



The Smart Centres Index 7



May 2023



Distributed Futures





We are pleased to present the seventh edition of the [Smart Centres Index](#) (SCI 7).

The SCI has been developed by Z/Yen, as part of its Long Finance Initiative and the Distributed Futures Programme, to track commercial centres' ability to create, develop, and deploy technology. It aims to help investors, governments, and regulators track the attractiveness of technology centres for new technologies and products by measuring how attuned centres and their regulatory systems are to attracting innovation and growth in Science, Technology, Energy Systems, Machine Learning, Distributed Ledgers, and Fintech.

The SCI tracks three dimensions related to innovation and technology in the cities that we rank:

- Innovation Support - the support provided by regulatory and other systems to innovation and technology in a centre.
- Creative Intensity - the intensity of technology and innovation services and opportunities in a centre.
- Delivery Capability - the quality of the technology and innovation work that is taking place in a centre.

[Z/Yen](#) helps organisations make better choices - our clients consider us a commercial think-tank that spots, solves, and acts. Our name combines Zen and Yen - 'a philosophical desire to succeed' - in a ratio, recognising that all decisions are trade-offs. One of Z/Yen's specialisms is the development and publication of research combining factor analysis and professional assessments.

[Long Finance](#) is a Z/Yen initiative designed to address the question **"When would we know our financial system is working?"** This question underlies Long Finance's goal to improve society's understanding and use of finance over the long-term. In contrast to the short-termism that defines today's economic views, the Long Finance timeframe is roughly 100 years.

The authors of this report, Mike Wardle and Professor Michael Mainelli, would like to thank Sasha Davis, Bikash Kharel and the rest of the Z/Yen team for their contributions with research, modelling, and ideas.

© Z/Yen Group 2023



[With thanks to OpenAI's DALL-E for collaboration on the cover image.]

Foreword

As the Governor of the Astana International Financial Centre (AIFC), it is my great pleasure to introduce the seventh edition of the Smart Centres Index publication. This index serves as a beacon of insight and knowledge, shedding light on the global landscape of innovation and technology. It is a testament to the importance we place on fostering an environment that embraces the transformative power of innovation.

In the rapidly evolving world we are living in, where technology shapes the future, it is imperative for nations and financial centers to be at the forefront of innovation. The AIFC has made significant strides since its establishment in 2018, driven by a steadfast commitment to creating an ecosystem that nurtures innovation and empowers technological advancements. We have diligently built platforms that align with our core objectives and drive our mission forward. These platforms facilitate investment, bolster securities markets, attract financial service providers, enhance professionalism, and position the AIFC as a leading global financial center.

Innovation and technology lie at the heart of our endeavors. We have established internationally recognized legal jurisdiction, providing a solid foundation for investors seeking opportunities in Kazakhstan. Our regulatory environment, catering to 35 different types of financial services, offers a supportive framework for growth and innovation. Furthermore, we have established a world-class training academy that equips financial services professionals with the skills necessary to thrive in an increasingly digital landscape.

Our efforts have borne fruit, as evidenced by the significant interest we have garnered from both domestic and international entities. To date, over 1,900 companies from more than 70 countries have chosen to be a part of the AIFC community. This trust is further solidified by our successful resolution of over 2,000 disputes, which underscores the efficacy of our legal framework.

As we look toward the future, we recognize the evolving global economic landscape and the need to remain agile and forward-thinking. The AIFC will continue to differentiate itself by embracing change and pushing the boundaries of what is possible. We will focus on developing a robust digital asset ecosystem, carefully managing risks while fostering opportunities for growth.

I express my sincere appreciation to the authors, researchers, and contributors who have made this edition of the Smart Centres Index possible.

In conclusion, I invite policymakers, innovators, and investors to explore the AIFC and join the Astana International Forum in June 2023.

Renat Bekturov
Governor



Summary And Headlines

Commentary

The Smart Centres Index focuses on technology and innovation in financial and commercial centres across the world, including Science, Energy Systems, and Machine Learning, along with other applications. The index is designed to improve our understanding of science & technology policy, regulation, and delivery.

The SCI takes into account the three dimensions of Innovation Support, Creative Intensity, and Delivery Capability. In broad terms, centres in North America score higher for Delivery Capability and are matched in their scores for Innovation Support and Creative Intensity. Centres in Western Europe score higher for Creative Intensity and Delivery Capability than Innovation Support. Centres in Asia/Pacific score lower for Innovation Support.

As a mark of continued technological progress, we asked respondents to the SCI survey to predict the time frame over which they expected quantum computers to be able to break current public key encryption. Over three-quarters of respondents now expect this point to be reached within five years - up from two-thirds in SCI 6. This increase in computational power will continue to drive the way in which technology shapes our lives.

Western European and US centres show continued strong performance, but Asia/Pacific centres have fallen back a little.

Following a fall in the average ratings in SCI 6, the average rating in SCI 7 rose by 6.28% with all centres rising in the ratings. This may show increased confidence in the quality and depth of technology and innovation development across the world.

Leading centres in the SCI are based in places which combine a high performing university sector across STEM subjects, with well-developed regulatory, commercial, and financial services.

SCI 7 Results

- London took first place in the index, with New York and San Francisco in second and third.
- Four Western European centres feature in the top 10, and three from the US. Singapore and Hong Kong feature in the top 10 among Asia/Pacific centres. Tel Aviv enters the top 10 for the first time.
- Five centres rose 10 or more places in the rankings in SCI 7, while six centres fell 10 or more places.

North America

- Nine North American centres feature in SCI 7 and three are in the world top 10. San Francisco moved up into 3rd place globally.
- Five centres in the region maintained or improved their rank position compared with SCI 6, with Vancouver improving 12 rank places.

Asia/Pacific

- 21 Asia/Pacific centres feature in the SCI.
- Singapore, Hong Kong, and Busan rank in the top 20 in the world.
- Eight centres in the region rose in the rankings in SCI 7, with Taipei improving more than 10 places.

Western Europe

- 27 Western European centres feature in SCI 7, with four centres ranking in the top 10.
- 10 centres in the region maintained or improved their rank position.
- Dublin, Frankfurt, Milan, and Madrid all fell 10 rank places in SCI 7.

Middle East & Africa

- Tel Aviv leads this region and moved into 9th position overall, with Dubai in second place at 21st in the world.
- Doha entered the index in 29th position.
- All centres in the region, other than Johannesburg, improved their position in the index, with Riyadh and Bahrain improving 10 or more places in the ranking.

Eastern Europe & Central Asia

- Sofia maintained its status as the leading centre in the region, although it lost a little ground, dropping 2 rank places overall.
- Tallinn entered the index in 44th position.
- Astana moved up 11 rank places in its second entry in the SCI.

Latin America & The Caribbean

- Mexico City leads the region, but is only four rank places ahead of the Cayman Islands.
- Mexico City fell nine rank places in SCI 7, and Cayman Islands and Trinidad & Tobago also fell in the rankings.

SCI 7

The SCI is a factor assessment index, combining a number of instrumental factors - data measures drawn from a range of data providers across the world - and assessments given by business and finance professionals of three dimensions related to innovation and technology in major commercial centres:

- Innovation Support - the support provided by regulatory and other systems to innovation and technology in a centre.
- Creative Intensity - the intensity of technology and innovation services and opportunities in a centre.
- Delivery Capability - the quality of the technology and innovation work that is taking place in a centre.

These dimensions are brought together in the overall SCI ratings to produce the index, which is updated every six months.

SCI 7 was compiled using 136 instrumental factors. These quantitative measures are provided by third parties including the World Bank, The Economist Intelligence Unit, the OECD, and the United Nations. Details can be found in Appendix 4.

The instrumental factors were combined with 1,806 assessments provided by respondents to the [SCI online questionnaire](#). Details of the 257 respondents are shown in Appendix 2. Further details of the methodology behind SCI 7 are in Appendix 3.

We researched 131 commercial and financial centres for this sixth edition of the Smart Centres Index (SCI 7). The 77 centres listed in SCI 7 are those which received an adequate number of assessments from survey respondents. Assessments of respondents' home centres were excluded from the data, in order to avoid home centre bias.

SCI 7 Ranks And Ratings

Table 1 | Smart Centres index 7: Ranks And Ratings

Centre	SCI 7		SCI 6		Change In	
	Rank	Rating	Rank	Rating	Rank	Rating
London	1	757	2	731	▲1	▲26
New York	2	750	1	733	▼1	▲17
San Francisco	3	732	4	708	▲1	▲24
Zurich	4	725	6	705	▲2	▲20
Lugano	5	724	7	704	▲2	▲20
Singapore	6	721	8	703	▲2	▲18
Oxford, UK	7	719	10	701	▲3	▲18
Los Angeles	8	718	3	714	▼5	▲4
Tel Aviv	9	717	14	692	▲5	▲25
Hong Kong	10	716	5	706	▼5	▲10
Seattle	11	715	15	691	▲4	▲24
Boston	12	714	16	689	▲4	▲25
Cambridge, UK	13	713	9	702	▼4	▲11
Copenhagen	14	712	13	693	▼1	▲19
Stockholm	15	711	23	671	▲8	▲40
Chicago	16	710	11	697	▼5	▲13
Malta	17	709	12	696	▼5	▲13
Vancouver	18	708	30	654	▲12	▲54
Busan	19	707	22	672	▲3	▲35
Toronto	20	706	19	675	▼1	▲31
Dubai	21	705	26	661	▲5	▲44
Tokyo	22	704	17	677	▼5	▲27
Geneva	23	703	21	673	▼2	▲30
Amsterdam	24	698	18	676	▼6	▲22
Shenzhen	25	696	32	652	▲7	▲44
Washington DC	26	694	33	651	▲7	▲43
Shanghai	27	692	20	674	▼7	▲18
Seoul	28	691	24	669	▼4	▲22
Doha	29	690	New	New	New	New
Brussels	30	688	25	664	▼5	▲24
Abu Dhabi	31	687	37	641	▲6	▲46
Berlin	32	686	34	650	▲2	▲36
Luxembourg	33	685	28	656	▼5	▲29
Beijing	34	683	27	657	▼7	▲26
Sydney	35	682	36	646	▲1	▲36
Bangkok	36	680	29	655	▼7	▲25
Guangzhou	37	679	43	616	▲6	▲63
Vienna	38	673	38	638	0	▲35
Melbourne	39	672	40	635	▲1	▲37

Table 1 (continued) | Smart Centres index 7: Ranks And Ratings

Centre	SCI 7		SCI 6		Change In Rank	Change In Rating
	Rank	Rating	Rank	Rating		
Taipei	40	671	61	574	▲ 21	▲ 97
Dublin	41	669	31	653	▼ 10	▲ 16
GIFT City-Gujarat	42	668	47	607	▲ 5	▲ 61
Sofia	43	667	41	622	▼ 2	▲ 45
Tallinn	44	666	New	New	New	New
Gibraltar	45	664	42	621	▼ 3	▲ 43
Chengdu	46	661	39	636	▼ 7	▲ 25
Osaka	47	660	35	649	▼ 12	▲ 11
Prague	48	657	45	613	▼ 3	▲ 44
Edinburgh	49	656	48	606	▼ 1	▲ 50
Cape Town	50	655	53	587	▲ 3	▲ 68
Guernsey	51	654	60	575	▲ 9	▲ 79
Hamburg	52	653	49	601	▼ 3	▲ 52
Astana	53	652	64	569	▲ 11	▲ 83
Frankfurt	54	650	44	615	▼ 10	▲ 35
Paris	55	647	46	609	▼ 9	▲ 38
Munich	56	646	58	582	▲ 2	▲ 64
Riyadh	57	645	69	561	▲ 12	▲ 84
Johannesburg	58	640	54	586	▼ 4	▲ 54
Istanbul	59	639	50	599	▼ 9	▲ 40
Bahrain	60	636	70	557	▲ 10	▲ 79
Tianjin	61	635	51	598	▼ 10	▲ 37
Milan	62	632	52	588	▼ 10	▲ 44
Budapest	63	630	57	583	▼ 6	▲ 47
Manila	64	627	55	585	▼ 9	▲ 42
Stuttgart	65	626	63	570	▼ 2	▲ 56
Madrid	66	623	56	584	▼ 10	▲ 39
Moscow	67	618	68	562	▲ 1	▲ 56
Mexico City	68	617	59	577	▼ 9	▲ 40
Warsaw	69	614	67	563	▼ 2	▲ 51
Athens	70	612	72	537	▲ 2	▲ 75
Kuala Lumpur	71	610	62	572	▼ 9	▲ 38
Cayman Islands	72	609	66	564	▼ 6	▲ 45
Isle of Man	73	590	73	533	0	▲ 57
Rome	74	582	65	566	▼ 9	▲ 16
Trinidad & Tobago	75	574	71	550	▼ 4	▲ 24
Mumbai	76	571	74	498	▼ 2	▲ 73
New Delhi	77	539	75	454	▼ 2	▲ 85

The Three SCI Dimensions

We develop the SCI ratings and rankings by looking at three separate dimensions of technology and innovation development:

- Innovation Support - the approach taken to regulation and support for the innovation and technology industry provided by the commercial ecosystem.
- Creative Intensity - the extent to which technology and innovative industries are embedded in the economy of the centre.
- Delivery Capability - the quality of the innovation work being undertaken in the centre.

We develop ratings for each dimension, which are ranked equally in creating the SCI. Full details of the separate ratings for each dimension are at Appendix 1. Table 2 shows the rating details for each dimension for the top 20 centres in SCI 7.

Table 2 | Rating Details For SCI 7 Dimensions: Top 20 Centres in SCI 7

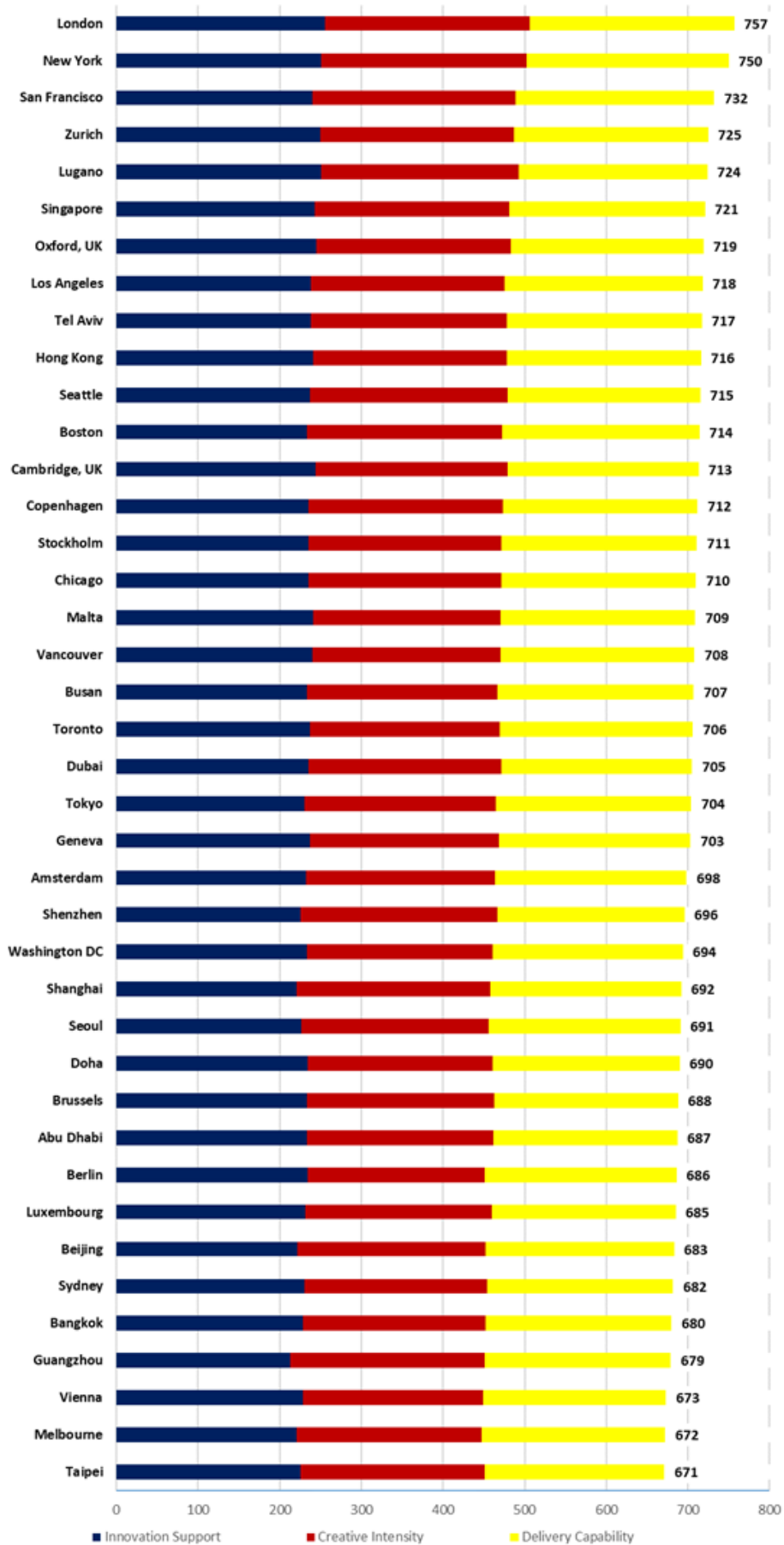
SCI 7 Ranking	Centre	SCI Dimensions					
		Innovation Support		Creative Intensity		Delivery Capability	
		Rank	Rating	Rank	Rating	Rank	Rating
1	London	1	255	1	251	1	251
2	New York	2	251	1	251	2	248
3	San Francisco	10	240	3	249	3	243
4	Zurich	4	250	13	237	14	238
5	Lugano	2	251	4	242	28	231
6	Singapore	7	243	9	238	6	240
7	Oxford, UK	5	245	9	238	18	236
8	Los Angeles	12	238	13	237	3	243
9	Tel Aviv	12	238	7	240	9	239
10	Hong Kong	8	241	13	237	14	238
11	Seattle	14	237	4	242	18	236
12	Boston	24	233	8	239	5	242
13	Cambridge, UK	6	244	20	235	23	234
14	Copenhagen	18	235	9	238	9	239
15	Stockholm	18	235	17	236	6	240
16	Chicago	18	235	17	236	9	239
17	Malta	8	241	30	229	9	239
18	Vancouver	10	240	26	230	14	238
19	Busan	24	233	22	234	6	240
20	Toronto	14	237	23	232	17	237

This analysis shows the effect that particular dimensions have on the placing of centres in the SCI. In particular:

- Leading centres have a spread of strengths across the dimensions.
- Individual centres have differing areas of strength, with San Francisco and Zurich, for example, closely matched in their overall rank, but with different profiles in the dimensions.

