Business Potential from Industry Digitalization

ITU Seminar: 5G Implementation in Europe and CIS – Budapest 2-4 July 2018

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5G Use Cases

Massive MTC
- Very large # of device
- Very low device cost/power
- High density
- Wide coverage

Critical MTC
- Very low latency
- Very high reliability and availability

Enhanced Mobile Broadband Fixed Wireless Access
- Very High Data Rate
- Very High Traffic Volumes
- Mobility
5G Architecture

- **Devices / Local NW:**
  - Mobile
  - Fixed

- **Access sites:**
  - Application cloud
  - Management & Monetization
  - Network slices
  - Access, Mobility, Network applications
  - Cloud infrastructure

- **Distributed sites:**

- **National sites:**

- **Global sites:**

- **Key Benefits:**
  - 10-100x END-USER DATA RATES
  - 1000x MOBILE DATA VOLUMES
  - 5x LOWER LATENCY
  - 100x MORE DEVICES
  - Cost
  - 5x NW ENERGY EFFICIENCY
  - 3x SPECTRAL EFFICIENCY

- **5G Use Cases:**
  - eMBB
  - FWA
  - mMTC
  - cMTC

- **Technologies:**
  - eMBB
  - FWA
  - mMTC
  - cMTC
With industry digitalization, new fast growing revenue pools emerge.

**Challenge: current operator service revenues**

2016: 1.497 USD

2026: 1.736 USD

**Opportunity: digitalization revenues**

2016: 968 USD

2026: 3.458 USD

CAGR 16’-26’:

- 1.5%
- 13.6%

Operator to seize emerging revenue potential

* Digitalization revenues for ICT players from 10 key industries

Source: Ericsson and Arthur D. Little
Of the total 5G enabled value in 2026, up to 47% is addressable by operators.

- **Digitalization revenues for ICT players**
  - 38% of 3,458 USDbn

- **5G enabled revenues**
  - 47% of 1,307 USDbn

- **Operator addressable revenues**
  - 619 USDbn
  - 204 USDbn

Source: Ericsson and Arthur D. Little
Operators share of the 5G value created

Total 5G enabled revenue (USDbn, 2026)

1307 bn

- Connectivity and Infrastructure Provisioning: 230 bn (89%)
- Service Enablement: 646 bn (52%)
- Application & service provisioning: 432 bn (18%)

Total 5G enabled revenue per value chain step

Operator addressable share

- Network developer: 204 bn (89%)
- Service enabler: 337 bn (52%)
- Service creator: 79 bn (18%)

Operator addressable market

- Network developer: 204 bn
- Service enabler: 337 bn
- Service creator: 79 bn

Sum of addressable 5G revenue per operator role

- Network developer: 204 bn
- Service enabler: 541 bn
- Service creator: 619 bn

Source: Ericsson and Arthur D. Little

Note: The total addressable market for operator role Service creator is the total operator addressable market.
5G revenue potential for operators addressing industry digitalization

USDbn, 2026

415

619*

204

1736

2026

Adding an addressable revenue growth potential 36%

Current service revenues

5G addressable B2B2X

Service enabler and service creator revenue potential

Network developer revenue potential

*Total addressable as Service creator operator role
Operator opportunity addressing Industry digitalization with 5G

Current & 5G addressable revenues

Split per Industry (2026)

Potential to add 36% growth in revenues in 2026

Source: Ericsson and Arthur D. Little
Use Case clusters

Cluster approach

- Enables shared investments and resource allocation across a larger revenue pool
- From industries to clusters
- Possible to prioritize opportunities depending on investment
- From what to how
- Increase scalability across industries

![Use Case clusters chart]

- Retail: 30; 5%
- Financial services: 48; 8%
- Automotive: 62; 10%
- Media & entertainment: 74; 12%
- Public transport: 76; 12%
- Healthcare: 78; 13%
- Agriculture: 9; 1%
- Manufacturing: 113; 18%
- Energy & utilities: 101; 16%
To grow with up to 36% operators can address 9 Use Case clusters

Source: Ericsson and Arthur D. Little
# Industries and Use Case Clusters

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*The guide to 5G-IoT business potential | GFMC-18-00114-Len, Rev B*
5G Use Case clusters

+200 use cases in 10 industries

Automotive | Media & Entertainment | Public transport | Healthcare | Financial services
Agriculture | Retail | Energy and utilities | Public safety | Manufacturing

Go-to-market challenges
- Business and monetization model
- Value chain positioning
- Role in ecosystem
- Partnership development

Deployment challenges
- Technical performance criteria
- Role of 5G
- Device, network, computing and service enablers

Enhanced video services, Monitoring and tracking, Real time automation, Smart surveillance, Autonomous robotics, Hazard and maintenance sensing, Augmented reality, Connected vehicle, Remote operations

Source: Ericsson and Arthur D Little
Emerging 5G strategies
Ambition level steers the ability to capture the value

Operator opportunity 2026

- Hazard and maintenance sensing
- Monitoring and tracking
- Connected vehicle
- Real-time Automation
- Smart Surveillance
- Augmented reality
- Enhanced video services
- Autonomous Robotics
- Remote operations

Deployment challenges

Easy to deploy

Difficult to deploy

Source: Ericsson and Arthur D Little
Use Case deep dive – Structure of the Analysis
Operators in all geographies of the world are embarking on their 5G journey

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Case study

Source: Ericsson and Arthur D Little
The Ericsson industry digitalization tool quantifies the 5G cluster opportunity

**Key inputs**

- +36 industry market reports
- +400 digitalization use cases

**Steering variables**

- Cluster
- Region/footprint
- Operator role
- Currency

**Outputs**

- Revenue potential per cluster

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**Main top-down market sizing**

- Proxy business cases
- Market reports sizing use cases
- ICT company P&L structure benchmarks
- ADL ICT and industry expert evaluation
- Selected bottom-up case study quantification sanity check
- Industry ICT investment benchmark

**Triangulation sources**

- Bottom up use case calculations
- Top down cluster calibration

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Source: Ericsson and Arthur D Little | Note: Other sources used include GDP forecasts, exchange rates, ICT development index... etc.
Ericsson Studies and Analysis

https://www.ericsson.com/en/5g
