



# Megatrends – iShares Thematic ETFs

Steven Lu, CFA, BlackRock iShares APAC Distribution

April 2018



BLACKROCK®

What is the greatest insecurity of our age?

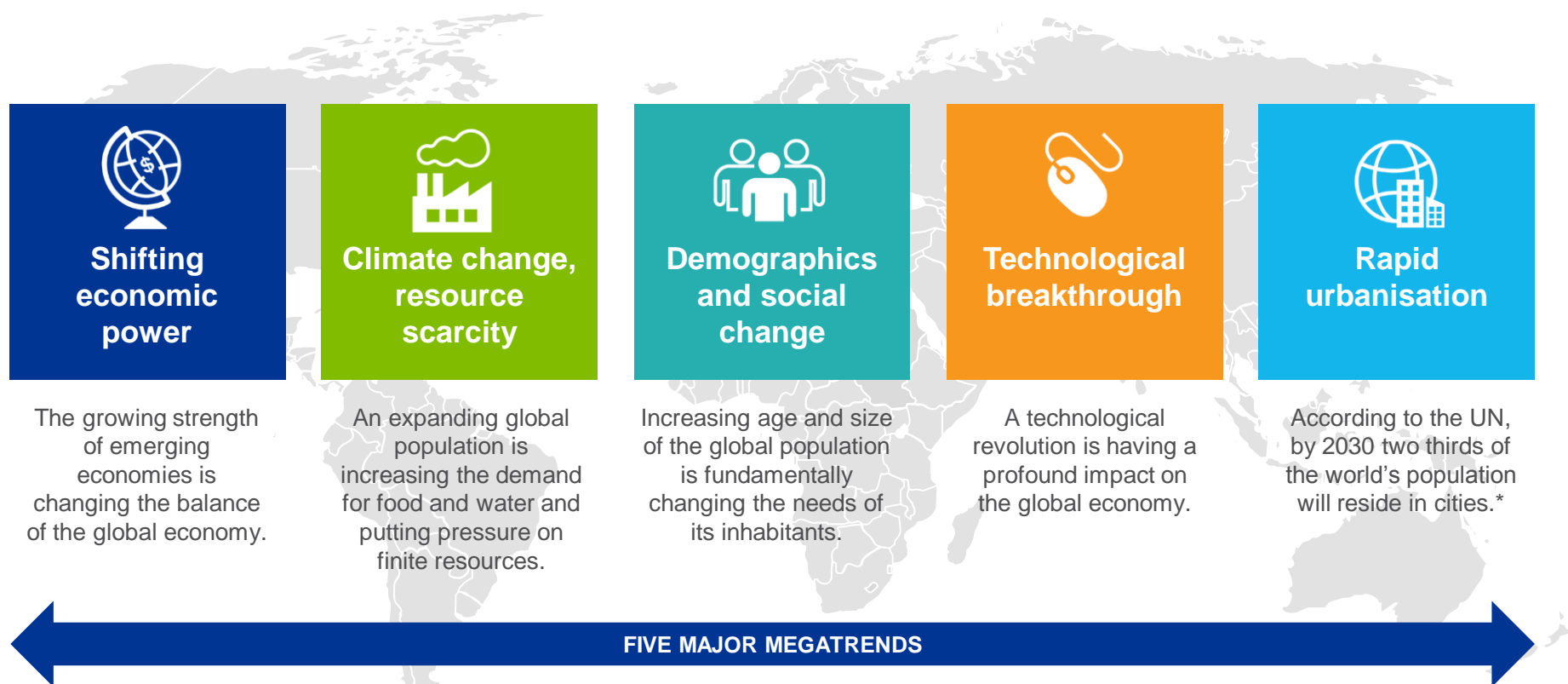


Saving ENOUGH for retirement

## What are Thematic Investments?

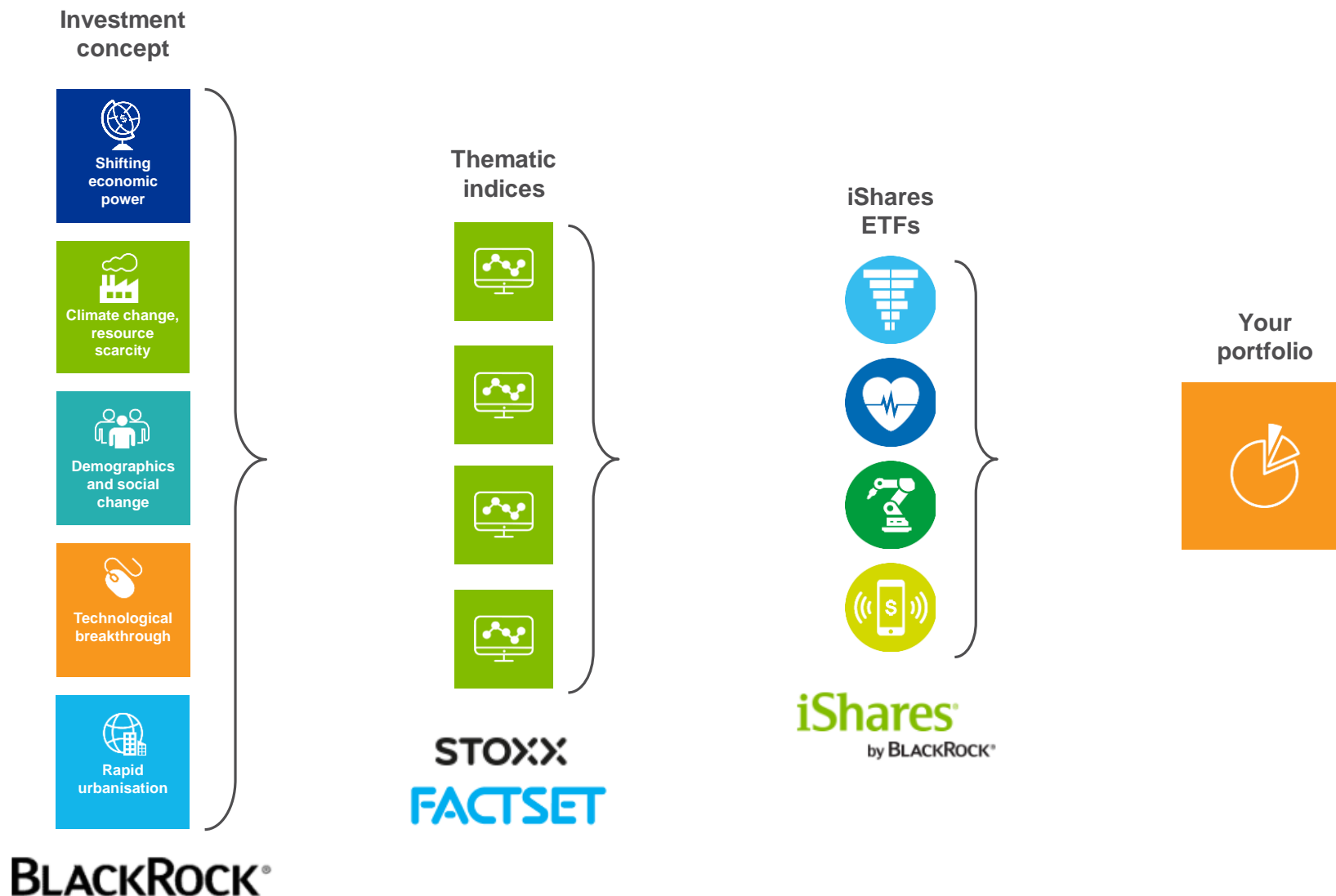
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# Five major megatrends shaping the globe



\*Source: BlackRock, United Nations World Population Prospects: The 2015 Revision; as of July 2015.

# Megatrends and how you can benefit



Source: BlackRock, as of 31<sup>st</sup> December 2017. For illustrative purposes only.

