
Your IoT-driven future
Our Middle East Barometer Report 2019
The future is exciting.
Ready?
vodafone business

Digital transformation in the Middle East

The Internet of Things (IoT) is driving innovation and renewed economic growth throughout the Middle East. Our research shows that over a third of businesses across the region are already embracing the opportunities on offer.

IoT adoption in the Middle East is accelerating at a rapid pace. Countries such as the United Arab Emirates (UAE), Egypt, Turkey, Qatar and Saudi Arabia are already making significant investments in IoT infrastructure. This is being driven by several forces. The public sector is seeking to support the growing youth population and address resource scarcity, while both governments and businesses are pursuing IoT as a key area of economic growth.

For example, IoT could help the Middle East to deliver higher standards of living for its growing populations, many of whom are young. More than 60% of the population in the Gulf Cooperation Council (GCC) are below the age of 30, and two-thirds of the population own a smartphone[1]. This is driving a greater demand for connected services and faster networks like 5G — which is being rolled out in several countries this year.

It's not just about delivering better outcomes for the youth market; IoT could significantly improve the wellbeing of all citizens. Many countries in the Middle East are struggling with specific resource challenges. For example, countries such as the UAE and Egypt are dealing with a scarcity of groundwater reserves, coupled with high water consumption rates. Using IoT-enabled water management to tackle these issues is likely to be a major public sector priority in coming years.

Rapid population growth and the speed of urbanisation are also putting pressure on critical roads and infrastructure. In the UAE, government initiatives like "Smart Dubai" have seen the introduction of IoT-enabled parking, live traffic monitoring and smart power grids — helping to make better use of public spaces and enabling more sustainable growth. Meanwhile, Qatar has launched its Connect 2020 ICT Policy that aims to develop smart infrastructure in preparation for the football World Cup in 2022. These initiatives could also have a major impact on tourism in the region.

Finally, IoT offers a way for countries in the Middle East to diversify and ensure their future prosperity, especially as traditional exports like oil dwindle. Saudi Arabia, the UAE and Kuwait are investing heavily in renewable energy and emerging technologies. As the benefits of IoT become increasingly well known, we're likely to see more of the private sector using IoT to drive revenue and unlock new opportunities.

IoT adoption in the Middle East

We surveyed 1,127 IT experts from across the Middle East to discover what they think about IoT: how they're using it, and if they aren't using it what's holding them back.

Over a third (34%) of respondents said their companies have already adopted IoT. That's in line with the findings of this year's global IoT Barometer 2019, suggesting that the Middle East is on par with the rest of the world. A further 32% of organisations have plans to adopt IoT in the coming two years. Only 2% said they had decided against it.

34% **of companies in the Middle East have already adopted IoT.**

Most of the companies in the Middle East that have adopted IoT are still in the early stages of their journey. 15% have been using it for less than a year, and around a third (31%) have been using it for one to two years. But there are others that are already well advanced on their IoT journeys. Just over a fifth (22%) of adopters in the Middle East have been using IoT for more than five years.

For many of these organisations, IoT is becoming central to how they do business. Over a third (34%) have multiple full-scale solutions in place. And almost one in ten (9%) say their entire business depends on IoT.

9% **of adopters in the Middle East say their entire business depends on IoT.**

How companies are using IoT

The future of IoT in the Middle East is very exciting. Compared to a year ago, 71% of adopters have more devices in use, 63% are spending more on IoT, and 67% are more reliant on it. IoT is already paving the way for new business models and revenue opportunities — 72% of adopters in the Middle East say their core business strategy has changed for the better as a result of adopting IoT.

Companies in the Middle East are turning to IoT to help them achieve a wide range of business objectives. Most often it's being used to optimise the use of assets and resources and reduce operating costs. For example, the energy sector in the Middle East is using IoT as a means of integrating renewables, while oil and gas firms are using it to monitor remote assets on both onshore and offshore platforms. IoT is also enabling smart meter networks; this can have a significant impact in countries like the UAE, where water is an expensive commodity and in short supply.

