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# WisdomTree European thematic quarterly update

**January 2023**

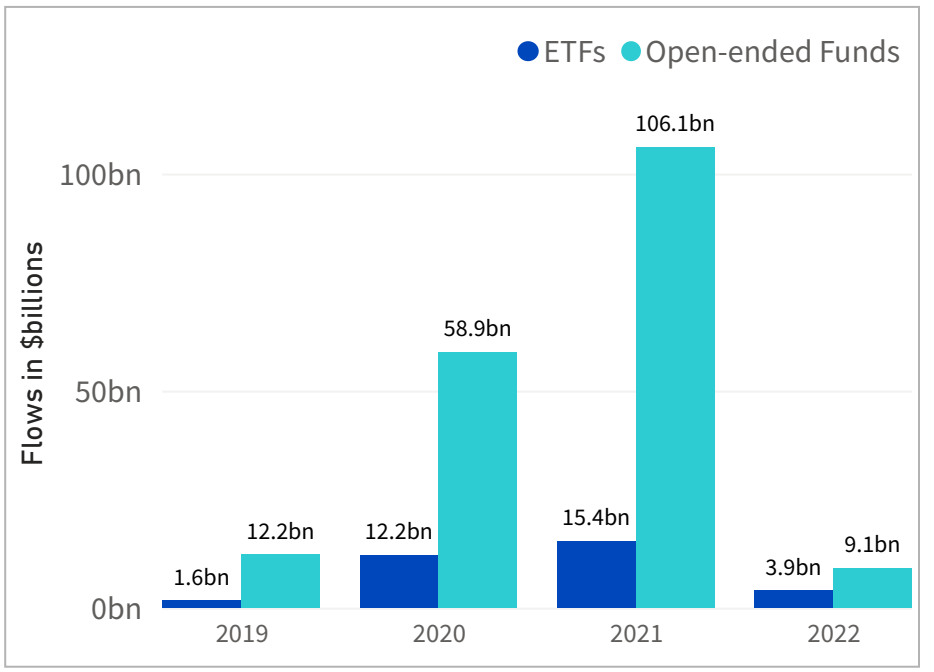
## Thematic universe overview

+ AUM in thematic Exchange Traded Funds ("ETFs") and open-ended funds stands at $283.4 billion as of the end of December 2022. ETFs' market share remains stable at 13.5% with a total AUM of $38 billion. In 2022, negative performance across many themes led to a continued decrease of the overall assets under management, resulting in a total drop of $98.4 billion.

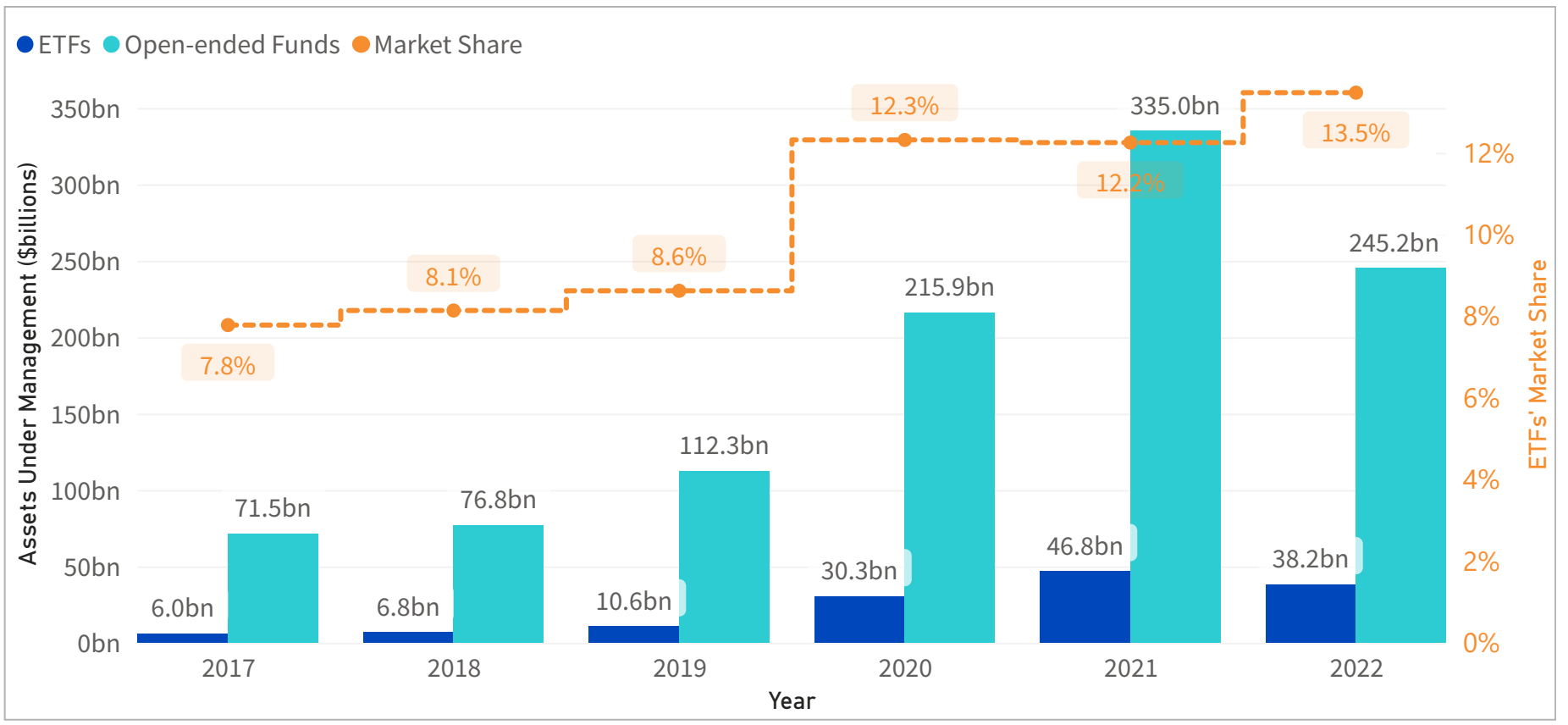
+ Overall flows have remained positive in Q4 2022 despite continued pressure on growth stocks, with $1.5 billion across ETFs and open-ended funds.

