



Thematic Index Series

Powered By:



What?

ETF All-Stars Thematic Indexes are the first ever suite of indexes harnessing the growth and transparency of thematic ETFs to establish a consensus view on which companies best align with popular investment themes based on publicly available ETF ownership data.

How?

Using ETF Action's proprietary classification system and ownership database, ETF holdings data is aggregated across each broad thematic segment to determine each company's ownership adjusted market value ("OAMV™"). OAMV™ is calculated by taking the total ownership value of each company in an ETF segment (qualifying ETFs are subject to a 10% influence cap) times the number of ETFs that own each company in the targeted segment. Each index represents 75% of the OAMV™ for each ETF segment. Qualifying companies are weighted by OAMV™, subject to a 5% weighting cap. The indexes are then rebalanced monthly.

Qualifying ETF Universe



Calculate Consensus Rating



ETF All-Stars



Why?

Potential advantages of the ETF All-Stars Thematic Indexes include:

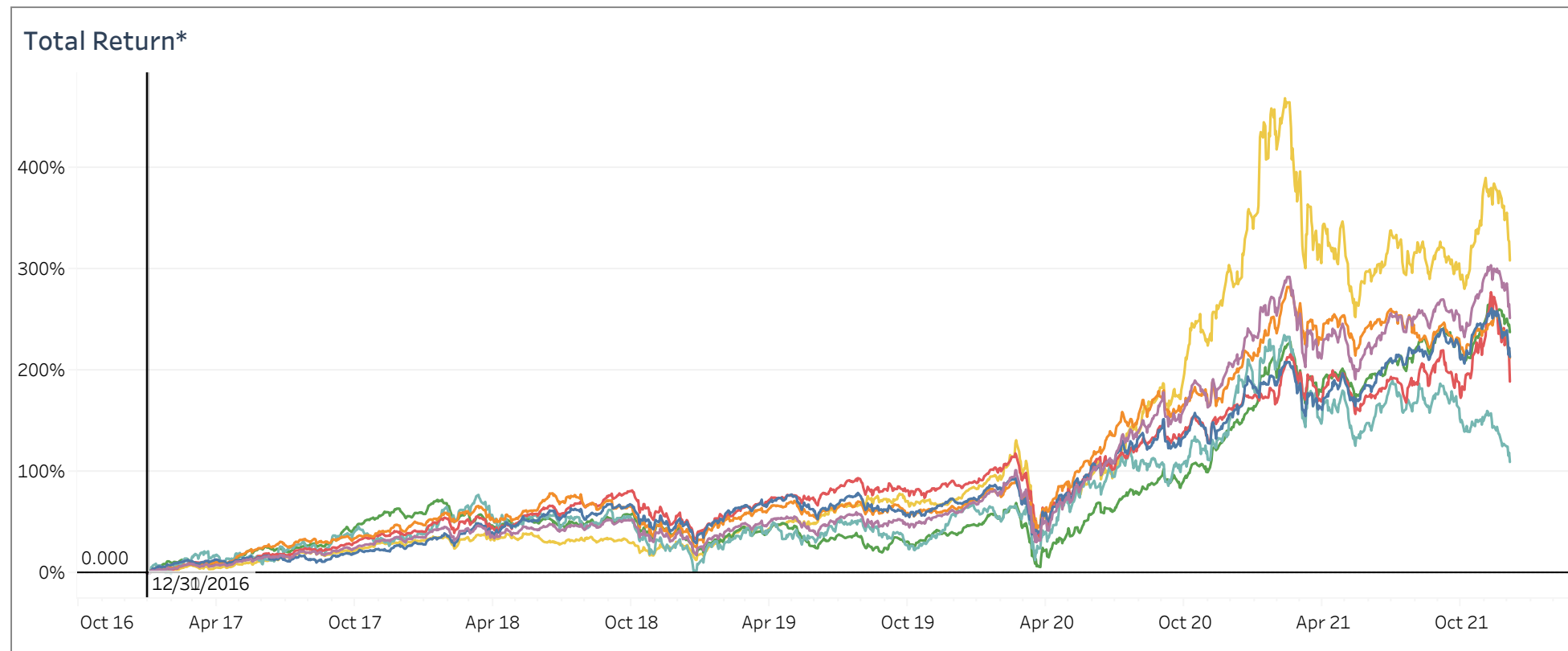
- Access to a diversified basket of companies most widely owned by thematic ETFs
- Indexes are built using an objective methodology that follows a transparent and repeatable rules-based process
- Indexes dynamically adapt to ever-changing ETF landscape (new launches and closures) and investor sentiment (ETF flows)

ETF All Stars Thematic Indexes

- ETF All Stars Thematic Composite Index
- ETF All Stars Disruptive Tech Index
- ETF All Stars Evolving Consumer Index
- ETF All Stars Industrial Revolution Index
- ETF All Stars FinTech Index
- ETF All Stars Healthcare Innovation Index
- ETF All Stars Sustainability Index

ETF All-Stars Performance & Overlap

TCASX As of 12/3/2021



■ Thematic Composite
 ■ Disruptive Tech
 ■ Evolving Consumer
 ■ FinTech
 ■ Health Innovation
 ■ Industrial Revolution
 ■ Sustainability

ETF All-Star Index Overlap Matrix

	Thematic Composite	Disruptive Tech	Evolving Consumer	FinTech	Health Care Innovation	Industrial Revolution	Sustainability
Thematic Composite	100.00%	37.39%	20.30%	15.52%	2.07%	28.03%	24.77%
Disruptive Tech	37.39%	100.00%	4.41%	2.15%	0.00%	4.85%	1.12%
Evolving Consumer	20.30%	4.41%	100.00%	8.89%	0.00%	9.41%	0.00%
FinTech	15.52%	2.15%	8.89%	100.00%	0.00%	6.30%	0.00%
Health Care Innovation	2.07%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%
Industrial Revolution	28.03%	4.85%	9.41%	6.30%	0.00%	100.00%	7.09%
Sustainability	24.77%	1.12%	0.00%	0.00%	0.00%	7.09%	100.00%

Standardized Performance

	1 Month	3 Month	6 Month	YTD	1 Year	3 Year Annualized	5 Year Annualized	Inception*
Thematic Composite	-11.23%	-4.90%	11.21%	5.48%	15.28%	35.24%		29.22%
Disruptive Tech	-10.99%	-8.00%	12.34%	10.47%	21.20%	26.81%		26.20%
Evolving Consumer	-8.30%	-9.21%	-8.37%	-0.82%	7.00%	27.98%		26.13%
FinTech	-18.33%	-9.51%	5.90%	4.73%	10.30%	21.90%		24.14%
Health Care Innovation	-19.40%	-26.39%	-12.90%	-24.68%	-20.80%	16.31%		16.27%
Industrial Revolution	-5.06%	-0.57%	15.54%	27.87%	38.52%	32.34%		28.15%
Sustainability	-14.23%	-3.10%	5.33%	-9.76%	6.85%	45.82%		33.23%

Index First Value Date is Dec 31 2016. The index Launch Date is Jun 11 2021. All information for an index prior to its Launch Date is hypothetical back-tested, not actual performance, based on the index methodology in effect on the Launch Date.

ETF All-Stars Thematic Composite Index

TCASX As of 12/3/2021



Thematic All-Stars ETF Universe

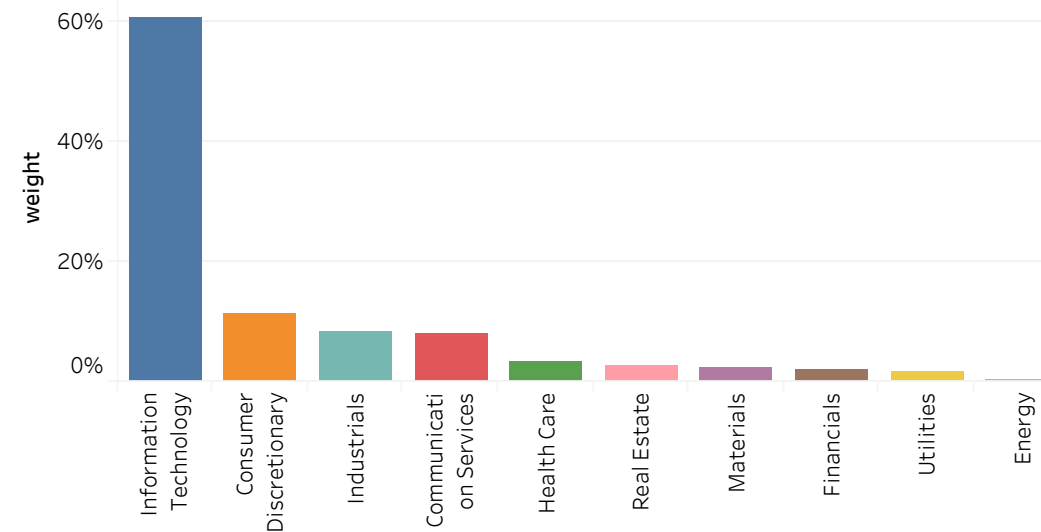
Fund Count	168
Assets Under Management	\$115.01B
Unique Universe Companies	3,475
All-Star Portfolio Holdings	147

Index Description:

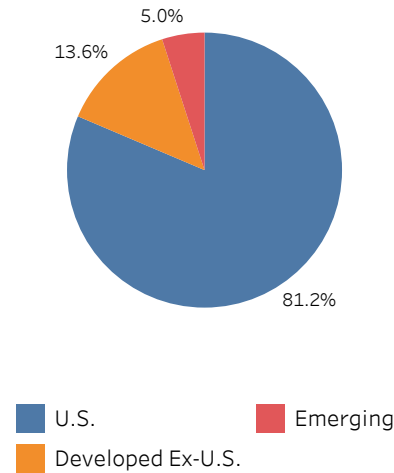
The index is designed to track 75% of the Ownership Adjusted market Value (OAMV) of all companies held by ETFs classified within the Thematic Composite according to the ETF Action Classification System. Qualifying companies are weighted based on their OAMV and subject to a 5% single company cap.