# iShares Thematic ETFs

## Overview



**HEAL**  
TER: 0.40%



**AGED**  
TER: 0.40%

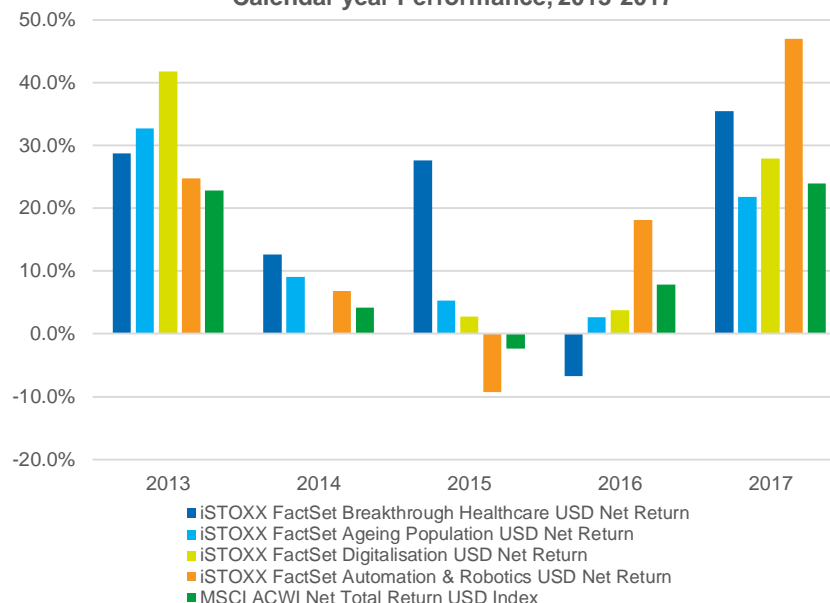


**RBOT**  
TER: 0.40%



**DGTL**  
TER: 0.40%





Calendar year Performance, 2013-2017



**The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.**

Source: BlackRock, Bloomberg as of 31<sup>st</sup> December 2017.

### Thematic ETF Information

|  | ETF                                     | Ticker | ISIN         | SEDOL   | TER   | AUM (\$M) | Inception Date |
|--|---|--------|--------------|---------|-------|-----------|----------------|
|   | iShares Healthcare Innovation UCITS ETF | HEAL   | IE00BYZK4776 | BYZK477 | 0.40% | 256.49    | 12/09/2016     |
|  | iShares Ageing Population UCITS ETF     | AGED   | IE00BYZK4669 | BYZK466 | 0.40% | 210.01    | 12/09/2016     |
|  | iShares Digitalisation UCITS ETF        | DGTL   | IE00BYZK4883 | BYZK488 | 0.40% | 400.47    | 12/09/2016     |
|  | iShares Automation & Robotics UCITS ETF | RBOT   | IE00BYZK4552 | BYZK455 | 0.40% | 2386.83   | 12/09/2016     |

Source: Bloomberg, BlackRock at 31-Mar-18

Source: BlackRock, Bloomberg as of 31<sup>st</sup> March 2018.

# iStoxx Factset Thematic Indices

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## Methodology Overview and Key Features

# Index methodology explained

## *Move beyond traditional sector classifications*

### Cielo SA: stock in the iStoxx Factset Digitalisation index

- Despite being in the Financials GICS sector, Cielo SA generates over 50% of its revenue from Electronic Payment Processing putting it squarely in the Digitalisation theme.

- In order to be included in one of the key themes, a company must generate at least 50% of its revenues from one or multiple pre-defined sectors
- The index uses the Revere Business Industry Classification System (RBICS) that classifies a company's revenues across six increasingly granular levels, known as 'hierarchies'
- Each index only incorporates companies with sufficient revenue levels at a hierarchical depth of 6 –the most granular level –to ensure the purity of exposure to the digitalisation sector

#### Understanding Cielo SA's true drivers of return

1. Finance

2. Specialty Finance and Services

3. Specialty Finance

4. Consumer Finance and Services

5. Electronic Transaction and Processing/Clearinghouses

6. Electronic Payment Processing

Source: Stoxx as of December 2017. For illustrative purposes only.



# iStoxx Factset Thematic Indices

## Construction

1

### Start with a universe of 8,000 stocks

- The Stoxx Global Total Market Index
- Includes developed and emerging markets stocks
- Includes large, mid and small cap stocks

2

### Screen based on revenues

- **Companies must have at least 50% of their revenue generated from one or more a pre-defined sector associated with that theme**
- These sectors use the STOXX Factset Revere Hierarchy methodology that seeks to provide a more granular way of categorising companies by thematic sector
- Stocks must have a minimum market cap of €200M and a minimum €1m 3 month average daily traded volume
- **Minimum 80 stock portfolio**

3

### Equal-weight

**Stocks are equally-weighted**, this seeks to ensure a broad exposure to each theme is provided and the basket is not highly concentrated in certain names

Source: Stoxx as of December 2017.

# iShares Thematic ETFs

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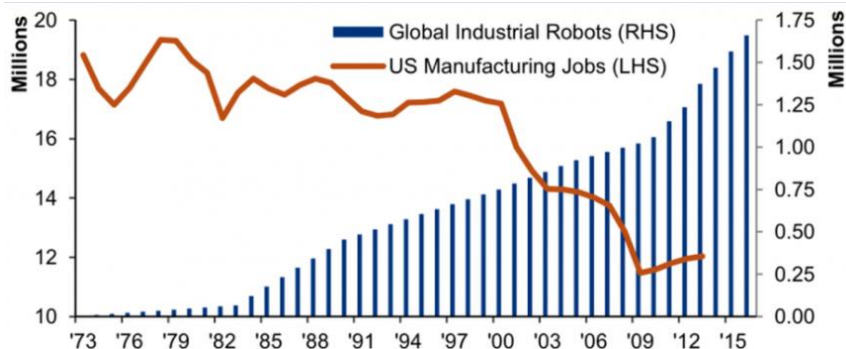
RBOT, DGTL, AGED, HEAL



# Automation and Robotics

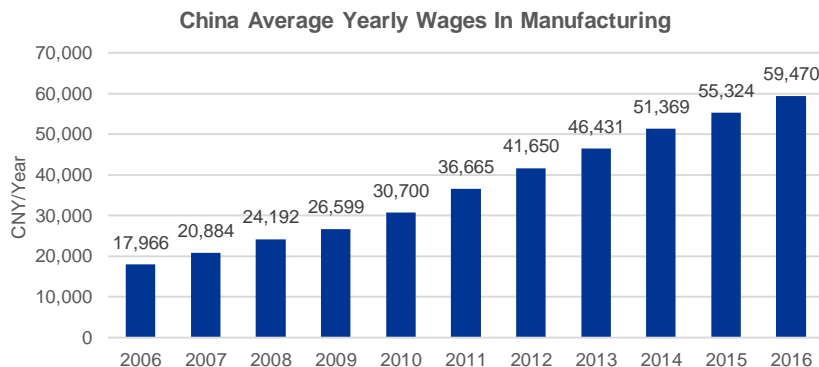
## Rise of the machines

### Robots and A.I. have replaced many less-skilled jobs



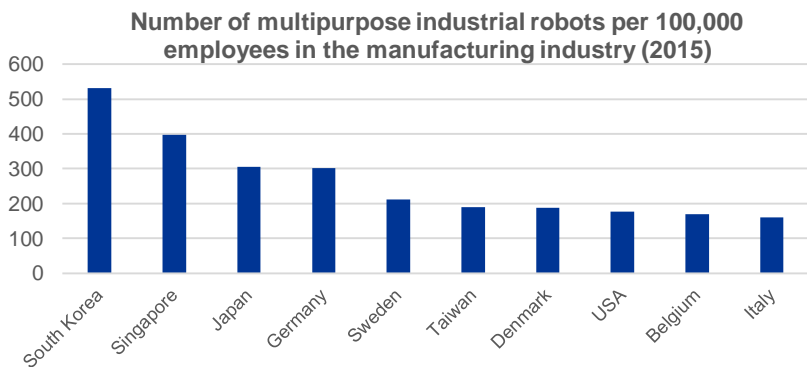
Source: BofA Merrill Lynch Global Investment Strategy, IFR, Bloomberg; as of December 2016

### But manufacturing wages in EM are increasing



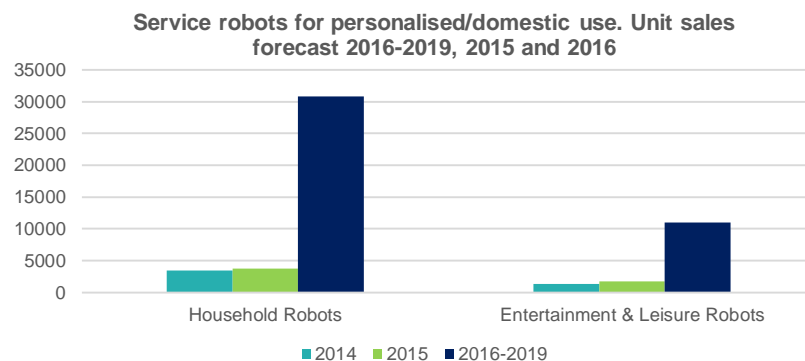
Source: [www.tradingeconomics.com](http://www.tradingeconomics.com), National Bureau of Statistics of China; as of December 2016

