Datamatics
Business Solutions

Global 5G Infrastructure Market

Forecast to 2026 and COVID 19 Impact

By Communication Infrastructure (Radio Access Network (RAN), Core Network and Transport Network), Network Architecture (Non-Standalone and Standalone), Operating Frequency and Region

January 2021

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Objective & Scope

Objective: To assess the Global 5G Infrastructure market, identify the key growth opportunities, and understand the competitive scenario

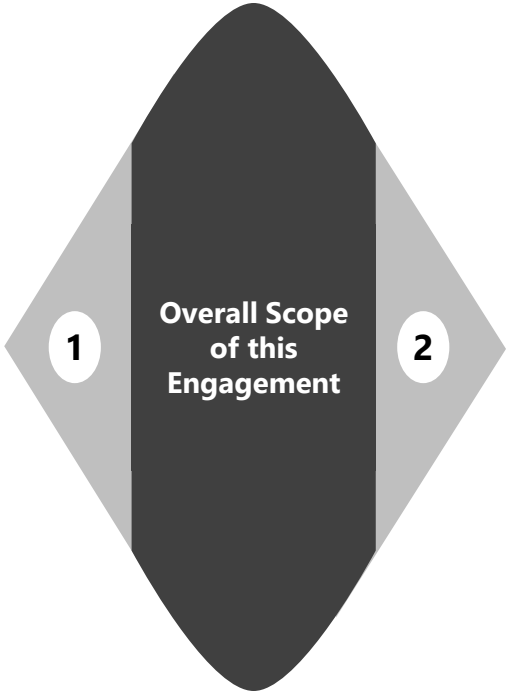
Scope coverage

Focus Communication Infrastructure
- Radio Access Network (RAN)
- Core Network
- Transport Network

Focus Network Architecture
- 5G Non-Standalone
- 5G Standalone

Focus Operating Frequency
- Sub 6Ghz Frequency
- mmWave Frequency

Focus Geography
- Global
  - Americas (North America and South America)
  - Europe
  - Asia-Pacific
  - Rest of the World (Middle East & Africa)



Scope of study

- Overview of the global 5G infrastructure market
- Detailed assessment of the key communication infrastructure for 5G – current state & outlook
- Current and forecast market for 5G infrastructure (2019 – 2026)
- Segmentation of the market by communication infrastructure, network architecture, operating frequency, and region
- Key trends analysis to understand the potential impact on the 5G infrastructure market
- Analysis of the key drivers and challenges impacting the market growth
- Competitive landscape within the global 5G infrastructure market
- Profiles of the key 5G infrastructure vendors like Ericsson, Huawei, Nokia, ZTE, Samsung

Research Methodology

Secondary Research

- Preliminary data was gathered using extensive secondary research and information from proprietary databases
- Insights on the market drivers and challenges, and suppliers, their solutions, key developments and so on were developed

Primary Research

- Insights were developed through primary interviews with industry stakeholders, related to 5G Infrastructure market and key suppliers
- The stakeholders included senior personnel from 5G Infrastructure vendors, end-user company procurement personnel across different sectors and industry experts
- This data was triangulated with the insights developed though secondary research

Synthesis of findings

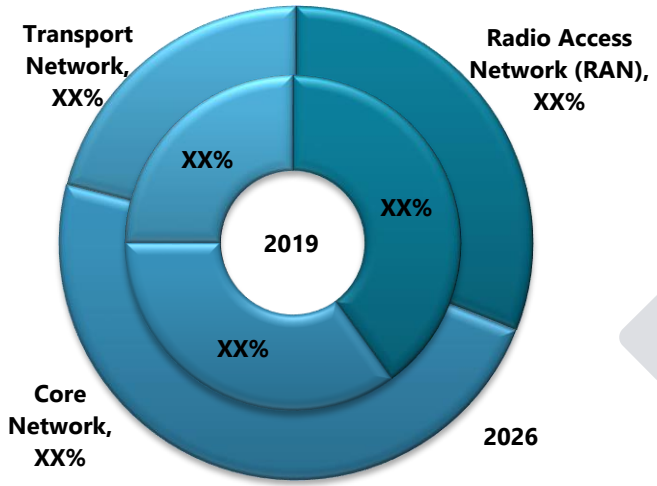
- Analyzed data through qualitative research techniques and derived key insights to streamline the study flow
- Data is presented in a module based approach

