

**GLOBAL X**

by Mirae Asset

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# European Thematic ETFs Report

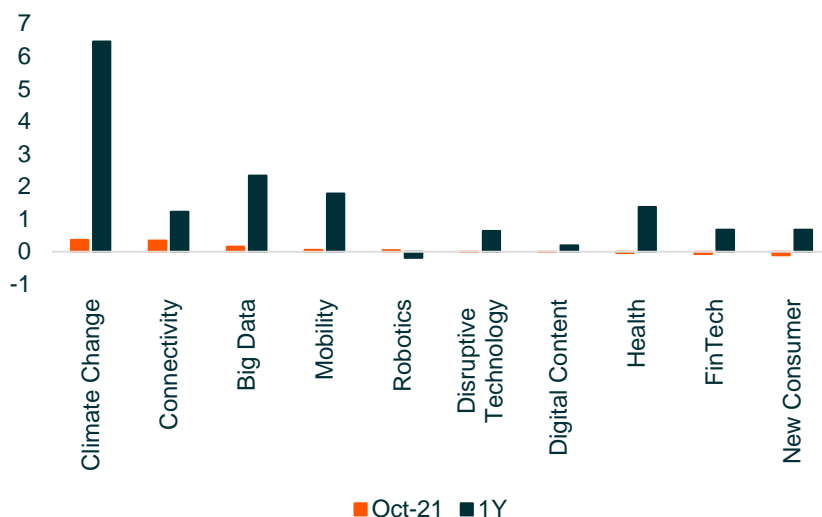
October 2021



# European Thematic UCITS ETFs Flow

- In October, UCITS Thematic ETFs recorded US\$710m of net inflows, after attracting US\$475m in September
- Climate change themes attracted the largest net inflows this month (US\$361m), with the bulk of net new inflows going into clean & renewable energy themes (US\$243m) and resource scarcity themes (US\$119m) ahead of the two-week UN climate change conference (COP26)
- Emerging market internet themes recorded strong net inflows for the third consecutive month (US\$338m)
- Big data themes saw significant net inflows of US\$154m this month, led by cybersecurity and machine learning
- Themes in the People & Demographics category saw net outflows in October, led by E-commerce (US\$112m) and Healthcare innovations (US\$62m)

**Top Mega Themes by monthly flows (US\$bn)**



**Top/Bottom 5 UCITS Thematic ETFs by monthly flows**

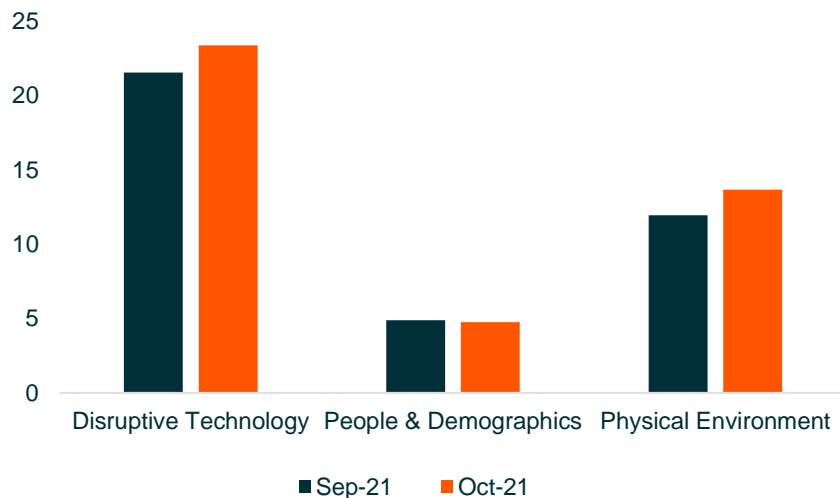
Funds	Oct-2021 (US\$m)
KraneShares CSI China Internet UCITS ETF	304.9
iShares Global Clean Energy UC	118.3
Lyxor New Energy DR UCITS ETF	66.5
L&G ROBO Global Robo and Automation UCITS ETF	48.8
iShares Global Water UCITS ETF	40.5
Invesco Elwood Global Blockchain UCITS ETF	-124.0
L&G Ecommerce Logistics UCITS ETF	-111.5
iShares Healthcare Innovation UCITS ETF	-70.0
Lyxor Robotics & AI UCITS ETF	-19.8
Amundi Smart City UCITS ETF	-19.4

Source: Bloomberg. As of October 31, 2021.

