



In a time of accelerating change and uncertainty...

...the future is harder to predict than ever.

As creators of the built environment, we're typically wired to jump into design right away and explore solutions – but when your only reference is the rearview mirror, how do you know you're not taking an enormous risk?





There's no foolproof method, but there is a future proof one: data-driven design. Or, as we affectionately call it –

DATA NOT DIVA.

We wanted to explore the future of the mall. A defining institution in North America and a global phenomenon, the mall as we know it has met its greatest challenge yet – ecommerce. Many are dying, many are struggling to reinvent themselves and still, amidst the chaos, others are flourishing. We identified eight attributes that we believe to be the key components of every mall. Then, we looked at the trends affecting them today and the big disruptors we see on the horizon – but whose impact we can't predict.













GUESTS

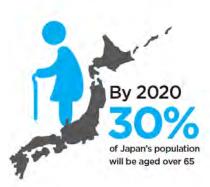


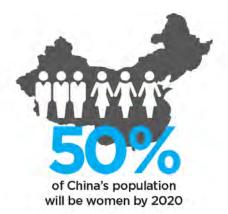
Just three major consumer groups will generate 50% of total global urban consumption growth between now and 2030: the retiring and elderly in developed economies, China's working-age population, and North America's working-age population. This growth is driven by increased per capita spending – not by population growth, which is slowing.

Today we're seeing increased spending on services such as food and beverage (F&B), travel, and "living not having."

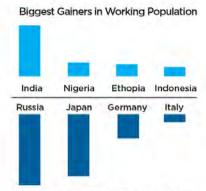
As the population continues to age and working women make up an increasingly influential group, what will they choose to spend their money on?











Biggest Losers in Working Population



One out of every 10 people worldwide will be 65 or older

Frost & Sullivan

B+H









TECHNOLOGY



Ecommerce has turned traditional retail on its head. In North America, ecommerce grew by an average of US\$30 billion annually between 2010 and 2014. Since then, average annual growth has increased to US\$40 billion.

In the ASEAN region, ecommerce is projected to be worth US\$88 billion in 2025. Winners in the ecommerce realm provide a seamless customer experience from clicks to bricks and back again, across multiple digital and analog platforms.

Today the mobile share of global ecommerce is estimated to be 70%, fueled by the 66% of the global population that owns a smartphone.

20 years ago we could never have imagined the way smartphones would change our lives. 20 years from now, will they be consigned to the scrapheap along with the rotary phone? Elon Musk thinks so...











TRANSPORT + MOBILITY

How will advances in mobility change the urban and suburban landscapes?







TRANSPORT + MOBILITY



The world is already preparing for the autonomous vehicle. The town of Milton Keynes in the UK is launching a fleet of driverless pod taxis next year. In Shanghai, hungry citizens in need of a midnight snack will soon be able to summon the Moby prototype, a 24-hour mobile convenience store staffed by a friendly hologram. IDEO's WOW pod proposes mobile office space for a productive commute, and Audi's Urban Future Initiative is working on shared street solutions that use networks of embedded sensors to improve safety and mobility for all user types from pedestrians to autonomous vehicles.

Coupled with advances in personal mobility, investment in sustainable transit continues to increase. In 2012, the Multilateral Development Banks Working Group on Sustainable Transport committed US\$175 billion in loans and grants for sustainable transport projects in developing countries from 2012 to 2022 and is on target to meet its goal.

But is that the future? If Star Trek has taught us anything, it should be to never underestimate the power of the imagination. While driverless cars and delivery drones are just months away, Silicon Valley has more in store with Hyperloops, Flying Cars and Airships all in the pipeline. What will they do to our cityscape?



Inhabit.com











INFRASTRUCTURE



It's no secret that US infrastructure is in a woeful state, achieving dismal D grades on the American Society of Civil Engineers' scorecard every year since 1998. The 2017 Failure to Act Report estimates that infrastructure deficiencies will cost the US economy almost US\$4 trillion in lost GDP and result in 2.5 million job losses by 2025. North of the border, Canadian malls are significantly outperforming their American cousins, in no small measure due to investments in rapid transit. Unburdened by existing entrenched systems, developing countries are in many cases able to leapfrog antiquated infrastructure approaches and develop modern rail, energy, and data networks. China is spending an annual average of 6.7% of GDP on infrastructure, with Vietnam a close second at 5.7%.

