The Swiss Life Asset Managers' European Thematic Cities Index 2022



Identifying the cities most aligned to thematic structural change



Themes that drive real estate performance

The way we live, work and play has evolved significantly over the last decade and with it the way we use real estate. Underlying megatrends such as demographic shifts, globalisation, climate change and digitalisation will continue to drive this change at an accelerating rate. Institutional investors must identify real estate that is positively aligned to change in order to ensure portfolio resilience.

To achieve this, Swiss Life Asset Managers applies a thematic investment approach that identifies overarching themes, the 5 C's, that will drive real estate performance in an ever-changing world. The 5 C's are: Change & Disruption, Climate & Environment, Communities & Clustering, Consumers & Lifestyle, and Connectivity. Swiss Life Asset Managers has built on years of expertise applying the 5 C's across countries, cities and assets. We use the 5 C's to screen new investments, to review existing holdings, to determine asset management opportunities that enhance value and to optimally time exits. We believe that places and assets which perform strongly across the 5 C's will capitalise on structural change. They will be more attractive to occupiers and knowledge-based workers. This cross-sectional appeal to businesses and the skilled workers they need to succeed in the modern economy will underpin occupier demand and support sustained long term real estate performance.

The 5 C's and the city

The Swiss Life Asset Managers' European Thematic Cities Index (TCI) compares European cities across the 5 C's. It identifies those most likely to be resilient in the face of unrelenting structural change as well as their individual strengths and weaknesses. We translate the 5 C's into city specific themes that resilient cities will need.

A resilient city must exhibit strong **dynamism** to address Change & Disruption by offering unparalleled opportunities to create, innovate, educate and produce. The Climate & Environment theme outlines that ecologically healthy cities will be best equipped to deal with climate change, environmental impact and the growing need to enhance the physical and mental wellbeing of their residents. By providing strong networks a city allows Communities & Clusters to form and thrive. Consumer & Lifestyle demands are best met in cosmopolitan cities that offer stimulating, varied and diverse options to a multicultural and informed population. Accessible cities offer high quality infrastructure to guarantee physical and virtual Connectivity. The TCI ranks 135 European cities from 28 countries in respect of the five core city themes Dynamism, Healthiness, Networks, Cosmopolitanism and Accessibility. Launched in 2021, the TCI has now been updated for the first time and will continue to be revised annually. The model behind it includes 49 attributes and is based on the Organisation for Economic Cooperation and Development (OECD) handbook on constructing composite indicators.

5	49	135
Themes	Attributes	Cities
detailed thematic insight	multiple data sources ¹	significant European coverage

¹ The model is based on data from 2thinknow, Oxford Economics, Eurostat and European Environment Agency



The TCI and investment approach

The ranking differs from other city rankings as it focuses on the structurally-driven themes that shape real estate demand. It avoids a large city bias by predominately using per capita attributes and it takes trend forecasts into account, benefiting cities with the most potential for further strengthening. The TCI adds to the pan-European real estate research expertise. It is an additional tool that informs Swiss Life Asset Managers' bi-annual publications of the "Real Estate House View" and corresponding "Strategic Implications" and strengthens the investment approach in several ways. The purely data driven score offers a comparable metric to illuminate the relative strengths and weaknesses of cities across the themes derived from the 5 C's. As such, the ranking can serve as a starting point for investment analyses, combined with other qualitative and quantitative information. The detailed insights gained from Swiss Life Asset Managers' proprietary TCI support the development of well-informed investment strategies. It aids in building resilient real estate portfolios that appeal to the occupiers of today and tomorrow. It enhances the ability to position investments to protect, create and grow income sustainably in a rapidly evolving world.

The TCI is customisable and can be recalibrated based on the individual needs and strategies of investors. Tailored results can exclude cities of different sizes or in different countries and reweight the city themes, giving higher emphasis to themes at the centre of an investment product or idea. The TCI allows Swiss Life Asset Managers to combine its expertise with detailed thematic data to analyse individual cities and understand the drivers of their performance.

The TCI offers a competitive edge to investors to

- Allocate capital to thematically stronger cities that are expected to perform well.
- Selectively target cities based on unique investment strategies. For example, a fund focusing on environmental sustainability can identify cities with ecological credentials by assigning a higher weight to City Healthiness.
- Review existing portfolios based on their exposure to thematically strong cities.
- Add value by gaining a deeper understanding of the strengths and weaknesses of cities and enabling city deficiencies to be addressed within their assets.

