

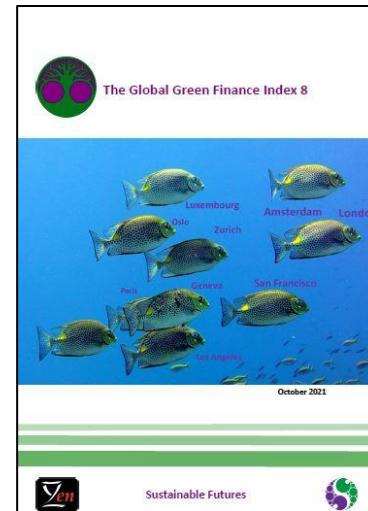
"Zest for Enlightenment"

Global Green Finance Index Global Launch

GGFI 8

Wednesday 20 October 2021
0900 – 1000 BST

 @longfinance



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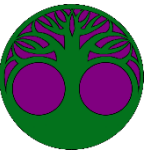


Welcome And Introduction

Simon Mills
Senior Consultant
Z/Yen Group



Agenda



09:00 Welcome and Introduction

Simon Mills, Senior Consultant, Z/Yen Group

09:05 GGFI 8 Results

Mike Wardle, Director, Z/Yen Group

09:25 Commentary

Simon Mills, Senior Consultant, Z/Yen Group

09:35 Comments, Questions & Answers

09:55 Concluding Remarks

10:00 Close



GGFI 8 Results

Mike Wardle
Director, Head Of Indices
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 8 includes 80 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.