+ Despite the deeply negative performance in many of the themes, flows remain positive, indicating that investors keep faith in the long-term potential of thematics and are using those exposures strategically. Year-to-date flows stand at $9.1 billion for open-ended funds and $3.9 billion for ETFs.

## Recent yearly flows in Europe




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




Source: WisdomTree, Morningstar, Bloomberg. All data as of 31st December 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.
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## Thematic universe overview (continued)

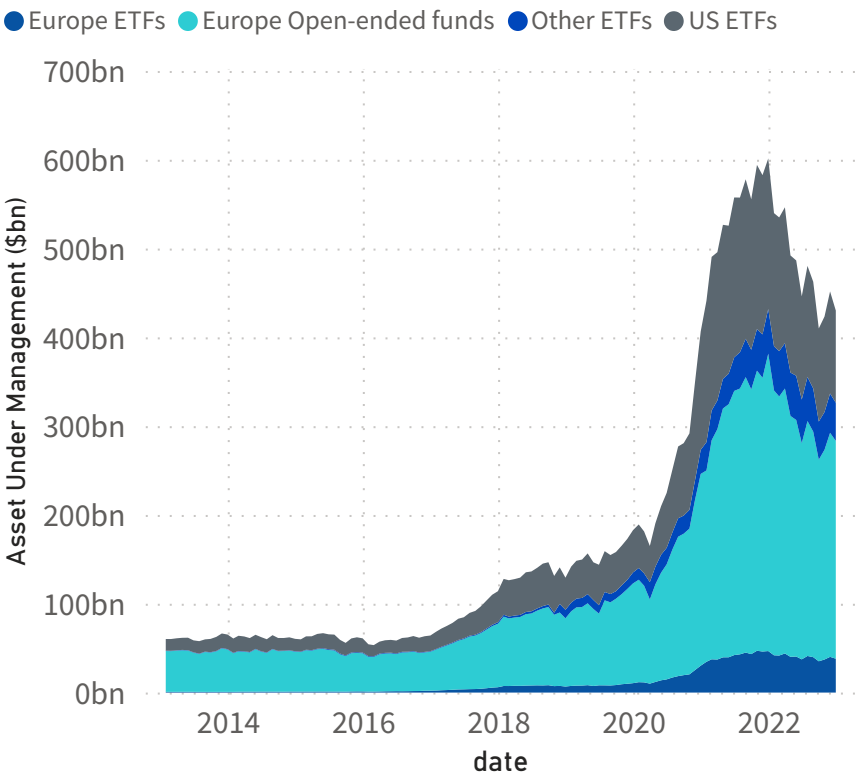
+ Globally, AUM in thematic strategies rebounded in Q4, from $410 billion in September to $430 billion at the end of December, helped by an equity rebound in October and November. AUM are still down $171 billion from their peak on 31 December 2022.

+ Looking at the different market segments, US ETFs have been hit the hardest, with overall AUM dropping -38% in 2022. European open-ended funds lost -27% of their assets. European ETFs have been the most resistant, with a drop of only -18%.

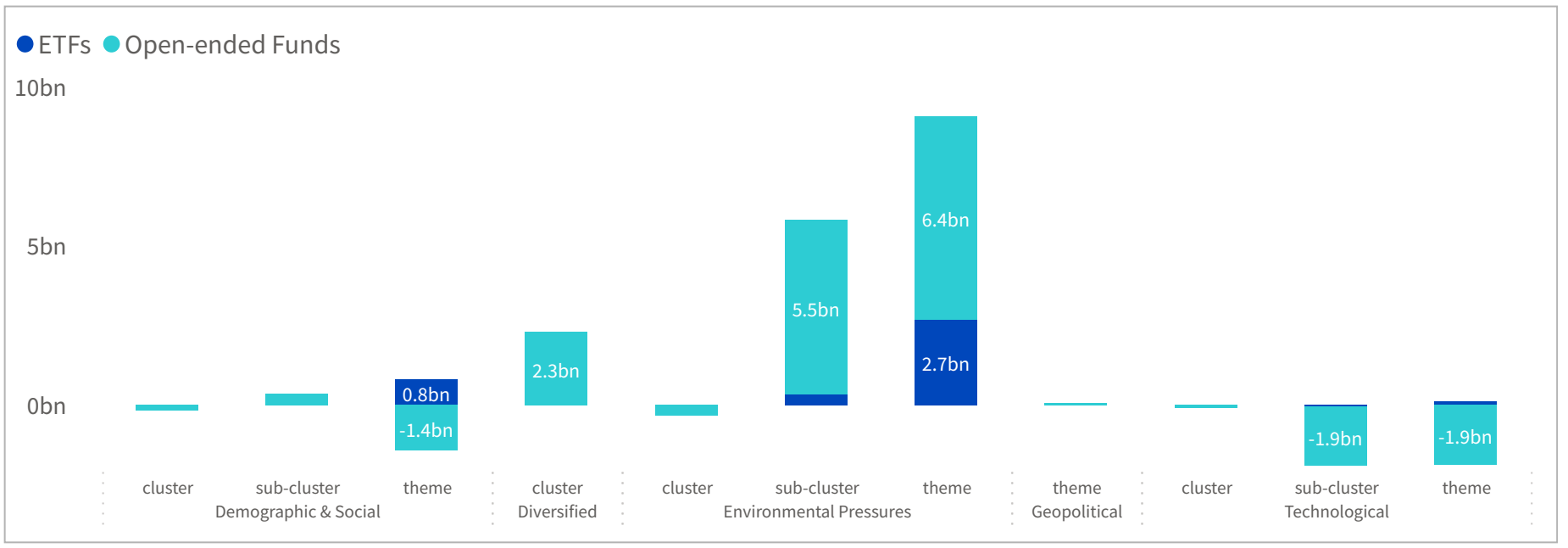
+ Open-ended funds and ETFs continued to gather the most flows in the "Environmental Pressures" cluster, showing the continued interest of investors in “green” themes. Within both wrappers, the vast majority of the 2022 flows went into the sub-cluster “Climate Change and Sustainability”, and the themes inside it –$5.8 billion went into funds that invest across themes and $7.0 billion into funds that invest in single themes.