The 5 C's and the cities

5 C's	Implication on city level		City theme	Attributes
Change & Disruption	Ability and means to adapt to and embrace changes by offering opportunities to create, innovate, educate and produce		Dynamism	Economic output Ease of business Entrepreneurialism
Climate & Environment	Ability to build resilience to a shifting climate and to support a healthy and sustainable future for the physical and mental well-being of citizens	Ø	Healthiness	Air quality Sustainability Waste management
Communities & Clustering	Ability to provide places where personal and professional networks can build and thrive and where occupiers can access business and talents	<u>\$</u>	Networks	Business density Educational offer Growth potential
Consumer & Lifestyle	Ability to meet changing consumer demands and support different lifestyles by offering stimulating, varied and diverse options to multicultural residents	D	Cosmo- politanism	Amenity provision Entertainment Population diversity
Connectivity	Ability to connect citizens seamlessly to the physical and digital world within and outside of the city	rộj	Accessibility	Personal mobility Digital access Public transport



The European TCI Ranking 2022

London defends its first rank in the TCI 2022, now followed by Zurich (2021: 9) and Stockholm. Bern newly enters the top ten on rank nine, from rank 19 previously, while Luxembourg now ranks 12th (rank 10 previously). Amsterdam, Copenhagen, Oslo, Basel, Manchester and Paris defend their place among the top ten. The average difference to last year over the whole sample is eight ranks. Geneva (+16 ranks) and Liverpool (+13 ranks) replace Rotterdam (-11 ranks) and Grenoble (-25 ranks) in the top 35. Lower Dynamism and Accessibility scores explain Grenoble's rank decline. Valencia registered the largest rank increase to rank 84 from rank 112 previously, driven mainly by a better Healthiness placement.

Rankings of the top 35 European cities

			_		_		
	Overall Ranking	change from 2021			\$		(Q)
London	1	+0	1	3	1	1	79
Zurich	2	+7	10	18	3	14	4
Stockholm	3		3	4	6	26	15
Amsterdam	4		7	6	2	36	20
Copenhagen	5	+2	2	1	19	69	7
Oslo	6		9	7	20	10	18
Basel	7		18	75	5	4	5
Manchester	8	+2	13	8	27	29	8
Bern	9	+10	34	84	34	3	3
Paris	10		5	46	12	8	35
Brussels	11		41	11	7	66	12
Luxembourg	12		21	44	17	55	2
Dublin	13	+0	14	28	10	24	36
Munich	14		28	47	9	42	11
Lausanne	15	+2	15	79	4	17	31
Cambridge	16	+7	4	48	18	12	66
Edinburgh	17	-2	6	67	13	11	57
Bristol	18	+0	12	80	8	9	45
Helsinki	19		26	13	25	63	10
Tallinn	20		11	55	42	15	26
Dusseldorf	21		75	22	31	34	1
Berlin	22	–10	77	9	26	2	47
Vienna	23		66	10	43	61	6
Cardiff	24	+6	36	30	38	38	23
Gothenburg	25	+3	40	49	58	44	9
Frankfurt	26		53	51	23	60	16
Potsdam	27	-5	114	2	76	25	14
Belfast	28	-2	22	41	35	31	41
Liverpool	29	+13	31	12	93	39	32
Newcastle	30	-1	29	33	52	20	49
Geneva	31	+16	33	57	16	50	68
Hamburg	32	+3	86	16	30	5	99
Milton Keynes	33	-8	35	20	49	23	75
Karlsruhe	34	-2	93	15	61	21	28
Reading	35	-8	16	70	29	37	81

Changes within the TCI 2022

When comparing the TCI 2022 to the 2021 edition, it is important to note that this is a relative ranking. Hence, changes cannot be interpreted in absolute terms. E.g. a decrease in the ranking might be due to other cities improving more quickly, rather than an actual decline in absolute performance. Furthermore, several changes in the underlying attributes limit comparability over time: the measurement methods for several variables such as air quality, startup attractiveness, digital connectivity and flight destinations have changed and/or were complicated by the pandemic. Moreover, we switched to the European Environment Agency as the main data provider for air quality measures, allowing the use of most recent data.

Scores of selected top-ranking European cities (maximum possible score per category = 20)

■ Mean Overall 🖽 Mean Country 🗖 City Score



Amsterdam ranks 4th in the 2022 TCI with very strong Networks, Healthiness and Dynamism. It lost eleven ranks in Accessibility compared to the 2021 TCI, driven by digital connectivity measures.

