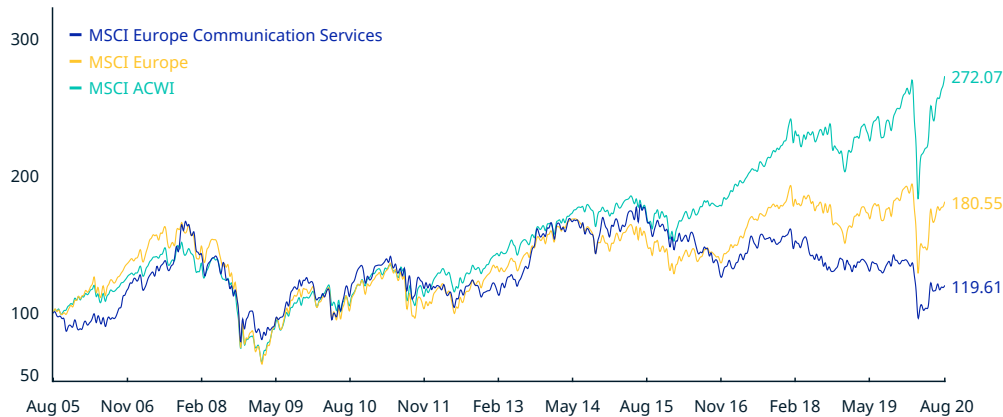


# MSCI Europe Communication Services Index (USD)

The MSCI Europe Communication Services Index is designed to capture the large and mid cap segments across 15 Developed Markets (DM) countries in Europe\*. All securities in the index are classified in the Communication Services sector as per the Global Industry Classification Standard (GICS®).

## CUMULATIVE INDEX PERFORMANCE – NET RETURNS (USD) (AUG 2005 – AUG 2020)



## ANNUAL PERFORMANCE (%)

Year	MSCI Europe Communication Services	MSCI Europe	MSCI ACWI
2019	2.80	23.77	26.60
2018	-13.92	-14.86	-9.41
2017	15.76	25.51	23.97
2016	-15.85	-0.40	7.86
2015	0.46	-2.84	-2.36
2014	-2.60	-6.18	4.16
2013	42.61	25.23	22.80
2012	-3.79	19.12	16.13
2011	-3.82	-11.06	-7.35
2010	1.97	3.88	12.67
2009	21.64	35.83	34.63
2008	-36.99	-46.42	-42.19
2007	31.43	13.86	11.66
2006	34.48	33.72	20.95

## INDEX PERFORMANCE – NET RETURNS (%) (AUG 31, 2020)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED				Since Dec 29, 2000	FUNDAMENTALS (AUG 31, 2020)			
					3 Yr	5 Yr	10 Yr	Div Yld (%)		P/E	P/E Fwd	P/BV	
MSCI Europe Communication Services	3.35	7.16	-10.22	-13.57	-8.15	-6.32	0.29	0.23	4.17	15.23	14.05	1.34	
MSCI Europe	4.11	12.51	5.43	-5.71	1.61	3.95	5.71	3.77	2.65	17.24	17.31	1.72	
MSCI ACWI	6.12	15.30	16.52	4.75	8.99	10.21	9.90	5.66	1.98	23.65	20.15	2.54	

## INDEX RISK AND RETURN CHARACTERISTICS (AUG 31, 2020)

	Turnover (%) <sup>1</sup>	ANNUALIZED STD DEV (%) <sup>2</sup>			SHARPE RATIO <sup>2,3</sup>			Since Dec 29, 2000	MAXIMUM DRAWDOWN	
		3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr		(%)	Period YYYY-MM-DD
MSCI Europe Communication Services	5.10	17.33	16.64	17.13	-0.50	-0.38	0.06	0.21	78.74	2000-02-29–2002-09-30
MSCI Europe	2.95	16.44	14.99	16.40	0.07	0.25	0.38	0.31	62.99	2007-10-31–2009-03-09
MSCI ACWI	3.82	16.74	14.44	13.94	0.49	0.66	0.70	0.32	33.74	2020-02-12–2020-03-23

<sup>1</sup> Last 12 months

<sup>2</sup> Based on monthly net returns data

<sup>3</sup> Based on ICE LIBOR 1M

\* Developed Markets countries in Europe include: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the UK.

The MSCI Europe Communication Services Index was launched on Sep 15, 1999. Data prior to the launch date is back-tested data (i.e. calculations of how the index might have performed over that time period had the index existed). There are frequently material differences between back-tested performance and actual results. Past performance – whether actual or back-tested – is no indication or guarantee of future performance.

### INDEX CHARACTERISTICS

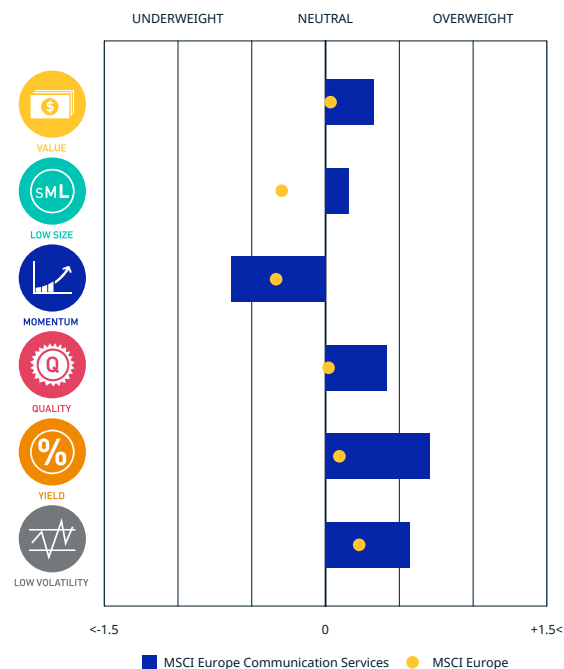
MSCI Europe Communication Services	
Number of Constituents	34
Mkt Cap (USD Millions)	
Index	356,985.99
Largest	58,795.37
Smallest	1,627.87
Average	10,499.59
Median	7,374.07

