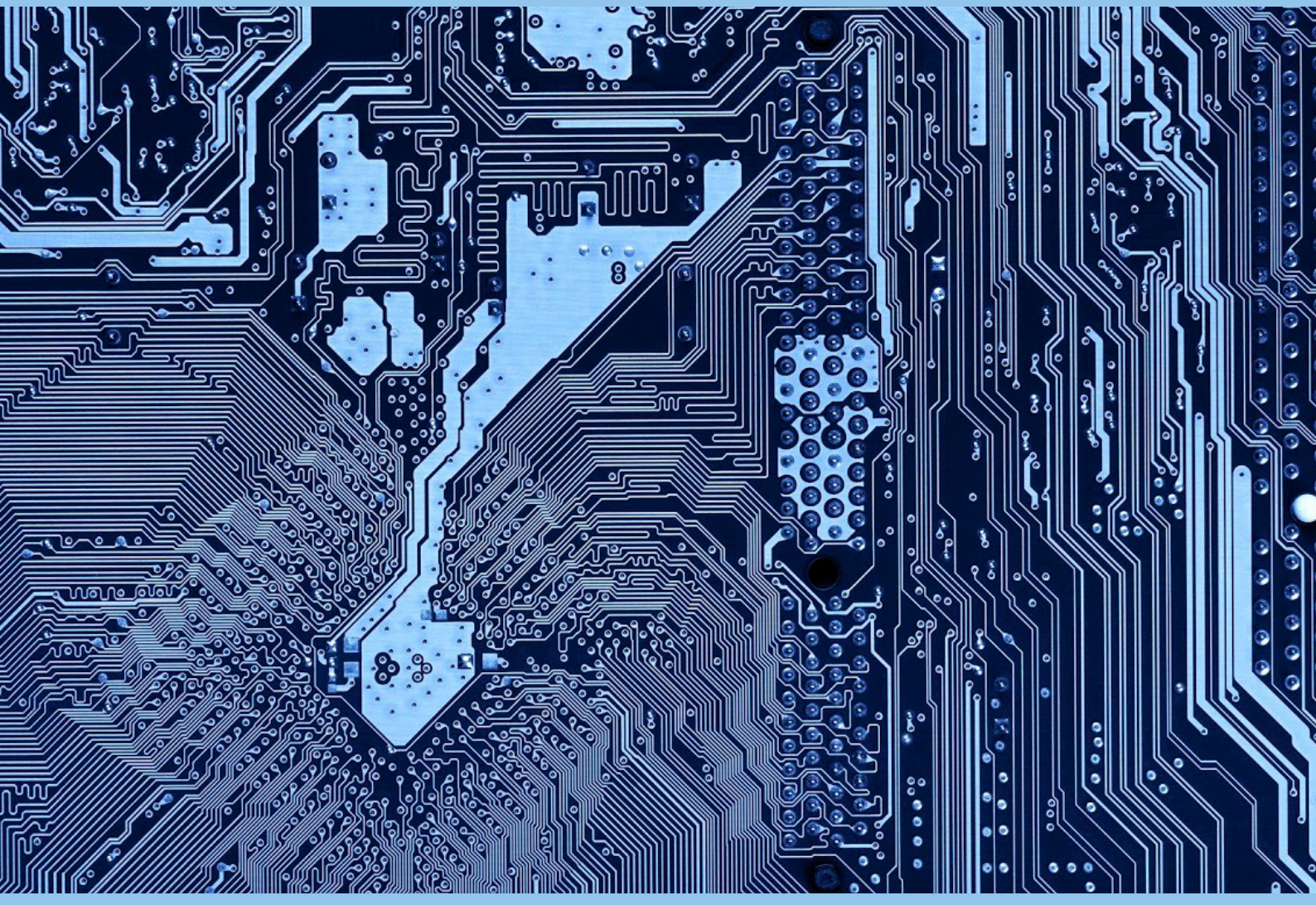
The Economist Intelligence Unit

A report from The Economist Intelligence Unit

Assessing enterprise readiness for the IoT

Executive summary



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Since the "Internet of Things" (IoT) first came to mainstream attention in the early 2000s, billions of dollars have been invested in connected machines. These encompass anything from the ubiquitous smartphones, smart appliances and personal health trackers to industrial tools and self-driving cars. By 2020, Gartner predicts that 25bn "things" will be connected to the Internet. While the technology underlying the IoT and the way devices, machines, etc are connected do not change fundamentally with the IoT, the range of competitive and security-related threats to businesses and consumers has already increased exponentially. Most enterprises understand that the world is changing and that they must prepare themselves.