Brussels



Brussels now ranks as eleventh strongest city. It still exhibits strong and vital Networks and high Healthiness and has increased in the Dynamism and Cosmopolitanism ranking.



The German Ranking 2022

This year's TCI shows eleven out of the 30 German cities in its sample within the top half of the overall ranking. Compared to the 2021 TCI, Freiburg im Breisgau and Darmstadt now narrowly miss the upper half of the ranking. German cities lost 2.7 ranks on average, with Cologne losing as much as 22 ranks, driven by City Healthiness and Cosmopolitanism, and Hannover gaining 19 thanks to a higher City Dynamism ranking.

German cities remain some of the healthiest in Europe, with Potsdam being the second healthiest city overall. Despite some of the larger cities such as Cologne, Hannover, Stuttgart, Hamburg, Düsseldorf and Frankfurt gaining more than 15 ranks in City Dynamism, overall, German cities remain below European average within this theme. Aachen, the lowest ranking German city on rank 124 (down from rank 118) is lagging others in City Cosmopolitanism and City Dynamism, with relatively high tax rates and low forecasted growth rates.

Scores of top-ranking German cities (maximum possible score per category = 20)

Mean Overall 🖽 Mean Country 🗖 City Score

Munich



Munich moved down in Healthiness and Cosmopolitanism but improved within the Accessibility category and is placed 14th overall, with a strong commuters infrastructure.

Ranking of German cities

		change					
	Overall Ranking	from 2021			<u></u>		গ্র্ট
Munich	14	-3	28	47	9	42	11
Dusseldorf	21	-7	75	22	31	34	1
Berlin	22	-10	77	9	26	2	47
Frankfurt	26	+5	53	51	23	60	16
Potsdam	27		114	2	76	25	14
Hamburg	32	+3	86	16	30	5	99
Karlsruhe	34	-2	93	15	61	21	28
Bonn	36	+0	107	14	85	18	22
Stuttgart	61	-8	84	100	54	51	25
Nuremberg	62	-19	124	66	86	45	24
Dresden	65		127	35	92	54	39
Freiburg im Breisgau	69		135	5	115	75	43
Bremen	73	+4	119	26	114	91	37
Darmstadt	75	-10	92	90	59	112	42
Hannover	77	+19	118	32	110	85	48
Heidelberg	81	+4	112	62	111	70	52
Augsburg	85	+8	117	61	70	58	100
Mainz	87		122	73	68	104	69
Leipzig	89	+15	131	40	94	115	51
Cologne	95	-22	95	76	74	99	107
Wiesbaden	98		116	59	45	126	104
Dortmund	103	-2	115	81	122	59	98
Essen	109		125	36	116	113	95
Regensburg	111		106	83	71	129	109
Osnabrück	115		126	65	109	103	117
Bielefeld	116	+4	132	27	123	105	116
Mannheim	117	+7	123	114	98	97	78
Erfurt	119	-14	134	31	121	102	118
Münster	123	-7	133	68	89	114	132
Aachen	124	-6	129	86	104	121	119

Dusseldorf



Dusseldorf dropped from rank 14 to rank 21, driven by a lower Network ranking. However, it replaces Luxembourg as the most accessible city with a strong intercity transportation infrastructure and high bicycle friendliness.

Berlin



Berlin now ranks 22nd, down from 12th rank previously. It lost ranks in Networks but gained in Accessibility and Dynamism. It remains the 2nd most cosmopolitan city and exhibits high Healthiness.



The French Ranking 2022

As in 2021, six out of 20 French cities reached the top half of the TCI in 2022. Many of the attributes only cover wider French regions, including some rural areas, instead of inner cities. Therefore, French scores might be biased to the downside against their European peers on average, which explains how local knowledge is also strategically important. Nevertheless, within Swiss Life Asset Managers' research index French cities are healthier than the average European city, with 12 cities reaching the upper half within this theme, lead by Bordeaux, Montpellier and Nantes. Paris is atop of the French ranking in these four themes: Dynamism, Networks, Cosmopolitanism and Accessibility, which is not surprising given Paris' contribution to the French GDP. Compared to last year's ranking, French cities lost six ranks on average, driven by large declines such as Grenoble (-25 ranks), Le Havre (-23 ranks) and Rennes (-22 ranks). On the other hand, Marseille gained eleven ranks, driven by a higher City Healthiness placement. While Marseille does not reach the upper half of the ranking, it has high forecasted employment growth in the scientific and professional industry, which is also true for other French cities such as Saint-Étienne, Dijon, Le Havre, Lyon and even Rouen.