### Meaning this is a truly global theme



Source: International Federation of Robotics as of December 2015

### Robots are also infiltrating our everyday lives



Source: World Robotics 2016; as of December 2016



## Automation and Robotics

*Rise of the machines*

***By 2025, the share of tasks performed by robots could rise from a global average of around 10 percent to about 25 percent across all manufacturing industries.\****

### 3 sub themes within robotics

#### ➤ Industrial

- Automotive industry, machine manufacturing, automated production lines

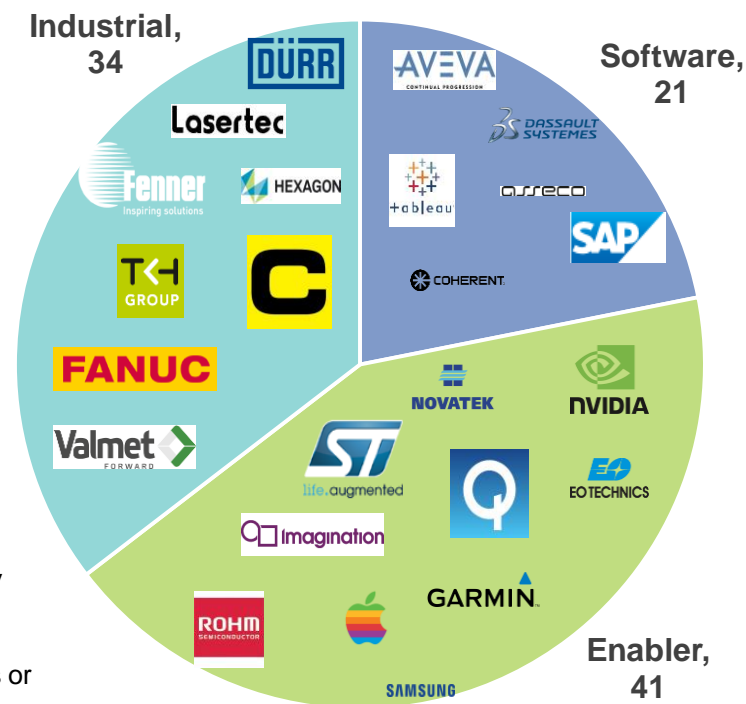
#### ➤ Enablement

- Vision technology, chip manufacturers, processing power

#### ➤ Software

- Artificial intelligence, deep learning

### Sub-theme security breakdown



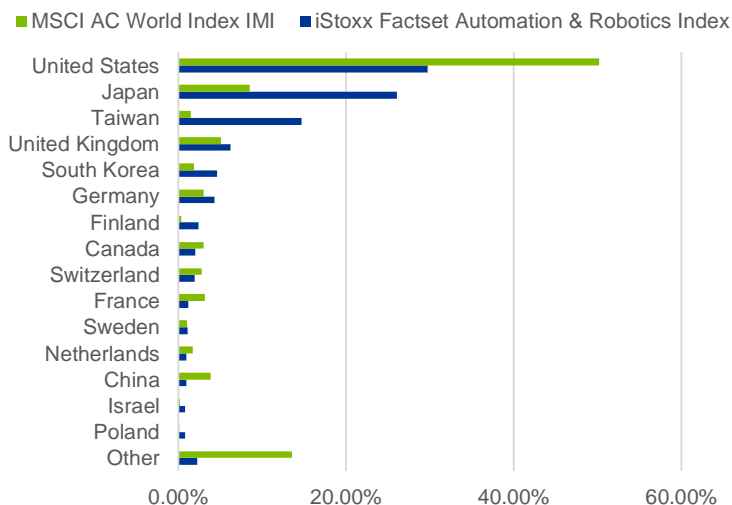
\*Source: BofA Merrill Lynch Global Investment Strategy, IFR, Bloomberg. Source: BlackRock; as of December 2017. For illustrative purposes only, characteristics subject to change. Reference to the names of each company mentioned in this communications is merely for explaining the investment strategy, and should not be construed as investment advice or investment recommendation of those companies. Blackrock has not acquired any rights or license to reproduce the trademarks, logos and images set out in this document. The trademarks, logos and images set out in this document are used only for the purposes of this presentation.



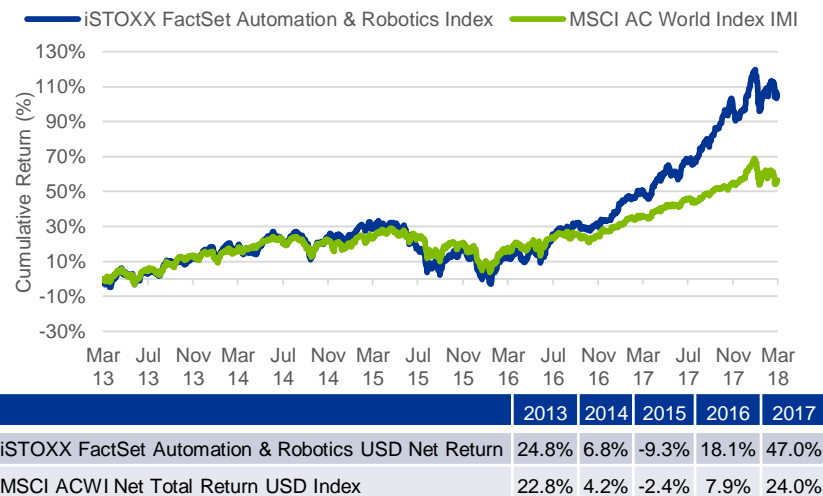
## Why automation & robotics today?

- ✓ **Invest in disruptive change** – Robots have the power to disrupt existing industries, deliver cost savings and efficiencies as well as drive corporate profits for the next few decades
- ✓ **Harness technological growth** – Capture companies specialising in innovations across technologies which include machine manufacturing, artificial intelligence and chip manufacturing
- ✓ **Seek outperformance** – Thematic investments such as RBOT can help investors seek long term growth while expressing a view on the innovative companies that will shape the global economic future

### Country Breakdown vs. MSCI ACWI IMI Index (%)



### 5Y Cumulative Performance vs. MSCI ACWI Index IMI (%)



**The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.**

Source: BlackRock, Bloomberg, STOXX; as of 31<sup>st</sup> March 2018. Characteristics subject to change. Geographic exposure relates principally to the domicile of the issuers of the securities held in the index, added together and then expressed as a percentage of the index's total holdings. However, in some instances it can reflect the country where the issuer of the securities carries out much of their business. Indexes are unmanaged and one cannot invest directly in an index.

# Digitalisation

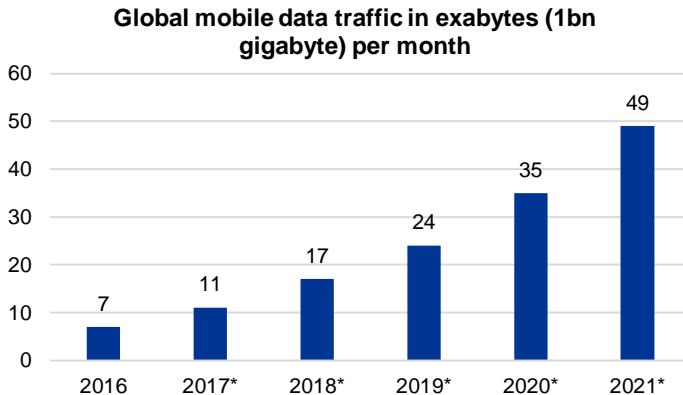
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# Digitalisation

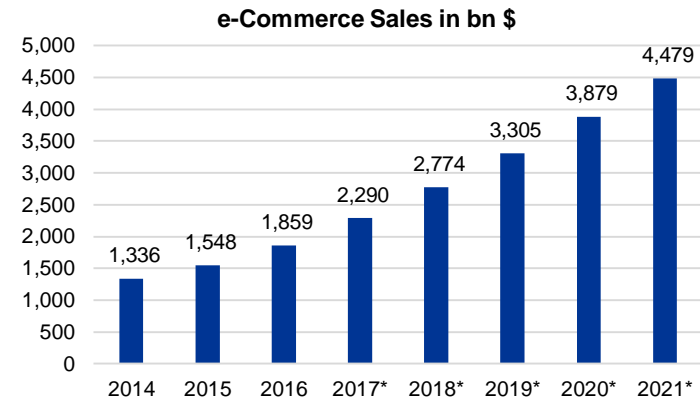
*Disruptive technology is changing the world*