### TOP 10 CONSTITUENTS

	Country	Float Adj Mkt Cap (USD Billions)	Index Wt. (%)
DEUTSCHE TELEKOM	DE	58.80	16.47
VODAFONE GROUP	GB	39.95	11.19
VIVENDI	FR	23.60	6.61
ORANGE	FR	22.26	6.24
CELLNEX TELECOM	ES	20.31	5.69
TELEFONICA	ES	19.27	5.40
SWISSCOM	CH	14.38	4.03
BT GROUP	GB	12.46	3.49
TELENOR	NO	11.81	3.31
WPP	GB	10.70	3.00
Total		233.54	65.42

### FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

#### MSCI FACTOR BOX



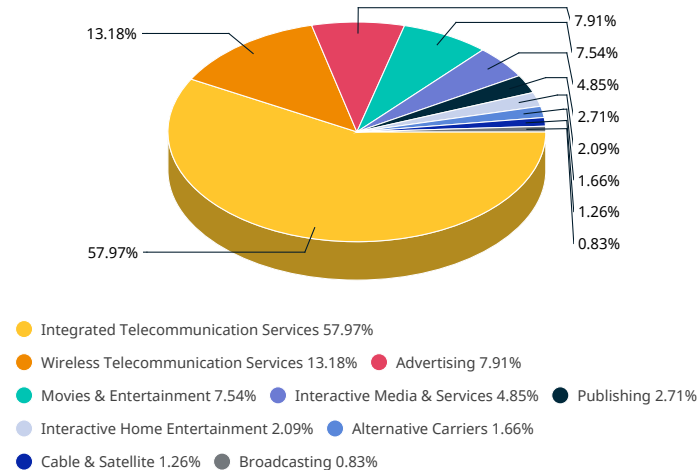
#### MSCI FaCS

- VALUE**  
Relatively Inexpensive Stocks
- LOW SIZE**  
Smaller Companies
- MOMENTUM**  
Rising Stocks
- QUALITY**  
Sound Balance Sheet Stocks
- YIELD**  
Cash Flow Paid Out
- LOW VOLATILITY**  
Lower Risk Stocks

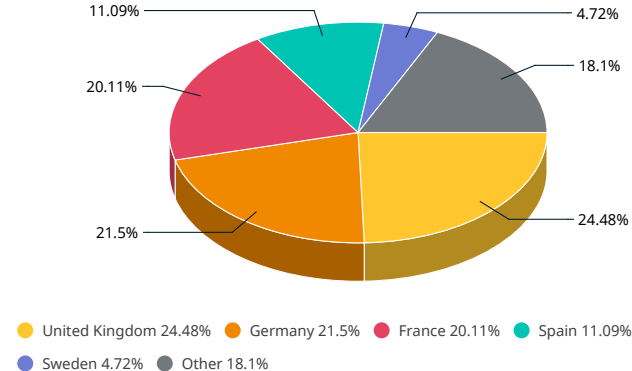
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

Neutral factor exposure (FaCS = 0) represents MSCI ACWI IMI.

### SUB-INDUSTRY WEIGHTS



### COUNTRY WEIGHTS



## INDEX METHODOLOGY

The index is based on the [MSCI Global Investable Market Indexes \(GIMI\) Methodology](#) – a comprehensive and consistent approach to index construction that allows for meaningful global views and cross regional comparisons across all market capitalization size, sector and style segments and combinations. This methodology aims to provide exhaustive coverage of the relevant investment opportunity set with a strong emphasis on index liquidity, investability and replicability. The index is reviewed quarterly—in February, May, August and November—with the objective of reflecting change in the underlying equity markets in a timely manner, while limiting undue index turnover. During the May and November semi-annual index reviews, the index is rebalanced and the large and mid capitalization cutoff points are recalculated.

## FACTOR BOX AND FaCS METHODOLOGY

MSCI FaCS is a standard method ([MSCI FaCS Methodology](#)) for evaluating and reporting the Factor characteristics of equity portfolios. MSCI FaCS consists of Factor Groups (e.g. Value, Size, Momentum, Quality, Yield, and Volatility) that have been extensively documented in academic literature and validated by MSCI Research as key drivers of risk and return in equity portfolios. These Factor Groups are constructed by aggregating 16 factors (e.g. Book-to-Price, Earnings/Dividend Yields, LT Reversal, Leverage, Earnings Variability/Quality, Beta) from the latest Barra global equity factor risk model, GEMLT, designed to make fund comparisons transparent and intuitive for use. The MSCI Factor Box, which is powered by MSCI FaCS, provides a visualization designed to easily compare absolute exposures of funds/indexes and their benchmarks along 6 Factor Groups that have historically demonstrated excess market returns over the long run.

## ABOUT MSCI

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