Index Composition

Sectors



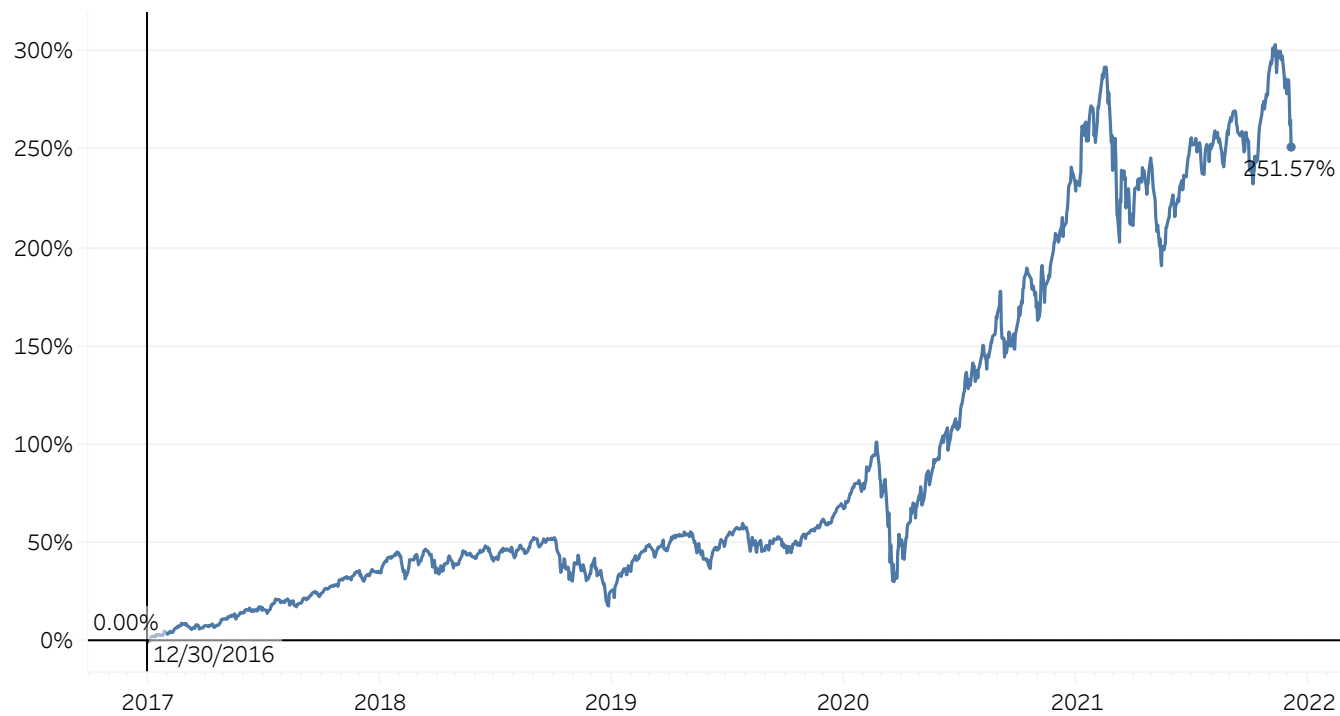
Market Development



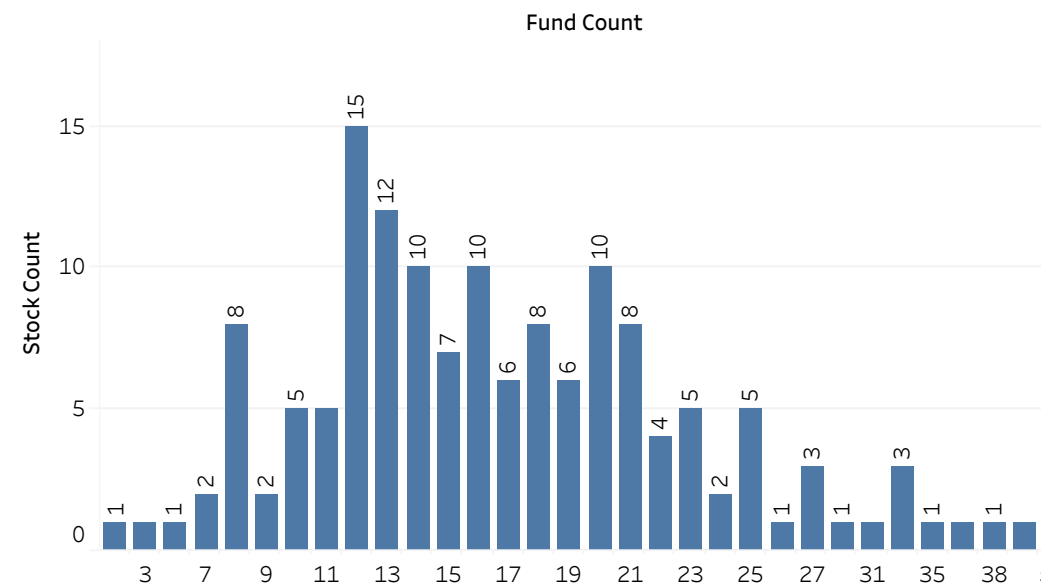
Market Cap

Market Cap	Percentage
Large Cap	85.89%
Mid Cap	13.45%
Small Cap	0.66%

Index Performance*



ETF Universe Ownership of Portfolio Companies



Top 10 Holdings

Company	Sector	Weighting (%)
NVIDIA Corporation	Information Technology	6.77%
Tesla Inc	Consumer Discretionary	5.27%
Enphase Energy, Inc.	Information Technology	3.00%
Square, Inc. Class A	Information Technology	2.61%
Alphabet Inc. Class C	Communication Services	2.44%
SolarEdge Technologies, Inc.	Information Technology	2.28%
Amazon.com, Inc.	Consumer Discretionary	2.22%
Zscaler, Inc.	Information Technology	1.95%
Microsoft Corporation	Information Technology	1.82%
Shopify, Inc. Class A	Information Technology	1.73%
Top 10 Weighting		30.09%

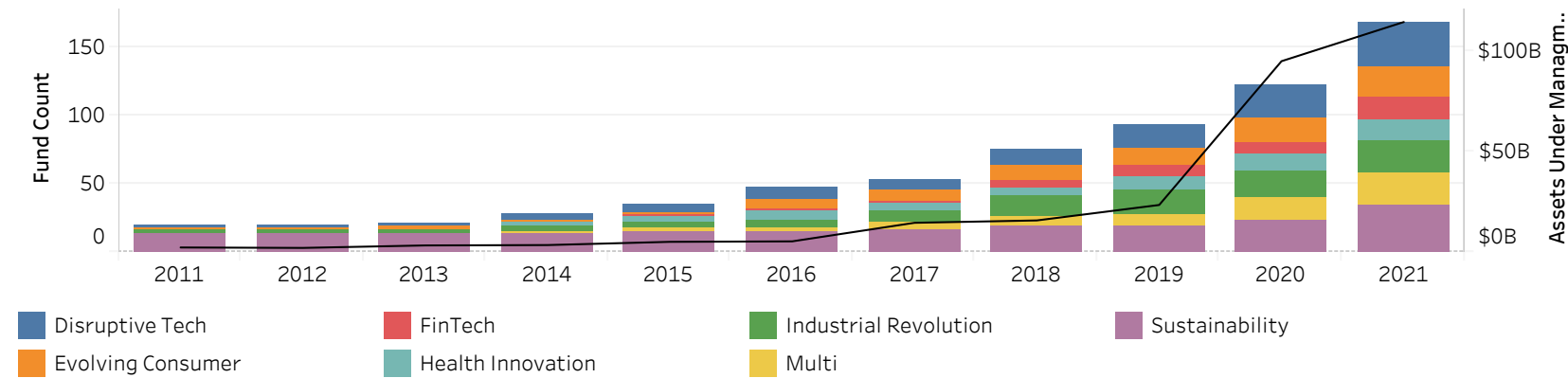
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ETF All-Stars Landscape, Performance & Overlap

TCASX As of 12/3/2021



All-Stars Thematic Landscape Growth



Thematic Landscape AUM & Flows

Segment	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Disruptive Tech	36	\$28,145M	\$11M	\$303M	\$1,316M	\$5,083M
Evolving Consumer	25	\$4,670M	(\$36M)	(\$465M)	(\$821M)	\$554M
FinTech	16	\$7,324M	\$12M	\$73M	(\$27M)	\$4,136M
Health Innovation	16	\$7,121M	(\$74M)	(\$990M)	(\$1,136M)	\$4,884M
Industrial Revolution	24	\$18,639M	\$55M	\$876M	\$1,395M	\$8,114M
Multi	25	\$26,192M	\$47M	(\$115M)	(\$120M)	\$10,095M
Sustainability	35	\$23,994M	(\$105M)	\$1,159M	\$2,124M	\$10,248M
Grand Total	177	\$116,085M	(\$91M)	\$841M	\$2,729M	\$43,113M

Thematic Composite Standardized Performance

	1 Month	3 Month	6 Month	YTD	1 Year	3 Year Annualized	5 Year Annualized	Inception*
Thematic Composite	-11.23%	-4.90%	11.21%	5.48%	15.28%	35.24%		29.22%

Top 15 Multi-Theme ETFs by AUM

ETF	Description	Broad-based	Launch Date	AUM	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	All-Stars Overlap (#)	All-Stars Overlap (%)
ARKK	ARK Innovation ETF	Broad-based	October 31, 2014	\$17,113M	-24.96%	-25.22%	-24.87%	-16.81%	29.33%	38.19%	21	20.70%
XT	iShares Exponential Technologies ETF	Broad-based	March 19, 2015	\$4,114M	-3.89%	-4.04%	12.16%	17.48%	21.59%	21.10%	48	22.83%
KOMP	SPDR S&P Kensho New Economies Composite ETF	Broad-based	October 22, 2018	\$2,033M	-12.72%	-10.18%	2.93%	12.47%	25.98%		88	20.02%
META	Roundhill Ball Metaverse ETF	Broad-based	June 30, 2021	\$829M	-2.63%	-1.04%					22	25.15%
GINN	Goldman Sachs ETF Trust Goldman Sachs Innovate Equity ETF	Broad-based	November 6, 2020	\$478M	-8.73%	-7.75%	6.86%	11.84%			84	28.72%
TECB	iShares U.S. Tech Breakthrough Multisector ETF	Broad-based	January 8, 2020	\$436M	-5.87%	-6.57%	16.75%	20.66%			57	35.00%
GTEK	Goldman Sachs Future Tech Leaders Equity ETF	Broad-based	September 14, 2021	\$263M	-6.84%						19	10.62%
DTEC	ALPS Disruptive Technologies ETF	Broad-based	December 29, 2017	\$235M	-9.75%	-9.57%	1.50%	9.57%	21.23%		33	20.75%
KLDW	Knowledge Leaders Developed World ETF	Broad-based	July 8, 2015	\$195M	-4.91%	-6.13%	10.02%	13.22%	13.98%	13.13%	19	6.56%
MOON	Direxion Moonshot Innovators ETF	Broad-based	November 12, 2020	\$119M	-21.95%	-21.20%	-13.10%	-3.83%			9	2.70%
ENTR	ERShares Entrepreneurs ETF	Broad-based	November 8, 2017	\$119M	-12.71%	-12.96%	-9.97%	-8.45%	16.26%		21	23.94%
LOUP	Innovator Loup Frontier Tech ETF	Broad-based	July 25, 2018	\$78M	-9.68%	-3.68%	4.59%	10.39%	30.24%		10	7.70%
ANEW	ProShares MSCI Transformational Changes ETF	Broad-based	October 14, 2020	\$40M	-7.27%	-9.21%	3.62%	8.22%			54	20.59%
GIGE	SoFi Gig Economy ETF	Broad-based	May 8, 2019	\$25M	-19.81%	-21.64%	-19.75%	-14.04%			27	17.68%
GK	AdvisorShares Gerber Kawasaki ETF	Broad-based	July 2, 2021	\$22M	-6.61%	-1.63%					17	28.28%

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ETF All-Stars Disruptive Tech Index

DTASX As of 12/3/2021



Disruptive Tech ETF Universe

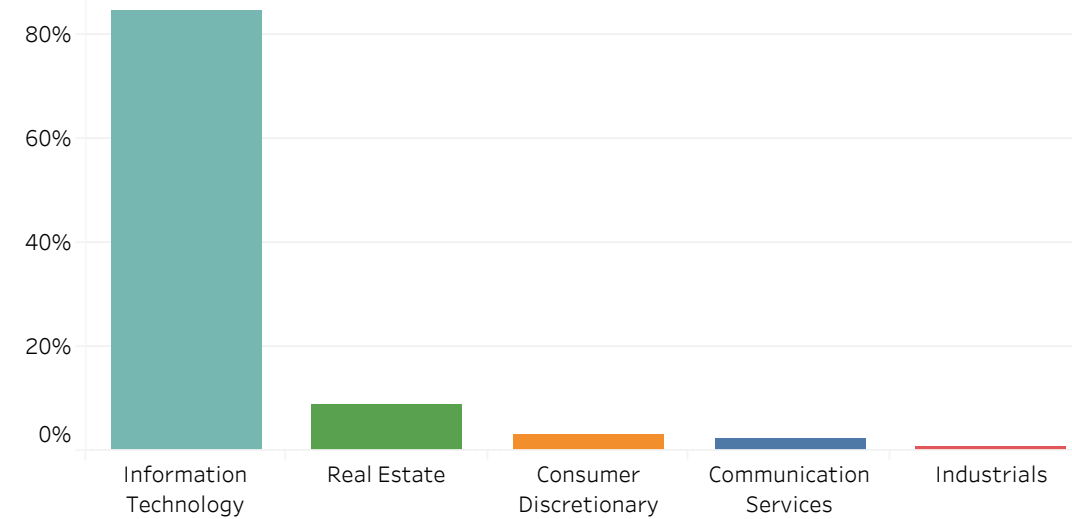
Fund Count	33
Assets Under Management	\$28.14B
Unique Universe Companies	790
All-Star Portfolio Holdings	57

Index Description:

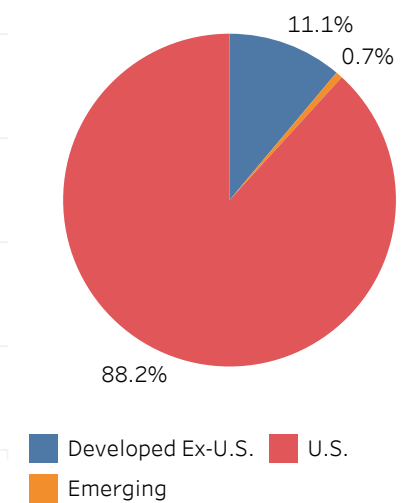
The index is designed to track 75% of the Ownership Adjusted market Value (OAMV) of all companies held by ETFs classified within the Disruptive Tech segment according to the ETF Action Classification System. Qualifying companies are weighted based on their OAMV and subject to a 5% single company cap.