While mall owners battle the threat of ecommerce, the increase in web activity means investors in data centers and cell towers are reaping rich rewards. In North America, ROI for data centers was 22% in the first half of 2017.

Although overshadowed by political rhetoric, a global energy transition is underway with over 24% of global electricity produced from renewables (predominantly hydro) in 2016. China has emerged as the global leader in renewable energy, investing US\$102 billion domestically in 2015 and US\$32 billion in foreign renewable investments in 2016.

Infrastructure quality and adaptability will likely determine the success or failure of the innovation economies of the future.

State of US

Infrastructure

D+

No improvement since 2013









SPACE ASSETS

"The internet isn't killing malls, other malls are."

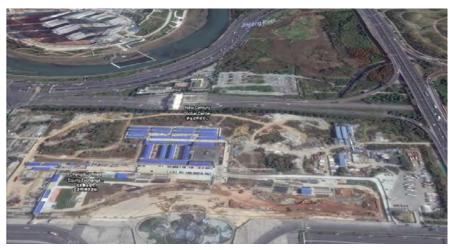
The transformation is already underway: from Hong Kong's urban mega malls where tens of thousands of people live, work, and play without ever seeing the light of day to North America's reinventions that include new urban city center concepts like Lougheed Town Centre in Burnaby, BC to rural, agricultural village makeovers like Serenbe in Chattahoochee Hills, Georgia.

Traditional big box anchor tenants are losing ground to nimble pop-ups – a physical presence generated by high virtual demand – that come and go, also on demand. Vast acres of paved parking, from multi-storey to surface to subterranean lots, will become increasingly redundant as new modes of transport displace the traditional personal automobile. Space required for huge stocks of inventory already stands empty as consumers' instant door-to-door delivery expectations are satisfied from peripheral warehouses.

Retail space assets are changing to reflect highest and best use in a retail environment that no longer requires a permanent brick and mortar home.



Mall of America, Bloomington, MN, USA



New Century Global Center, Chengdu, China













TENANT MIX



Fueled by the experience economy – the desire to live rather than have – F&B spending across most countries outpaces grocery spending. F&B is forecast to occupy 20% of the total space in US malls by 2025 and today already occupies 30% of space in Asian mega malls, sometimes exceeding 40%.

As traditional anchor stores fail one by one, the new success stories are the off-price retailers like Nordstrom Rack and TJ Maxx in North America, with potential to capture a relatively untapped Asian market. Resurgent during the US depression, demand for bargain finding remains strong as "treasure hunting" becomes its own form of entertainment.

Chinese shoppers account for 30% of global personal luxury goods sales but President Xi Jinping's anti-corruption campaign has influenced a less conspicuous consumption and growth is slowing and stabilizing.

Experiential retail like REI's outdoor education and community engagement programs, IKEA's "hang out and try it" showrooms, and the new kids on the block – virtual reality multiplexes and spectator e-sports – are all challenging conventional notions of space allocation and use.



SOHO Indoor Food Street, City of Dreams, Macau











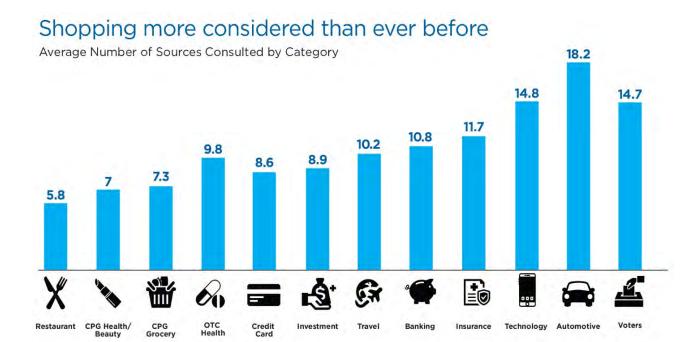
USER EXPERIENCE



The age of big data and knowledge at the touch of a button has transformed the decision-making process for consumers. Purchases are more considered than ever before with consumers consulting a minimum of six or seven different sources for food and beauty products to a whopping 10 to 18 different sources for bigger purchases such as technology, automobiles or banking/insurance decisions. Social media is particularly influential with 47% of millennials being guided by the posts, pins, views, and blogs of their peers and friends.

