

# WisdomTree European thematic monthly update

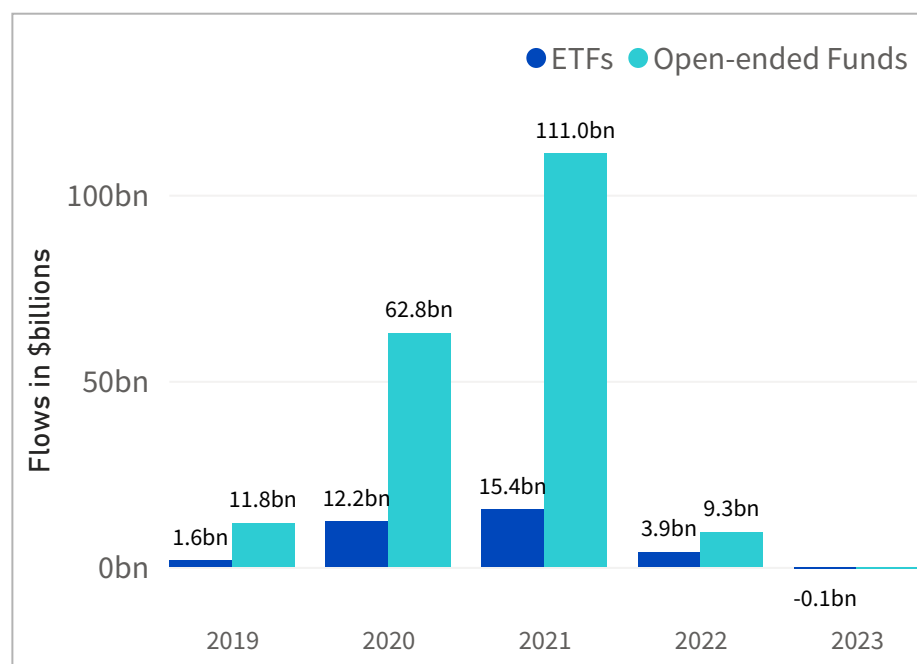
May 2023

## Thematic universe overview

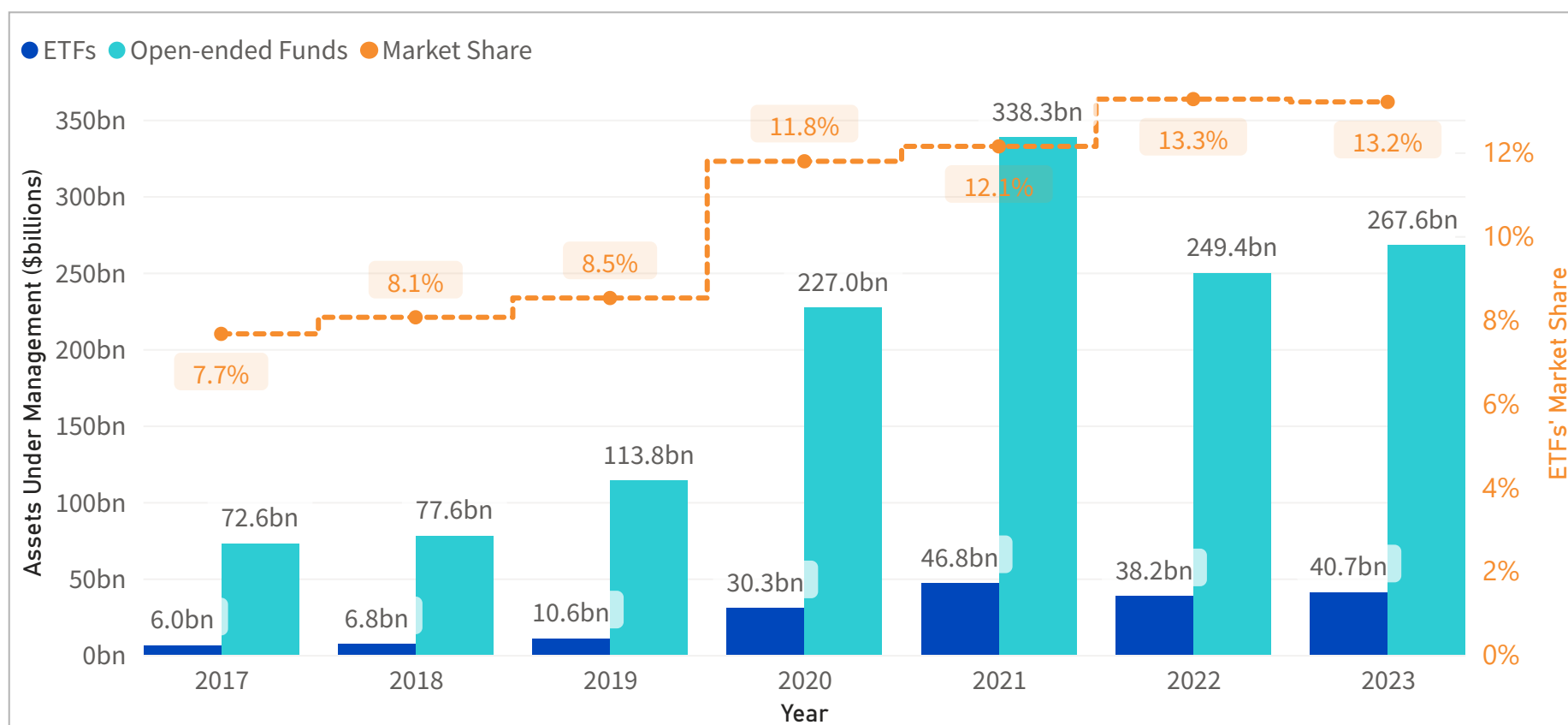
+ AUM in thematic Exchange Traded Funds (“ETFs”) and open-ended funds remain pretty stable at \$308 billion in May. ETFs’ market share increased slightly to 13.2%, with a total AUM of \$40.7 billion. Performance in May was positive across many themes and, in particular, in "Semiconductors" and many tech-related themes. The performance of Nvidia (+36% in May), the most owned stock across the Thematic Universe, helped significantly. AUM is up \$21 billion year-to-date.