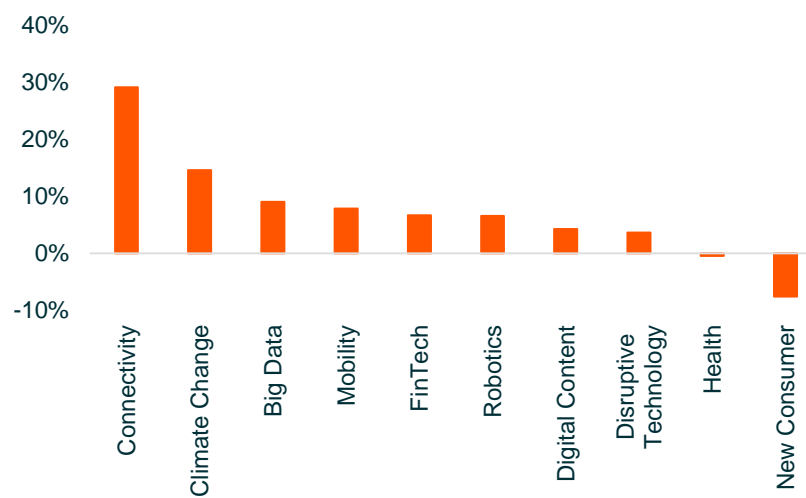


# European Thematic UCITS ETFs AUM

## Categories (AUM, US\$bn)



## Mega Themes by AUM growth (monthly % chg.)



## Top 5 UCITS Thematic ETFs by AUM growth

Funds	AUM (monthly % chg.)
Vaneck Vectors Digital Assets	53%
KraneShares CSI China Internet UCITS ETF	50%
WisdomTree Cybersecurity UCITS ETF	43%
First Trust Indxx Innov. Transac. & Process UCITS ETF	34%
L&G Clean Energy UCITS ETF	33%