The SCI 7 results showing the contribution of each dimension for the top 40 centres are shown in Chart 1.

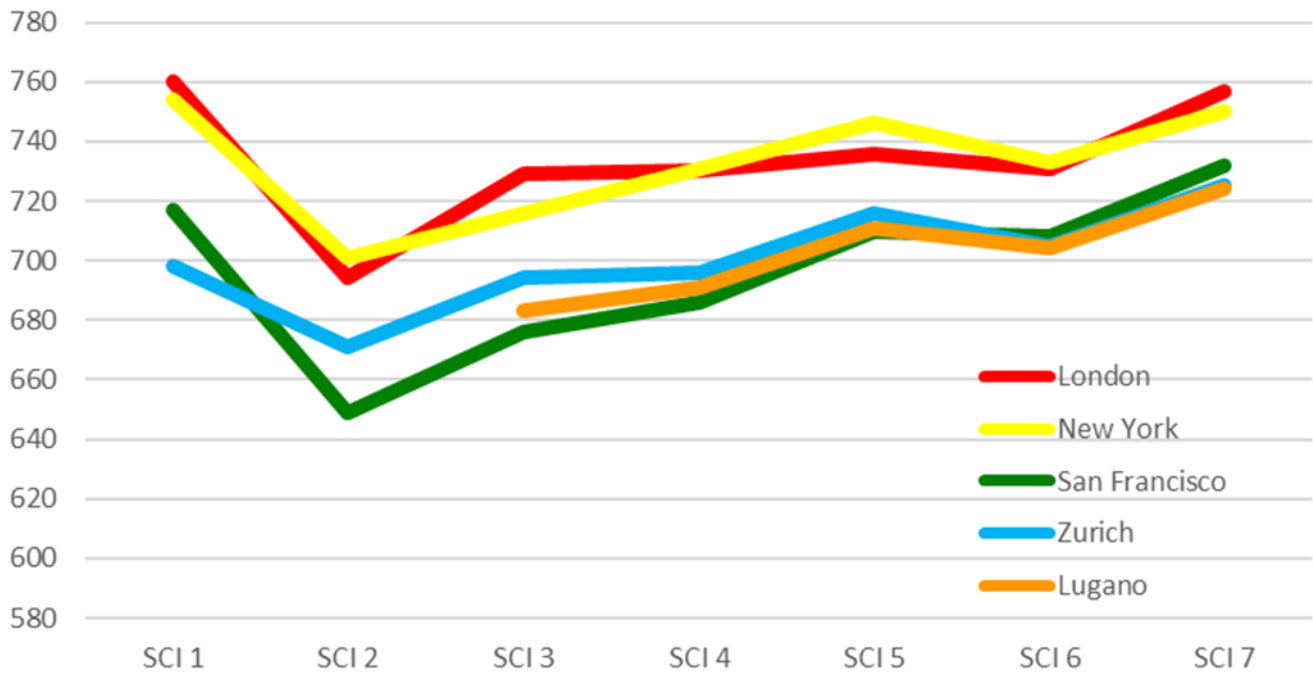
Chart 1 | SCI 7: Contribution Of The Dimensions To Overall Ratings: Top 40 Centres



Top Five Centres

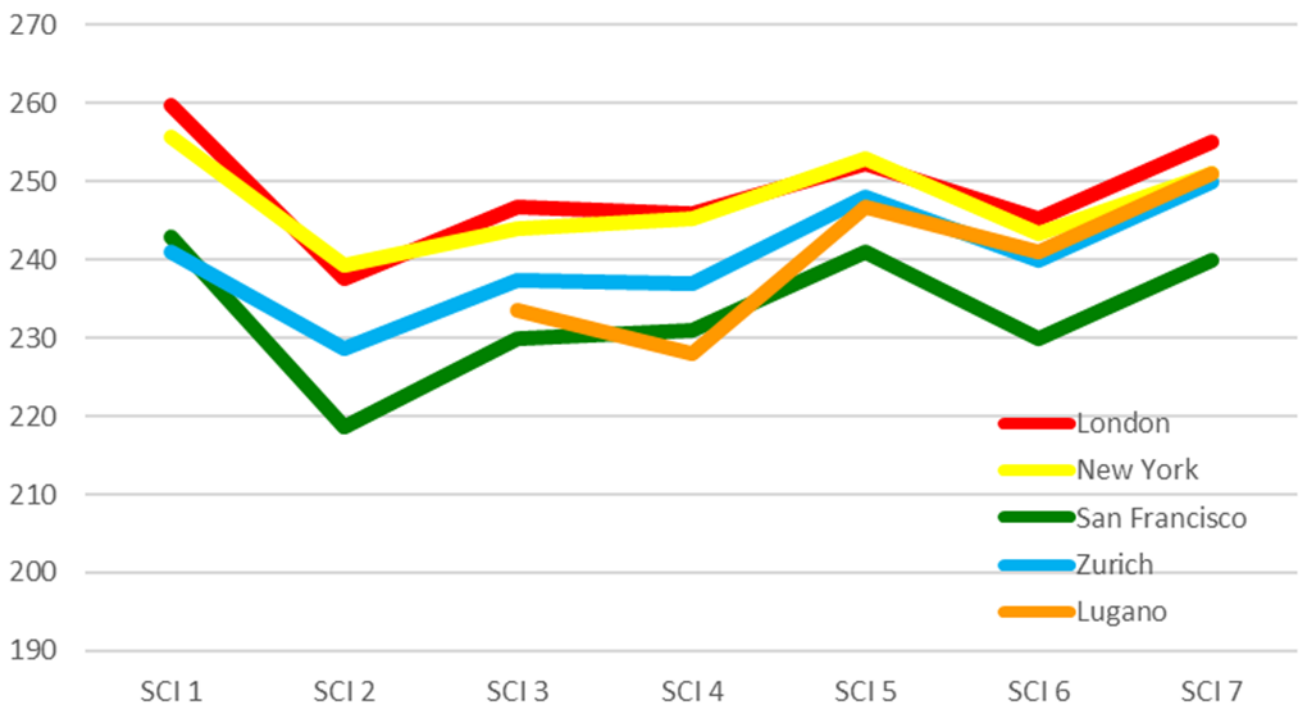
Among the top five centres in the SCI, London has overtaken New York and both centres are clearly ahead of the following centres.

Chart 2 | The Top Five Centres Over Time



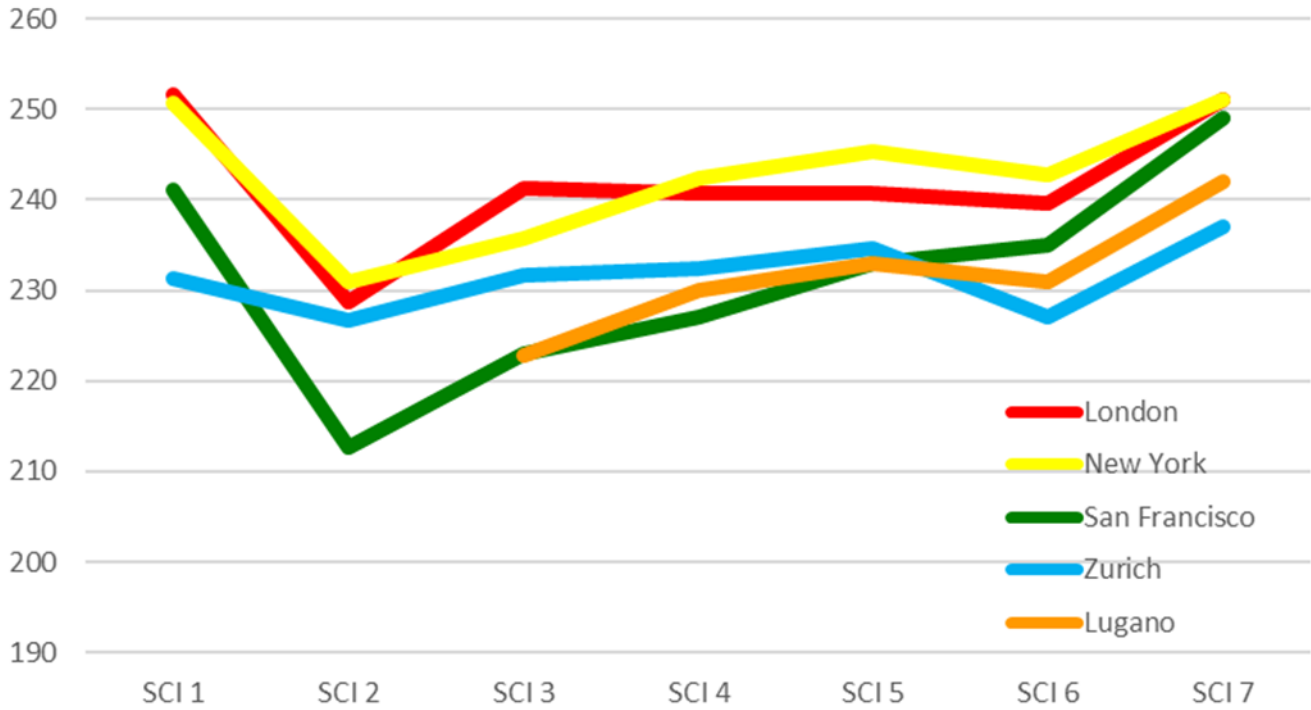
London outperforms New York in Innovation Support in SCI 7. Lugano takes third position on this measure.

Chart 3 | Top Five Centres - Innovation Support - Ratings Over Time



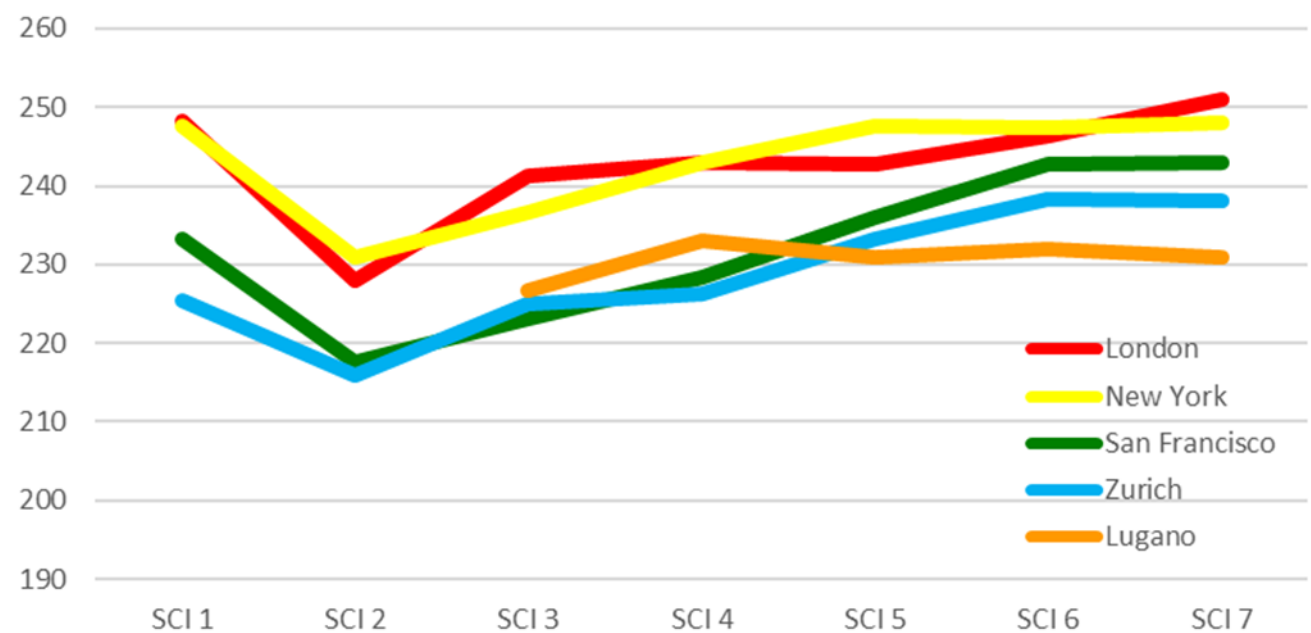
In the Creative Intensity dimension, London has risen to equal New York. San Francisco is only 2 points behind in third position on this measure in SCI 7.

Chart 4 | Top Five Centres - Creative Intensity Ratings Over Time



For Delivery Capability, London again takes first place, with New York second. San Francisco and Zurich’s ratings in this area were static, while Lugano fell slightly in the ratings.

Chart 5 | Top Five Centres - Delivery Capability - Ratings Over Time

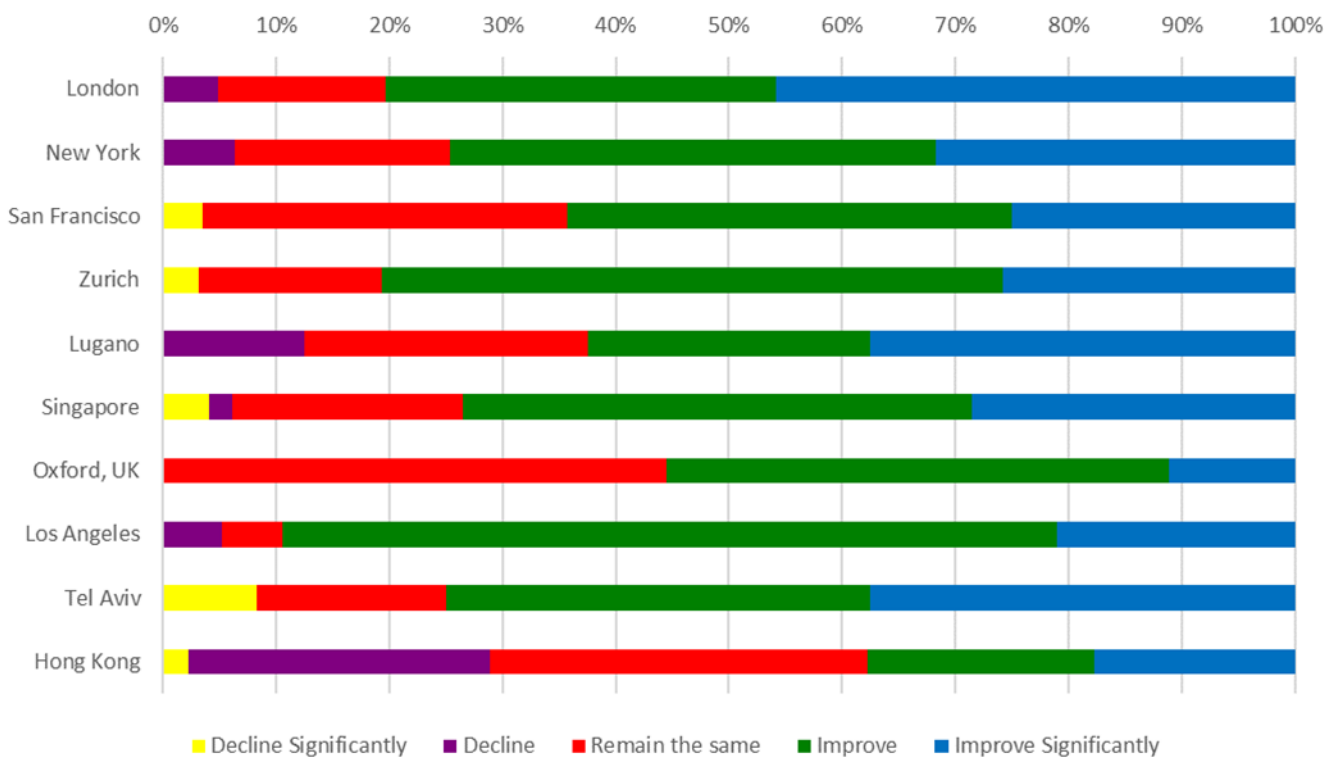


SCI 7: Further Analysis

Future Performance

We asked respondents to the SCI survey to assess whether the centres they rated were likely to improve, decline, or stay the same in relation to their innovation and technology offerings over the next two to three years. The results for the top 10 centres are shown in Chart 6. For all centres in this group other than Hong Kong, the majority of respondents thought that the centre would improve over this period. Los Angeles has the highest proportion of those rating its performance who consider that it will improve or improve significantly over the next period.