Scores of top-ranking French cities (maximum possible score per category = 20)

Mean Overall 🖽 Mean Country 🗖 City Score

Paris



Paris scores well above average in all city themes. It is still the 5th most dynamic and the 8th most cosmopolitan city, with solid economic fundamentals and top ranked universities.

Toulouse



Ranking of French cities

	Overall	change from			<u>6</u>		500
	Ranking	2021					100
Paris	10	-7	5	46	12	8	35
Toulouse	51		76	42	50	30	70
Bordeaux	57	-11	100	17	65	86	44
Grenoble	58	-25	94	50	28	76	55
Lyon	59		61	56	53	98	65
Nantes	68	+4	90	29	88	73	76
Cannes	76	-10	85	58	72	108	80
Montpellier	78		97	21	81	123	77
Strasbourg	88	+6	120	88	105	65	64
Lille	90	-2	82	37	119	128	60
Marseille	91	+11	79	95	96	84	83
Nice	92	-11	91	98	102	74	73
Rennes	96	-22	101	74	101	96	101
Metz	106	-22	99	72	106	116	106
Dijon	112		103	52	125	107	121
Le Havre	120	-23	96	94	130	67	123
Limoges	122		111	43	128	110	128
Saint-Étienne	127		104	53	127	125	131
Reims	129	+0	113	104	133	101	122
Rouen	130	+0	89	108	132	119	127

Toulouse replaces Grenoble as the 2nd ranked French city, with an improved Healthiness position. It has above average employment in scientific industries and a growing working age population.

Bordeaux



Bordeaux ranks 57th overall, and 17th in City Healthiness with a sustainable infrastructure and efficient waste management system. It gained seven ranks in City Dynamism, but its growth forecast remain relatively weak.



The United Kingdom Ranking 2022

22 out of 24 UK cities rank in the upper half of the TCI. As already established in the 2021 TCI, UK cities are very dynamic with high business friendliness and potential to attract start-ups and talent. They also exhibit above average City Healthiness, Networks and Connectivity. London leads the UK ranking in all themes except for City Accessibility, where Manchester ranks the highest among UK cities and 8th overall. UK cities exhibit relatively high economic growth potential, particularly Milton Keynes, York, Liverpool and Reading on ranks 16 to 20. Belfast ranks the lowest within this attribute on rank 99. Likewise, 23 UK cities have above average retail spending growth forecasts, with Cardiff, York and Liverpool in the lead. Working age population growth forecasts are particularly high for London, Manchester and Edinburgh but negative for eight UK cities including Newcastle, Hull, and Glasgow. Compared to last year, UK cities gained 4.5 ranks on average. Coventry saw the biggest rank increase of +24, with the largest gains in Dynamism and higher scores for City Networks and Cosmopolitanism. Brighton and Hove on the other hand lost 12 ranks, driven mostly from within the City Dynamism and City Healthiness themes, although gained some ranks in City Accessibility.

Scores of top-ranking UK cities (maximum possible score per category = 20)

Mean Overall 🖽 Mean Country 🗖 City Score

London



London defends its top rank in Dynamism, Networks and Cosmopolitanism and gains four ranks in Healthiness. Its Accessibility remains below average due to digital connectivity attributes.

Manchester



Ranking of UK cities

	Overall Ranking	change from 2021		Ø	<u>ക്ര</u>		B
London	1	+0	1	3	1	1	79
Manchester	8	+2	13	8	27	29	8
Cambridge	16	+7	4	48	18	12	66
Edinburgh	17	-2	6	67	13	11	57
Bristol	18	+0	12	80	8	9	45
Cardiff	24	+6	36	30	38	38	23
Belfast	28	-2	22	41	35	31	41
Liverpool	29	+13	31	12	93	39	32
Newcastle	30		29	33	52	20	49
Milton Keynes	33		35	20	49	23	75
Reading	35		16	70	29	37	81
Birmingham	38	+0	30	19	62	27	86
Oxford	39	+21	8	71	15	57	112
Leicester	40	+9	45	64	66	13	63
Nottingham	43		25	23	108	46	56
Southampton	44		32	82	55	16	82
York	47	+17	20	38	33	40	125
Glasgow	48	+8	19	24	77	78	93
Leeds	50	+8	17	77	36	81	97
Brighton and Hove	53	-12	50	63	39	48	92
Sheffield	63	+16	27	92	73	53	105
Coventry	66	+24	38	85	75	100	90
Bath	82		39	115	37	62	114
Hull	97	+12	55	106	129	56	94

Manchester climbed to rank eight from rank ten previously, driven by a higher Networks and Healthiness rank, with solid intercity and international connectivity and environmentally favourable sector composition.