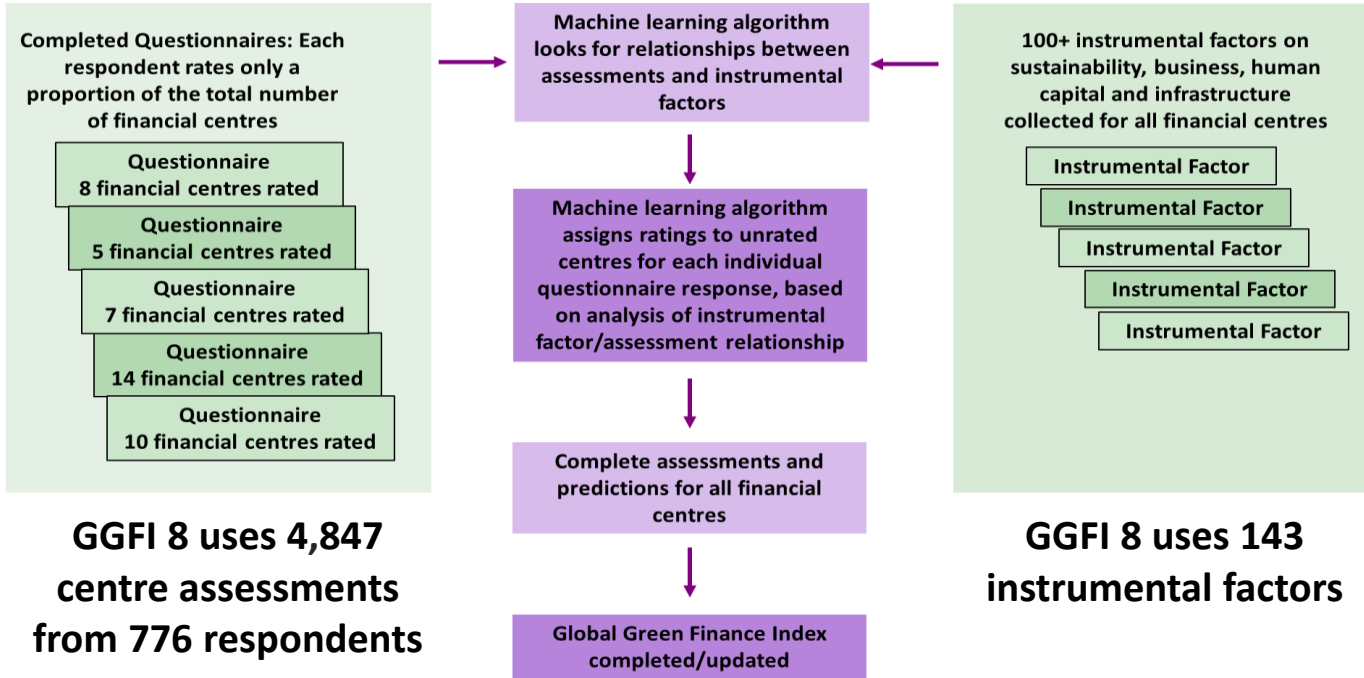
Definitions



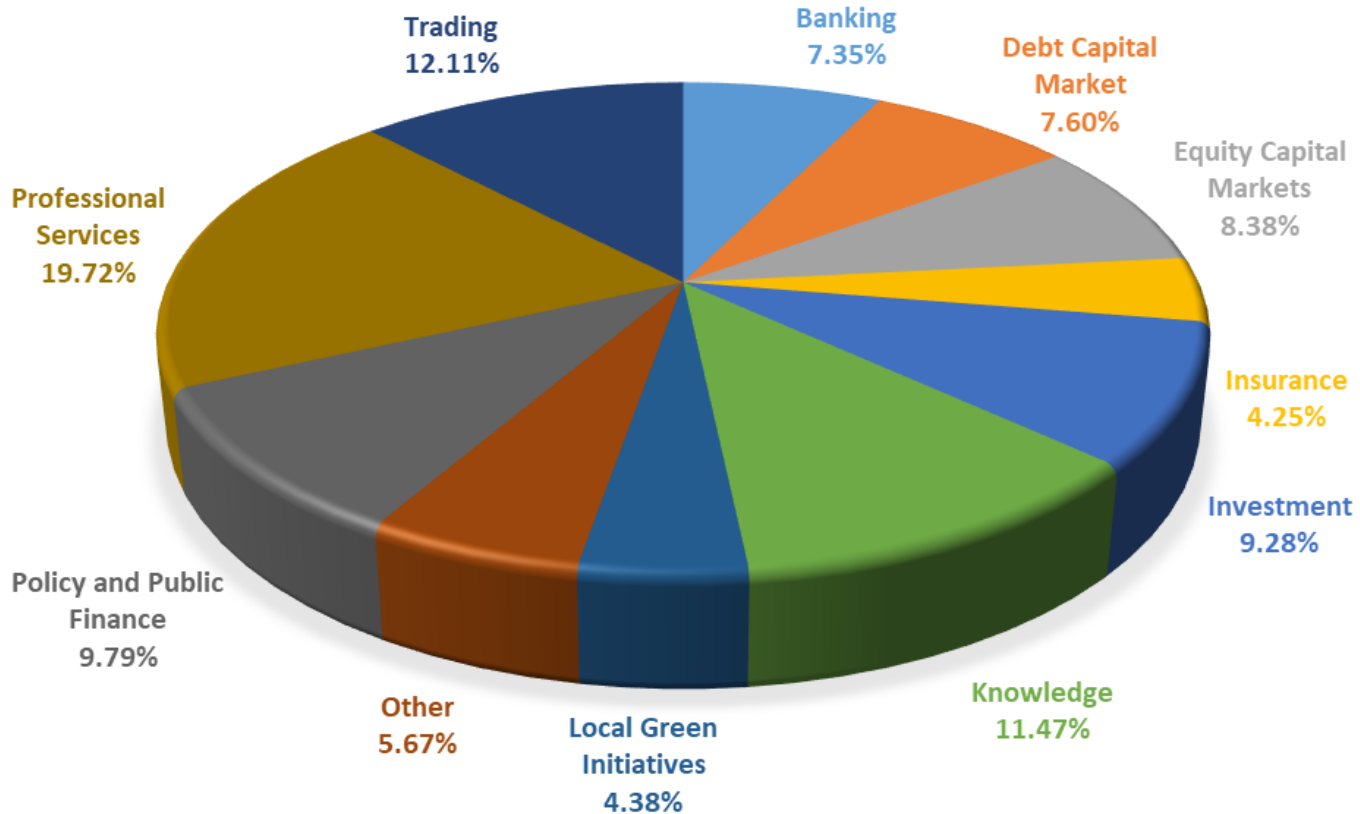
- ◆ **Financial Centres** - UNEP defines financial centres as “cities with an intense concentration of financial activity involving an interlocking set of financial sectors and transactions”.
- ◆ **Green Finance** - refers to any financial instrument or financial services activity – which results in positive change for the environment and society over the long term (sustainability). The most basic “greenness” criterion of a company or project is that it contributes to reducing the emission of Greenhouse Gases.