Source: *Primary Research & Secondary Research and Datamatics Analysis*

5G core network is expected to register fastest growth rate as core network is heart of 5G network that helps to implement application-specific network functions by software…

5G Infrastructure Market By Communication Infrastructure

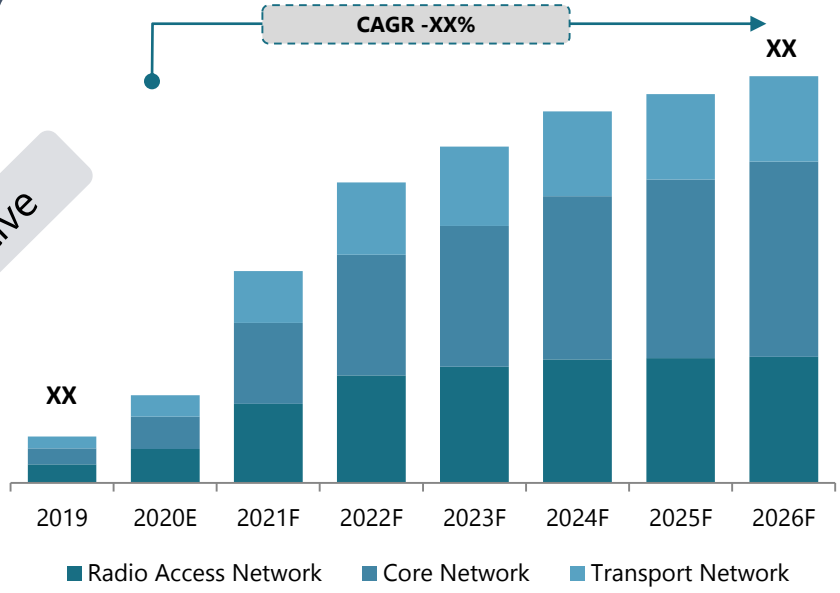
Global 5G Infrastructure Market Share by Communication Infrastructure (2019 and 2026)



5G radio access network infrastructure accounted for largest market share in 2019. 5G core network infrastructure market size in terms of value is expected to grow at a CAGR of XX% between 2019 and 2026

Global 5G Infrastructure Market Size by Communication Infrastructure (2019-2026) – USD Bn