## Mobile internet traffic is rapidly increasing



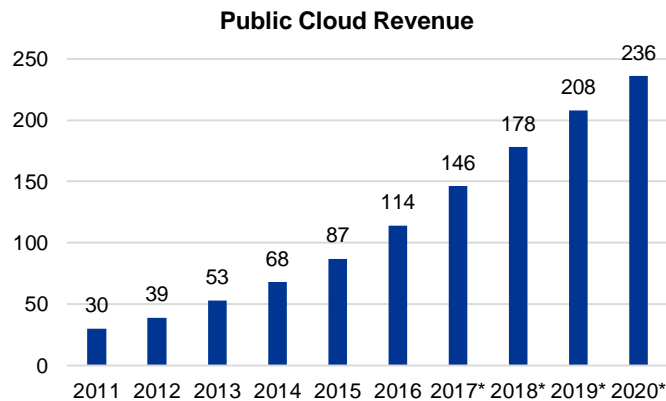
Source: Statista 'Digital Economy Compass'; as of April 2017

## Online spending is also on the up



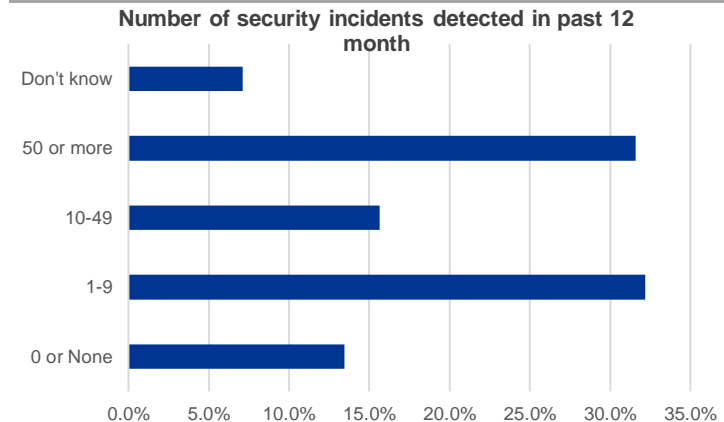
Source: Statista 'Digital Economy Compass'; as of April 2017

## Digitalisation of everything relies on the cloud



Source: <sup>1</sup><https://www.geekwire.com/2016/charts-cloud-computing-industry-getting-huge-decimating-sales-premise-servers/>; as of December 2016.

## Rapid change leads to changing requirements



PWC, The Global State of Information Security Survey 2016; as of December 2016.

Any opinions, forecasts represent an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This information should not be relied upon by the reader as research, investment advice or a recommendation. Forecasts may not come to pass.



# iShares Digitalisation UCITS ETF

*Disruptive technology is changing the world*

***The digital economy is displacing established business models, shaking up industries and creating entirely new industries.***

## 3 sub themes within digitalisation

### ➤ Communication

- Social media, instant messaging, cloud computing

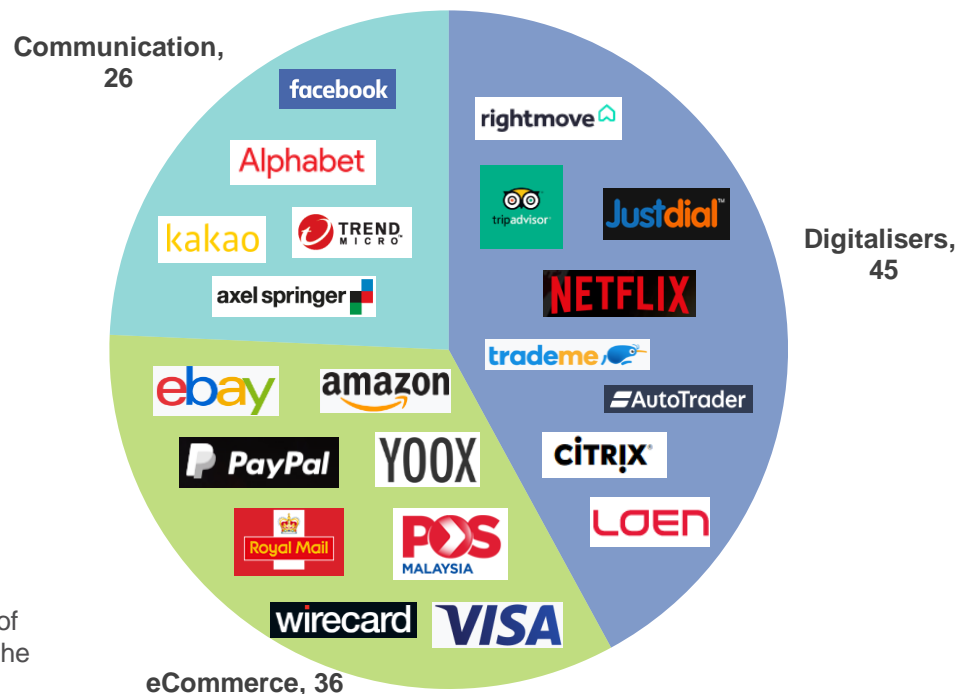
### ➤ Digitalisers

- Entertainment, industry disruption, FinTech, cyber security

### ➤ eCommerce

- Internet shopping, payment processing, delivery

## Sub-theme security breakdown



Source: Factset, Stoxx, BlackRock; as of December 2017. For illustrative purposes only, characteristics subject to change. Reference to the names of each company mentioned in this communications is merely for explaining the investment strategy, and should not be construed as investment advice or investment recommendation of those companies. Blackrock has not acquired any rights or license to reproduce the trademarks, logos and images set out in this document. The trademarks, logos and images set out in this document are used only for the purposes of this presentation.



# iShares Digitalisation UCITS ETF

*Disruptive technology is changing the world*

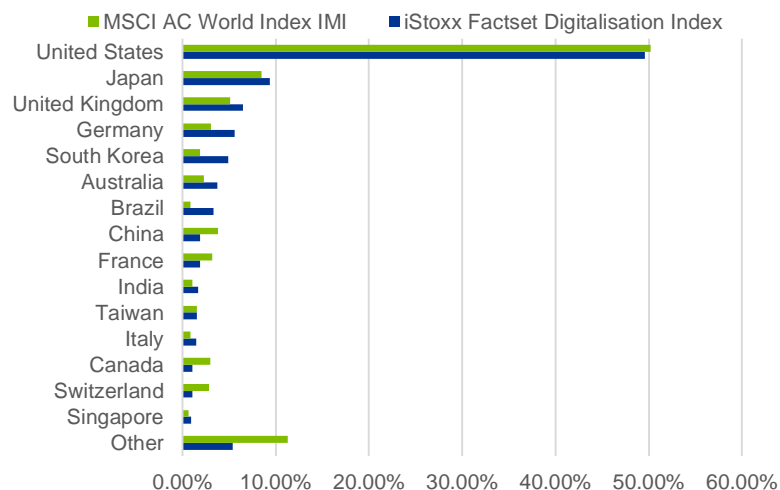
DGTL



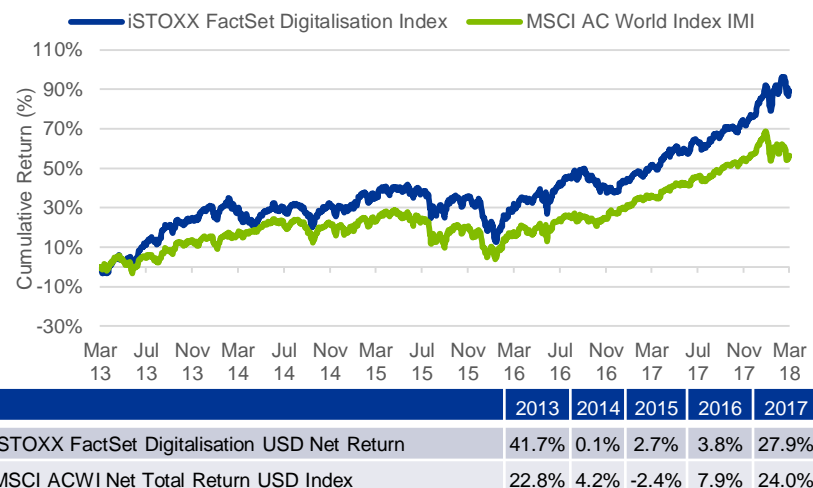
## Why digitalisation today?

- ☒ **Invest in the digital economy** – Invest in sectors such as financial technology, cybersecurity, and cloud computing that are transforming global markets today and have the potential to shape the world economy in the future.
- ☒ **Diversification** – Gain diversified, global exposure to companies that offer digitally focused services and stand to benefit from the growth of a digitally connected society.
- ☒ **Future growth potential** – Given the global coverage and long-term nature of the trends underpinning DGTL, investors may consider using it as a satellite component or strategic tilt within a global portfolio.