+ In the other two clusters, we observe that open-ended funds suffered outflows when ETFs gathered inflows. This is particularly the case in the "Equality, Inclusion & Diversity" theme in the "Demographic and Social Shifts" cluster.

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




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

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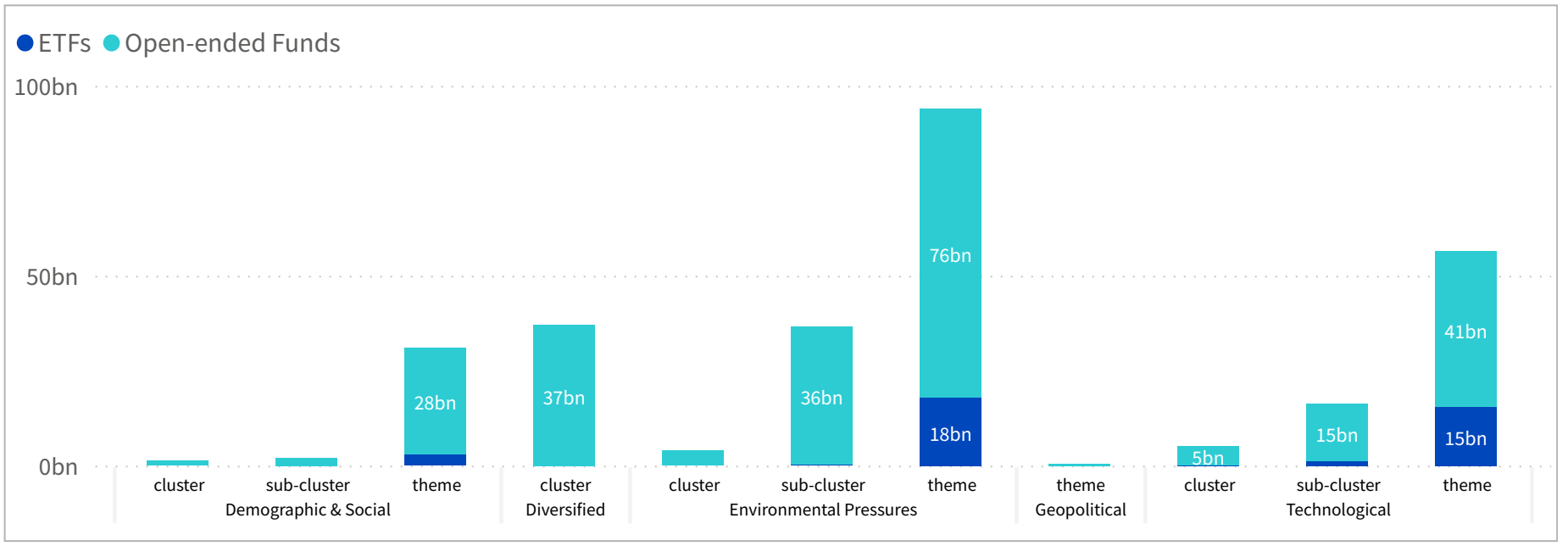


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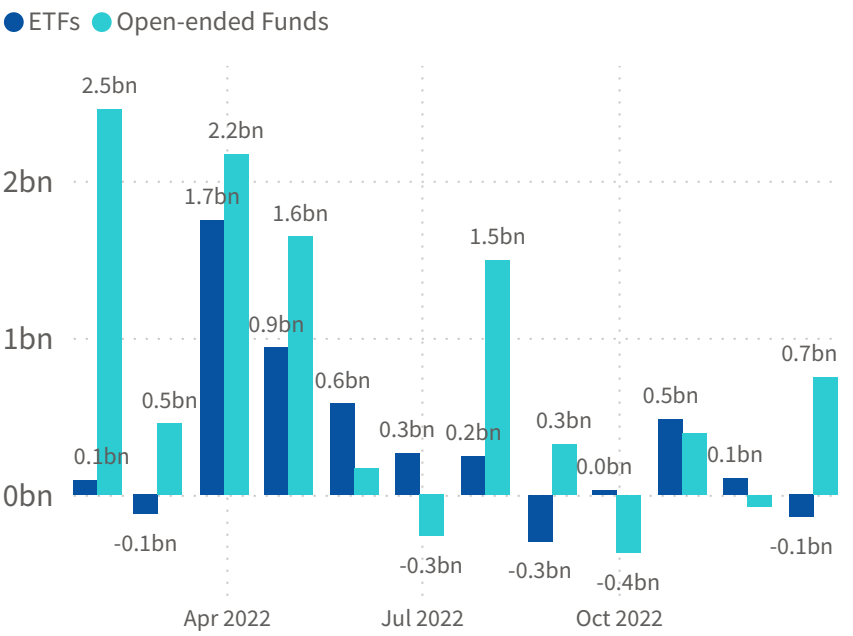
## Thematic flows in Europe

+ October was the best month of the quarter for flows, with $394 million inflows in open-ended funds and $484 million inflows in ETFs. Overall, in Q4 mutual funds gathered $1.07 billion flows vs. $448 million in ETFs.