Illustrative

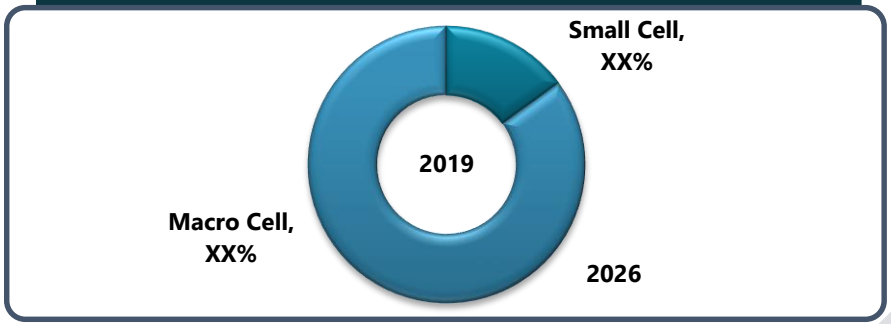


Source: Company Website, Annual Reports

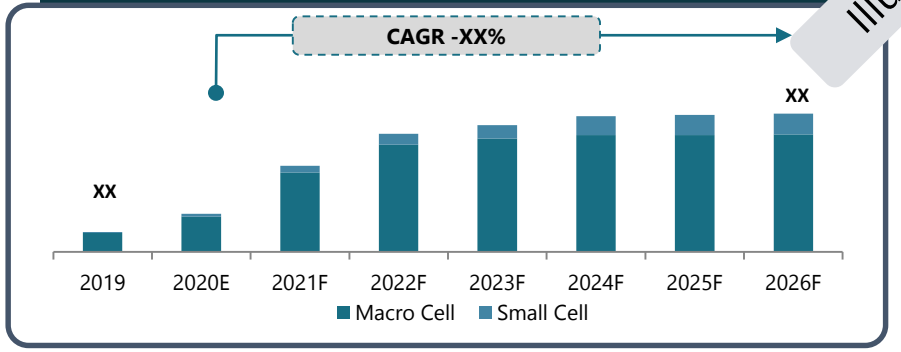
Small cell will grow at highest CAGR due to its massive deployment for IOT and M2M applications…

Overview of Radio Access Network (RAN)

Radio Access Network Segment Market Share (2019 and 2026)



Radio Access Network Segment (2019-2026) – USD Bn



Illustrative

- Macro cell accounted for the largest market share with a value of USD XX Bn in the RAN segment in 2019. It is expected to continue its dominance in the next five years
- Small cell network is expected to grow fastest among RAN segments at a CAGR of XX% between 2020 and 2026. After 2020-21 the adoption of small cell network for mmWave is likely to increase exponentially as operators are expected to massively deploy small cell solutions for Internet of Things (IoT) and Machine-to-Machine (M2M) communications
- Growing need for network densification for achieving higher network capacity and speed is expected to drive the 5G small cell market

Key RAN Manufacturers

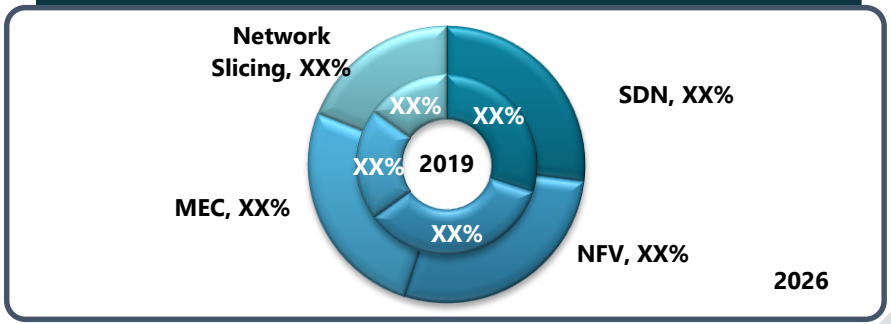
SAMSUNG, HUAWEI, Nokia Networks, ZTE, ERICSSON, CISCO, Qualcomm, NEC

Source: Company Website, Annual Reports

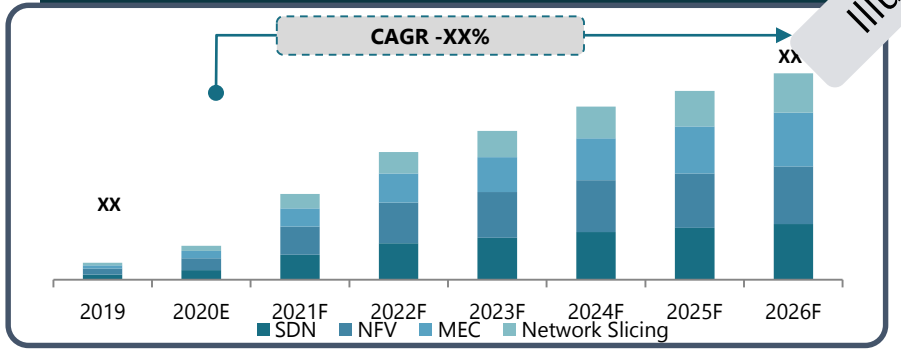
Growing need of ultra-low latency in applications like AR/VR, cloud gaming drives the MEC market…

Overview of Core Network

Core Network Segment Market Share (2019 and 2026)



