



"Zest for Enlightenment"

Global Green Finance Index Global Launch

Global Green Finance Index 13

Tuesday, 23 April 2024 09:00 – 09:45 BST



Sustainable Futures





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Welcome & Introduction





Simon Mills Senior Associate Z/Yen Group









09:00	Welcome & Introduction Simon Mills, Senior Associate, Z/Yen Group
09:05	GGFI 13 Results <i>Mike Wardle, CEO, Z/Yen Group</i>
09:20	Observations Simon Mills, Senior Associate, Z/Yen Group
09:25	GGFI 13 Conclusions <i>Mike Wardle, CEO, Z/Yen Group</i>
09:30	Questions, Comments, And Answers
09:45	Close







GGFI 13 Results





Mike Wardle Chief Executive Officer Z/Yen Group







Global Green Finance Index



- Launched in 2018 to track the development of green finance in financial centres of the world.
- GGFI 1 included 47 centres. GGFI 13 includes 96 centres.
- GGFI is intended to:
 - Encourage financial centres to enhance the range and depth of their green finance offering.
 - Showcase best practice in green finance.
 - > Foster a race to the top.









Factor Assessment Index

Machine learning algorithm



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Completed Questionnaires: Each respondent rates only a proportion of the total number of financial centres

> Questionnaire 8 financial centres rated

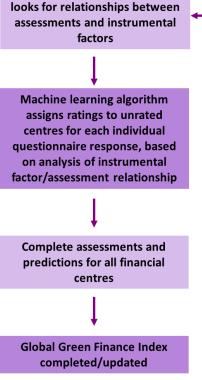
Questionnaire 5 financial centres rated

Questionnaire 7 financial centres rated

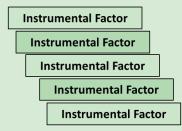
Questionnaire 14 financial centres rated

Questionnaire 10 financial centres rated

GGFI 13 uses 5,350 centre assessments from 890 respondents



100+ instrumental factors on sustainability, business, human capital and infrastructure collected for all financial centres