Chart 6 | Future Performance - Top 10 Centres



“Full support from the government and universities is needed to foster professionals in the IT field”

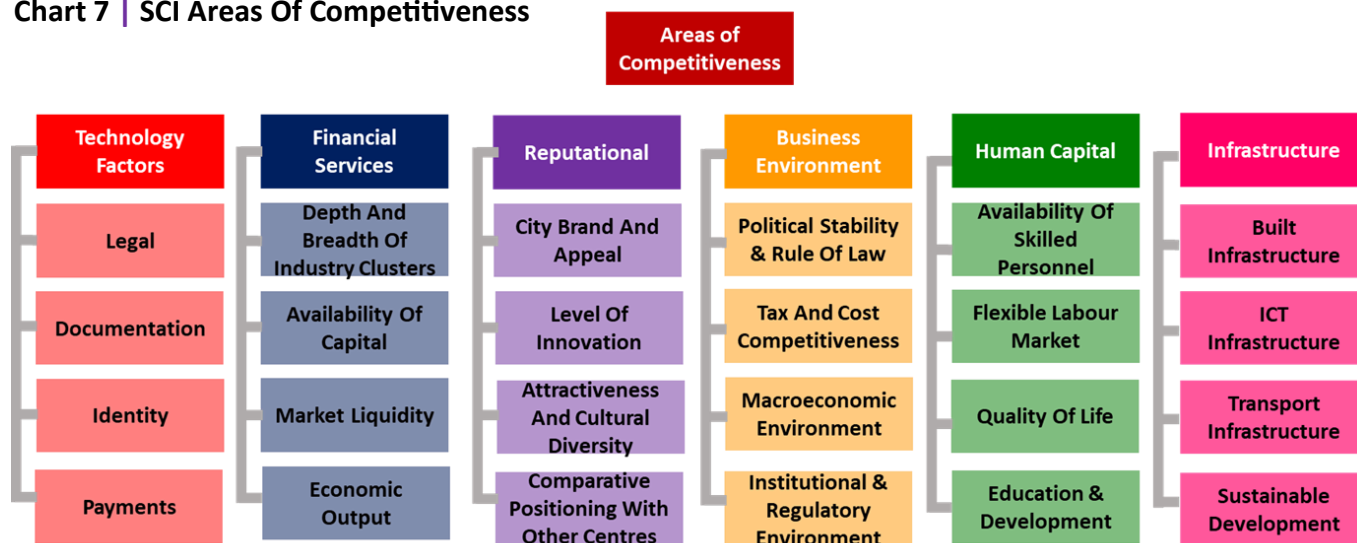
DIRECTOR, TECHNOLOGY FIRM, SINGAPORE

Areas Of Competitiveness

SCI 7 is created using 136 instrumental factors which relate to a range of aspects of competitiveness, including measures relating to technology development. These factors are grouped into six broad areas of competitiveness: Technology, Financial Services, Reputational, Business Environment, Human Capital, and Infrastructure.

These areas and the instrumental factor themes which comprise each area are shown in Chart 7.

Chart 7 | SCI Areas Of Competitiveness



To assess centres’ technology and innovation offerings against each of these areas, the SCI model is run for each area separately. The top ranked 15 centres in each sub-index are shown in Table 3.

Table 3 | Top 15 Centres By Areas Of Competitiveness

Rank	Technology	Business Environment	Human Capital	Infrastructure	Financial Services	Reputational
1	New York	London	London	London	London	London
2	London	New York	New York	New York	New York	New York
3	Singapore	San Francisco	Singapore	Singapore	San Francisco	Lugano
4	San Francisco	Singapore	San Francisco	San Francisco	Zurich	Oxford, UK
5	Los Angeles	Zurich	Zurich	Cambridge, UK	Los Angeles	Cambridge, UK
6	Lugano	Hong Kong	Los Angeles	Zurich	Singapore	Zurich
7	Washington DC	Lugano	Chicago	Los Angeles	Chicago	Singapore
8	Chicago	Los Angeles	Oxford, UK	Hong Kong	Boston	Geneva
9	Boston	Tel Aviv	Toronto	Oxford, UK	Geneva	San Francisco
10	Hong Kong	Copenhagen	Tel Aviv	Tel Aviv	Lugano	Los Angeles
11	Zurich	Oxford, UK	Hong Kong	Seattle	Hong Kong	Tel Aviv
12	Amsterdam	Geneva	Seattle	Chicago	Seoul	Boston
13	Busan	Chicago	Boston	Stockholm	Seattle	Hong Kong
14	Luxembourg	Dubai	Vancouver	Toronto	Busan	Chicago
15	Seattle	Amsterdam	Dubai	Lugano	Oxford, UK	Stockholm

The leading centres in the index have a balance of strengths across all six areas of competitiveness. Some centres have distinct areas of strength, for example, Hong Kong for the Business Environment, and Lugano for reputational measures.

Index Ranking For Technology

As shown in Table 3, we have conducted an analysis of the assessments provided by respondents using only the instrumental factors that have a direct relationship to technology. We compare this analysis with the main index in Table 4. The plus and minus figures show the difference between the main index and the index calculated using only technology factors.

Comparing the rankings using only technology factors with the overall SCI rankings makes minor differences for some centres. However, in the technology rankings, Washington DC, Chicago, Amsterdam, Busan, and Luxembourg gain a significant advantage.

Table 4 | Top 15 Centres Using All Factors And Only Technology Factors

SCI 7		
Rank	All Factors	Technology Factors
1	London	New York (+1)
2	New York	London (-1)
3	San Francisco	Singapore (+3)
4	Zurich	San Francisco (-1)
5	Lugano	Los Angeles (+3)
6	Singapore	Lugano (-1)
7	Oxford, UK	Washington DC (+19)
8	Los Angeles	Chicago (+8)
9	Tel Aviv	Boston (+3)
10	Hong Kong	Hong Kong
11	Seattle	Zurich (-7)
12	Boston	Amsterdam (+12)
13	Cambridge, UK	Busan (+6)
14	Copenhagen	Luxembourg (+19)
15	Stockholm	Seattle (-4)

“I think that quantum computing is the most important technology currently in development.”

DIRECTOR, TECHNOLOGY COMPANY, GUANGZHOU

Table 5 shows the top 10 instrumental factors in terms of their correlation with the SCI ranking. This shows the impact of both finance and FinTech measures, but also the contribution of infrastructure, innovation, wealth, and safe and effective governance on developing an innovation ecosystem.

Table 5 | Top 10 Instrumental Factors By R Squared Correlation

Instrumental Factor	R Squared
Fintech Activity Index	0.524
Urban Mobility Readiness Index	0.457
The Global Financial Centres Index	0.448
Safe Cities Index	0.445
Global Innovation Index	0.438
Adjusted Net National Income Per Capita	0.430
Government Effectiveness	0.423
Telecommunication Infrastructure Index	0.412
Smart City Index	0.390
World Talent Rankings	0.377

Focusing only on the instrumental factors which relate to technology, the factors most closely correlated in terms of their R Squared relationship with the SCI ratings are set out in Table 6.

Table 6 | Top 10 Technology Instrumental Factors By R Squared Correlation

Technology Factors	R Squared
Fintech Activity Index	0.524
Telecommunication Infrastructure Index	0.412
Smart City Index	0.390
E-Government Development Index	0.340
GFCI FinTech Index	0.262
E-Participation Index	0.248
Global AI Index	0.205
The Global Fintech Index	0.146
Worldwide Broadband Speed League	0.126
Global Cybersecurity Index	0.091

Commentary On Factors

The SCI survey asks respondents to comment on factors that affect the development of technology and innovation in centres, and in particular regulation, taxation, and the availability of skills. The results are summarised in Table 7.

Table 7 | Commentary On Areas Of Competitiveness

Area Of Competitiveness	Number Of Mentions	Main Themes
Regulatory Environment	71	<ul style="list-style-type: none"> • Business needs consistency of regulation to prosper. • Regulation that supports competition, e.g., through open banking and open finance is very important.
Taxation	59	<ul style="list-style-type: none"> • Some support for lowering taxation on business, particularly on acquisitions. • R&D could benefit from tax incentives and support.
The Availability Of Skills	66	<ul style="list-style-type: none"> • Places with deep pools of technology and innovation talent are likely to succeed. • Continuing development of the workforce to understand innovation will be necessary.

We also asked respondents to identify current interesting and successful initiatives in the fields of technology and innovation. These included:

- Smart identification for retail banking in support of financial inclusion and micro finance over mobile technology in Africa.
- Edinburgh is part of a coherent ecosystem that covers all of central Scotland, including Glasgow and encompassing Dundee and Aberdeen. There are many investments in this area which are monitored by the Scottish Venture journal 'Young Company Finance'.
- Digitalisation of knowledge as a working and measurable asset (shift from intangibles to tangibles).
- Blockchain in Central Securities Depositories and Central Counterparty Clearance processing.
- Crypto Legislation in Switzerland and also, but to a lesser extent, in Germany.
- The Bahamas Digital Assets and Registered Exchanges Act, which provides a bespoke regulatory framework for digital assets, digital assets service providers, and initial token offerings among other digital asset activities.
- AI based applications in Canada and in Toronto in particular.
- Second-order open source intelligence (combining results of first order intelligence using ML).
- Use of blockchain for voting security.
- Insurtech, where the potential is huge.
- Developments in China in AI, robotics, drones, quantum computing and many other areas.
- Central Bank Digital Currencies, including the Bahamas Sand Dollar and e-CNY - China's Central Bank Digital Currency.
- Some blockchain uses in Luxembourg between financial actors and the government for loans.
- Quantum information and communications technology.
- Digital resident portals.
- Using fungi in soil in crop growth farming to capture more carbon dioxide.

Reputation

We analyse the reputational advantage of centres by comparing the average assessment given in the survey to the overall SCI 7 rating. Centres with a high reputational advantage are perceived by respondents to the survey to be performing better than the underlying data may suggest and may need to pay attention to the strength of their underlying ecosystem. Those with a negative reputational advantage may need to market their strengths better to achieve a truer perception of their performance. The top 15 and lowest 15 centres on this measure are shown in Tables 8 and 9.

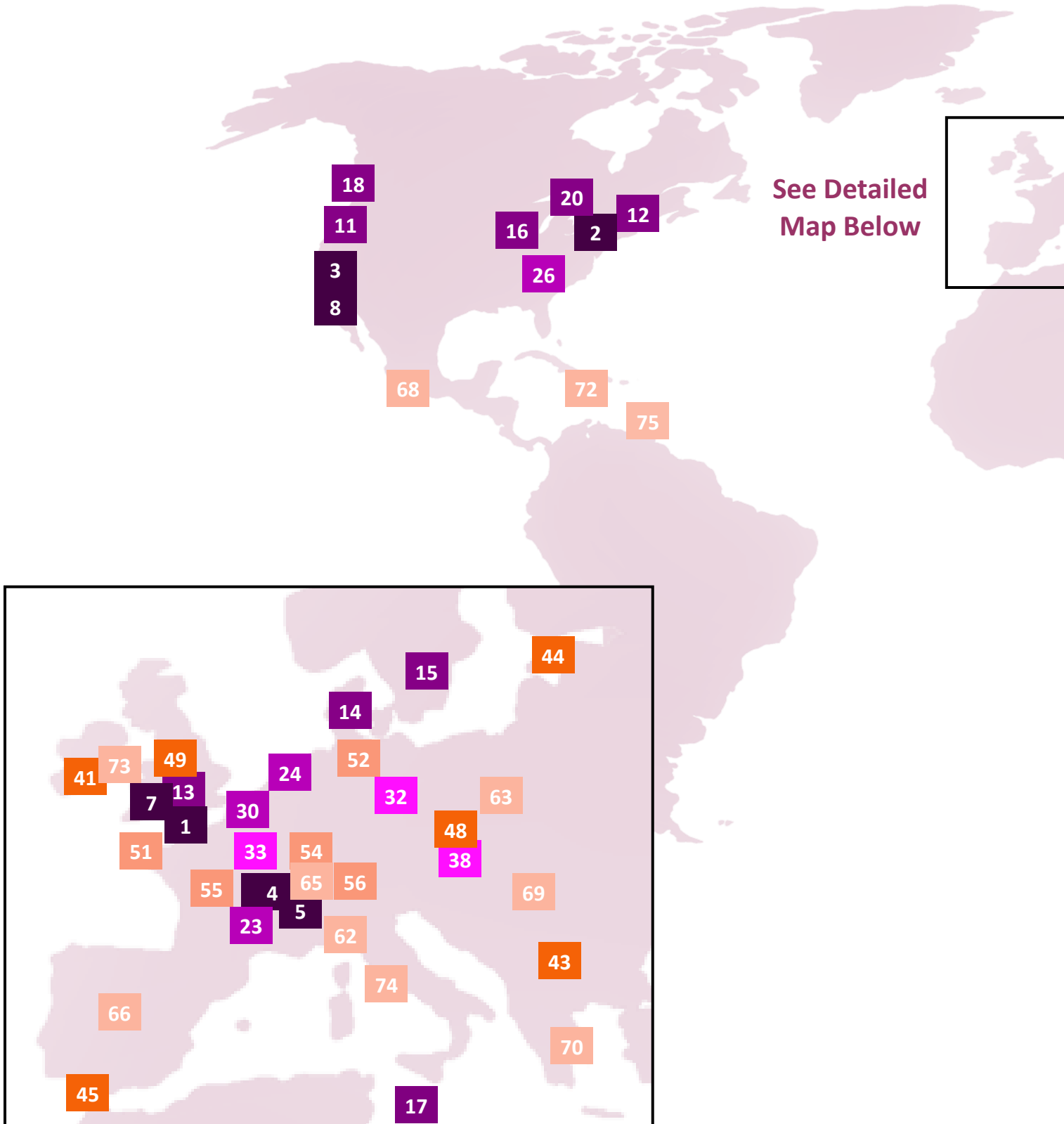
Table 8 | Top 15 Centres By Reputational Advantage

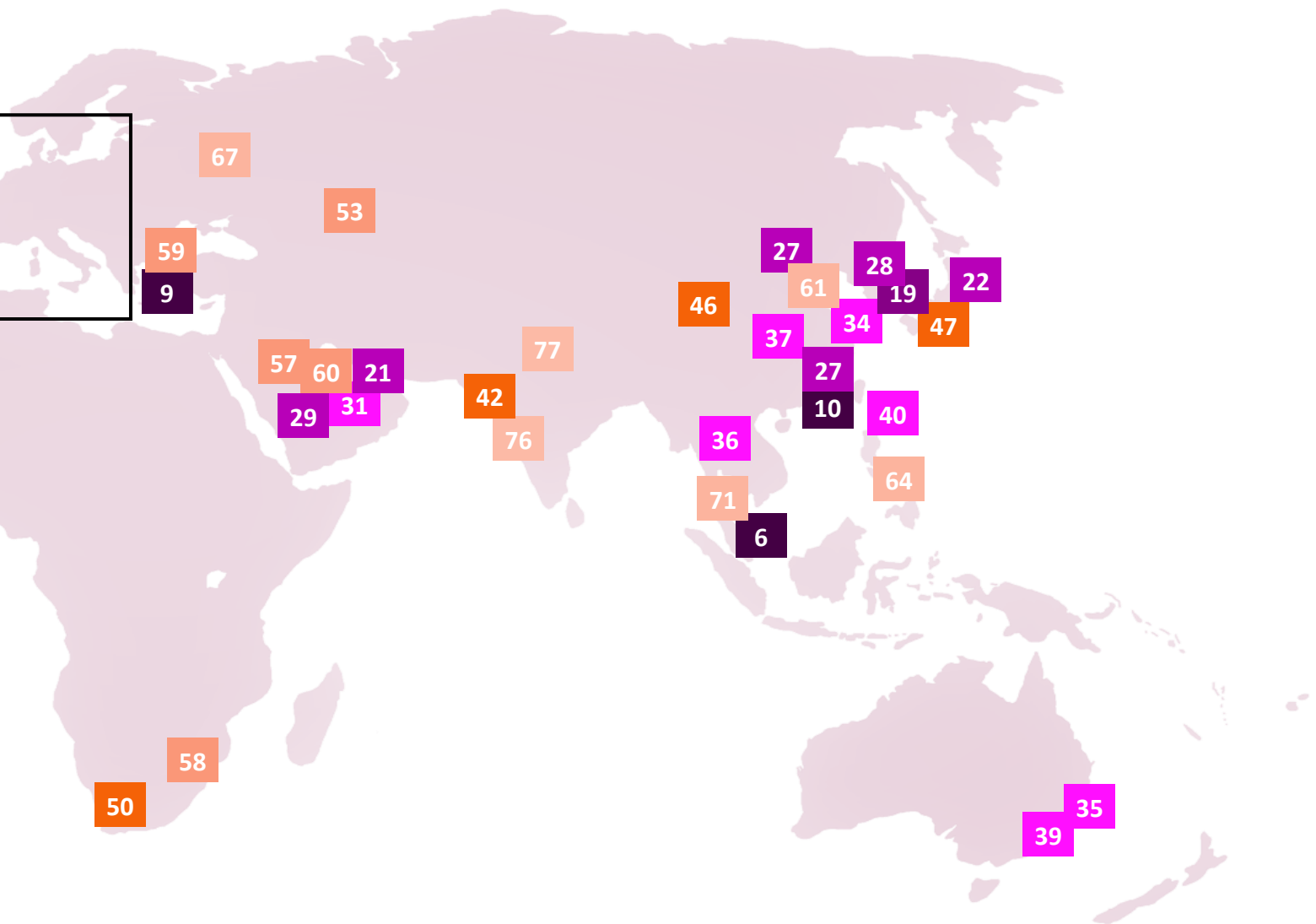
Centre - Top 15	Weighted Average Assessment	SCI 7 Rating	SCI 7 Reputational Advantage
Busan	851	707	144
GIFT City-Gujarat	801	668	133
San Francisco	856	732	124
Stockholm	813	711	102
Copenhagen	810	712	98
Tel Aviv	803	717	86
London	842	757	85
New York	832	750	82
Chicago	792	710	82
Singapore	794	721	73
Geneva	776	703	73
Los Angeles	785	718	67
Frankfurt	716	650	66
Toronto	771	706	65
Oxford, UK	782	719	63

Table 9 | Lowest 15 Centres By Reputational Advantage

Centre - Lowest 15	Weighted Average Assessment	SCI 7 Rating	SCI 7 Reputational Advantage
Johannesburg	556	640	-84
Guernsey	559	654	-95
Osaka	564	660	-96
Melbourne	576	672	-96
Guangzhou	583	679	-96
Tianjin	529	635	-106
Taipei	562	671	-109
Athens	491	612	-121
Dublin	542	669	-127
Bangkok	551	680	-129
Cape Town	522	655	-133
Stuttgart	485	626	-141
Isle of Man	374	590	-216
New Delhi	176	539	-363
Mumbai	208	571	-363

The SCI 7 World - Centres In The Index





The numbers indicate the rank of each centre in SCI 7.

