

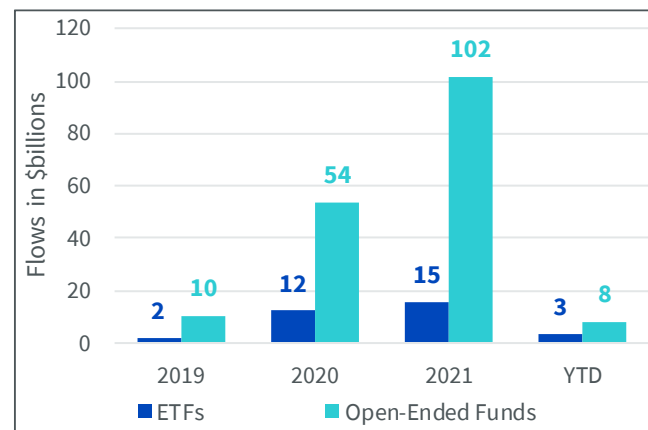
# WisdomTree European thematic quarterly update

19<sup>th</sup> October 2022

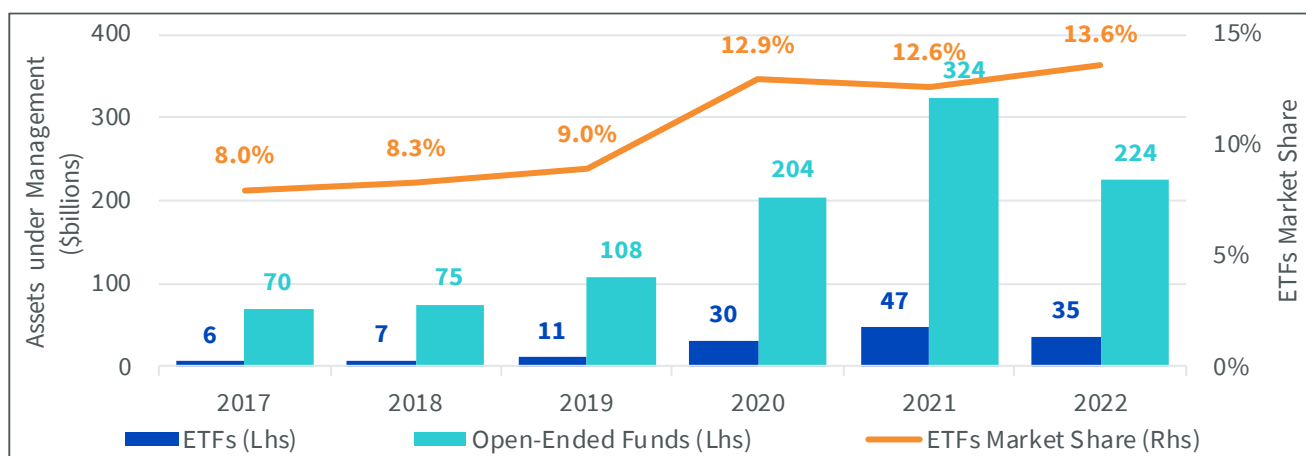
## Thematic universe overview

- + AUM in thematic Exchange Traded Funds (“ETFs”) and open-ended funds stands at \$224 billion as of end of September 2022. ETFs’ market share rose slightly to 13.6%, with a total AUM of \$35 billion.
- + Overall flows have remained positive in Q3 2022 despite continued pressure on growth stocks, with \$1.1 billion across ETFs and open-ended funds.
- + Thematic flows continue to indicate that investors are using those exposures strategically, with no sign of tactical rotation out of thematics. Year-to-date flows stand at \$11.7 billions.
- + Year-to-date negative performance across many themes led to a continued decrease of the overall assets under management resulting in the total drop of \$100 billion.

