

Welke trends verdienen een plaats in uw portefeuille?

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30 maart 2019

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Why megatrends?

We believe that investing thematically gives exposure to companies with structurally higher earnings growth, which should drive stronger investment returns over the longer term.



68%

of the world's population will live
in urban areas by 2050.¹

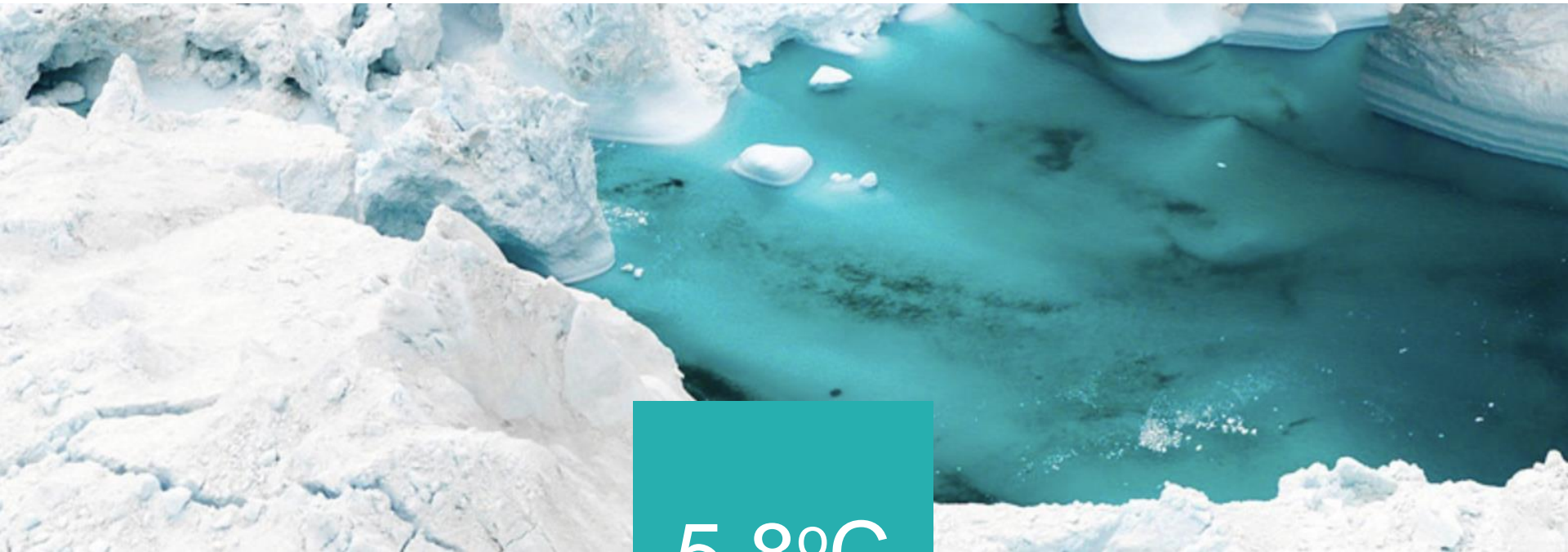
1. United Nations Department of economics and social affairs. <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>



2030

China could become the new world superpower by 2030, with India rivalling the US by 2050.²

2. IMF for 2016 estimates, PWC analysis for projects to 2050



5.8°C

If predictions are correct, by 2100 the average surface temperature of the planet will have risen 5.8 degrees since the late 19th³ century, and the planet's resources will become increasingly scarce.

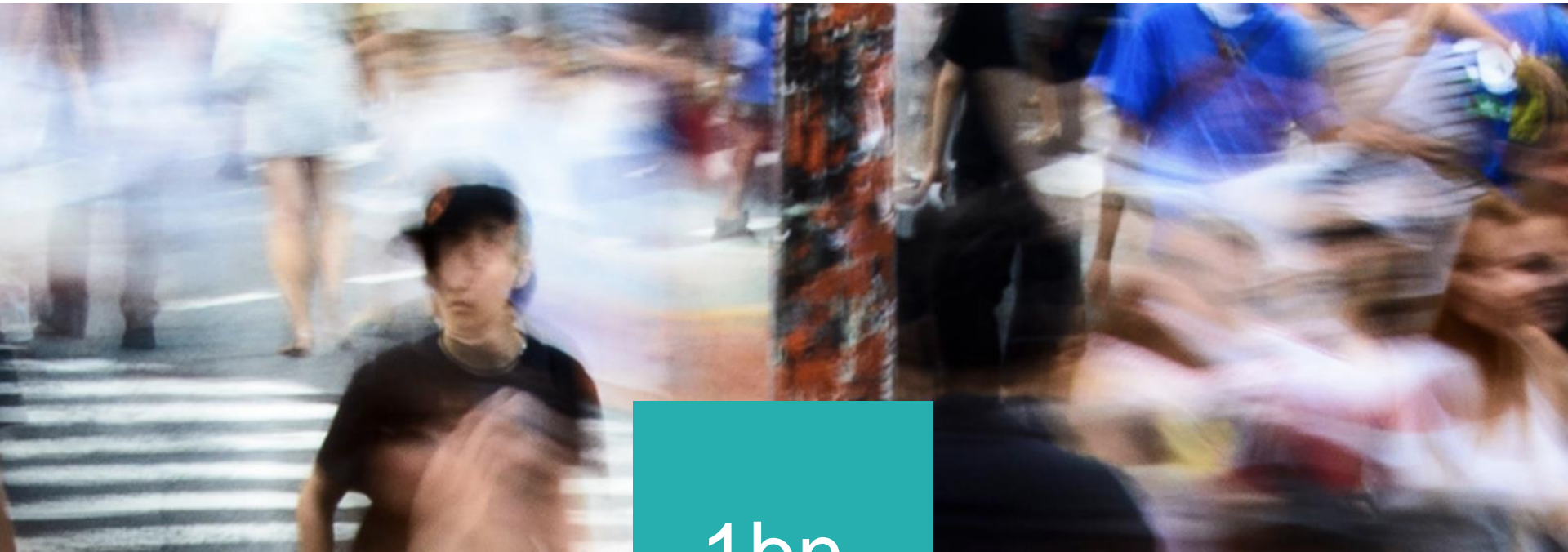
3. <https://www.ipcc.ch/ipccreports/tar/wg1/008.htm#figspm5>



60%⁴

Nearly two-thirds of all occupations could see a third or more of their constituent activities automated.

