 40% of **Water bonds** are issued in the US (US is also largest labeled green bond issuing nation and largest labelled green municipal bond market, 46% = water infrastructure)
- Up to 50% of US Municipal Bonds are bought by individuals (the largest component of investors in US)
- City/Municipal green bonds retain potential both for increased issuance, individual and fund investment

Innovation in Green Finance

- Green Banks in NY and other nearby states
- REV ("Reforming the Energy Vision") & NYSERDA (NY State Energy Research & Development Authority)
- Innovative, Conservation & Systems Finance
- Derivatives & other creative instruments
- A related service industry of expertise

Barriers and Opportunities

- Barrier for NYC to be motivated, additional business (of any kind) needs to be a significant percentage to receive serious focus
- Opportunity NYC should want to lead for competitiveness on the future of finance
- Opportunity Best buildup from existing expertise, make what is working work better – other US cities don't have same built in expertise and experience, hard to start over
- Fintech/access disruption a green finance **opportunity**?
- Renewable Energy, Efficient Transport and Storage Projects key feature in early Trump infrastructure plans

Regional Cities in a Federal System

- Bay Area, #1 in startups globally, could rise as a center of Green Finance – why send finance cross country?
- Boston is booming through innovation and finance (GE and many other Tech HQ, MIT, forming links to other regions)
- Minneapolis/St. Paul is a hub of sustainable business and finance
- Seattle seeks to boost its green credentials forms a corridor with Portland and Vancouver
- "Second Cities" such as Providence, Austin, Philadelphia thrive through entrepreneurship and finance

New York, New York



Session 4: Focus on Measurement

Manuel Adamini (Climate Bonds Initiative)

David Harris (LSE Group)

Pierre Ducret (I4CE)

Green / Climate Bonds

Mobilising G7 Financial Centres for Sustainability

Manuel Adamini

Director, Investor Outreach & Partners Programme

Milano, 23 February 2017













The Climate Bonds Initiative – what we do, who we are

- We are an investor-focused NGO mobilising debt capital markets for climate solutions
- Mobilise: outreach to inform and stimulate the market
 - Working with sell-side and buy-side to grow issuance, in EM and developed markets
 - Policy models and government advice
 - Pushing for green innovations into e.g. securitization, covered bonds, Islamic Finance
- Inform: market data and analysis
 - Our green bonds data base, feeding MSCI / Barclays and S&P DJI indices
 - Our green bond league tables, in cooperation with Thomson Reuters
 - Our yearly State of the Market report, commissioned by HSBC
 - Regional and thematic focus reports, e.g. China, Canada; forestry
- Protect: Climate Bonds Standard & Certification Scheme
 - Definitions for investors and guidelines for bond issuers
 - Assurance through certification
- Cooperate: Partners Program
 - Platform for market participants to get involved
 - Tailored way to support CBI's efforts

















What's a green / climate bond anyway?

A climate bond is a (mostly plain vanilla) bond linked to climate solutions through the use of proceeds.

That said, any issuer can come to market.

Proceeds to green

- Define eligible projects / asset categories
- (Develop processes to) identify projects, new and/or refi
- Set up capital allocation and tracking processes
- Offer an independent process review pre-issuance
- Allocate the capital accordingly
- Report on use of proceeds and climate impact
- Offer an independent outcome review post-issuance

Issuers

- Governments & SSAs & MDBs
- Regional governments & municipalities (also beyond US)
- Corporates the 2014 2016 growth area
- Securitized (e.g. ABS / RMBS)
- Project bonds
- 'Other debt instruments'













Market Standards: process, content

Content – Climate Bonds Initiative

CBI develops a taxonomy of EPs

- Types of projects / assets / technologies
- Exclusions of controversial assets
- Technical demands for a net climate benefit

CBI issues a Climate Bonds Standard

- Requirements for consistency & uniformity, in line with Green Bond Principles
- Technical demands for net climate benefits consistent with 2°C
- Ready for solar, wind, transport, buildings, geothermal, (green) water assets, land use (mitigation)
- In progress: (grey) water, marine, hydro, bioenergy, land use (adaptation)

Process – Green Bond Principles

Capital markets players to set basics

- Set up by leading US underwriters
- Subscribed to by issuers, investors, intermediaries, i.e. sell-side
- Managed by International Capital Market Association (ICMA)

Focus on process

- What do you intend to spend the money on? (use of proceeds)
- How are you going to find eligible projects?
 (project evaluation & selection)
- How do you assure the money gets there? (management of proceeds)
- What has it achieved? (reporting)

The market knows two key guidelines:

The Green Bond
Principles re process & transparency.

The Climate Bond Initiative's Standards & Certification Scheme re green content.