## Bottom 5 UCITS Thematic ETFs by AUM growth

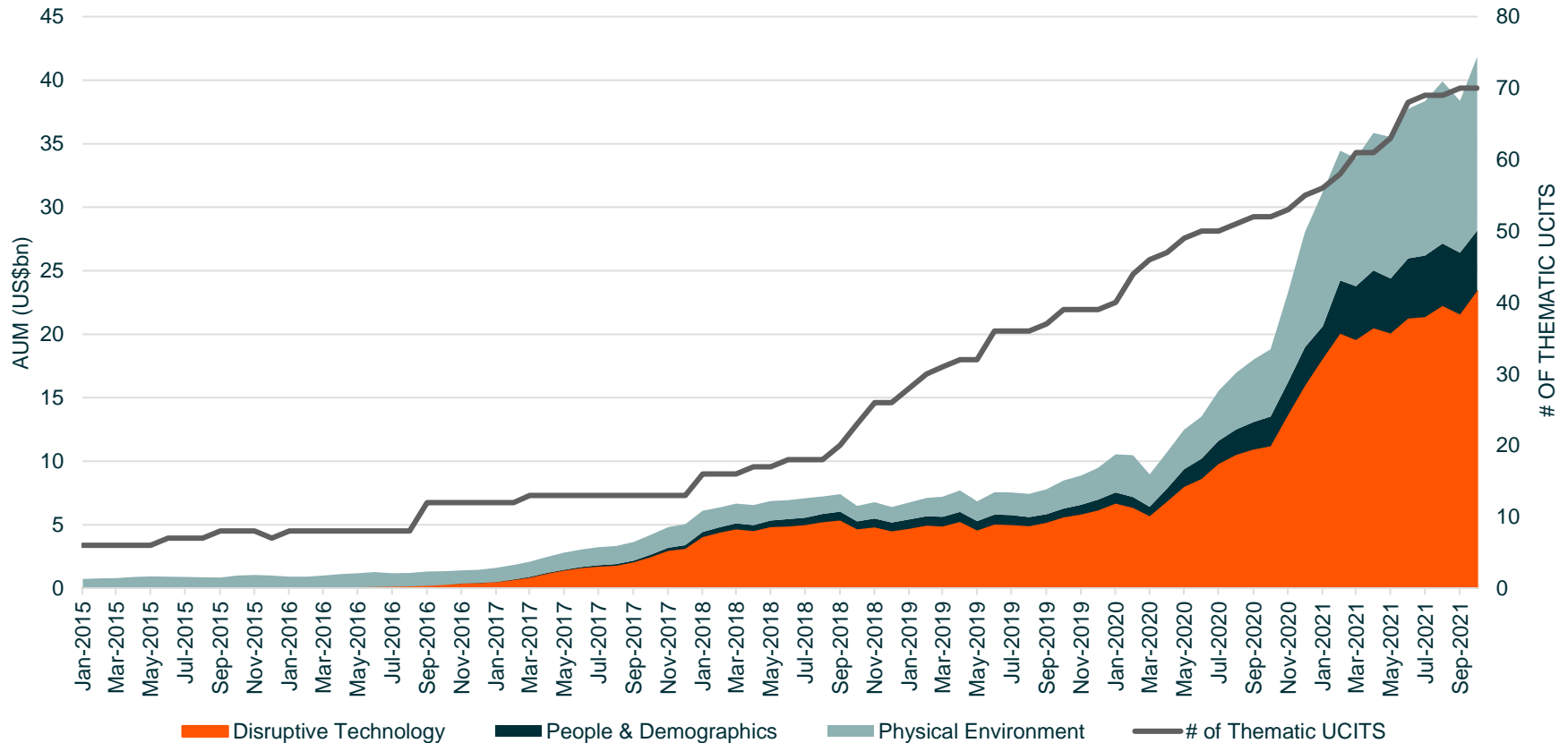
Funds	AUM (monthly % chg.)
Global X Telemedicine & Digital Health UCITS ETF	-35%
Amundi Smart City UCITS ETF	-21%
L&G Ecommerce Logistics UCITS ETF	-15%
Ossiam Food For Biodiversity UCITS ETF	-4%
Digital Infrastructure & Connectivity UCITS ETF	-3%

Source: Bloomberg. As of October 31, 2021. UCITS Thematic ETFs with minimal AUM of US\$10m as of the beginning of the previous month and excludes fund closures.



# European Thematic UCITS ETFs AUM

At the end of October 2021, there were 70 thematic UCITS ETFs totalling US\$42bn in assets under management (AUM), increasing 9% on the month. Themes in the physical environment category recorded the largest monthly increase of AUMs in October (15%), followed by disruptive technologies (9%), while themes in the people & demographics category saw a 2% decrease.



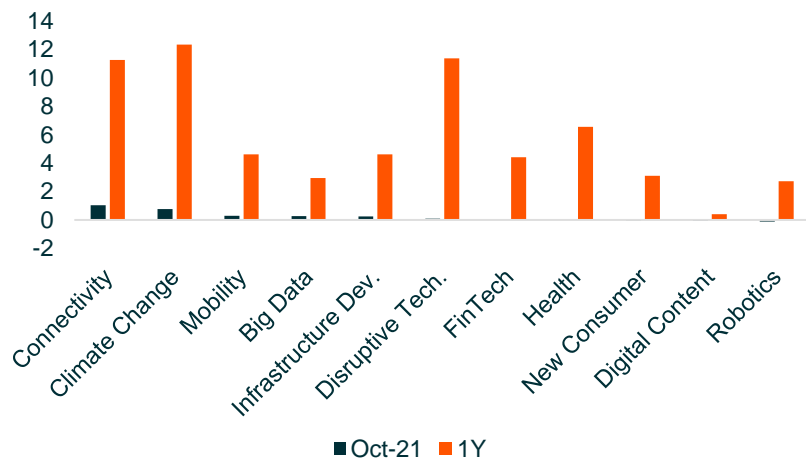
Source: Bloomberg. As of October 31, 2021.