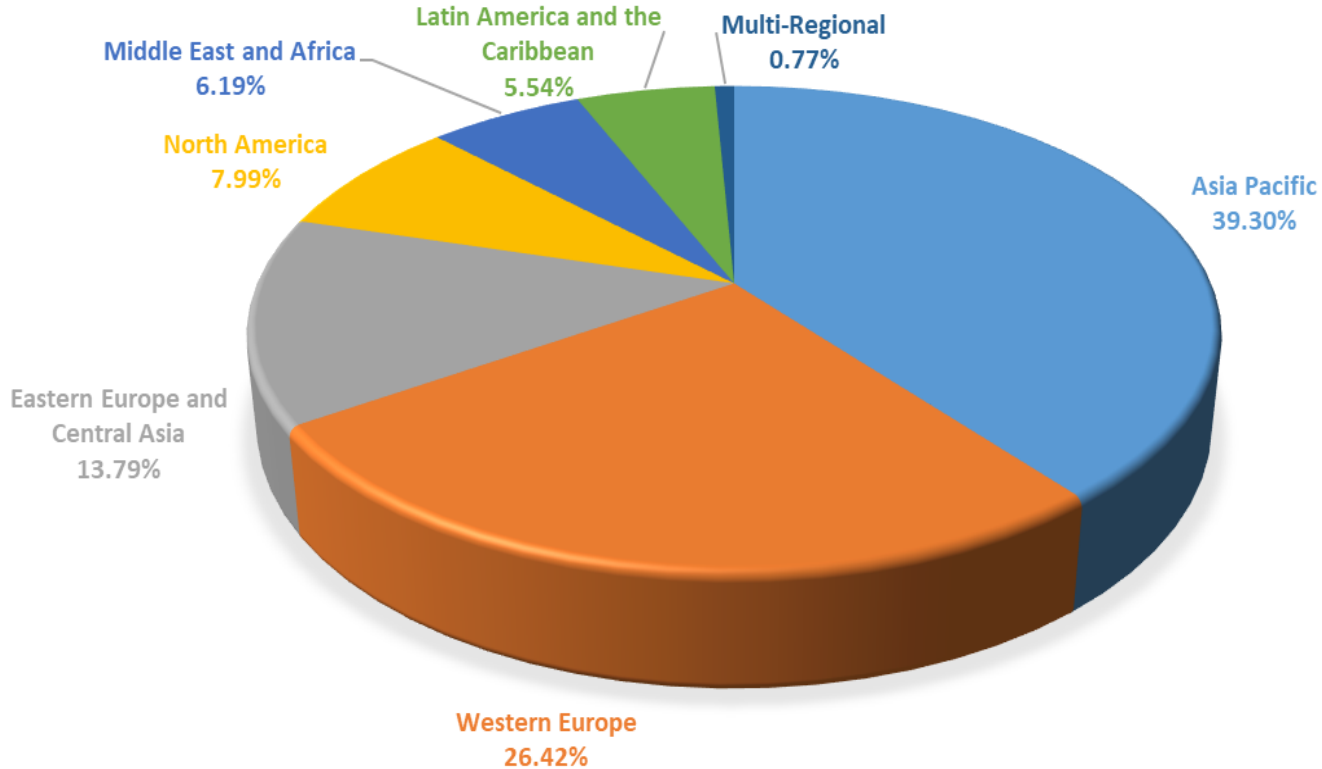
Factor Assessment Index



Respondents By Sector



Respondents By Region



Headlines



- ◆ London has overtaken Amsterdam to take first place in GGFI 8. Amsterdam is second, with San Francisco overtaking Zurich to take third place.
- ◆ Western European centres continue to dominate the top of the index, taking eight of the top 10 places. San Francisco and Los Angeles take the other two spots.
- ◆ New York has gained 18 places in the rankings to 13th place - the biggest rise across the index.
- ◆ Asia/Pacific centres again performed strongly, with Beijing, Shanghai, Seoul, and Singapore all consolidating gains.
- ◆ These changes show the competitive challenge to Western European centres as North American and Asia/Pacific centres focus more intensely on green finance.



Headlines – Top 20 Centres



| Centre | GGFI 8 | | GGFI 7 | | Change In Rank | | Change In Rating | |
|---------------|--------|--------|--------|--------|----------------|----|------------------|-----|
| | Rank | Rating | Rank | Rating | | | | |
| London | 1 | 571 | 3 | 562 | ▲ | 2 | ▲ | 9 |
| Amsterdam | 2 | 562 | 1 | 567 | ▼ | -1 | ▼ | -5 |
| San Francisco | 3 | 549 | 5 | 546 | ▲ | 2 | ▲ | 3 |
| Zurich | 4 | 548 | 2 | 563 | ▼ | -2 | ▼ | -15 |
| Luxembourg | 5 | 545 | 6 | 542 | ▲ | 1 | ▲ | 3 |
| Geneva | 6 | 544 | 7 | 541 | ▲ | 1 | ▲ | 3 |
| Stockholm | 7 | 543 | 9 | 539 | ▲ | 2 | ▲ | 4 |
| Los Angeles | 8 | 542 | 10 | 538 | ▲ | 2 | ▲ | 4 |
| Oslo | 9 | 541 | 4 | 547 | ▼ | -5 | ▼ | -6 |
| Paris | 10 | 540 | 11 | 537 | ▲ | 1 | ▲ | 3 |
| Beijing | 11 | 539 | 14 | 531 | ▲ | 3 | ▲ | 8 |
| Copenhagen | 12 | 538 | 8 | 540 | ▼ | -4 | ▼ | -2 |
| New York | 13 | 537 | 31 | 517 | ▲ | 18 | ▲ | 20 |
| Shanghai | 14 | 536 | 17 | 528 | ▲ | 3 | ▲ | 8 |
| Washington DC | 15 | 534 | 21 | 524 | ▲ | 6 | ▲ | 10 |
| Seoul | 16 | 533 | 22 | 523 | ▲ | 6 | ▲ | 10 |
| Singapore | 16 | 533 | 20 | 525 | ▲ | 4 | ▲ | 8 |
| Helsinki | 18 | 532 | 12 | 534 | ▼ | -6 | ▼ | -2 |
| Munich | 19 | 531 | 15 | 530 | ▼ | -4 | ▲ | 1 |
| Sydney | 20 | 530 | 18 | 527 | ▼ | -2 | ▲ | 3 |