Since Amazon introduced same-day delivery in 2009, they have continued to raise customer expectations for fulfillment, almost to the minute. New technologies have changed customer expectations forever. Today customers expect "digital parity". They presume their physical experiences will be as seamless and effortless as their digital ones.

At the same time, in an era of mass commoditization and instant fulfillment, niche products, experiences, and services uniquely suited to fit individual tastes, interests, and aspirations have become what PricewaterhouseCoopers (PwC) refers to as, "the new consumer indulgence." Customers are turning to the physical environment for unique, curated experiences.



Source: Google ZMOT Study, 2011











INVESTORS



Change, not growth, is shaping an increasingly global investment market. Cities are in ascendance as centers of action while national and international governments struggle to keep pace with change. In the US, Wall Street is speculating that shopping malls may be the next Big Short. In an over-retailed nation, a 2012 USDA report found that 10% of the US population live in a low-income, underserved community (more than a mile from the nearest supermarket). Local governments are recognizing that mixed-use projects create the critical mass that drives additional investment and are beginning to make public sector investments in structured parking, enhanced streetscapes, improved utilities, and to provide affordable housing incentives to stimulate growth.

Across the Pacific, investors are waiting to see if the dominance of retail REITs will save or condemn Singapore's struggling mall scene. Confidence in China remains strong with Blackstone Group, one of the largest real estate investors in the world, expected to invest their second \$5 billion Asian Real Estate Fund in warehouses and shopping malls in China, India, South East Asia, and Australia between 2017 and the end of 2018. The first, launched in 2014, is now 70% invested and generated a 17% return through September 2016.

- FOCUS ON THE OCCUPIER,
- "BUILD TO CORE"
 IN GATEWAY MARKETS
- FOCUS ON FLEXIBLE, CORE PROPERTY, WITH SUPER-PRIME IN DEMANI
- CITIES, NOT COUNTRIES
 WILL BE KEY
- INVEST IN LOCAL
 PLATFORMS, DIRECTLY,
 IN JVS & VIA M&A ACTIVITY













PL* 5 DISRUPTORS



CHANGING FACE OF CONSUMER

- MIDDLE CLASS EXPANSION (GLOBAL)
- AGING POPULATIONS
- MILLENNIAL ASCENDANCE
- SHRINKING HOUSEHOLD SIZE
- INCREASING INCOME INEQUITY

3X GLOBAL MIDDLE (LASS SPENDING



GEOPOLITICAL DYNAMICS

- RISING LABOR COSTS
- RISING COMMODITY COSTS
- ECONOMIC POWER SHIFTS
- ECONOMIC INTERCONNECTEDNESS
- CLIMATE CHANGE IMPACTS

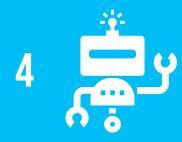
(HINA GDP > VS GDP IN 10 YEARS



NEW PATTERNS OF PERSONAL CONSUMPTION

- DESIRE FOR CONVENIENCE
- DEMAND FOR PERSONALIZATION
- FOCUS ON SHOPPING EXPERIENCE
- FOCUS ON HEALTH/WELLNESS
- BUYING LOCAL
- SHARING ECONOMY

SHARING E(ONOMY IN 2025 > US 300B



TECHNOLOGY ADVANCEMENTS

- MOBILITY
- VIRTUAL REALITY
- APPLIED BIG DATA
- ARTICIFIAL INTELLIGENCE
- ADVANCED ROBOTICS
- SOCIAL MEDIA-DRIVEN CONSUMPTION
- INTERNET OF THINGS
- WEARABLES