An interactive map showing the data for each centre is at <https://www.longfinance.net/programmes/financial-centre-futures/smart-centres-index/sci-7-explore-data/sci-7-map/>

Regional Analysis

In our analysis of the SCI data, we look at six regions of the world to explore centres' strengths in technology and finance.

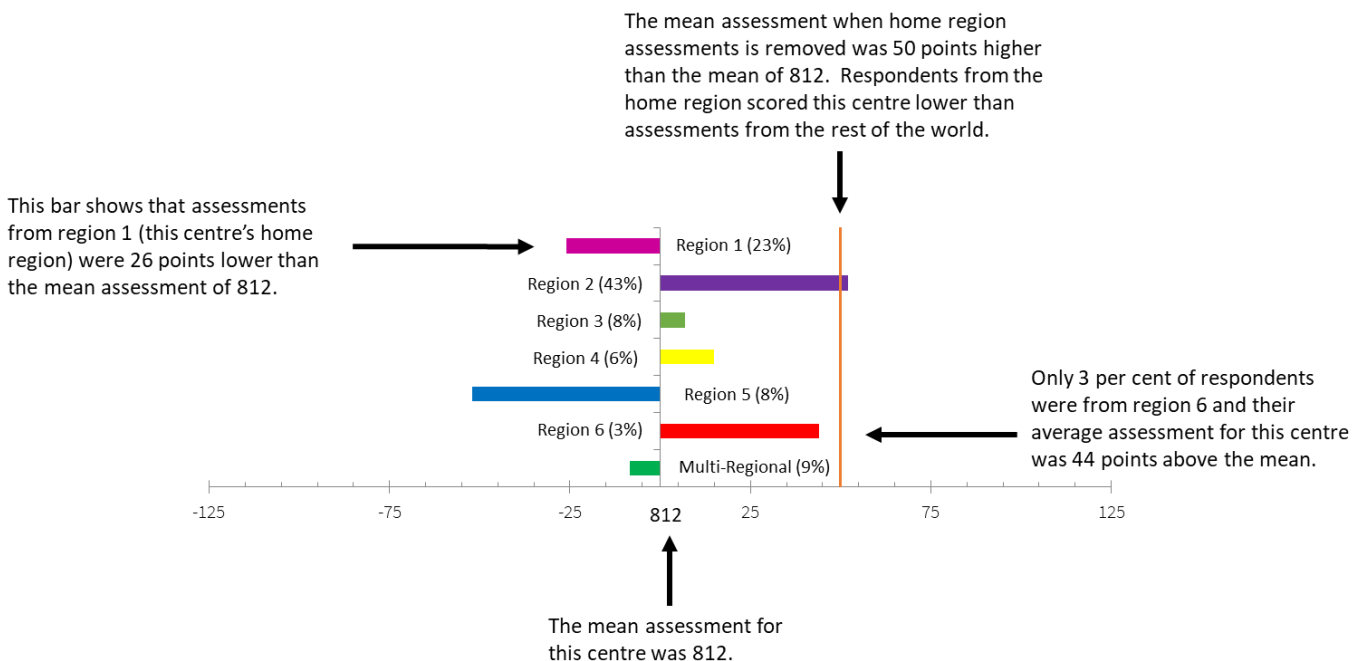
Alongside the ranks and ratings of centres, we investigate the average assessments received by regions and centres in more detail. We display this analysis in charts, which show:

- The mean assessment provided to that centre.
- The difference in the mean assessment when home region assessments are removed from the analysis.
- The difference between the mean and the assessments provided by respondents based in other regional centres.
- The proportion of assessments provided by each region.

Chart 8 shows an example of this analysis. Coloured bars to the left of the vertical axis indicate that respondents from that region gave lower than average assessments. Bars to the right indicate respondents from that region gave higher than average assessments. Assessments given to a centre by people based in that centre are excluded to remove 'home' bias.

The additional vertical axis (in red) shows the mean of assessments when assessments from the home region are removed. The percentage figure noted by each region indicates the percentage of the total number of assessments that are from that region.

Chart 8 | Example: Assessments Compared With The Mean For A Centre



North America

- North American centres showed strengths across all three dimensions, but were slightly stronger in Delivery Capability.
- Vancouver improved its rank significantly in SCI 7.
- Only respondents from Western Europe and Eastern Europe & Central Asia score New York lower than the overall average.

Table 10 | North American Centres In SCI 7: Ranks And Ratings

Centre	SCI 7		SCI 6		Change In Rank	Change In Rating
	Rank	Rating	Rank	Rating		
New York	2	750	1	733	▼ 1	▲ 17
San Francisco	3	732	4	708	▲ 1	▲ 24
Los Angeles	8	718	3	714	▼ 5	▲ 4
Seattle	11	715	15	691	▲ 4	▲ 24
Boston	12	714	16	689	▲ 4	▲ 25
Chicago	16	710	11	697	▼ 5	▲ 13
Vancouver	18	708	30	654	▲ 12	▲ 54
Toronto	20	706	19	675	▼ 1	▲ 31
Washington DC	26	694	33	651	▲ 7	▲ 43

Table 11 | North American Centres In SCI 7: SCI Dimensions

Centre	SCI 7 Dimensions					
	Innovation Support		Creative Intensity		Delivery Capability	
	Rank	Rating	Rank	Rating	Rank	Rating
New York	2	251	1	251	2	248
San Francisco	10	240	3	249	3	243
Los Angeles	12	238	13	237	3	243
Seattle	14	237	4	242	18	236
Boston	24	233	8	239	5	242
Chicago	18	235	17	236	9	239
Vancouver	10	240	26	230	14	238
Toronto	14	237	23	232	17	237
Washington DC	24	233	33	228	27	233

Chart 9 | New York Average Assessments – Difference From The Mean

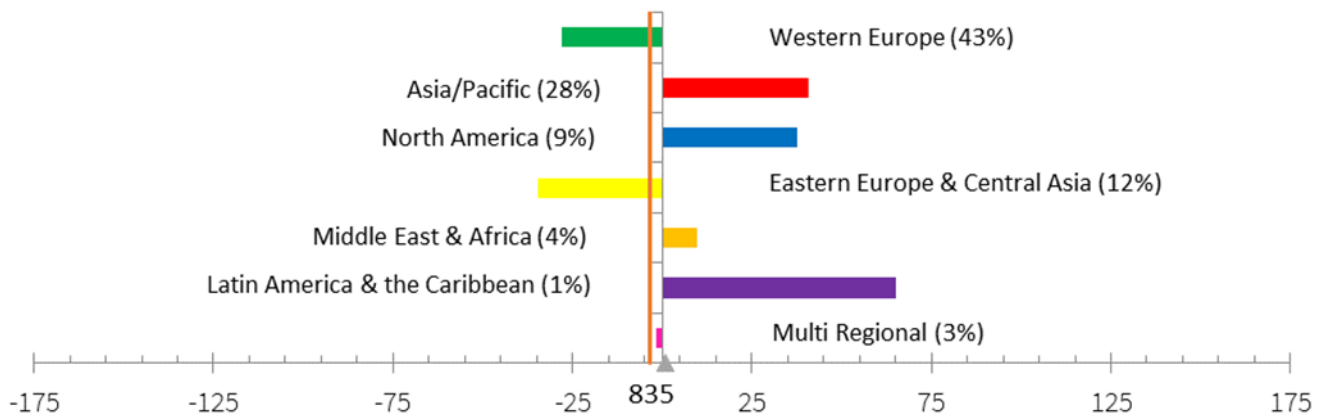
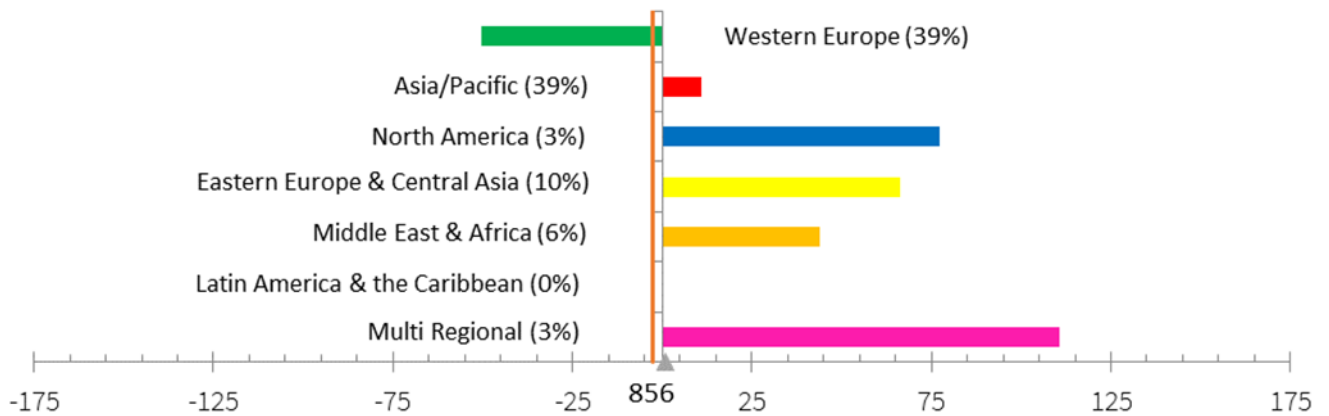


Chart 10 | San Francisco Average Assessments – Difference From The Mean



“The technology sanctions imposed by US government on Chinese technology companies, especially in the field of semiconductor development may potentially harm the global high-tech supply chain and collaboration of talent from different countries.”

DIRECTOR, TECHNOLOGY FIRM, BEIJING

Asia/Pacific

- Singapore overtook Hong Kong in the region in SCI 7, and both centres feature in the top 10 centres.
- 13 of the 21 centres in the region fell in the rankings.
- Asia/Pacific centres on average scored lower for Innovation Support, including regulation, than their overall ranking in the SCI; and higher for Creative Intensity.
- Respondents from Western Europe and Eastern Europe & Central Asia rated Singapore lower than average.

Table 12 | Top 15 Asia/Pacific Centres In SCI 7: Ranks And Ratings

Centre	SCI 7		SCI 6		Change In Rank	Change In Rating
	Rank	Rating	Rank	Rating		
Singapore	6	721	8	703	▲2	▲18
Hong Kong	10	716	5	706	▼5	▲10
Busan	19	707	22	672	▲3	▲35
Tokyo	22	704	17	677	▼5	▲27
Shenzhen	25	696	32	652	▲7	▲44
Shanghai	27	692	20	674	▼7	▲18
Seoul	28	691	24	669	▼4	▲22
Beijing	34	683	27	657	▼7	▲26
Sydney	35	682	36	646	▲1	▲36
Bangkok	36	680	29	655	▼7	▲25
Guangzhou	37	679	43	616	▲6	▲63
Melbourne	39	672	40	635	▲1	▲37
Taipei	40	671	61	574	▲21	▲97
GIFT City-Gujarat	42	668	47	607	▲5	▲61
Chengdu	46	661	39	636	▼7	▲25

Table 13 | Top 15 Asia/Pacific Centres In SCI 7: SCI Dimensions

Centre	SCI 7 Dimensions					
	Innovation Support		Creative Intensity		Delivery Capability	
	Rank	Rating	Rank	Rating	Rank	Rating
Singapore	7	243	9	238	6	240
Hong Kong	8	241	13	237	14	238
Busan	24	233	22	234	6	240
Tokyo	31	230	20	235	9	239
Shenzhen	39	225	4	242	30	229
Shanghai	45	221	13	237	23	234
Seoul	37	226	26	230	20	235
Beijing	43	222	26	230	28	231
Sydney	31	230	38	224	32	228
Bangkok	33	228	38	224	32	228
Guangzhou	64	213	9	238	32	228
Melbourne	45	221	35	226	36	225
Taipei	39	225	35	226	48	220
GIFT City-Gujarat	39	225	42	221	43	222
Chengdu	56	217	40	223	45	221

Chart 11 | Singapore Average Assessments – Difference From The Mean

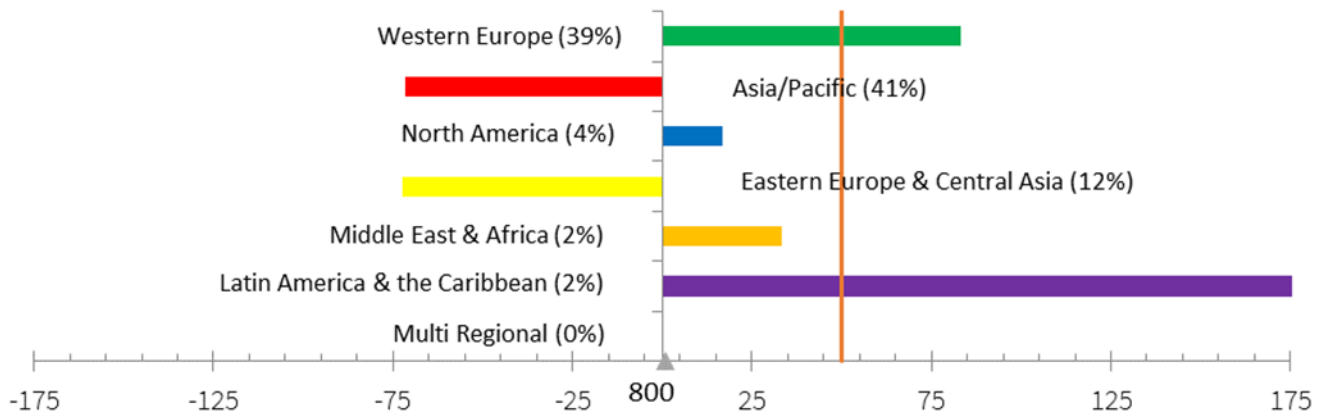
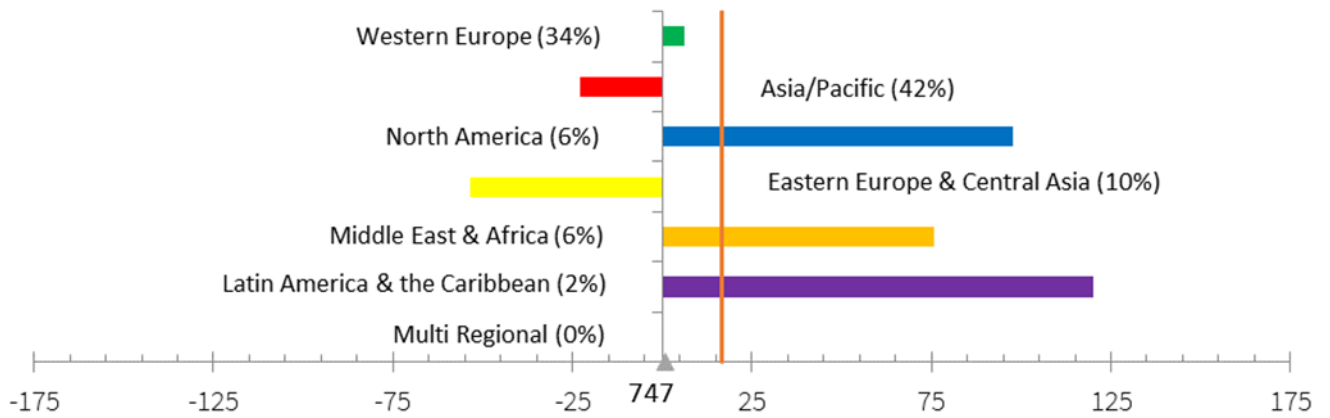


Chart 12 | Hong Kong Average Assessments – Difference From The Mean



“London is business-friendly, and it is easy to hire talent there.”

CEO, PROFESSIONAL SERVICES FIRM, LOS ANGELES



Western Europe

- London takes the top position in the region, with Zurich and Lugano in 4th and 5th position.
- Western European centres scored higher for Innovation Support on average compared with the other dimensions.
- Performance was mixed for centres in the region, with 17 out of the 27 centres in the region falling in the rankings.
- Respondents from Western Europe, the Middle East & Africa, and Latin America & The Caribbean scored London lower than average.

