



NATIONAL
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Sydney

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Ingenuity for life

Digitalization: New age of Service

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Five Megatrends shaping our world of tomorrow – Changes in the markets are accelerating

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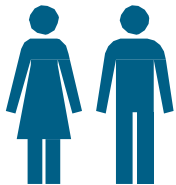
Digitalization

By 2020, the digital universe will reach **44 zettabytes** – a tenfold increase from 2013.¹



Urbanization

By 2050, **70 percent of the world's population** will live in cities (today it's 54 percent).³



Demographic change

The earth's population will increase from 7.3 billion² people today to **9.7 billion²** in 2050. Average life expectancy will then be 83 years.²



Globalization

The **volume of world trade** nearly doubled between **2005 and 2014**.⁵



Climate change

According to scientists, in the summer of 2016, the Earth's atmosphere had the **highest CO₂ concentration** in 800,000 years.⁴

Sources:

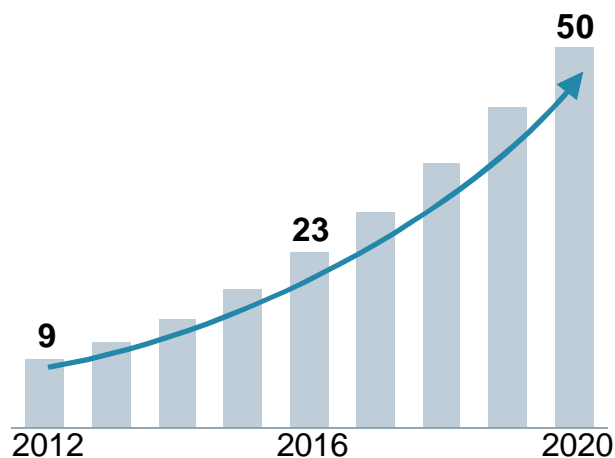
1. IDC, The Digital Universe of Opportunities: Rich Data and the Increasing Value of the Internet of Things, April 2014
2. United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision, Key Findings and Advance Tables. Working Paper No. ESA/P/WP.241
3. United Nations, World Urbanization Prospects. The 2014 Revision, New York, published 2015
4. SCRIPPS INSTITUTE OF OCEANOGRAPHY, "The Keeling Curve", July 30th, 2016
5. UNCTAD Statistics, Values and shares of merchandise exports and imports from 1948 to 2014, November 10, 2015

Trends in digitalization effect building industry

Digital transformation

Connected devices⁵⁾, in bn

Exponential growth of connected devices ...



... and digital data⁶⁾



By 2018 there will be more **connected devices** than people alive;
Est. **25 billion** by 2020

Costs sinking dramatically

(\$500 per 1 million transistors in 1990;
\$0.05 per 1 million transistors in 2012)