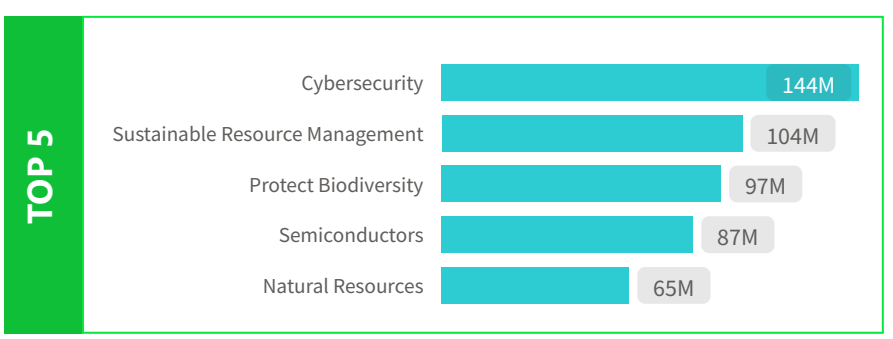
+ In Q4, “green” themes dominated flows for open-ended funds, with 4 themes out of the 5 best flow gatherers. "Artificial Intelligence" is the only standout in that top 5. In ETFs, Technological themes fared better, with "Cybersecurity" gathering the most flows and "Semiconductors" in the fourth place. In both wrappers, Technological themes dominate outflows, with "Robotic & Automation" and "HealthTech" in the bottom 5.

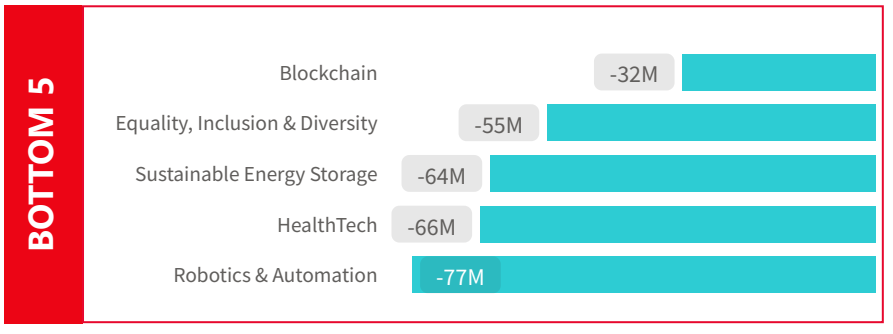
+ In 2022, "Sustainable Energy Production" continued to dominate flows with $1.6 billion in ETFs and $2.3 billion in mutual funds. Other "green" themes also did well with "Sustainable Resource Management", "Sustainable Food" or "Agriculture" regularly in the top 5. In a difficult year for tech, "Cybersecurity" still gathered $900 million in ETFs and "Artificial Intelligence & Big Data" gathered $1.1 billion in mutual funds.