GGFI 8 Dimensions

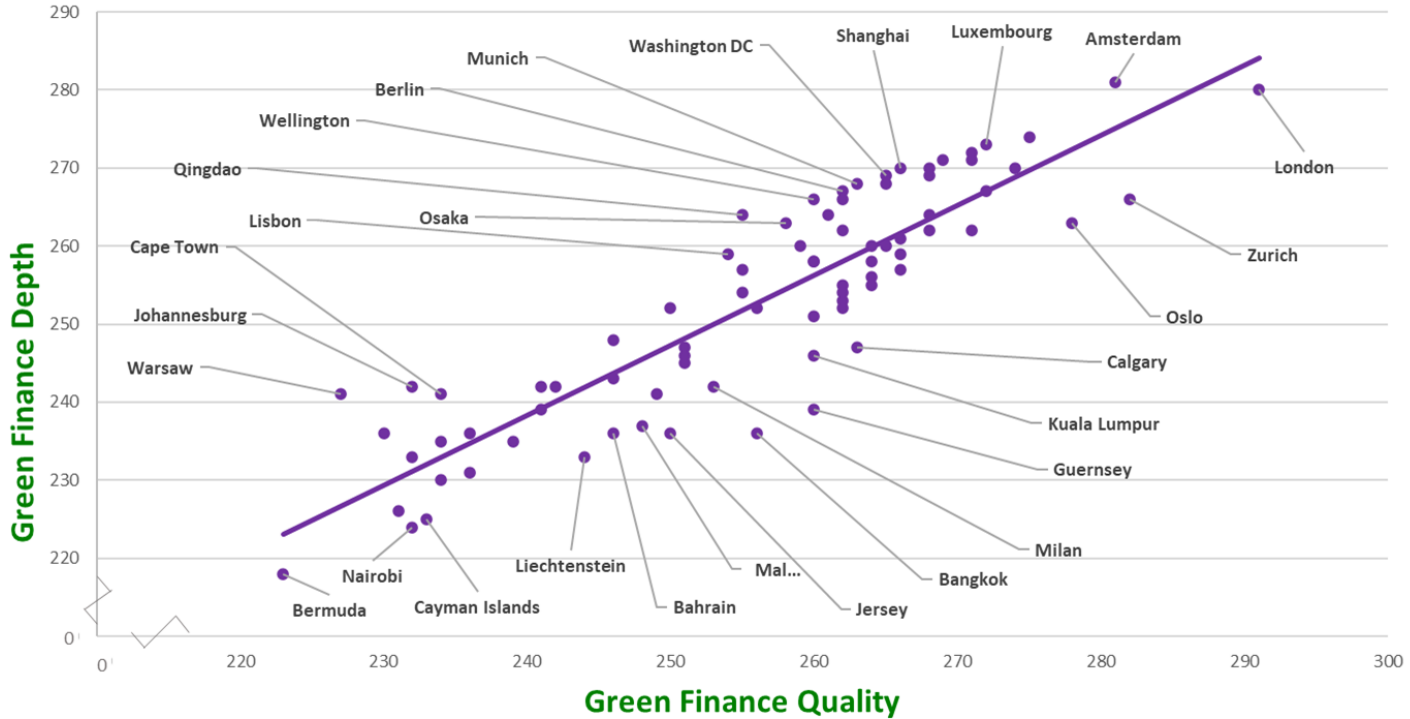
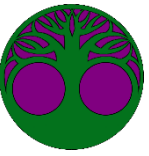


| GGFI 8 Rank | Centre | Depth | | Quality | |
|-------------|---------------|-------|--------|---------|--------|
| | | Rank | Rating | Rank | Rating |
| 1 | London | 2 | 280 | 1 | 291 |
| 2 | Amsterdam | 1 | 281 | 3 | 281 |
| 3 | San Francisco | 3 | 274 | 5 | 275 |
| 4 | Zurich | 17 | 266 | 2 | 282 |
| 5 | Luxembourg | 4 | 273 | 7 | 272 |
| 6 | Geneva | 8 | 270 | 6 | 274 |
| 7 | Stockholm | 5 | 272 | 9 | 271 |
| 8 | Los Angeles | 6 | 271 | 9 | 271 |
| 9 | Oslo | 23 | 263 | 4 | 278 |
| 10 | Paris | 6 | 271 | 12 | 269 |
| 11 | Beijing | 15 | 267 | 7 | 272 |
| 12 | Copenhagen | 8 | 270 | 13 | 268 |
| 13 | New York | 11 | 269 | 13 | 268 |
| 14 | Shanghai | 8 | 270 | 17 | 266 |
| 15 | Washington DC | 11 | 269 | 21 | 265 |
| 16 | Seoul | 13 | 268 | 21 | 265 |
| 16 | Singapore | 25 | 262 | 9 | 271 |
| 18 | Helsinki | 20 | 264 | 13 | 268 |
| 19 | Munich | 13 | 268 | 28 | 263 |
| 20 | Sydney | 25 | 262 | 13 | 268 |



Relationship Between Depth & Quality

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Ranking By Instrumental Factor Group