Table 14 | Top 15 Western European Centres In SCI 7: Ranks And Ratings

Centre	SCI 7		SCI 6		Change In	Change In
	Rank	Rating	Rank	Rating		
London	1	757	2	731	▲1	▲26
Zurich	4	725	6	705	▲2	▲20
Lugano	5	724	7	704	▲2	▲20
Oxford, UK	7	719	10	701	▲3	▲18
Cambridge, UK	13	713	9	702	▼4	▲11
Copenhagen	14	712	13	693	▼1	▲19
Stockholm	15	711	23	671	▲8	▲40
Malta	17	709	12	696	▼5	▲13
Geneva	23	703	21	673	▼2	▲30
Amsterdam	24	698	18	676	▼6	▲22
Brussels	30	688	25	664	▼5	▲24
Berlin	32	686	34	650	▲2	▲36
Luxembourg	33	685	28	656	▼5	▲29
Vienna	38	673	38	638	0	▲35
Dublin	41	669	31	653	▼10	▲16

Table 15 | Top 15 Western European Centres In SCI 7: SCI Dimensions

Centre	SCI 7 Dimensions					
	Innovation Support		Creative Intensity		Delivery Capability	
	Rank	Rating	Rank	Rating	Rank	Rating
London	1	255	1	251	1	251
Zurich	4	250	13	237	14	238
Lugano	2	251	4	242	28	231
Oxford, UK	5	245	9	238	18	236
Cambridge, UK	6	244	20	235	23	234
Copenhagen	18	235	9	238	9	239
Stockholm	18	235	17	236	6	240
Malta	8	241	30	229	9	239
Geneva	14	237	25	231	20	235
Amsterdam	29	232	23	232	23	234
Brussels	24	233	26	230	36	225
Berlin	22	234	47	217	20	235
Luxembourg	30	231	30	229	36	225
Vienna	33	228	42	221	41	224
Dublin	36	227	35	226	56	216

Chart 13 | London Average Assessments – Difference From The Mean

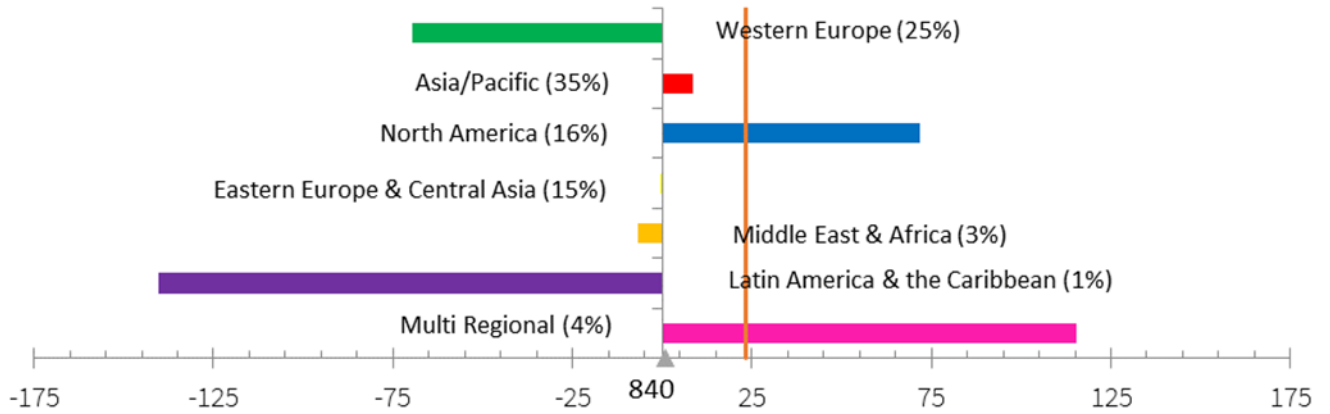
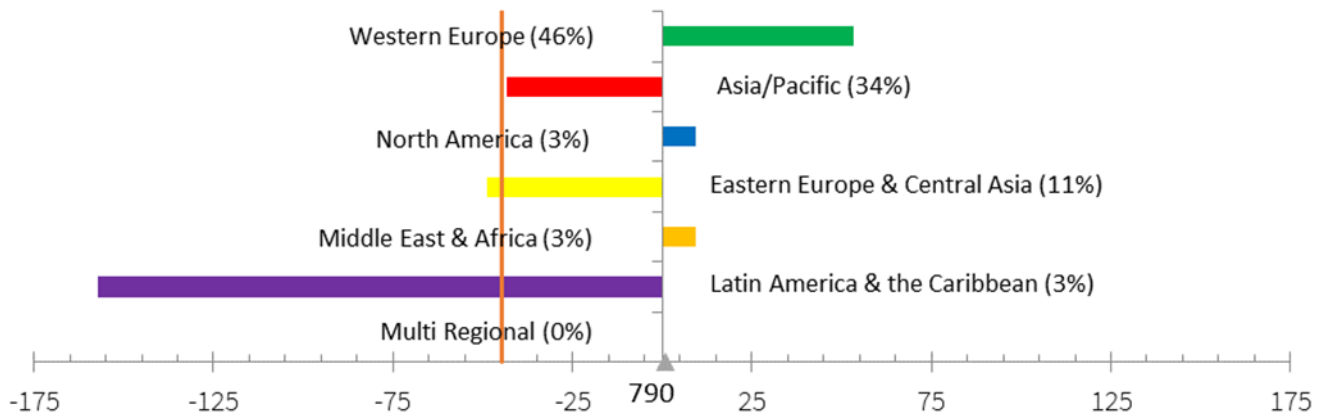


Chart 14 | Zurich Average Assessments – Difference From The Mean



“The regulatory sandbox in the AIFC allows to test innovative products and technologies.”

DIRECTOR, INVESTMENT MANAGEMENT FIRM, ASTANA

Middle East & Africa

- Tel Aviv continues to lead the region, with Dubai in second place.
- Doha entered the index for the first time, taking 29th place overall.
- Respondents from Western Europe and North America score Tel Aviv higher than average.

Table 16 | Middle Eastern & African Centres In SCI 7: Ranks And Ratings

Centre	SCI 7		SCI 6		Change In Rank	Change In Rating
	Rank	Rating	Rank	Rating		
Tel Aviv	9	717	14	692	▲5	▲25
Dubai	21	705	26	661	▲5	▲44
Doha	29	690	New	New	New	New
Abu Dhabi	31	687	37	641	▲6	▲46
Cape Town	50	655	53	587	▲3	▲68
Riyadh	57	645	69	561	▲12	▲84
Johannesburg	58	640	54	586	▼4	▲54
Bahrain	60	636	70	557	▲10	▲79

Table 17 | Middle Eastern & African Centres In SCI 7: SCI Dimensions

Centre	SCI 7 Dimensions					
	Innovation Support		Creative Intensity		Delivery Capability	
	Rank	Rating	Rank	Rating	Rank	Rating
Tel Aviv	12	238	7	240	9	239
Dubai	18	235	17	236	23	234
Doha	22	234	34	227	30	229
Abu Dhabi	24	233	30	229	36	225
Cape Town	50	219	47	217	49	219
Riyadh	56	217	52	214	60	214
Johannesburg	60	215	61	207	51	218
Bahrain	47	220	61	207	66	209

Chart 15 | Tel Aviv Average Assessments – Difference From The Mean

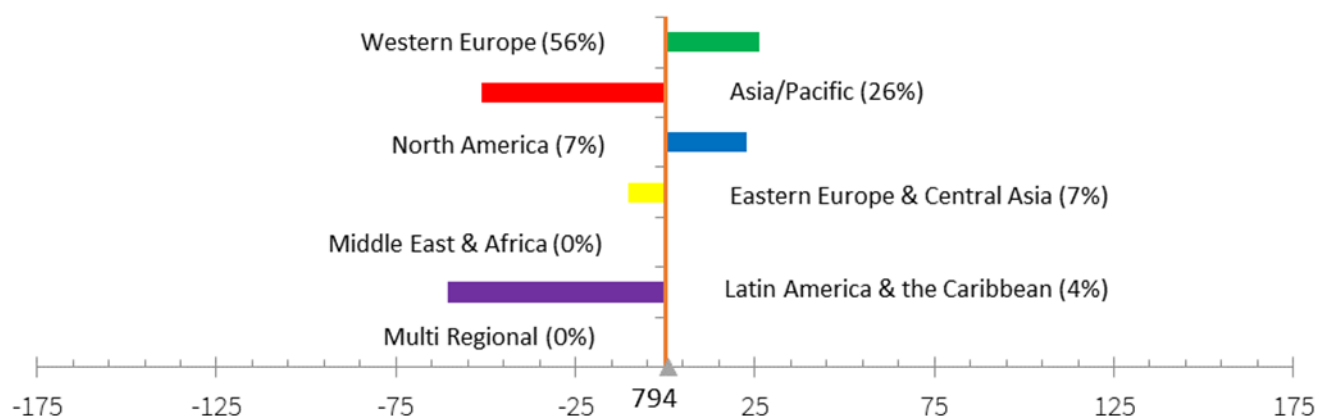
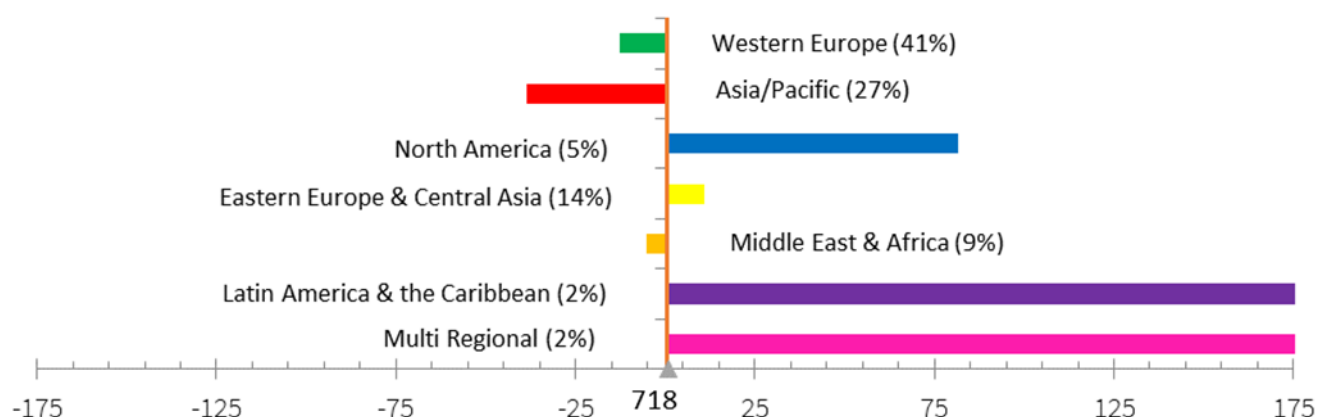


Chart 16 | Dubai Average Assessments – Difference From The Mean



Eastern Europe & Central Asia

- Sofia held onto its leading position in the region.
- Tallinn entered the index for the first time, taking second place in the region.
- Astana rose 11 ranking places in SCI 7.
- Respondents from Western Europe scored Sofia higher than average.

Table 18 | Eastern European & Central Asian Centres In SCI 7: Ranks And Ratings

Centre	SCI 7		SCI 6		Change In Rank	Change In Rating
	Rank	Rating	Rank	Rating		
Sofia	43	667	41	622	▼2	▲45
Tallinn	44	666	New	New	New	New
Prague	48	657	45	613	▼3	▲44
Astana	53	652	64	569	▲11	▲83
Istanbul	59	639	50	599	▼9	▲40
Budapest	63	630	57	583	▼6	▲47
Moscow	67	618	68	562	▲1	▲56
Warsaw	69	614	67	563	▼2	▲51
Athens	70	612	72	537	▲2	▲75

Table 19 | Eastern European & Central Asian Centres In SCI 7: SCI Dimensions

Centre	SCI 7 Dimensions					
	Innovation Support		Creative Intensity		Delivery Capability	
	Rank	Rating	Rank	Rating	Rank	Rating
Sofia	42	223	40	223	45	221
Tallinn	36	226	49	215	36	225
Prague	56	217	45	218	43	222
Astana	32	228	58	209	58	215
Istanbul	71	207	58	209	42	223
Budapest	61	214	64	204	62	212
Moscow	74	204	65	202	62	212
Warsaw	68	209	69	197	67	208
Athens	54	218	70	195	72	199

Chart 17 | Sofia Average Assessments – Difference From The Mean

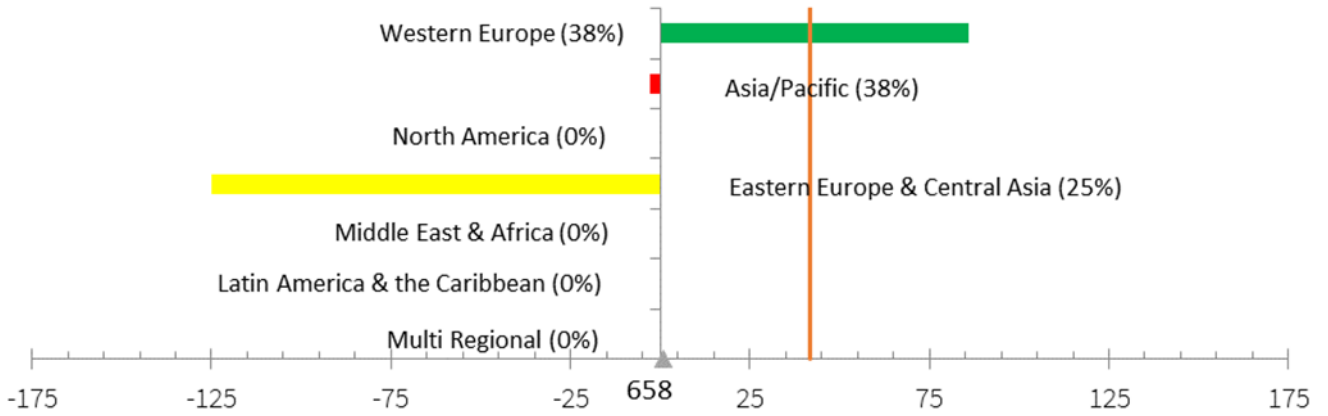
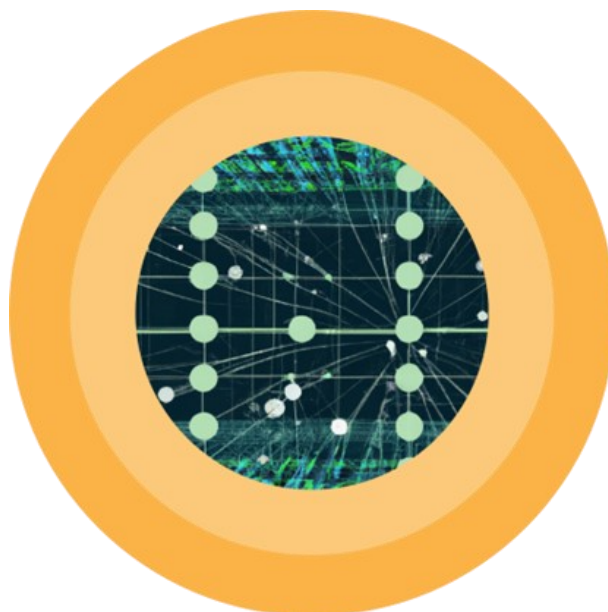
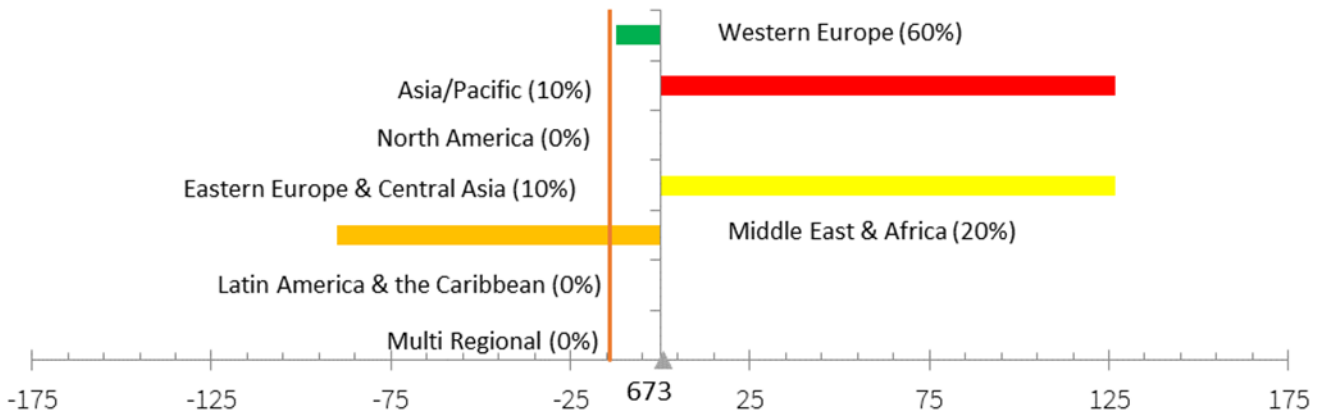


Chart 18 | Tallinn Average Assessments – Difference From The Mean



Latin America & The Caribbean

- Mexico City held on to its lead in the region but fell 9 rank places.
- Cayman Islands and Trinidad & Tobago also fell in the rankings.
- Mexico City was rated highly by respondents from Western Europe and very much higher than average by those from Eastern Europe & Central Asia.