### Country Breakdown vs. MSCI ACWI Index IMI (%)



### Cumulative Performance vs. MSCI ACWI Index IMI (%)



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Source: BlackRock, Bloomberg, STOXX; as of 31<sup>st</sup> March 2018. Characteristics subject to change. Geographic exposure relates principally to the domicile of the issuers of the securities held in the index, added together and then expressed as a percentage of the index's total holdings. However, in some instances it can reflect the country where the issuer of the securities carries out much of their business. Indexes are unmanaged and one cannot invest directly in an index.

# Healthcare innovation

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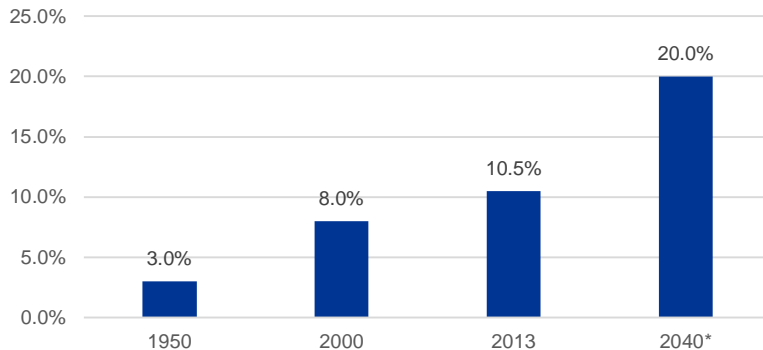


# Breakthrough healthcare

## HEAL the world

### Spending on healthcare is set to balloon

Forecast share of global GDP spent on healthcare

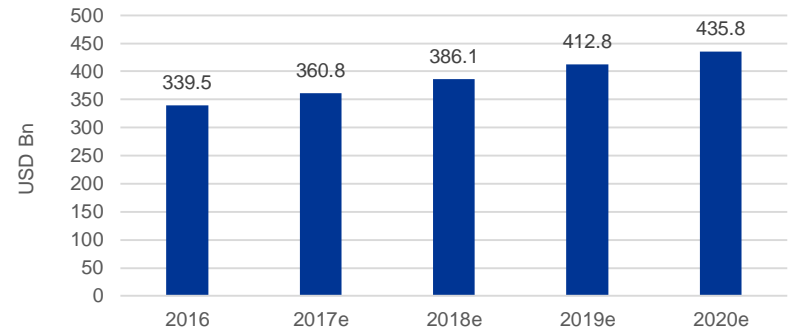


Source: World Population Prospects: The 2015 revisions; as of July 2015.

\*Estimated figure.

### Medical devices market is set to expand rapidly

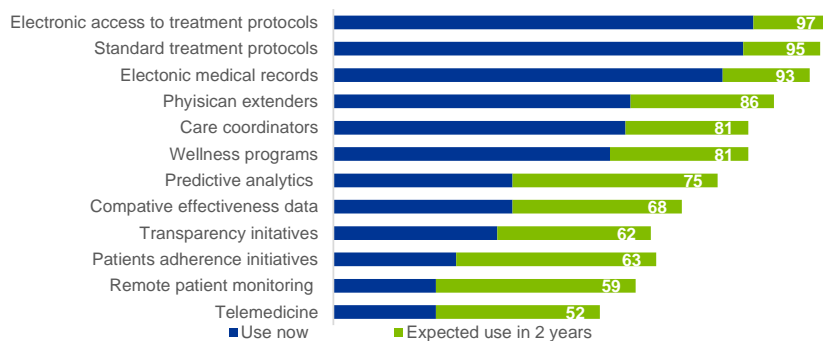
Medical Devices Market: Forecast for growth



Source: [http://trade.gov/topmarkets/pdf/Medical\\_Devices\\_Executive\\_Summary.pdf](http://trade.gov/topmarkets/pdf/Medical_Devices_Executive_Summary.pdf); as of September 2016.

### Opportunities broadening for patients in the US

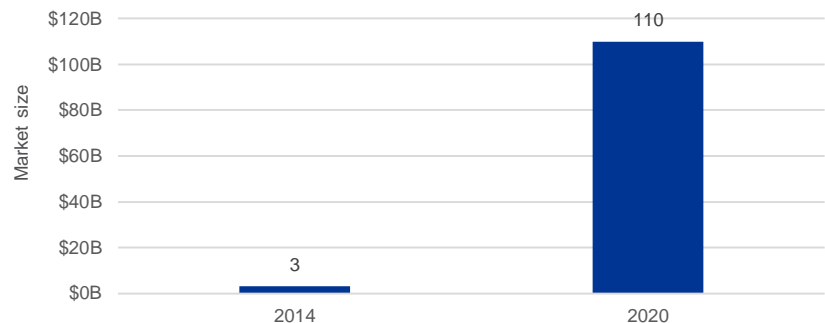
New clinical tools & practices adopted and forecast in the US healthcare industry



Source: Bain, Front of Line Healthcare Report 2015; as of 2015.

### Digital advancement transforming Chinese healthcare

The size of China's digital healthcare market (\$bn)



Source: BCG Perspectives: China's Digital Health-Care Revolution; as of September 2015.

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## Healthcare Innovation

HEAL the world

*If current trends persist to 2050, most developed countries will spend more than a fifth of GDP on health care. The U.S. and Switzerland are projected to spend half of their GDP on healthcare within the next 50 years*

### 3 sub themes within healthcare innovation:

#### ➤ Biotech

- Chronic diseases, genetic sequencing, antibody innovation

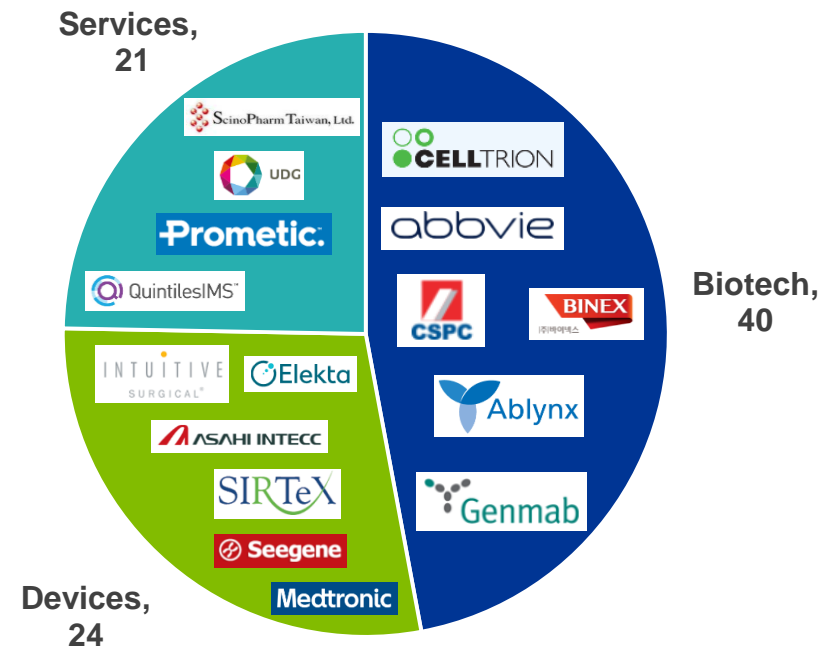
#### ➤ Devices

- Medical robotics, cardiology, oncology,

#### ➤ Services

- Software, outsourcing, interface

### Sub-theme security breakdown:



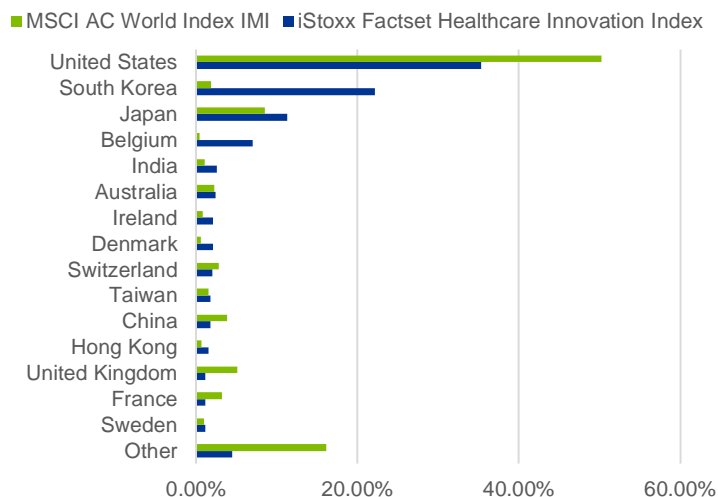
Source: McKinsey Quarterly Review, health care costs: a market-based view  
Source: Factset, Stoxx, BlackRock as of December 2017. For illustrative purposes only, characteristics subject to change. Reference to the names of each company mentioned in this communications is merely for explaining the investment strategy, and should not be construed as investment advice or investment recommendation of those companies.