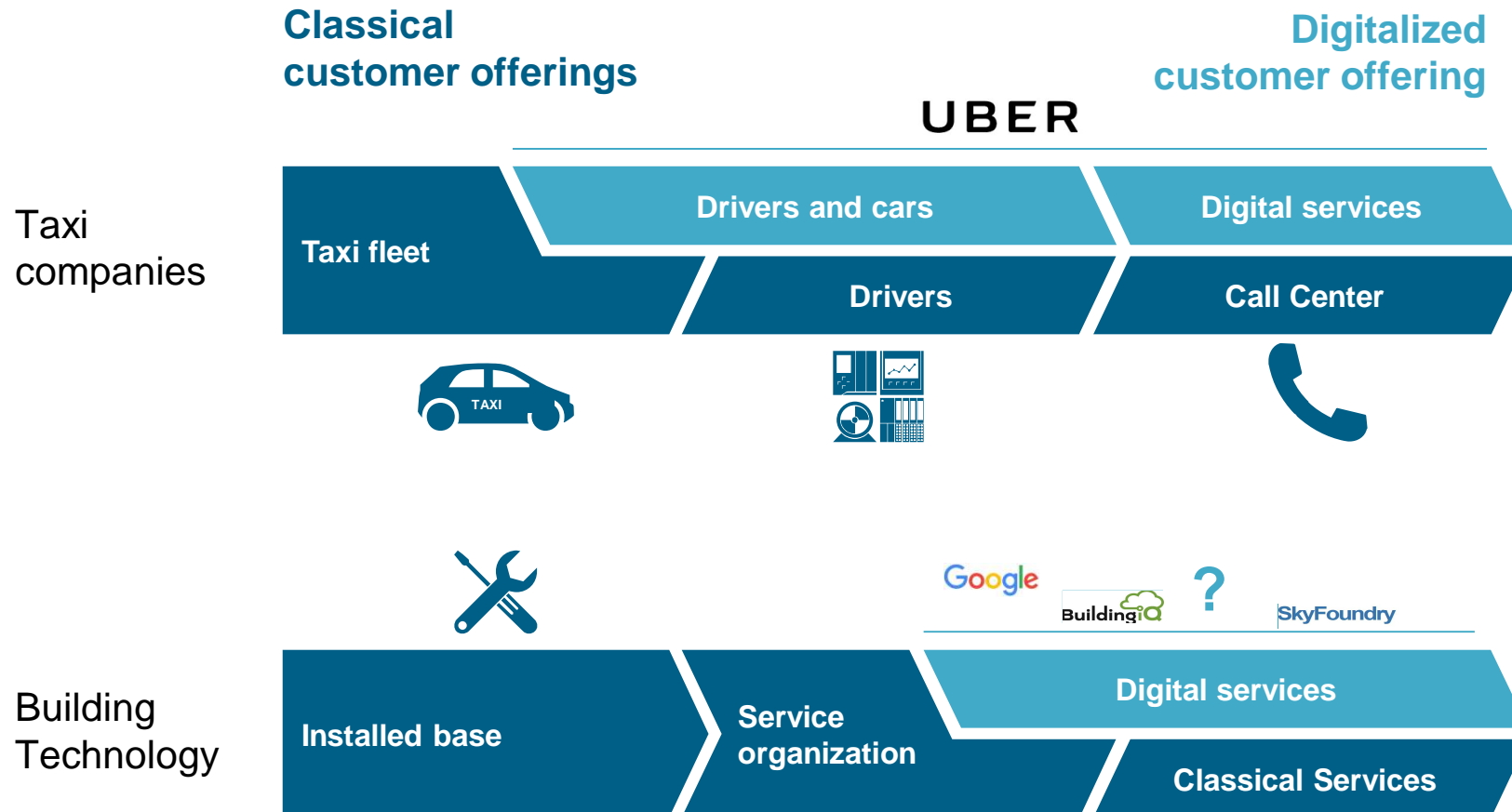
Business **IP traffic** will grow at a
CAGR of +20% from 2014-2019

Mobile computing to grow by
+57% CAGR from 2014-2019

Large amounts of data can be turned into value for consumers

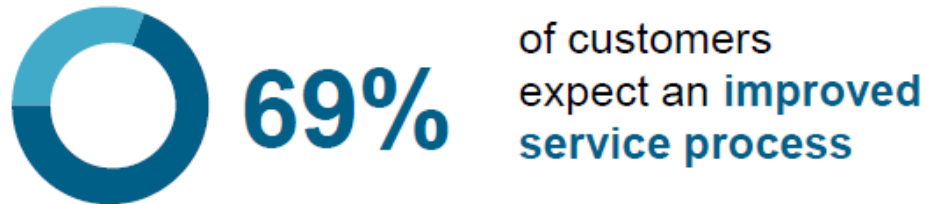
From traditional to Digital Customer offerings – Sense of urgency

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consumers have also realized that their buildings talk, and they need help to understand them

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Source: Siemens customer survey, 2014, 2015

Digitalization of Building Services asks us for a transformation in technology, processes and also requires a change in our mind-set

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Faster development of new services calls for continuous learning, fast prototyping and agile development methods. Work on a daily basis is simplified, diversified and enriched

Field service engineers and energy engineers have apps, platforms and remote data. Reacting to customer needs far easier than today

Service development and delivery are faster. Above-site abilities optimize resources invested, realize increased efficiency, enhance on-site customer interaction and help deliver better, faster service

Digitalization has a huge potential to drive additional customer value



... to Customer Value



Better informed decisions, optimized investments and effective use of buildings!



A photograph of a modern Siemens building at night, illuminated with blue and white lights. The building's facade is covered in large glass windows and panels. Overlaid on the image are various digital graphics: a large 'SIEMENS' logo in blue on the left side of the building; a central graphic showing a computer monitor with charts and graphs, surrounded by icons for a factory, a leaf, and a dollar sign; a network of glowing lines connecting various icons (factory, leaf, dollar sign, CO2, lightning bolt, and a wavy line) across the building's facade; and binary code (0s and 1s) floating in the air. The overall theme is digital technology and innovation.

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Thank you

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