4. <http://www.gartner.com>

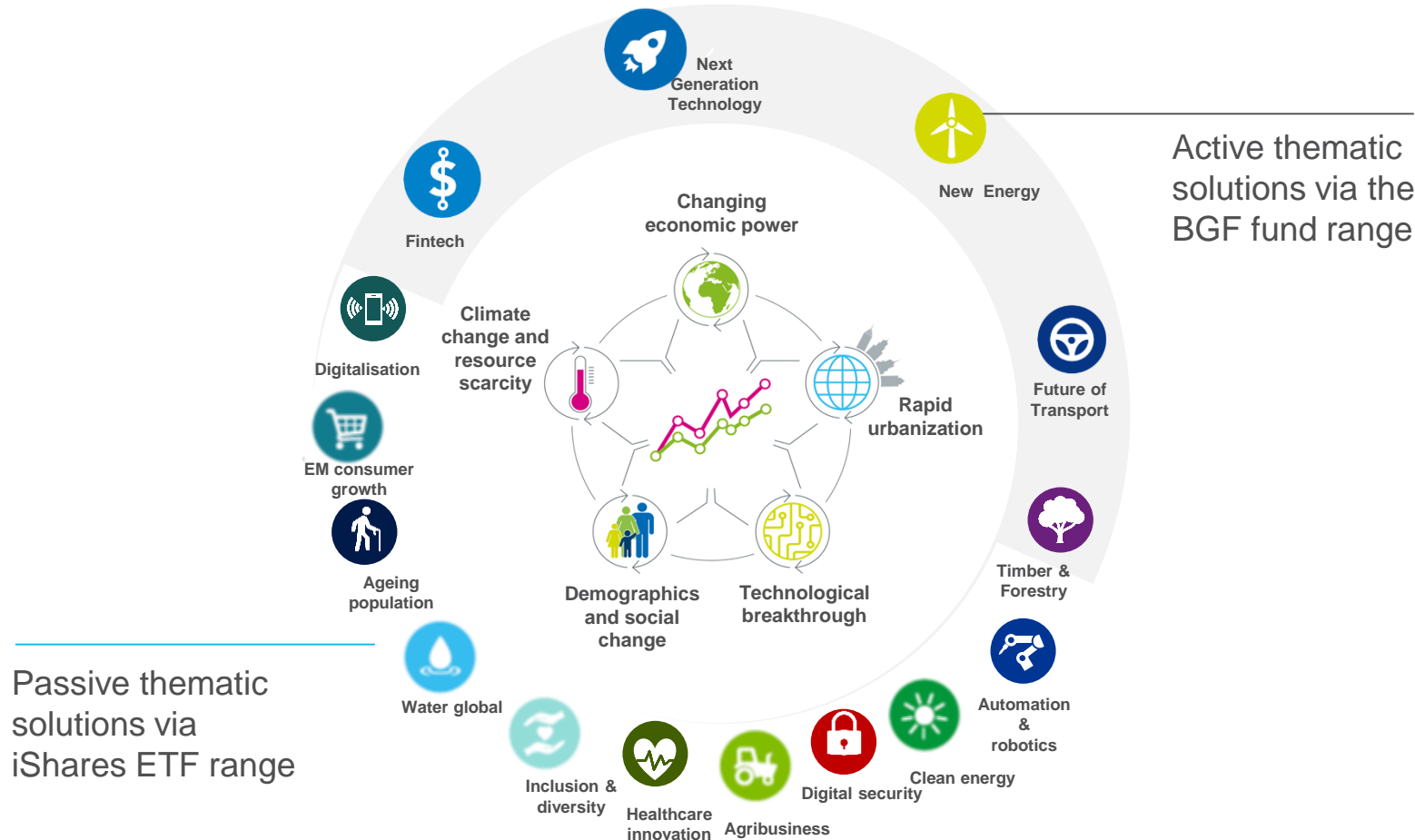


1bn₅

The global population could increase by over 1 billion by 2030, and by 2050 a third of the population of 55 countries will be over 60 years old.

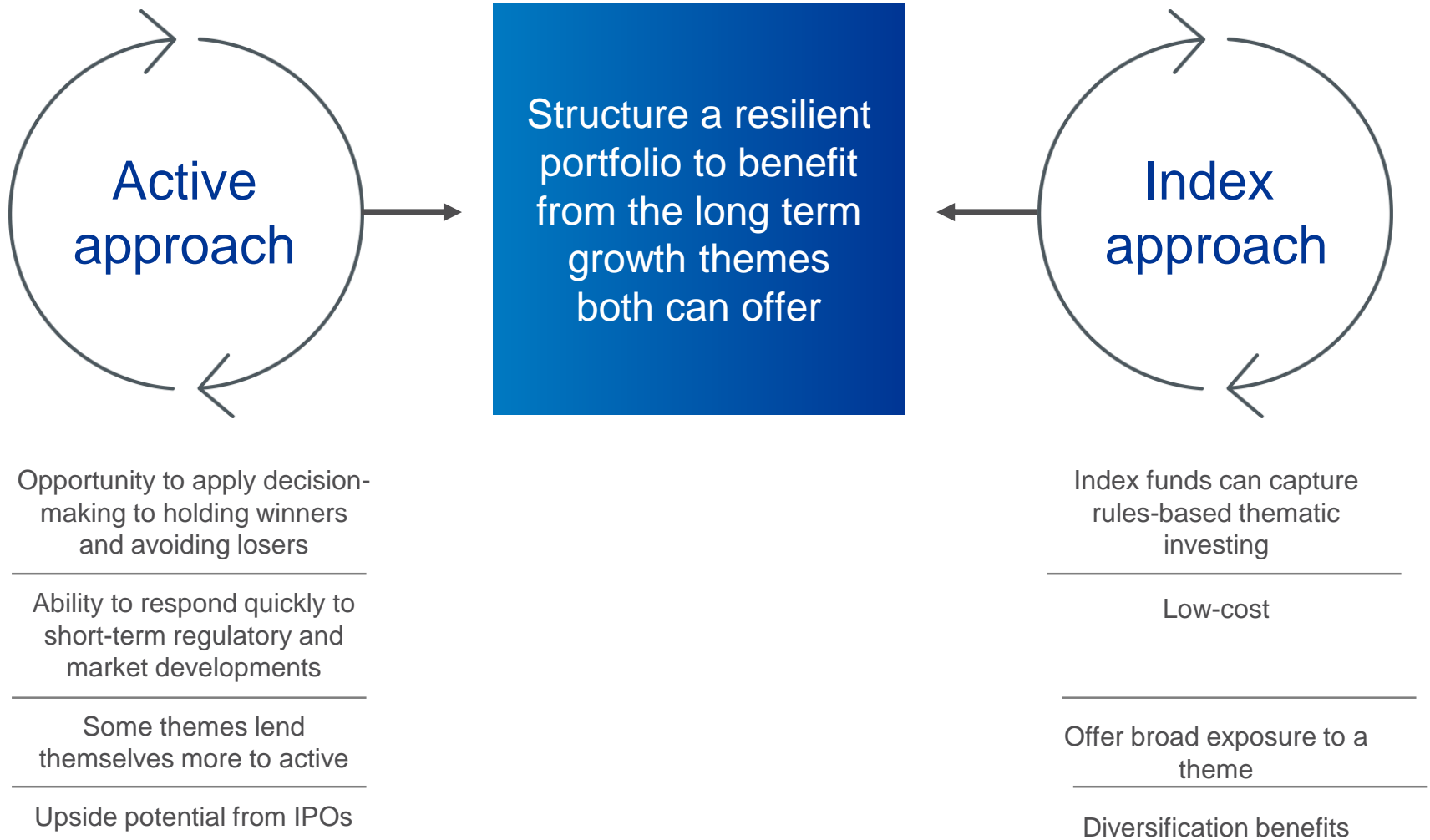
5. <https://www.un.org/development/desa/en/news/population/world-populationprospects-2017.html>