To evaluate enterprise readiness for the IoT, the Economist Intelligence Unit conducted a global survey sponsored by Samsung Electronics. The survey garnered responses from 404 technology executives from the public and private sectors around the world who work on IoT initiatives. The global survey spanned several industries where the IoT is expected to have a significant impact—from construction to finance to education to hospitality. In addition to readiness for the IoT, the survey explored why companies are investing in the IoT and how they expect investments to change in the near future. Companies' readiness was evaluated in three areas: business model and ecosystems, risk management (including data-related issues and regulatory outlook) and talent. Of these, companies across industries were least prepared for disruption of their business models.

About the survey

The survey was conducted in December 2015 and January 2016, garnering responses from 404 technology executives from around the world who work on IoT initiatives in their organisations. Twenty percent of respondents were C-level and 26% were managing directors, senior vice presidents, vice presidents or directors; the rest were heads of business, heads of departments and other senior managers. Respondents represented a range of industries, specifically, construction, education, finance, government/public sector, healthcare, hospitality, retail and technology/ telecommunications, at 12.5% each. Thirty-one percent of respondents came from organisations with annual revenues (or annual budgets for government and the public sector) of $10m-100m; 29% from $100m-250m; 23% from $250m-500m; and rest above $500m. Thirty percent of respondents were from North America; 30% from Europe; 30% from Asia; 10% from the rest of the world.

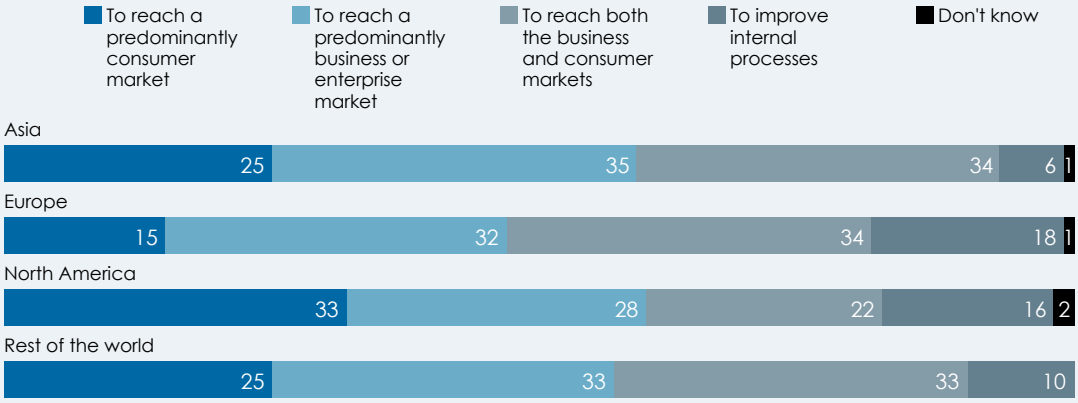
Investing in the IoT: reasons and plans

Automated manufacturing, perhaps the oldest application of IoT, has been joined by an array of sensors throughout the value chain, allowing companies to use the IoT for a broad range of internal and external purposes—from improving efficiency to better meeting existing customer demands to creating entirely new products and services. Only 13% of respondents focus on improving internal processes through the IoT, while the rest focus on reaching consumer or enterprise markets or both (24%, 32% and 30%, respectively).

Respondents in Asia most frequently say that they use their IoT products and services to reach enterprise or consumer markets, which collectively account for 94% of the responses from Asia, rather than internal processes. For respondents based in North America, the most often cited goal for developing their IoT-related products or services is to reach a consumer market, likely related to the higher spending power of the region. Respondents in Europe are focused on the business or enterprise market or both; in Europe, only 15% of respondents are focused on the consumer market.