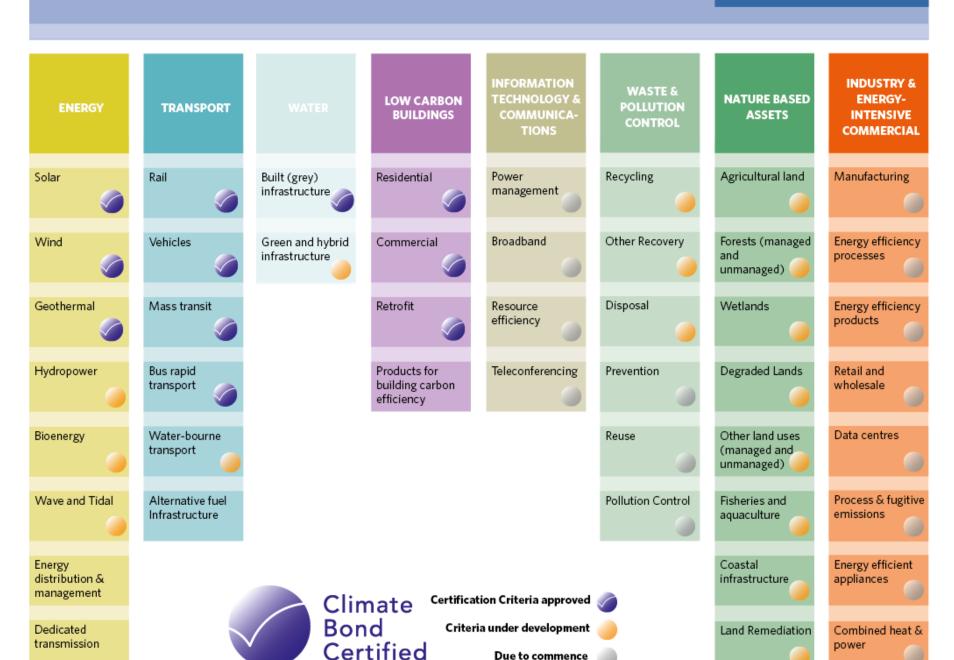






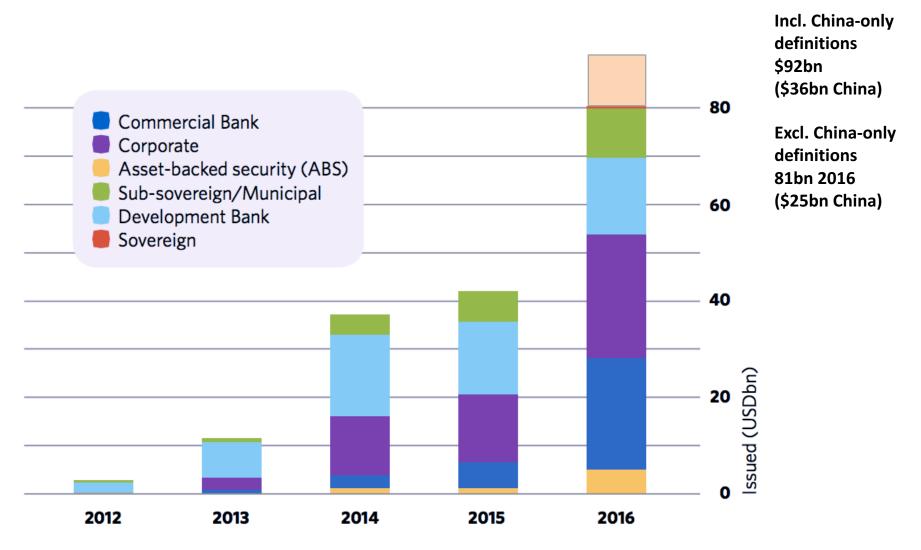
Climate Bonds Taxonomy

Climate Bonds



Due to commence

Green bonds: it's more and more corporate (labelled)















2017 and beyond

- 1. Push consolidation & convergence of standards for green bonds
- 2. COP22 → COP23: from NDCs to country green development & investment plans
- 3. Back up green investment plans by **financing plans**, using broad climate finance scope
- 4. Have governments lead through sovereign, municipal and public finance issuance
- 5. Move development banks from direct lending to crowding in private capital







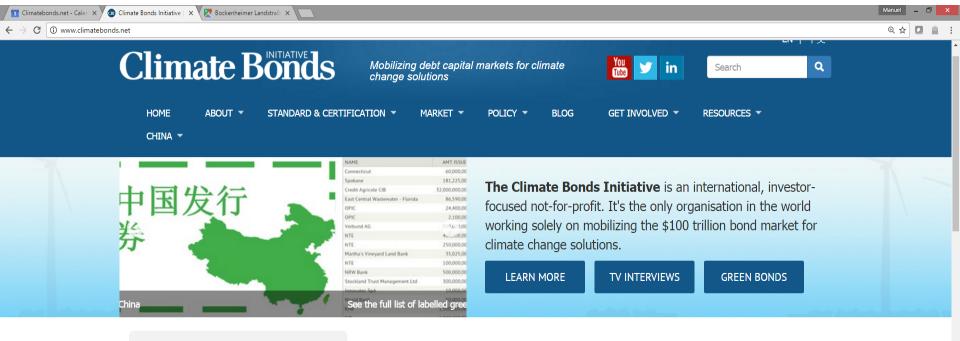






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January Events: Paris, Beijing, Brussels & Mexico City: We're back at work to make 2017 the biggest year for Green Bonds yet!

Jan 7, 2017

Sean Kidney Appointed to EU High-Level Expert Group for the Capital Mkts Union: Policy Leaders to Develop Sustainable Finance Strategy for European Commission

Green Bonds Market 2016



Become a partner

Climate Bonds

Support the growing Green and Climate Bonds market through our Climate Bonds Partners Program























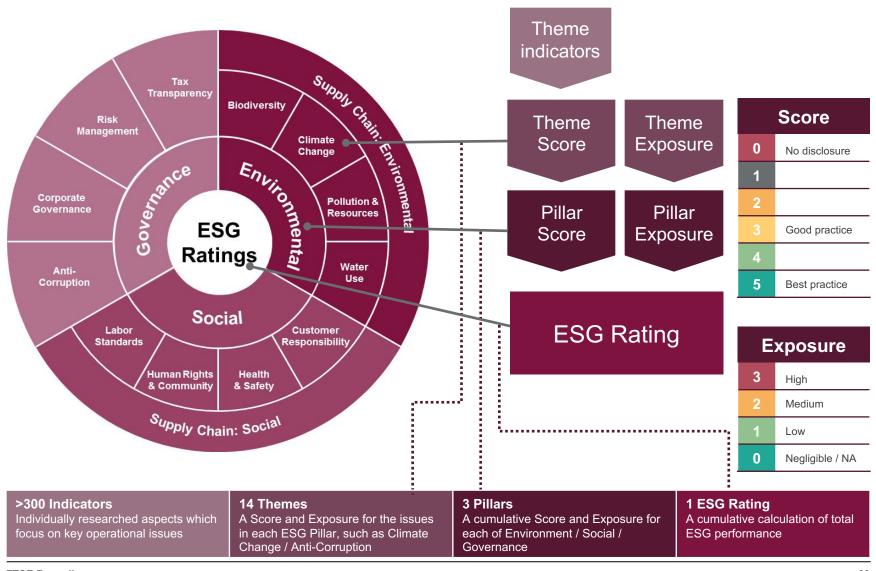




London Stock Exchange Group 28 February 2017

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FTSE Russell ESG ratings model