## Recent yearly flows in Europe



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

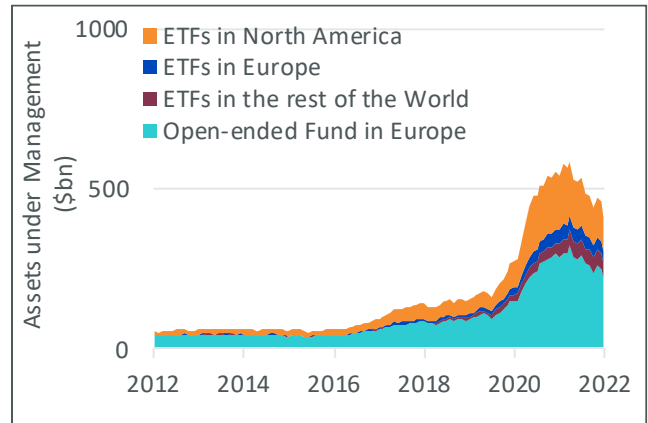


Source: WisdomTree, Morningstar, Bloomberg. All data as of 30<sup>th</sup> September 2022 and based on WisdomTree’s internal classification of thematic funds. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

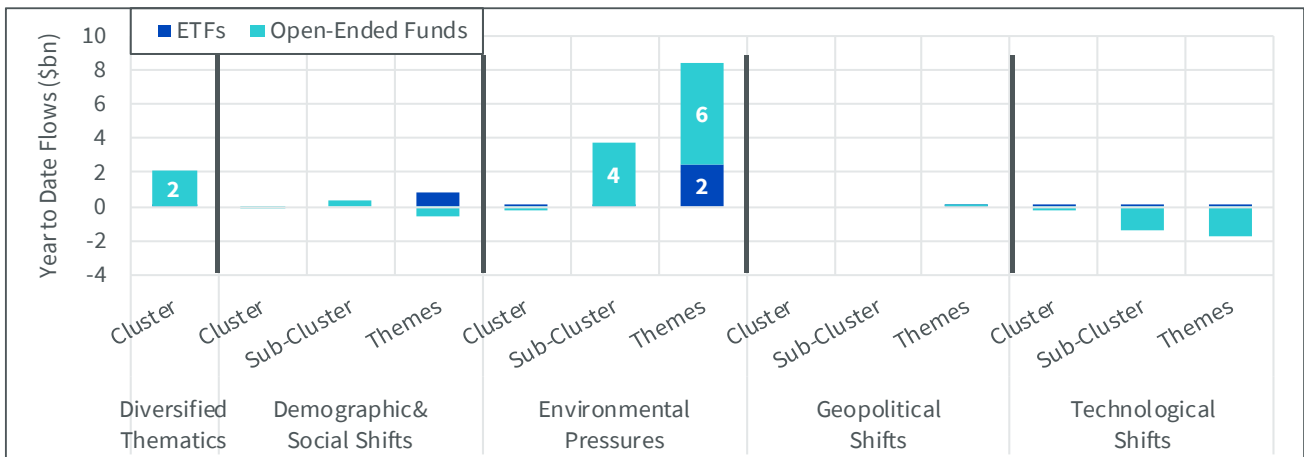
## Thematic universe overview

- + Globally, AUM in thematic strategies have reduced due to negative performance by \$178 billion to \$410 billion. AUM in US ETFs decreased by -38%, while AUM in European ETFs decreased only by -25%.
- + Open-ended funds and ETFs gathered the most flows in the Environmental Pressures cluster showing the continued interest of investor in “green” themes. Within open-ended funds, the vast majority of the year-to-date flows went into the sub-cluster “Climate Change and Sustainability” and the themes inside it – \$4 billion went into funds that invest across themes and \$6 billion into funds that invests in single themes.
- + Open-ended funds focused on Technological Shifts continued to lose assets. However, ETFs in that cluster resisted better, continuing to gather inflows.