+ Overall flows remain timid and have turned negative for 2023, with -\$0.2 billion across ETFs and open-ended funds. In April, \$976 million left European thematic strategies. In the US, on the contrary, thematic ETFs saw \$345 million of flows over the month. Having said that, flows across themes are very heterogeneous, with some themes having raised a billion or more year to date.

## Recent yearly flows in Europe



## Europe-domiciled thematic AUM evolution and ETFs’ market share



Source: WisdomTree, Morningstar, Bloomberg. All data as of 31/05/2023 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

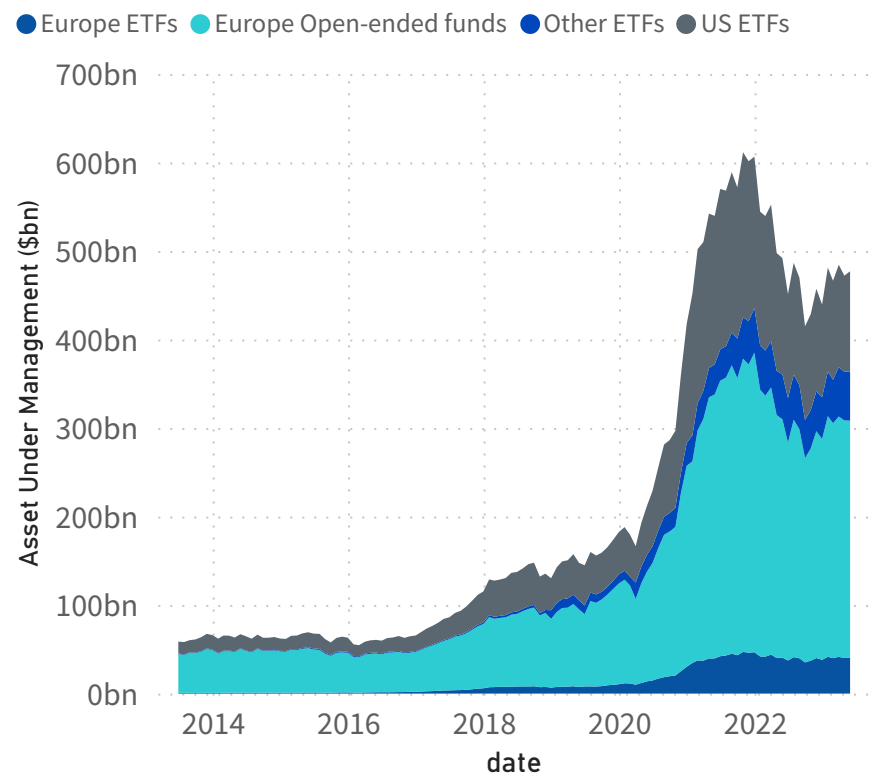
## Thematic universe overview (continued)

+ Globally, AUM in thematic strategies have risen a bit to \$477 billion and are up \$37 billion compared to the end of last year. This increase was driven by the performance of equities generally and growth equities specifically in Q1 but also in May. US ETFs have been driving the growth of AUM in thematics this month with almost \$5 billion.

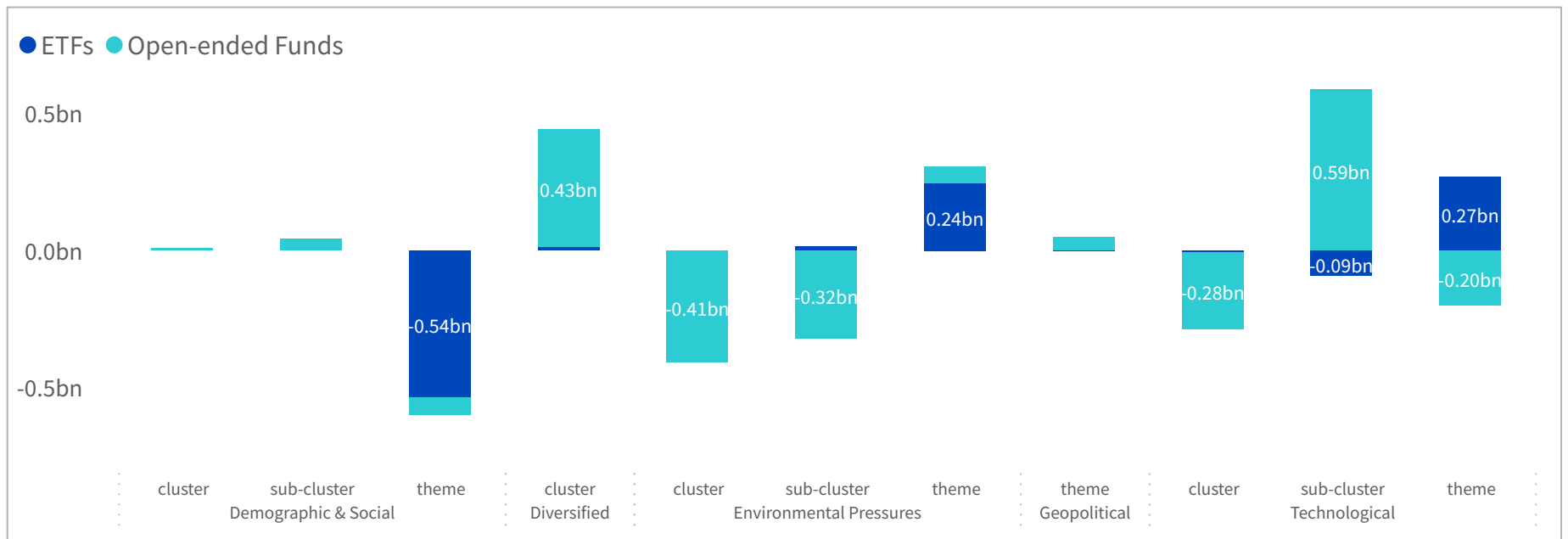
+ Year-to-date, European open-ended funds have gathered the most flows in the "Diversified Thematics" cluster, while ETFs have seen the most flows in the "Technological Shifts" cluster. Across theme-specific strategies, "Environmental Pressures" have gathered the most flows. However, sub-clusters in "Technological Shifts" contributed the most to the year-to-date inflows into thematics.