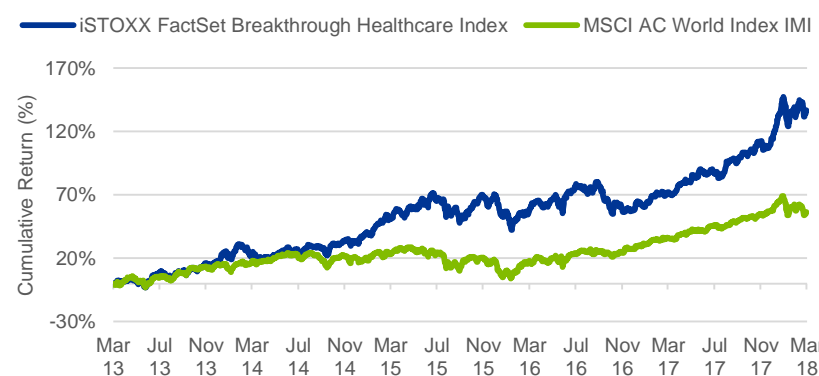
## Why healthcare innovation today?

- ✓ **Shifting demographics** – As health services around the world face rising demand from an ageing population, more efficient and effective ways of delivering treatment and care are likely to be needed
- ✓ **Diversification** – HEAL provides access to the healthcare innovation theme on a global basis and can complement a traditional equity exposure by diversifying a portfolio's drivers of return
- ✓ **Performance** – Thematic investments are designed to provide exposure to long-term growth and HEAL's benchmark has outperformed the broader MSCI ACI IMI Index over the past five years.

### Country Breakdown vs. MSCI ACWI IMI Index (%)



### Cumulative Performance vs. MSCI ACWI IMI Index (%)



|   | 2013  | 2014  | 2015  | 2016  | 2017  |
|---|-------|-------|-------|-------|-------|
| iSTOXX FactSet Breakthrough Healthcare USD Net Return | 28.7% | 12.6% | 27.6% | -6.7% | 35.4% |
| MSCI ACWI Net Total Return USD Index                  | 22.8% | 4.2%  | -2.4% | 7.9%  | 24.0% |

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Source: BlackRock, Bloomberg, STOXX; as of 31<sup>st</sup> March 2018. Characteristics subject to change. Geographic exposure relates principally to the domicile of the issuers of the securities held in the index, added together and then expressed as a percentage of the index's total holdings. However, in some instances it can reflect the country where the issuer of the securities carries out much of their business. Indexes are unmanaged and one cannot invest directly in an index.

# Ageing Population

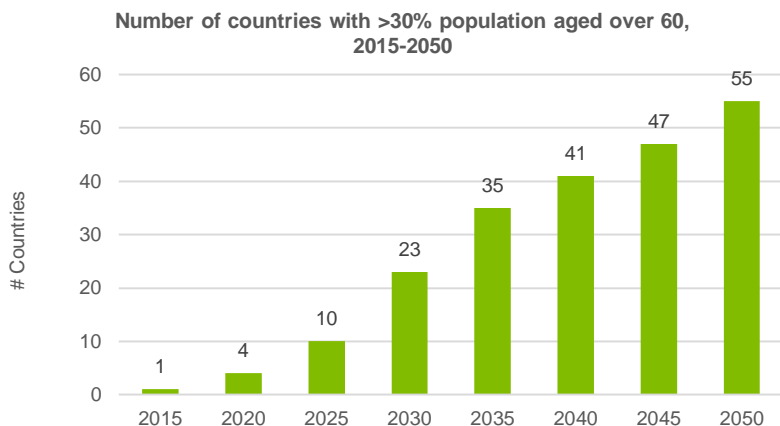
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# Ageing population

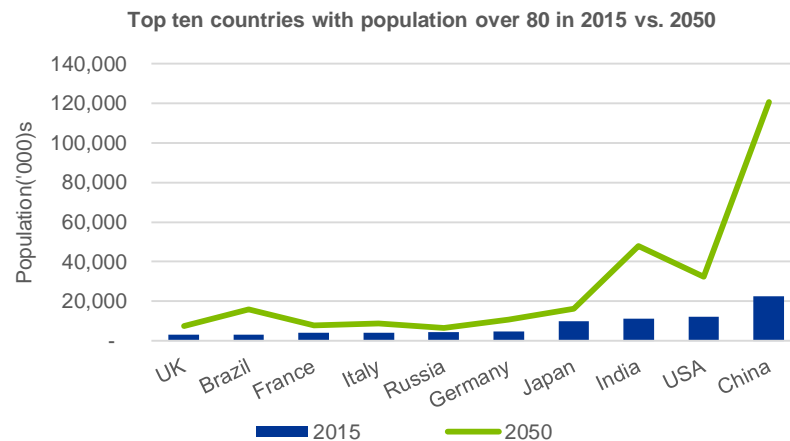
## The longevity revolution

### The proportion of elderly people is rapidly increasing



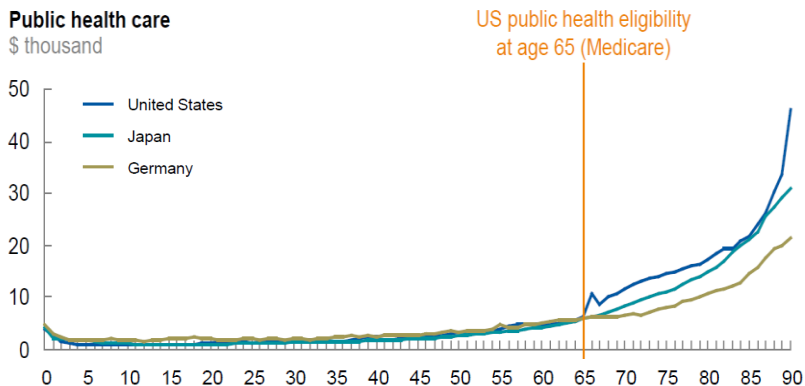
Source: United Nations World Population Prospects: The 2015 Revision; as of July 2015.

### Ageing is not just a first world problem



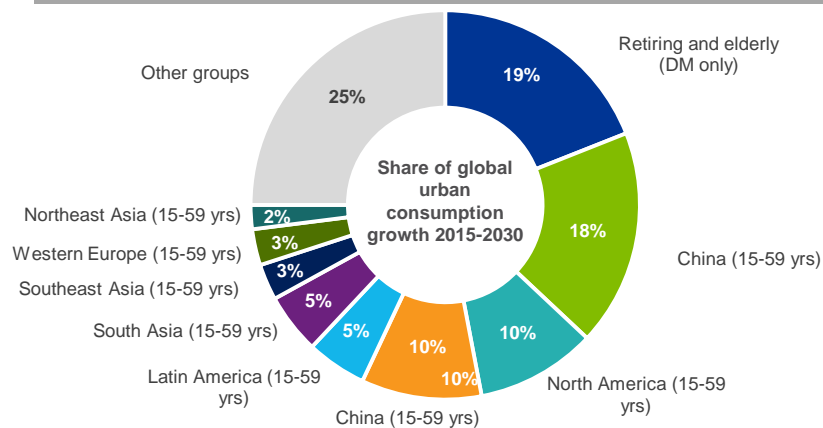
Source:

### Healthcare costs accelerate with age



Source: McKinsey Global Institute Cityscope; National Transfer Accounts Project; McKinsey Global Institute analysis; as of April 2016.

### The elderly will dominate global consumption growth



Source: McKinsey Global Institute Cityscope; as of April 2016. Numbers may not add up to 100% due to rounding.