Index Composition

Disruptive Tech Sectors



Market Development



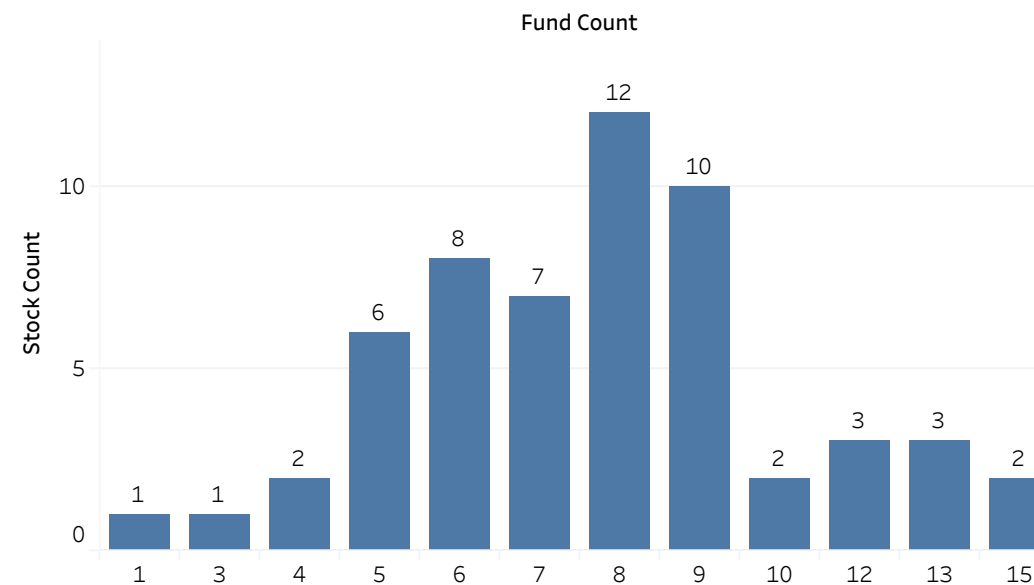
Market Cap

Large Cap	80.18%
Mid Cap	19.82%

Disruptive Tech Total Return*



ETF Universe Ownership of Portfolio Companies



Top 10 Holdings

Company	Sector	Weighting
Zscaler, Inc.	Information Technology	5.53%
Okta, Inc. Class A	Information Technology	4.70%
Palo Alto Networks, Inc.	Information Technology	4.40%
Cloudflare Inc Class A	Information Technology	4.39%
CrowdStrike Holdings, Inc. C..	Information Technology	3.86%
Cisco Systems, Inc.	Information Technology	3.76%
Twilio, Inc. Class A	Information Technology	3.25%
Qualys, Inc.	Information Technology	3.16%
Akamai Technologies, Inc.	Information Technology	3.11%
Splunk Inc.	Information Technology	3.02%
Top 10 Weighting		39.19%

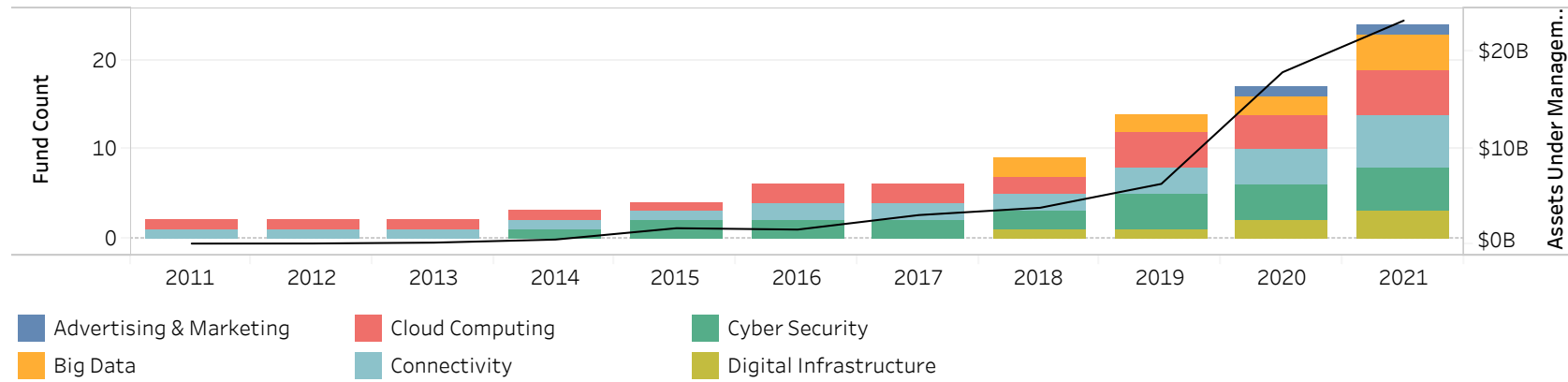
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Disruptive Tech Landscape, Performance & Overlap

DTASX As of 12/3/2021



Disruptive Tech Growth



Disruptive Tech Landscape AUM & Flows

Group	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Advertising & Marketing	1	\$3M	\$0M	\$0M	\$0M	\$2M
Big Data	5	\$289M	\$0M	\$34M	\$12M	\$126M
Broad-based	12	\$6,808M	(\$60M)	(\$731M)	(\$910M)	\$764M
Cloud Computing	5	\$9,060M	\$17M	\$84M	(\$182M)	(\$572M)
Connectivity	5	\$2,846M	(\$3M)	(\$70M)	(\$25M)	\$628M
Cyber Security	5	\$7,489M	\$54M	\$1,006M	\$2,034M	\$3,734M
Digital Infrastructure	3	\$1,243M	\$2M	(\$21M)	\$387M	\$402M
Grand Total	36	\$27,738M	\$11M	\$303M	\$1,316M	\$5,083M

Disruptive Tech Standardized Performance

	1 Month	3 Month	6 Month	YTD	1 Year	3 Year Annualized	5 Year Annualized	Inception*
Disruptive Tech	-10.99%	-8.00%	12.34%	10.47%	21.20%	26.81%		26.20%

Top 15 Disruptive Tech ETFs by AUM

ETF	Description	Category	Launch Date	AUM	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	All-Stars Overlap (#)	All-Stars Overlap (%)
SKYY	First Trust Cloud Computing ETF	Cloud Computing	July 5, 2011	\$6,194M	-12.24%	-9.76%	7.30%	13.37%	25.28%	25.04%	31	31.51%
CIBR	First Trust NASDAQ Cybersecurity ETF	Cyber Security	July 7, 2015	\$5,458M	-8.08%	-4.89%	12.63%	27.30%	25.61%	21.39%	24	55.92%
ARKW	ARK Next Generation Internet ETF	Broad-based	September 29, 2014	\$4,390M	-22.74%	-19.53%	-15.15%	-7.70%	36.99%	42.78%	9	14.43%
HACK	ETFMG Prime Cyber Security ETF	Cyber Security	November 11, 2014	\$2,230M	-10.84%	-10.90%	2.56%	14.89%	17.78%	18.09%	23	40.75%
SRVR	Pacer Benchmark Data & Infrastructure Real Estate SCTR ETF	Digital Infrastructure	May 15, 2018	\$1,540M	-2.69%	-6.88%	13.04%	15.29%	18.06%		6	8.85%
FIVG	Defiance Next Gen Connectivity ETF	Connectivity	March 4, 2019	\$1,333M	1.24%	3.10%	19.76%	23.65%			15	17.09%
CLOU	Global X Cloud Computing ETF	Cloud Computing	April 12, 2019	\$1,273M	-16.17%	-15.08%	-4.30%	3.61%			21	34.55%
WCLD	WisdomTree Cloud Computing Fund	Cloud Computing	September 6, 2019	\$1,226M	-18.91%	-19.15%	-4.83%	4.04%			23	30.13%
BUG	Global X Cybersecurity ETF	Cyber Security	October 25, 2019	\$1,112M	-10.01%	-9.83%	6.27%	28.30%			15	38.70%
NXTG	First Trust Indxx NextG ETF	Connectivity	February 17, 2011	\$1,050M	1.04%	-0.21%	16.03%	21.46%	20.64%	16.29%	13	14.43%
IHAK	iShares Cybersecurity & Tech ETF	Cyber Security	June 11, 2019	\$695M	-10.60%	-9.12%	5.38%	19.43%			20	45.40%
SNSR	Global X Internet of Things ETF	Connectivity	September 12, 2016	\$521M	-4.37%	-3.18%	17.78%	22.57%	27.83%	20.50%	2	3.16%
XITK	SPDR FactSet Innovative Technology ETF	Broad-based	January 13, 2016	\$282M	-19.31%	-20.05%	-13.39%	-5.76%	26.68%	27.05%	28	30.96%
AIQ	Global X Artificial Intelligence & Technology ETF	Big Data	May 11, 2018	\$185M	-4.65%	-3.54%	13.29%	17.72%	29.28%		17	18.56%
QTUM	Defiance Quantum ETF	Big Data	September 5, 2018	\$169M	-1.84%	3.19%	30.50%	35.97%	34.99%		8	8.56%

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ETF All-Stars Evolving Consumer Index

ECASX As of 12/3/2021



Evolving Consumer ETF Universe

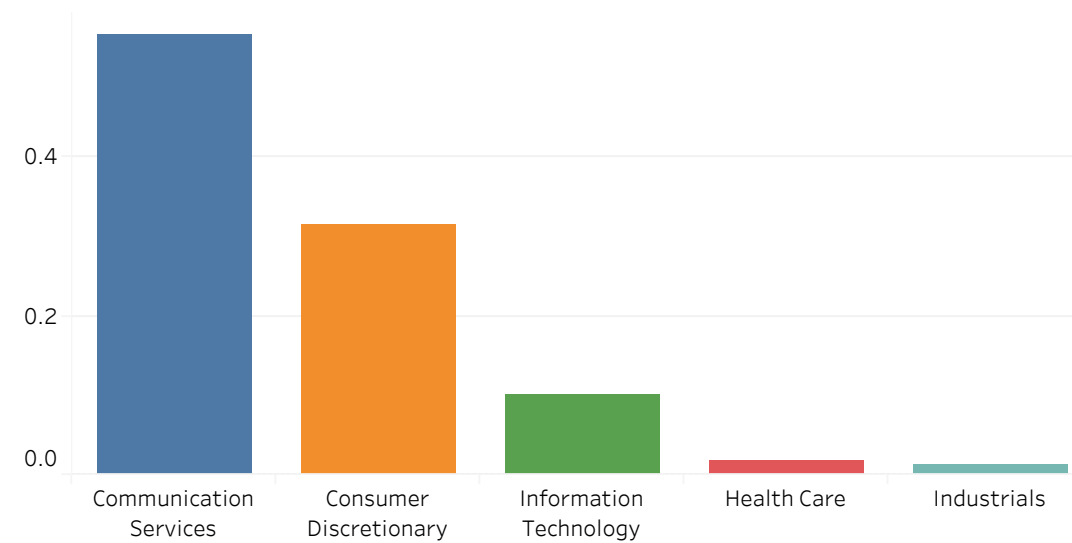
Fund Count	22
Assets Under Management	\$3.64B
Unique Universe Companies	966
All-Star Portfolio Holdings	54

Index Description:

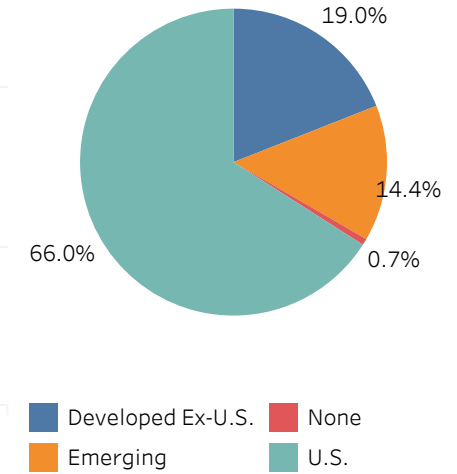
The index is designed to track 75% of the Ownership Adjusted market Value (OAMV) of all companies held by ETFs classified within the Evolving Consumer segment according to the ETF Action Classification System. Qualifying companies are weighted based on their OAMV and subject to a 5% single company cap.