+ In the "Demographic and Social Shifts" cluster, we observe that the "Equality, Inclusion & Diversity" theme suffered large outflows year-to-date, masking strong flows going into other themes, such as the "Rise of the Middle Class" theme.

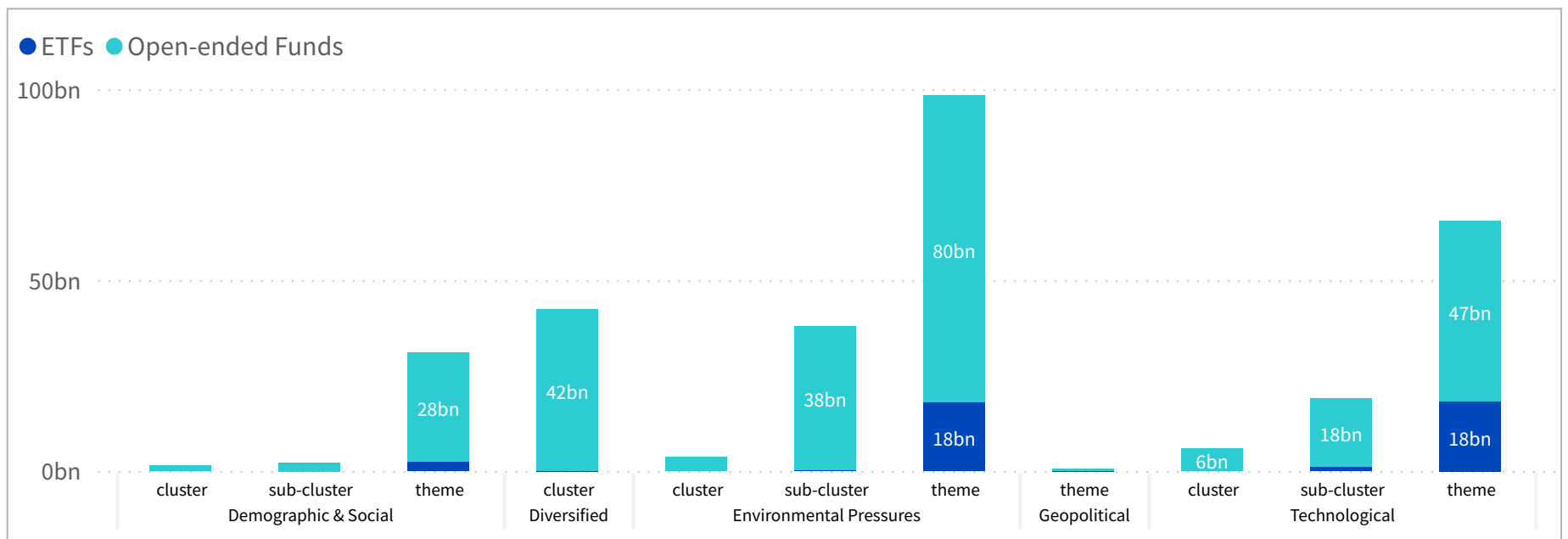
## AuM in Thematics by region (Last 10Y)



## YTD flows in Europe by wrapper in cluster, sub-cluster and focused themes



## AuM in Europe by wrapper in cluster, sub-cluster and focused themes



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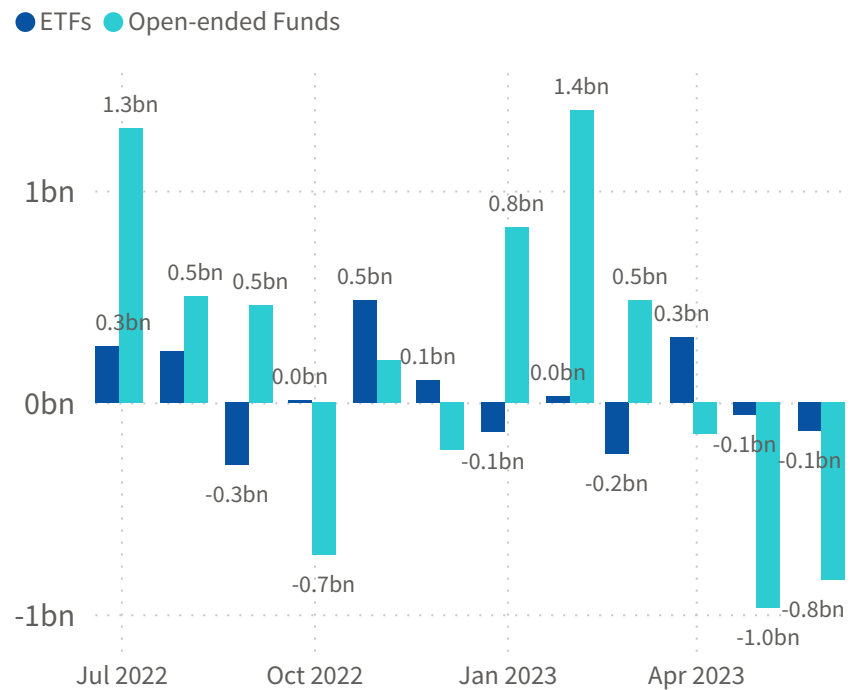
## Thematic flows in Europe

+ Flows in May remained negative, with \$136 million outflows in ETFs and \$840 million outflows in open-ended funds. Overall, year-to-date, both open-ended funds and ETFs have seen almost the same outflows, -\$96 million and -\$95 respectively.