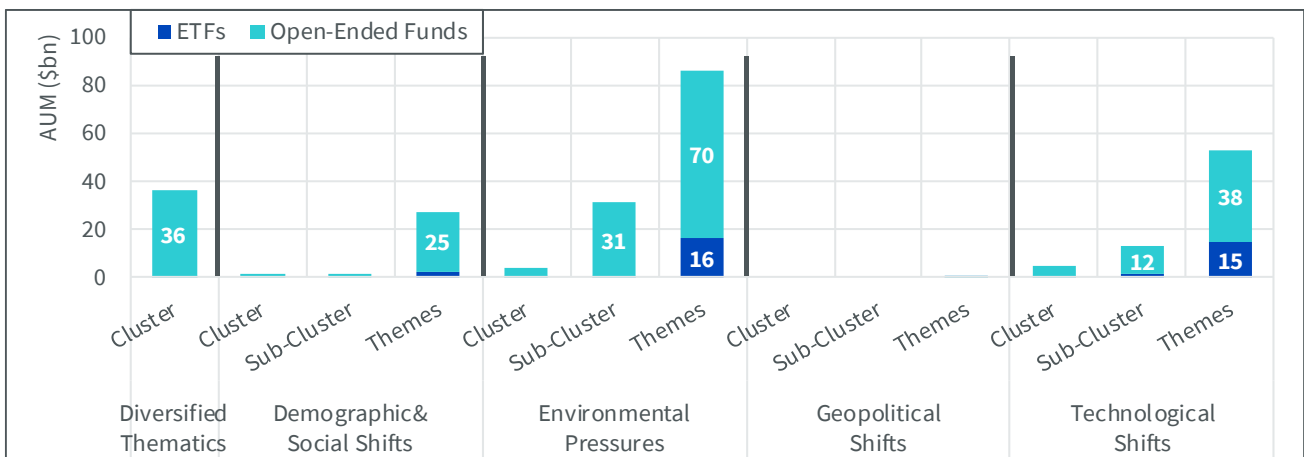
## AUM in Thematics by regions (Last 10Y)



## 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

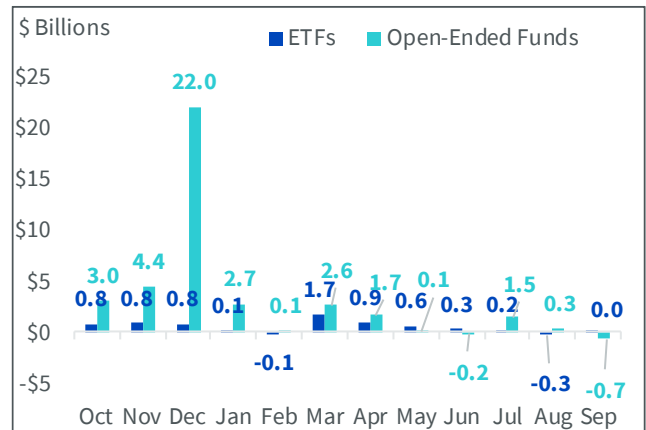


Source: WisdomTree, Morningstar, Bloomberg. All data as of 30<sup>th</sup> September 2022 and based on WisdomTree's internal classification of thematic funds. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

## Thematic Flows in Europe

- + July was the best month of the quarter for flows, with \$1.5 billion in open-ended funds and \$0.2 billion in ETFs. Overall, open-ended funds gathered the bulk of flows in Q3 with \$1.1 billion.
- + Both year-to-date and in Q3 flows have clearly gravitated towards “green” themes. In the last quarter, Protect Biodiversity, Sustainable Energy Production and Sustainable Food attracted a significant proportion of flows. Year-to-date Sustainable Energy Production theme continues to be the best asset raiser.
- + Technological Shifts themes continue to suffer from outflows, but Cybersecurity theme in ETFs and AI & Big Data in open-ended funds are bucking the trend appearing in the top 5 flows both year-to-date and quarter-to-date.

## Month on month thematic flows



## QTD Top/Bottom flows in Europe ETFs

TOP 5	Theme	Flows
	Protect Biodiversity	\$214
	Sust. Energy Prod.	\$169
	Equality & Diversity	\$113
	Natural Resources	\$95
	Cybersecurity	\$44
BOTTOM 5	Theme	Flows
	Aging Population	-\$69
	Semiconductors	-\$84
	Robotic & Automat.	-\$118
	China Tech	-\$160
	Agriculture	-\$196