Active equity managers have always backed themes within their portfolios. The advantage of investing thematically is that these funds are unconstrained by traditional sectors or geographies



By investing in a single theme, we can get a pure exposure and invest all the way along the supply chain across markets, regions, industries and sectors.

BlackRock offers a broad choice of funds, each with their own benefits:



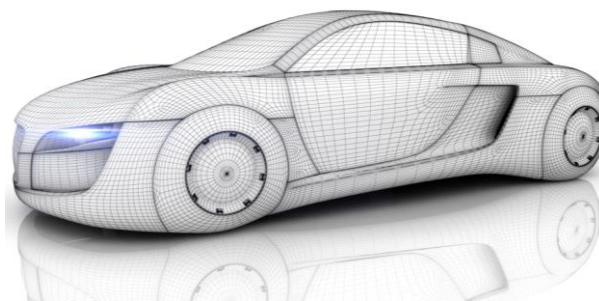


BGF Future of Transport Fund

Welcome to The Transport Revolution

January 2019

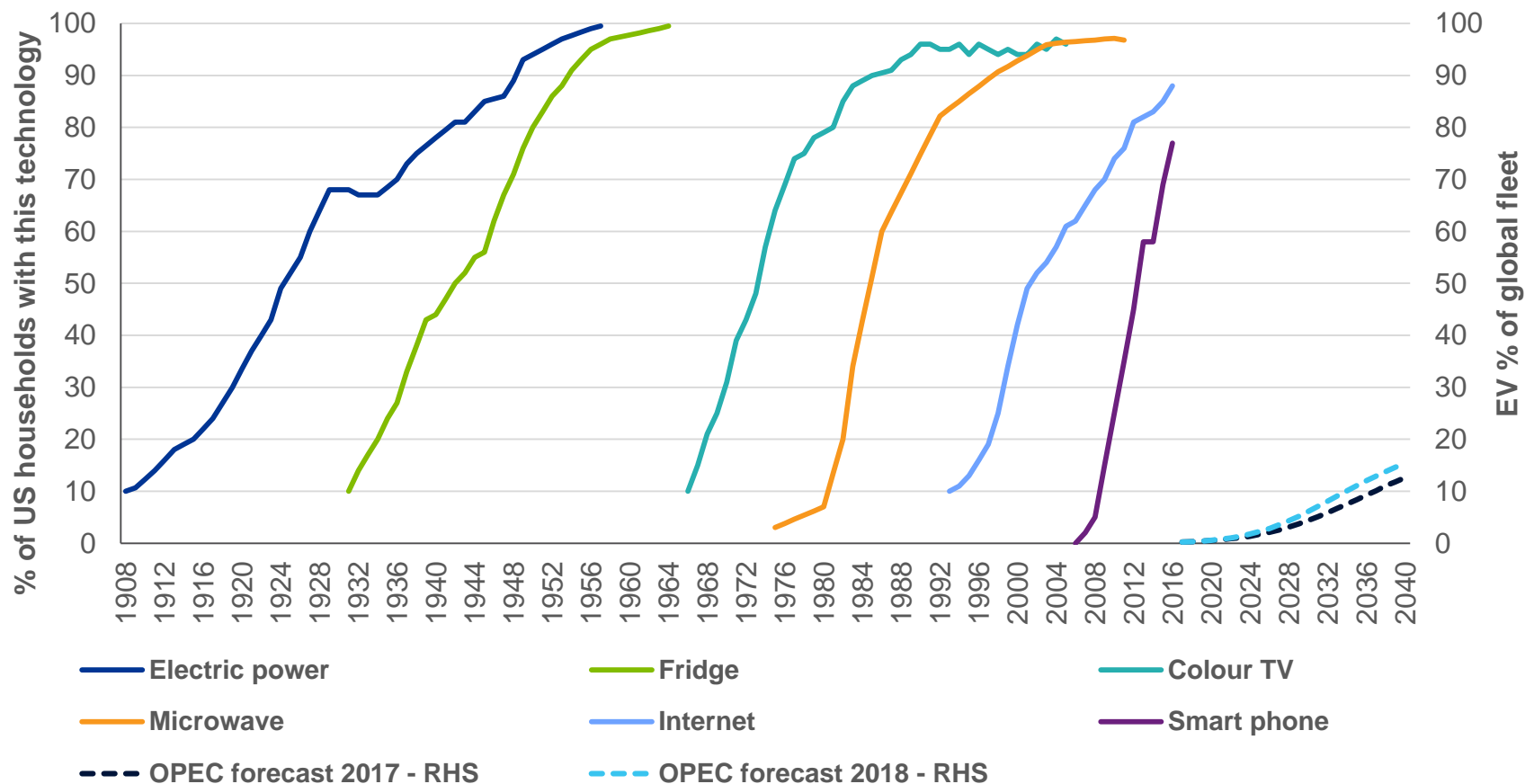
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The time is now

Technology adoption curves



We believe we are at the tipping point and the growth opportunity is underestimated