GGFI 13 uses 129 instrumental factors

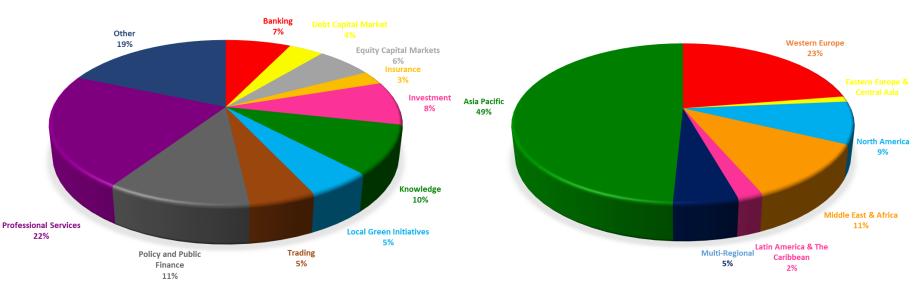


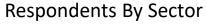


Respondents



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Respondents By Region



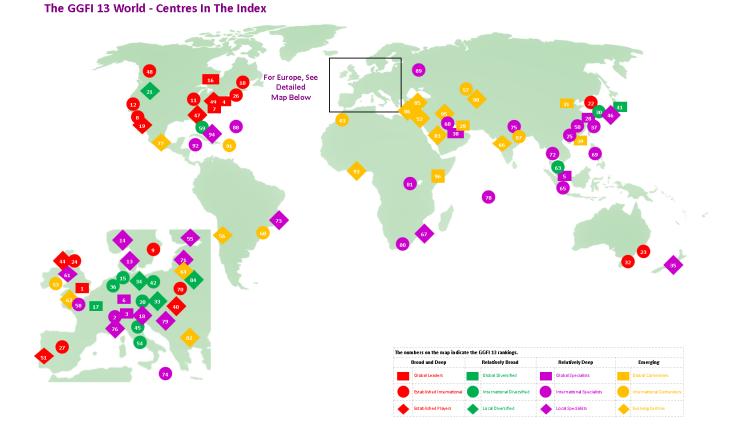




The GGFI World



© Z/Yen Group 2024









GGFI 13 Headlines



- London retained its first position in the index, while Geneva and Zurich overtook New York to take second and third places.
- Montreal entered the top 10 in this edition of the index, replacing Copenhagen.
- Western European centres take five of the top 10 places, with US centres taking three. Singapore is the only Asia/Pacific centre in this leading group.
- The margins separating centres at the top of the index continue to narrow in GGFI 13. Among the top 10 centres the spread of ratings is only 13 points out of 1,000, compared to 20 points in GGFI 12.
- Only nine centres fell 10 or more places in the rankings, and four rose 10 or more places.
- Energy Efficient Investment, Disinvestment from Fossil Fuels, and Green Insurance are rated as the areas of green finance with most impact.
- Risk Management Frameworks, International Initiatives, and Renewables are listed by respondents as the major drivers of green finance.







Headlines – Top 20 Centres



Centre	GGFI 13 GGFI 12		GGFI 12		Change In Ranking	Change In Rating
	Rank	Rating	Rank	Rating	J	Ŭ
London	1	648	1	631	0	▲ 17
Geneva	2	646	3	623	▲1	▲23
Zurich	3	644	4	618	▲1	▲ 26
New York	4	642	2	624	₹2	▲18
Singapore	5	641	9	612	▲ 4	▲ 29
Luxembourg	6	640	5	616	▼1	▲24
Washington DC	7	639	7	614	0	▲ 25
Los Angeles	8	637	8	613	0	▲24
Stockholm	9	636	6	615	▼3	▲21
Montreal	10	635	12	609	▲ 2	▲ 26
Chicago	11	634	15	606	▲ 4	▲ 28
San Francisco	12	631	13	608	▲1	▲ 23
Copenhagen	13	630	10	611	▼3	▲ 19
Oslo	14	629	17	604	▲ 3	▲ 25
Amsterdam	15	628	11	610	▼4	▲18
Toronto	16	627	22	599	▲ 6	▲ 28
Paris	17	626	23	598	▲ 6	▲ 28
Lugano	18	625	New	New	New	New
San Diego	19	624	21	600	▲ 2	▲24
Frankfurt	20	623	29	592	▲9	▲31





GGFI 13 Dimensions



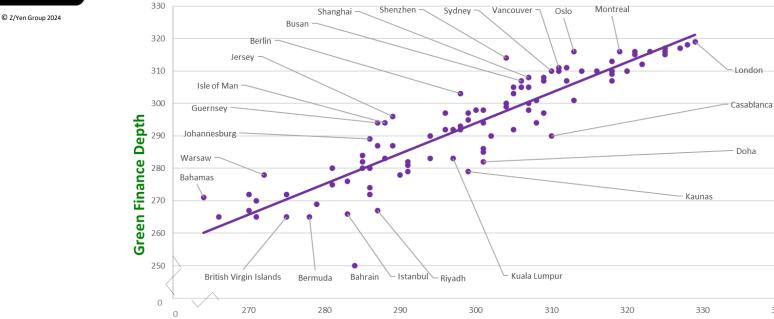
Quality Depth Centre Rating Rank Rank Rating London Geneva Zurich New York Singapore Luxembourg Washington DC Los Angeles Stockholm Montreal Chicago San Francisco Copenhagen Oslo Amsterdam Toronto Paris Lugano San Diego Frankfurt











Green Finance Quality





340



Ranking By Instrumental Factor Group



Rank	Sustainability	Business	Human Capital	Infrastructure
1	London	London	Luxembourg	New York
2	Singapore	Luxembourg	London	London
3	New York	Zurich	Zurich	Zurich
4	Geneva	New York	Geneva	Geneva
5	Luxembourg	Geneva	Oslo	Stockholm
6	Montreal	Washington DC	Montreal	Washington DC
7	Zurich	Singapore	New York	San Francisco
8	Washington DC	Stockholm	Stockholm	Singapore
9	San Francisco	Los Angeles	Singapore	Oslo
10	Amsterdam	Oslo	Washington DC	Los Angeles
11	Paris	Copenhagen	Amsterdam	Luxembourg
12	Los Angeles	Chicago	Copenhagen	Amsterdam
13	Oslo	Amsterdam	Chicago	Paris
14	Chicago	Paris	Toronto	Copenhagen
15	Frankfurt	Toronto	Paris	Montreal