## QTD Top/Bottom flows in mutual funds

TOP 5	Theme	Flows
	AI & Big Data	\$959
	Sust. Energy Prod.	\$528
	Natural Resources	\$435
	Sust. Food	\$246
	Protect Biodiversity	\$109
BOTTOM 5	Theme	Flows
	HealthTech	-\$107
	Digital Health	-\$140
	Equality & Diversity	-\$156
	Fintech	-\$158
	Robotic & Automat.	-\$322

## YTD Top/Bottom flows in Europe ETFs

TOP 5	Theme	Flows
	Sust. Energy Prod.	\$1,525
	Equality & Diversity	\$883
	Cybersecurity	\$761
	Agriculture	\$682
	Semiconductors	\$277
BOTTOM 5	Theme	Flows
	Aging Population	-\$135
	Sust. Resource Mgt	-\$149
	Digital Health	-\$156
	Platforms	-\$162
	Robotic & Automat.	-\$244

## YTD Top/Bottom flows in mutual funds

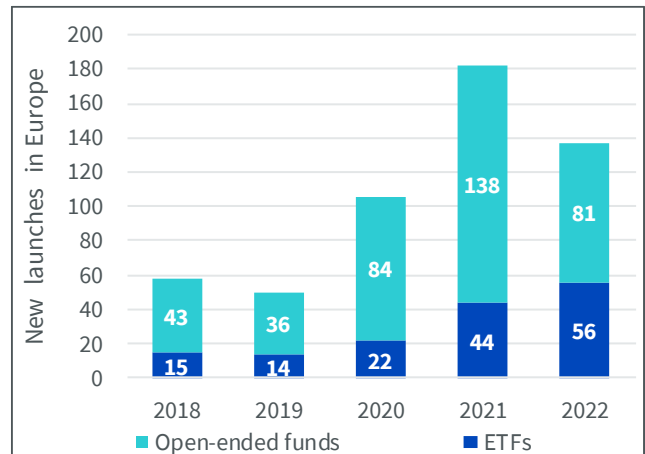
TOP 5	Theme	Flows
	Sust. Energy Prod.	\$2,141
	Sust. Resource Mgt	\$1,716
	Agriculture	\$1,273
	AI & Big Data	\$895
	Sust. Food	\$488
BOTTOM 5	Theme	Flows
	Equality & Diversity	-\$366
	NextGen Com.	-\$383
	Digital Health	-\$598
	HealthTech	-\$712
	Fintech	-\$1,208

Source: WisdomTree, Morningstar, Bloomberg. All data as of 30<sup>th</sup> September 2022 and based on WisdomTree's internal classification of thematic funds. 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.**

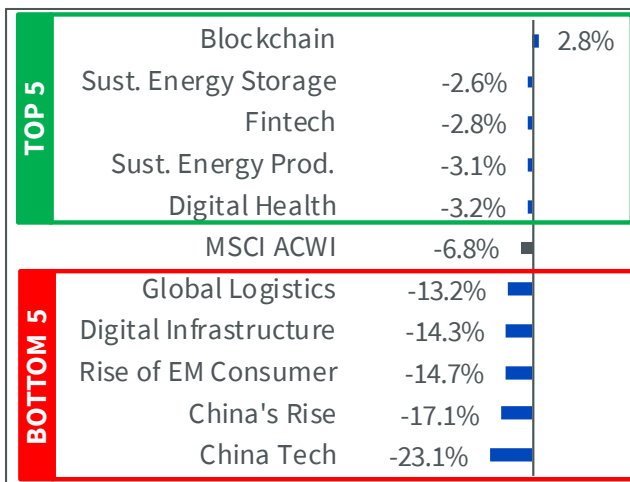
## Thematic performance and launches in Europe

- + Thematic launches continue at a rapid clip in 2022 despite lackluster performance. 56 ETFs were launched in the first 9 months of the year, surpassing the record 2021 launches by 12 more ETFs.
- + Performance-wise, only 2 themes are beating the benchmark year-to-date - Sustainable Energy Production and Agriculture. As growth stocks continued to suffer from the value rotation, the bottom 5 by performance year-to-date continue to be exclusively composed of technology-focused themes led by Blockchain, Platforms and Cloud Computing.
- + In contrast, the top 5 by performance quarter-date feature 3 tech themes with Blockchain being the best and only theme that performed positively in Q3.