## Month-on-month thematic flows

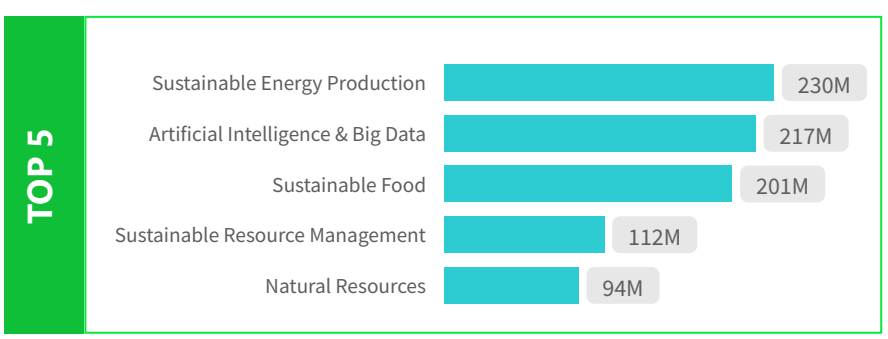


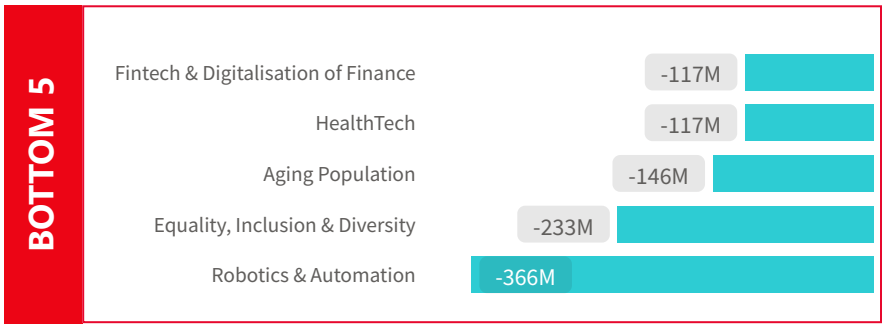

## QTD Top/Bottom flows in Europe ETFs



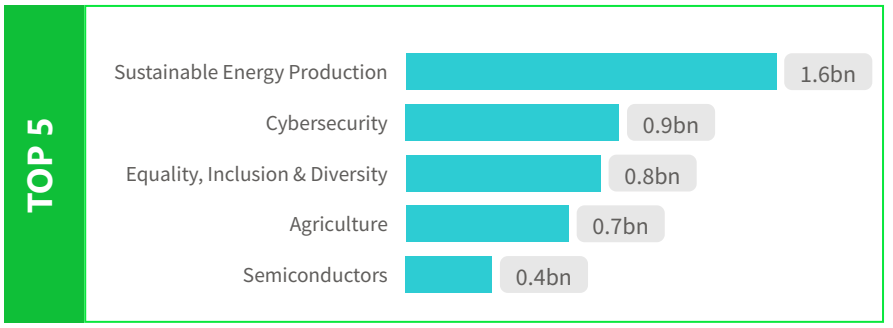



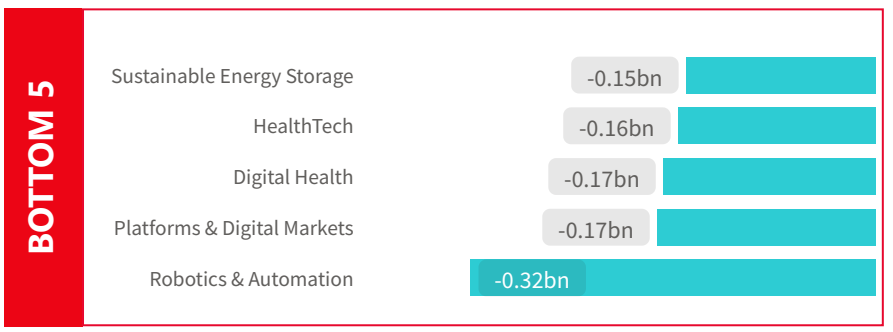

## QTD Top/Bottom flows in Mutual Funds



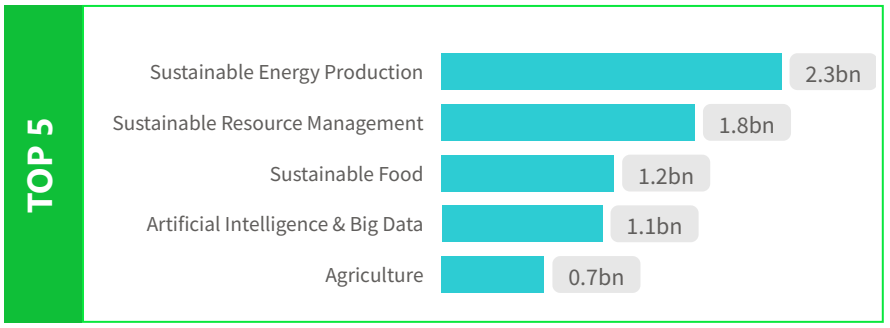



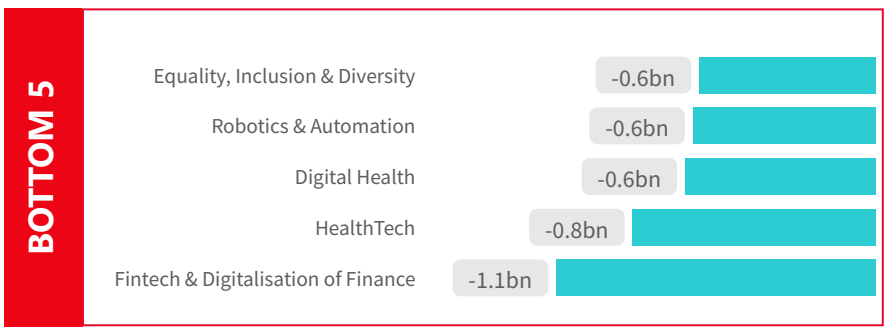

## YTD Top/Bottom flows in Europe ETFs




## YTD Top/Bottom flows in Mutual Funds




Source: WisdomTree, Morningstar, Bloomberg. All data as of 31st December 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.
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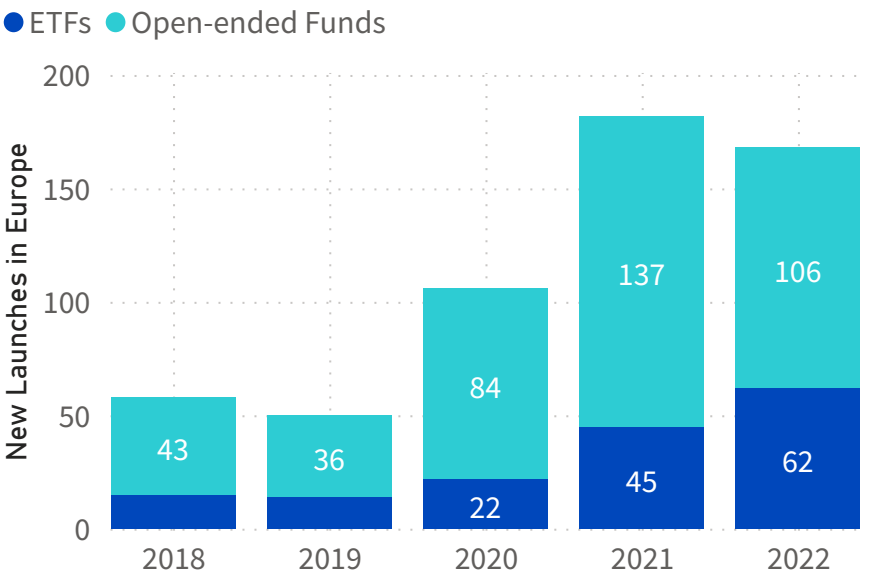
## Thematic performance and launches in Europe

+ Thematic launches continued at a rapid clip in 2022 despite lacklustre performance. 62 ETFs were launched, surpassing the record 2021 launches by 17. The number of mutual fund launches decreased from 2021 but still beat all prior years with 106 launches.