FTSE Russell 69



ESG Quant Indicators

FTSE Russell quantitative ESG data points			Likely relovance Possible relavance									
	Indicator sub code	Indicator description wording	Basic Materials	Consumer Goods	Consumer Services	Financials (& Real Estate)	Health Care	Industrials	Oil & Gas	Technology	Telecomm- unications	Utilities
Environmental	ECC14	Total operational GHG emissions data (Scope 1 & 2) is disclosed										
	ECC15	Total energy consumption data is disclosed										
	ECC19	Disclosure of fleet fuel efficiency data by the following countries/regions: USA; Japan; China; India; Brazil; Russia; Western Europe; CEE (Central and Eastern Europe)										
	ECC22	Disclosure of Oil & Gas Reserves by type (i.e. Prover, Probable and Possible Reserves): Total Oil Reserves; Total Gas Reserves; Ratio of Oil-Gas; Oil & Gas: barrels of oil equivalent of reserves										
	ECC23	GHG emissions per megawatt-hr										
	ECC30	Disclosure of coal reserves by type (Proven, Probable and Possible Reserves)										
	EBD11	Disclosure of certified palm oil as a percentage of total palm oil produced/used/processed										
	EBD12	Disclosure of certified forest products (e.g. FSC, RAN) as a percentage of total forest products produced/used/processed										
	EBD13	Disclosure of certified seafood (e.g. MSC, ASC) as a percentage of total seafood produced/used/processed										
	EPR18	Disclosure of NOX emissions (tonnes)										
	EPR19	Disclosure of SOX emissions (tonnes)										
	EPR21	Disclosure of volatile organic compounds (VOC) emissions (kilograms)										
	EPR24	Disclosure of hazardous waste generation (tonnes)										
	EPR25	Disclosure of non-recycled waste generation (tonnes)										
	EPR26	Disclosure of waste recycled (tonnes)										
	EPR27	Total costs of environmental fines and penalties during financial year										
	EPR28	Percentage of sites covered by recognised environmental management systems such as ISO14001 or EMAS										
	ESC30	Total GHG emissions data on properties disclosed										
	ESC31	Total energy usage data on properties disclosed										
	ESC32	Total water usage data from property portfolio disclosed										
	EWT11	Total water use / water extraction data is disclosed										
	EWT12	Percentage of water recycled (non-potable) for use in own operations										
overnance	GAC12	Disclosure of total amount of political contributions made										
	GAC13	Disclosure of number of staff disciplined or dismissed due to non-compliance with anti-corruption policy/policies										
	GAC14	Disclosure of cost of fines, penalties or settlements in relation to corruption										
ocial	SHR17	Total amount of corporate or group donations / community investments made to registered not-for-profit organisations:										
	SHS12	Percentage of sites with OHSAS 18001 certification			_							
	SHS13	Number of staff trained on health and safety standards within the last year										
	SHS15	Lost-time incident rate, over last three years										
	SHS38	Number of work-related employee fatalities										
	SHS40	Number of work-related contractor fatalities										
	SLS24	Full-time staff voluntary turnover rates										
	SLS25	Percentage of employees that are contractors or temporary staff										
	SLS26	Amount of time spent on employee development training to enhance knowledge or individual skills, using: a) Total hours as a company, or b) Average hours per employee										



ESG disclosure

Country	ESG disclosure ranking	Average ESG disclosure	Environment	Social	Governance	CK Capital ranking
Italy	5th	59%	62%	62%	33%	19th
France	8th	56%	65%	66%	16%	2nd
Germany	11th	47%	54%	46%	25%	9th
UK	16th	43%	52%	36%	32%	8th
Canada	28th	33%	42%	33%	9%	21st (Toronto)
Japan	31st	33%	47%	26%	3%	28th (Tokyo)
US	37th	23%	33%	16%	11%	25th (Nasdaq)

FTSE Russell LCE Model: Green Industrial Subsectors London Stock Exchange Group

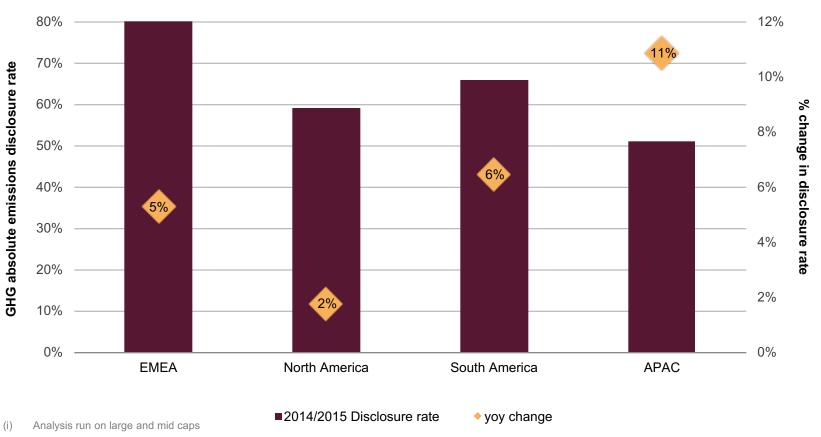
	LCEG - Energy Generation	LCEQ - Energy Equipment	LCEM - Energy Management	LCEE - Energy Efficiency	
01	LCE Bio Fuels	LCE Bio Fuels	LCE Combined Heat/Power	LCE Advanced Materials	
02	LCE Clean Fossil Fuels	LCE Clean Fossil Fuels	LCE Controls	LCE Buildings and Property	
03	LCE Geothermal	LCE Geothermal	LCE Fuel Cells	LCE Industrial Processes	
04	LCE Hydro	LCE Hydro	LCE Integrated LCEM	LCE Integrated LCEE	
05	LCE Integrated LCEG	LCE Integrated LCEQ	LCE Logistics and Support	LCE IT Processes	
06	LCE Nuclear	LCE Nuclear	LCE Power Storage	LCE Lighting	
07	LCE Ocean and Tidal	LCE Ocean and Tidal	LCE Smart Grids	LCE Video Conferencing	
08	LCE Solar	LCE Solar			
09	LCE Waste to Energy	LCE Waste to Energy			
10	LCE Wind	LCE Wind			