Table 20 | Latin America & The Caribbean Centres In SCI 7: Ranks And Ratings

Centre	SCI 7		SCI 6		Change In Rank	Change In Rating
	Rank	Rating	Rank	Rating		
Mexico City	68	617	59	577	▼9	▲40
Cayman Islands	72	609	66	564	▼6	▲45
Trinidad & Tobago	75	574	71	550	▼4	▲24

Table 21 | Latin America & The Caribbean Centres In SCI 7: SCI Dimensions

Centre	SCI 7 Dimensions					
	Innovation Support		Creative Intensity		Delivery Capability	
	Rank	Rating	Rank	Rating	Rank	Rating
Mexico City	65	212	72	189	56	216
Cayman Islands	65	212	71	193	70	204
Trinidad & Tobago	74	204	77	173	73	197

Chart 19 | Mexico City Average Assessments – Difference From The Mean

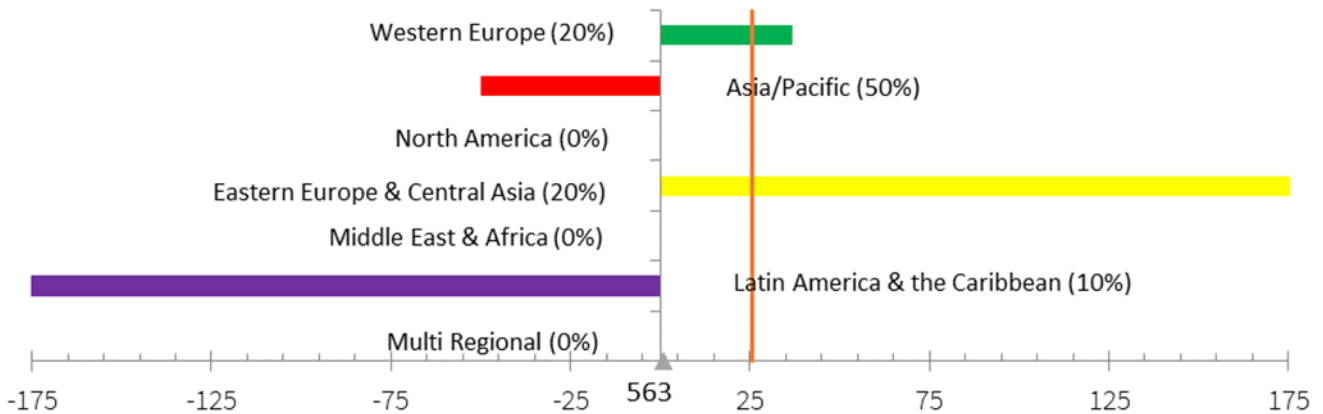
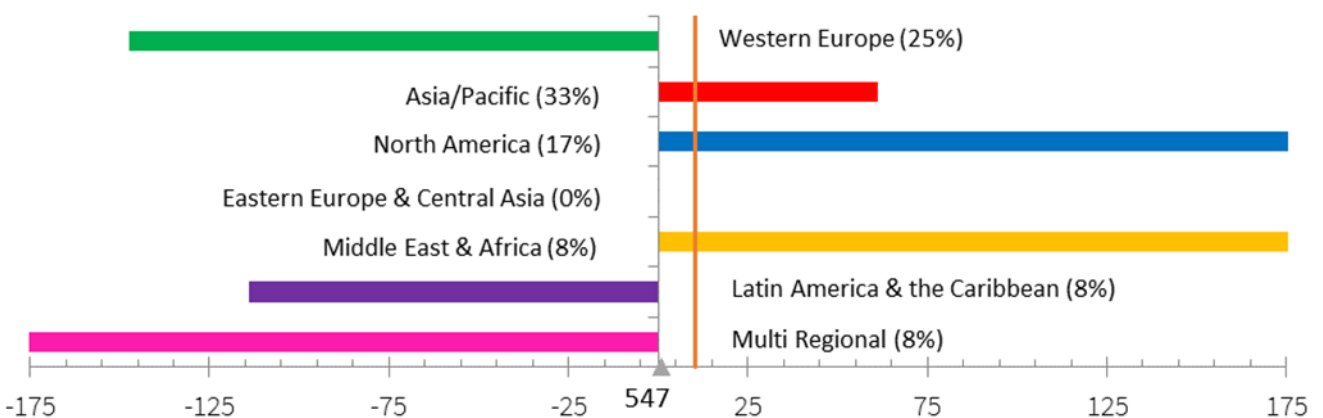


Chart 20 | Cayman Islands Average Assessments – Difference From The Mean



Appendix 1: Assessment Details

Table 22 | Details Of SCI Assessments By Centre

Centre	SCI 7 Rank	SCI 7 Rating	Assessments		
			Number	Average	St. Dev
London	1	757	68	840	160
New York	2	750	68	835	133
San Francisco	3	732	31	856	152
Zurich	4	725	35	790	186
Lugano	5	724	8	767	234
Singapore	6	721	51	800	196
Oxford, UK	7	719	12	794	234
Los Angeles	8	718	22	789	179
Tel Aviv	9	717	27	794	204
Hong Kong	10	716	50	747	185
Seattle	11	715	8	788	147
Boston	12	714	25	772	194
Cambridge,	13	713	21	751	229
Copenhagen	14	712	8	817	94
Stockholm	15	711	13	815	140
Chicago	16	710	23	788	108
Malta	17	709	9	733	148
Vancouver	18	708	13	767	93
Busan	19	707	28	838	140
Toronto	20	706	18	774	134
Dubai	21	705	56	718	216
Tokyo	22	704	28	658	298
Geneva	23	703	15	773	190
Amsterdam	24	698	33	755	188
Shenzhen	25	696	14	669	299
Washington DC	26	694	14	693	217
Shanghai	27	692	28	694	247
Seoul	28	691	28	689	255
Doha	29	690	13	705	160
Brussels	30	688	11	697	192
Abu Dhabi	31	687	31	705	209
Berlin	32	686	31	713	214
Luxembourg	33	685	22	689	191
Beijing	34	683	38	674	201
Sydney	35	682	14	681	270
Bangkok	36	680	10	560	168
Guangzhou	37	679	7	543	289
Vienna	38	673	11	703	142
Melbourne	39	672	8	550	304

Centre	SCI 7 Rank	SCI 7 Rating	Assessments		
			Number	Average	St. Dev
Taipei	40	671	10	503	379
Dublin	41	669	17	555	304
GIFT City-Gujarat	42	668	96	798	133
Sofia	43	667	8	658	134
Tallinn	44	666	10	673	177
Gibraltar	45	664	8	725	256
Chengdu	46	661	7	614	212
Osaka	47	660	17	549	301
Prague	48	657	12	642	155
Edinburgh	49	656	19	663	173
Cape Town	50	655	8	513	238
Guernsey	51	654	5	600	313
Hamburg	52	653	10	607	197
Astana	53	652	14	638	186
Frankfurt	54	650	28	724	186
Paris	55	647	25	645	181
Munich	56	646	13	623	211
Riyadh	57	645	9	611	232
Johannesburg	58	640	6	561	189
Istanbul	59	639	8	625	201
Bahrain	60	636	10	540	234
Tianjin	61	635	11	506	258
Milan	62	632	13	603	250
Budapest	63	630	13	597	157
Manila	64	627	9	559	275
Stuttgart	65	626	8	471	268
Madrid	66	623	14	576	206
Moscow	67	618	21	578	243
Mexico City	68	617	10	563	203
Warsaw	69	614	21	583	202
Athens	70	612	10	460	252
Kuala Lumpur	71	610	11	542	206
Cayman	72	609	12	547	292
Isle of Man	73	590	7	410	301
Rome	74	582	6	517	299
Trinidad &	75	574	8	508	264
Mumbai	76	571	70	171	200
New Delhi	77	539	69	147	148

Table 23 | Details Of Assessments Of SCI Dimensions By Centre

Centre	SCI Dimensions					
	Innovation Support		Creative Intensity		Delivery Capability	
	Average	St. Dev	Average	St. Dev	Average	St. Dev
London	854	157	838	152	828	172
New York	850	133	837	118	818	148
San Francisco	832	207	877	106	858	143
Zurich	823	178	777	194	771	186
Lugano	825	149	738	262	738	292
Singapore	814	181	794	204	792	203
Oxford, UK	817	262	767	239	800	200
Los Angeles	786	178	786	201	795	159
Tel Aviv	822	189	770	202	789	221
Hong Kong	738	197	762	163	740	197
Seattle	763	151	825	116	775	175
Boston	772	207	764	185	780	191
Cambridge, UK	781	211	714	250	757	227
Copenhagen	850	53	788	146	813	83
Stockholm	831	132	815	107	800	183
Chicago	783	107	787	114	796	102
Malta	756	174	678	120	767	150
Vancouver	808	76	762	77	731	125
Busan	836	152	836	142	843	126
Toronto	789	123	744	150	789	128
Dubai	732	203	723	211	700	234
Tokyo	643	301	671	299	661	294
Geneva	827	158	733	206	760	206
Amsterdam	748	168	773	186	742	209
Shenzhen	614	293	729	295	664	308
Washington DC	707	213	686	221	686	218
Shanghai	657	253	721	247	704	240
Seoul	679	262	693	248	696	255
Doha	715	128	708	155	692	198
Brussels	727	135	673	233	691	207
Abu Dhabi	729	175	710	226	677	226
Berlin	742	225	681	229	716	188
Luxembourg	727	178	686	173	655	222
Beijing	634	216	697	202	689	186
Sydney	700	266	657	274	686	271
Bangkok	540	196	560	196	580	114
Guangzhou	471	330	571	263	586	273
Vienna	736	143	655	151	718	133
Melbourne	550	316	550	293	550	302

Table 23 (Continued) | Details Of Assessments Of SCI Dimensions By Centre

Centre	SCI Dimensions					
	Innovation Support		Creative Intensity		Delivery Capability	
	Average	St.Dev	Average	St. Dev	Average	St. Dev
Taipei	530	392	510	370	470	374
Dublin	582	311	571	282	512	318
GIFT City-Gujarat	797	131	791	137	805	132
Sofia	688	146	625	116	663	141
Tallinn	680	204	680	169	660	158
Gibraltar	763	250	688	270	725	249
Chengdu	529	263	686	168	629	206
Osaka	559	302	553	302	535	300
Prague	675	171	592	156	658	138
Edinburgh	689	188	647	187	653	143
Cape Town	500	233	488	230	550	251
Guernsey	580	303	600	308	620	327
Hamburg	610	213	590	197	620	181
Astana	714	170	614	156	586	232
Frankfurt	736	173	711	185	725	201
Paris	676	167	624	192	636	185
Munich	608	222	638	214	623	196
Riyadh	633	173	589	226	611	298
Johannesburg	567	186	533	186	583	194
Istanbul	600	220	625	205	650	177
Bahrain	570	241	550	207	500	254
Tianjin	509	247	500	261	509	266
Milan	623	262	615	248	569	239
Budapest	569	175	562	150	662	145
Manila	489	267	600	312	589	247
Stuttgart	488	280	438	245	488	280
Madrid	607	198	557	199	564	221
Moscow	571	272	567	231	595	225
Mexico City	560	259	530	226	600	125
Warsaw	600	190	557	220	590	195
Athens	490	285	410	223	480	249
Kuala Lumpur	500	173	582	227	545	216
Cayman Islands	592	278	508	300	542	297
Isle of Man	457	257	386	313	386	334
Rome	583	279	500	316	467	301
Trinidad & Tobago	538	267	488	264	500	262
Mumbai	173	205	167	194	174	200
New Delhi	143	139	143	138	154	168

Appendix 2: Respondents' Details

Table 24 | Respondents By Industry Sector

Industry Sector	Number Of Respondents	Percentage Of Respondents
Banking	16	6%
Debt Capital Markets	6	2%
Equity Capital Markets	4	2%
Insurance	8	3%
Investment Management	37	14%
Knowledge	29	11%
Policy and Public Finance	29	11%
Professional Services	36	14%
Technology	62	24%
Trading	21	8%
Not Specified	9	4%
Total	257	100%

Table 25 | Respondents By Region

Region	Number Of Respondents	Percentage Of Respondents
Western Europe	85	33%
Asia/Pacific	75	29%
North America	27	11%
Middle East & Africa	20	8%
Eastern Europe & Central Asia	33	13%
Latin America & the	12	5%
Multi-Regional	5	2%
Total	257	100%

Table 26 | Respondents By Size Of Organisation

Size Of Organisation	Number Of Respondents	Percentage Of Respondents
Fewer than 50	142	55%
50 to 100	42	16%
100 to 500	21	8%
500 to 1,000	13	5%
1,000 to 2,000	13	5%
2,000 to 5,000	11	4%
More than 5,000	15	6%
Not Specified	0	0%
Total	257	100%



Appendix 3: Methodology

The SCI provides ratings for the innovation and technology offerings of commercial and financial centres. The process involves taking two sets of ratings – one from survey respondents and one generated by a statistical model – and combining them into a single rating.

For the first set of ratings, the **Centre Assessments**, respondents use an online questionnaire to rate three dimensions:

- Innovation Support - the approach taken to regulation and support for the innovation and technology industry provided by the commercial ecosystem.
- Creative Intensity - the extent to which technology and innovative industries are embedded in the economy of the centre.
- Delivery Capability - the quality of the work being undertaken in the field in the centre.

Ratings are given using a 10 point scale ranging from very poor to excellent. Responses are sought from a range of individuals drawn from the financial services and technology sectors, non-governmental organisations, regulators, universities, and trade bodies.

For the second set of ratings, we use a database of indicators, or **Instrumental Factors**, that contain quantitative data about each centre. We use a machine learning algorithm to investigate the correlation between the financial centre assessments and these Instrumental Factors to predict how each respondent would have rated the centres they do not know. These 136 Instrumental Factors draw on data from a range of sources. A full list of the Instrumental Factors used in the model is in Appendix 4.

The respondents' actual ratings as well as their predicted ratings for the centres they did not rate, are then combined into a single table to produce ratings for each dimension. These are then added together, using equal weighting, to create the SCI rating.

Factors Affecting The Inclusion Of Centres In The SCI

The questionnaire lists a total of 131 commercial and financial centres which can be rated by respondents. The questionnaire also asks whether there are centres not currently in the survey that will become significant over the next two to three years. Centres which are not currently within the questionnaire and which are mentioned repeatedly in response to this question will be added to the questionnaire for future editions.

We give a centre a SCI rating and ranking if it receives a statistically significant minimum number of assessments from individuals based in other geographical locations - at least 10 in SCI 7. This means that not all 131 centres in the questionnaire receive a ranking. We will keep this number under review for further editions of the index as the number of assessments increases.

We will also develop rules as successive indices are published as to when a centre may be removed from the rankings, for example, if over a 24 month period, a centre has not received a minimum number of assessments.

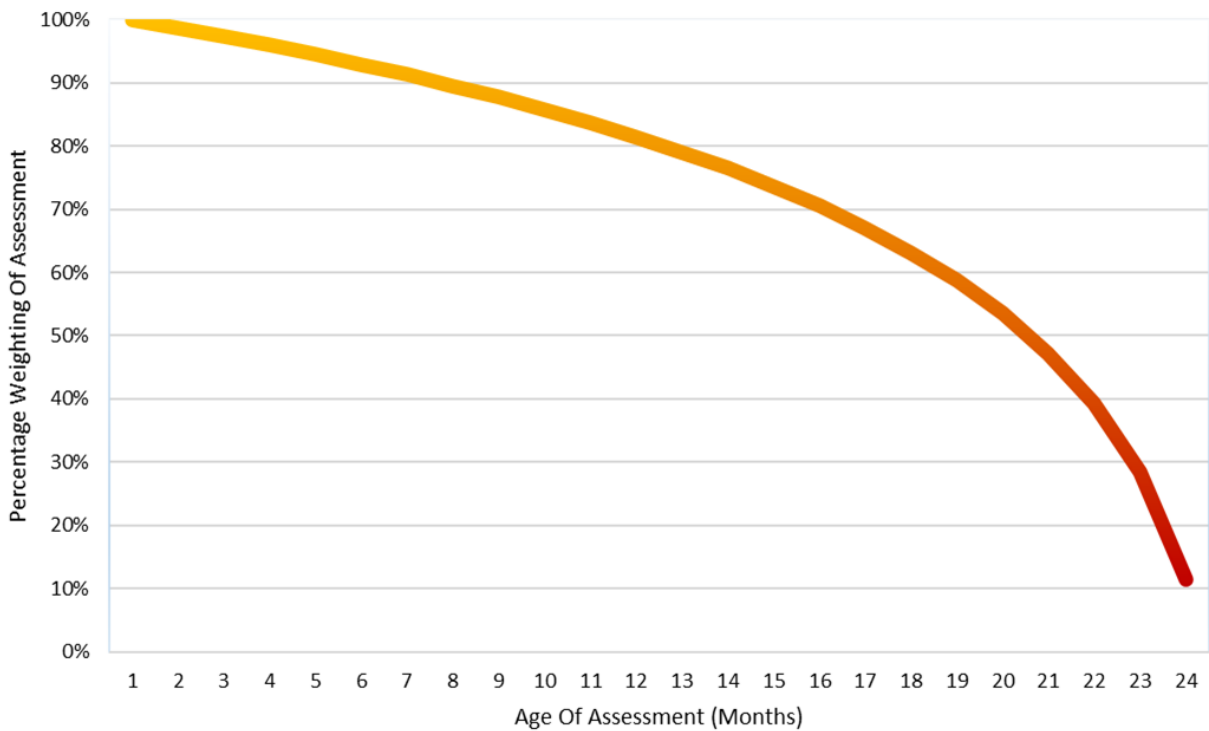
Centre Assessments

Centre assessments are collected via an online questionnaire which runs continuously and which is at www.smartcentresindex.net/survey/. A link to this questionnaire is emailed to a target list of respondents at regular intervals. Other interested parties can complete the questionnaire by following the link given in SCI publications.

In calculating the SCI:

- The score given by a respondent to their home centre, and scores from respondents who do not specify a home centre, are excluded from the model – this is designed to prevent home bias.
- Financial centre assessments are included in the SCI model for 24 months after they have been received – we consider that this is a period during which assessments maintain their validity.
- Financial centre assessments from the month when the SCI is created are given full weighting with earlier responses given a reduced weighting on a logarithmic scale as shown in Chart 21 - this recognises that older ratings, while still valid, are less likely to be up-to-date.