Ranking By Industry Sector



Rank	Policy	Knowledge	Investment	Professional
1	London	London	Luxembourg	New York
2	Luxembourg	New York	Singapore	Luxembourg
3	Geneva	Singapore	Geneva	London
4	Montreal	Geneva	Zurich	Washington DC
5	Singapore	Los Angeles	London	Los Angeles
6	Washington DC	Luxembourg	New York	Chicago
7	Zurich	San Francisco	Stockholm	Zurich
8	Los Angeles	Amsterdam	Los Angeles	San Francisco
9	Paris	Stockholm	Copenhagen	Geneva
10	Stockholm	Chicago	Oslo	Montreal
11	New York	Washington DC	Washington DC	Stockholm
12	Chicago	Zurich	Amsterdam	Oslo
13	Oslo	Copenhagen	Chicago	Frankfurt
14	Amsterdam	Paris	San Francisco	Singapore
15	San Francisco	Oslo	Montreal	Copenhagen







Views Of People Working In Green Finance



Centre	Adjusted Rating	Adjusted Rank	GGFI 13 Rank	Difference
London	643	1	1	0
Geneva	616	16	2	-14
Zurich	630	6	3	-3
New York	629	7	4	-3
Singapore	622	10	5	-5
Luxembourg	640	2	6	4
Washington DC	634	4	7	3
Los Angeles	619	13	8	-5
Stockholm	627	8	9	1
Montreal	633	5	10	5
Chicago	618	14	11	-3
San Francisco	620	12	12	0
Copenhagen	621	11	13	2
Oslo	635	3	14	11
Amsterdam	617	15	15	0
Toronto	623	9	16	7
Paris	608	28	17	-11
Lugano	605	31	18	-13
San Diego	600	38	19	-19
Frankfurt	610	24	20	-4







Headlines – Western Europe Top 20



Change In Change In **GGFI 13** GGFI 12 Centre Rank Rating Rank Rating Rank Rating London 648 1 631 0 ▲ 17 1 2 646 3 623 ▲1 ▲23 Geneva 4 618 Zurich 3 644 **1** ▲26 Luxembourg 5 616 ▼1 ▲24 6 640 6 615 Stockholm ▼3 9 636 ▲ 21 10 611 Copenhagen 13 630 ▼3 ▲ 19 17 604 Oslo 14 629 ▲3 ▲ 25 Amsterdam 15 11 610 628 ▼4 ▲ 18 Paris 17 626 23 598 ▲6 ▲28 New New Lugano 18 625 New New 29 592 Frankfurt 20 623 ▲9 ▲ 31 Edinburgh 19 602 ▼5 24 619 ▲ 17 Madrid 27 25 596 616 ₹2 ▲20 Munich 32 589 33 ▼1 610 ▲21 Hamburg 34 609 38 583 ▲4 ▲ 26 39 Brussels 36 607 582 ▲3 ▲ 25 Vienna 43 578 40 603 ▲ 3 ▲ 25 Berlin 42 601 47 574 ▲5 ▲ 27 46 575 Glasgow 44 599 ▲2 ▲24 Milan 49 572 45 598 ▲26 ▲4







Headlines – Middle East & Africa



Contro	GGFI 13		GGFI 12		Change In	Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Dubai	29	614	33	588	▲ 4	▲ 26
Abu Dhabi	38	605	35	586	▼3	▲ 19
Casablanca	43	600	40	581	▼3	▲ 19
Tel Aviv	52	591	42	579	▼10	▲ 12
Doha	60	583	64	552	▲ 4	▲ 31
Johannesburg	67	575	63	553	▼4	▲ 22
Mauritius	78	561	68	543	▼10	▲ 18
Cape Town	80	559	67	544	▼13	▲ 15
Kigali	81	558	85	516	▲ 4	▲ 42
Riyadh	83	554	76	532	▼7	▲ 22
Lagos	93	536	84	520	▼9	▲ 16
Bahrain	95	534	88	513	▼7	▲21
Nairobi	96	531	89	512	▼7	▲19