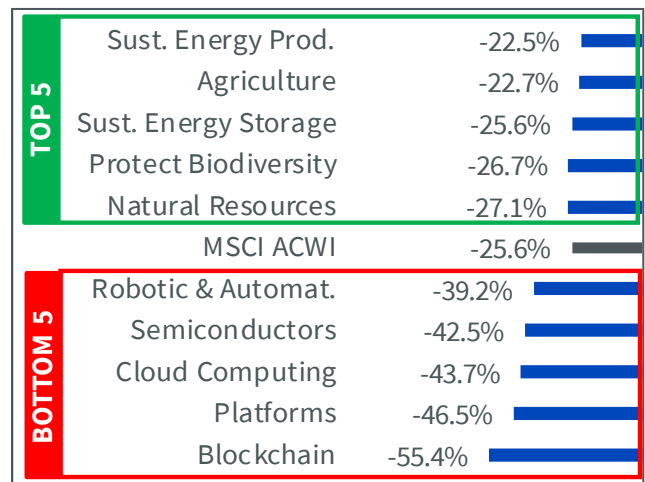
## Yearly thematic launches in Europe



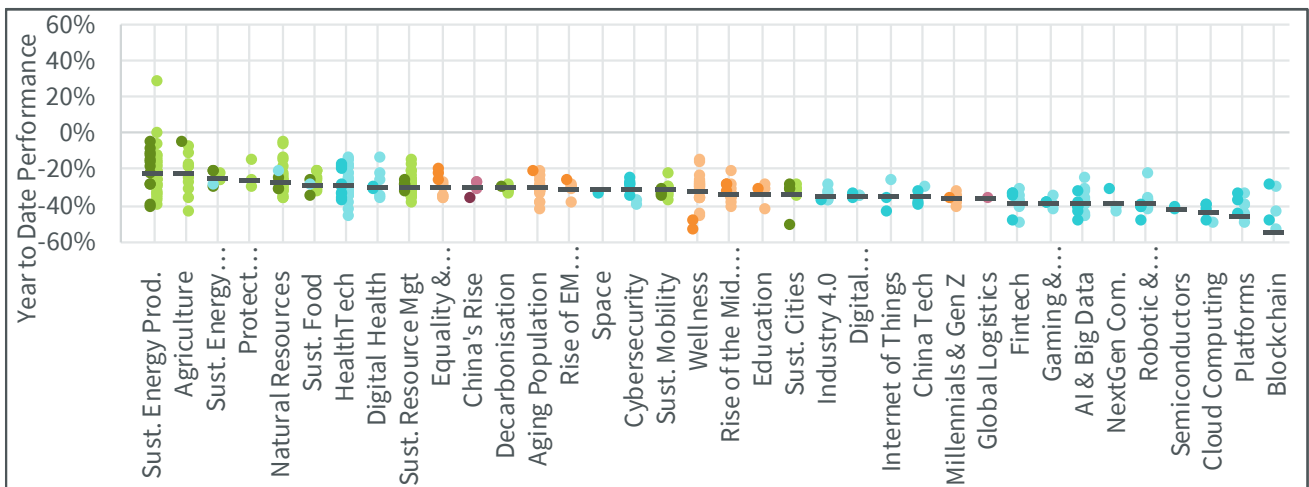
## Top 5/Bottom 5 by QTD performance



## Top 5/Bottom 5 by YTD performance

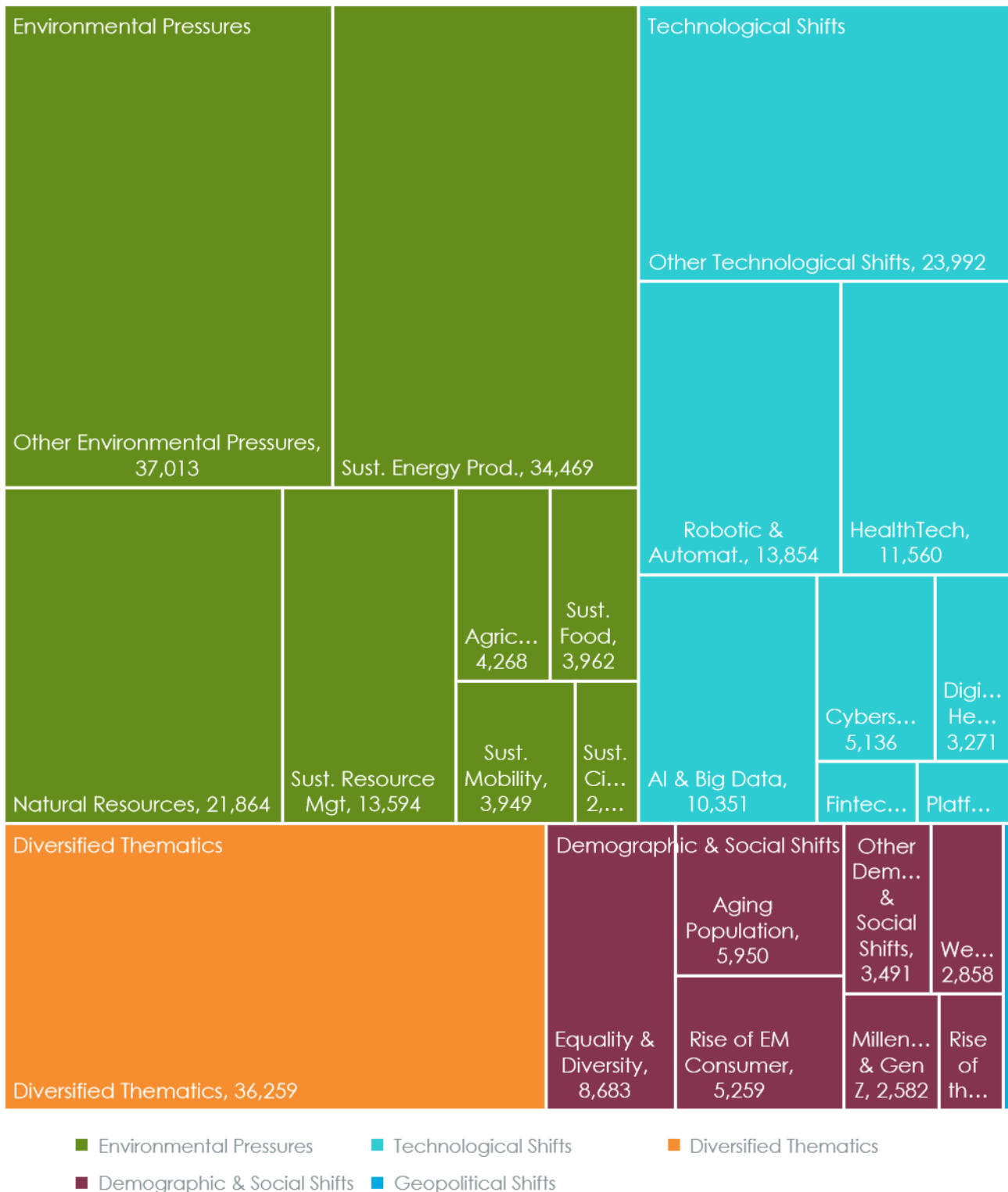


## Dispersion of YTD performance of all ETFs and mutual funds by themes in Europe



Source: WisdomTree, Morningstar, Bloomberg. All data as of 31<sup>st</sup> March 2022 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. EM stands for Emerging Markets. 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 (\$ million)



Source: WisdomTree, Morningstar, Bloomberg. All data as of 30<sup>th</sup> September 2022 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 Quarter	YTD Flows
Diversified Thematics		36,259	275	2,094
Demographic & Social Shifts		1,289	-21	-145
	Demographic Shifts	1,814	42	308
	Social Shifts	26	9	7
Environmental Pressures		3,709	-52	-260
	Climate Change & Sustainability	31,309	-691	3,749
	Limited Resources	11	0	0
Technological Shifts		5,052	43	-192
	Disruptive Technologies	7,809	129	-543
	HyperConnectivity & Digitalisation	5,206	-73	-805