Cambridge



Cambridge replaces Edinburgh as the third UK city on rank 16 overall, with gains in Healthiness and Accessibility. It is a very start-up- and bicycle-friendly city with ample green space but below average transportation infrastructure.



The Swiss Ranking 2022

All six Swiss cities stayed in the top 50 of the 2022 TCI, gaining 6.5 ranks on average. Geneva increases the most by a total of 16 ranks due to a higher Dynamism placement. Zurich, Basel and – newly so – Bern rank within the top ten.

Among Swiss cities, Zurich is the most dynamic and healthiest city with the best networks (rank 3 overall). Despite the lack of an international airport and therefore a low score in international connectivity, Bern is now the third most accessible city within the TCI, with a well-developed commuter infrastructure, high walkability, and above average digital connectivity. Zurich and Basel follow tightly on rank four and five with better international connectivity but slightly lower digital connectivity. Bern also exhibits the highest Cosmopolitanism rank among Swiss cities, improved by a high level of public amenities and green areas, but a sub-average forecasted growth rate in retail spending may lower its attractiveness for certain real estate sector investments.

With regards to the latter variable, all six Swiss cities are found among the bottom 11 European cities. Starting from a high level, the economic growth potential per capita over the next ten years is therefore rather limited. Among Swiss cities, Basel has the highest forecasted GDP per capita growth rate, ranking 63th for this measure overall. On the other hand, the labour market is expected to remain solid in the future with low unemployment rates and a high labour market participation rate.

As already discovered in the 2021 TCI, Healthiness remains the weakest theme for Swiss cities. Lucerne lost nine ranks in this theme in 2022. Although, it has a sustainable transportation infrastructure that is typical for Swiss cities, like Bern its industry mix is less environmentally favourable and car usage is above average.

Ranking of Swiss cities

	Overall Ranking	change from 2021		Ø	<u></u>		603 103
Zurich	2	+7	10	18	3	14	4
Basel	7		18	75	5	4	5
Bern	9	+10	34	84	34	3	3
Lausanne	15	+2	15	79	4	17	31
Geneva	31	+16	33	57	16	50	68
Lucerne	41	+3	57	96	79	22	17

Scores of top-ranking Swiss cities (maximum possible score per category = 20)

Mean Overall 🖽 Mean Country 🗖 City Score

Zurich



Zurich owes its increase to the second place to higher Dynamism and Accessibility rankings. It is a well-connected city and has an economically sound foundation which promises stability, but a reduced growth potential.

Basel



Basel gains one rank compared to the 2021 TCI with a higher Dynamism, Networks and Accessibility rank but a decline in the Healthiness placement. It is attractive to start-ups and has high quality public amenities.

Bern



Bern newly enters the top ten with notably higher Dynamism and Networks scores. It is very commuterfriendly and provides ample green space to its residents. Above average car ownership reduces its Healthiness score.



The Nordic Ranking 2022

Swiss Life Asset Managers recently expanded its geographic footprint and strengthened access to new investors in the Nordic region. With this, the Nordics join Switzerland, France, Germany and the UK as one of Swiss Life Asset Managers core markets.

Looking at the TCI 2022, the Nordic cities Stockholm, Copenhagen and Oslo are all represented in the top ten, and the remaining Nordic cities such as Helsinki, Gothenburg, Malmö and Arhus are within the top 50 European cities.

Compared to the 2021 TCI Oslo dropped by two ranks, still placing 6th overall but being narrowly overtaken by Stockholm (+3 ranks) and Copenhagen (+2 ranks). Arhus is the biggest winner among the Nordics compared to 2021 with a gain of 11 ranks and a particular gain in placement in City Dynamism and City Networks. Nordic cities scores are above European average in all five themes, with very high City Healthiness and Accessibility. Nordic cities exhibit high air quality and a well-developed health sector. They also enjoy excellent digital connectivity and are bicycle friendly.