Core Network Segment (2019-2026) – USD Bn



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- Network-function virtualization (NFV) accounted for the largest market share in the core network segment with a value of USD XX Bn in 2019. NFV is a vital part of 5G core network as it helps to implement application-specific network functions by software. It also eliminates the costs associated with procurement and maintenance of application-specific network hardware and equipment
- CAPEX and OPEX saving for enterprises, and growing demand for consolidation of data centers and server virtualization are driving the 5G market
- MEC market is expected to grow quick among core network segments at a CAGR of XX% from 2020 and 2026, and is expected to reach USD XX Bn by 2026. The demand for ultra-low latency in applications such as connected/autonomous, enterprise AR/VR/MR, cloud gaming, and video analytics will be achieved by MEC implementation

Key Providers of Core Network

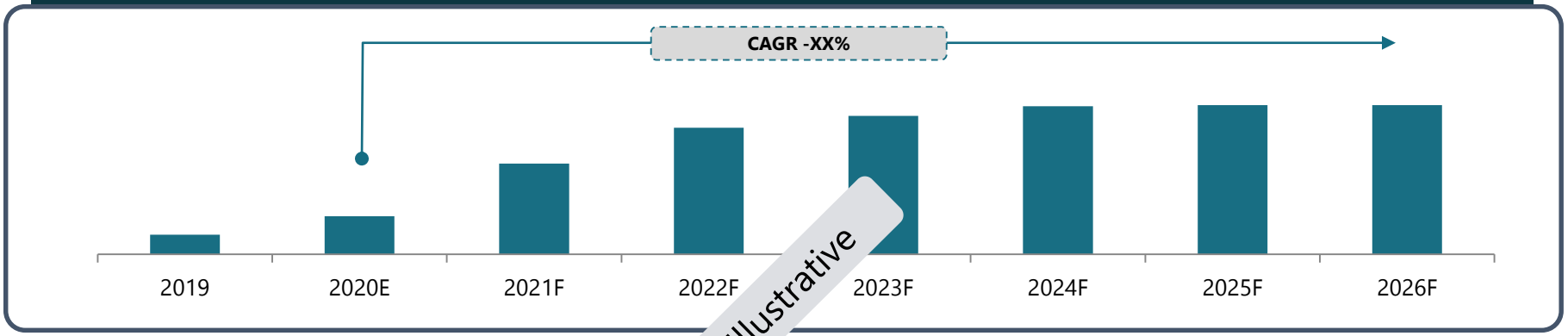
SAMSUNG, HUAWEI, Nokia Networks, ZTE, ERICSSON, cisco, COMMSCOPE, intel, JUNIPER NETWORKS

Source: Company Website, Annual Reports

Higher bandwidth requirements from the 5G use cases will drive IP based transport network market…

Overview of Transport Network

Transport Network Segment (2019 and 2026) – USD Bn



- Transport network market size was valued at USD XX Bn in [illegible] and expected to reach USD XX Bn by 2026, growing at a CAGR of XX% from 2020 to 2026. Transport network consists of IP transport and optical transport that connect fronthaul, middlehaul, and backhaul of the 5G network with each other for transmission of data traffic
- IP/Ethernet based architecture is expected to unlock various potential 5G use cases that will require higher bandwidth and ultra-low latency network

Key Players providing Transport Network

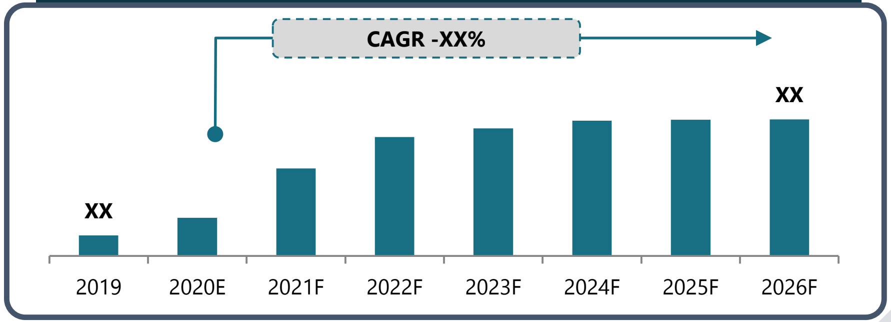
cisco HUAWEI Nokia Networks FUJITSU ERICSSON

