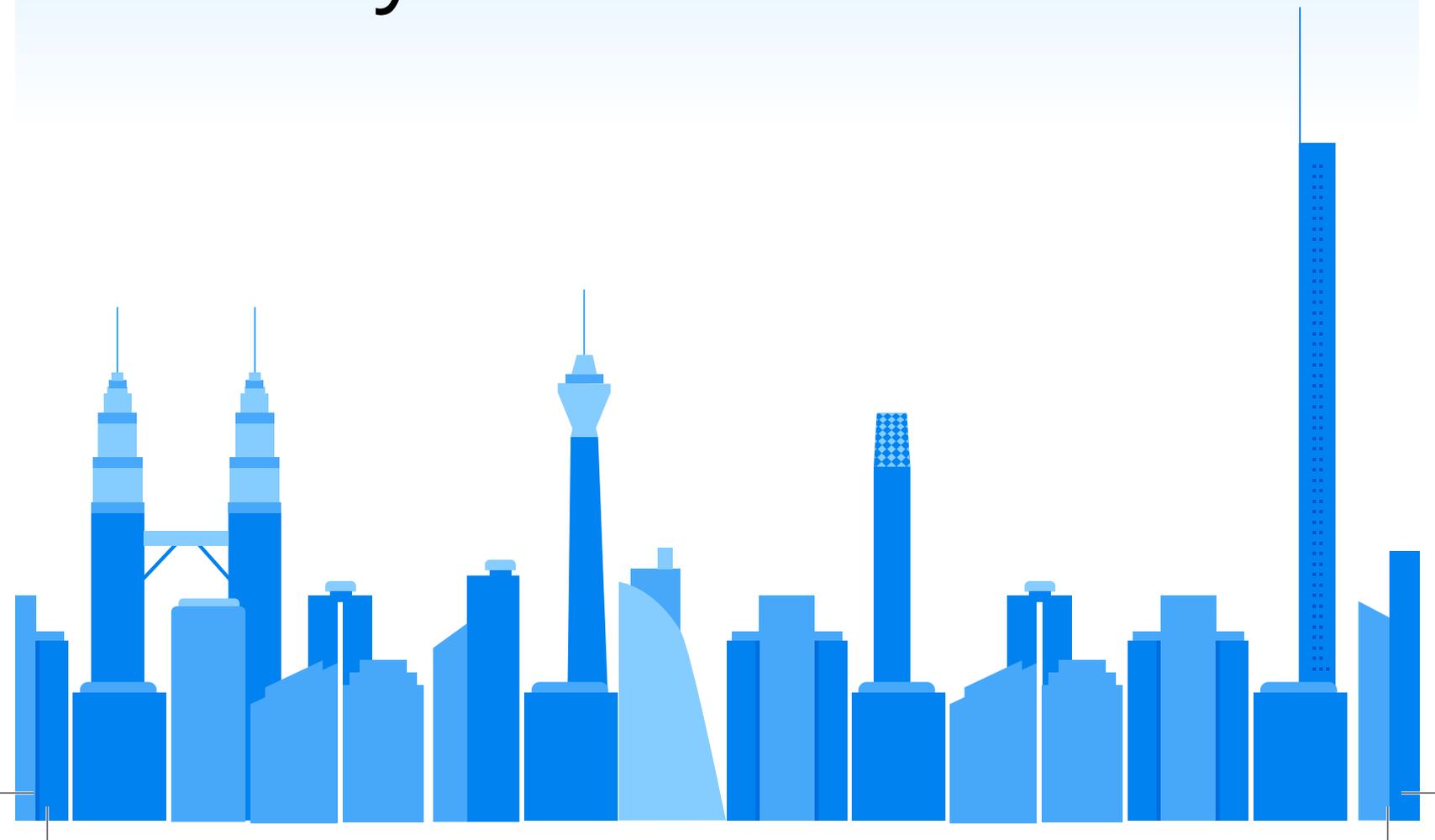




**ERICSSON**



# Advancing Digital Malaysia with 5G



# About Ericsson

Ericsson is a leading multinational technology company that was founded 148 years ago and our focus has always been on connectivity and communication.