## Ageing population The longevity revolution

*The global population is undergoing a paradigm shift as people are living longer and reproducing less. The current skew towards the young will be largely eroded over the next 30 years.\**

### 4 sub themes within an ageing population:

#### ➤ Healthcare

- Chronic diseases, biotech, geriatric devices

#### ➤ Ageing care

- Retirement villages, specialist care facilities

#### ➤ Consumer

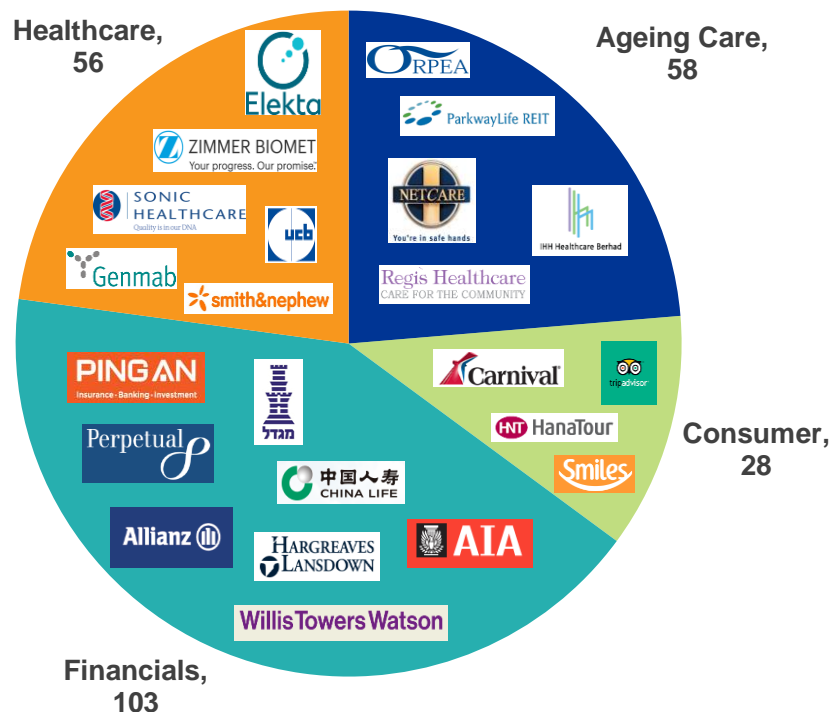
- Travel, leisure

#### ➤ Financials

- Pensions, asset managers, life insurance

\*Source: Oxford Economics; as of September 2016. Source: Factset, Stoxx, BlackRock; as of December 2017. For illustrative purposes only, characteristics subject to change. Reference to the names of each company mentioned in this communications is merely for explaining the investment strategy, and should not be construed as investment advice or investment recommendation of those companies. Blackrock has not acquired any rights or license to reproduce the trademarks, logos and images set out in this document. The trademarks, logos and images set out in this document are used only for the purposes of this presentation.

### Sub-theme security breakdown



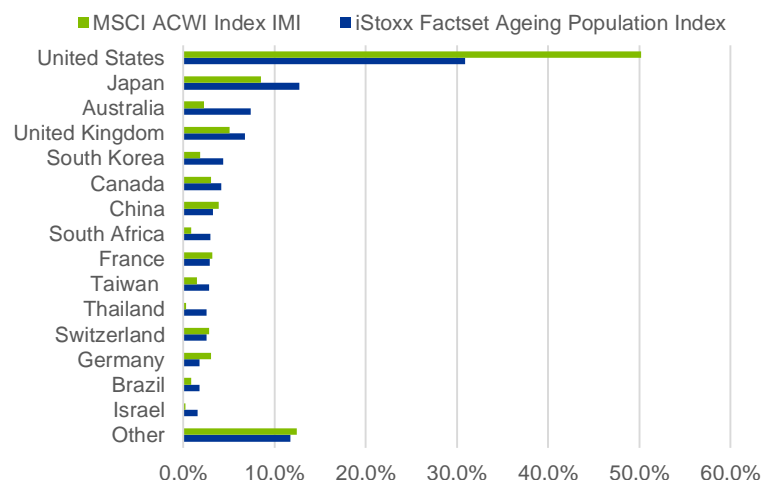




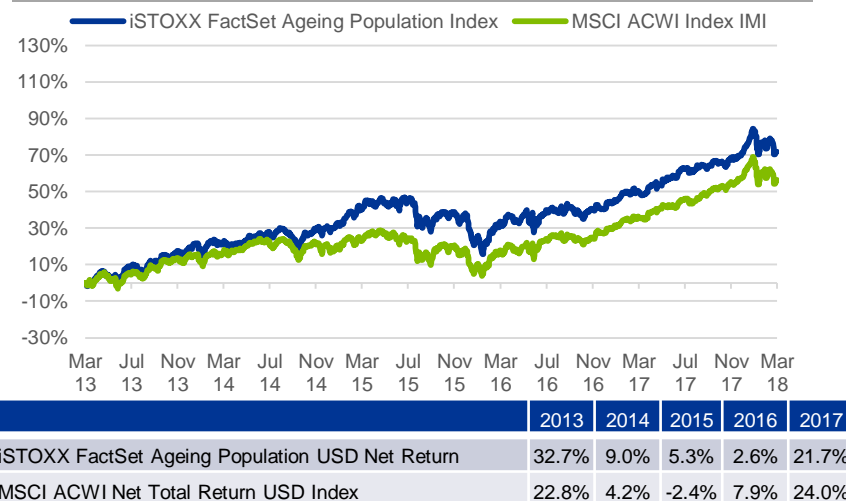
## Why ageing population today?

- ✓ **Shifting demographics** – As people are living longer, society will be forced to make rapid investments into medical devices and technology to account for a significantly older population.
- ✓ **Diversification** – Directly investing in companies that will benefit from an ageing population can complement an existing equity strategy and diversify a global portfolio.
- ✓ **Long-term performance** – Unprecedented increases in human longevity are also creating stores of investment opportunity. AGED provides a tool to invest in this trend and seek long-term growth while providing portfolio diversification.

### Country Breakdown vs. MSCI ACWI IMI Index (%)



### Cumulative Performance vs. MSCI ACWI IMI Index (%)



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Source: BlackRock, Bloomberg, STOXX; as of 31<sup>st</sup> March 2018. Characteristics subject to change. Geographic exposure relates principally to the domicile of the issuers of the securities held in the index, added together and then expressed as a percentage of the index's total holdings. However, in some instances it can reflect the country where the issuer of the securities carries out much of their business. Indexes are unmanaged and one cannot invest directly in an index.

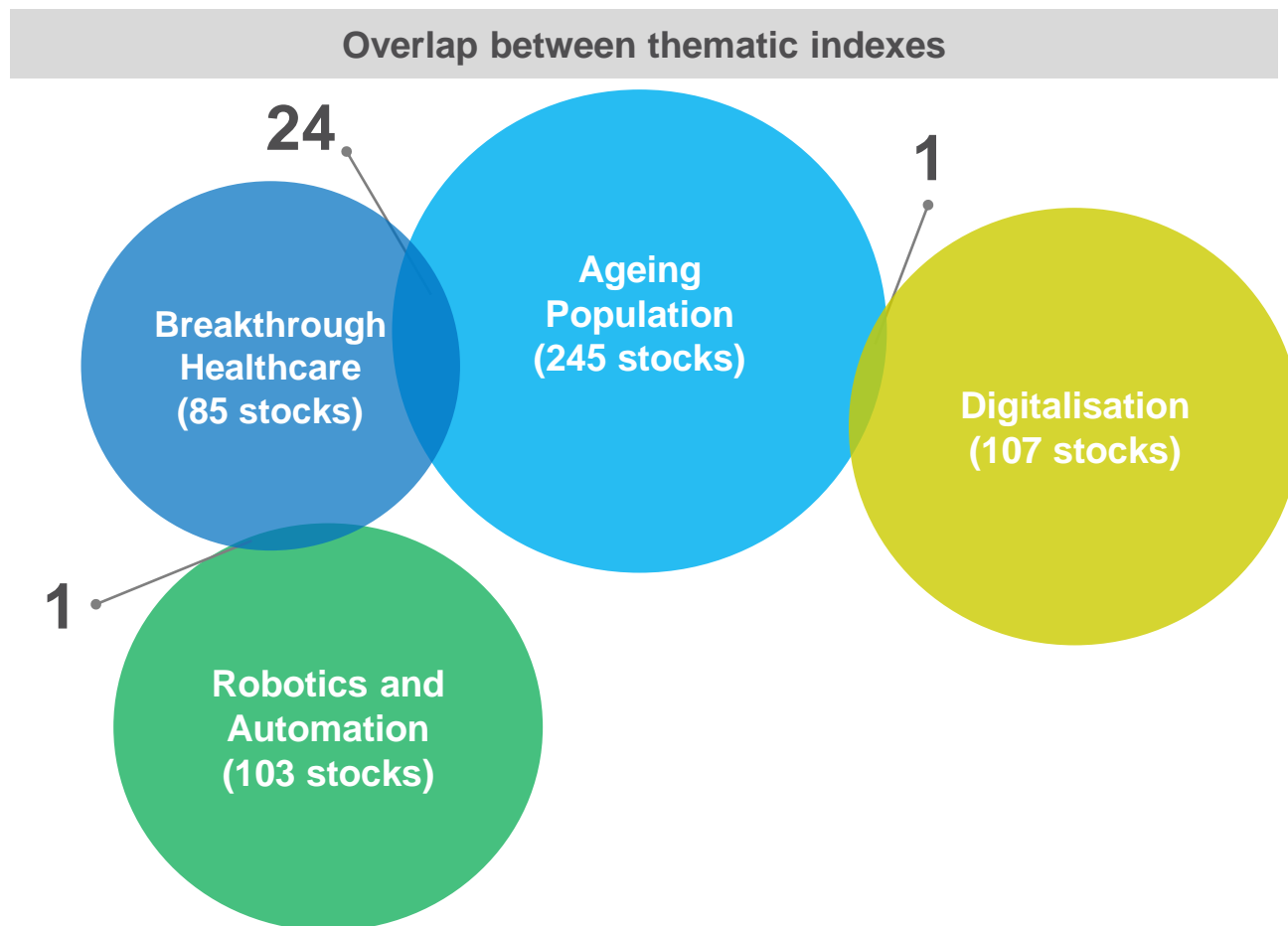
## How to Implement in client portfolios

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# Invest across thematic strategies with limited overlap

## Thematic fund implementation:

- **Target a specific theme** with a single thematic strategy
- **Invest across thematics** to further diversify and enhance a global portfolio



Source: Factset as of December 2017. For illustrative purposes only, characteristics subject to change.