Source: Company Website, Annual Reports

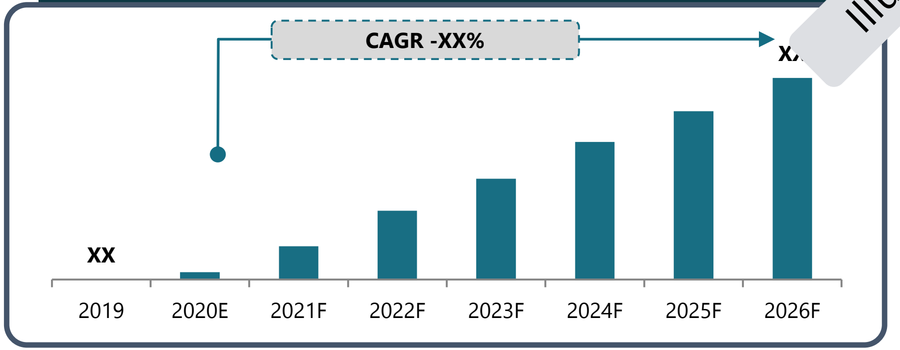
5G Standalone network will support critical 5G IoT applications and industrial automation use cases…

Overview of 5G Non-Standalone and 5G Standalone Network Architecture

5G Non-Standalone Segment (2019-2026) – USD Bn



5G Standalone Segment (2019-2026) – USD Bn



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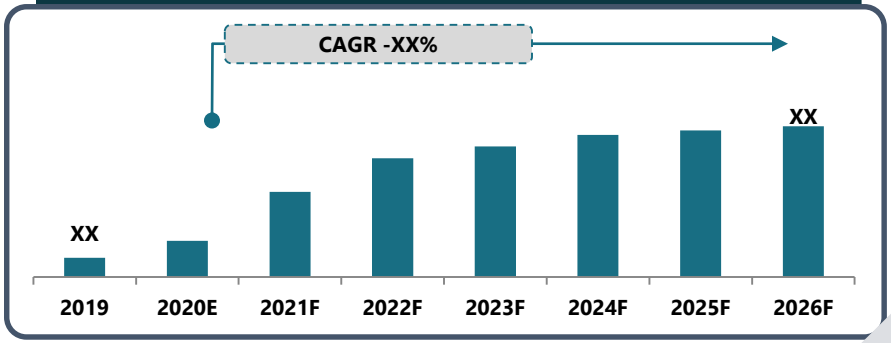
- [illegible]
- [illegible]
- [illegible]
- [illegible] US, and Switzerland

Source: Company Website, Annual Reports

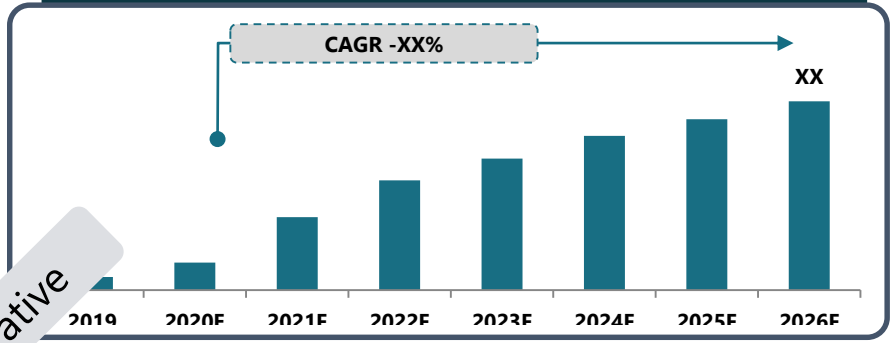
Investments on licensing and deploying of 24.25Ghz-25.9Ghz frequency network from the operators is driving the mmWave market…