Wide range of uses for IoT

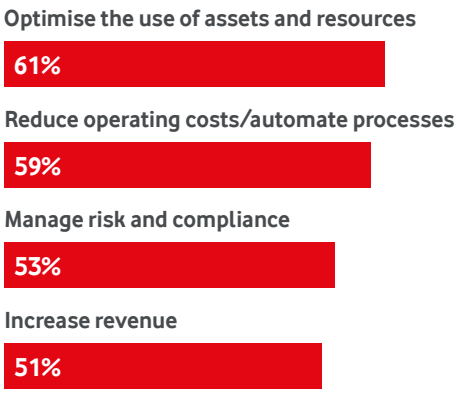


Fig 1. How are you currently using IoT? (adopters, Middle East)

The uses for IoT don't end there. Over half of adopters in the Middle East say that IoT is helping them to manage risk and compliance. In manufacturing, there's been a significant uptake of augmented reality-based plant monitoring — creating safer and more compliant factories. In some cases, IoT is paving the way for entirely new business models. Over half of adopters in the Middle East are using IoT to increase revenue: by differentiating existing offerings or creating new ones, including turning one-off product sales into ongoing service subscriptions.

What are the obstacles to adoption?

With so many ways that IoT can help and improve processes, what's holding some companies back? The most common barrier cited by those still considering IoT was not knowing how to find the right solutions, 40% said this was holding them back — either from getting started in the first place or expanding on their investment. That was followed by the lack of a strong business case — an obstacle reported by 31% of companies. Relatively few companies were concerned about security and privacy (12%); although these are still important considerations in a region that's subject to complex data and national security regulations.

With a robust digital strategy and the right approach to implementation, all of these challenges can be overcome. Read on to discover how you can accelerate your return on investment (ROI) by taking a lead from companies getting the most from IoT.

Dubai is using IoT to revolutionise the way its citizens live, work and play — it's striving to become the "world's smartest city" by 2021. The Dubai Road and Transport Authority recently approved a $161 million smart traffic project — which will use sensors to gather data on weather, accidents and congestion and provide real-time alerts to the public through smartphone apps and digital signage[2].

IoT sophistication drives ROI

We've helped many organisations move from IoT as a concept, through pilots to highly successful programmes delivering real business benefits. We've seen that the companies that do best excel at both strategy and implementation. This year we researched the connection between what we call IoT sophistication and ROI.

We've now assessed nearly 3,000 companies on our IoT Sophistication Index. It measures strategy by looking at how thoroughly IoT projects are integrated with core systems, analytics platforms and wider business outcomes. And it rates implementation based on how developed IoT projects are, the growth of usage, what business outcomes IoT is being used to achieve, and how much the company depends on IoT.

Based on these scores, companies are placed into one of five bands: from "most sophisticated" (band A) through "very sophisticated", "intermediate" and "beginners" to those that aren't actively considering IoT (band E).

Benefits increase with sophistication

Our analysis confirms that both strategy and implementation are important in getting the best results. While there are benefits at every step of the way, the most sophisticated users of IoT achieve the greatest returns. Globally, 87% of adopters from the "most sophisticated" (band A) have seen significant returns from IoT, compared to 17% of "beginners" (band D). The most sophisticated adopters are also more likely to report increased revenue and reduced costs.

Likelihood of seeing significant benefits

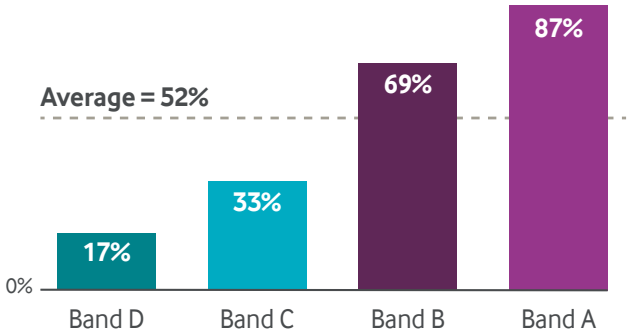


Fig 2. Have you experienced significant returns or benefits from implementing IoT? (All adopters, global)