Index Composition

Evolving Consumer Sectors



Market Development



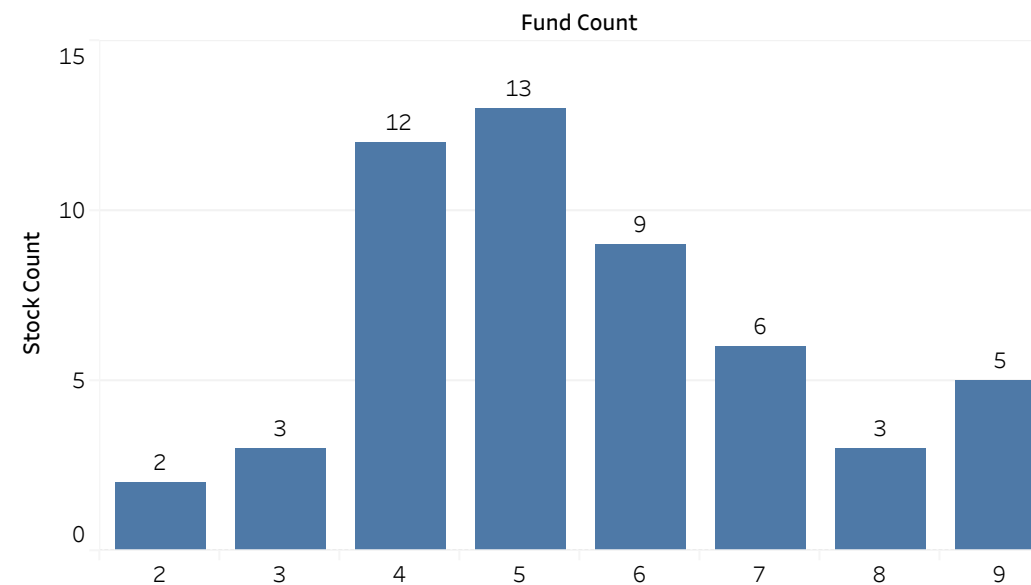
Market Cap

Market Cap	Percentage
Large Cap	89.83%
Mid Cap	8.41%
Small Cap	1.76%

Evolving Consumer Total Return*



ETF Universe Ownership of Portfolio Companies



Top 10 Holdings

Company	Sector	Percentage
NVIDIA Corporation	Information Technology	6.70%
NetEase, Inc. Sponsored ADR	Communication Services	5.81%
Amazon.com, Inc.	Consumer Discretionary	5.33%
Sea Ltd. (Singapore) Sponso..	Communication Services	3.98%
Activision Blizzard, Inc.	Communication Services	3.89%
Tencent Holdings Ltd. Unspo..	Communication Services	3.72%
eBay Inc.	Consumer Discretionary	3.24%
Meta Platforms Inc. Class A	Communication Services	3.20%
Electronic Arts Inc.	Communication Services	3.07%
Bilibili, Inc. Sponsored ADR ..	Communication Services	2.99%
Grand Total		41.93%

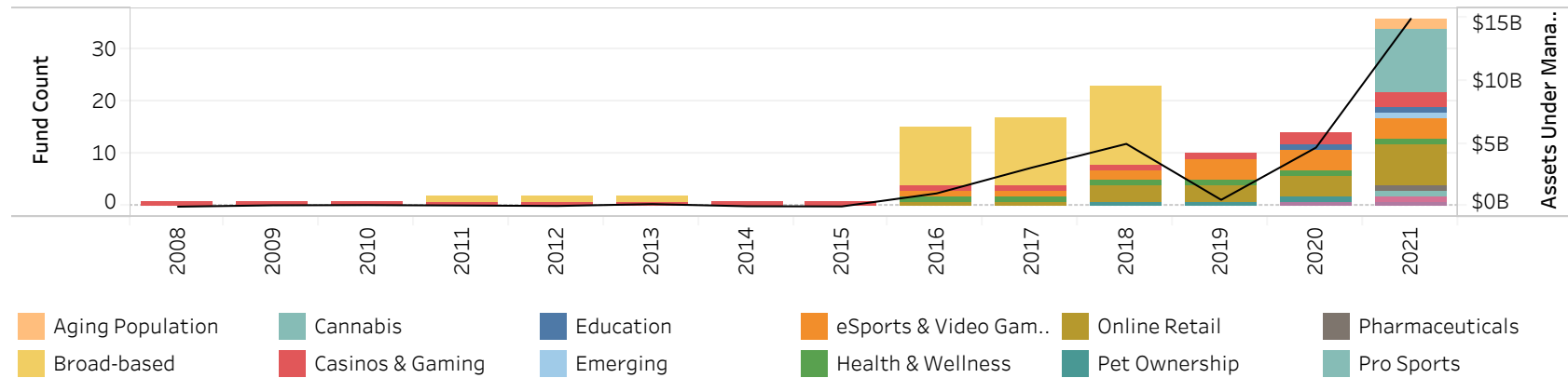
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Evolving Consumer Landscape, Performance & Overlap

ECASX As of 12/3/2021



Evolving Consumer Growth



Evolving Consumer Landscape AUM & Flows

Group	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Aging Population	1	\$25M	\$0M	\$0M	\$23M	\$25M
Broad-based	6	\$830M	(\$6M)	(\$21M)	(\$11M)	\$219M
Casinos & Gaming	3	\$573M	(\$1M)	(\$57M)	(\$107M)	\$182M
Education	1	\$13M	\$0M	\$0M	(\$3M)	\$7M
eSports & Video Games	4	\$1,677M	\$0M	(\$161M)	(\$298M)	(\$84M)
Health & Wellness	1	\$38M	\$0M	\$2M	\$9M	\$16M
Online Retail	4	\$2,698M	(\$7M)	(\$268M)	(\$455M)	(\$285M)
Pet Ownership	1	\$325M	\$0M	\$9M	\$36M	\$134M
Pharmaceuticals	1	\$10M	\$0M	\$8M	\$8M	\$8M
Pro Sports	1	\$36M	\$0M	(\$3M)	(\$4M)	\$6M
Streaming Services	1	\$36M	\$0M	(\$4M)	(\$8M)	\$38M
Travel Tech	1	\$382M	(\$21M)	\$30M	(\$10M)	\$288M
Grand Total	25	\$6,609M	(\$36M)	(\$465M)	(\$821M)	\$554M

Evolving Consumer Standardized Performance

	1 Month	3 Month	6 Month	YTD	1 Year	3 Year Annualized	5 Year Annualized	Inception*
Evolving Consumer	-8.30%	-9.21%	-8.37%	-0.82%	7.00%	27.98%		26.13%

Top 15 Evolving Consumer ETFs by AUM

ETF	Description	Category	Launch Date	AUM	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	All-Stars Overlap (#)	All-Stars Overlap (%)
IBUY	Amplify Online Retail ETF	Online Retail	April 20, 2016	\$733M	-18.84%	-21.85%	-20.81%	-13.12%	25.77%	27.47%	26	29.97%
ONLN	ProShares Online Retail ETF	Online Retail	July 13, 2018	\$700M	-16.19%	-18.17%	-23.12%	-18.64%	19.15%		15	28.26%
ESPO	VanEck Video Gaming and eSports ETF	eSports & Video Games	October 16, 2018	\$647M	-0.99%	-1.66%	-1.01%	5.47%	34.55%		20	48.48%
HERO	Global X Video Games & Esports ETF	eSports & Video Games	October 25, 2019	\$472M	-5.60%	-8.97%	-8.72%	0.07%			17	44.07%
SOCL	Global X Social Media ETF	Broad-based	November 14, 2011	\$352M	-13.13%	-19.88%	-13.06%	-7.98%	21.36%	19.44%	11	21.36%
BETZ	Roundhill Sports Betting & iGaming ETF	Casinos & Gaming	June 4, 2020	\$280M	-23.65%	-26.99%	-10.41%	-4.08%			1	0.47%
MILN	Global X Millennial Consumer ETF	Broad-based	May 4, 2016	\$224M	-7.65%	-7.16%	12.00%	16.89%	24.59%	22.50%	21	27.30%
EBIZ	Global X E-Commerce ETF	Online Retail	November 27, 2018	\$179M	-13.65%	-16.17%	-14.33%	-11.42%	20.16%		16	28.80%
GAMR	Wedbush ETFMG Video Game Tech ETF	eSports & Video Games	March 8, 2016	\$103M	-4.24%	-3.19%	12.57%	18.90%	29.77%	25.51%	21	24.60%
GENY	Principal Millennials ETF	Broad-based	August 19, 2016	\$94M	-8.96%	-10.85%	0.05%	4.01%	19.79%	19.65%	24	18.38%
BJK	VanEck Gaming ETF	Casinos & Gaming	January 22, 2008	\$86M	-17.72%	-21.14%	-12.08%	-8.88%	5.07%	5.04%	1	0.47%
NERD	Roundhill BITKRAFT Esports & Digital Entertainment ETF	eSports & Video Games	June 4, 2019	\$68M	-9.23%	-14.10%	-17.64%	-11.78%			15	33.88%
BFIT	Global X Health & Wellness ETF	Health & Wellness	May 9, 2016	\$40M	-7.88%	-10.00%	8.95%	13.03%	14.31%	14.83%		
BUYZ	Franklin Disruptive Commerce ETF	Online Retail	February 25, 2020	\$31M	-18.14%	-22.58%	-18.61%	-13.70%			21	29.45%
HLGE	Hartford Longevity Economy ETF	Aging Population	March 16, 2021	\$26M	-3.83%	-2.46%					24	9.44%

Index First Value Date is Dec 31 2016. The index Launch Date is Jun 11 2021. All information for an index prior to its Launch Date is hypothetical back-tested, not actual performance, based on the index methodology in effect on the Launch Date.

ETF All-Stars FinTech Index

FXASX As of 12/3/2021



FinTech ETF Universe

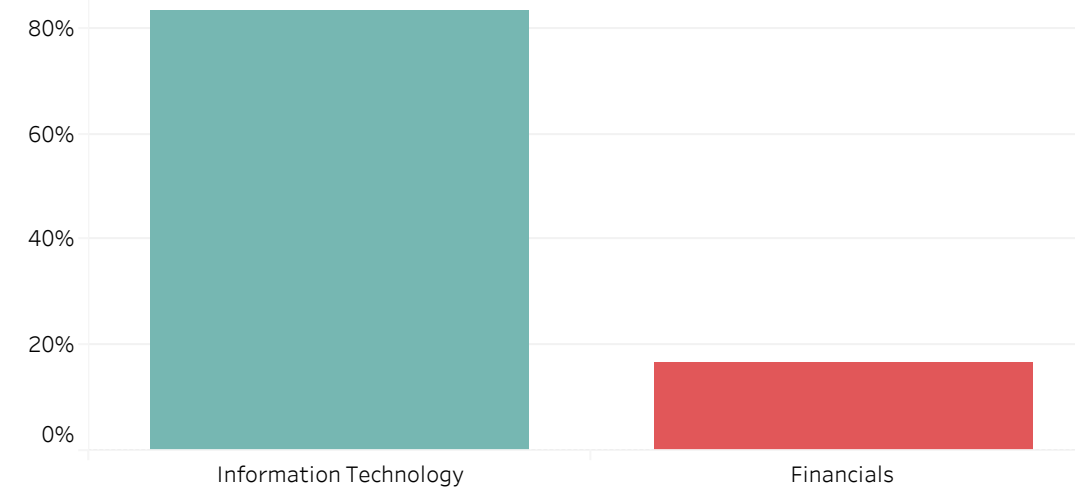
Fund Count	16
Assets Under Management	\$7.32B
Unique Universe Companies	314
All-Star Portfolio Holdings	25

Index Description:

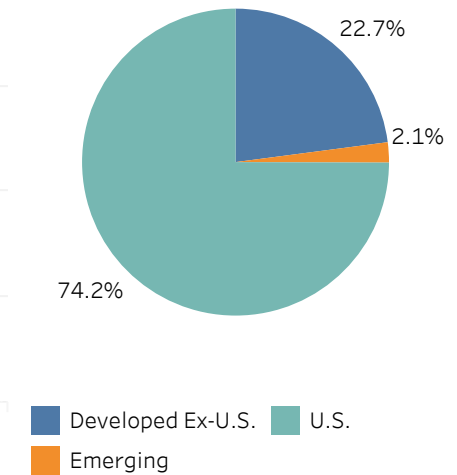
The index is designed to track 75% of the Ownership Adjusted market Value (OAMV) of all companies held by ETFs classified within the FinTech segment according to the ETF Action Classification System. Qualifying companies are weighted based on their OAMV and subject to a 5% single company cap.