	LCEI - Environmental Infrastructure	LCER - Environmental Resources	LCMS - Modal Shift	LCOS - Operating Shift
01	LCE Carbon Capture &Storage	LCE Agriculture	LCE Aviation	LCE Finance/Investment
02	LCE Desalination	LCE Aquaculture	LCE Integrated LCMS	LCE Integrated LCOS
03	LCE Flood Control & Land Erosion	LCE Integrated LCER	LCE Railways	LCE Retail/Wholesale
04	LCE Integrated LCEI	LCE Mining	LCE Road Vehicles	LCE Property
05	LCE Logistics &Support	LCE Minerals and Metals	LCE Shipping	
06	LCE Pollution Management	LCE Source Water		
07	LCE Recyclable Products	LCE Sustainable Forestry		
80	LCE Recycling Services			
09	LCE Waste Management			
10	LCE Water Management			



Carbon disclosure

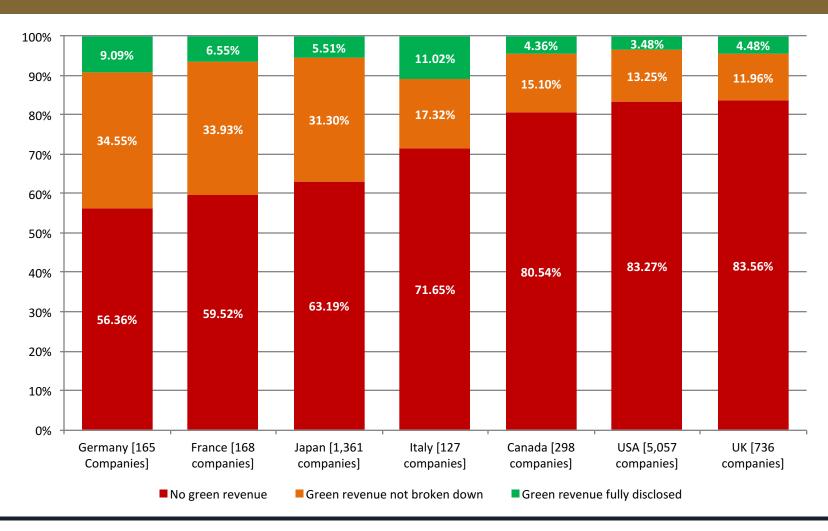
GHG emissions disclosure rate and change in disclosure rate split by region



Source: FTSE Russell. Data accessed as of June 20,2016. This chart shows the percentage of companies disclosing three years of GHG emissions data (scope 1 and 2)

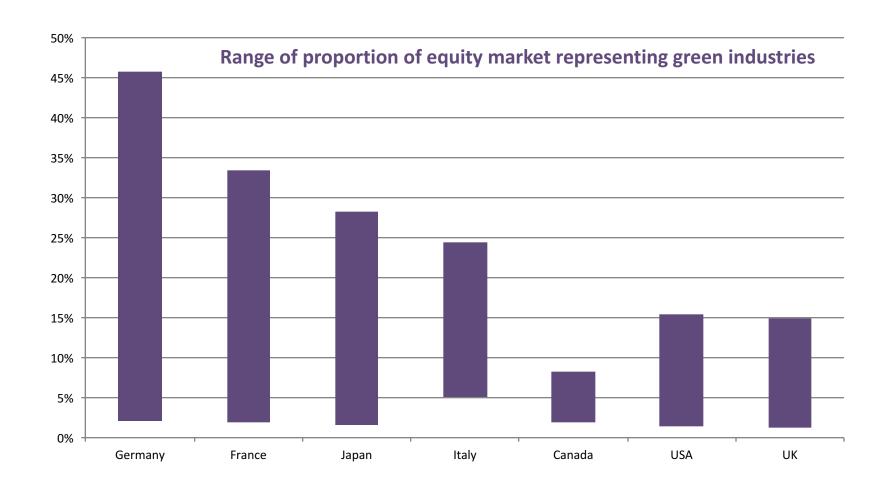


Green revenue



Proportion of equity market representing green industries







Disclaimer

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G7 Environment meeting on financial centers for sustainability

Pierre Ducret

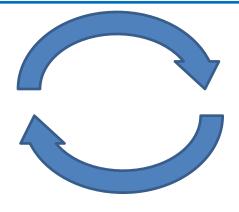
Chair I4CE Institute for climate economics 23 February 2017

Green financial centers benchmark project

Coordination team

Scientific committee

- criteria
- stakeholder interviews
- report



International consultant

- Collecting data & info
- benchmarking

Media partner

- Communications
- Publication and events

Session 5: Focus on Market Development

Amane Yamazaki (MUFG)

Stanislas Pottier (Credit Agricole)
Tatiana Bosteels (Hermes)

Sustainable Financing

The Bank of Tokyo-Mitsubishi UFJ, Ltd.