3/4 OF GLOBAL
POPULATION WILL HAVE A
MOBILE DEVICE BY 2030



STRUCTURAL INDUSTRY SHIFTS

- ACTIVIST INVESTORS
- ACTIVIST CONSUMERS
- CONTINUING CONSOLIDATION
- VERTICAL INTEGRATION

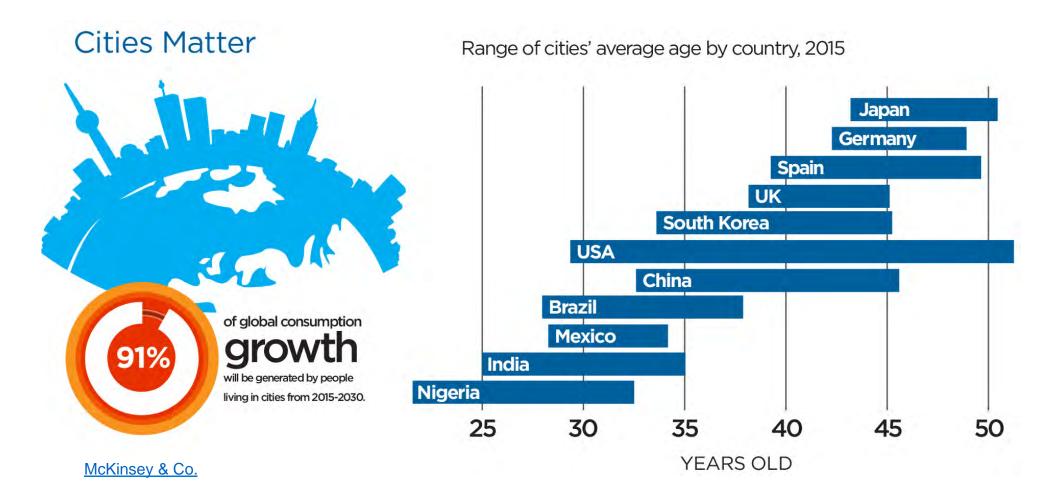
> 300 (OMPANIES FA(ED ACTIVIST DEMANDS IN 2014







DISRUPTOR / Dramatically Different Demographics

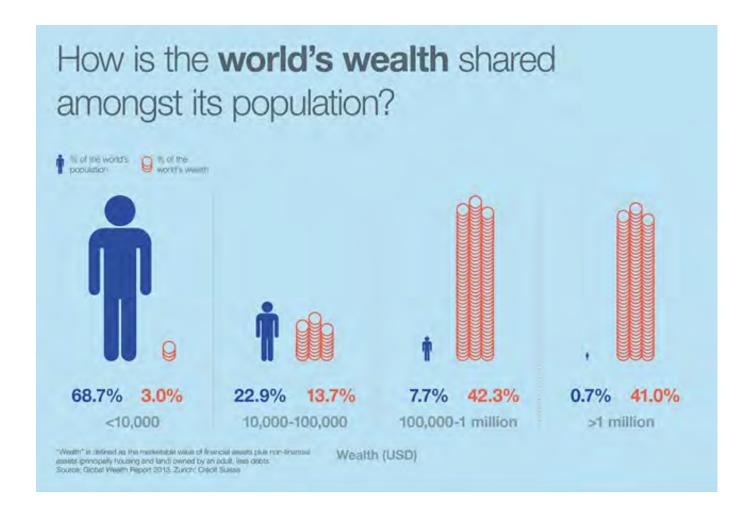








DISRUPTOR / Increasing Inequity



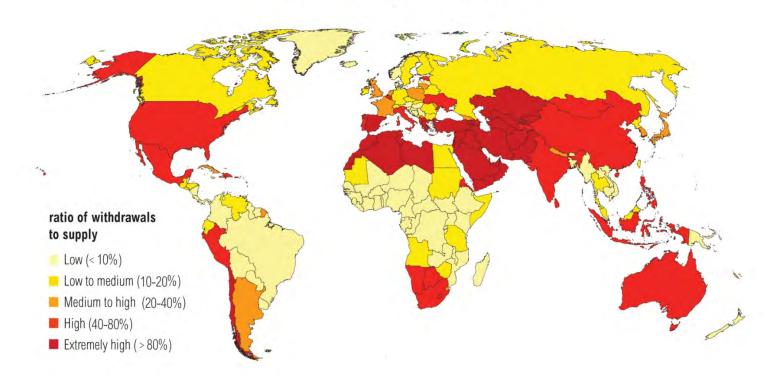






DISRUPTOR / Stressed Natural Resources

Water Stress by Country: 2040



NOTE: Projections are based on a business-as-usual scenario using SSP2 and RCP8.5.