Today our main business is enabling communications service providers and enterprises to capture the full value of connectivity and digitalization.

More than 50% of the data traffic outside China is on an Ericsson network. Out of the top 20 operators in the world, 80% of them are using Ericsson.

Ericsson's technology leadership is acknowledged by companies like Frost and Sullivan, and Gartner which have ranked Ericsson as the leader in 5G over the past 3 years consecutively.

# Executive Summary

5G is already emerging as the greatest open innovation platforms.

Malaysia today has one of the best 5G networks globally due to the great availability now covering 80% of populated areas, with a global top 3 customer experience.

The approach adopted by Malaysia has been able to deliver this with one of the lowest data production costs the industry has seen. This together with end-to-end security and a trusted network will help Malaysia to leap frog as a Digital Nation in the region and become a global showcase on how to deploy and run 5G networks.

The head start must be maintained and among the next steps to do so are:

- Driving 5G uptake
- Nurturing a 5G ecosystem
- Expand population coverage beyond 80%
- Introduction of 5G SA
- Fixed Wireless Access

It is now the time for all parties to work together to make this happen.

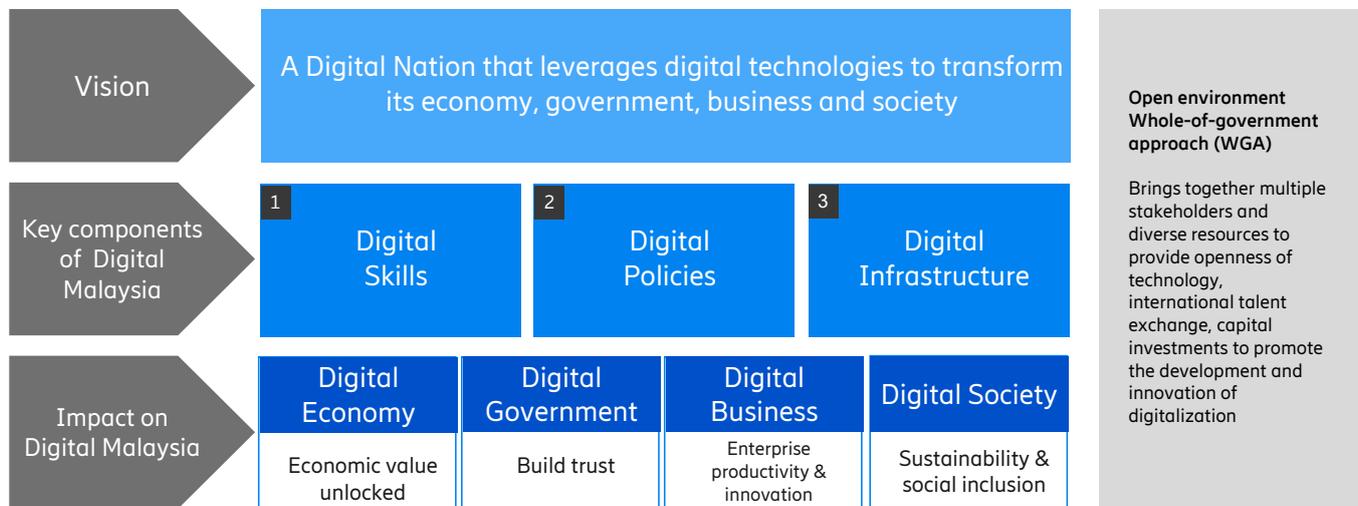
# Importance of digitalization

Just as electrification transformed the world in the 20th century, digitalization is transforming the 21st century. It is a global engine of sustainable economic growth, a fundamental lever in fighting climate change and a powerful enabler of social inclusion.