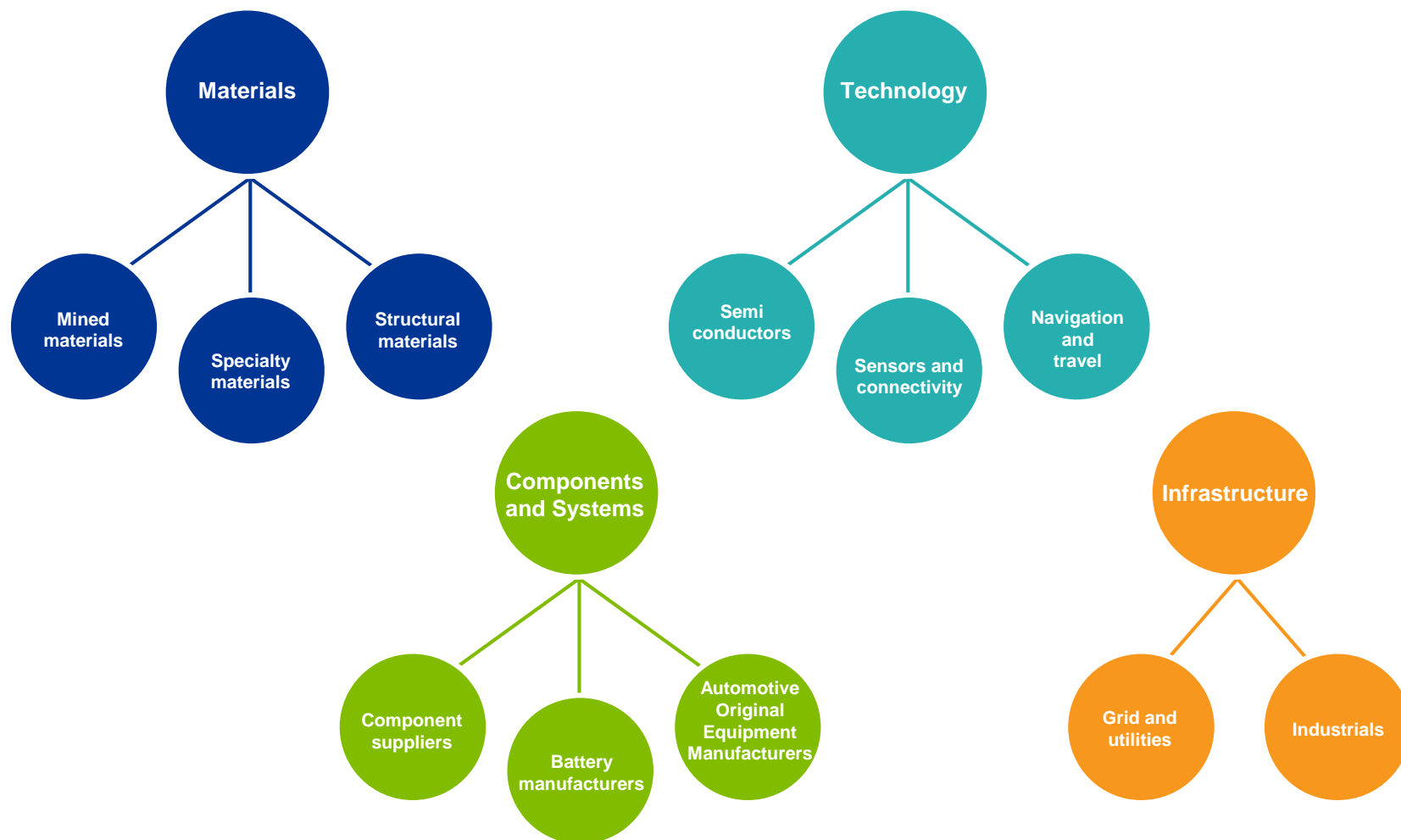
Source: BlackRock, July 2019. For illustrative purposes only. There is no guarantee that any forecasts made will come to pass.

More than just electric vehicles



Source: BlackRock 2019. For illustrative purposes only.

Investment Universe



Source: BlackRock 2019. For illustrative purposes only. Subject to change. This material is provided for informational purposes only and is not intended to be investment advice or a recommendation to take any particular investment action.

EV types

1

Mild hybrid electric vehicles (HEVs)



Powered by both gasoline and electricity with the battery charged through the braking system (regenerative braking)

CO2
~15%*
Reduction

2

Plug-in hybrid electric vehicles (PHEVs)



Powered by both gasoline and electricity with the battery charged through regenerative braking and through being 'plugged-in'

CO2
~50%*
Reduction

3

Battery electric vehicles (BEVs)



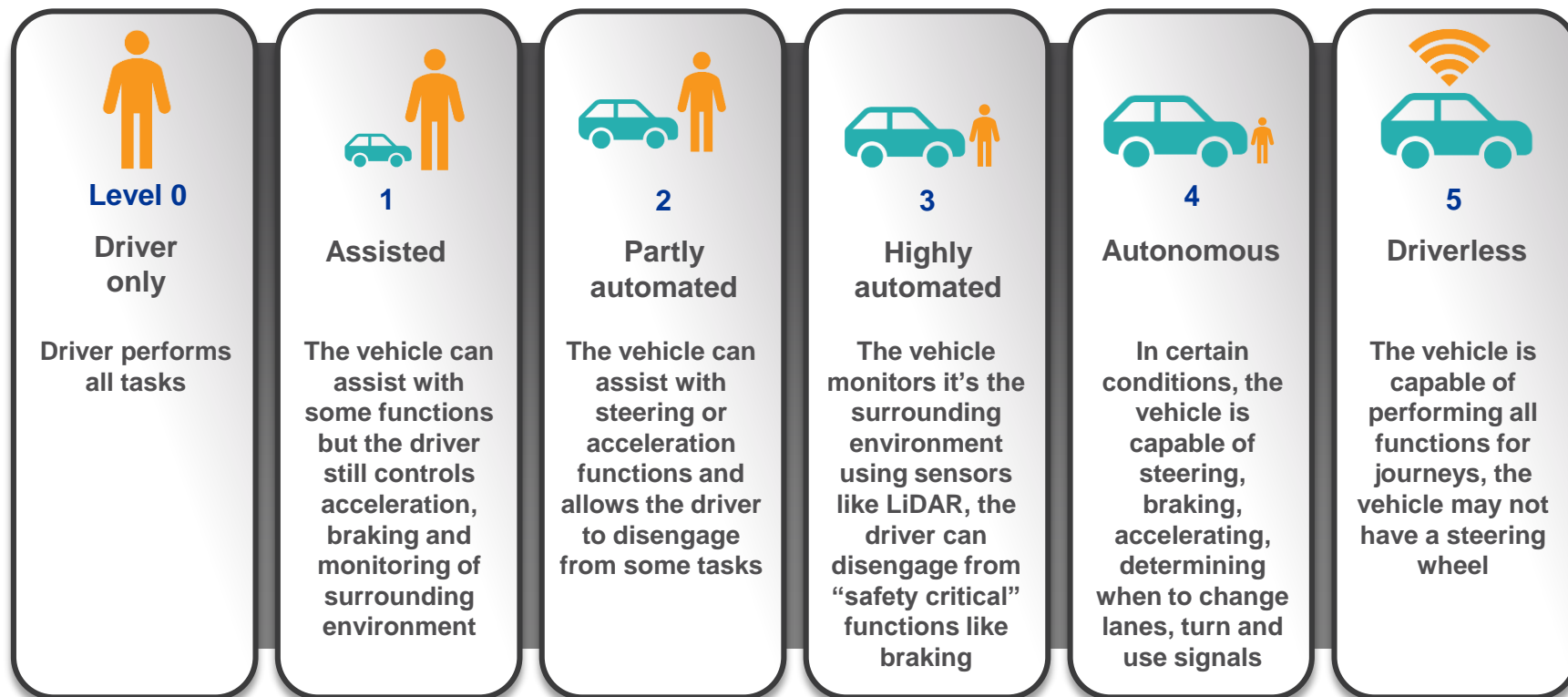
Powered solely by electricity with no internal combustion engine with the battery charged through regenerative braking and through being 'plugged-in'