Respondents expect their companies' investments in the IoT to increase slightly over the next two years worldwide: 43% say their IoT spending will increase moderately (<50% growth per year) and a further 37% expect it to stay the same over the next two years. The smallest share of respondents expect increased spending to

There are notable geographic variations in the goals of an IoT strategy
(% respondents)



Source: The Economist Intelligence Unit survey, 2016

come from North America; 46% of respondents there say that their spending will stay the same, 36% that it will increase moderately.

Larger organisations more often report that they will invest more in the IoT in the next two years: 53% of respondents at companies with global revenues of more than $500m (as well as public sector organisations with an annual budget of more than $500m) expect to increase their spending moderately, compared with 43% across organisations of all sizes. Furthermore, respondents who report better financial performance at their companies than their peers expect to spend more: 33% of companies that are substantially ahead of peers report that their IoT spending will increase significantly (>50%), compared with 7% regardless of where they rank on financial performance, though, of course, firms with better financial performance are likely to have more to spend.

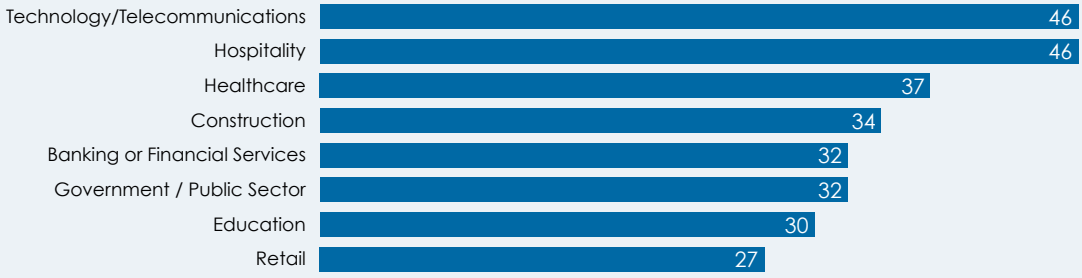
Business models and ecosystems evolve for the IoT

As the IoT becomes more pervasive, companies are expecting to have to make noticeable changes to their business models and ecosystems. Across industries, 45% of the respondents expect either a moderate or significant change in their business models because of the IoT. Among respondents in construction and hospitality, this figure reaches more than half—56% and 52%, respectively. In addition, companies that report better financial performance than their peers more often expect to change their business models significantly in two years as a result of IoT-related pressures.

Respondents most often expect value-chain disruptions in customer-facing segments of their value chains: Coming in at 37% and 33% respectively, sales and marketing and service are the two segments of the value chain that executives around the world say are at the highest risk of being disrupted by competitors because of the IoT. Large organisations (with annual revenues or public budget of more than $500m), however, tend to be more worried about R&D—while still third in priority after sales and marketing and services, 31% of these organisations responded that R&D is at the highest risk of disruption, compared with the 19% of organisations of all sizes.

With some variation across industries, respondents at most organisations feel that they are prepared to manage these disruptions in their business models. Across industries, 48% of respondents say that their organisations are somewhat prepared, while 36% indicate that they are very prepared or extremely prepared.

How prepared is your organisation today to manage business model disruption by the IoT?
(% respondents)



Source: The Economist Intelligence Unit survey, 2016

Rise of data exacerbates the threat of cyber attacks

Collecting and effectively parsing the enormous amounts of data available from the IoT while at the same time managing privacy and security issues are problems that already exist today. Because so much IoT data are more personal than many other kinds of data, security concerns are magnified even further with IoT applications.

Indeed, data security (eg risks to all corporate data) and data privacy (eg risks to customer information) are ranked by respondents as the top risks related to the IoT in the next two years—this is even more often true among respondents at government and public sector organisations. These security concerns worry an even larger proportions of high performers, perhaps suggesting that these companies manage data in greater quantity and of higher value. Seventy-five percent of respondents at companies that report substantially higher financial performance than their peers say that they are worried about data-security risks, compared with 63% across the board.