Consumers increasingly expect digital experiences in various aspects of their lives. From shopping to healthcare and education, people have grown accustomed to the convenience and benefits offered by digital solutions.

Digitalization has become a transformative force that offers efficiency, accessibility, and innovation, making it increasingly difficult to ignore or avoid in today's evolving world.

## Three key components to unlock the potential of digitalization of a nation



Sources: GSMA Intelligence (2023), Ericsson AB

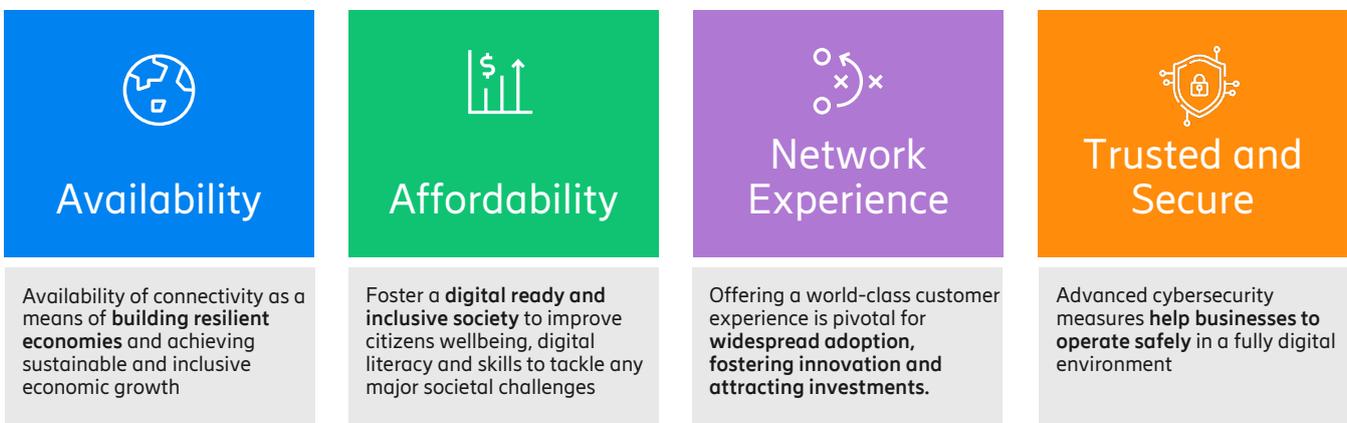
# Connectivity is a key enabler for digitalization – Importance of 5G

The three key enablers to accelerate digitalization are compute, storage and connectivity. Connectivity is the backbone of digitalization. There is an inseparable correlation between connectivity and digitalization.

5G provides the unprecedented level of connectivity that is required to support the increasing and complex levels of digitalization.



The key factors for 5G to be successful are:



# Malaysia already has a world-leading 5G network

Ericsson has delivered the 5G network ahead of schedule for Malaysia. With one of the fastest network rollouts in the world, coverage over populated areas in Malaysia is now over 80%.

It delivers an affordable and world-class customer experience which has been ranked among the Top 3 countries in the world for 5G performance and has been recognised by industry benchmarks such as OpenSignal.

The trustworthy, resilient and secure world-leading 5G digital superhighway has provided a head start to Malaysia in an increasingly digitalised world. This is in sharp contrast to the 4G era when a 2020 report ranked Malaysia globally at 81 position and sixth among the ASEAN countries.

It is now a global 5G showcase that provides a world-leading customer experience with robust security as the network was also designed, built and operated with security as a key priority. It was enhanced with the end-to-end deployment of the Ericsson Security Manager in 2023.

A key component of the world-leading performance and success of Malaysia's 5G digital superhighway is the Multi-Operator

Core Network (MOCN) model that enables equal and fair access for equal sharing of network infrastructure and resources for all operators. Fully tested and operational, MOCN provides the capability for each sharing operator to do slicing and differentiation for different types of service, while ensuring each sharing operator gets the best performance from the 5G pooled spectrum and network.