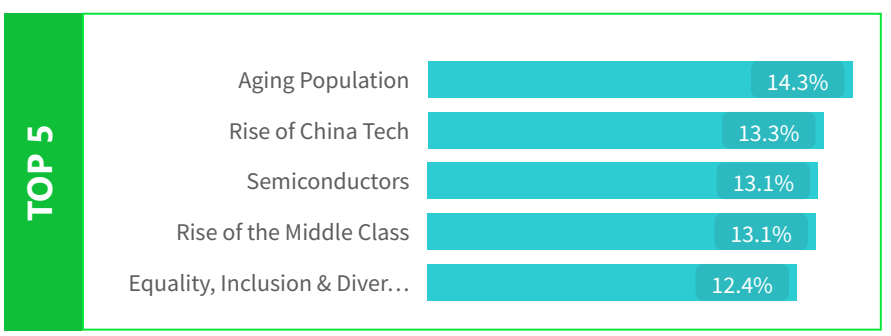
+ In Q4, thematic strategies performed better than earlier this year. 15 themes beat the MSCI all-country world. The "Demographic and Social Shifts" cluster did particularly well with "Aging Population", "Rise of the Middle Class" and "Equality, Inclusion and Diversity" in the top 5. Tech themes still dominate the bottom 5 with "Blockchain" standing out with -21.3% for the quarter.

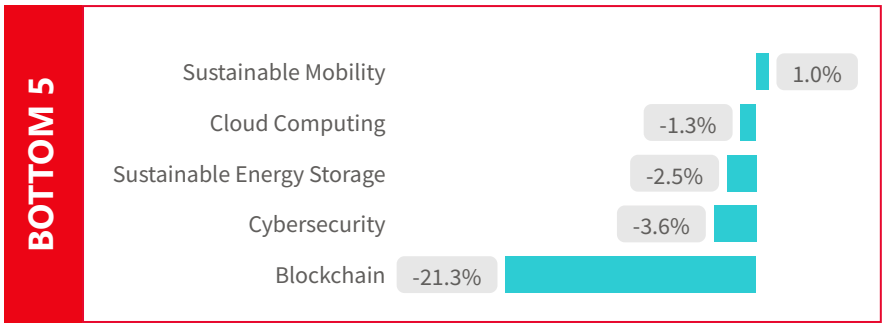
+ In 2022, no themes have posted positive returns. Only three themes have beaten the market. "Green" themes have performed the best with "Agriculture", "Natural Resources" and "Sustainable Energy production" in the top 3.