The good news is that slightly more than half of respondents report that their organisations manage these risks extremely well or very well—and, in many cases, this is thanks to the IT department. For security-related risks, 48% of respondents said that their IT departments were best-prepared. This was the clear favourite, with finance coming in second at only 16%.

How well do you manage risks related to the IoT?
(% respondents)

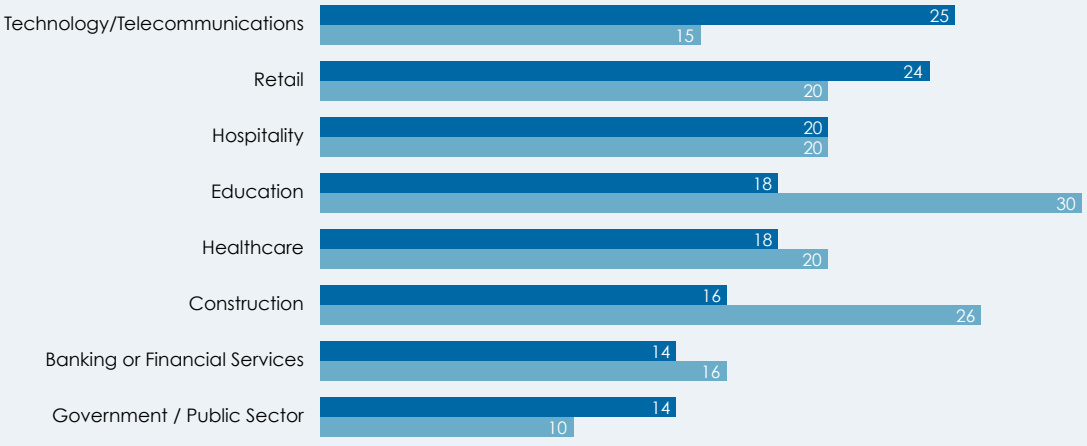
Source: The Economist Intelligence Unit survey, 2016

Organisations focus on preparing their existing workforce

IoT talent is in short supply. Overall, only 18% of respondents say that they have the talent they need to be ready for the IoT, while 23% of respondents say they are currently rapidly hiring new talent related to the IoT and 26% are planning to. The highest demand for IoT talent is concentrated in the government and public sector: 38% of respondents there say they are planning to rapidly hire new talent related to the IoT.

As companies continue to adjust to the IoT, some plan to refine their current approach to HR for the IoT, which is today tactical and department-specific, by creating a mix of tactical and organisation-wide HR strategies. Today, 21% of respondents have an organisation-wide HR strategy related to the IoT, while more than one-third take a tactical approach. Twenty-six percent of respondents plan to adopt an organisation-wide strategy in two years. Educators are most hopeful that they'll have all the talent they need in two years.

% of respondents whose organisations have all the talent they need for their IoT initiatives
(% respondents)



Source: The Economist Intelligence Unit survey, 2016

Looking forward

Most businesses, whether they realise it or not, are already connected to the IoT as this is one clear path of evolution for both software and hardware. As the survey data show, across industries, company sizes and regions, some organisations are far more prepared than others. The data suggest that organisations can improve by preparing customer-facing segments of their value chains, making data security a top priority and training or growing their workforce.

Whilst every effort has been taken to verify the accuracy of this information, neither The Economist Intelligence Unit Ltd. nor the sponsor of this report can accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out in the report.

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London
20 Cabot Square
London
E14 4QW
United Kingdom
Tel: (44.20) 7576 8000
Fax: (44.20) 7576 8476
E-mail: london@eiu.com

New York
750 Third Avenue
5th Floor
New York, NY 10017
United States
Tel: (1.212) 554 0600
Fax: (1.212) 586 0248
E-mail: newyork@eiu.com

Hong Kong
1301 Cityplaza Four
12 Taikoo Wan Road
Taikoo Shing
Hong Kong
Tel: (852) 2585 3888
Fax: (852) 2802 7638
E-mail: hongkong@eiu.com

Geneva
Boulevard des
Tranchées 16
1206 Geneva
Switzerland
Tel: (41) 22 566 2470
Fax: (41) 22 346 93 47
E-mail: geneva@eiu.com