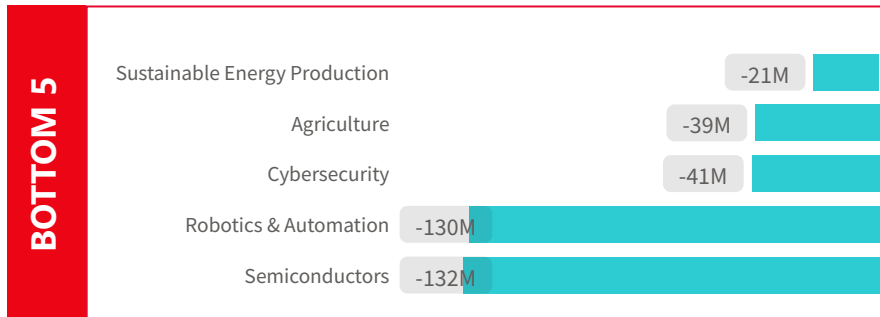
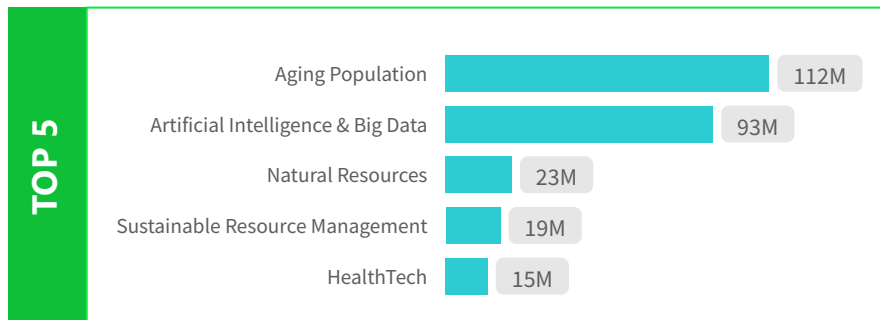
+ In May, "Artificial Intelligence & Big Data" continued to gather assets with \$112 million in ETFs and \$121 million in open-ended funds. "Robotics & Automation" and "Semiconductors", however, saw sizable outflows in ETFs. In contrast, in open-ended funds most outflows happened in "Equality, Inclusion & Diversity" and "HealthTech". Other themes that have seen sizeable inflows in ETFs and open-ended funds this month are not tech-focused, with "Aging Population", "Rise of the Middle Class" or "Protect Biodiversity" seeing the most flows.

+ Year-to-date, "Rise of the Middle Class" took the top spot with \$1.1 billion of inflows across both wrappers. "Sustainable Energy Production" is in second place with \$1 billion, followed by "AI & Big Data" with \$546 million of flows. On the outflows side, "Equality, Inclusion & Diversity" is by far leading with -\$1.4 billion of net flows, followed by "Sustainable Food" and "Agriculture".

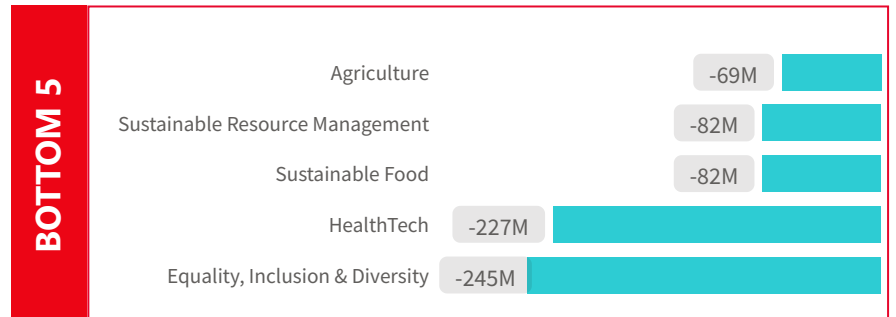
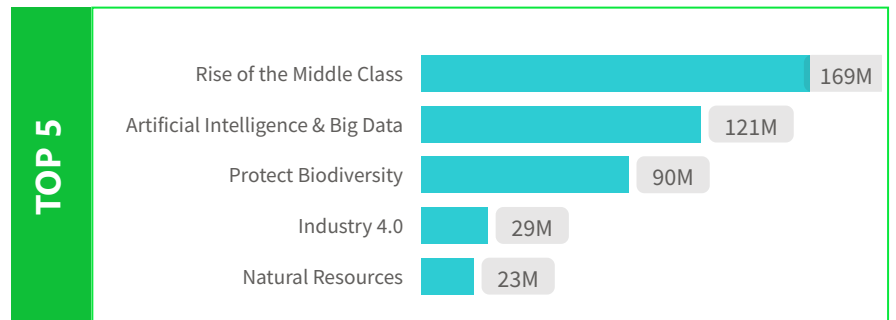
## Month-on-month thematic flows



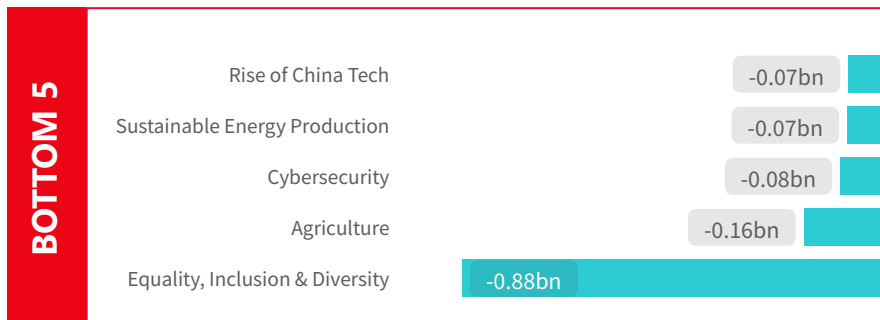
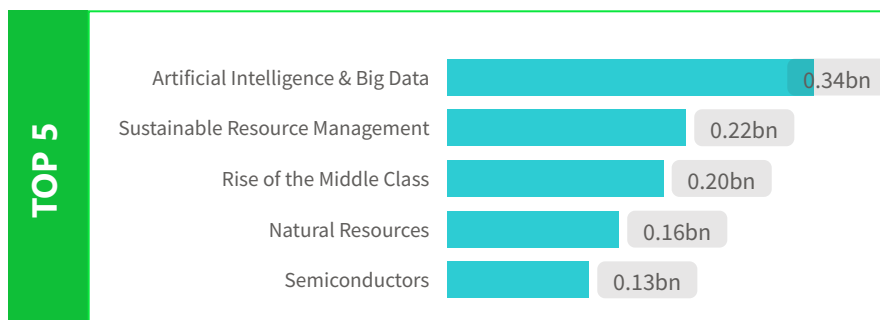
## May Top/Bottom flows in Europe ETFs