February 2017



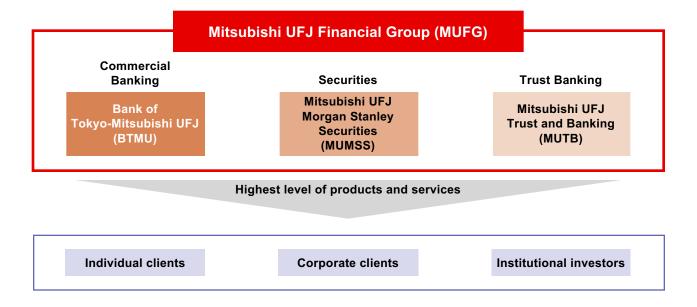
MUFG at a Glance	P3
The Equator Principles	P6
Green Bond	P8



MUFG at a Glance

Group Overview

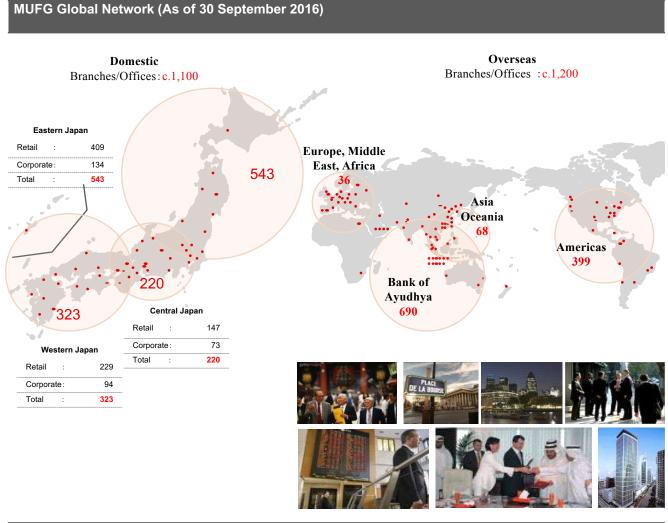
- Mitsubishi UFJ Financial Group ("MUFG") is one of the world's most diversified groups with total assets of JPY 298 trillion as of March 31, 2016
- The group comprises three primary operating companies, including BTMU, MUMSS, and MUTB. MUFG's services include commercial banking, investment banking, securities, trust banking, credit cards, consumer finance, asset management, leasing and many more fields of financial services
- The group has the largest overseas network of all Japanese financial institutions, comprising offices and subsidiaries in c. 50 countries





MUFG at a Glance - Global Network

Key Data (BTMU) Date of Aug.1919 **Establishment** Number of 35,214 Employees as of 31 March, 2016 **MUFG Financials as of 31** March 2016 (consolidated) **Total Asset** JPY 298trillion **Loan Asset** JPY 114trillion JPY 17trillion **Equity** Network as of 30 September 2016 **Domestic** Approx. 1,100 **Branches Overseas** Approx. 1,200 **Branches** Total Approx. 2,300 Latest Rating (31 Jan 2017) Moody's Α1 S&P Α **Fitch** Α





MUFG at a Glance - Global Presence in Clean Energy Financing

Global Lead Arranger Ranking 2016 (Clean Energy & Energy Smart Technology)

 MUFG was ranked Global No.1 in Clean Energy & Energy Smart Technology Lead Arranger League Tables by Bloomberg.

Rank		Arranger	Amount In USD million	Share	No. of Deals
1		Mitsubishi UFJ Financial Group	2,911.0	6.64%	53
2		SMBC	2,215.7	5.06%	34
3		EIB	2,050.1	4.68%	10
4	2 855	Banco Santander	1,935.7	4.42%	32
5		Mizuho	1,607.0	3.67%	25
6		KfW	1,599.7	3.65%	16
7		Siemens	1,485.6	3.39%	21
8		Nord/LB	1,404.5	3.21%	37
9		BNP Paribas	1,245.9	2.84%	25
10		BNDES	1,113.2	2.54%	15

(Source) Bloomberg Clean Energy & Energy Smart Technology Lead Arranger League Tables (2016)

MUFG has been recognized for CSR efforts by external institutions (as of 31st May, 2016)

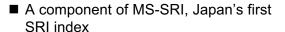
An index member of the DJSI Asia Pacific

Dow Jones
Sustainability Indices
In Collaboration with RobecoSAM (

■ An index member of the FTSE4Good Index Series











The Equator Principles

- The Equator Principles (EP) is a set of framework for identifying, assessing and managing environmental and social (E&S) risks and impacts in large-scale projects.
- EP was introduced by private financial institutions in response to NGO campaigns
- BTMU has become a signatory to the EPs in December 2005.
- As of June 30, 2016, 84 financial institutions in 35 countries officially adopt the EP.



History of comm	ercial lender	s' environmental and social assessment standards
International movements	1980's	Attention to environmental issues increased among private financial institutions. The institutions started to assess E&S risks caused by the project prior to commencing their transactions
	1992	United Nations Environmental Programme Finance Initiative (UNEP-FI) launched
	2000	A commercial bank was criticized for financing a project that caused deforestation
Birth of the EP	2003	EP developed and launched with leadership of 10 financial institutions and support from International Finance Corporation (IFC)
Revision of the EP	2006	EP revised (EP II) in line with the amendment of the former IFC Safeguard Policies to the IFC Performance Standard
	2010	EPFIs commenced strategic review of the EP II, followed by EPIII update process reflecting current best practices in E&S risk management and changes in IFC's Performance Standards
	2012	IFC's Performance Standard revised (2012 revision)
	2013	EP III launched in June after rounds of internal/stakeholder consultation and public comment period
	2014	EP III mandatory for all transactions mandated on or after January 1, 2014



The Equator Principles - Categories

Three Tiers

Projects are categorised based on the magnitude of potential E&S risks and impacts

Category A

Projects with potential significant adverse E&S risks and/or impacts that are diverse, irreversible or unprecedented (e.g. critical habitat impacts, large-scale resettlements)

Projects with potential limited adverse E&S risks and/or impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures (e.g. projects in industry parks)

Category C

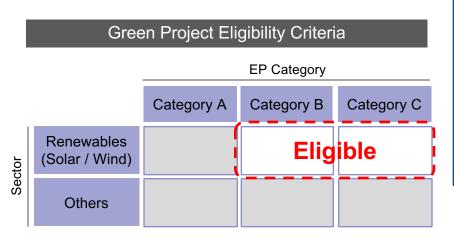
Projects with minimal or no adverse E&S risks and/or impacts (e.g. buildings in reclamation district)