Index Composition

FinTech Sectors



Market Development



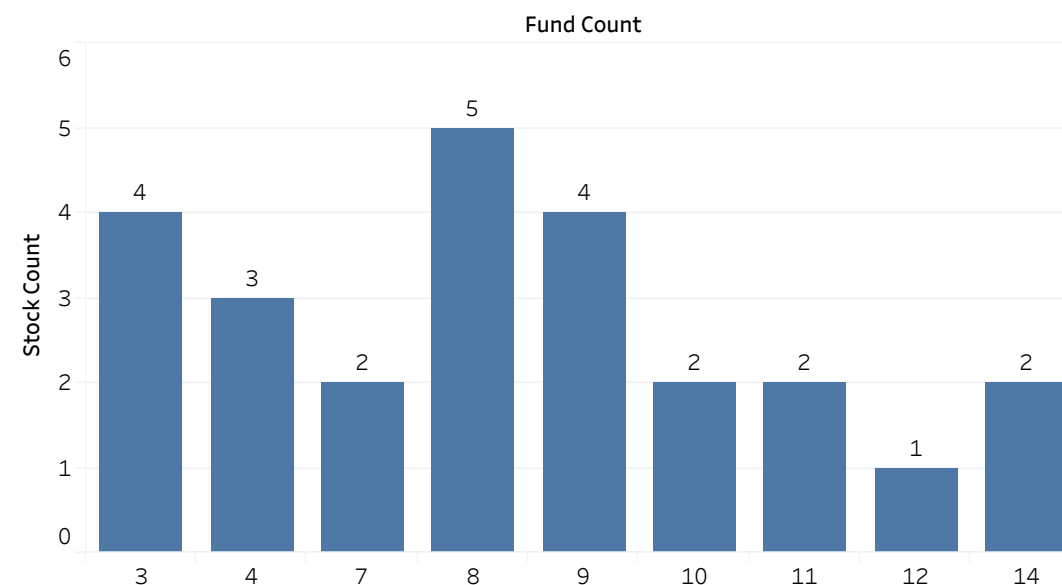
Market Cap

Market Cap	Percentage
Large Cap	51.06%
Mid Cap	28.64%
Small Cap	20.30%

FinTech Total Return*



ETF Universe Ownership of Portfolio Companies



Top 10 Holdings

Company	Sector	Percentage
NVIDIA Corporation	Information Technology	6.74%
Silvergate Capital Corp. Clas..	Financials	5.99%
Bitfarms Ltd.	Information Technology	5.72%
Riot Blockchain Inc	Information Technology	5.40%
Mastercard Incorporated Cl..	Information Technology	5.15%
Visa Inc. Class A	Information Technology	4.88%
HIVE Blockchain Technologi..	Information Technology	4.81%
MicroStrategy Incorporated ..	Information Technology	4.74%
Coinbase Global, Inc. Class A	Financials	4.58%
Adyen NV	Information Technology	4.49%
Grand Total		52.50%

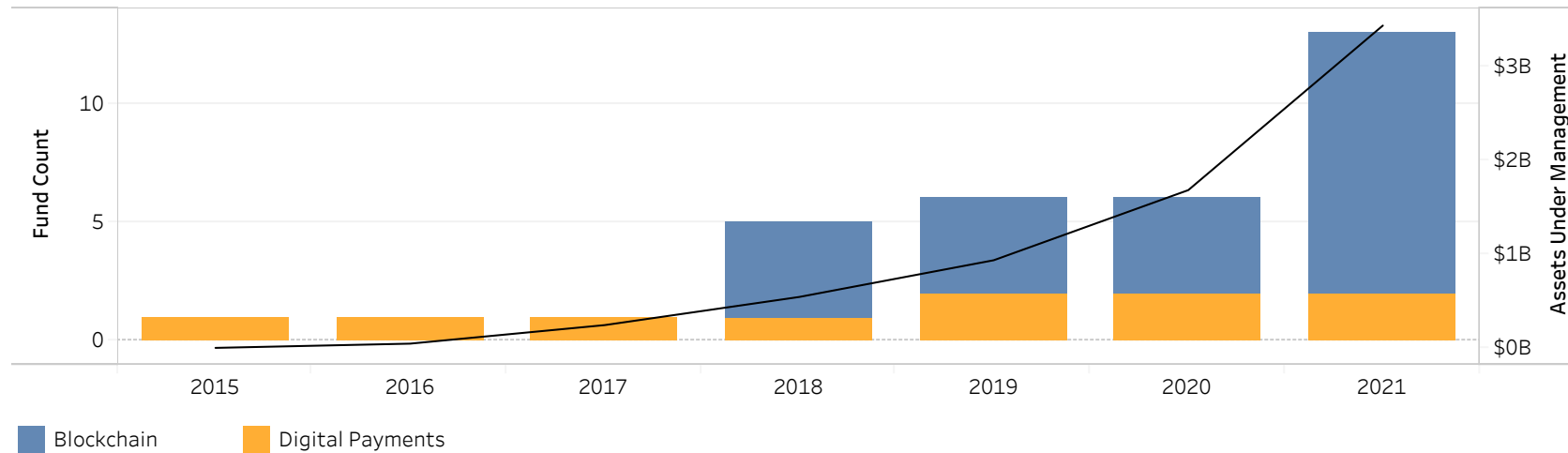
Index First Value Date is Dec 31 2016. The index Launch Date is Jun 11 2021. All information for an index prior to its Launch Date is hypothetical back-tested, not actual performance, based on the index methodology in effect on the Launch Date.

FinTech Landscape, Performance & Overlap

FXASX As of 12/3/2021



FinTech Growth



FinTech Landscape AUM & Flows

Group	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Blockchain	11	\$1,714M	\$66M	\$457M	\$620M	\$1,650M
Broad-based	3	\$5,263M	(\$54M)	(\$358M)	(\$600M)	\$2,327M
Digital Payments	2	\$1,277M	\$0M	(\$26M)	(\$48M)	\$159M
Grand Total	16	\$8,254M	\$12M	\$73M	(\$27M)	\$4,136M

FinTech Standardized Performance

	1 Month	3 Month	6 Month	YTD	1 Year	3 Year Annualized	5 Year Annualized	Inception*
FinTech	-18.33%	-9.51%	5.90%	4.73%	10.30%	21.90%		24.14%

Top FinTech ETFs by AUM

ETF	Description	Category	Launch Date	AUM	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	All-Stars Overlap (#)	All-Stars Overlap (%)
ARKF	ARK Fintech Innovation ETF	Broad-based	February 4, 2019	\$2,643M	-21.72%	-24.10%	-15.97%	-10.57%			7	20.37%
BLOK	Amplify Transformational Data Sharing ETF	Blockchain	January 16, 2018	\$1,559M	-17.28%	-5.46%	42.14%	66.21%	45.13%		18	55.69%
FINX	Global X FinTech ETF	Broad-based	September 12, 2016	\$1,253M	-18.14%	-18.83%	-9.27%	-1.19%	19.41%	23.95%	14	34.08%
IPAY	ETFMG Prime Mobile Payments ETF	Digital Payments	July 15, 2015	\$996M	-13.36%	-21.66%	-15.57%	-9.59%	12.80%	17.97%	10	33.61%
BLCN	Siren ETF Trust Siren Nasdaq NexGen Economy ETF	Blockchain	January 17, 2018	\$284M	-13.69%	-8.70%	9.26%	14.78%	27.98%		13	30.48%
LEGR	First Trust Indxx Innovative Transaction & Process ETF	Blockchain	January 24, 2018	\$139M	-5.77%	-4.07%	13.48%	16.86%	16.43%		5	6.26%
BKCH	Global X Blockchain ETF	Blockchain	July 12, 2021	\$131M	-23.74%	-14.01%					12	42.41%
BITQ	Bitwise Crypto Industry Innovators ETF	Blockchain	May 11, 2021	\$130M	-21.74%	-10.31%					15	52.19%
DAPP	VanEck Digital Transformation ETF	Blockchain	April 12, 2021	\$64M	-25.55%	-19.57%					10	41.61%
CRPT	First Trust SkyBridge Crypto Industry and Digital Economy ETF	Blockchain	September 20, 2021	\$46M	-21.99%						16	52.32%
KOIN	Capital Link NextGen Protocol ETF	Blockchain	January 30, 2018	\$31M	-4.35%	-2.98%	14.61%	18.54%	21.71%		7	22.42%
RIGZ	Viridi Cleaner Energy Crypto-Mining & Semiconductor ETF	Blockchain	July 20, 2021	\$21M	-22.30%	-6.73%					9	38.61%
TPAY	Ecofin Digital Payments Infrastructure Fund	Digital Payments	January 31, 2019	\$11M	-16.38%	-23.08%	-18.82%	-13.33%			10	32.99%
SATO	Invesco Alerian Galaxy Crypto Economy ETF	Blockchain	October 7, 2021	\$11M	-21.28%						16	36.64%
BLKC	Invesco Alerian Galaxy Blockchain Users and Decentralized Comm..	Blockchain	October 7, 2021	\$5M	-14.18%						18	23.47%

Index First Value Date is Dec 31 2016. The index Launch Date is Jun 11 2021. All information for an index prior to its Launch Date is hypothetical back-tested, not actual performance, based on the index methodology in effect on the Launch Date.

ETF All-Stars Health Innovation Index

HIASX As of 12/3/2021



Health Innovation ETF Universe

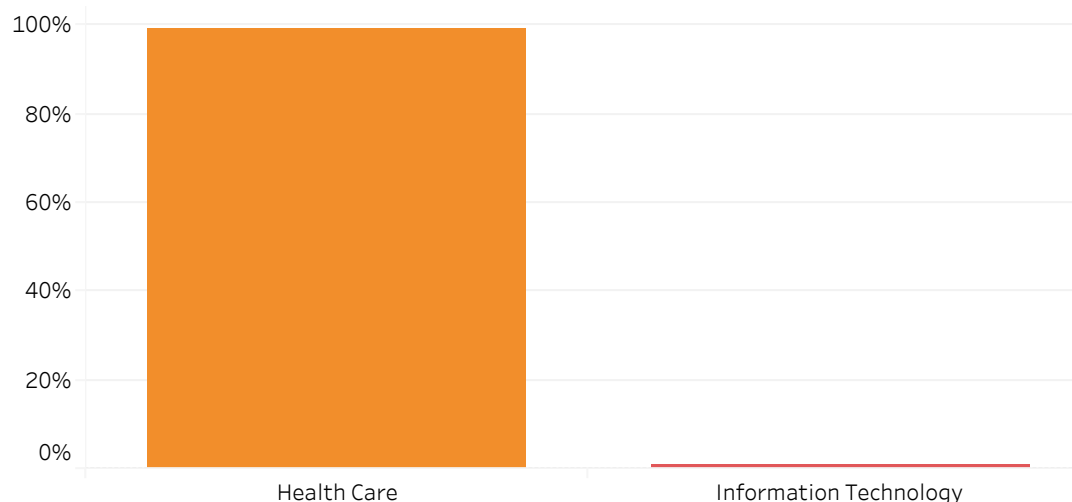
Fund Count	16
Assets Under Management	\$7.12B
Unique Universe Companies	713
All-Star Portfolio Holdings	56

Index Description:

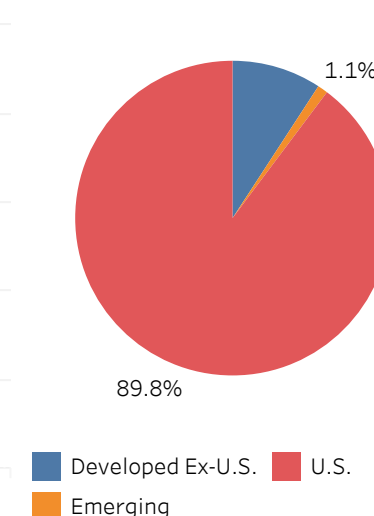
The index is designed to track 75% of the Ownership Adjusted market Value (OAMV) of all companies held by ETFs classified within the Health Innovation segment according to the ETF Action Classification System. Qualifying companies are weighted based on their OAMV and subject to a 5% single company cap.