Overview of Sub 6Ghz Frequency and mmWave Frequency

Sub-6Ghz Operating Frequency Segment (2019-2026) – USD Bn



mmWave Operating Frequency Segment (2019-2026) – USD Bn



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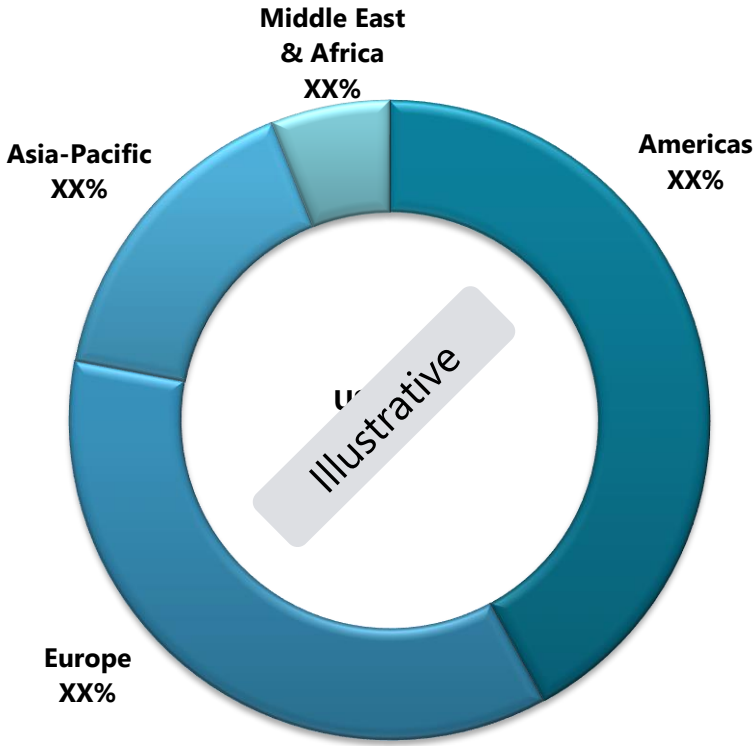
- Early stage deployments of 5G networks witnessed a roll out of [illegible]Hz frequency band with 3.5GHz and 4.5GHz as mainstream spectrum, and lower bands of 600MHz, 700MHz, and 900Mhz coupled wit[illegible]echnology to meet higher coverage demand from massive IoT and critical communications
- Growing demand for higher bandwidth, ultra low latency and high speed network from critical applications such as connected cars, industrial automation and Telesurgery are likely to drive the mmWave 5G market
- As of June 2020, 24.25Ghz-25.9Ghz 5G mmWave was the most-licensed/deployed spectrum range with 123 operators in 42 countries/territories
- *According to Global Mobile Suppliers Association (GSA)*, 97 CSPs in 17 countries/territories hold licenses for public operation of 5G networks using mmWave spectrum
- In 2019, North America, especially the U.S. stood global leader in mmWave deployments by three major operators AT&T, Verizon, and T-Mobile along with Ericsson and Nokia Networks as leading infrastructure vendors

Source: Company Website, Annual Reports

Aggressive investment towards deployment of 5G infrastructure from operators and governments of China, Japan, and South Korea is attributing to the growth in Asian Market…



- North America dominated the 5G infrastructure market with the U.S. being the largest in 2019. The U.S. market is further expected to grow in the
- AT&
- Asia
- Chin
- Gerr

in Europe at a CAGR of XX% between 2020 and 2026

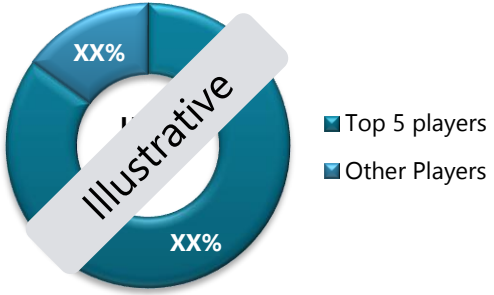
Source: Company Website, Annual Reports

Market Ranking for Key Players

contracts with global and regional operators

Bn order for network equipment from Verizon

Market Share for Key Players



- Huawei's and ZTE's market share in 5G infrastructure space
- Networks which cater to specific domains in the 5G space

6.1 Telefonaktiebolaget LM Ericsson (Ericsson)
Company Overview

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Company Snapshot & Business Overview