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| Rank | Factor Group | | | |
|------|----------------|---------------|---------------|----------------|
| | Sustainability | Business | Human Capital | Infrastructure |
| 1 | London | London | London | London |
| 2 | Amsterdam | Stockholm | Zurich | New York |
| 3 | New York | Amsterdam | Copenhagen | San Francisco |
| 4 | Copenhagen | New York | Amsterdam | Los Angeles |
| 5 | Oslo | Zurich | New York | Washington DC |
| 6 | Zurich | Copenhagen | Geneva | Amsterdam |
| 7 | Paris | San Francisco | Luxembourg | Frankfurt |
| 8 | Helsinki | Geneva | Stockholm | Copenhagen |
| 9 | San Francisco | Los Angeles | San Francisco | Munich |
| 10 | Geneva | Beijing | Boston | Tokyo |
| 11 | Stockholm | Luxembourg | Washington DC | Stockholm |
| 12 | Beijing | Shanghai | Sydney | Montreal |
| 13 | Washington DC | Shenzhen | Oslo | Zurich |
| 14 | Berlin | Edinburgh | Seoul | Seoul |
| 15 | Boston | Washington DC | Paris | Berlin |
| 16 | Shanghai | Seoul | Beijing | Beijing |
| 17 | Singapore | Paris | Munich | Boston |
| 18 | Los Angeles | Singapore | Vienna | Edinburgh |
| 19 | Luxembourg | Guangzhou | Singapore | Busan |
| 20 | Montreal | Busan | Berlin | Paris |



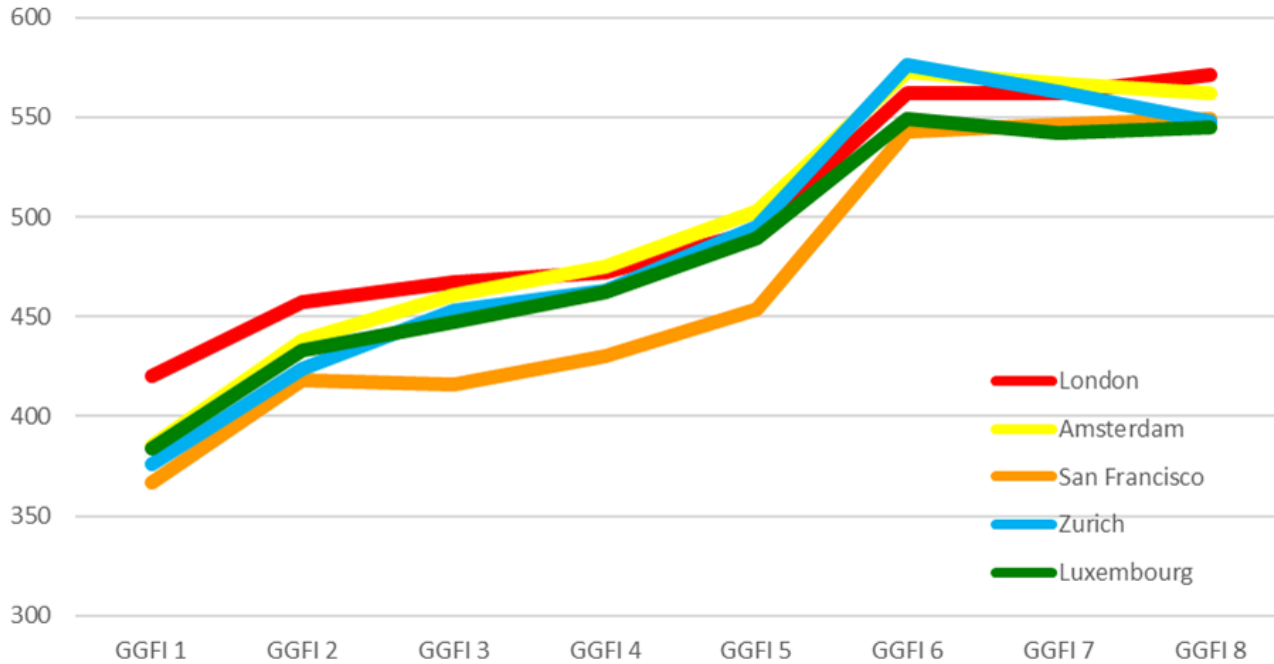
Ranking By Industry Sector



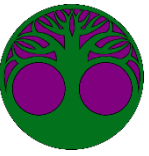
| Rank | Policy | Knowledge | Banking | Investment | Trading |
|------|---------------|---------------|---------------|------------------------|---------------|
| 1 | London | London | Beijing | London | Beijing |
| 2 | Geneva | Amsterdam | Shanghai | Amsterdam | San Francisco |
| 3 | Zurich | Paris | Guangzhou | New York | Guangzhou |
| 4 | Edinburgh | New York | Singapore | Shanghai | New York |
| 5 | Los Angeles | Los Angeles | Sydney | Dubai | Los Angeles |
| 6 | Shenzhen | San Francisco | Hong Kong | Tokyo | Boston |
| 7 | Amsterdam | Berlin | Shenzhen | Beijing | Washington DC |
| 8 | San Francisco | Frankfurt | New York | Singapore | Shenzhen |
| 9 | Melbourne | Copenhagen | Seoul | Osaka | Shanghai |
| 10 | Abu Dhabi | Shenzhen | Boston | San Francisco | Chicago |
| 11 | Luxembourg | Luxembourg | Washington DC | Seoul | Nur-Sultan |
| 12 | Singapore | Seoul | Montreal | Boston | Edinburgh |
| 13 | Beijing | Brussels | Los Angeles | Malta | Doha |
| 14 | Berlin | Singapore | Tokyo | Hong Kong | Abu Dhabi |
| 15 | Guangzhou | Beijing | Melbourne | British Virgin Islands | Melbourne |
| 16 | Frankfurt | Stockholm | Busan | Los Angeles | Vancouver |
| 17 | Washington DC | Munich | Zurich | Luxembourg | Busan |
| 18 | Seoul | Hamburg | San Francisco | Chicago | Almaty |
| 19 | Glasgow | Washington DC | Chicago | Geneva | Singapore |
| 20 | Paris | Helsinki | London | Mumbai | London |