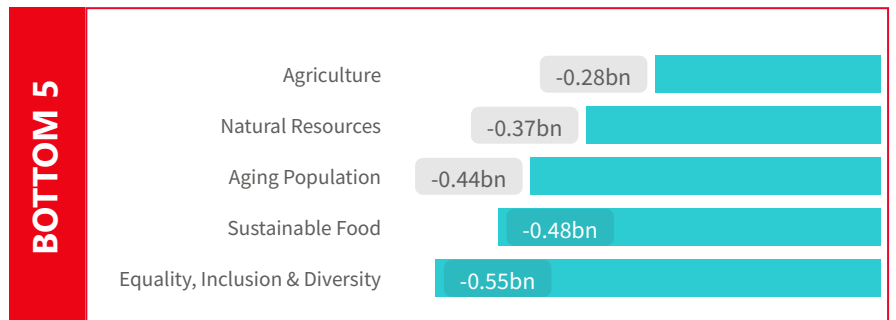
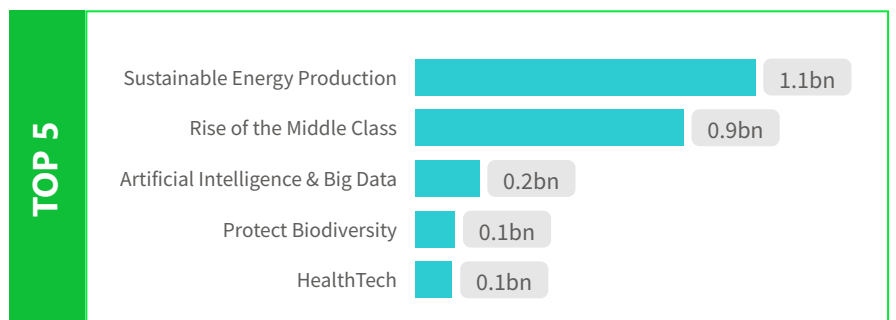
## May Top/Bottom flows in Mutual Funds



## YTD Top/Bottom flows in Europe ETFs



## YTD Top/Bottom flows in Mutual Funds



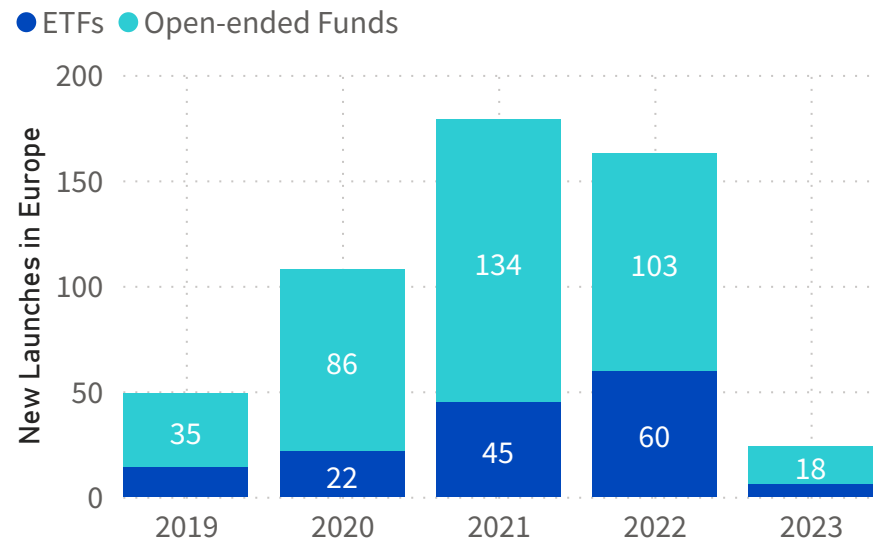
Source: WisdomTree, Morningstar, Bloomberg. All data as of 31/05/2023 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

## Thematic performance and launches in Europe

+ Year-to-date, technology-focused thematic strategies are leading the pack, with "Semiconductors", "Blockchain" and "Metaverse" posting the biggest gains across the themes. "Semiconductors" benefitted from the ongoing discussions around generative AI and the related need in specific semiconductors. "Artificial Intelligence & Big Data" is now fourth and "Cloud Computing" closes the Top 5. Chinese equities are clearly suffering this year, with "Rise of China Tech" and "Rise of EM Consumer" having posted the worst losses across thematics year-to-date.

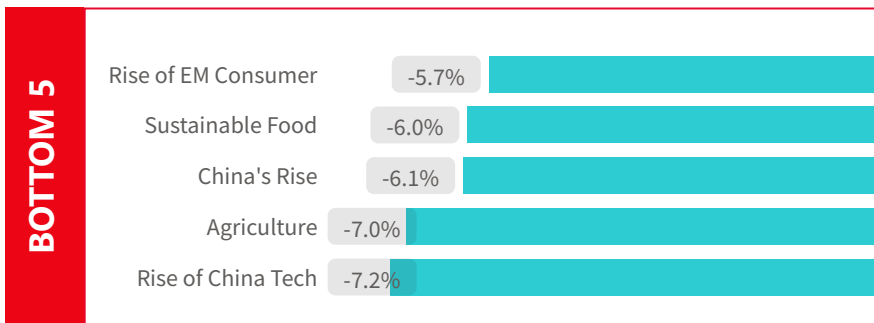
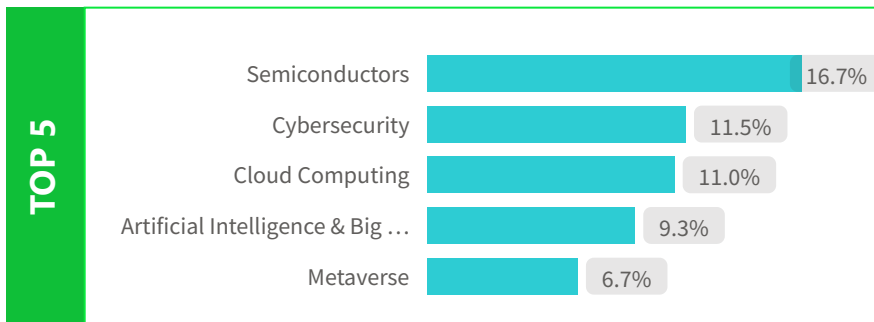
+ The top 5 best-performing themes in May are all in the "Technological Shifts" cluster, after a weaker month of April. "Semiconductors" posted a 16.7% return for the month. "Cybersecurity", "Cloud Computing", and "AI & Big Data" all posted double-digit returns or close to that. China-related themes continued to suffer this month, potentially amidst the concerns over future growth and growing tensions with the United States.