Company Information	
Established	1876
Company Type	Public (*ERIC-B*)
Primary Industry	Information and Communication Technology
Headquarters	Stockholm, Sweden
Country Presence	~113 worldwide
# of Employees	~99,417 (2019)
Key Company Personnel	
President & CEO	Börje Ekholm
Chairman of the Board	Ronnie Leten
Financial Information (2019)	
Total Revenue	USD 24,322.1 Mn
Operating Profit	USD 1,134.7 Mn
Net Income	USD 197 Mn
Net Assets	USD 8,765 Mn

- Ericsson, is a technology based company providing network equipment, services, and softw… 113 coun…
- Ericss… …ent, telec… …l AI-based…
- Ericsson holds 54,000 patents in the cellular technology, and 100 signed licensing agreements covering all the mobile generations from 1G to 5G

Key 5G Infrastructure Products & Solutions

- Ericsson's Network portfolio includes hardware, software and services related to radio acces… …l, 5G acces… …tions for ra… …r IoT solut… …f 5G infras…
- Ericss… …vices to ar… …loud comr… …e 5G cloud… …data stora… …over bare metal servers for cloud native 5G applications

Note: Financial Year for Ericsson ends on 31st December 2019

Source: Company Website, Annual Reports

6.1 Telefonaktiebolaget LM Ericsson (Ericsson)
Company Overview

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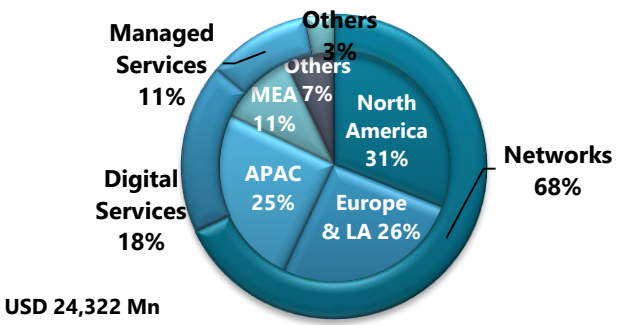
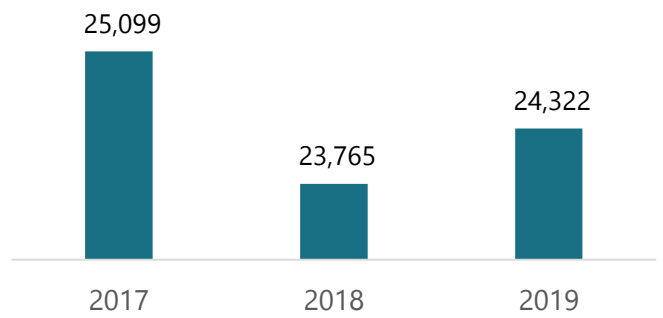
Overview

Ericsson Revenue (Mn), 2019 Key segments





- Ericsson focuses on development of new products and services, and generation of mo ion of ne th 24 cus
- Eri from lar e top ter rgest cus
- Eri vorks, Hu
- The rough cha ge of bu
- Eri tively rec ed to its ccess net ss
- The are of 31 l 68% to the total, followed by digital services which contributed 18% of the total revenue

Note: Financial Year for Ericsson ends on 31st Dec 2019

Source: Company Website, Annual Reports

6.1 Telefonaktiebolaget LM Ericsson (Ericsson)

Key Developments

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Key Developments by the Company

Ericsson is one of the giants in the 5G infrastructure ecosystem. It currently holds 100 commercial 5G agreements/contracts with unique operators, and supports 24 live 5G networks worldwide. With agreements and contracts, the company focuses to accelerate the adoption of 5G in many countries, and increase its global presence in the 5G wireless infrastructure market. Alongside, with acquisition strategy the company is focused on expanding network product portfolio