IoT sophistication in the Middle East

Despite adoption in the Middle East being on par with the global average, companies are not performing as strongly in terms of IoT sophistication. In fact, none of the organisations we surveyed in the Middle East fell into band A ("most sophisticated"), and only 3% reached band B ("very sophisticated"). Two-fifths (40%) are in band D ("beginners"). By comparison, when we look at the global average for IoT sophistication, 2% of companies are in band A and 13% are in band B.

Companies in the Middle East are surging ahead on implementation — they're using IoT, scaling up their projects and adding more devices. But they're behind the global trend for adopters when it comes to strategy. This suggests that many haven't fully integrated their IoT projects with core business systems, or aligned their IoT efforts with wider business objectives.

Comparison of IoT adopters by sophistication

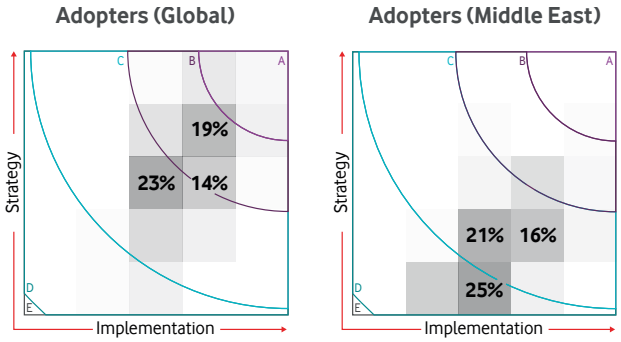


Fig 3. Spread of adopters by IoT sophistication

The region's lower performance on strategy may be partially attributed to company size. Compared to the global average, the Middle East's industrial base is more fragmented and has a higher percentage of small-to-medium sized enterprises. These companies are likely to start their IoT journeys with off-the-shelf solutions. That's helping them push ahead with implementation, in pursuit of specific goals that deliver quick wins. But our research suggests they stand to gain even more by developing a robust digital transformation strategy.

In the next two sections, we offer key tips to help companies improve their IoT strategy and implementation. As we've seen, this increases the likelihood of realising significant benefits.

Strengthening IoT strategy

Whether you're still considering IoT or you already have multiple live projects, developing a robust strategy is vital to help you push forward. It can improve your sophistication and help you realise the benefits of IoT faster.

79%

of adopters in the Middle East say that IoT is enabling their digital transformation.

Treat IoT as a critical part of your digital strategy

The first step is considering IoT as a key part of your wider digital strategy. How well you can leverage the latest technology is increasingly key to your market competitiveness and achieving wider business objectives. And it's not just about combating disruption — even small-scale implementations can have a major impact on daily operations. That's why 79% of adopters in the Middle East say that IoT is enabling their digital transformation.

56%

of adopters in the Middle East say their IoT projects are integrated with their business systems.

Integrate IoT with your business systems

Integrating IoT with your core business systems and processes can have a major impact on the results you see. Bringing together data from different IoT initiatives across the organisation will put you in a better position to draw and action strategic insights. Integration can also help you move beyond initial, singular IoT objectives and expand your IoT goals to achieve wider business outcomes. Globally, all (100%) of the most sophisticated companies (band A) have highly or fully integrated IoT with their business systems. By comparison, just over half (56%) of adopters in the Middle East say their IoT projects are integrated with business systems, and another 38% plan to follow suit.

47%

of adopters in the Middle East are using IoT data with analytics platforms to support decision-making.