CO2
~100%*
Reduction

Source: Bloomberg New Energy Finance, May 2018. *CO2 reduction at the point of usage relative to the average gasoline vehicle. This does not factor in the pollution caused during the production phase.

Autonomous vehicles

5 levels of automation



1.2 million lives are lost in traffic crashes around the world each year - 94% of cases involve human error

Source for statistic: Google Waymo Safety Report, March 2018. For illustrative purposes only.



BGF Next Generation Technology

Seeking to invest in the vanguards of disruption and innovation

February 2019

PLEASE NOTE THAT THE
FUND TYPICALLY HAS A
RISK OF HIGH
VOLATILITY

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1

Technology is reshaping industries across the globe, creating opportunities for investors to generate alpha

Some of the emerging global themes driving technology today



Artificial Intelligence



Cloud Computing



Autonomous Vehicle - Electric Vehicle



Internet of Things

Reshaping industries across the spectrum



IT spending expected to grow to **\$4.3T** by 2022



Equivalent to the world's **third largest** GDP

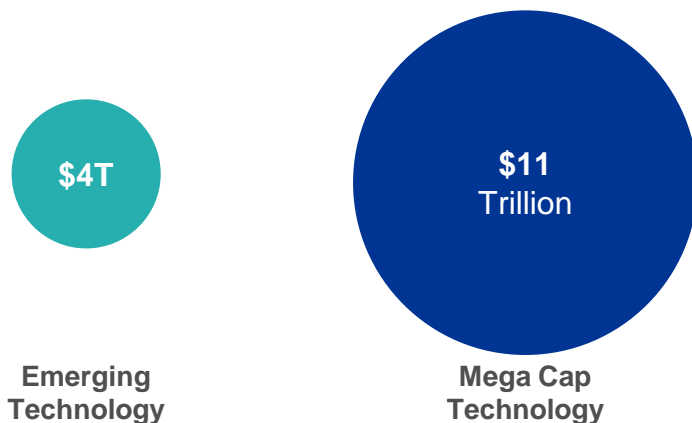


23% increase from today

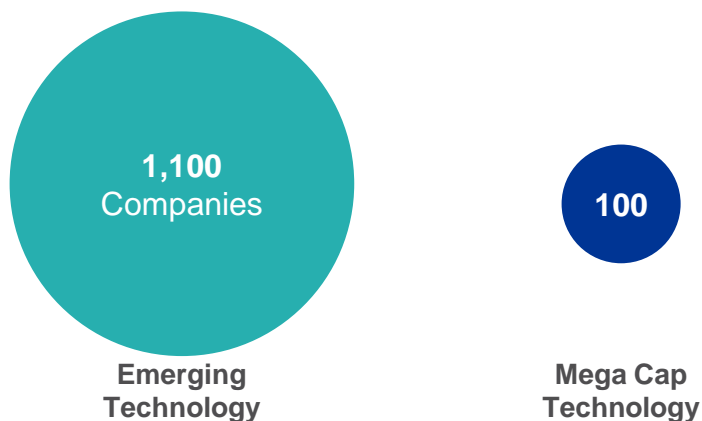
Source: Gartner Research as at 31 December, 2017. For illustrative purposes only. Forecasts may not come to pass and are subject to change.

A wealth of opportunity outside of the mega caps

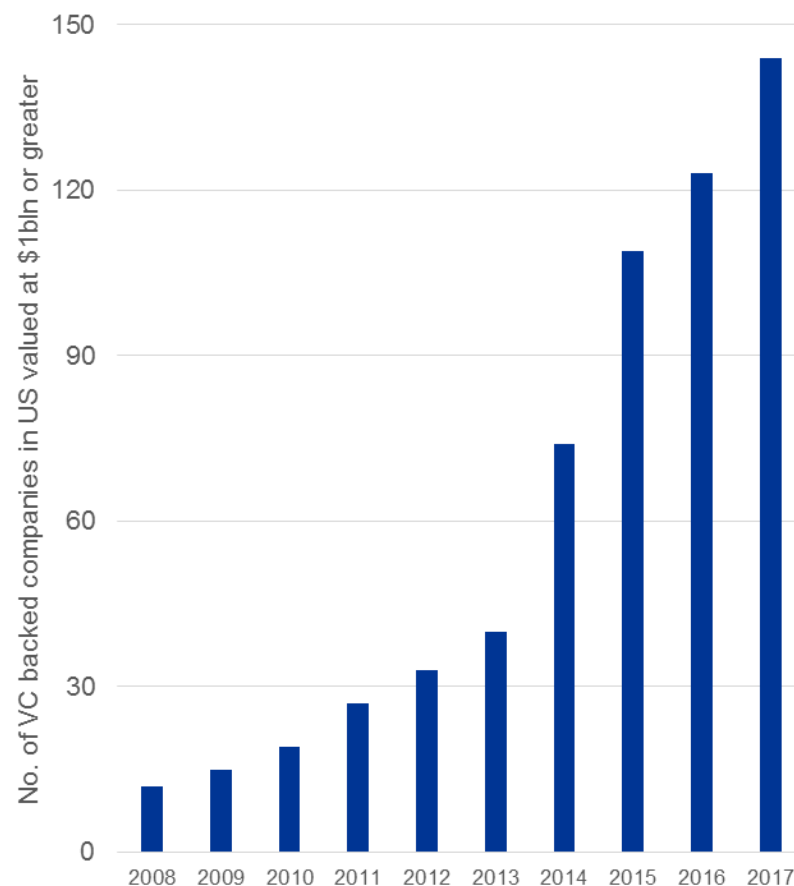
Global Technology by Market Cap (~\$15T)



Global Technology by # of Companies (~1,200)



Pending pipeline of new companies to come to public market



Investors could be missing a myriad of opportunities in the technology space due to the market size of a small number of companies

Source: Left: BlackRock and Bloomberg as at 30 June, 2018. Right: PitchBook as at 31 December, 2017. All figures in USD.