Chart 21 | Reduction In Weighting As Assessments Become Older



Instrumental Factor Data

For the instrumental factors, we have the following data requirements:

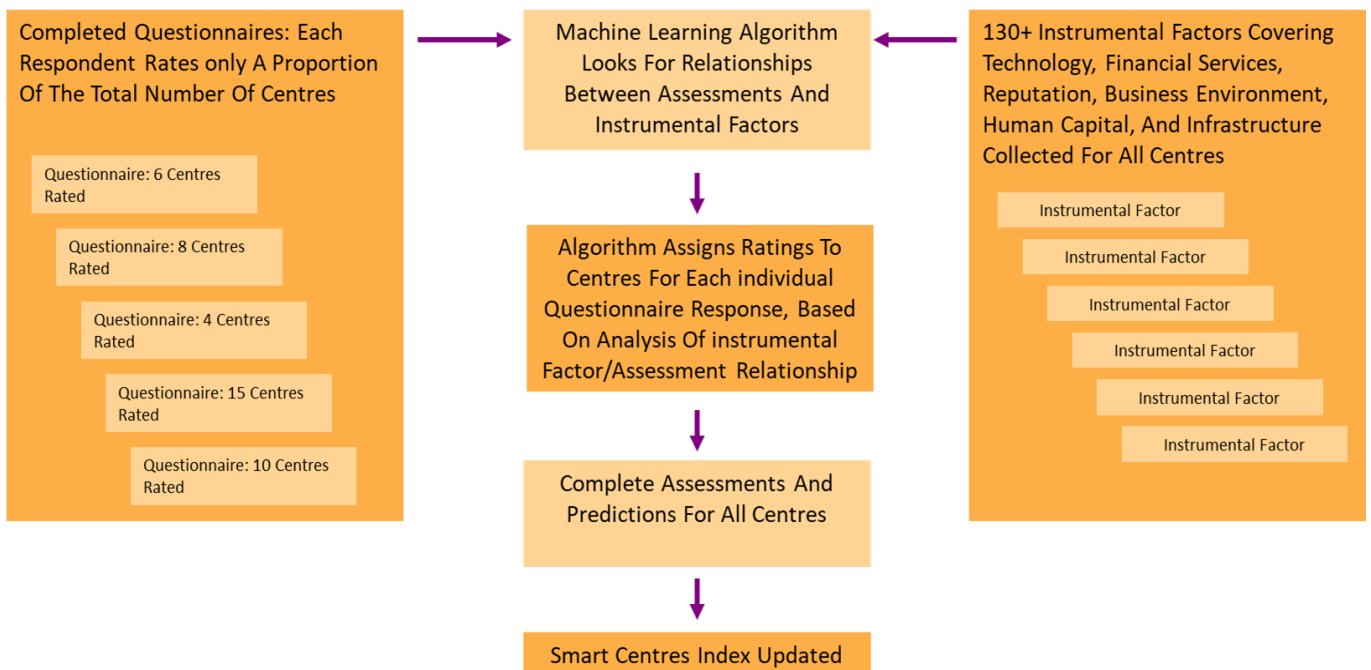
- Data series should come from a reputable body and be derived by a sound methodology.
- Data series should be readily available (ideally in the public domain) and be regularly updated.

The rules on the use of instrumental factor data in the model are as follows:

- Updates to the indices are collected and collated every six months.
- No weightings are applied to indices.
- Indices are entered into the SCI model as directly as possible, whether this is a rank, a derived score, a value, a distribution around a mean, or a distribution around a benchmark.
- If a factor is at a national level, the score will be used for all centres in that country; nation-based factors will be avoided if centre (city)-based factors are available.
- If an index has multiple values for a city or nation, the most relevant value is used.
- If an index is at a regional level, the most relevant allocation of scores to each centre is made (and the method for judging relevance is noted).
- If an index does not contain a value for a particular centre, a blank is entered against that centre (no average or mean is used).

The process of creating the SCI is outlined in Chart 22.

Chart 22 | The SCI Process



Appendix 4: Instrumental Factors

Table 27 | Instrumental Factor Correlation With SCI Ratings - Highest 30 Factors

Instrumental Factors	R-squared
Fintech Activity Index	0.524
Urban Mobility Readiness Index	0.457
The Global Financial Centres Index	0.448
Safe Cities Index	0.445
Global Innovation Index	0.438
Adjusted Net National Income Per Capita	0.430
Government Effectiveness	0.423
Telecommunication Infrastructure Index	0.412
Smart City Index	0.390
World Talent Rankings	0.377
Best Countries For Business	0.377
World Competitiveness Scoreboard	0.375
Domestic Credit To Private Sector (% Of GDP)	0.362
Global Power City Index	0.357
Rule Of Law	0.355
The Global Green Finance Index	0.347
Household Net Financial Wealth	0.344
Innovation Cities Global Index	0.344
E-Government Development Index	0.340
Business Environment Rankings	0.326
Legatum Prosperity Index	0.323
Ease of Doing Business Index	0.319
Control Of Corruption	0.316
Global Competitiveness Index	0.308
Global Business Complexity Index	0.308
Financial Secrecy Index	0.295
Sustainable Economic Development	0.293
Regulatory Quality	0.293
Quality Of Roads	0.272
Operational Risk Rating	0.266

Table 28 | Technology Factors

Instrumental Factor	Source	Website	Updated Since SCI 6 Y/N
E-Government Development Index	United Nations	https://publicadministration.un.org/egovkb/Data-Center	N
UN International Sale Of Goods	United Nations	https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtmsg_no=X-10&chapter=10	N
ISO TC307 Participation	International Organisation For Standardisation	https://www.iso.org/committee/6266604.html?view=participation	Y
Internet Censorship Rank	comparitech	https://www.comparitech.com/blog/vpn-privacy/internet-censorship-map/	Y
Volume Of Bitcoin Trades	Coin Dance	https://coin.dance/volume/localbitcoins	Y
Legal Status Of Bitcoin	Coin Dance	https://coin.dance/poli/legality	Y
Use Of Blockchain In Land Registration	Airtable Blockchain in Government Tracker	https://airtable.com/universe/expsQEGKoZO2IExKK/blockchain-in-government-tracker?explore=true	N
Use Of Blockchain In Identity Management	Airtable Blockchain in Government Tracker	https://airtable.com/universe/expsQEGKoZO2IExKK/blockchain-in-government-tracker?explore=true	N
Use Of Blockchain For Trade Finance	Airtable Blockchain in Government Tracker	https://airtable.com/universe/expsQEGKoZO2IExKK/blockchain-in-government-tracker?explore=true	N
Use Of Blockchain In Healthcare	Airtable Blockchain in Government Tracker	https://airtable.com/universe/expsQEGKoZO2IExKK/blockchain-in-government-tracker?explore=true	N
Use Of Blockchain In Voting	Airtable Blockchain in Government Tracker	https://airtable.com/universe/expsQEGKoZO2IExKK/blockchain-in-government-tracker?explore=true	N
Global AI Index	Tortoise Intelligence	https://www.tortoisemedia.com/intelligence/ai	Y
E-Participation Index	United Nations	https://publicadministration.un.org/egovkb/Data-Center	N
GFCI FinTech Index	Z/Yen	https://www.longfinance.net/programmes/financial-centre-futures/global-financial-centres-index/	Y
The Global Fintech Index	Findexable	https://findexable.com/	N
Global Cybersecurity Index	ITU	http://www.itu.int/en/ITU-D/Cybersecurity/Pages/GCI.aspx	N
Telecommunication Infrastructure Index	United Nations	https://publicadministration.un.org/egovkb/en-us/Data-Center	Y
Worldwide Broadband Speed League	Cable	https://www.cable.co.uk/broadband/speed/worldwide-speed-league/	Y
Smart City Index	IMD	https://www.imd.org/smart-city-observatory/smart-city-index/	N
Patent Applications, Residents	The World Bank	https://data.worldbank.org/indicator/IP.PAT.RESD?end=2020&start=1980	N
Fintech Activity Index	World Bank	https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099735504212234006/p1730060695b370090908c0bf80ed27eba6	N

Table 29 | Financial Sector Development Factors

Instrumental Factor	Source	Website	Updated Since SCI 6 Y/N
Capitalisation Of Stock Exchanges	The World Federation of Stock Exchanges	https://focus.world-exchanges.org/issue/december-2022/market-statistics	Y
Value Of Share Trading	The World Federation of Stock Exchanges	https://focus.world-exchanges.org/issue/december-2022/market-statistics	Y
Volume Of Share Trading	The World Federation of Stock Exchanges	https://statistics.world-exchanges.org/ReportGenerator/Generator#	Y
Broad Stock Index Levels	The World Federation of Stock Exchanges	https://focus.world-exchanges.org/issue/december-2022/market-statistics	Y
Value Of Bond Trading	The World Federation of Stock Exchanges	https://statistics.world-exchanges.org/ReportGenerator/Generator#	Y
Domestic Credit To Private Sector (% of GDP)	The World Bank	https://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS?most_recent_value_desc=false	Y
Percentage Of Firms Using Banks To Finance Investment	The World Bank	http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators&series=IC.FRM.BNKS.ZS	N
Total Net Assets Of Regulated Open-End Funds	Investment Company Institute	http://www.icifactbook.org/	N
Islamic Finance Country Index	Islamic Banks and Financial Institutions	http://www.gifr.net/publications	N
Net External Positions Of Banks	The Bank for International Settlements	http://www.bis.org/statistics/annex_map.htm	Y
External Positions Of Central Banks As A Share Of GDP	The Bank for International Settlements	http://www.bis.org/statistics/annex_map.htm	Y
Liner Shipping Connectivity Index	The World Bank	http://databank.worldbank.org/data/reports.aspx?source=2&series=IS.SHP.GCNW.XQ	N
Global Connectedness Index	DHL	https://www.dhl.com/global-en/spotlight/globalization/global-connectedness-index.html	N
Economic Performance Index	The Brookings Institution	https://www.brookings.edu/research/global-metro-monitor-2018/#rank	N
Financial System Green Alignment	Corporate Knights	https://www.finance-watch.org/publication/global-greenfinance-index-3/	N
Labelled Green Bonds Issued by country of issuer	Corporate Knights	https://www.finance-watch.org/publication/global-greenfinance-index-3/	N
Climate-Aligned Bonds Outstanding by Country Of Issuer	CBI	https://www.finance-watch.org/publication/global-greenfinance-index-3/	N
Sustainable Stock Exchanges (Y/N)	UN Sustainable Stock Exchange Initiative	https://sseinitiative.org/members/	Y
Green Bond Segments On Stock Exchanges (Y/N)	CBI	https://www.climatebonds.net/green-bond-segments-stock-exchanges	N
The Global Green Finance Index	Z/Yen	https://www.longfinance.net/programmes/financial-centre-futures/global-green-finance-index/	Y
The Global Financial Centres Index	Z/Yen	https://www.longfinance.net/programmes/financial-centre-futures/global-financial-centres-index/	Y
Sovereign Green Bond (Y/N)	Climate Bonds	https://www.climatebonds.net/2021/11/cop26-briefing-sovereign-green-bond-issuance-takes-start-long-boom	N

Table 30 | Human Capital Factors

Instrumental Factor	Source	Website	Updated Since SCI 6 Y/N
Graduates In Social Science, Business And Law (As % Of Total Graduates)	The World Bank	http://databank.worldbank.org/data/reports.aspx?source=Education%20Statistics&series=UIS.FOSGP.5T8.F400	N
Gross Tertiary Graduation Ratio	The World Bank	http://databank.worldbank.org/data/reports.aspx?source=Education%20Statistics&series=SE.TER.CMPL.ZS	N
Henley Passport Index	Henley Partners	https://www.henleypassportindex.com/passport	Y
Human Development Index	UN Development Programme	http://hdr.undp.org/en/2020-report/download	N
Purchasing Power Index	Numbeo	https://www.numbeo.com/quality-of-life/rankings.jsp?title=2022-mid&displayColumn=1	Y
Number Of High Net Worth Individuals	Capgemini	https://www.worldwealthreport.com/	N
Homicide Rates	UN Office of Drugs & Crime	https://dataunodc.un.org/content/data/homicide/homicide-rate	Y
Average Precipitation In Depth (mm Per Year)	The World Bank	http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators&series=AG.LND.PRCP.MM	N
Global Skills Index	Hays	https://www.hays.com/resources/reports/global-skills-index-2019	N
Linguistic Diversity	Ethnologue	https://www.ethnologue.com/guides/countries-most-languages	N
Global Terrorism Index	Institute for Economics & Peace	https://www.visionofhumanity.org/wp-content/uploads/2022/03/GTI-2022-web-09062022.pdf	N
World Talent Rankings	IMD	https://www.imd.org/centers/world-competitiveness-center/rankings/	N
Adjusted Net National Income Per Capita	The World Bank	https://data.worldbank.org/indicator/NY.ADJ.NNTY.PC.CD	Y
Household Net Financial Wealth	OECD	https://stats.oecd.org/Index.aspx?DataSetCode=BLI	N
Educational Attainment, At Least Bachelor's Or Equivalent, Population 25+, Total (%)	The World Bank	https://data.worldbank.org/indicator/SE.TER.CUAT.BA.ZS	N
Life Expectancy At Birth, Total	The World Bank	https://data.worldbank.org/indicator/SP.DYN.LE00.IN	N
Employees Working Very Long Hours	OECD	https://stats.oecd.org/Index.aspx?DataSetCode=BLI	N
Human Freedom Index	Cato Institute	https://www.cato.org/human-freedom-index	N
Global Health Security Index	Nuclear Threat Initiative, Johns Hopkins Center for Health Security, and Economist Impact	https://www.ghsindex.org/	N
English Proficiency	Education First	https://www.ef.com/wwen/epi/	Y

Table 31 | Business Environment Factors

Instrumental Factor	Source	Website	Updated Since SCI 6 Y/N
Business Environment Rankings	EIU	http://country.eiu.com/All	Y
Ease Of Doing Business Index	The World Bank	https://www.doingbusiness.org/en/reports/global-reports/doing-business-2020	N
Operational Risk Rating	EIU	http://www.eiu.com/site_info.asp?info_name=VW2_RISK_nib&page=rk&page_title=Risk%20table	Y
Real Interest Rate	The World Bank	https://databank.worldbank.org/reports.aspx?source=world-development-indicators&series=FR.INR.RINR	Y
Global Services Location	AT Kearney	https://www. Kearney.com/digital/article/?a/the-2021-kearney-global-services-location-index	N
Corruption Perception Index	Transparency International	https://www.transparency.org/en/cpi/2021/	N
Corporate Tax Rates	KPMG	https://home.kpmg/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html	N
Personal Tax Rates	OECD	https://stats.oecd.org/index.aspx?DataSetCode=TABLE_I6	N
Tax Revenue As Percentage Of GDP	The World Bank	https://databank.worldbank.org/reports.aspx?source=2&series=GC.TAX.TOTL.GD.ZS&country=#	N
Bilateral Tax Information Exchange Agreements	OECD	http://www.oecd.org/ctp/exchange-of-tax-information/taxinformationexchangeagreementstieas.htm	N
Economic Freedom Of The World	Fraser Institute	https://www.fraserinstitute.org/economic-freedom/map?geozone=world&page=map&year=2019	Y
Government Debt As % Of GDP	CIA	https://www.imf.org/external/datamapper/GG_DEBT_GDP@GDD/SWE	Y
OECD Country Risk Classification	OECD	http://www.oecd.org/trade/topics/export-credits/documents/cre-crc-current-english.pdf	Y
Global Peace Index	Institute for Economics & Peace	https://www.visionofhumanity.org/maps/#/	N
Financial Secrecy Index	Tax Justice Network	http://www.financialsecrecyindex.com/	N
Government Effectiveness	The World Bank	http://info.worldbank.org/governance/wgi/	Y
Open Government	World Justice Project	http://worldjusticeproject.org/rule-of-law-index	Y
Regulatory Enforcement	World Justice Project	http://worldjusticeproject.org/rule-of-law-index	N
Press Freedom Index	Reporters Without Borders (RSF)	https://rsf.org/en/ranking/2021	N
Currencies	Swiss Association for Standardization (SNV)	https://www.six-group.com/en/products-services/financial-information/data-standards.html#scrollTo=current-historical-lists	Y
Commonwealth Countries	The Commonwealth	http://thecommonwealth.org/member-countries	N
Common Law Countries	CIA	https://www.cia.gov/the-world-factbook/countries/	N
Inflation, GDP Deflator	The World Bank	https://data.worldbank.org/indicator/NY.GDP.DEFL.KD.ZG	Y
Rule Of Law	The World Bank	http://info.worldbank.org/governance/wgi/	Y
Political Stability And Absence Of Violence/Terrorism	The World Bank	http://info.worldbank.org/governance/wgi/	Y
Regulatory Quality	The World Bank	http://info.worldbank.org/governance/wgi/	Y
Control Of Corruption	The World Bank	http://info.worldbank.org/governance/wgi/	Y
Best Countries For Business	Forbes	https://www.forbes.com/best-countries-for-business/list/	N

Table 31 | (Continued) Business Environment Factors

Instrumental Factor	Source	Website	Updated Since SCI 6 Y/N
Open Budget Survey	International Budget Partnership	http://survey.internationalbudget.org/#download	N
Refined Oil Products Production	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/download/	N
Global Business Complexity Index	TMF Group	https://www.tmf-group.com/en/news-insights/publications/2021/global-business-complexity-index/	N