## Yearly thematic launches in Europe\*

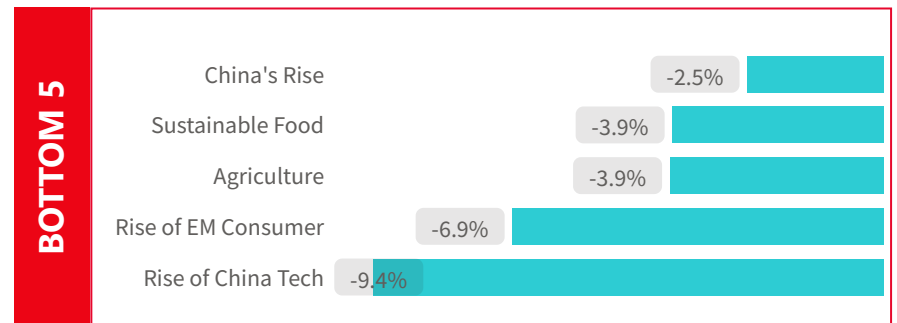
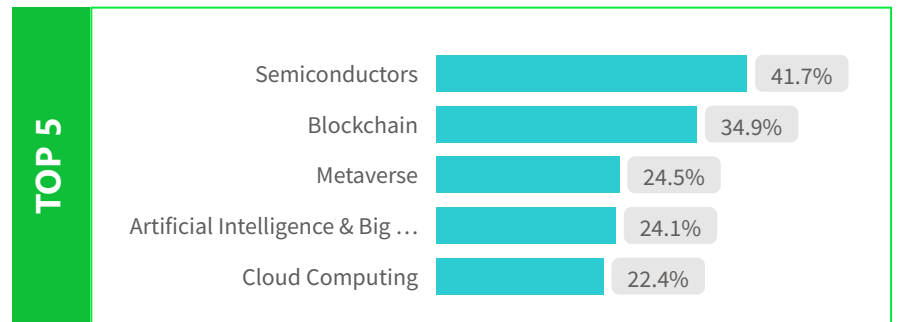