Leading Centres Over Time



Headlines – Western Europe



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| Centre | GGFI 8 | | GGFI 7 | | Change in | Change in |
|------------|--------|--------|--------|--------|-----------|-----------|
| | Rank | Rating | Rank | Rating | Rank | Rating |
| London | 1 | 571 | 3 | 562 | 2 | 9 |
| Amsterdam | 2 | 562 | 1 | 567 | -1 | -5 |
| Zurich | 4 | 548 | 2 | 563 | -2 | -15 |
| Luxembourg | 5 | 545 | 6 | 542 | 1 | 3 |
| Geneva | 6 | 544 | 7 | 541 | 1 | 3 |
| Stockholm | 7 | 543 | 9 | 539 | 2 | 4 |
| Oslo | 9 | 541 | 4 | 547 | -5 | -6 |
| Paris | 10 | 540 | 11 | 537 | 1 | 3 |
| Copenhagen | 12 | 538 | 8 | 540 | -4 | -2 |
| Helsinki | 18 | 532 | 12 | 534 | -6 | -2 |



Headlines – Asia/Pacific



| Centre | GGFI 8 | | GGFI 7 | | Change in | Change in |
|------------|--------|--------|--------|--------|-----------|-----------|
| | Rank | Rating | Rank | Rating | Rank | Rating |
| Beijing | 11 | 539 | 14 | 531 | 3 | 8 |
| Shanghai | 14 | 536 | 17 | 528 | 3 | 8 |
| Seoul | 16 | 533 | 22 | 523 | 6 | 10 |
| Singapore | 16 | 533 | 20 | 525 | 4 | 8 |
| Sydney | 20 | 530 | 18 | 527 | -2 | 3 |
| Tokyo | 22 | 528 | 13 | 532 | -9 | -4 |
| Wellington | 24 | 526 | 33 | 516 | 9 | 10 |
| Busan | 28 | 524 | 31 | 517 | 3 | 7 |
| Shenzhen | 28 | 524 | 28 | 521 | 0 | 3 |
| Guangzhou | 30 | 523 | 22 | 523 | -8 | 0 |



Headlines – North America



| Centre | GGFI 8 | | GGFI 7 | | Change in | Change in |
|---------------|--------|--------|--------|--------|-----------|-----------|
| | Rank | Rating | Rank | Rating | Rank | Rating |
| San Francisco | 3 | 549 | 5 | 546 | 2 | 3 |
| Los Angeles | 8 | 542 | 10 | 538 | 2 | 4 |
| New York | 13 | 537 | 31 | 517 | 18 | 20 |
| Washington DC | 15 | 534 | 21 | 524 | 6 | 10 |
| Vancouver | 25 | 525 | 25 | 522 | 0 | 3 |
| Boston | 25 | 525 | 25 | 522 | 0 | 3 |
| Montreal | 25 | 525 | 19 | 526 | -6 | -1 |
| Toronto | 31 | 522 | 29 | 519 | -2 | 3 |
| Chicago | 37 | 518 | 36 | 513 | -1 | 5 |
| Calgary | 46 | 510 | 42 | 509 | -4 | 1 |



Headlines – Eastern Europe & Central Asia

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| Centre | GGFI 8 | | GGFI 7 | | Change In | |
|------------|--------|--------|--------|--------|-----------|--------|
| | Rank | Rating | Rank | Rating | Rank | Rating |
| Nur-Sultan | 52 | 498 | 57 | 485 | 5 | 13 |
| Moscow | 70 | 472 | 71 | 469 | 1 | 3 |
| Prague | 71 | 469 | 67 | 476 | -4 | -7 |
| Warsaw | 72 | 468 | 72 | 468 | 0 | 0 |
| Istanbul | 73 | 467 | 74 | 459 | 1 | 8 |
| Almaty | 74 | 466 | 62 | 478 | -12 | -12 |



Headlines – Latin America & The Caribbean



| Centre | GGFI 8 | | GGFI 7 | | Change In | Change In |
|------------------------|--------|--------|--------|--------|-----------|-----------|
| | Rank | Rating | Rank | Rating | Rank | Rating |
| Sao Paulo | 65 | 480 | 60 | 479 | -5 | 1 |
| Mexico City | 68 | 474 | 73 | 463 | 5 | 11 |
| Rio de Janeiro | 75 | 465 | 76 | 458 | 1 | 7 |
| British Virgin Islands | 76 | 464 | 77 | 456 | 1 | 8 |
| Cayman Islands | 77 | 458 | 69 | 473 | -8 | -15 |
| Bermuda | 80 | 441 | 78 | 455 | -2 | -14 |