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

Theme full Name	Theme short Name	AUM	Flows Last Quarter	YTD Flows	Performance Last Quarter	YTD Performance
Aging Population	Aging Population	5,950	-43	-217	-9.4%	-30.6%
Agriculture	Agriculture	4,268	-106	1,956	-7.8%	-22.7%
Artificial Intelligence & Big Data	AI & Big Data	10,351	962	832	-7.6%	-38.8%
Blockchain	Blockchain	628	30	53	2.8%	-55.4%
Rise of China Tech	China Tech	525	-152	-26	-23.1%	-35.6%
China's Rise	China's Rise	453	-9	88	-17.1%	-30.0%
Cloud Computing	Cloud Computing	696	28	-38	-9.5%	-43.7%
Cybersecurity	Cybersecurity	5,136	-10	918	-4.9%	-31.5%
Decarbonisation	Decarbonisation	132	-11	-7	-7.4%	-30.3%
Digital Health	Digital Health	3,271	-129	-754	-3.2%	-29.5%
Digital Infrastructure	Digital Infrastructure	159	-10	11	-14.3%	-35.1%
Education	Education	363	-23	-158	-6.4%	-33.5%
Equality, Inclusion & Diversity	Equality & Diversity	8,683	-43	517	-8.3%	-29.9%
Extreme Events	Extreme Events	0	0	0		
Fintech & Digitalisation of Finance	Fintech	1,446	-158	-1,214	-2.8%	-38.5%
Gaming & Entertainment	Gaming & Entertain.	475	-16	-94	-11.8%	-38.7%
Global Logistics	Global Logistics	12	2	7	-13.2%	-36.4%
HealthTech	HealthTech	11,560	-104	-803	-4.3%	-28.9%
Industry 4.0	Industry 4.0	1,294	46	140	-6.9%	-34.8%
Internet of Things	Internet of Things	199	71	150	-8.2%	-35.5%
Metaverse	Metaverse	85	32	101	-9.3%	
Millennials & Gen Z	Millennials & Gen Z	2,582	-99	-293	-7.2%	-35.8%
Natural Resources	Natural Resources	21,864	530	438	-5.8%	-27.1%
NextGen Communications	NextGen Com.	1,048	-77	-383	-9.0%	-38.9%
Platforms & Digital Markets	Platforms	1,348	-32	-297	-9.2%	-46.5%
Polarisation	Polarisation	0	0	0		
Protect Biodiversity	Protect Biodiversity	541	322	464	-6.4%	-26.7%
Rise of EM Consumer	Rise of EM Consumer	5,259	-36	27	-14.7%	-30.8%
Rise of Tension	Rise of Tensions	0	0	0		
Rise of the Middle Class	Rise of the Mid. Class	1,740	6	40	-6.8%	-33.4%
Robotics & Automation	Robotic & Automat.	13,854	-440	-476	-7.1%	-39.2%
Semiconductors	Semiconductors	789	-84	277	-11.4%	-42.5%
Smart Materials & Nano Tech	Smart Materials	0	0	0		
Social Media & Media	Social Media & Media	0	0	0		
Space	Space	26	5	20	-9.2%	-30.9%
Sustainable Cities	Sust. Cities	2,117	-3	220	-8.2%	-33.6%
Sustainable Energy Production	Sust. Energy Prod.	34,469	697	3,666	-3.1%	-22.5%
Sustainable Energy Storage	Sust. Energy Storage	1,312	-14	-37	-2.6%	-25.6%
Sustainable Food	Sust. Food	3,962	245	523	-9.5%	-28.8%
Sustainable Mobility	Sust. Mobility	3,949	-45	-316	-8.8%	-31.8%
Sustainable Resource Management	Sust. Resource Mgt	13,594	99	1,567	-6.3%	-29.6%
Wellness	Wellness	2,858	-1	363	-7.9%	-32.3%

Source: WisdomTree, Morningstar, Bloomberg. All data as of 30<sup>th</sup> September 2022. 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.**

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WisdomTree European Thematic Quarterly Update

## 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						



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