\* New launches are updated quarterly

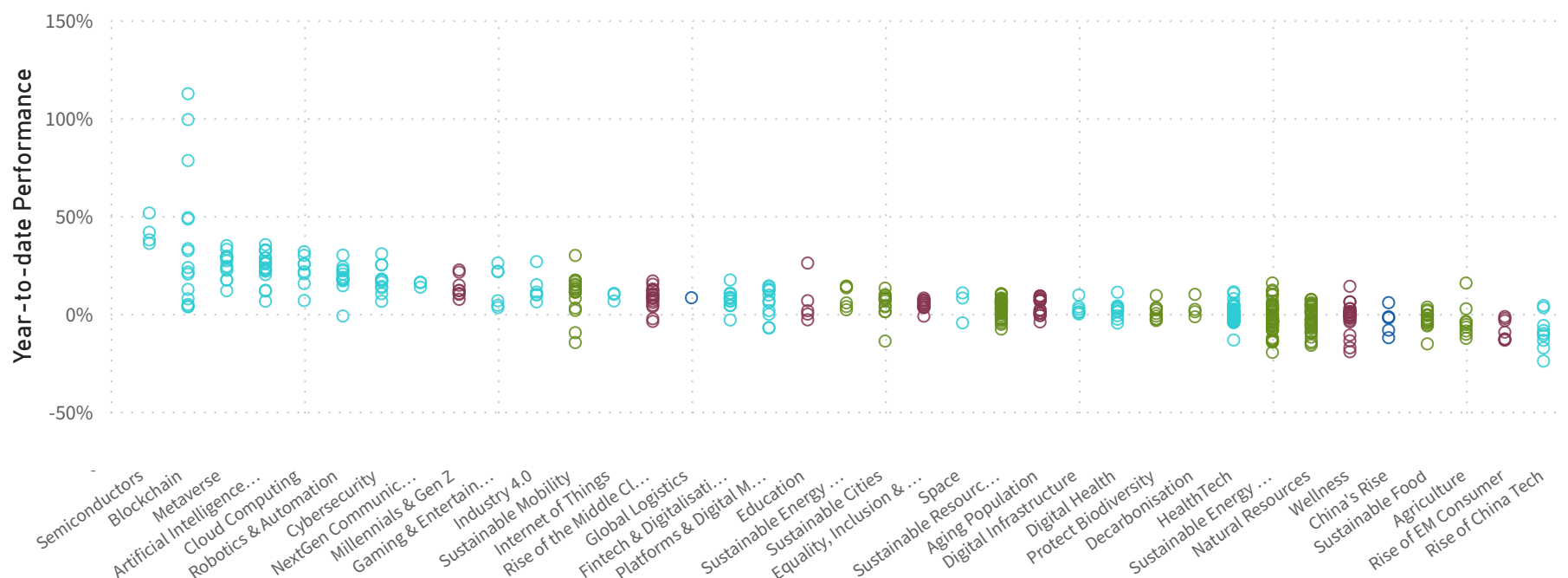
## Top 5/Bottom 5 by performance in May



## Top 5/Bottom 5 by YTD performance

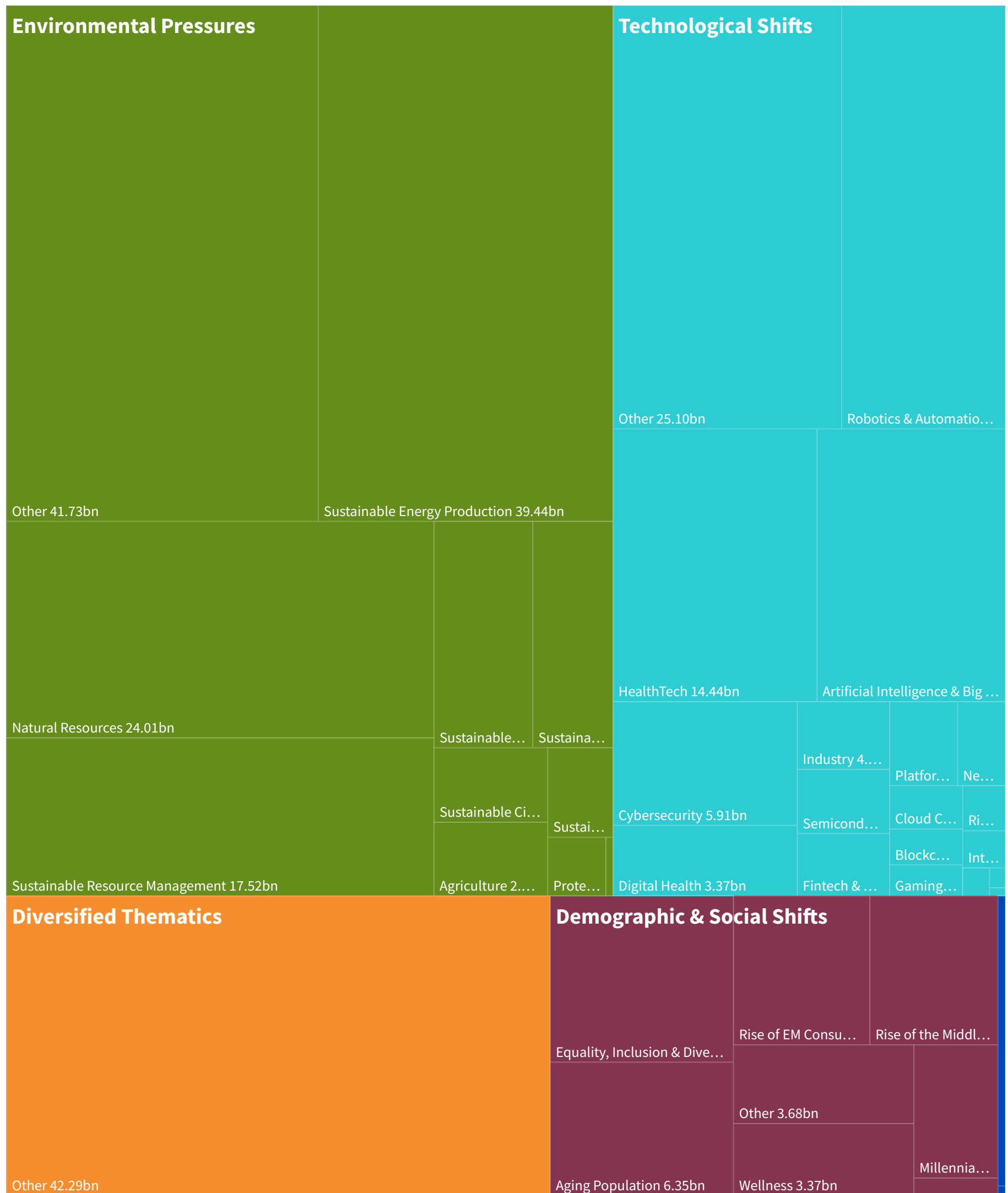


## Dispersion of YTD performance of all ETFs and mutual funds by themes in Europe



Source: WisdomTree, Morningstar, Bloomberg. All data as of 31/05/2023 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

## AUM per theme in ETFs and open-ended funds domiciled in Europe (\$billions)



Source: WisdomTree, Morningstar, Bloomberg. All data as of [31/05/2023](#) and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

## Appendix - Multi themes & diversified thematic ETFs and Open-ended funds

Cluster	Sub-Cluster	AuM (\$)	Flows Last Month (\$)	Flows YTD (\$)
Technological Shifts		5,908.72M	-50.04M	-287.41M
Technological Shifts	Disruptive Technologies	13,434.24M	43.32M	365.28M
Technological Shifts	HyperConnectivity & Digitalisation	5,753.45M	-84.80M	130.20M
Environmental Pressures		3,714.03M	-127.66M	-408.32M
Environmental Pressures	Climate Change & Sustainability	38,003.65M	-82.16M	-304.74M
Environmental Pressures	Limited Resources	10.84M	-0.10M	-1.14M
Diversified Thematics		42,286.94M	-21.34M	443.93M
Demographic & Social Shifts		1,438.49M	3.77M	7.86M
Demographic & Social Shifts	Demographic Shifts	2,218.00M	2.97M	44.86M
Demographic & Social Shifts	Social Shifts	25.00M	-1.39M	-1.72M

## Appendix - Theme focused ETFs and Open-ended funds

Theme Name	AuM (\$)	Flows Last Month (\$)	Flows YTD (\$)	Performance Last Month	Performance YTD
Semiconductors	1,537.43M	-132.25M	131.26M	16.7%	41.7%
Cybersecurity	5,911.16M	-56.71M	-145.38M	11.5%	18.9%
Cloud Computing	821.72M	-13.94M	10.95M	11.0%	22.4%
Artificial Intelligence & Big Data	13,313.37M	214.02M	545.56M	9.3%	24.1%
Metaverse	195.83M	5.69M	35.35M	6.7%	24.5%
NextGen Communications	1,036.62M	-39.39M	-131.13M	6.4%	15.3%
Robotics & Automation	17,975.38M	-135.23M	-175.84M	6.0%	19.6%
Blockchain	678.77M	-5.31M	5.27M	3.3%	34.9%
Internet of Things	409.12M	3.12M	66.62M	2.4%	9.2%
Industry 4.0	1,622.40M	28.87M	69.40M	2.2%	10.9%
Space	32.81M	0.80M	3.26M	2.0%	4.6%
Sustainable Mobility	4,704.64M	18.44M	66.96M	2.0%	10.0%
Sustainable Energy Storage	1,516.74M	13.83M	31.70M	1.5%	5.4%
Gaming & Entertainment	584.78M	-1.32M	-8.14M	0.8%	13.5%
Millennials & Gen Z	2,905.00M	2.59M	-42.61M	-0.2%	13.7%
Fintech & Digitalisation of Finance	1,492.86M	-33.00M	-251.96M	-0.7%	7.5%
Platforms & Digital Markets	1,479.23M	-16.27M	-1.71M	-1.3%	7.1%
Digital Infrastructure	81.59M	-2.53M	-45.36M	-1.6%	3.0%
Sustainable Cities	2,197.37M	-40.08M	-72.59M	-2.0%	4.9%
Sustainable Energy Production	39,444.30M	-28.80M	1,026.62M	-2.2%	-1.1%
Education	384.12M	-11.09M	-46.11M	-2.2%	6.0%
HealthTech	14,437.70M	-212.21M	146.12M	-2.3%	0.5%
Global Logistics	18.24M	0.11M	1.69M	-2.3%	8.2%
Digital Health	3,372.51M	-26.01M	-180.91M	-2.6%	1.9%
Sustainable Resource Management	17,524.53M	-62.93M	256.35M	-2.7%	3.7%
Equality, Inclusion & Diversity	7,899.84M	-248.48M	-1,438.64M	-3.2%	4.8%
Protect Biodiversity	883.34M	90.14M	129.44M	-3.3%	1.8%
Decarbonisation	107.09M	1.04M	3.33M	-3.6%	0.7%
Natural Resources	24,010.38M	45.71M	-207.82M	-4.1%	-1.3%
Aging Population	6,345.87M	100.31M	-317.29M	-4.9%	3.6%
Wellness	3,374.80M	-35.08M	79.11M	-5.0%	-1.4%
Rise of the Middle Class	4,948.57M	159.31M	1,064.04M	-5.2%	8.3%
Rise of EM Consumer	5,271.59M	-50.47M	101.23M	-5.7%	-6.9%
Sustainable Food	5,801.06M	-84.51M	-486.36M	-6.0%	-3.9%
China's Rise	546.97M	8.03M	44.47M	-6.1%	-2.5%
Agriculture	2,172.77M	-107.99M	-441.60M	-7.0%	-3.9%
Rise of China Tech	498.65M	-7.34M	-5.79M	-7.2%	-9.4%