Headlines – Middle East & Africa



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| Centre | GGFI 8 | | GGFI 7 | | Change In | Change In |
|--------------|--------|--------|--------|--------|-----------|-----------|
| | Rank | Rating | Rank | Rating | Rank | Rating |
| Dubai | 40 | 516 | 45 | 505 | 5 | 11 |
| Casablanca | 42 | 514 | 33 | 516 | -9 | -2 |
| Abu Dhabi | 45 | 511 | 50 | 496 | 5 | 15 |
| Tel Aviv | 54 | 496 | 48 | 502 | -6 | -6 |
| Mauritius | 58 | 490 | 52 | 491 | -6 | -1 |
| Doha | 62 | 484 | 59 | 483 | -3 | 1 |
| Bahrain | 64 | 482 | 67 | 476 | 3 | 6 |
| Cape Town | 67 | 475 | 62 | 478 | -5 | -3 |
| Johannesburg | 68 | 474 | 66 | 477 | -2 | -3 |
| Nairobi | 79 | 456 | New | New | New | New |



GGFI 8 Conclusions



- ◆ Green finance continues to grow in popularity: ratings of green finance rose in nearly all centres for both depth and quality
- ◆ Policy matters – not just through its direct effect on green finance: Where a city is showing leadership on clean water, clean air, public transport, and “liveability”, green finance is strong
- ◆ There is no room for complacency at the top - Asia/Pacific and North American centres are improving rapidly.



Commentary

Simon Mills
Senior Consultant
Z/Yen Group



Views Of Those Working In Green Finance

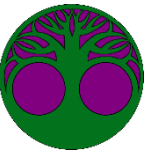


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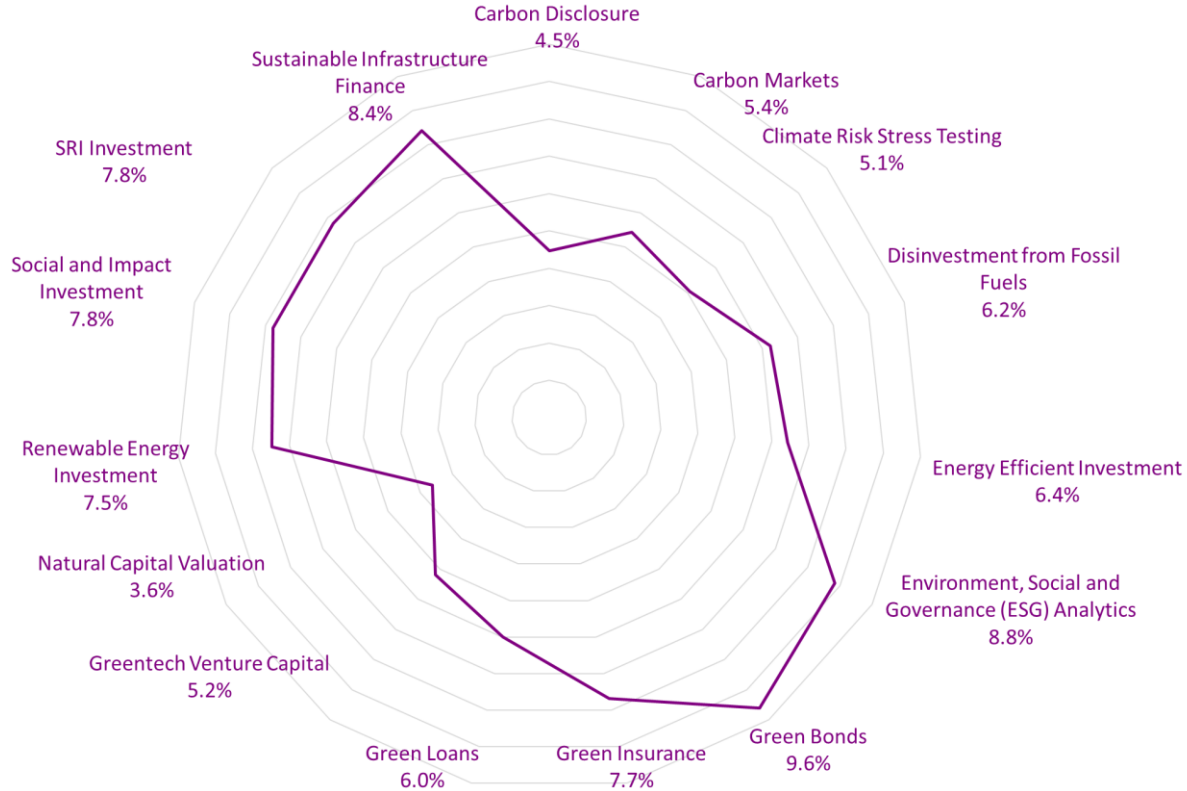
| City | Adjusted Rating | Adjusted Rank | GGFI 8 Rank | Difference |
|---------------|-----------------|---------------|-------------|------------|
| London | 521 | 1 | 1 | 0 |
| Amsterdam | 509 | 2 | 2 | 0 |
| Paris | 507 | 3 | 10 | 7 |
| San Francisco | 502 | 4 | 3 | -1 |
| Luxembourg | 501 | 5 | 5 | 0 |
| New York | 496 | 6 | 13 | 7 |
| Berlin | 491 | 7 | 21 | 14 |
| Oslo | 490 | 8 | 9 | 1 |
| Copenhagen | 486 | 9 | 12 | 3 |
| Zurich | 485 | 10 | 4 | -6 |
| Los Angeles | 484 | 11 | 8 | -3 |
| Sydney | 483 | 12 | 20 | 8 |
| Stockholm | 482 | 13 | 7 | -6 |
| Munich | 480 | 14 | 19 | 5 |
| Geneva | 478 | 15 | 6 | -9 |
| Washington DC | 477 | 16 | 15 | -1 |
| Vienna | 477 | 16 | 33 | 17 |
| Brussels | 475 | 18 | 23 | 5 |
| Wellington | 474 | 19 | 24 | 5 |
| Beijing | 473 | 20 | 11 | -9 |