# US Thematic ETFs Flow

- In October, US Thematic ETFs recorded US\$2.6bn of net inflows
- Emerging markets connectivity recorded the largest net inflows (US\$1.3bn) for the third consecutive month
- Climate change themes recorded US\$778m of net inflows on the month ahead of the COP26, where G20 nations agreed to halt public financing of coal power plants built overseas as well as a first-time pledge to reduce methane emissions
- Robotics and Artificial Intelligence (AI) themes saw the largest net outflows (US\$113m), possibly resulting from a sluggish sales growth of new robots (0.5%) due to the global pandemic (source: International Federation of Robotics (IFR), World Robotics 2021 Industrial Robots report, October 2021). However, the IFR is expecting a rebound with average annual growth rates in the medium single-digit range in the next three years

## Top Mega Themes by monthly flows (US\$bn)



## Top/Bottom 5 Thematic ETFs by monthly flows

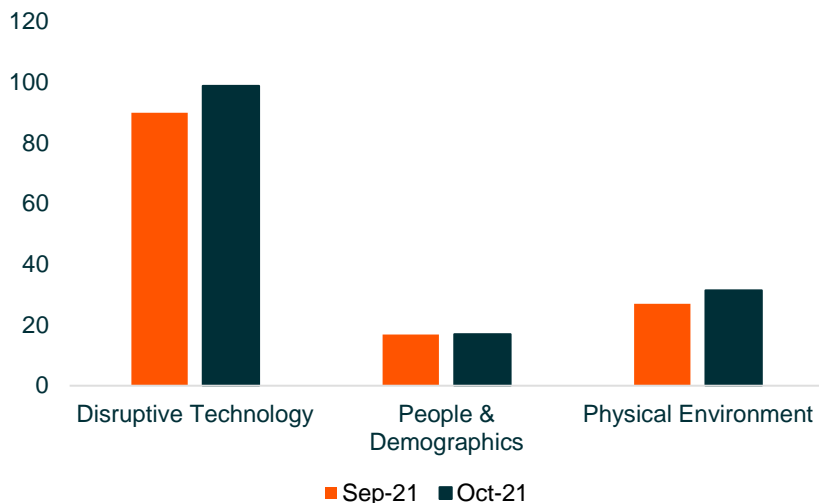
Funds	Oct-2021 (US\$m)
KraneShares CSI China Internet ETF	1,305.9
Invesco Solar ETF	509.3
Global X Lithium & Battery Tech ETF	349.1
Global X U.S. Infrastructure Development ETF	214.1
First Trust NASDAQ Cybersecurity ETF	175.3
ARK Next Generation Internet ETF	-108.1
KraneShares CICC China 5G &Tech. leaders Index ETF	-86.7
First Trust Indxx NextG ETF	-79.4
Fintech Innovation ETF	-65.5
ARK Autonomous Technology & Robotics ETF	-60.2

Source: Bloomberg. As of October 31, 2021.