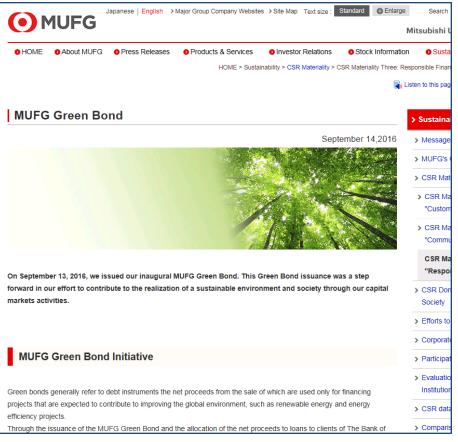
Low



Green Bond

- In September 2016, MUFG issued the first TLAC*
 eligible green bond offering from G-SIBs since FSB
 published the final TLAC standard in November
 2015. *TLAC; Total Loss-Absorbing Capacity
- MUFG will finance via BTMU existing and future Eligible Green Projects, which will consist of environmentally-friendly projects such as solar / wind farm projects categorised as either B or C under the Equator Principles ("EP").





http://www.mufg.jp/english/csr/juten/sustainability/greenbond/



Illustrative Case – Offshore Wind Farm Project in the U.K.

Key Deal Facts

- The project is owned by Dong Energy (50%), Marubeni (25%) and UK Green Investment Bank (25%)
- The project started commercial operation on June 29, 2015
- The project consists of 35 units of new Siemens 6MW turbines, totaling a generation capacity of 210MW
- Expected to provide enough electricity to meet the needs of more than 150,000 homes over an operation period of 25 years



Summary of Terms

MUFG Financing Commitment

Expected Impact

- BTMU signed a loan agreement totaling up to GBP68.8 million to finance an offshore wind power generation project in the U.K.
- The total financing amount is GBP369.5 million with the Japan Bank for International Cooperation and four commercial banks as co-lenders
- Fully funded
- BTMU categorized this project as "Category B" in accordance with EP
- Expected to offset roughly 400,000 tons of CO2 emissions per year



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G7 Environment Meeting

Mobilising G7 Financial Centres for Sustainability



Milan, February 23, 2017

Fostering Climate Finance





□Crédit Agricole commitments at COP21













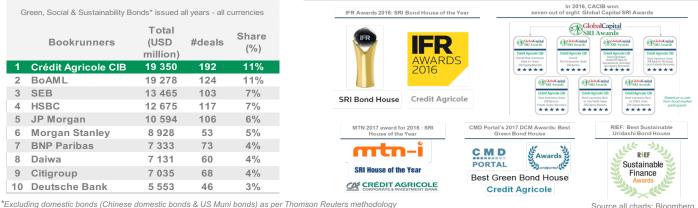
CA-CIB: Global Leader in Green & **Sustainability Bonds**



Clear Leadership

Green, Social & Sustainability Bonds* issued all years - all currencies							
	Bookrunners	Total (USD million)	#deals	Share (%)			
1	Crédit Agricole CIB	19 350	192	11%			
2	BoAML	19 278	124	11%			
3	SEB	13 465	103	7%			
4	HSBC	12 675	117	7%			
5	JP Morgan	10 594	106	6%			
6	Morgan Stanley	8 928	53	5%			
7	BNP Paribas	7 333	73	4%			
8	Daiwa	7 131	60	4%			
9	Citigroup	7 035	68	4%			
10	Deutsche Bank	5 553	46	3%			

A Constant Outstanding Recognition



A Game Changer Deal



- Largest and longest Green Bond benchmark ever
- First highly liquid Green Bond
- Around EUR 23bn of orders

Source all charts: Bloomberg, Crédit Agricole CIB (As of February 17th, 2017)

GREEN BOND PRINCIPLES



- In association with 3 other banks, Credit Agricole CIB actively participated in the drafting of the Green Bond Principles. Crédit Agricole CIB has been re-elected as Executive Committee Member in 2016.
- The Principles provide guidelines for the structuration of Green Bonds, including recommendations in terms of Use of proceeds, selection and evaluation process, monitoring of the funds raised and reporting.
- They are designed to provide issuers with guidance on the key components involved in launching a Green Bond, to aid investors by ensuring the availability of information necessary to evaluate the environmental impact of their Green Bond investments and to assist underwriters by moving the market towards standard disclosures which facilitate transactions.
- Crédit Agricole CIB, in collaboration with other banks, proposed in July 2015 the creation of a Social Bond appendix to the Green Bond Principles (GBP). Crédit Agricole has been actively working on the Social Bond Guidance issued in June 2016.



The Green Supporting Factor



The key challenge is to reduce the relative cost of investing in the energy transition, by cutting either equipment costs or financing costs.

1 HOWTHE GREEN SUPPORTING FACTOR WORKS Appropriate prudential approach to financing and investment in the energy transition

= macro-prudential benefits of decarbonisation in reducing climate risks

= similar to the SME SF

Financing the energy transition remains a major challenge

2 ELIGIBLE ASSETS BASED

3 ALL PARTICIPANTS

Recognized certifications: TEEC French label; Climate Bond Initiative...

Any and all participants in the economy, whether financed through retail banking networks or corporate and investment banking



Responsibility **Greening financial places**

Holistic returns and place making

Tatiana Bosteels Director Responsibility, Hermes Investment Management

Green financial places and Holistic returns

Leading financial markets transformation

Challenging the financial systems:

Holistic returns: understanding and widening definitions of our fiduciary duty.

Place making: Hermes approach on Place Making, ancillary and spill over benefits of Green Financial places.