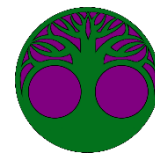
What Is On Practitioners' Minds?



Areas Of Interest

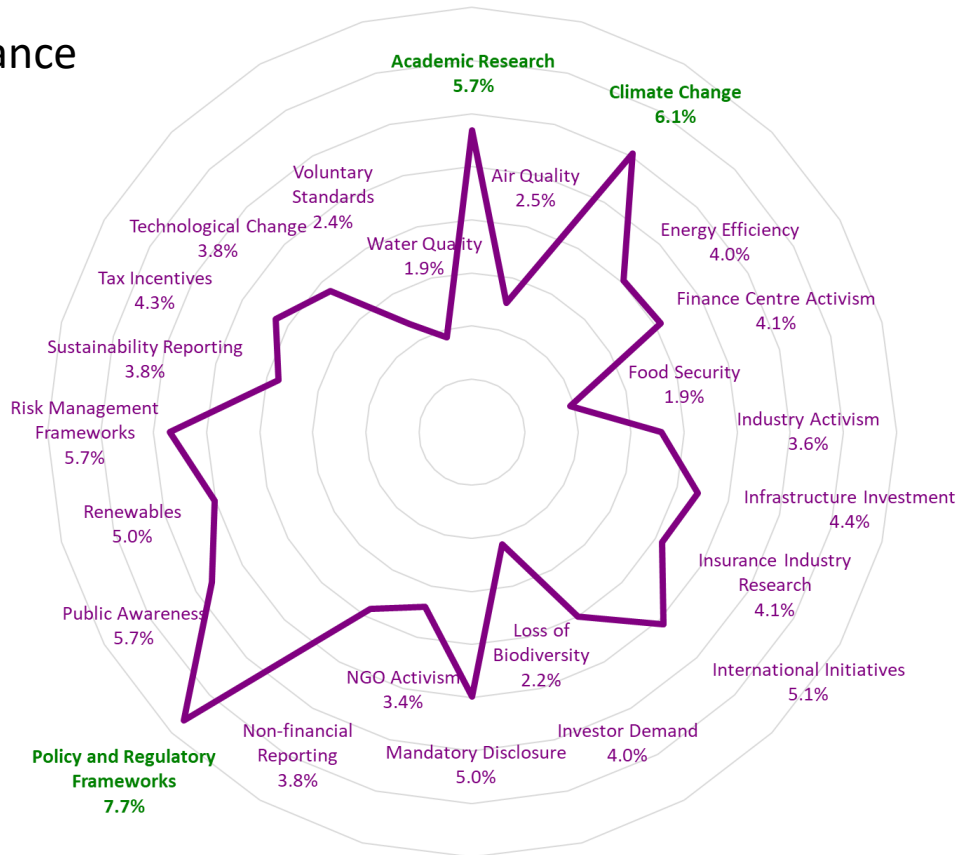


What Is On Practitioners' Minds?



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Drivers Of Green Finance



The Role Of Financial Centres



- ◆ Local action
 - bringing together key players, supporting market access, developing standards and regulatory approaches, enabling a focus on priority areas of the economy, and financial inclusion measures.
- ◆ Disclosure and reporting
 - metrics and taxonomies
 - access to data
 - transparency
- ◆ The move to digitisation and embedded finance
- ◆ The contribution of emissions trading schemes in delivering change.



Emissions Trading And COP 26

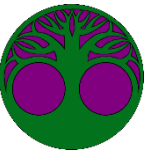


- ◆ Challenges to the successful implementation of carbon trading
 - Pricing
 - Net Zero
 - Setting The Cap
 - Grandfathering
 - Fungibility
 - Scope 3 Emissions
 - Offsetting Schemes
- ◆ The greatest challenge will be reaching agreement among the world powers



Comments, Questions & Answers

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The Z/en Group



GGFI 9 April 2022



Global Green Finance Index Rating The World's Green Financial Centres

Take part:

www.greenfinanceindex.net/survey/