Use AI to extract insights

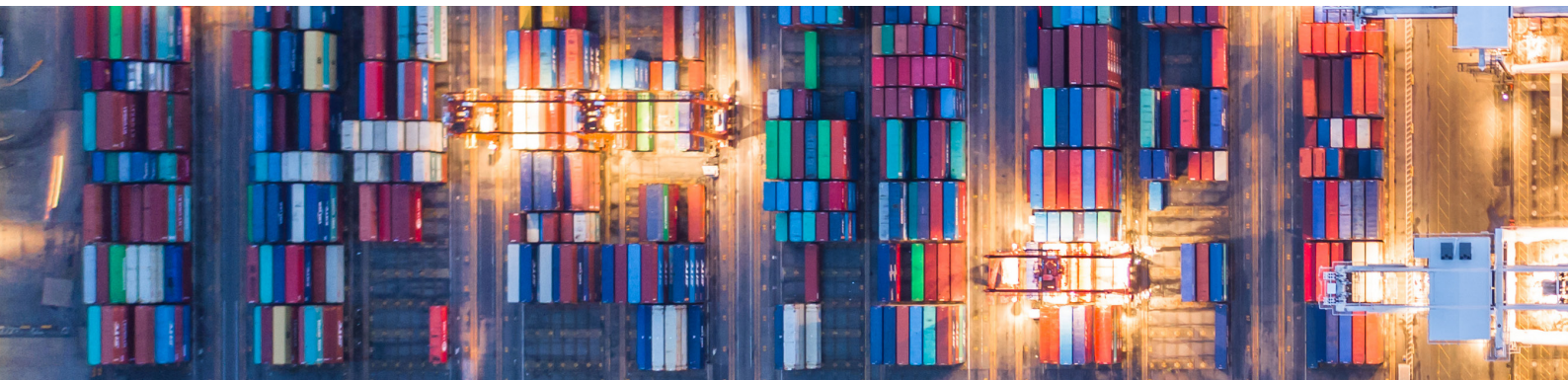
Globally, 80% of the most sophisticated organisations say they're using IoT data in conjunction with analytics platforms to support decision-making. In the Middle East, less than half (47%) of adopters are currently doing this — but a further 45% plan to. Technologies like artificial intelligence (AI) can unlock the potential of IoT data by spotting patterns and correlations that a human analyst might miss. These data-driven insights can play a critical role in helping businesses optimise their internal processes, identify new revenue opportunities and deliver better products and services.

94%

of the most sophisticated adopters globally, are transparent with users about the IoT data they collect.

Earn your customers' trust

As businesses in the Middle East realise the value of IoT data, some of them are seeking to capitalise on it directly. 29% of adopters say IoT data is an asset they are monetising and a further 42% are planning to do so. But public concern about data privacy issues is on the rise. Before you monetise IoT data or sell it to third parties, you need to earn your customers' trust first — this requires robust data management, clear policies for employees, and transparency about how you use data. Globally, 78% of adopters are transparent with users about the IoT data they collect and how they use it — that goes up to 94% for the most sophisticated adopters.



Improving IoT implementation

With a solid IoT strategy, you're in a strong position. But the right approach to implementation is also key when embarking on your IoT journey. And if you've already started, it can help you de-risk projects and accelerate returns.

71%

of IoT adopters in the Middle East are looking to scale quickly.

Investigate existing IoT solutions

Having a robust strategy is only half the picture — you also need to get implementation right. 71% of adopters in the Middle East are looking to scale their IoT projects quickly. And that's now easier than ever thanks to new off-the-shelf solutions that can help you achieve quick wins without requiring a major overhaul of legacy infrastructure. Globally, 78% of adopters have purchased equipment for internal applications with IoT built in — that goes up to 87% for the most sophisticated adopters. New, dedicated IoT enablement platforms are also making integration and device management easier than ever.

65%

of the most sophisticated adopters globally, are considering using 5G when it's available.

Explore your connectivity options

71% of IoT adopters in the Middle East have more devices in use than they did a year ago, and many are using IoT to achieve multiple objectives. But not all IoT projects have the same connectivity requirements. That's why the most sophisticated IoT adopters are using a range of connectivity options, from cellular and Wi-Fi to specialised IoT networks like Cat-M1 and Narrowband-IoT (NB-IoT) — and why many are already considering the use of 5G in the near future. Saudi Arabia has already announced its plans for the largest 5G commercial roll-out in the Middle East and North Africa (MENA)[3]. The UAE, Kuwait and Qatar are also in the process of 5G testing and deployment[4].