Index Composition

Health Innovation Sectors



Market Development



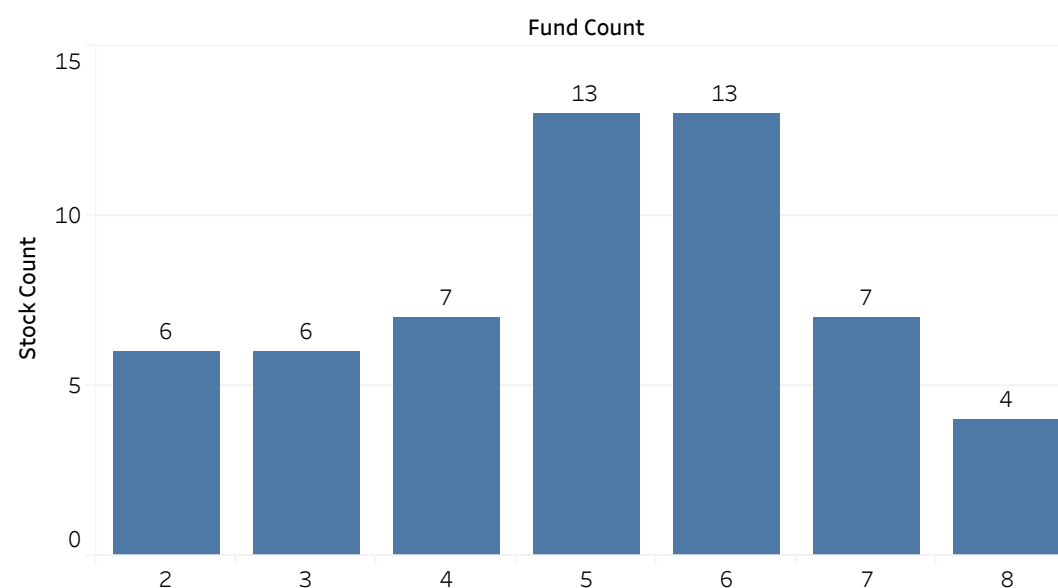
Market Cap

Market Cap	Percentage
Large Cap	42.85%
Mid Cap	50.23%
Small Cap	6.92%

Health Innovation Total Return*



ETF Universe Ownership of Portfolio Companies



Top 10 Holdings

Company	Sector	Weighting
Fate Therapeutics, Inc.	Health Care	4.86%
Intellia Therapeutics, Inc.	Health Care	4.58%
Regeneron Pharmaceuticals, Inc.	Health Care	4.58%
CRISPR Therapeutics AG	Health Care	4.11%
Teladoc Health, Inc.	Health Care	3.92%
Invitae Corp.	Health Care	3.28%
Vertex Pharmaceuticals Inc.	Health Care	3.26%
Veracyte Inc	Health Care	3.21%
Pacific Biosciences of California, Inc.	Health Care	3.20%
Agilent Technologies, Inc.	Health Care	3.11%
Top 10 Weighting		38.11%

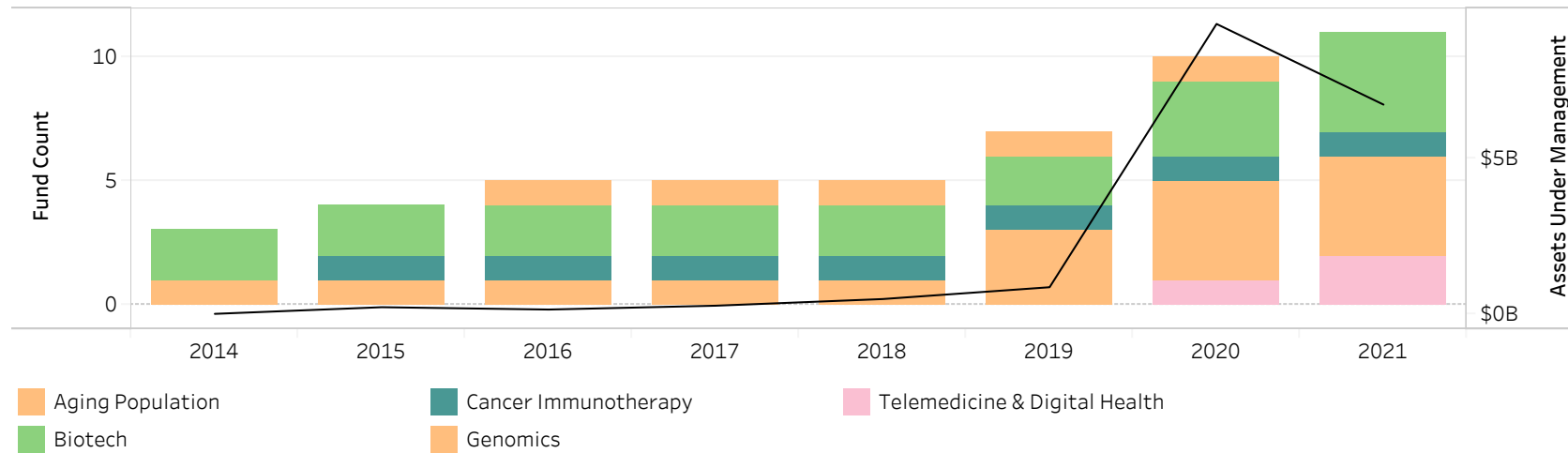
Index First Value Date is Dec 31 2016. The index Launch Date is Jun 11 2021. All information for an index prior to its Launch Date is hypothetical back-tested, not actual performance, based on the index methodology in effect on the Launch Date.

Health Innovation Landscape, Performance & Overlap

HIASX As of 12/3/2021



Health Care Innovation Growth



Health Innovation Landscape AUM & Flows

Group	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Aging Population	1	\$60M	\$0M	\$3M	\$21M	\$18M
Biotech	4	\$338M	\$0M	(\$11M)	(\$20M)	(\$40M)
Broad-based	4	\$424M	(\$7M)	(\$13M)	(\$8M)	\$134M
Cancer Immunotherapy	1	\$49M	\$0M	(\$3M)	(\$4M)	(\$4M)
Genomics	4	\$10,382M	(\$61M)	(\$888M)	(\$940M)	\$4,705M
Telemedicine & Digital Health	2	\$748M	(\$6M)	(\$78M)	(\$183M)	\$71M
Grand Total	16	\$12,002M	(\$74M)	(\$990M)	(\$1,136M)	\$4,884M

Health Innovation Standardized Performance

	1 Month	3 Month	6 Month	YTD	1 Year	3 Year Annualized	5 Year Annualized	Inception*
Health Care Innovation	-19.40%	-26.39%	-12.90%	-24.68%	-20.80%	16.31%		16.27%

Top Health Innovation ETFs by AUM

ETF	Description	Category	Launch Date	AUM	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	All-Stars Overlap (#)	All-Stars Overlap (%)
ARKG	ARK Genomic Revolution ETF	Genomics	October 31, 2014	\$5,316M	-25.41%	-33.13%	-37.39%	-31.65%	26.39%	28.95%	27	48.81%
EDOC	Global X Telemedicine & Digital Health ETF	Telemedicine & Digital Heal..	July 29, 2020	\$466M	-16.52%	-16.60%	-18.46%	-14.35%			16	26.92%
IDNA	iShares Genomics Immunology and Healthcare ETF	Genomics Imm..	June 11, 2019	\$343M	-13.50%	-19.44%	-3.21%	-2.90%			19	35.62%
GNOM	Global X Genomics & Biotechnology ETF	Genomics	April 5, 2019	\$251M	-12.80%	-21.76%	-17.78%	-11.19%			22	41.67%
HTEC	ROBO Global Healthcare Technology and Innovation ETF	Broad-based	June 24, 2019	\$218M	-14.96%	-17.31%	-5.49%	1.80%			25	25.98%
BTEC	Principal Healthcare Innovators ETF	Broad-based	August 19, 2016	\$100M	-20.81%	-22.90%	-22.99%	-19.50%	11.59%	13.53%	37	25.57%
AGNG	Global X Aging Population ETF	Aging Population	May 9, 2016	\$60M	-10.53%	-12.60%	-2.20%	1.52%	10.16%	13.64%	9	10.94%
CNCR	Loncar Cancer Immunotherapy ETF	Cancer Immunotherapy	October 13, 2015	\$35M	-16.50%	-18.64%	-19.73%	-20.04%	5.41%	2.93%	8	14.57%
BBC	Virtus LifeSci Biotech Clinical Trials ETF	Biotech	December 16, 2014	\$34M	-20.80%	-21.25%	-23.50%	-18.09%	10.52%	14.50%	9	5.58%
HELX	Franklin Genomic Advancements ETF	Genomics	February 25, 2020	\$27M	-11.78%	-18.46%	6.86%	15.64%			17	22.30%
GDOC	Goldman Sachs Future Health Care Equity ETF	Broad-based	November 9, 2021	\$12M							11	13.86%
FDHT	Fidelity Digital Health ETF	Telemedicine & Digital Heal..	October 5, 2021	\$10M	-12.76%						8	11.19%
BMED	Future Health ETF	Broad-based	September 29, 2020	\$7M	-10.91%	-13.08%	-10.28%	-3.01%			21	17.09%
WDNA	WisdomTree BioRevolution Fund	Biotech	June 3, 2021	\$2M	-14.16%	-17.46%					37	29.20%

Index First Value Date is Dec 31 2016. The index Launch Date is Jun 11 2021. All information for an index prior to its Launch Date is hypothetical back-tested, not actual performance, based on the index methodology in effect on the Launch Date.

ETF All-Stars Industrial Revolution Index

IRASX As of 12/3/2021



Industrial Revolution ETF Universe

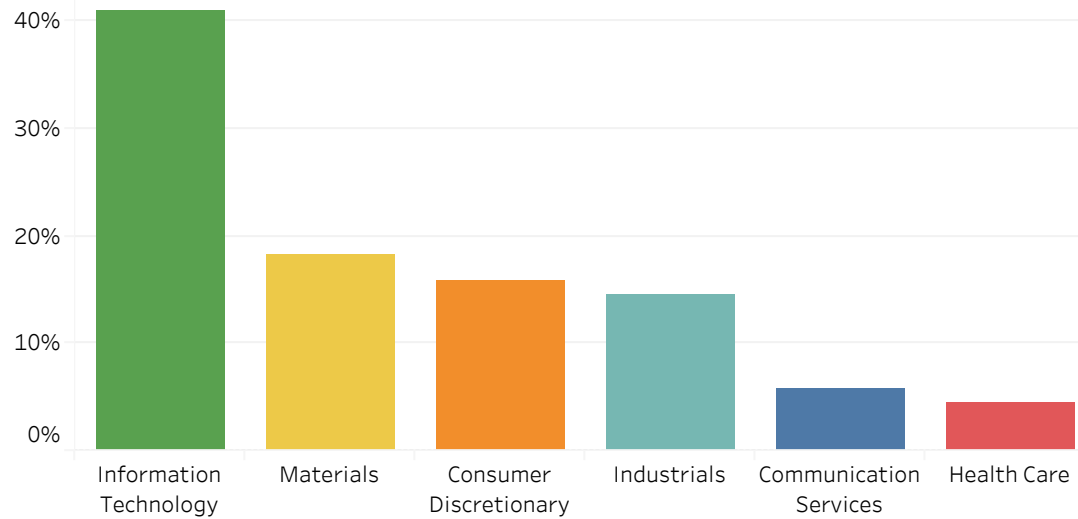
Fund Count	23
Assets Under Management	\$18.63B
Unique Universe Companies	717
All-Star Portfolio Holdings	55

Index Description:

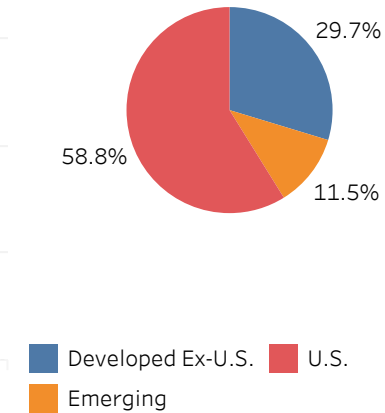
The index is designed to track 75% of the Ownership Adjusted market Value (OAMV) of all companies held by ETFs classified within the Industrial Revolution segment according to the ETF Action Classification System. Qualifying companies are weighted based on their OAMV and subject to a 5% single company cap.