Alphabet

Consolidated Statements of Operations

Google segment

	2017	%
Google advertising revenues	95,375	86%
Google other revenues	14,277	13%
Google segment revenues	109,652	99%

Other

Nest & Verily	1,203	1%
DeepMind (AI)	-	
Waymo (Autonomous vehicles)	-	
Chronicle (Cyber security)	-	
Sidewalk Labs (Urban innovation)	-	
Google Ventures	-	
Jigsaw (Technology & Geopolitical think tank)	-	
Capital G (Equity investment fund)	-	
Calico (Biotechnology)	-	
X (R&D)	-	
Other revenues	1,203	1%
Totals	110,855	

Source: Company Annual Report, 31 December, 2017

AMD

Makes components used in servers that process AI/machine learning

veoneer

Component vendor for autonomous cars



zscaler

Cloud based security



Simulation software to optimise design

Revenue growth FY2	Gross margins FY2	% NAV in portfolio
10%	39%	1.4%

18%	21%	0.9%
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26%	81%	0.4%
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13%	71%	1.7%
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Source: BlackRock, 31 July, 2018. The specific companies identified and described above do not represent all of the companies purchased or sold, and no assumptions should be made that the companies identified and discussed were or will be profitable. Holdings can change at any time and are provided for informational purposes only and should not be deemed as a recommendation to buy or sell the securities mentioned or securities in the industries shown above. The specific stock has been selected because it represents a mega cap stock with diluted exposure to emerging themes.

The winners of tomorrow are unlikely to be the winners of today

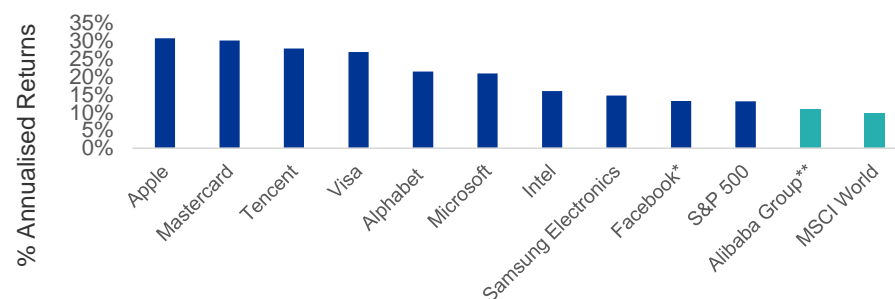
Investor returns are maximized before a company becomes a leader of today

2018

Market Capitalisation 31 December, 2018 (USD)	
Apple	\$748 bln
Alphabet	\$723 bln
Microsoft	\$785 bln
Facebook	\$377 bln
Alibaba Group	\$355 bln
Tencent	\$375 bln
Visa	\$291 bln
Samsung Electronics	\$284 bln
Intel	\$214 bln
Mastercard	\$195 bln

Annualised Returns

10-year annualised returns



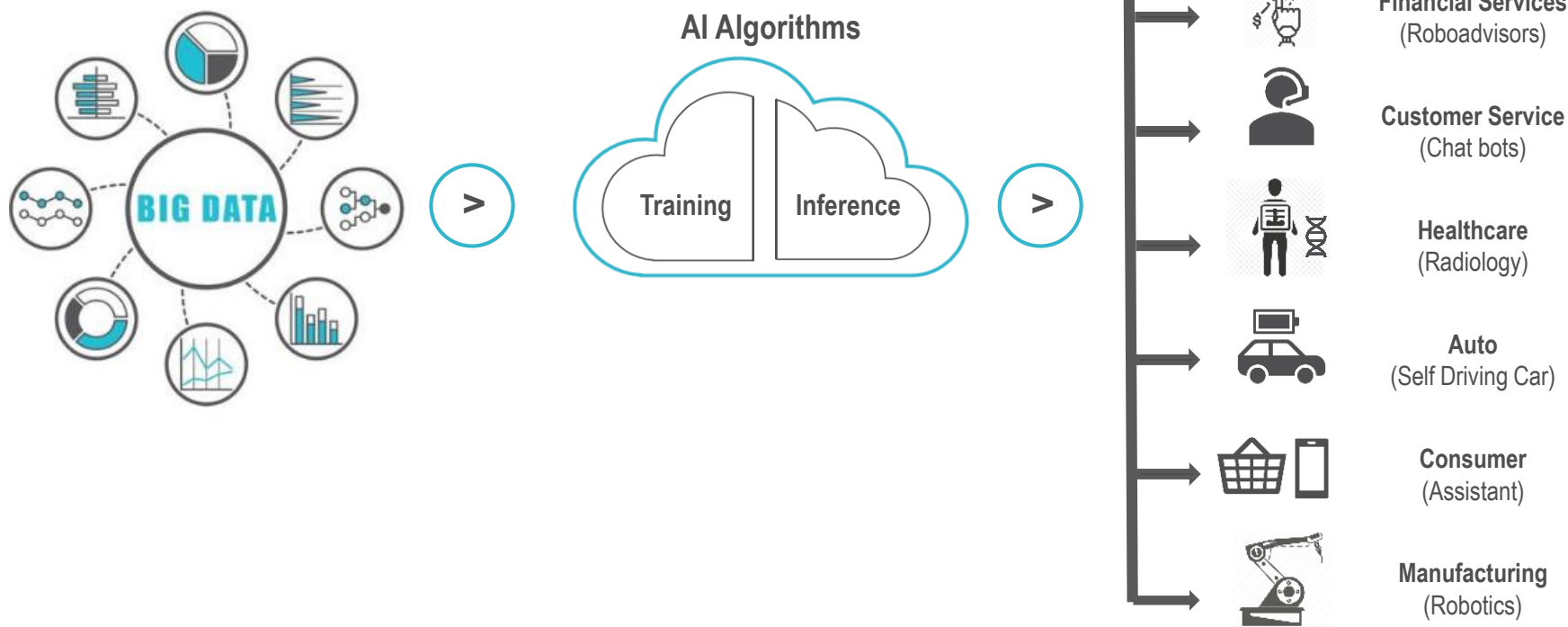
Performance (%)	Dec 17- Dec 18	Dec 16 - Dec 17	Dec 15 - Dec 16	Dec 14 - Dec 15	Dec 13 - Dec 14
Tencent	-24.2%	113.6%	25.5%	34.8%	13.4%
Facebook	-25.7%	53.4%	9.9%	34.2%	42.8%
Apple	-5.41%	48.4%	12.4%	-3.0%	40.4%
Mastercard	25.3%	47.7%	6.9%	13.8%	3.7%
Visa	16.5%	47.2%	1.4%	19.1%	18.6%
Alibaba Group	-20.5%	96.4%	8.1%	-	-
Microsoft	20.2%	40.7%	15.0%	22.8%	27.5%
Alphabet	-0.8%	32.9%	1.9%	46.6%	-2.8%
Samsung Electronics	-3.1%	84.5%	24.3%	-5.2%	-18.7%
Intel	4.1%	30.9%	8.7%	-2.2%	44.0%
S&P 500	-4.4%	21.8%	12.0%	1.4%	13.7%
MSCI World	-8.7%	22.4%	7.5%	-0.9%	4.9%