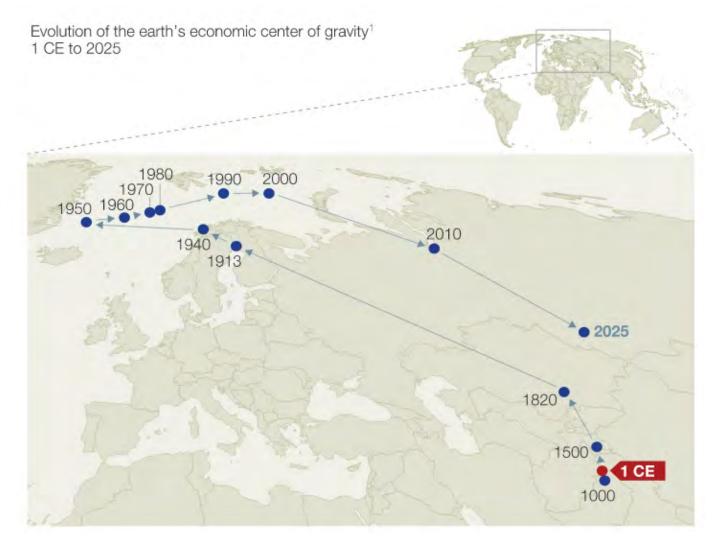








DISRUPTOR / Economic Power Shift









DISRUPTOR / Sharing Economy



- More than 33% of millennials belong to a sharing service or expect to join one this year
- Sharing economy expected to be worth \$335 billion by 2025







DISRUPTOR / Artificial Intelligence

Neural lace involves implanting electrodes in the brain so people can upload or download their thoughts to or from a computer.

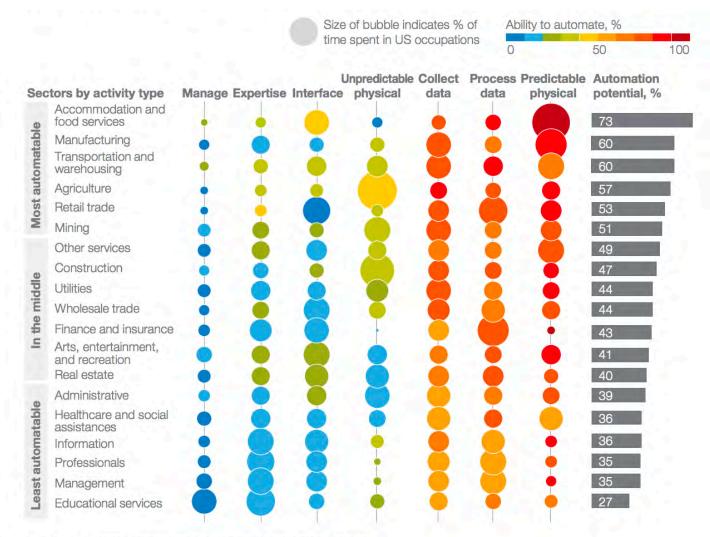








DISRUPTOR / Automation



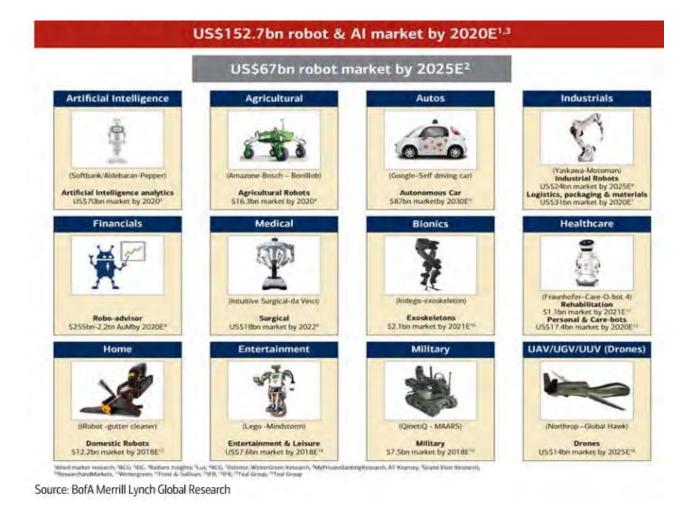
- 25% of tasks salespeople do will be automated this year
- 58% will be automated by 2020