Headlines – Asia/Pacific Top 20



Centre	GGFI 13		GGI	GGFI 12		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Singapore	5	641	9	612	▲ 4	▲ 29
Seoul	22	621	18	603	▼4	▲ 18
Sydney	23	620	14	607	▼9	▲ 13
Shenzhen	25	618	24	597	▼1	▲21
Shanghai	28	615	20	601	▼8	▲ 14
Busan	30	613	28	593	▼2	▲ 20
Beijing	31	612	27	594	▼4	▲ 18
Melbourne	32	611	16	605	▼16	▲ 6
Wellington	35	608	31	590	▼4	▲ 18
Hong Kong	37	606	36	585	▼1	▲21
Qingdao	39	604	37	584	▼2	▲ 20
Tokyo	41	602	34	587	▼7	▲ 15
Osaka	46	597	41	580	▼5	▲ 17
Guangzhou	50	593	55	566	▲ 5	▲ 27
Kuala Lumpur	63	580	62	558	▼1	▲ 22
Jakarta	65	577	61	560	▼4	▲ 17
GIFT City-Gujarat	66	576	54	567	▼12	▲ 9
Manila	69	573	74	536	▲ 5	▲ 37
Bangkok	72	570	73	537	▲ 1	▲ 33
New Delhi	75	567	70	540	▼5	▲ 27







Headlines – North America



Contro	GGFI 13		GGFI 12		Change In	Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
New York	4	642	2	624	▼2	▲ 18
Washington DC	7	639	7	614	0	▲ 25
Los Angeles	8	637	8	613	0	▲24
Montreal	10	635	12	609	▲ 2	▲ 26
Chicago	11	634	15	606	▲ 4	▲ 28
San Francisco	12	631	13	608	▲ 1	▲ 23
Toronto	16	627	22	599	▲ 6	▲ 28
San Diego	19	624	21	600	▲ 2	▲ 24
Vancouver	21	622	30	591	▲ 9	▲ 31
Boston	26	617	26	595	0	▲ 22
Atlanta	47	596	50	571	▲ 3	▲ 25
Calgary	48	595	52	569	▲ 4	▲ 26
Philadelphia	49	594	59	562	▲ 10	▲ 32
Miami	59	584	60	561	▲ 1	▲23







Eastern Europe & Central Asia



Centre	GG	GGFI 13		GGFI 12		Change In
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Astana	57	586	53	568	▼4	▲ 18
Kaunas	64	578	New	New	New	New
Prague	70	572	80	528	▲ 10	▲ 44
Riga	71	571	81	527	▲ 10	▲ 44
Sofia	82	556	92	505	▲ 10	▲ 51
Warsaw	84	550	77	531	▼7	▲ 19
Istanbul	85	549	75	533	▼10	▲ 16
Cyprus	86	548	78	530	▼8	▲ 18
Moscow	89	542	87	514	₹2	▲28
Almaty	90	541	90	511	0	▲ 30









Latin America & The Caribbean



Centre	GGFI 13		GGFI 12		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
Santiago	56	587	65	551	▲ 9	▲ 36
Sao Paulo	68	574	69	542	▲ 1	▲ 32
Rio de Janeiro	73	569	66	550	▼7	▲ 19
Mexico City	77	565	71	539	▼6	▲ 26
Bermuda	88	543	94	499	▲6	▲ 44
British Virgin Islands	91	540	91	509	0	▲ 31
Cayman Islands	92	537	86	515	▼6	▲ 22
Bahamas	94	535	93	503	▼1	▲ 32