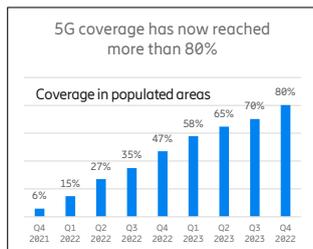
As technological change is exponential, Malaysia must maintain the head start it has achieved with the world-leading performance of the 5G network to drive the nation's digital transformation by continuing to improve and strengthen the network further.

With the unprecedented capabilities of 5G connectivity for digitalisation and transformation, Malaysia is now ready to seize the digital era and leapfrog ahead powered by the technology for economic growth and national development.

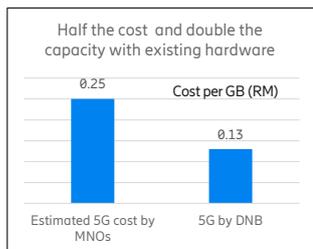
An Ernst & Young report on the potential future impact of 5G in Malaysia indicates that in 2030, the adoption of 5G technologies will increase Malaysia's Gross Domestic Product by 5% or RM122 billion, support the creation of 148,000 jobs across the economy and contribute to an increase in high-skilled jobs.

## Malaysia 5G Today

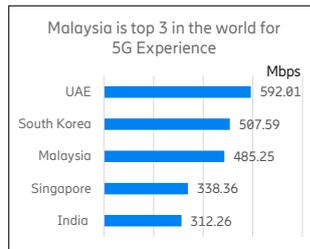
### Availability



### Affordability



### Network Experience



### Trusted and Secure



**May 2017**

Malaysia's first 5G trial, first in SEA using 28GHz band, showcased by Celcom Axiata and Ericsson

**Nov 2021**

World's first 5G RAN trial MOCN integration with five telcos.

**March 2022**

World's first 5G Dynamic Radio Resource Partitioning that can serve 6 Operators demonstrated on the DNB network.

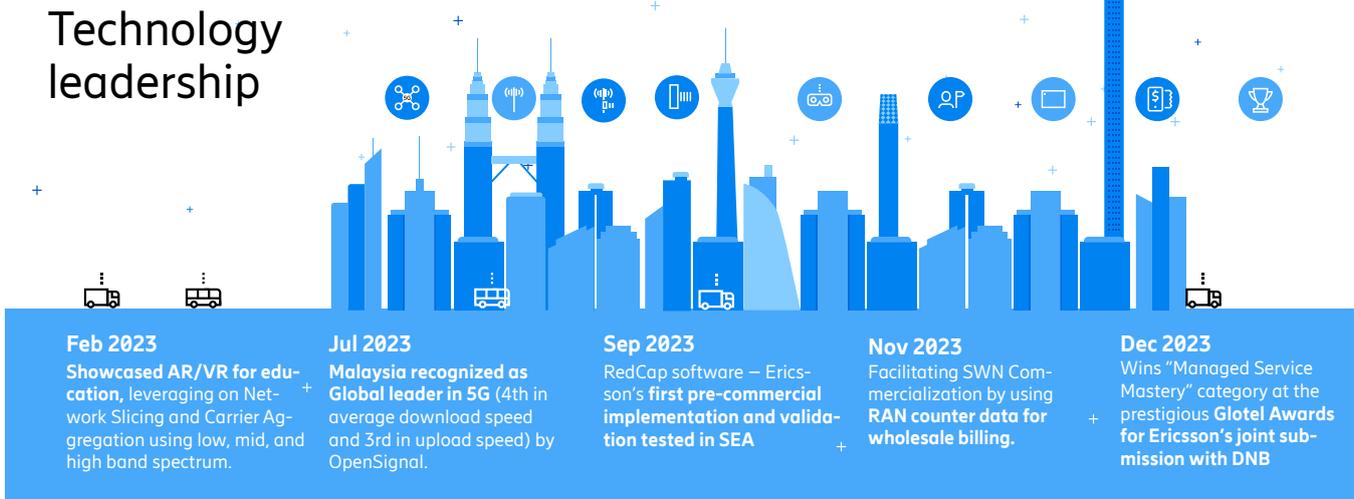
**Dec 2022**

New world record with mmWave in Malaysia of 1Gbps downlink speed achieved over a world record distance of 11.18km.