DISRUPTOR / Rise of the Robot

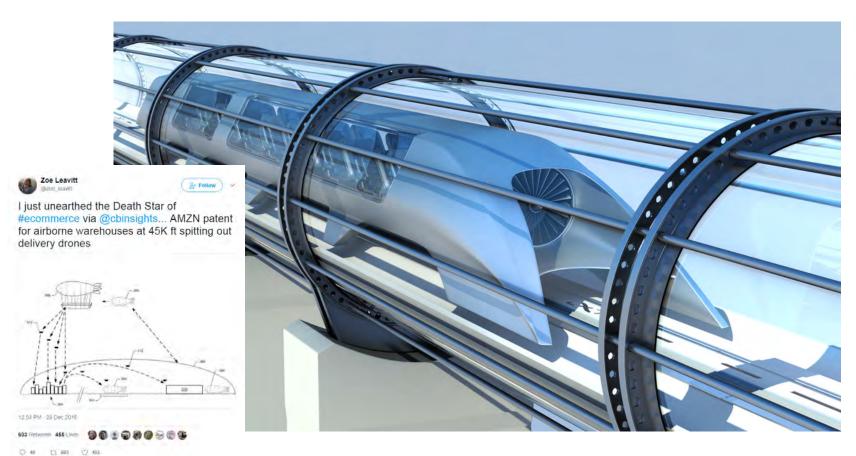








DISRUPTOR / Hyperloops, Flying Cars + Airships





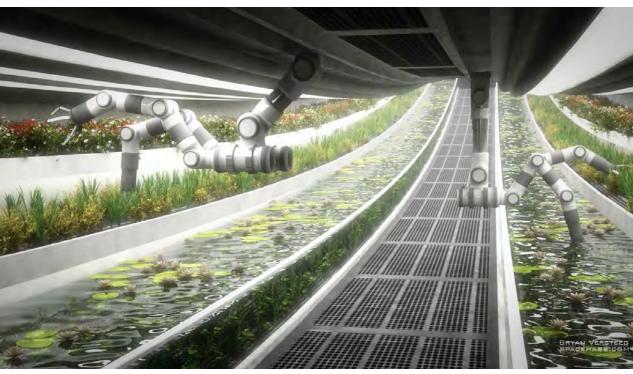






DISRUPTOR / Future of Food

Space Farming



Bryan Verteeg, Spacehabs.com

The world's first lab-grown burger, 2013







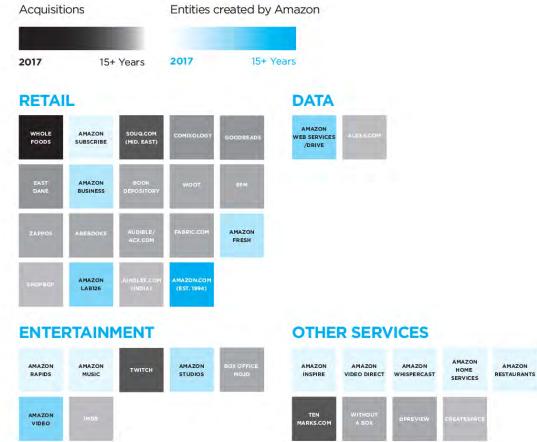


DISRUPTOR / Consolidation

Amazon's Basket of Companies

The acquisition of Whole Foods will complement the company's forays into the grocery market, one of several retail sectors it has plans to reshape.





Source: Staff Reports







DISRUPTOR / Activist Investors



CANADA

Companies publicly subjected to activist demands in:

2016: 49 **2015**: 60



Breakdown of Canadian basic materials companies publicly subjected to activist demands.

Canada saw one of the sharpest drops in activism in 2016, likely due to the weight of energy sector in a low oil price environment.

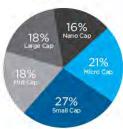




UNITED STATES

Companies publicly subjected to activist demands in:

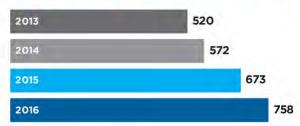
2016: 456 **2015**: 418



Breakdown of U.S.-based companies publicly subjected to activist demands in 2016 by market cap.

Of the U.S. companies publicly subjected to activist demands in 2016, those with a market cap of \$10 billion and above saw the biggest change in activist volumes, down three percentage points compared to 2015.

More companies are publicly targeted by activists each year

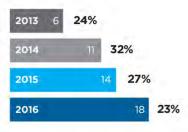


48% As

ASIA

Companies publicly subjected to activist demands in:

2016: 77 2015: 52



Proportion (%) of activists making public demands at Asia-based companies, who are classified by Activist Insight as having a primary or partial focus on activism.

The total number of investors who regularly use activism as part of their investment strategy played their part in increasing the volume of activism in 2016, but their contribution declined to less than a quarter of the total number of companies targeted for the first time since 2013, indicating a substantial rise in the number of one off activists.

B+H





