Industries' expectations for 5G

Extract from the Ericsson Mobility Report
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5G will make an impact far beyond the
consumer-based mobile broadband market.

Approximately 100 senior decision-makers
from large companies globally across
10 key industries were interviewed.[1] They
were selected for their focus on their
company's 5G activities. Each respondent
was presented with 12 to 15 use cases
specific to their industry and was asked to
pick the top 4 most important and pressing
business-focused cases.

When asked which capabilities
they thought will be critical to their
business in the future, we uncovered
interesting similarities. For example, the
manufacturing, public transport, retail and
agriculture industries all highlighted the
ability to receive input from a large network
of low-cost sensors, as well as the ability to
accurately control remote equipment with
no delay, to be important. Furthermore,
across all sectors the respondents indicated
that 5G technology will improve issues that
center around data security, connectivity
and process automation.

While companies are increasingly
aware of how they will exploit advanced
cellular technologies across their
organizations, they still have a way to
go to meet the challenges inherent in
implementing new technology.

Based on the wide range of use cases
over the 10 industries as outlined in the
figure, 5G will make an impact far beyond the
consumer-based mobile broadband market.
While the consumer is well represented even
here — in the media and entertainment, retail
and financial services industries — the impact
of 5G will be much deeper as more industry
use cases are implemented.

Most important use cases according to industry decision-makers

Energy and utilities

— Connect and monitor remote
sites, such as wind farms

— Distributed energy
resource management

— Advanced Metering Infrastructure
(AMI) and smart meters

— Integration sensors in micro
grid and distributed generation

Public safety

— Quickly transfer more data
and higher resolution imagery
to/from first responders

— Multi-angle high resolution
video streaming with smart
analytics and alerts

— Real-time smart video surveillance

— Visor/helmet computer with
augmented reality (AR)
or virtual reality (VR)

Manufacturing

— Large network of sensors
for predictive maintenance
of machines/robots on
the factory floor

— Cloud robotics (processing in
the cloud for smaller, cheaper
robots that can be centrally
controlled and untethered
in any environment)

— Identification and
tracking of goods in the
end-to-end value chain

— Remote quality inspection/
diagnostics with high-resolution/
3D video or haptic feedback,
thermal and other sensors

Healthcare

— Real-time mobile delivery
of rich medical data sets

— Cloud robotics (processing in the
cloud for smaller, cheaper robots
that can be centrally controlled)
for assisted living or rehabilitation

— Ambulance drones

— Smart objects, such as
syringes, cabinets and beds

[1] Ericsson, "The Industry Impact of 5G: Insights from 10 sectors into the role of 5G" (2017),
  www.ericsson.com/en/networks/trending/insights-and-reports/industry-business-impact-of-5g

Media and entertainment

— Broadband to the home through high-density gigabit wireless fixed internet

— High-quality streaming to mobile devices

— Live personal 3D broadcast from mobile services

— 4K streaming to mobile devices

Automotive

— Better customer experience during the sales process, such as a mobile app with 4K, 360-degree images of vehicles

— VR/AR to assist or train service technicians

— Infotainment

— AR dashboards

Agriculture

— Autonomous vehicles performing tasks in the field, such as harvesting

— Predictive maintenance for farming equipment based on analysis of data from sensors

— In-field AR support for e-learning and expert advice in remote areas

— Optimize agriculture logistics chains with sensors, tracking and analytics

Public transport

— High-speed internet access on public transport

— Connected traffic cloud — aggregates and analyzes real-time data from connected vehicles, infrastructure and devices to assist operational decision making

— Real-time high-resolution vehicle video surveillance

— AR way-finding applications

Financial services

— Next-generation user-based insurance (sensors in connected cars, for example)

— High-security cloud-based services

— Real-time mobile trading

— Secure, remote sessions with financial advisors

Retail

— AR/VR shopping from anywhere

— AR/VR to visualize a product in a specific setting

— In-store AR-enabled customer care, with access to graphic-rich product information

— Automated warehouses

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