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. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: Bloomberg, Morningstar, technology companies defined by the information technology GICS sector, as at 31 December, 2018. *Facebook annualised since IPO, 18th May 2012. Alibaba annualised since IPO, 19th September 2014. The specific companies identified and described above do not represent all of the companies purchased or sold, and no assumptions should be made that the companies identified and discussed were or will be profitable. Holdings can change at any time and are provided for informational purposes only and should not be deemed as a recommendation to buy or sell the securities mentioned or securities in the industries shown above. The specific stocks have been selected because they represent the largest tech companies by market

Artificial Intelligence: The AI big bang is upon us



- AI will replace human tasks that are repetitive or can't scale
- All industries will be impacted
- AI to be embedded in most aspects of modern life



Source: BlackRock, January 31, 2019. AI: Artificial intelligence. EV: Electric vehicles. AV: Autonomous vehicles. OTT: Over-the-top. CPG: Capital goods. For illustrative purposes only.



New Energy Fund

A sub-fund of BlackRock Global Funds

Natural Resources Team, London

March 2019

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Climate Change will have environmental, financial and regulatory implications

124 glaciers

have melted in Glacier National Park since 1910. There are now only 26 left¹

16 of the 17

Hottest years in history have occurred since 2000²



\$165bn

of GDP is under threat in the world's leading 279 cities due to climate related risks³

Article 173

Requires asset owners and asset managers in France to disclose information on exposure to climate risks⁴

Climate change is one of the most powerful megatrends reshaping the global landscape, offering a tailwind for earnings of those companies tied to this megatrend

For illustrative purposes only. Source:¹ NPS, 2017. ² BlackRock, PWC, NASA , 2018. ³ Lloyd's city risk index, June 2018. ⁴ European SIF; December 2016. All figures in USD.

However, this creates a multifaceted growth opportunity



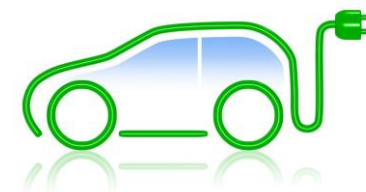
Energy efficiency

- Urbanisation
- Continued infrastructure expansion and modernisation
- Greater focus on energy efficiency (electricity, heat)
- Advanced building management and automation
- Changing consumer preferences



Power

- Increasing adoption of sustainable energy
- Distributed networks
- Smarter grid, meter and network infrastructure
- Enhanced asset management activity; digitisation solutions



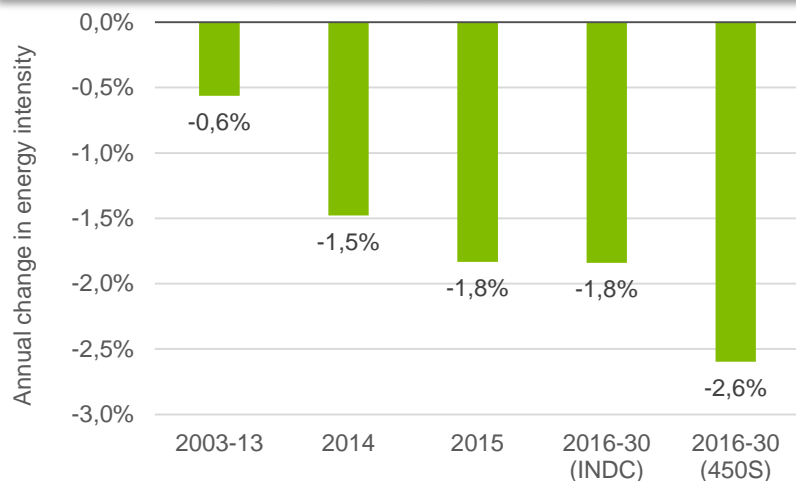
Transport

- Pollution control, increasing public awareness and regulatory impacts
- Electrification and hybridisation
- Autonomous driving
- Greater use of technology and data analytics with increasing content per car
- Advanced materials and design

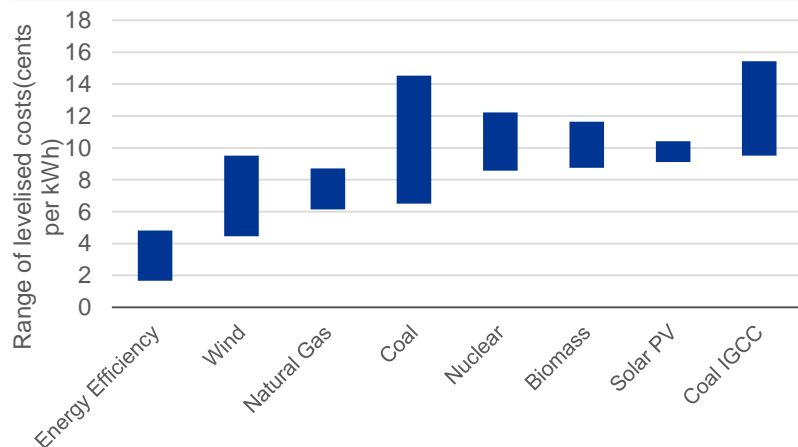
BlackRock, March 2019. For illustrative purposes only.