60%

of the most sophisticated adopters globally, rely on third parties for IoT expertise.

Get the expertise you need

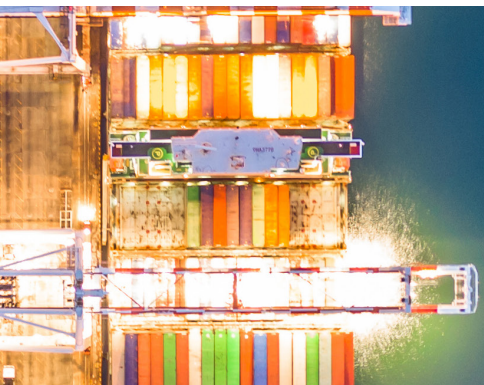
To help implementation go smoothly, many organisations are creating dedicated IoT teams. Globally, 60% of all adopters already have a team dedicated to IoT. Many of these teams will be cross-functional, working across multiple departments rather than just focusing on IT. But even with dedicated teams, you may not have the expertise to go it alone. Over half (53%) of adopters around the world also work with third parties — that goes up to 60% for the most sophisticated adopters. And 79% of adopters (98% of the most sophisticated) globally say they've increased their use of partners to deliver/manage IoT-based solutions.

67%

of adopters in the Middle East say they now rely on IoT more.

Build security in from the outset

Two-thirds (67%) of adopters in the Middle East say they're becoming more reliant on IoT, meaning that disruption of systems could lead to serious operational and financial problems. But, if you build security in from the outset, the threat of attack doesn't have to be a barrier. There are tangible steps that can be taken to improve the security of your IoT devices — such as recruiting security specialists, providing ongoing training for staff, using encryption and specialised networks, and testing IoT devices during development.



What next?

Throughout the Middle East, organisations are reaping the benefits of IoT. Don't be left behind. Vodafone can help you capitalise on the latest opportunities and get the best results from your investment. Get in touch with us directly at: vodafoneiotme@vodafone.com

About this report

This report is based on 1,127 responses to a survey conducted in the first quarter of 2019. Global averages have been taken from our IoT Barometer 2019 — a report based on a sample of 1,430 qualified respondents involved in shaping their company's IoT strategy, selecting suppliers and setting technology requirements. They represented a robust cross-section of regions, industries, company sizes and job roles.

Further reading

Vodafone IoT Barometer 2019

Since 2013, the Vodafone IoT Barometer has been an invaluable source of information for companies thinking about IoT. Over that time, we've seen adoption grow from 12% to 34% — an average compound annual growth rate (CAGR) of 23%. Now in its sixth year, the Vodafone IoT Barometer 2019 has the latest global IoT trends and in-depth recommendations to improve your ROI.

Short on time? Read the **Executive Summary**.

Online interactive tool

Based on the IoT Barometer 2019, we've developed an interactive tool to enable you to take a closer look at who's using IoT, what they're using it for, and the benefits they're seeing. It makes it easy to build and download customised charts to use in your own presentations and reports. You can also answer some simple questions about your own IoT projects to benchmark your performance against your peers, and receive a personalised IoT sophistication report.

References

1 https://www2.deloitte.com/content/dam/Deloitte/xe/Documents/technology-media-telecommunications/predicitons2017/ME-Predictions-2017-Consumer-IoT-in-the-Middle-East.pdf
2 https://gulfbusiness.com/dubais-rta-confirms-dhs590m-project-expand-smart-traffic-system/
3 https://www.arabianbusiness.com/technology/414077-saudi-arabia-announces-plans-for-largest-5g-roll-out-in-middle-east
4 https://www.lifewire.com/5g-availability-world-4156244

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