Acknowledge and address current issues:

Low interest rates and low growth, and growth of passive indexes

Volatility and short termism

Green investments' next market development:

Positive impact finance: what is the role for Green financial places, go beyond ESG integration, push for the next front frontier in measurement of impacts

Low carbon pathways & Engagement- investors contribution to decarbonisation whether intentionally through their direct investment processes or through changes to the system

Energy efficiency finance - an example of challenges in how we define and tag green finance investment



Delivering holistic returns

Fiduciary duty and investing in the real economy

WIDENING DEFINITION OF FIDUCIARY DUTY

We recognise that as fiduciaries, entrusted with the savings of millions of individuals, we have fiduciary responsibilities which go beyond those defined in any contract - these are to our clients and their ultimate beneficiaries, to deliver holistic returns

This means investing in the real economy to affect the value of our beneficiaries' retirement incomes and the world in which they live to sustain a good quality of life.

This requires putting the interests of our clients and their ultimate beneficiaries' front and centre of what we do, stretching our time horizons beyond quarterly performance figures and even beyond the tenure of a traditional mandate

This requires challenging what are appropriate benchmarks and being clear about risks and benefits of passive vs active investment approaches.

IMPROVING GOVERNANCE

From Fiduciary duty to Remuneration practices, Governance is key in guiding long term value creation

CHALLENGING OUR UNDERSTANDING OF RISKS & VALUE

However, today's investment community fails to accurately account for the effect of those factors on the value of economic activity and, by extension, future returns.

The result is a gap between what savers want and what the investment community can deliver.

The artificial separation of investment returns and outcomes happens because investors have learnt over many generations to look at value in two-dimensional terms: risk and time, as in discounting methods and asset pricing models used in finance today.

In this two-dimensional world the environmental and societal impacts of investment are exogenous. This view cannot prevail in the long-term.

TOTAL RETURN VALUATIONS

It is necessary to consider these externalities in the core of return expectation methodologies. This is not about choosing to promote ethical values, but about financial outcomes.

It involves a focus on long-term value creation, acknowledging the difficult trade offs this entails within current financial models



Place making – grounding green finance

The wider estate is more valuable than the sum of the parts

SYSTEMIC APPROACH - ACROSS INVESTMENT VALUE CHAIN

Greening the financial systems requires a systemic approach across all investment value chain

An ecosystem is required to enable all actors and participants to sustain efforts and transform the system.

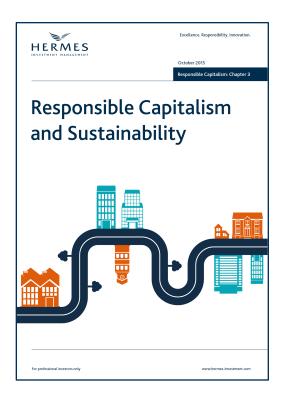
PLACE MAKING

"The way to future-proof buildings – for the benefit of our investors – is to make sure they are located within a sustainable, socially inclusive environment.

It's not the individual building itself that is important, but the broader amenity value associated with its location in terms of the accessibility to infrastructure and public realm.

You need only look at the great estates of London to understand that they have endured because the integrity of the estate has been maintained as much as the buildings, therefore the wider estate is more valuable than the sum of the parts."

Chris Taylor, Head of Private Markets, Hermes Investment Management





Next steps: Positive impact measurement

From carbon risks to positive impacts: tagging and measuring

POSITIVE IMPACT MEASUREMENT

The next steps in the integration of ESG is the move towards defining targets and measuring the ESG impacts of investment activities.

Public equity markets and private markets can meaningfully influence society as agents of change

With Positive impact finance is emerging as new frontier, we need to develop methodologies to enable measurements of impacts and agree of definitions and approaches

ROLE OF ENGAGEMENT

Active and collaborative engagement with companies provides a positive feedback loop to the portfolio managers, companies and clients alike on progress towards achieving specific goals.

Such a feedback loop provides a better understanding of the long-term value creation process within a business and a mechanism for the measurement of the intended outcomes from delivery on specific sustainability goals.

Through collaborative engagement we aim to provide better alignment between shareholders and company management and encourage a focus on long-term value creation.

LOW CARBON PATHWAYS – CHALLENGING THE CURRENT MODELS

Quantity and quality of carbon risk data need to improve to enable better assessment of how risk affects values and enable fine tune integration of risks and opp in mainstream investment processes.

More fundamentally, the question is how to review the benchmarks being used by the industry to account for a wider range of risks and opportunities within longer timeframes

Need to challenge the current economic and financial models used by the investment industry if we are to ensure that the world does not breach the scientifically guided objectives on climate change.

TAGGING GREEN FINANCE - eg of ENERGY EFFICIENCY

Energy efficiency is key pillar of the decarbonisation agenda, as the first fuel for the economy

Energy efficiency finance, not an asset class, is often hidden within existing taxonomies. Preventing a clear understanding of investment delivered to date and of enabling mechanisms to scale up finance

Work to be done to identify the hidden investment – to improve tagging and measurement, - G20 energy efficiency work going in that direction.



Next steps: Importance of Governance

From carbon risks to positive impacts: tagging and measuring

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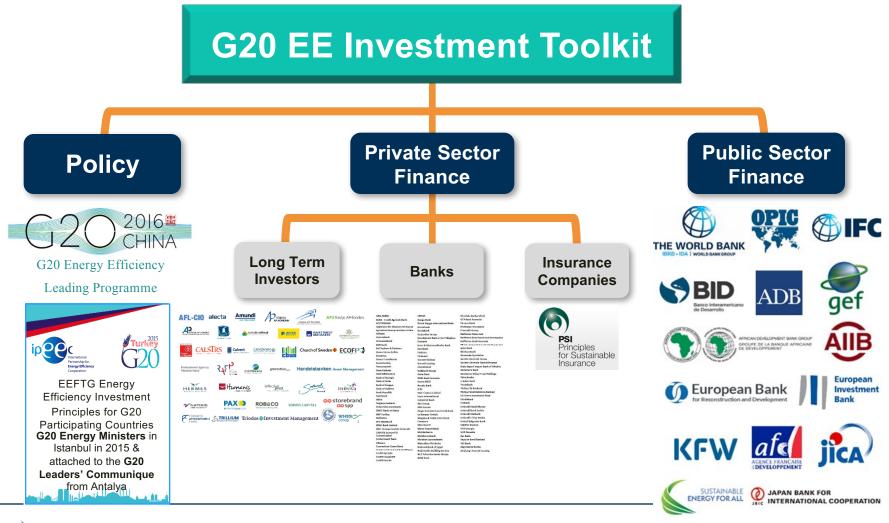
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G20 EE Investment Toolkit (2017)







Hermes Investment Management

Hermes Investment Management is focused on delivering superior, sustainable, risk-adjusted returns – responsibly.