**Jan 2023**

World first for Ericsson to achieve 4Gbps capacity on a single antenna using advanced microwave features.

# Technology leadership



# Moving Malaysia forward with 5G

It is important that Malaysia continues the momentum and leverages 5G connectivity as a digital tool for Malaysia's transformation into a Digital Nation.

Driving that will be Malaysia's 5G network which is built for the future, continuously evolving and ready for any advancements in technology that will come with the next wave of 5G.

## Recommendations to stay ahead

### Promote adoption of 5G

Driving the uptake of 5G among consumers and enterprises through continuous awareness is essential for its success by spurring market growth, innovation, and economic development. It also unlocks the full potential of 5G, enabling transformative advancements in various sectors.

### Nurturing a 5G ecosystem

This creates the right conditions for an ecosystem to thrive, which is necessary to realise the potential of 5G. A strong, collaborative ecosystem must be nurtured as it is essential for the success and widespread adoption of 5G by creating, delivering, and sustaining the benefits of 5G technology. This leads to innovation, standardization, interoperability, and accelerated adoption.

### Expand population coverage beyond 80%

To allow more Malaysians and industries to benefit from 5G, it is recommended that the current target for 5G coverage of populated areas is expanded beyond 80%. This should include indoor and in key strategic locations e.g. tourist destinations, highways etc.

### Introduction of 5G SA

In the enterprise area, the full capabilities of 5G can be leveraged for the introduction of advanced use cases with the introduction of 5G Standalone (SA) architecture.

5G Standalone provides a robust foundation for a wide array of advanced use cases by offering high-speed, low latency, enhanced security, and the ability to cater to simplified automated end-to-end network slicing, with assured quality of service, security and flexibility.

### Enhance 5G Capacity

This is necessary to meet the evolving needs of our increasingly connected and digital world. It not only addresses current demands but also lays the foundation for the future growth of technologies and services that rely on high-performance and reliable wireless connectivity.

### Fixed Wireless Access

To bridge the digital divide, 5G with Fixed Wireless Access (FWA) technology plays a significant role for addressing connectivity challenges in remote or underserved areas where laying cables is impractical or expensive. This provides a cost-effective solution as FWA can be deployed rapidly, providing a faster solution to connect rural areas.

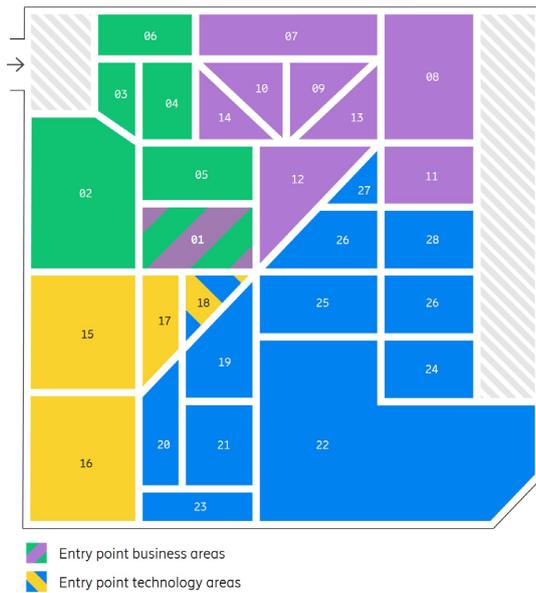
## Closing statement

The transformative potential of 5G is substantial but realizing its full benefits requires strategic planning, infrastructure development, investment, and policies that ensure the democratization of technology. Collaboration between governments, private sectors, and communities is vital to harnessing the transformative power of 5G.