## Yearly thematic launches in Europe

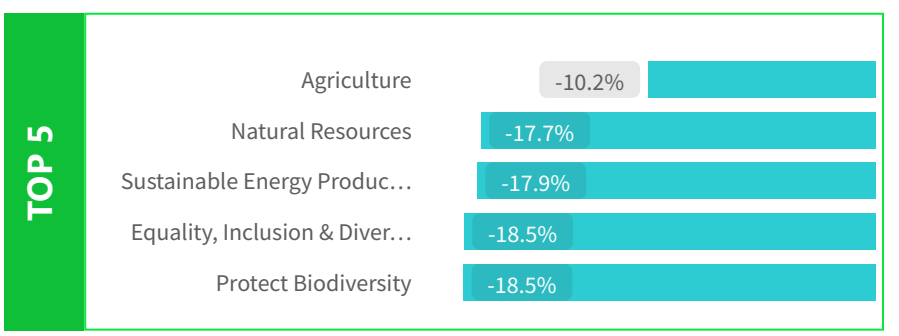


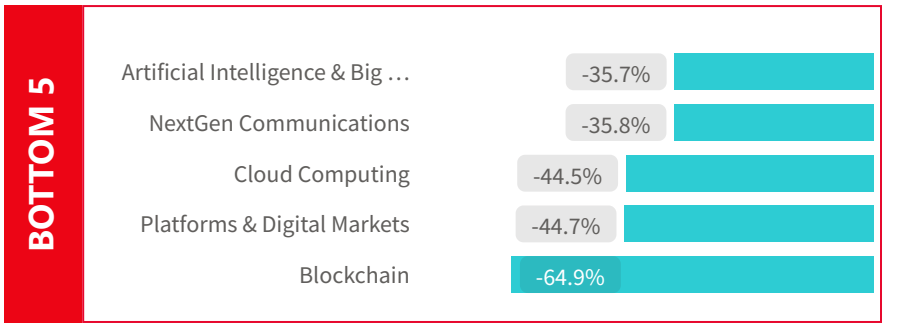

## Top 5/Bottom 5 by QTD performance



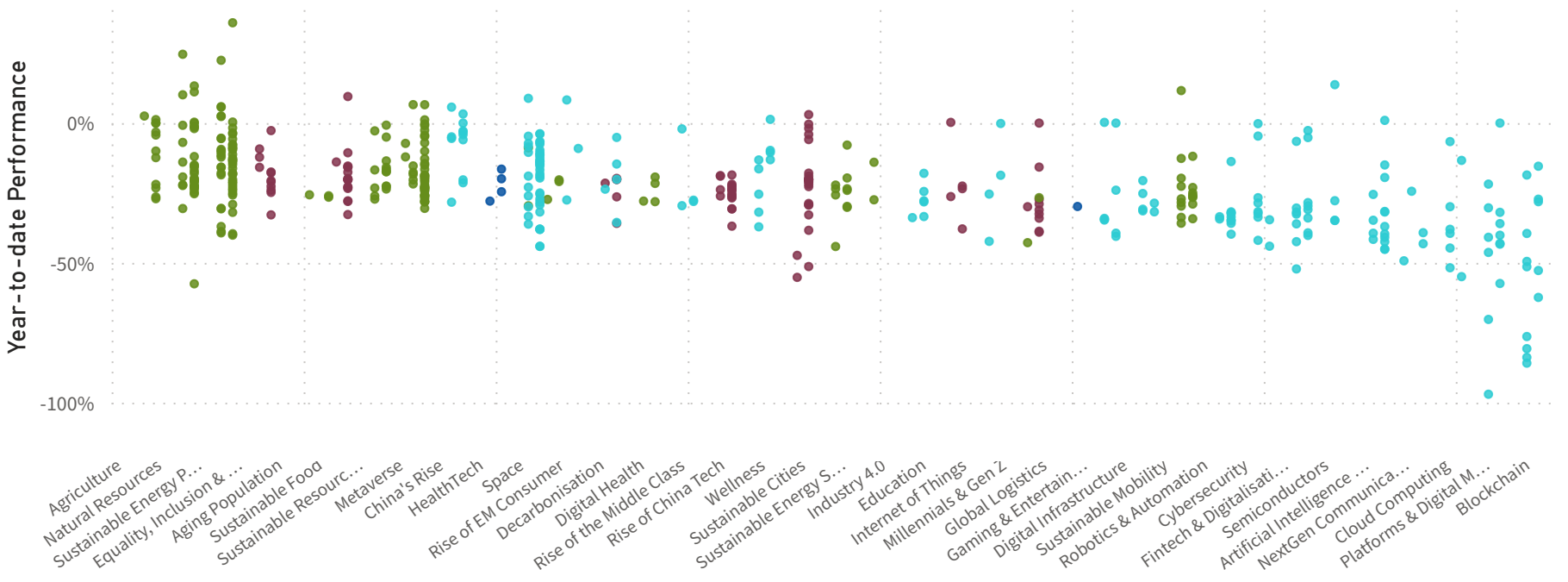




## Top 5/Bottom 5 by YTD performance




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

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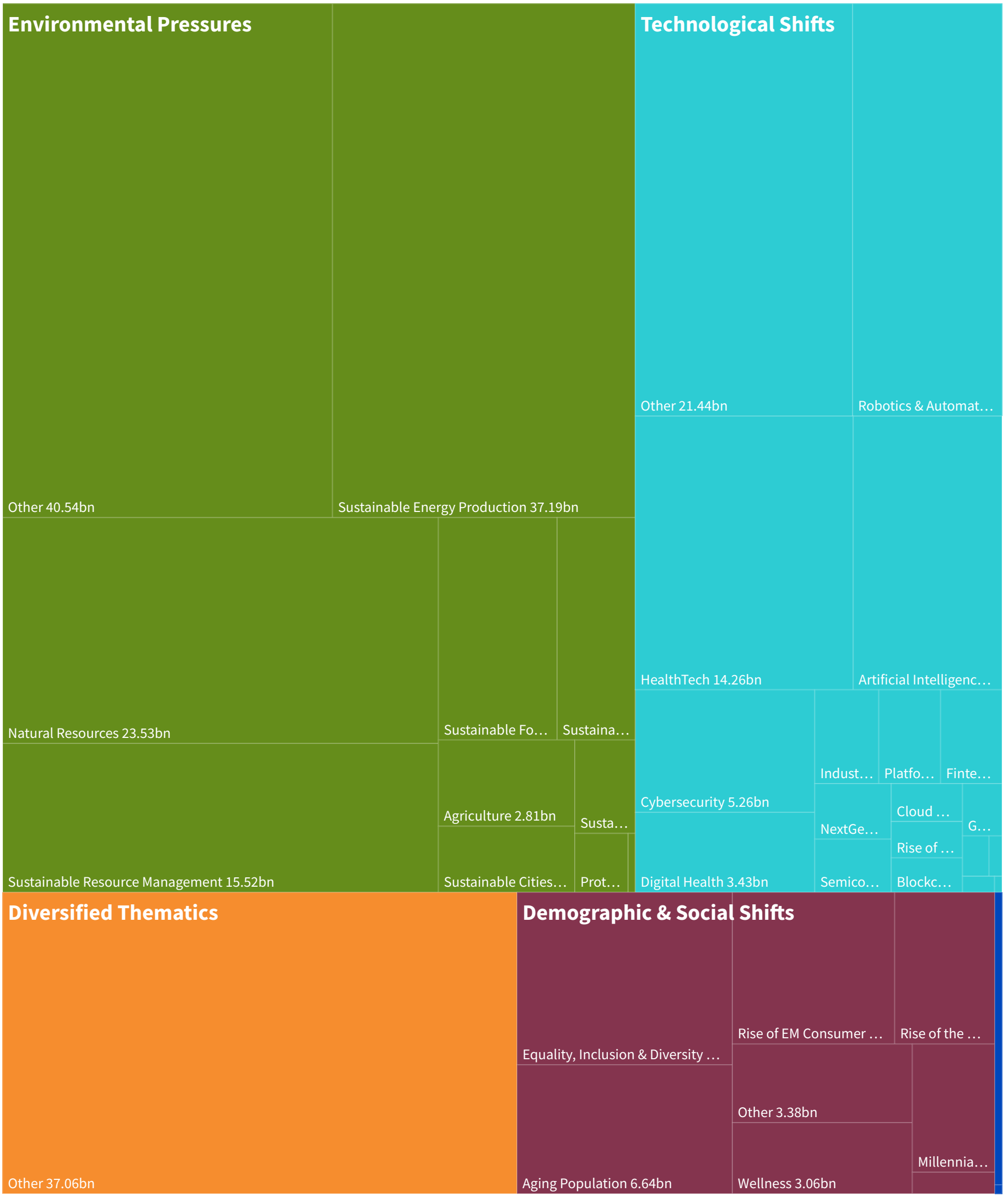
## AUM per theme in ETFs and open-ended funds domiciled in Europe ($billions)