Hermes aims to deliver long-term outperformance through active management. Our investment professionals manage equity, fixed income, real estate and alternative portfolios on behalf of a global clientele of institutions and wholesale investors. We are also one of the market leaders in responsible investment advisory services.

Our investment solutions include:

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International Real Estate, Pooled funds, Segregated mandates, UK Real Estate, UK Real Estate Debt, Infrastructure, Private Equity.

High active share equities

Asia, Global Emerging Markets, Greater China, Europe, Global and Small & Mid Cap.

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Multi Asset Inflation

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Session 6: Identifying Next Steps



NEXT STEPS



National action:

G7 and other countries could encourage their financial centres to develop strategies that scale up sustainable finance.

International cooperation:

G7 countries could encourage the formation of a network of financial centres working on sustainability.

Work areas could include:

- I. Building convergence on key definitions, principles & measurement
- II. Strengthening the pipeline of green assets
- III. Collaborating on developing green financial markets



LESSONS



The Value of the Financial Centre Dimension

- new, but centres mobilising; others considering
- think about entire financial ecosystem
- where supply and demand comes together
- cluster effect & place-specific: grounding green finance
- dynamic with city & region agenda
- education, training, knowledge agenda
- clearly competitive, but also the power of collaboration
- diversity a strength and competition an asset
- interlocutor for policy: anchor institutions needed



OPTIONS



* Share experience and promote convergence on measurement

- Governance & integration; taxonomy/standards; impact
- Process integrity & transparency
- Focus on simplicity, cost, need, materiality (short- and long-term)
- Promote consistency, harmonisation
- Tagging loans: small deals add up
- Labelling

* Encourage scaling up via benchmarking financial centres

- Paris Proposal: criteria; assessment; promotion
- Focus on products and services not a synthetic index
- Timeline: May for methodology; November first release

* Support market development

- Listed assets: core equity/bonds
- Private assets: loans/real assets/private equity/infrastructure
- New areas: fintech, derivatives
- Cross-border investment
- Mobilising retail investment within financial centres



THE MOMENTUM ACCELERATES







THE IMPORTANCE OF FINANCIAL CENTRES



Financial centres play key roles in accelerating momentum on green finance:

- Massive reallocation of capital requires new strategic positioning of global financial centres to mitigate risks and take advantage of new opportunities
- Powerful clustering effect generated by concentration of interlocking financial activities – as well as professional services, supervision, regulation & policy – can be catalytic for efforts to promote green finance innovation locally & globally

Several financial centres are seeking to harness momentum - with new initiatives to promote competitiveness, and support coherence across diverse stakeholder groups



City of London CorporationGreen Finance Initiative



Hong Kong Financial Services

Development Council

Regional Green Finance Hub



Casablance Finance City
Promoting CFC as regional
green finance hub



LuxembourgClimate Finance Task Force



Paris EuroplaceParis Green and Sustainable
Finance Initiative



CITY OF LONDON: GREEN FINANCE INITIATIVE



- London has been a leader in evolution of SRI & ESG markets constellation of market, policy, and civil society institutions driving green finance innovation
- GFI Established in January 2016 to provide public and market leadership on green finance, promote London as a leading global green finance centre
- Diverse group of stakeholders represented: financial institutions, professional services firms, universities, civil society, working locally & globally
- Globalising Green Finance report: provides recommendations to realise global green finance potential, including through international collaboration
- Suggests establishing network of green finance centres to align standards and exchange learning, ideas & expertise on the scale-up of green finance markets



Sources: GFI 2017

"The the financial system we need is one that fully supports and facilitates the transition toward a low-carbon economy, and we believe London can play a leading role in this process." – Sir Roger Gifford, Chair of London Green Finance Initaitive



PARIS: GREEN & SUSTAINABLE FINANCE INITIAIVE



- Paris has emerged as the global capital of sustainable finance overtaken London in terms SRI funds AUM, reaching EUR22bn in 2015
- Progressive regulation and policy (Article 173): step-change in assessment & disclosure of climate risks and opportunities by financial institutions
- GSFI: Launched by Paris Europlace in May 2016, bringing together financial institutions, professional associations and public authorities.
- GSFI Report launched ahead of COP22 contains fifteen recommendations in three key areas:
 - Promote the quality of green finance products and expertise, including efforts to support research & innovation
 - Strengthen public/private synergies, including efforts to define product standards, enhance disclosure and spread best practices
 - Accelerate the spread of influence of Paris within Europe and internationally
- Recommends development of new green finance centre index to compare progress across international hubs



MEETING OF GREEN FINANCIAL CENTRES – ITALY G7: 23 FEBRUARY, MILAN



Rationale:

- Financial centres compete, but they also need to cooperate to support stable and open markets
- In Green Finance space, priorities include convergence around disclosure and labeling standards to underpin the growth of green financial services
- Proposals for collaboration knowledge sharing, indexes
- The Italian G7 Presidency is convening a first meeting of G7 financial centres as part of the Environment track to identify areas for practical cooperation

Meeting Objectives and Logistics:

- Bringing together representatives from Frankfurt, London, Milan, New York, Paris, Tokyo and Toronto.
- To be held in Milan, 23 February 2017, with reception on 22nd and public meeting on 24th
- Outcomes could form the basis for an international Green Financial Centre Platform



THE INQUIRY: PEOPLE AND INFORMATION



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