Malaysia already has a world-class network to accelerate its digital transformation, but cannot be complacent. The head start must be maintained and one of the next steps is for the industry to work together to accelerate digital transformation and enable Malaysia to leapfrog ahead in the region.

## Welcome to the Ericsson Hall at MWC Barcelona

Throughout the Ericsson Hall at Mobile World Congress, Barcelona you can see examples of the latest technologies and innovations which are being deployed as part of Malaysia's 5G network as well as additional areas of value we can deliver to make Malaysia a leading digital nation.



Key Highlights Relevant for Malaysia

### Capture the value of 5G (consumers)

- 01 Capture the value of 5G
- 02 Immersive communications
- 03 Enhanced sports experiences
- 04 5G for broadcasters
- 05 Fixed Wireless Access
- 06 Frictionless payments

### Capture the value of 5G (enterprise and public sector)

- 01 Capture the value of 5G
- 07 Wireless solutions: Wireless WAN
- 08 Wireless solutions: Private Networks
- 09 Wireless solutions: Security
- 10 Wireless solutions: Business Internet
- 11 Mission Critical Communications
- 12 Realizing API monetization with Vonage
- 13 Precise Indoor Positioning
- 14 Enterprise Virtual Cellular Network

### Shape our future together

- 18 Network evolution
- 15 Our industry vision
- 16 6G straight from our labs
- 17 Sustainability

### Programmable networks

- 18 Network evolution
- 19 5G differentiated connectivity
- 20 OSS/BSS for superior service experience
- 21 5G Core and API
- 22 Hardware, software and network services
- 23 5G non-terrestrial networks
- 24 Energy and power automation
- 25 Openness and Cloud RAN
- 26 Intelligent networks
- 27 Ericsson RedCap
- 28 Secure and resilient networks

Visit the Programmable Networks areas to see how we are enabling faster availability of 5G in Malaysia and delivering a world-class 5G experience for consumers

### Ericsson’s socio-economic contributions to Malaysia



HQ for Malaysia, Sri Lanka & Bangladesh



Global Maintenance & Support Center, Bukit Jelut



National 5G Program, Exchange 106



Regional Distribution Centre, KLIA FTZ



1st Manufacturing site in SEA

### Building Talent

Legends:

● Malaysia

● Sri Lanka

● Bangladesh

**Dec 2016**  
Ericsson collaborates with Universiti Teknologi Malaysia to set up the **UTM-Ericsson Innovation Center for 5G**

**Apr 2017**  
Ericsson launched **Connected Mangroves Program** in Sabak Bernam

**Apr 2019**  
Celcom Axiata & Ericsson enabled the first **5G hologram call** in Malaysia and **5G autonomous vehicle** for 5G

**Dec 2020**  
Ericsson supported set-up of Universiti Malaysia Terengganu's **Cultural Heritage Digital Gallery**

**Nov 2022**  
MY5G Ericsson Malaysia Pioneers Programme becomes part of **MDEC's Let's Learn Digital program**, offered at no cost for all members of the Malaysian workforce.

**Jan 2023**  
Ericsson & DNB introduced a free online academic programme – **MY5G Ericsson Malaysia Pioneers Programme** – on digital technologies and 5G for all tertiary-level students

**March 2023**  
MRANTI, DNB, and Ericsson announced an extension of their MoU for the commercialization of 5G-enabled solutions for companies in Malaysia

**Oct 2023**  
DNB's 'My5G Portal' Experience Center was officially launched with Ericsson as the key partner.

### Knowledge Building & Innovation

Ericsson enables communications service providers to capture the full value of connectivity. The company's portfolio spans Networks, Digital Services, Managed Services, and Emerging Business and is designed to help our customers go digital, increase efficiency and find new revenue streams. Ericsson's investments in innovation have delivered the benefits of telephony and mobile broadband to billions of people around the world. The Ericsson stock is listed on Nasdaq Stockholm and on Nasdaq New York