Like Swiss cities, Nordic cities have a head start with a high level of economic footing, therefore their forecasted GDP growth rate per capita is relatively low. It is the highest for Arhus (rank 59), followed by Oslo (rank 62) and Copenhagen (rank 64). Regarding some other forward-looking variables, the labour force participation rate is expected to stay high, particularly in Copenhagen and Stockholm, and a strong increase in working age population is also expected, with Copenhagen, Stockholm, Malmö and Oslo getting the highest possible score in this attribute. Sweden expects a strong proportional growth of the arts, cultural sector, while growth rates in the scientific and professional industry are more limited.

Ranking of Nordic cities

	Overall Ranking	change from 2021		Ø	<u></u>		B
Stockholm	3	+3	3	4	6	26	15
Copenhagen		+2	2	1	19	69	7
Oslo		-2	9	7	20	10	18
Helsinki	19		26	13	25	63	10
Gothenburg	25	+3	40	49	58	44	9
Malmö	37	+8	42	60	40	32	50
Århus	46	+11	23	25	67	109	59

Scores of top-ranking Nordics cities (maximum possible score per category = 20)

Mean Overall 🖽 Mean Country 🗖 City Score

Stockholm



Stockholm ranks third overall gaining ranks in Dynamism and Networks compared to 2021. It has a high-quality transportation infrastructure and is attractive to start-ups and venture capitalists.

Copenhagen

Copenhagen ranks second in Dynamism, up from rank 23, and replaces Potsdam of Germany as the heathiest European city. It compensates its below average air quality with a sustainable transportation and health infrastructure.

Oslo



Compared to the 2021 TCI, Oslo gained in Dynamism and Networks, but slightly less so than its Nordic peers. Its exhibits high quality transportation infrastructure and a solid economic foundation.

Authors

Swiss Life Asset Managers

Francesca Boucard Head Real Estate Research & Strategy francesca.boucard@swisslife-am.com

Rita Fleer Economist Quantitative Analysis rita.fleer@swisslife-am.com

Robert Kuert Real Estate Research Analyst Switzerland robert.kuert@swisslife-am.com

Swiss Life Asset Managers France

Béatrice Guedj Head of Research & Innovation beatrice.guedj@swisslife-am.com

Swiss Life Asset Managers Germany

Andri Eglitis Head Research andri.eglitis@swisslife-am.com

Gudrun Rolle Research Analyst Real Estate gudrun.rolle@swisslife-am.com

Mayfair Capital

Frances Spence Director, Research, Strategy & Risk fspence@mayfaircapital.co.uk

Rachel Singleton Analyst rsingleton@mayfaircapital.co.uk

If you have any questions or if you would like to subscribe to this publication, please send an email to: info@swisslife-am.com. For more information visit our website at: www.swisslife-am.com



Disclaimer: The information contained in this document is provided for reference only and does not constitute any offer to issue or sell, or any solicitation of any offer to (i) subscribe or purchase shares, units or other financial interests in investments or (ii) provide any investment services. This document is intended exclusively for "Professional Client" investors in conformity with Annex II of Directive 2014/65/EU. This document is communicated to each recipient for information purposes only and does not constitute a personal investment recommendation. This document does not necessarily deal with every important topic or cover every aspect of the topics with which it deals. It has been prepared without regard to the individual financial and other circumstances of persons who receive it. Investors are advised to seek independent advice before making any investment decision. Past performance is not indicative of future performance. Investors are advised to seek independent advice before making any investment decision. Past performance is not indicative of future performance. Investors are advised to seek professional advice where appropriate. Neither Swiss Life Fund Management (LUX) S.A., nor any entity of Swiss Life Group, nor any of its directors, employees, agents and/ or shareholders, shall be liable for any financial loss or any decision taken on the basis of the information contained in this document. Comprehensive information on the fund can be found in the documents, which form the legal basis for any investment AG, General-Guisan-Quai 40, P. O. Box 2831, 8002 Zurich | Germany: Swiss Life Asset Managerent Ld, 55 Wells Street, London W1T 3PT | France: Swiss Life Asset Managers France, 153, rue Saint Honoré, 75001 Paris | Norway: Swiss Life Asset Managers Nordic AS, Haakon VIIs gt 1, NO-0161 Oslo | or on www.swisslife-am.com.