Acquisition Activity

Acquisition of Cradlepoint	• In November 2020, Ericsson completed its acquisition of Cradlepoint, the US-based market leader in Wireless WAN Edge 4G and 5G solutions for the enterprise market. The investment is key to Ericsson's strategy of capturing market share in the expanding 5G enterprise space
Acquisition of Kathrein	• In October 2019, Ericsson acquired Kathrein, a leading provider of antenna and filter technologies company in Germany. The acquisition is expected to expand Eriksson's radio system portfolio with new products, and strengthen its antenna in-house competences and capabilities in the 5G space

Recent Agreement or Contracts

Agreement with Ooredoo Group	• In January 2021, Ericsson and Ooredoo Group signed a global frame agreement for the supply of 5G radio, core and transport products and solutions, as well as related implementation and integration services. The agreement covers all 10 of the Group's operating companies in Qatar, Indonesia, Algeria, Iraq, Kuwait, Oman, Palestine, Tunisia, Myanmar and Maldives
Contract with KDDI	• In December 2020, Ericsson has been selected by KDDI to deploy cloud-native dual-mode 5G Core in its 5G Standalone network in Japan. The solution, consisting of Ericsson Cloud Packet Core, will support KDDI's focus on digital transformation of corporate customers

Source: Company Website, Annual Reports

Get in touch with us

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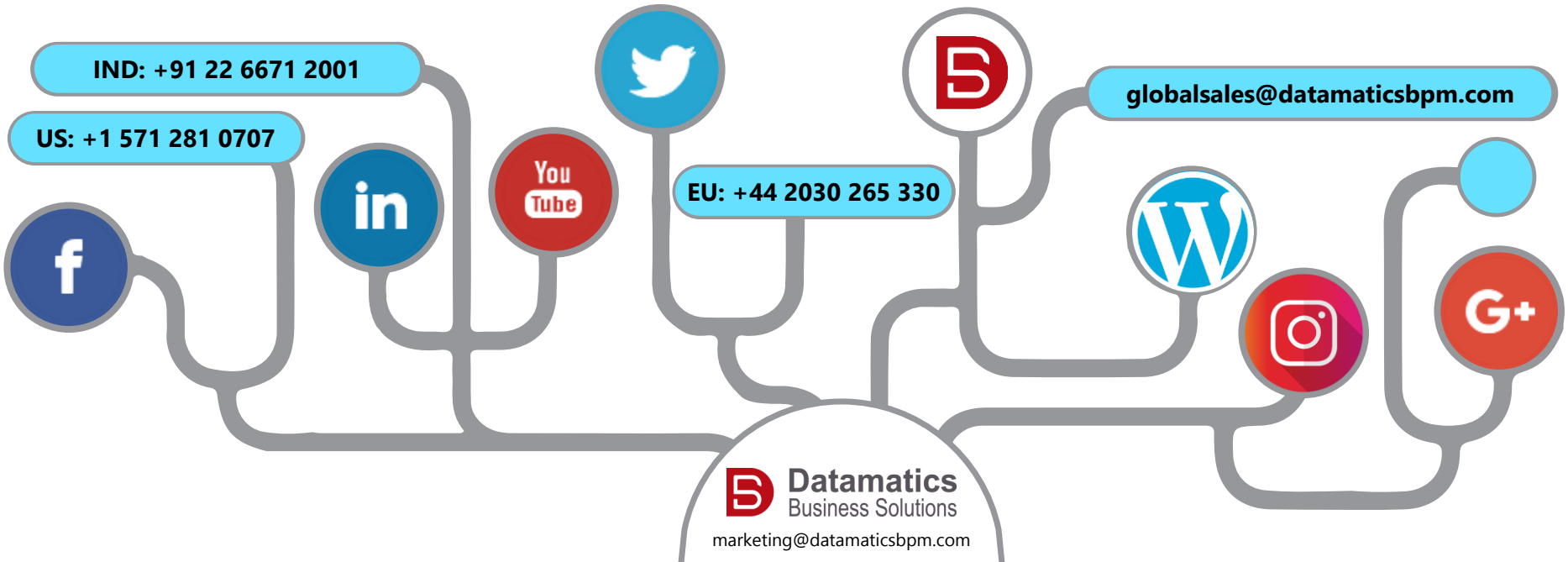
Thank You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