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

| Cluster | Sub-Cluster | AuM ($) | Flows Last Quarter ($) | Flows YTD ($) |
|---|---|---|---|---|
| Demographic & Social Shifts | | 1,325.08M | -39.89M | -185.07M |
| Demographic & Social Shifts | Demographic Shifts | 2,030.93M | 34.97M | 342.58M |
| Demographic & Social Shifts | Social Shifts | 26.03M | -2.45M | 4.39M |
| Diversified Thematics | | 37,056.94M | 185.44M | 2,307.54M |
| Environmental Pressures | | 4,008.21M | -75.61M | -334.92M |
| Environmental Pressures | Climate Change & Sustainability | 36,524.10M | 1,668.68M | 5,823.07M |
| Environmental Pressures | Limited Resources | 11.96M | 0.02M | -0.35M |
| Technological Shifts | | 5,200.88M | 83.91M | -89.20M |
| Technological Shifts | Disruptive Technologies | 11,423.99M | 164.70M | -585.78M |
| Technological Shifts | HyperConnectivity & Digitalisation | 4,811.21M | -525.48M | -1,323.35M |

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

| Theme Name | AuM ($) | Flows Last Quarter ($) | Flows YTD ($) | Performance Last Quarter | Performance YTD |
|---|---|---|---|---|---|
| Aging Population | 6,635.32M | -149.06M | -359.67M | 14.3% | -20.7% |
| Agriculture | 2,814.36M | -27.77M | 1,402.77M | 9.1% | -10.2% |
| Artificial Intelligence & Big Data | 9,732.92M | 221.85M | 1,053.46M | 5.3% | -35.7% |
| Blockchain | 587.95M | -13.42M | 39.71M | -21.3% | -64.9% |
| China's Rise | 508.15M | -33.99M | 54.43M | 12.0% | -21.7% |
| Cloud Computing | 645.24M | -14.64M | -53.05M | -1.3% | -44.5% |
| Cybersecurity | 5,261.63M | 194.26M | 1,113.38M | -3.6% | -34.0% |
| Decarbonisation | 100.18M | 1.95M | -10.65M | 8.4% | -24.1% |
| Digital Health | 3,432.76M | -60.17M | -814.78M | 7.1% | -24.5% |
| Digital Infrastructure | 123.39M | -45.16M | -34.00M | 6.2% | -31.0% |
| Education | 422.29M | 25.70M | -132.79M | 8.6% | -27.9% |
| Equality, Inclusion & Diversity | 8,880.58M | -287.53M | 229.18M | 12.4% | -18.5% |
| Fintech & Digitalisation of Finance | 1,378.58M | -113.87M | -1,086.72M | 2.9% | -34.3% |
| Gaming & Entertainment | 493.45M | -19.31M | -112.04M | 6.2% | -30.7% |
| Global Logistics | 15.32M | 2.05M | 8.83M | 10.1% | -29.8% |
| HealthTech | 14,260.45M | -182.98M | -980.94M | 8.2% | -22.7% |
| Industry 4.0 | 1,436.80M | 22.24M | 162.65M | 11.1% | -27.6% |
| Internet of Things | 255.99M | 39.23M | 189.47M | 9.7% | -29.2% |
| Metaverse | 125.49M | 36.98M | 137.99M | 3.1% | -21.4% |
| Millennials & Gen Z | 2,525.98M | -69.03M | -429.63M | 5.2% | -29.5% |
| Natural Resources | 23,529.29M | 158.53M | 628.95M | 11.5% | -17.7% |
| NextGen Communications | 1,015.01M | -55.74M | -438.78M | 5.1% | -35.8% |
| Platforms & Digital Markets | 1,386.47M | -8.16M | -369.00M | 5.6% | -44.7% |
| Protect Biodiversity | 751.06M | 138.73M | 605.05M | 11.2% | -18.5% |
| Rise of China Tech | 619.48M | 5.63M | -20.94M | 13.3% | -25.1% |
| Rise of EM Consumer | 5,886.05M | 15.92M | 42.45M | 10.2% | -23.8% |
| Rise of the Middle Class | 3,628.33M | 82.65M | -349.74M | 13.1% | -25.0% |
| Robotics & Automation | 14,730.67M | -443.15M | -941.91M | 9.6% | -33.4% |
| Semiconductors | 972.96M | 86.95M | 365.89M | 13.1% | -35.0% |
| Space | 28.82M | 0.12M | 19.78M | 11.6% | -22.9% |
| Sustainable Cities | 2,155.53M | -127.93M | 91.89M | 10.2% | -26.8% |
| Sustainable Energy Production | 37,186.66M | 282.29M | 3,924.04M | 5.8% | -17.9% |
| Sustainable Energy Storage | 1,350.24M | -49.88M | -87.00M | -2.5% | -27.5% |
| Sustainable Food | 6,310.46M | 195.57M | 1,222.07M | 10.8% | -21.0% |
| Sustainable Mobility | 4,151.50M | -62.34M | -397.91M | 1.0% | -31.1% |
| Sustainable Resource Management | 15,517.64M | 215.53M | 1,705.42M | 12.0% | -21.4% |
| Wellness | 3,056.09M | 50.08M | 381.79M | 9.3% | -25.9% |

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# 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.

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# 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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