# Thematic correlations to broad equities

## Diversification benefits within an equity portfolio

- The funds can be utilized within the Equities allocation of a portfolio when seeking diversification benefits, with correlations against most major Equity indices under 90%.
- Historically, HEAL has exhibited the lowest long term correlation to broad equity markets

### Correlations to Broad Equities

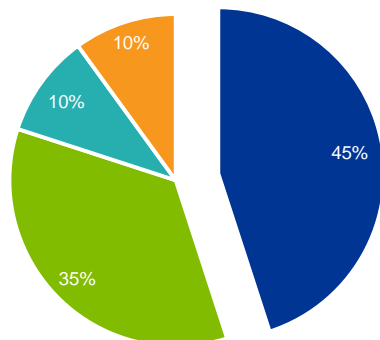
|                             | RBOT | HEAL | DGTL | AGED |
|-----------------------------|------|------|------|------|
| RBOT                        | 1    | 0.69 | 0.88 | 0.81 |
| HEAL                        | 0.69 | 1    | 0.77 | 0.83 |
| DGTL                        | 0.88 | 0.77 | 1    | 0.91 |
| AGED                        | 0.81 | 0.83 | 0.91 | 1    |
| MSCI World                  | 0.86 | 0.75 | 0.92 | 0.94 |
| FTSE All Share Index        | 0.70 | 0.58 | 0.74 | 0.73 |
| MSCI Europe ex UK Index     | 0.71 | 0.65 | 0.72 | 0.75 |
| MSCI Pacific ex Japan Index | 0.72 | 0.61 | 0.77 | 0.84 |
| MSCI EM Index               | 0.80 | 0.55 | 0.78 | 0.79 |

Source: BlackRock. Periods used: 03/11/2014 – 31/12/2017 Currency: GBP. Frequency: Monthly. **The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.** BlackRock makes no representations or warranties as to the accuracy or completeness of any past, estimated or simulated performance results contained herein, and further nothing contained herein shall be relied upon as a promise by, or representation by BlackRock whether as to past or future performance results. Analysis has been run on index level. It is not possible to invest directly in an index. The return of your investment may increase or decrease as a result of currency fluctuations.

# Case study 1: adding thematic ETFs to a simulated portfolio

*Fitting each of the 4 ETFs individually into the Equity allocation of the Starting Portfolio*

Starting Portfolio\*



■ Equity ■ Fixed Income ■ Alternatives ■ Cash

**Equity:** FTSE All Share Index (13%), MSCI Europe ex UK Index (13%), MSCI World Index (16%), MSCI Pacific Index (1%), MSCI EM Index (2%). **Fixed Income:** Bloomberg Barclays Euro Agg Index (20%), Bloomberg Barclays Global Agg Index (10%), JP Morgan EMBI Global Core Index (5%). **Alternatives:** FTSE EPRA/NAREIT Developed Dividend+ Index (5%), HFRX Global Hedge Fund Index (5%).

Consider allocating Thematic ETFs within the **Equity** allocation

|                     | Starting Portfolio | Solution with HEAL | Solution with RBOT | Solution with DGTL | Solution with AGED | Solution with All |
|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
| <b>Total Equity</b> | <b>45%</b>         | <b>45%</b>         | <b>45%</b>         | <b>45%</b>         | <b>45%</b>         | <b>45%</b>        |
| Broad Equities      | 45%                | 35%                | 35%                | 35%                | 35%                | 35%               |
| HEAL                | -                  | 10%                | -                  | -                  | -                  | 2.5%              |
| RBOT                | -                  | -                  | 10%                | -                  | -                  | 2.5%              |
| DGTL                | -                  | -                  | -                  | 10%                | -                  | 2.5%              |
| AGED                | -                  | -                  | -                  | -                  | 10%                | 2.5%              |

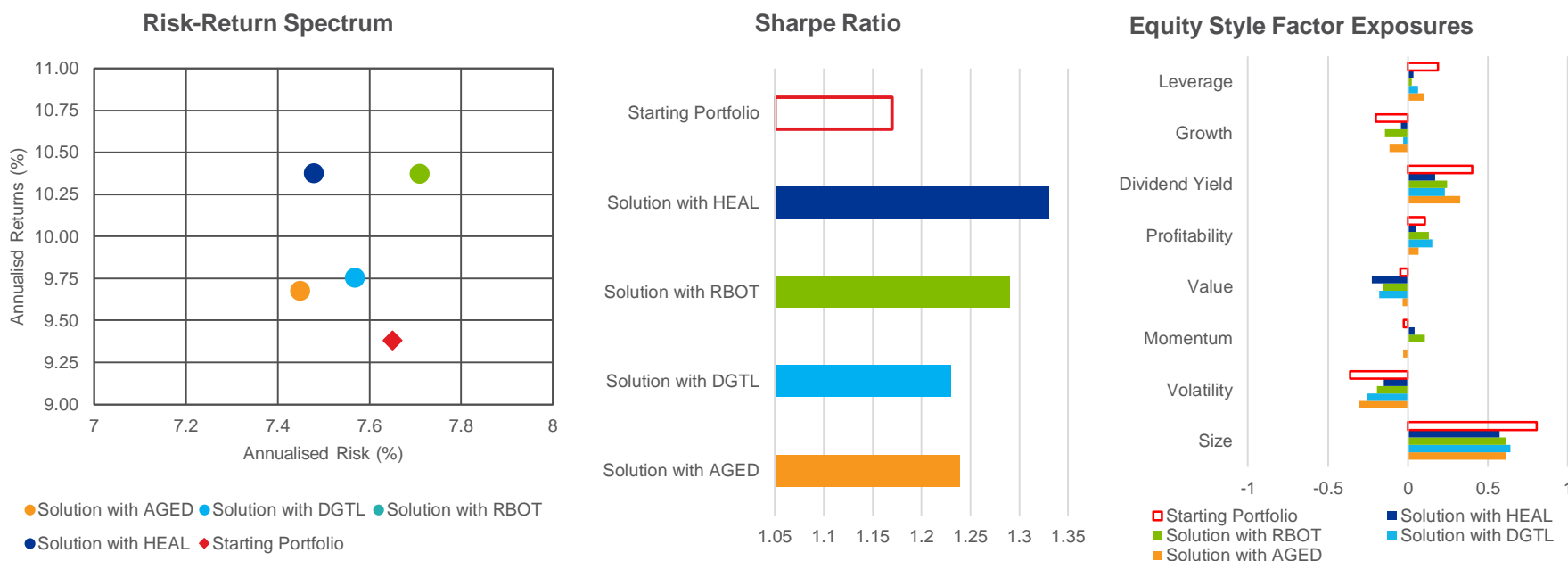
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# Case study 1: adding thematic ETFs to a simulated portfolio

## Enhancement of the portfolio's risk-return characteristics

### Enhanced risk-return characteristics:

- All portfolio solutions demonstrate an **improvement in risk-return characteristics** compared to the Starting Portfolio.
- Whilst all portfolio solutions show improved Sharpe ratio compared to the Starting Portfolio, Solution with **HEAL** shows **highest improvement in Sharpe ratio**.
- Varying factor exposures can be seen in factors such as Momentum, Value and Growth, whilst all solutions show reduction in Volatility and Leverage compared to the Starting Portfolio.



The figures shown relate to simulated past performance. Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.

Source: BlackRock. Periods used: 03/11/2014 – 31/12/2017 Currency: GBP. Frequency: Monthly.

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