Table 32 | Reputational Factors

Instrumental Factor	Source	Website	Updated Since SCI 6 Y/N
World Competitiveness Scoreboard	IMD	https://www.imd.org/wcc/world-competitiveness-center-	N
Global Competitiveness Index	World Economic Forum	http://reports.weforum.org/global-competitiveness-report-2019/competitiveness-rankings/	N
Foreign Direct Investment Inflows	UNCTAD	http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=96740	Y
GDP Per Person Employed (Constant 2017 PPP \$)	The World Bank	https://databank.worldbank.org/reports.aspx?source=world-development-indicators&series=SL.GDP.PCAP.EM.KD	N
Global Innovation Index	WIPO	http://www.globalinnovationindex.org/content.aspx?page=GII-Home	Y
International IP Index	GIPC	https://www.theglobalipcenter.com/ipindex2020/	Y
RPI (% Change On Year Ago)	The Economist	https://www.economist.com/economic-and-financial-indicators/2022/06/30/economic-data-commodities-and-markets	Y
Number Of International Association Meetings	World Economic Forum	http://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/rankings/#series=NRFAIREX	N
Innovation Cities Global Index	2ThinkNow Innovation Cities	https://www.innovation-cities.com/city-rankings-2021/	N
Big Mac Index	The Economist	https://www.economist.com/news/2020/07/15/the-big-mac-index	Y
Sustainable Economic Development	Boston Consulting Group	https://www.bcg.com/en-gb/publications/2021/prioritizing-societal-well-being-seda-report	Y
Level Of Internet Freedom	Freedom House	https://freedomhouse.org/countries/freedom-net/scores	Y
Good Country Index	Good Country Party	https://www.goodcountry.org/index/results	N
Legatum Prosperity Index	Legatum Institute	http://www.prosperity.com/#!/ranking	N
Fdi Inward Stock (In Million Dollars)	UNCTAD	https://unctad.org/webflyer/world-investment-report-2021	N
Quality Of Nationality Index	Henley Partners	https://nationalityindex.com/#	N
Global Power City Index	The Mori Memorial Foundation	http://mori-m-foundation.or.jp/english/ius2/gpci2/index.shtml	Y
Economic Freedom	The Heritage Foundation	https://www.heritage.org/index/ranking	Y
Safe Cities Index	Economist	https://safecities.economist.com/	N
The Global Green Economy Index	Dual Citizen	https://dualcitizeninc.com/global-green-economy-index/	N

Table 33 | Infrastructure Factors

Instrumental Factor	Source	Website	Updated Since SCI 6 Y/N
Agility Emerging Markets Logistics Index	Agility	https://www.agility.com/en/emerging-markets-logistics-index/rankings/	N
JLL Real Estate Transparency Index	Jones Lang LaSalle	https://www.jll.co.uk/en/trends-and-insights/research/global-real-estate-transparency-index	Y
Quality Of Domestic Transport Network	World Economic Forum	http://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/rankings/#series=TRSP EFFICY	N
Quality Of Roads	World Economic Forum	http://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/rankings/#series=EOSQ057	N
Roadways Per Land Area	CIA	https://www.cia.gov/the-world-factbook/field/roadways/country-comparison	Y
Railways Per Land Area	CIA	https://www.cia.gov/the-world-factbook/field/railways/country-comparison	N
Protected Land Area % Of Land Area	The World Bank	http://databank.worldbank.org/data/reports.aspx?source=2&series=ER.LND.PTLD.ZS&country=	N
Energy Sustainability Index	World Energy Council	https://trilemma.worldenergy.org/	Y
Environmental Performance Index	Yale University	https://epi.yale.edu/epi-results/2020/component/epi	N
Global Sustainable Competitiveness Index	Solability	http://solability.com/the-global-sustainable-competitiveness-index/the-index	Y
Logistics Performance Index	The World Bank	http://lpi.worldbank.org/international/global	N
Proportion Of Population Using Safely-Managed Drinking-Water Services (%)	WHO	https://www.who.int/data/gho/publications/world-health-statistics	N
INRIX Traffic Scorecard	INRIX	http://inrix.com/scorecard/	N
Forestry Area	World Bank	http://databank.worldbank.org/data/reports.aspx?source=2&series=AG.LND.FRST.ZS&country=	N
CO ² Emissions Per Capita	World Bank	https://databank.worldbank.org/reports.aspx?source=2&series=EN.ATM.CO2E.PC&country=#	N
4G Availability	Open Signal	https://www.opensignal.com/reports/2020/05/global-state-of-the-mobile-network	N
Share Of Wind And Solar In Electricity Production	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/download/	N
Energy Intensity Of GDP	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/download/	N
Share Of Renewables In Electricity Production	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/download/	N
Energy Transition Index	World Economic Forum	https://www.weforum.org/reports/1edb4488-deb4-4151-9d4f-ff355eec499a/in-full/rankings	N
Urban Mobility Readiness Index	Oliver Wyman	https://www.oliverwymanforum.com/mobility/urban-mobility-readiness-index/rankings.html	Y
The Green Future Index	MIT Technology Review	https://www.technologyreview.com/2022/03/24/1048253/the-green-future-index-2022/	N

Vantage

Financial Centres

Vantage Financial Centres is an exclusive network of financial centres around the world looking for a deeper understanding of financial centre competitiveness. Members receive enhanced access to SCI GFCI and GGFI data, marketing opportunities, and training for centres seeking to enhance their profile and reputation.



AIFC is an all-around financial centre located in Nur-Sultan, the capital of Kazakhstan, which offers ample opportunities for businesses to grow. AIFC provides greater access to world-class capital markets and the asset management industry. It also promotes financial technology and drives the development of niche markets such as Islamic and green finance in the region. AIFC provides unprecedented conditions and opportunities for its participants and investors: legal system based on the principles of English law, independent judicial system, regulatory framework consistent with internationally recognised standards, wide range of financial services and instruments, simplified visa and labour regimes, zero corporate tax rate, and English as a working language.

Located in the heart of Eurasia, AIFC is striving to become the gateway to the Eurasian Economic Union, Central Asia and Caucasus, and play a key role in the Belt and Road Initiative. AIFC is already gaining tremendous recognition as a leading financial hub in the region: recently, Asiamoney Awards recognised it as the best Belt and Road Initiative project of 2019.

Daniyar Kelbetov at d.kelbetov@aifc.kz
www.aifc.kz



Established in 2001, the Financial Services Commission, Mauritius ('FSC') is the integrated regulator for the non-bank financial services sector and global business and is mandated to license, regulate, and supervise the conduct of business activities in the non-bank financial services sector and global business.

Our vision is to be an internationally recognised financial supervisor committed to the sustained development of Mauritius as a sound and competitive financial services centre.

The FSC aims to:

- promote the development, fairness, efficiency and transparency of financial institutions and capital markets;
- suppress crime and malpractices so as to provide protection to members of the public investing in non-banking financial products; and
- ensure the soundness and stability of the financial system in Mauritius.

fscmauritiust@intnet.mu
www.fscmauritiust.org



Dubai International Financial Centre (DIFC) is one of the world's most advanced financial centres, and the leading financial hub for the Middle East, Africa and South Asia (MEASA) region, which comprises 72 countries with an approximate population of 3 billion and a nominal GDP of US\$ 7.7 trillion.

DIFC is home to an internationally recognised, independent regulator and a proven judicial system with an English common law framework, as well as the region's largest financial ecosystem of more than 24,000 professionals working across over 2,300 active registered companies – making up the largest and most diverse pool of industry talent in the region. The Centre's vision is to drive the future of finance. Today, it offers one of the region's most comprehensive FinTech and venture capital environments, including cost-effective licensing solutions, fit-for-purpose regulation, innovative accelerator programmes, and funding for growth-stage start-ups.

Comprising a variety of world-renowned retail and dining venues, a dynamic art and culture scene, residential apartments, hotels and public spaces, DIFC continues to be one of Dubai's most sought-after business and lifestyle destinations.

Twitter @DIFC
www.difc.ae



Seoul is a rising star among the financial cities of the world. It is already one of the top 10 cities in the world based on various indices, and it has many more opportunities to offer as a financial hub and great growth potential. Seoul believes global financial companies are our true partners for growth. There are many incentives provided to global financial companies that enter into Seoul, such as the financial incentives provided when moving into IFC, so that we can all jointly work towards the growth and development of the financial market.

It is sure that Seoul will become a top star of global financial hubs in the near future! Pay close attention to Seoul's potentials and pre-emptively gain a foothold in the Seoul financial hub. Seoul is the gateway to Northeast Asia and the world.

Jiyeon Lee at jiyeon.lee@seoul.go.kr
www.seoul.go.kr/main/index.jsp

Vantage

Financial
Centres

Please find out more at: www.vantagefinancialcentres.net or by contacting Mike Wardle at mike_wardle@zyen.com



Global Times Consulting

Global Times Consulting Co. is a strategic consultancy with a focus on China. We help Chinese (local) governments at all levels to build their reputation globally, providing strategic counsel, stakeholder outreach and communications to support their sustainable development. We also partner with multinational companies operating in this dynamic but challenging market, serving as a gateway to China. In addition, we help Chinese companies extend their reach overseas.

Global Times Consulting Co. adopts a research and knowledge-based approach. With extensive contacts and deep insights into China's political and economic landscape, we develop and execute integrated programs for stakeholder relations and reputation management. Our extensive relationship with media and government organizations in China and worldwide helps us successfully execute programs and achieve desired goals.

**Daniel Wang at danielwang@globaltimes.com.cn
www.globaltimes.com.cn**



Finance Montréal's mandate is to promote Montréal as a world-class financial hub and foster cooperation among its member institutions to accelerate the industry's growth. With renowned research capacities in artificial intelligence and a booming fintech sector, Montréal offers an experienced, diversified and innovative pool of talent as well as a stable, low cost and dynamic business environment.

For financial institutions searching for an ideal location to set up an intelligent service centre and operationalize their digital transformation, Finance Montréal can advise on the advantageous tax incentives aimed at facilitating the establishment and development of financial services corporations in the city.

**info@finance-montreal.com
www.finance-montreal.com/en**



Luxembourg for Finance (LFF) is the Agency for the Development of the Financial Centre. It is a public-private partnership between the Luxembourg Government and the Luxembourg Financial Industry Federation (PROFIL). Founded in 2008, its objective is to develop Luxembourg's financial services industry and identify new business opportunities. LFF connects international investors to the range of financial services provided in Luxembourg, such as investment funds, wealth management, capital market operations or advisory services. In addition to being the first port of call for foreign journalists, LFF cooperates with the various professional associations and monitors global trends in finance, providing the necessary material on products and services available in Luxembourg.

Furthermore, LFF manages multiple communication channels, organises seminars in international business locations, and takes part in selected world-class trade fairs and congresses.

**fff@lff.lu
luxembourgforfinance.com**



Abu Dhabi Global Market (ADGM), an award-winning financial centre in the capital of the UAE, opened for business in October 2015, consisting of three independent authorities: the Registration Authority (RA); the Financial Services Regulatory Authority (FSRA); and ADGM Courts. Comprised of the three independent authorities where English Common Law is directly applicable, ADGM plays an essential role in the diversification of the economy in the UAE and is committed to providing a comprehensive business ecosystem operating with the highest standards of integrity and is renowned for its ease of doing business.

Strategically situated in Abu Dhabi, home to one of the world's largest sovereign wealth funds, ADGM plays a vital role in positioning Abu Dhabi as a global trade and business hub and serves as a link between the growing economies of the Middle East, Africa and South Asia to the rest of the world. ADGM has earned industry recognition as the Financial Centre of the Year (MENA) four years in a row as well as being recognized as the leading FinTech Hub in the region.

www.adgm.com/ info@adgm.com

Vantage

Financial Centres

Please find out more at: www.vantagefinancialcentres.net or by contacting Mike Wardle at mike_wardle@zyen.com.



Z/Yen's FS Club is the premier global executive knowledge network for technology and finance professionals.

News: Access FS Club's global information service: daily news, bulletins, and the new virtual FS Clubroom providing member only access to exclusive data from the Global Financial Centres Index, Global Green Finance Index, and the Smart Centres Index, and other tailored content.

Events: Access over 300 annual events on the most topical developments affecting technology and finance; providing education, networking opportunities, and exposure to high profile speakers,

Partnerships: Access an international community of technology, economics and finance professionals, allowing you to network with key futurists, exchange views with peers, and meet potential clients.

Find out more here: <https://fsclub.zyen.com/sponsors/sponsorship-levels/> or by contacting Charlotte Dawber-Ashley at charlotte_dawber-ashley@zyen.com



Kigali International Financial Centre, KIFC, is Rwanda's financial centre facilitating international investment and cross-border transactions in Africa. KIFC was established in 2020 and positions Rwanda as a preferred financial jurisdiction for investments into Africa by providing an attractive destination for investors, with a robust legal and regulatory framework fully compliant with international standards and competitive tax structures, including a network of double tax treaties. KIFC attracts regional and international investors such as Pan-African based investment funds, asset managers and administrators, regional holding structures, foundations, and global trading firms.

In addition, with its niche focus on Fintech, KIFC offers FinTechs a framework to pilot their business models in a controlled environment before expanding into the wider African market.

<https://www.rfi.rw/>
info@rfi.rw



Supported by the industry, the Financial Services Development Council (FSDC) is a high-level, cross-sectoral advisory body to the Hong Kong Special Administrative Region Government.

FSDC formulates proposals to promote the further development of Hong Kong's financial services industry and to map out the strategic direction for the development. As of March 2020, 110 of the 137 policy recommendations had been adopted by the Government and relevant regulators since FSDC's inception in 2013. On top of research, FSDC also carries out market promotion and human capital development functions.

Among others, FSDC focuses on topics including Mainland and international connectivity, green and sustainable finance, FinTech, as well as asset and wealth management.

enquiry@fsdc.org.hk
<https://www.fsdc.org.hk/en>



Approved by the China's State Council, China Development Institute (CDI) was founded in 1989 with 116 representatives from the government, academia and business in China. Being an independent think tank, CDI is committed to developing policy solutions via research and debates that help to advance China's reform and opening-up. After years of development, CDI has become one of the leading think tanks in China. CDI focuses on the studies of open economy and innovation-driven development, regional economy and regional development, industrial policies and industrial development, urbanization and urban development, business strategies and investment decision-making. Via conducting research, CDI provides policy recommendations for the Chinese governments at various levels and develops consultation for corporate sectors at home and abroad. CDI organizes events in different formats that evokes dialogue among scholars, government officials, business people and civil society members around the globe. Based in Shenzhen, Southern China, CDI has one hundred and sixty staff, with an affiliated network that consists of renowned experts from different fields.

Carol Feng at carolf@cdi.org.cn www.cdi.org.cn

Vantage

Financial Centres

Vantage Financial Centres is an exclusive network of financial centres around the world looking for a deeper understanding of financial centre competitiveness. Members receive enhanced access to SCI, GFCI, and GGFI data, marketing opportunities, and training for centres seeking to enhance their profile and reputation.



Since 2009 Busan Metropolitan City has been developing a financial hub specialising in maritime finance and derivatives. With its strategic location in the center of the southeast economic block of Korea and the crossroads of a global logistics route, Busan envisions growing into an international financial city in Northeast Asia. Busan Finance Center (BFC) will continue to develop and implement measures to promote Busan as a financial hub and bolster the local financial industry, while working together with various local economic players to pursue sustainable growth of the financial sector including FinTech. These efforts will enable BFC to play a leading role in taking Busan to the next level and become the international financial center and maritime capital of Northeast Asia.

BFC offers an attractive incentive package to global financial leaders and cooperation network of Busan Metropolitan City, and Busan Finance Center will support you to identify opportunities in Busan, one of the fastest developing cities in Asia.

info@kbfc.or.kr
www.kbfc.or.kr/eng/



The Long Finance initiative grew out of the London Accord, a 2005 agreement among investment researchers to share environmental, social and governance research with policy-makers and the public. Long Finance was established more formally by Z/Yen Group and Gresham College from 2007 with the aim of exploring long-term thinking across a global network of people.

We work on researching innovative ways of building a more sustainable financial system. In so doing, we try to operate openly and emulate scientific ideals. At the same time, we are looking to create a supportive and caring community where people can truly question the accepted paradigms of risk and reward.

www.longfinance.net



Casablanca Finance City is an African financial and business hub located at the crossroads of continents. Recognized as the leading financial center in Africa, and partner of the largest financial centers in the world, CFC has built a strong and thriving community of members across four major categories: financial companies, regional headquarters of multinationals, service providers, and holdings.

CFC offers its members an attractive value proposition and a premium "Doing Business" support that fosters the deployment of their activities in Africa. Driven by the ambition to cater to its community, CFC is committed to promoting its members expertise across the continent, while enabling fruitful business and partnership synergies through its networking platform.

Selma Bennis at Selma.Bennis@cfca.ma
www.casablancafinancecity.com



PRODUCED BY Z/YEN GROUP



www.zyen.com

Z/Yen helps organisations make better choices - our clients consider us a commercial think-tank that spots, solves and acts. Our name combines Zen and Yen - 'a philosophical desire to succeed' - in a ratio, recognising that all decisions are trade-offs. One of Z/Yen's specialisms is the development and publication of research combining factor analysis and perception surveys.

THE SMART CENTRES INDEX



www.smartcentresindex.net

The Smart Centres Index is designed to track commercial centres' ability to create, develop, and deploy technology. It aims to measure how attuned centres and their regulatory systems are to attracting innovation and growth in Science, Technology, Energy Systems, Machine Learning, Distributed Ledgers, and Fintech.

PUBLISHED BY LONG FINANCE AND DISTRIBUTED FUTURES



www.longfinance.net

Long Finance is a Z/Yen initiative designed to address the question "**When would we know our financial system is working?**" This question underlies Long Finance's goal to improve society's understanding and use of finance over the long-term. In contrast to the short-termism that defines today's economic views, the Long Finance timeframe is roughly 100 years.



www.distributedfutures.net

Distributed Futures is a Long Finance programme dedicated to exploring new technologies and finance. The programme looks at Smart Ledgers, but also wider technologies ranging from quantum computing to machine learning to biological finance.