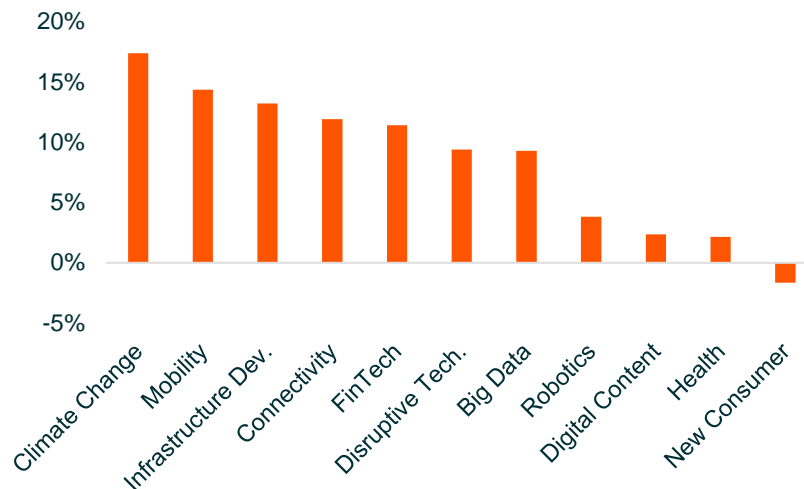


# US Thematic ETFs AUM

## Categories (AUM, US\$bn)



## Mega Themes by AUM growth (monthly % chg.)



## Top 5 Thematic ETFs by AUM growth

Funds	AUM (monthly % chg.)
Global X Hydrogen ETF	77%
Global X Blockchain ETF	58%
Defiance Next Gen H2 ETF	52%
Bitwise Crypto Industry Innovators ETF	43%
Amplify Transformational Data Sharing ETF	40%

## Bottom 5 Thematic ETFs by AUM growth

Funds	AUM (monthly % chg.)
KraneShares China 5G and Tech. leaders ETF	-74%
AdvisorShares Pure US Cannabis ETF	-15%
Franklin Genomic Discovery ETF	-14%
SPDR S&P Internet ETF	-12%
Loncar Cancer Immunotherapy ETF	-11%

Source: Bloomberg. As of October 31, 2021. US Thematic ETFs with minimal AUM of US\$10m as of the beginning of the previous month and excludes fund closures.



# Disruptive Trends

Category	Description
Disruptive Technology	<ul style="list-style-type: none"> <li>• Connectivity (IoT) drives the digitisation of the economy and enables new disruptive technologies that are profoundly changing the way we live and work</li> <li>• Digitisation is changing business models and empowers companies to modernise in order to meet the new demand</li> <li>• The Digital Economy generated almost half of value added and half of the new employment in G20 economies between 2006 and 2017, according to OECD estimates</li> </ul>
People & Demographics	<ul style="list-style-type: none"> <li>• Millennials' increased wealth from peak working years and inheritance makes them targeted consumer demographic</li> <li>• Rising middle-class consumers in Emerging Markets</li> <li>• Urbanisation and on-demand purchasing favour E-commerce retail channels and next generation products and services</li> <li>• Heightened focus on longevity and quality of life, coupled with rising health care costs are driving people to engage in physical activity, healthy eating, and embrace health technologies</li> <li>• Desire for personalised medicine is giving rise to genomics, while efforts to improve convenience, patient outcomes, cost efficiency are driving towards telemedicine and digital health</li> </ul>
Physical Environment	<ul style="list-style-type: none"> <li>• 2020 was one of the hottest years on record</li> <li>• Over 75% of warming comes from carbon dioxide emissions (CO2) and humans are responsible for a 47% increase of such emissions since the start of the industrial revolution</li> <li>• In 2020, most of advanced and developing nations have renewed their commitments to transition to a carbon neutral global economy by 2030-2050</li> <li>• Clean technologies are essential to making carbon neutrality a reality</li> <li>• Falling costs and rising production of lithium-ion batteries catalyses shift to renewable energy and electric vehicles</li> </ul>

# Risk Information

The Global X Thematic Classification System is based on the expertise, views, and opinions of the Global X Thematic Classification Committee and are subject to change.

Global X defines thematic investing as the process of identifying powerful disruptive macro-level trends and the underlying investments that stand to benefit from the materialisation of those trends. By nature, thematic investing is a long term, growth-oriented strategy, that is typically unconstrained geographically or by traditional sector/industry classifications, has low correlation to other growth strategies, and invests in relatable concepts.

The process of identifying themes consists of three inexorable principles:

- 1) There must be high conviction that the theme will materialise and have a meaningful impact on segments of the economy or markets. Often this is due to observable structural changes in technology, demographics, consumer behavior, or the physical environment, but can also be influenced by other factors.
- 2) A theme must be investable, meaning there are publicly traded companies that provide exposure to the concept. Ideally, the group of companies is broad, have high liquidity, and attribute a substantial portion of their business operations (revenues, assets, research & development) to the theme.
- 3) A theme must be expected to express itself over a medium to long-term time horizon, generally considered to be five years or longer. A longer-term time horizon makes market timing less of a factor in the success of identifying a theme.