Energy efficiency: Doing more with less

Changes in global energy intensity 2003 - 2030



Energy efficiency makes clear economic sense



Consumers are becoming more energy conscious



LED light bulbs are now the conventional choice

They use more than 75% less energy than incandescent bulbs and last 25 times longer (US dept. of energy, 2018)

Smart homes are reducing wasted power

Evidence shows around a 6-7% saving in household gas consumption (Source: Nest, November 2017)



Consumers are switching to energy efficient appliances

~65% energy saving if you reduce washing temperature from 40C to 20C

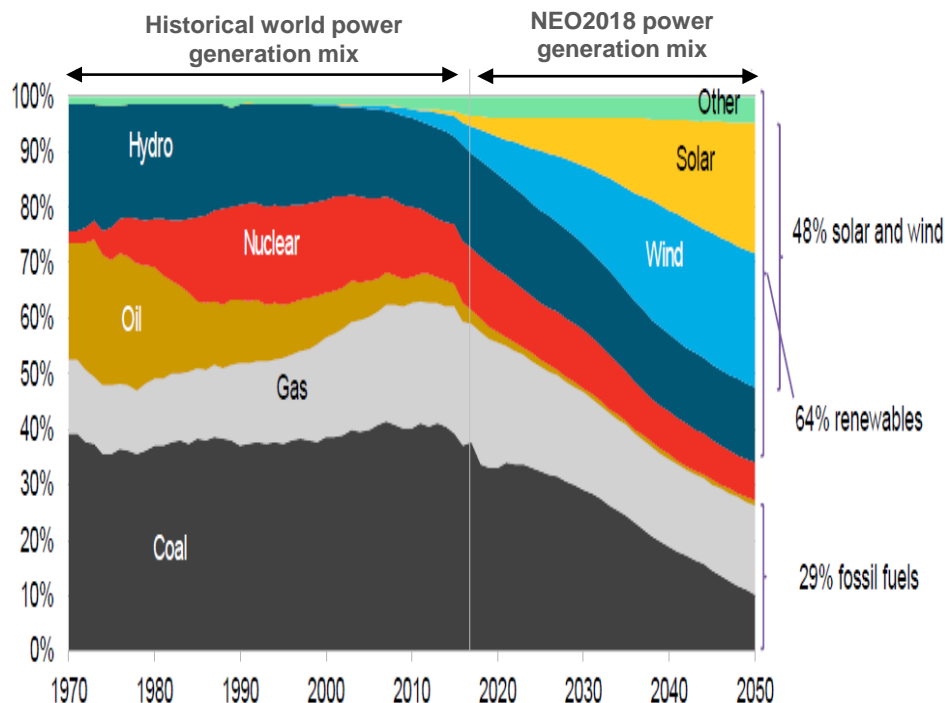
(Source: US Dept. of Energy, Which, Energy Savings Trust, December 2015)



This information should not be relied upon by the reader as research, investment advice or a recommendation. Any future estimates presented may not come to pass. Source: top left: IEA Energy Efficiency Report December 2016. bottom left: BP Energy Outlook, 2015. Any opinions and/or 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.

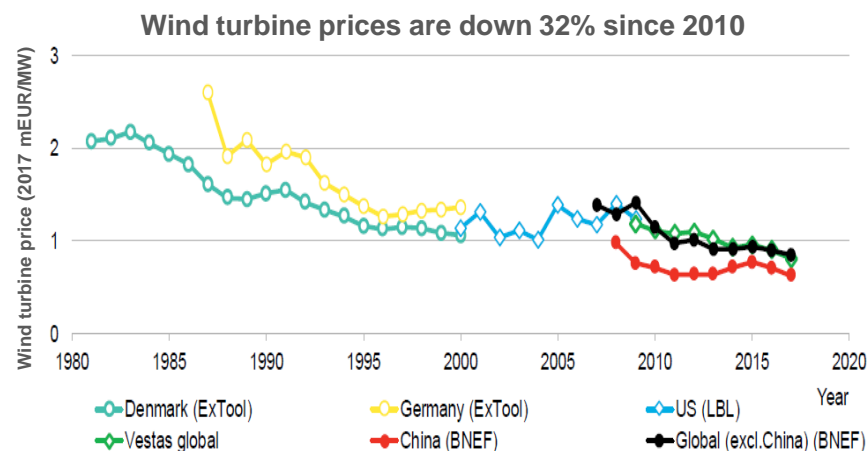
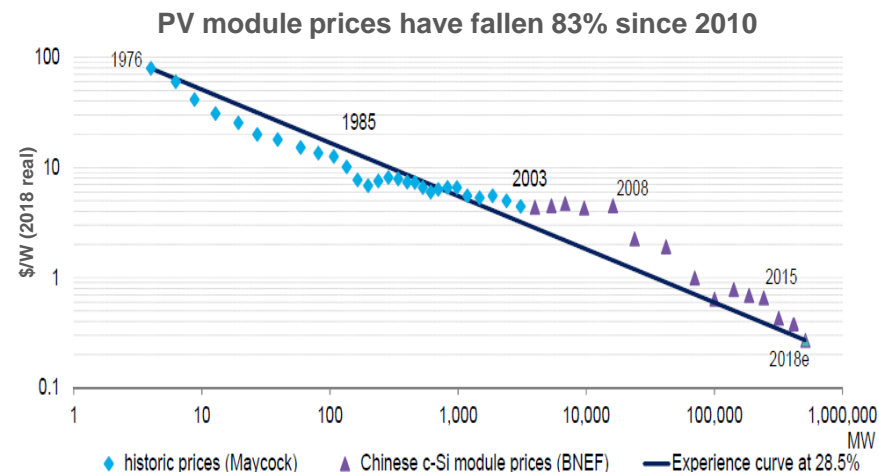
Power: Pace of decarbonisation continues to upside surprise

Investment in renewables continues to accelerate...



64% of investment in new power generation through to 2050 is expected to be on renewables.

...driven by falling costs



Source: Bloomberg New Energy Finance, 2018. There is no guarantee that any forecasts will come to pass.

New Energy investment view

- ✓ The New Energy sector is poised to benefit from the multi-year transition to a lower-carbon economy
- ✓ We believe we are at, or close to, a tipping point in multiple technologies, with lower costs and technological improvements accelerating adoption
- ✓ Regulatory support remains broad-based. The US administration's stance is a risk but is potentially over-stated
- ✓ Valuations look attractive relative to history, broader markets and other growth sectors



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