Index Composition

Industrial Revolution Sectors



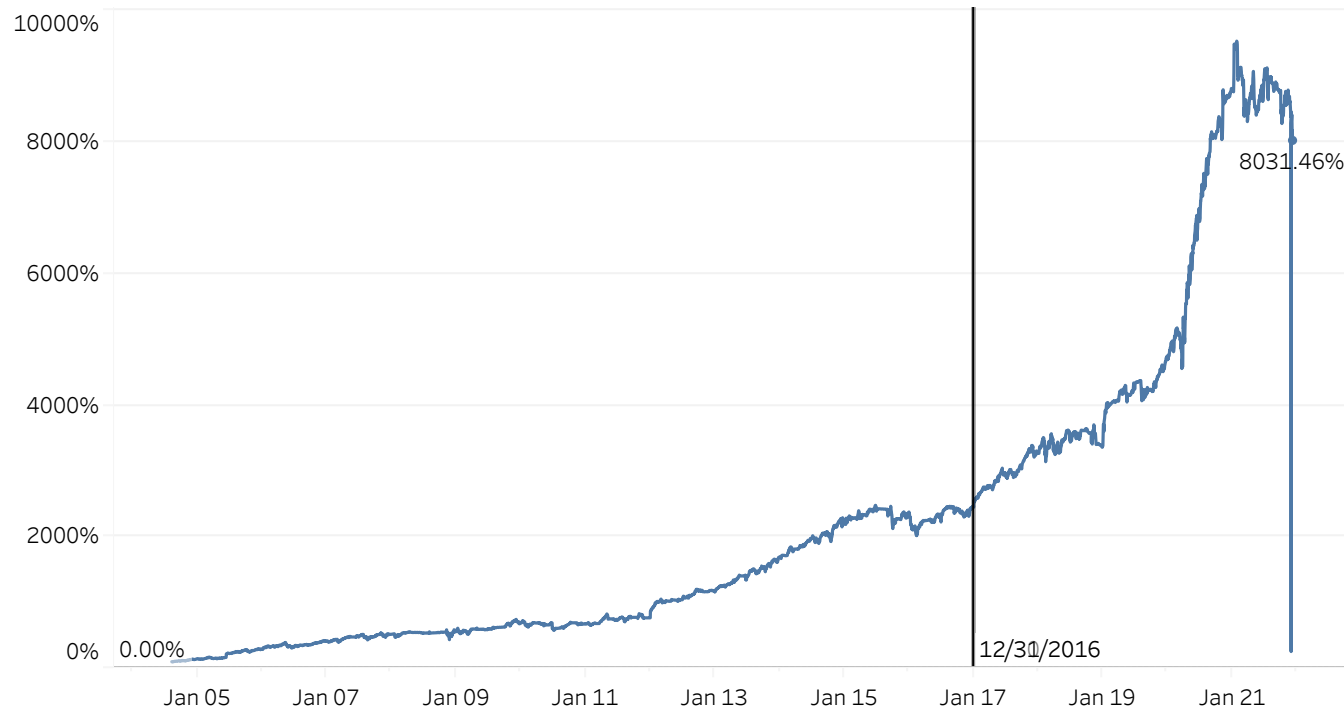
Market Development



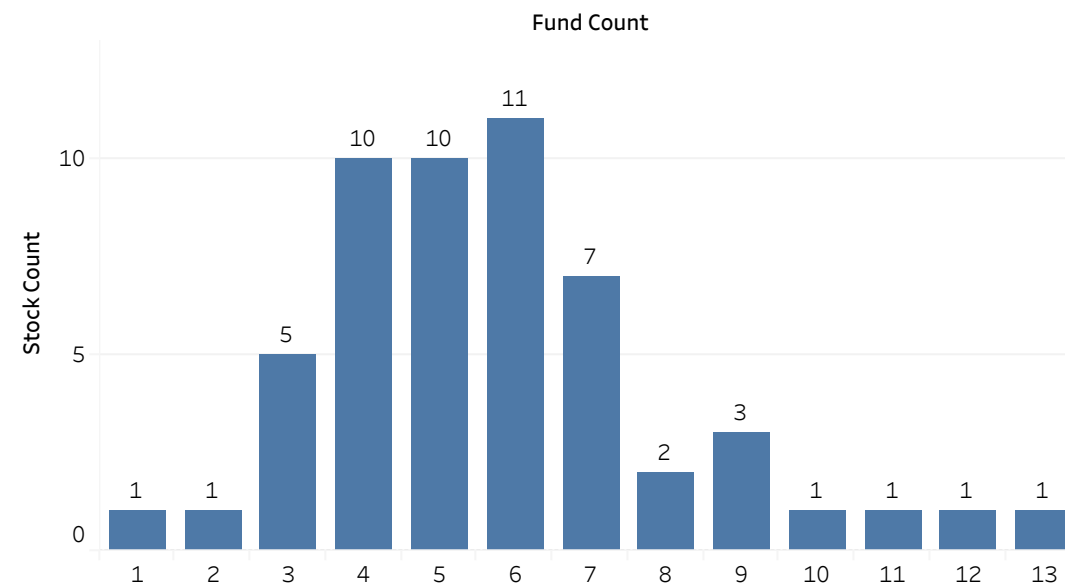
Market Cap

Market Cap	Percentage
Large Cap	76.87%
Mid Cap	18.91%
Small Cap	4.22%

Industrial Revolution Total Return*



ETF Universe Ownership of Portfolio Companies



Top 10 Holdings

Company	Sector	Percentage
NVIDIA Corporation	Information Technology	6.30%
Albemarle Corporation	Materials	5.44%
Tesla Inc	Consumer Discretionary	4.90%
Trimble Inc.	Information Technology	4.90%
Ganfeng Lithium Co., Ltd. Cl..	Materials	4.12%
Intuitive Surgical, Inc.	Health Care	3.69%
ABB Ltd.	Industrials	3.27%
Alphabet Inc. Class C	Communication Services	3.11%
BYD Company Limited Unsp..	Consumer Discretionary	2.61%
Keyence Corporation	Information Technology	2.47%
Grand Total		40.81%

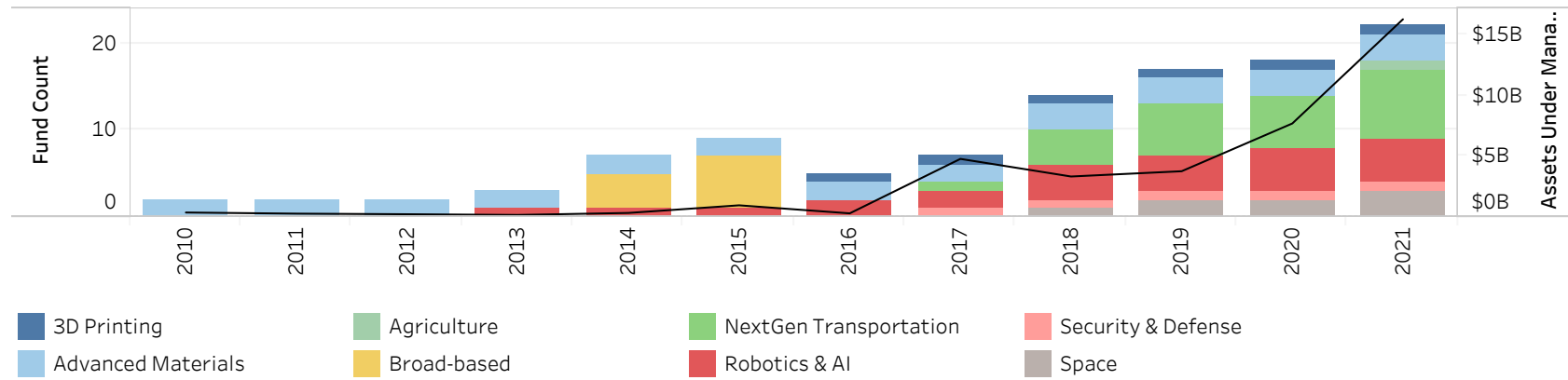
Index First Value Date is Dec 31 2016. The index Launch Date is Jun 11 2021. All information for an index prior to its Launch Date is hypothetical back-tested, not actual performance, based on the index methodology in effect on the Launch Date.

Industrial Revolution Landscape, Performance & Overlap

IRASX As of 12/3/2021



Industrial Revolution Growth



Industrial Revolution Landscape AUM & Flows

Group	Funds	AUM	1 Week	3 Month	6 Month	1 Year
3D Printing	1	\$555M	(\$7M)	(\$51M)	(\$83M)	\$412M
Advanced Materials	3	\$4,564M	\$78M	\$827M	\$1,461M	\$3,492M
Agriculture	1	\$0M	\$0M	\$4M	\$7M	\$7M
Broad-based	1	\$3,068M	(\$28M)	(\$266M)	(\$516M)	\$1,242M
NextGen Transportation	8	\$1,858M	\$15M	\$320M	\$562M	\$1,799M
Robotics & AI	6	\$5,083M	\$0M	\$105M	\$73M	\$540M
Security & Defense	1	\$27M	\$0M	\$3M	\$0M	\$5M
Space	3	\$782M	(\$3M)	(\$64M)	(\$109M)	\$618M
Grand Total	24	\$15,938M	\$55M	\$876M	\$1,395M	\$8,114M

Industrial Revolution Standardized Performance

	1 Month	3 Month	6 Month	YTD	1 Year	3 Year Annualized	5 Year Annualized	Inception*
Industrial Revolution	-5.06%	-0.57%	15.54%	27.87%	38.52%	32.34%		28.15%

Top 15 Industrial Revolution ETFs by AUM

ETF	Description	Category	Launch Date	AUM	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	All-Stars Overlap (#)	All-Stars Overlap (%)
LIT	Global X Lithium & Battery Tech ETF	Advanced Materials	July 22, 2010	\$5,981M	-4.24%	7.86%	43.76%	70.13%	42.67%	31.94%	9	21.50%
BOTZ	Global X Robotics & Artificial Intelligence ETF	Robotics & AI	September 12, 2016	\$2,683M	-8.98%	-7.75%	7.26%	9.86%	21.96%	19.73%	14	25.79%
ARKQ	ARK Autonomous Technology & Robotics ETF	Broad-based	September 30, 2014	\$2,384M	-12.38%	-9.26%	1.78%	12.07%	33.43%	31.29%	18	31.30%
ROBO	ROBO Global Robotics & Automation Index ETF	Robotics & AI	October 22, 2013	\$1,905M	-5.73%	-3.28%	10.58%	17.88%	21.46%	19.33%	24	27.35%
DRIV	Global X Autonomous & Electric Vehicles ETF	NextGen Transportation	April 13, 2018	\$1,321M	-4.90%	3.02%	24.24%	33.77%	32.01%		21	31.65%
REMX	VanEck Rare Earth/Strategic Metals ETF	Advanced Materials	October 27, 2010	\$1,127M	-1.17%	0.74%	74.63%	108.25%	32.29%	21.32%	4	9.90%
IDRV	iShares Self-driving EV & Tech ETF	NextGen Transportation	April 16, 2019	\$576M	-1.14%	6.78%	24.75%	31.08%			19	30.34%
ARKX	ARK Space Exploration & Innovation ETF	Space	March 30, 2021	\$487M	-9.67%	-11.80%					13	22.08%
IRBO	iShares Robotics and Artificial Intelligence Multisector ETF	Robotics & AI	June 26, 2018	\$438M	-9.50%	-8.05%	5.46%	11.53%	23.53%		19	18.98%
PRNT	3D Printing ETF	3D Printing	July 19, 2016	\$407M	-14.58%	-17.06%	5.34%	11.69%	13.92%	10.17%	10	13.37%
KARS	KraneShares Electric Vehicles & Future Mobility Index ETF	NextGen Transportation	January 18, 2018	\$350M	-4.61%	7.94%	26.97%	34.89%	37.05%		15	21.58%
ROBT	First Trust Nasdaq Artificial Intelligence & Robotics ETF	Robotics & AI	February 21, 2018	\$284M	-6.68%	-7.10%	6.60%	12.43%	22.34%		31	24.52%
BATT	Amplify Lithium & Battery Technology ETF	Advanced Materials	June 6, 2018	\$255M	-6.24%	5.02%	17.84%	34.42%	12.50%		12	18.72%
HAIL	SPDR S&P Kensho Smart Mobility ETF	NextGen Transportation	December 26, 2017	\$185M	-9.37%	-0.45%	3.77%	12.42%	29.13%		11	17.17%
UFO	Procore Space ETF	Space	April 11, 2019	\$110M	-14.32%	-15.18%	5.42%	6.93%			3	8.25%

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ETF All-Stars Sustainability Index