Source: WisdomTree, Morningstar, Bloomberg. All data as of 31/05/2023 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

## Appendix - Definitions

The WisdomTree Thematic classification is built around 4 main thematic clusters

### Technological Shifts

This cluster focuses on the different themes that originate from the introduction of new technologies and innovation. It incorporates disruptive and emerging technologies as well as their impact on societies and economies, such as the increasing digitalisation and connectivity of the world.

### Demographic and Social Shifts

This cluster focuses on the themes that originate from changes in population and societies alike. For example, it incorporates changes in the world's pyramid of age, the impact of the growing, younger, wealthier populations in emerging markets, as well as changes to societal values and lifestyles.

### Environmental Pressures

Focusing on the environment and, more importantly, on the impact of human activities on the planet, this cluster incorporates changes driven by sustainability issues, the increasing scarcity of resources and the need to address global warming and climate change.

### Geopolitical Shifts

This cluster focuses on the themes driven by the globalisation and the changes in the global geopolitical order with the rise of new geopolitical powers like China. It also taps into the increasing polarisation of modern societies as a counterforce to globalisation.

All thematic ETFs and open-ended funds in the WisdomTree Thematic classification are classified into

- **Diversified thematics**, if they try to harness a large number of megatrends in one go. Those funds tend to have a very diluted focus, which could mean that it might be harder to find sources of potential differentiation against a broad market benchmark.
- **A specific cluster**, if they try to harness multiple themes across sub-clusters but within one particular cluster. For example, a fund investing in Artificial Intelligence, Robotics, Cloud, and Cybersecurity would be classified as a 'Technological Shifts' fund.
- **A particular sub cluster**, if a strategy aims to invest in most of the themes within that sub cluster. For example, a fund investing in Cloud Computing, Platforms, Cybersecurity, and Fintech would be classified as a 'Hyperconnectivity & Digitalisation' fund.
- **A theme**, if the investment strategy is focused on a specific, clear theme.

**YTD** stands for Year to Date

**MTD** stands for Month to Date

For all of our calculations, we use the WisdomTree Thematic Classification that we have previously introduced here and can be found in the next page.

**Performance of a theme.** For any given theme, we consider each month all the ETFs and open-ended funds classified in that specific theme that have published a monthly return for that month in Morningstar. We then calculate the average of all those monthly returns to compute the average monthly return for that theme. So, the monthly return for January 2020 for the theme may include 19 funds, while the February 2020 return may comprise 21 funds (if two funds classified in that theme have been launched in the meantime). By collating monthly returns for the theme, we get the theme's average historical performance. Therefore, the theme's average historical performance incorporates every ETF, and open-ended fund focused on this theme. The theme's average historical performance is not biased towards surviving funds or successful funds. Every fund alive in a given month is included irrespective of its future survival or success. Investments that try to focus on multiple themes and, therefore, classified either at Cluster or Sub-Cluster Level are not included.

# The WisdomTree Thematic Classification

DIVERSIFIED THEMATICS							
TECHNOLOGICAL SHIFTS		DEMOGRAPHIC AND SOCIAL SHIFTS		GEOPOLITICAL SHIFTS		ENVIRONMENTAL PRESSURES	
DISRUPTIVE TECHNOLOGIES	HYPER CONNECTIVITY & DIGITALISATION	DEMOGRAPHIC SHIFTS	SOCIAL SHIFTS	GLOBALISATION	MULTI-POLARITY	CLIMATE CHANGE & SUSTAINABILITY	LIMITED RESOURCES
Artificial Intelligence & Big Data	Cloud Computing	Aging Population	Education	Global Logistics	China's Rise	Decarbonisation	Agriculture
Rise of China Tech		Millennials & Gen Z	Equality, Inclusion & Diversity		Polarisation	Protect Biodiversity	Natural Resources
Blockchain	Cybersecurity		Rise of the Middle Class		Rise of Tension	Sustainable Mobility	
HealthTech	Digital Health		Rise of EM Consumer			Sustainable Energy Production	
Industry 4.0	Digital Infrastructure		Wellness			Sustainable Energy Storage	
Next Gen Communications	Fintech & Digitalisation of Finance					Sustainable Food	
Robotics & Automation	Gaming & Entertainment					Sustainable Cities	
Semiconductors	Internet of Things					Sustainable Resource Management	
Smart Materials & Nano Tech	Metaverse					Extreme Events	
Space	Platforms & Digital Markets						
	Social Media & Media						

Source: WisdomTree, as of 31/12/2022



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