Observations





Simon Mills Senior Associate Z/Yen Group





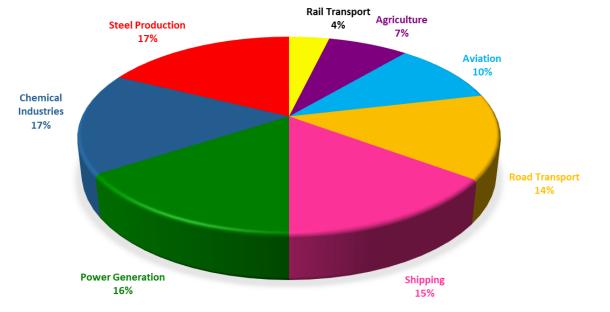




Hydrogen



- We asked respondents to the GGFI survey to indicate in which sectors hydrogen is likely to replace fossil fuel as a primary fuel source.
- Steel production and chemical industries were mentioned most frequently.







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The Hydrogen Economy



- The hydrogen economy refers to energy delivery infrastructure based on hydrogen - in other words, using hydrogen to replace fossil fuels.
- The majority of hydrogen today is used oil refining, methanol production and ammonia production.
- Three areas where hydrogen could play a role in the transition to net zero:
 - In domestic heating and cooking
 - As a replacement for fossil fuels in transport
 - As a replacement for coal or natural gas in steel making



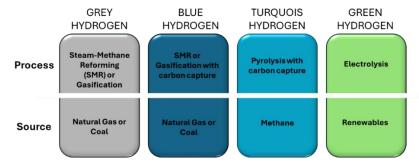




Hydrogen – The Challenges



By Arrow 2024 Hydrogen is not an energy source – it has to be made. Most is made from natural gas, only around 3% of global hydrogen production is green and it costs nearly twice as much as grey hydrogen.



- Domestic use non starter due to safety and cost issues
- Transport H₂ contains twice the energy per kg as petrol, but takes up 7 times the volume: Some hydrogen cars exist, some hydrogen ships exist, but no hydrogen planes exist (yet).



Heavy industry – feasible with the right policy incentives





Hydrogen – The Future



- © Z/Yen Group 2024
- Need to concentrate on decarbonising hydrogen production.
- Wisdom of crowds Steel production and chemical industries are the way forward.
- Transport applications may become more feasible in the next 15 - 20 years, but require significant R&D, particularly for air transport.
- No golden bullets in the search for net zero on the domestic front, a switch to electrical heating and enhanced insulation and energy efficiency are the way forward.







GGFI 13 Conclusions





Mike Wardle Director, Head Of Indices Z/Yen Group







Key Messages



- Risk Management Frameworks, International Initiatives, and Renewables are listed by respondents as the major drivers of green finance.
- On international initiatives, the New Collective Qualitative Goal, which will set the future requirements for adaptation finance, will be taken forward at COP 29 later in 2024.
- US centres have caught up with green finance and Asia/Pacific centres are close behind
- Centres which perform well in the GGFI are generally committed to environmental improvements across the economy as well as in finance and have a depth of sustainability skills







Comments, Questions & Answers









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Thank You For Listening



Forthcoming Events

Wed, 24 Apr (15:00-15:45)	From Fintech To Ubiquitech: A Recipe To Catapult The UK Into The Digital Age			
Thu, 25 Apr (13:30-19:00)	British Isles Share Plans Symposium 2024			
Fri, 26 Apr (11:00-11:45)	Mastering Misinformation: How Stories, Statistics, And Studies Exploit Our Biases – And What We Can Do About It			
Mon, 29 Apr (15:00-15:45)	Empowering Personalisation & Automated Decisioning			
Visit https://fsclub.zyen.com/events/forthcoming-events/				
Watch past webinars <u>https://www.youtube.com/zyengroup</u>				

https://app.pzaz.tv/app/pzaz/store/zyentv







Global Green Finance Index 14



Global Green Finance Index 14: October 2024



Take the GGFI survey at

www.greenfinanceindex.net/survey/

Smart Centres Index 9: May 2024



Global Financial Centres Index 36: September 2024