SUASX As of 12/3/2021



Sustainability ETF Universe

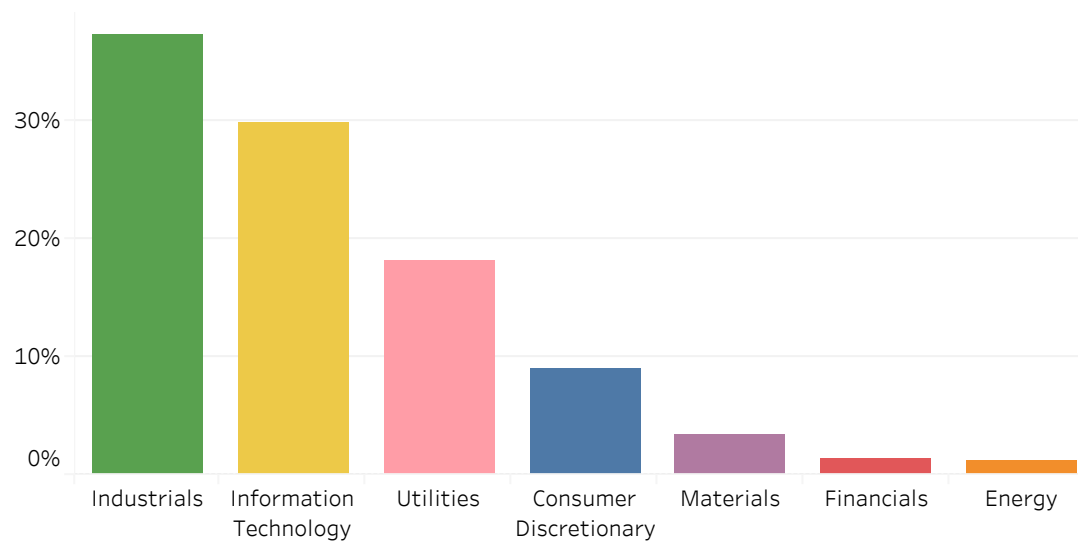
Fund Count	34
Assets Under Management	\$23.99B
Unique Universe Companies	747
All-Star Portfolio Holdings	42

Index Description:

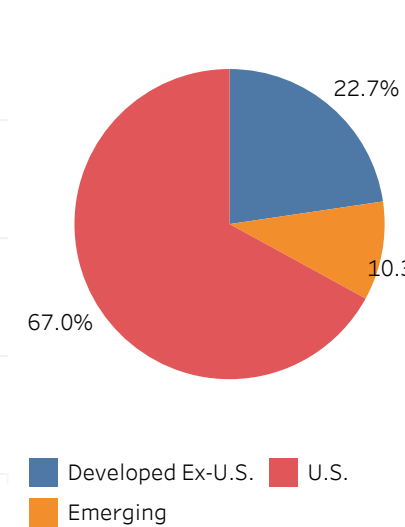
The index is designed to track 75% of the Ownership Adjusted market Value (OAMV) of all companies held by ETFs classified within the Sustainability segment according to the ETF Action Classification System. Qualifying companies are weighted based on their OAMV and subject to a 5% single company cap.

Index Composition

Sustainability Sectors



Market Development



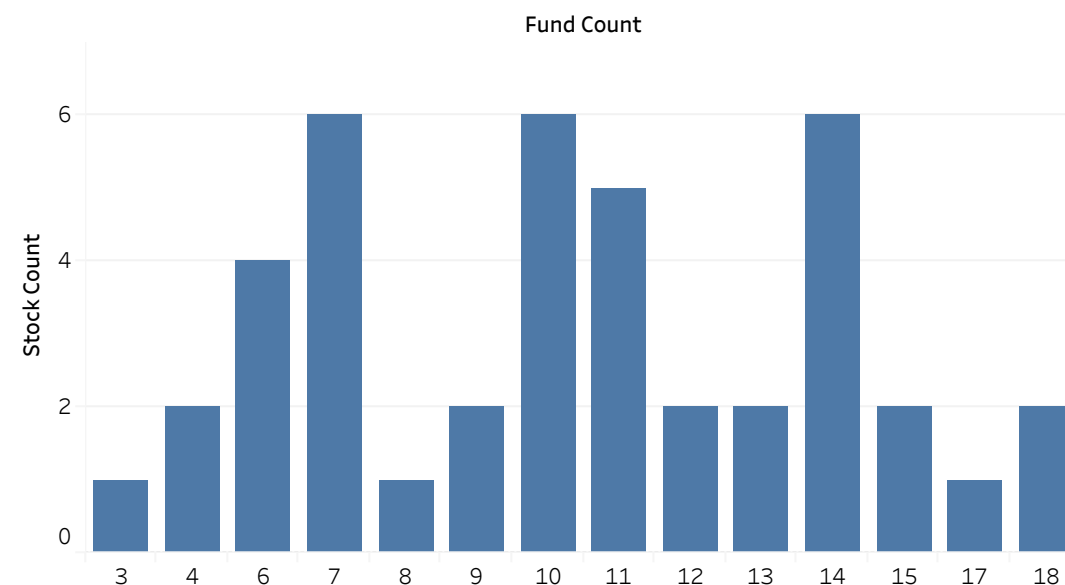
Market Cap

Market Cap	Percentage
Large Cap	56.46%
Mid Cap	40.95%
Small Cap	2.59%

Sustainability Total Return*



ETF Universe Ownership of Portfolio Companies



Top 10 Holdings

Company	Sector	Percentage
Enphase Energy, Inc.	Information Technology	5.61%
Tesla Inc	Consumer Discretionary	5.47%
Plug Power Inc.	Industrials	5.44%
SolarEdge Technologies, Inc.	Information Technology	5.01%
First Solar, Inc.	Information Technology	4.98%
Sunrun Inc.	Industrials	4.12%
Vestas Wind Systems A/S	Industrials	3.43%
American Water Works Com..	Utilities	3.34%
Ecolab Inc.	Materials	3.31%
SunPower Corporation	Information Technology	3.24%
Grand Total		43.95%

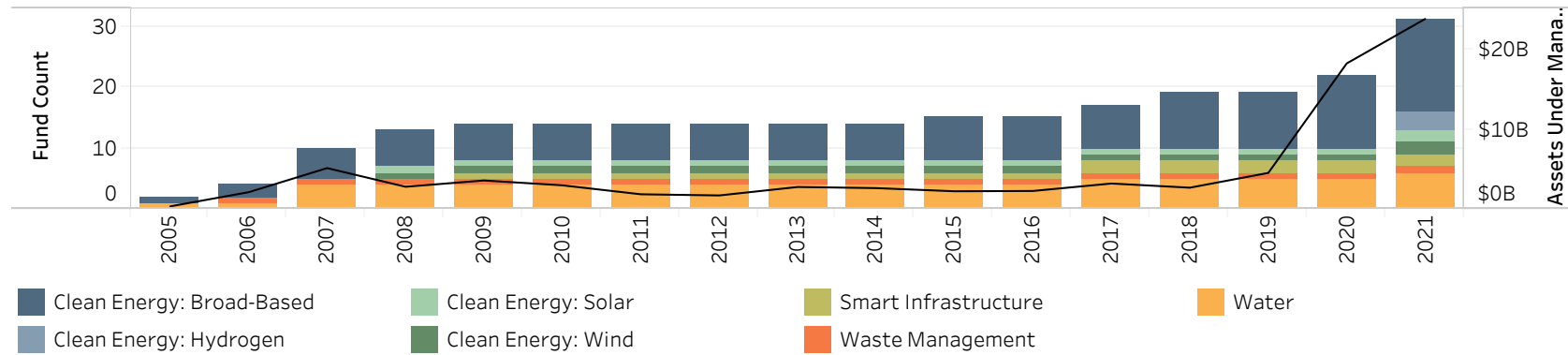
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Sustainability Landscape, Performance & Overlap

SUASX As of 12/3/2021



Sustainability Growth



Sustainability Landscape AUM & Flows

Group	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Broad-based	3	\$7M	\$0M	\$1M	\$2M	\$7M
Clean Energy: Broad-Based	16	\$14,136M	(\$36M)	\$389M	\$624M	\$7,262M
Clean Energy: Hydrogen	3	\$74M	\$6M	\$68M	\$96M	\$162M
Clean Energy: Solar	2	\$3,601M	(\$98M)	\$224M	\$232M	\$835M
Clean Energy: Wind	2	\$398M	(\$9M)	(\$7M)	(\$10M)	\$57M
Smart Infrastructure	2	\$481M	\$20M	\$210M	\$339M	\$617M
Waste Management	1	\$62M	\$0M	\$11M	\$12M	\$28M
Water	6	\$4,039M	\$13M	\$263M	\$830M	\$1,279M
Grand Total	35	\$22,799M	(\$105M)	\$1,159M	\$2,124M	\$10,248M

Sustainability Standardized Performance

	1 Month	3 Month	6 Month	YTD	1 Year	3 Year Annualized	5 Year Annualized	Inception*
Sustainability	-14.23%	-3.10%	5.33%	-9.76%	6.85%	45.82%		33.23%

Top 15 Sustainability ETFs by AUM

ETF	Name	Category	Launch Date	AUM	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	All-Stars Overlap (#)	All-Stars Overlap (%)
ICLN	iShares Global Clean Energy ETF	Clean Energy: Broad-Based	June 24, 2008	\$6,200M	-11.21%	-6.99%	-21.84%	-3.62%	35.90%	24.97%	25	43.72%
TAN	Invesco Solar ETF	Clean Energy: Solar	April 15, 2008	\$3,412M	-15.43%	-4.51%	-20.05%	1.54%	57.18%	38.72%	14	41.11%
QCLN	First Trust Nasdaq Clean Edge Green Energy Index Fund	Clean Energy: Broad-Based	February 8, 2007	\$3,107M	-12.67%	4.43%	0.05%	15.76%	53.47%	37.34%	24	41.78%
PHO	Invesco Water Resources ETF	Water	December 6, 2005	\$2,023M	-0.22%	-2.84%	24.50%	29.24%	23.88%	18.97%	11	22.99%
PBW	Invesco WilderHill Clean Energy ETF	Clean Energy: Broad-Based	March 3, 2005	\$1,854M	-17.37%	-7.06%	-25.57%	-11.56%	47.47%	35.42%	21	30.90%
FIW	First Trust Water ETF	Water	May 8, 2007	\$1,490M	-0.85%	-1.35%	25.42%	30.54%	23.91%	18.51%	11	22.16%
CGW	Invesco S&P Global Water Index ETF	Water	May 14, 2007	\$1,221M	-1.68%	-3.25%	24.79%	28.98%	22.16%	17.09%	8	16.11%
ACES	ALPS Clean Energy ETF	Clean Energy: Broad-Based	June 29, 2018	\$976M	-16.18%	-4.16%	-14.97%	0.20%	40.41%		17	47.31%
GRID	First Trust Nasdaq Clean Edge Smart GRID Infrastructure Index	Smart Infrastructure	November 17, 2009	\$780M	-3.58%	0.50%	24.38%	33.95%	33.65%	21.45%	4	12.60%
ERTH	Invesco MSCI Sustainable Future ETF	Clean Energy: Broad-Based	October 24, 2006	\$447M	-8.49%	-2.24%	1.39%	11.60%	23.02%	19.25%	20	31.61%
CNRG	SPDR S&P Kensho Clean Power ETF	Clean Energy: Broad-Based	October 22, 2018	\$381M	-15.08%	-4.57%	-12.40%	4.85%	45.61%		18	45.69%
PBD	Invesco Global Clean Energy ETF	Clean Energy: Broad-Based	June 13, 2007	\$364M	-13.24%	-8.56%	-20.68%	-5.86%	34.89%	23.71%	26	20.87%
FAN	First Trust Global Wind Energy ETF	Clean Energy: Wind	June 16, 2008	\$349M	-6.90%	-11.94%	-14.20%	-3.91%	19.54%	13.75%	7	10.27%
PIO	Invesco Global Water ETF	Water	June 13, 2007	\$344M	-2.19%	-5.78%	18.60%	21.24%	19.68%	16.34%	7	15.45%
SMOG	VanEck Low Carbon Energy ETF	Clean Energy: Broad-Based	May 3, 2007	\$313M	-9.35%	-2.26%	-3.76%	10.58%	38.40%	27.41%	25	32.92%

Index First Value Date is Dec 31 2016. The index Launch Date is Jun 11 2021. All information for an index prior to its Launch Date is hypothetical back-tested, not actual performance, based on the index methodology in effect on the Launch Date.



Definitions & Disclosures

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Index performance calculated by Indxx. Past performance is no guarantee of future performance. Investors cannot invest directly in an index, the performance of an index does not represent any actual transactions and its performance does not reflect the deduction of any fees or expenses associated with actual investing. To learn more about the All-Star indexes and their respective methodologies, please visit www.etfaction.com/etf-all-stars

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