Notably, and taking into consideration the principles above, thematic investing does not consist of ESG, values-based, or policy-driven strategies, unless they otherwise represent a disruptive structural trend (e.g. climate change). Further, funds that adhere to traditional sector or industry classifications, or that are used primarily to gain exposure to cyclical trends (e.g. currencies, valuations, inflation) are not considered thematic. Finally, alternative asset classes, such as listed infrastructure, MLPs, and ubiquitous commodities are not considered thematic. We recognise that these exclusions may differ from other third-party definitions of thematic investing, but it is consistent with, and core to, Global X's thematic classification system and process.

Based on the definition and principles of thematic investing above, Global X has established a thematic classification system that seeks to identify powerful themes and organise them by common traits and drivers. The system consists of four layers of classifications: 1) Categories; 2) Mega-Themes; 3) Themes; and 4) Sub-Themes, with each layer becoming sequentially narrower in its focus.

'Categories' is the broadest layer and represents three fundamental drivers of disruption: exponential advancements in technology (Disruptive Technology), changing consumer habits and demographics (People & Demographics), and the evolving physical landscape (Physical Environment). One layer down are 'Mega-Themes,' which serve as a foundation to multiple transformative forces that are causing substantial changes in a common area. Conceptually, Mega-Themes are a collection of more narrowly targeted Themes. For example, Big Data is a Mega-Theme that consists of Machine/Deep Learning, Cybersecurity, Quantum Computing, and Cloud/Edge Computing. Further down, we identify 'Themes' as the specific areas of transformational disruption that are driving technology forward, changing consumer demands, or impacting the environment. 'Sub-Themes' are more niche areas, such as specific applications of themes or upstream forces that are driving themes forward.

The number and categories, mega-themes, themes, and sub-themes is expected to evolve over time as new drivers of structural changes emerge or fade. Such decisions will be made by the Global X Thematic Classification Committee ("the committee") and take into account internal and external research and data about potential themes.



# Thematic ETF Landscape

Global X's classification system establishes a consistent framework for identifying and categorising the growing thematic ETF space.

Category	Mega-Theme	Theme	Sub-Theme
Disruptive Technology	Big Data	Machine/Deep Learning	
		Cybersecurity	
		Quantum Computing	
		Cloud/Edge Computing	Remote Work, MarTech
	Mobility	Autonomous Vehicles	
		Electric Vehicles	Lithium/Batteries
	Digital Content	AR/VR	
		Video Games	E-sports
		Social Media	
		Streaming	
	FinTech	Mobile Payments	
		Peer-to-Peer Lending	
		Crowdfunding	
		Blockchain	
	Connectivity	Digital Infrastructure	
		5G/Next Gen Networking	
		Emerging Markets Internet	
		Internet of Things	Smart Devices, Smart Cities, IIoT
Space/Satellite Communications			
Robotics	AI/Automation		
	3D Printing		
	Drones		
People & Demographics	New Consumer	Millennials & Gen Z	
		Emerging Market Consumers	
		Urbanisation	
		E-commerce	
		Education	
		Sharing/Gig Economy	
		Safety and Security	
		Cannabis	
		Sports Betting	
		Professional Sports	
	Health	Healthcare Innovation	Telemedicine & Digital Health, Genomics, Immunotherapy, Public Health
		Aging Population	Senior Care, Senior Economy
		Health & Wellness	Obesity, Organics
		Emerging Markets Healthcare	
Physical Environment	Climate Change	CleanTech	
		Clean & Renewable Energy	Solar, Wind, Hydrogen
		Resource Scarcity	Water, Waste/Recycling, Rare Earths, Sustainable Food
	Infrastructure Development		

Source: Global X ETFs As of June 30, 2021.

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For more research please visit:

<https://globalxetfs.eu>

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