



**The Advisory Committee for  
Autonomous, Connected and Cyber Mobility**

# Agenda

1. Members' introduction
2. The Committee's goals, expectations and presenting the dates for the upcoming meetings.
3. Topics for discussion – a suggestion
4. Round table with government officers: 5G in Israel – an urgent need or “nice to have”?

# The Committee Goals

## A Suggestion

### **The Committee's Goal:**

An advisory committee for Autonomous, Connected and Cyber Mobility

### **Objectives:**

1. Setting recommendations for promoting Autonomous and connected Mobility and overcoming regulatory barriers and other barriers.
2. Providing a professional accompaniment for regulatory changes through case studies worldwide and the implementation potential in Israel.

# Topics For Discussion

## Draft

1. Autonomous vehicle regulation:  
existing regulation in the world and in Israel, required changes
2. Cyber security
3. Infrastructure for connected vehicles
4. Insurance and liability
5. Licensing and registration
6. Operation on public Roads
7. Operator requirements
8. Privacy issues
9. Vehicle inspection requirements
10. Vehicle testing
11. Safety and responsibility issues
12. 5G infrastructure
13. Traffic DATA center
14. Autonomous public transportation
15. Influence on congestion

# THE FUTURE OF 5G

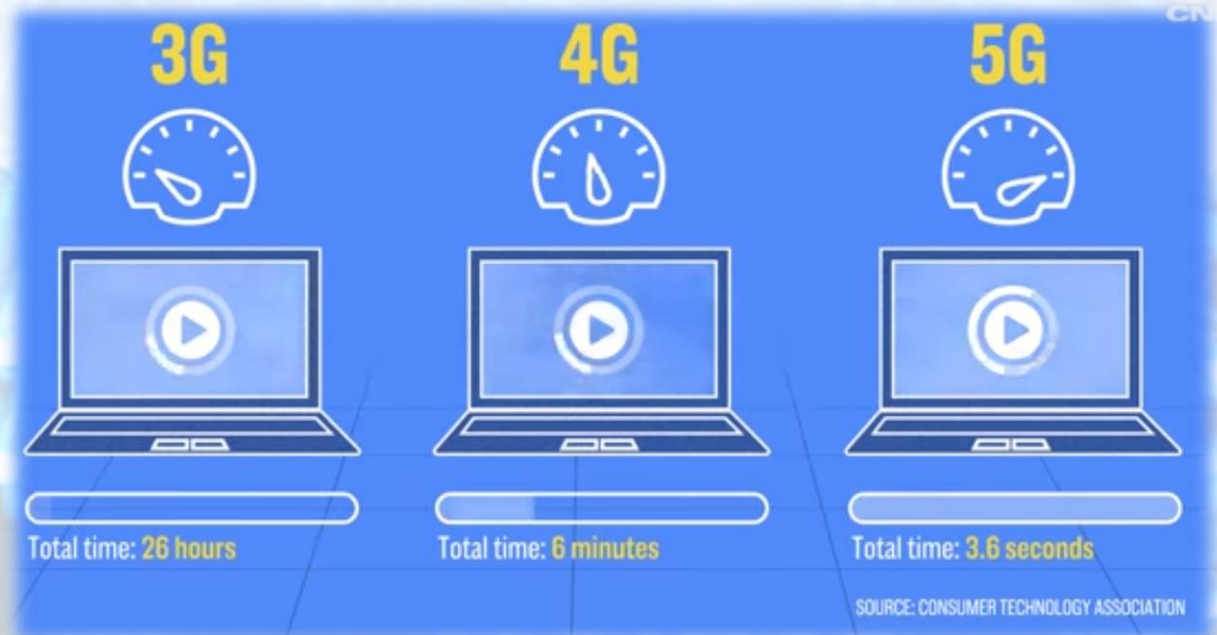


**DIGITAL TRENDS**

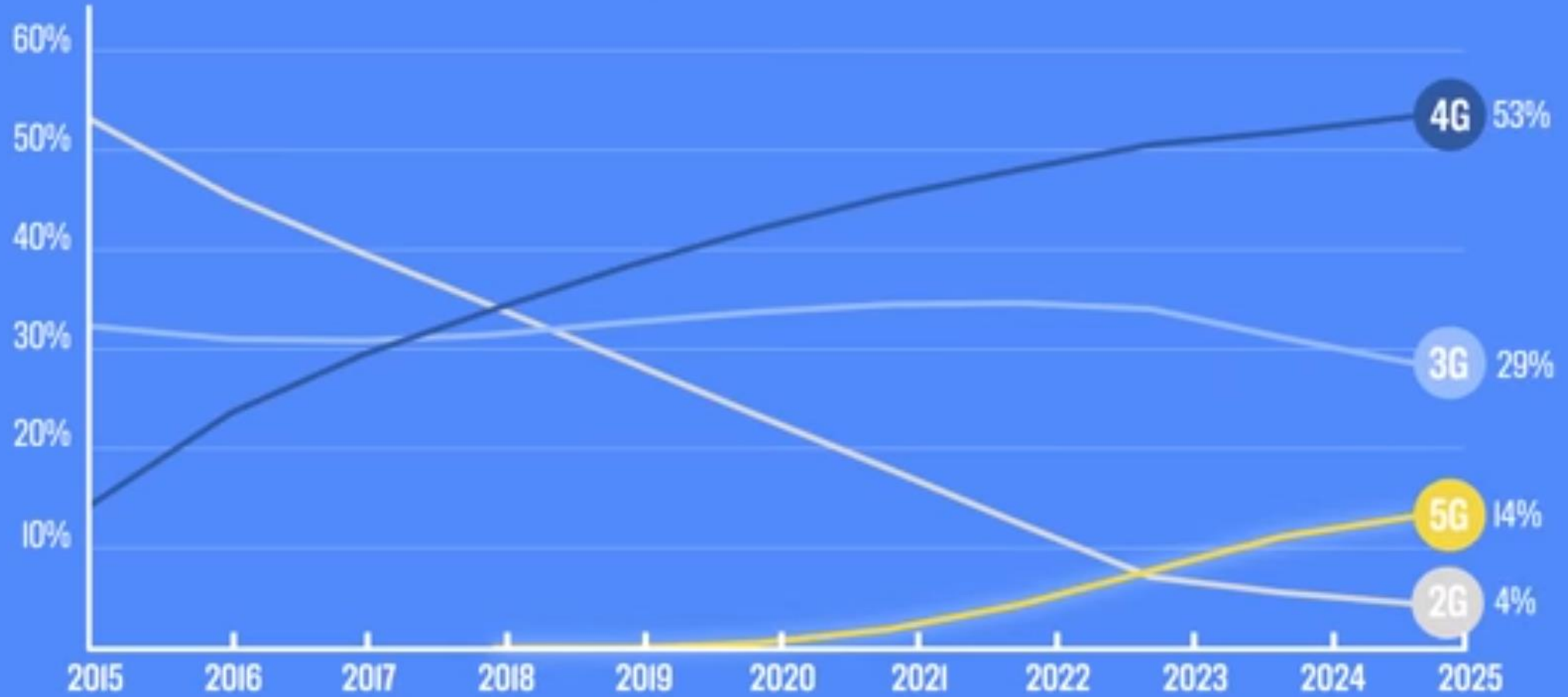


# 5G

Next generation wireless communication network, promising to deliver 10-20x faster data transfer as well as allow a lot more devices to connect to a single antenna thus increasing the overall throughput of the network and paving the way to the IoT (Internet of Things)

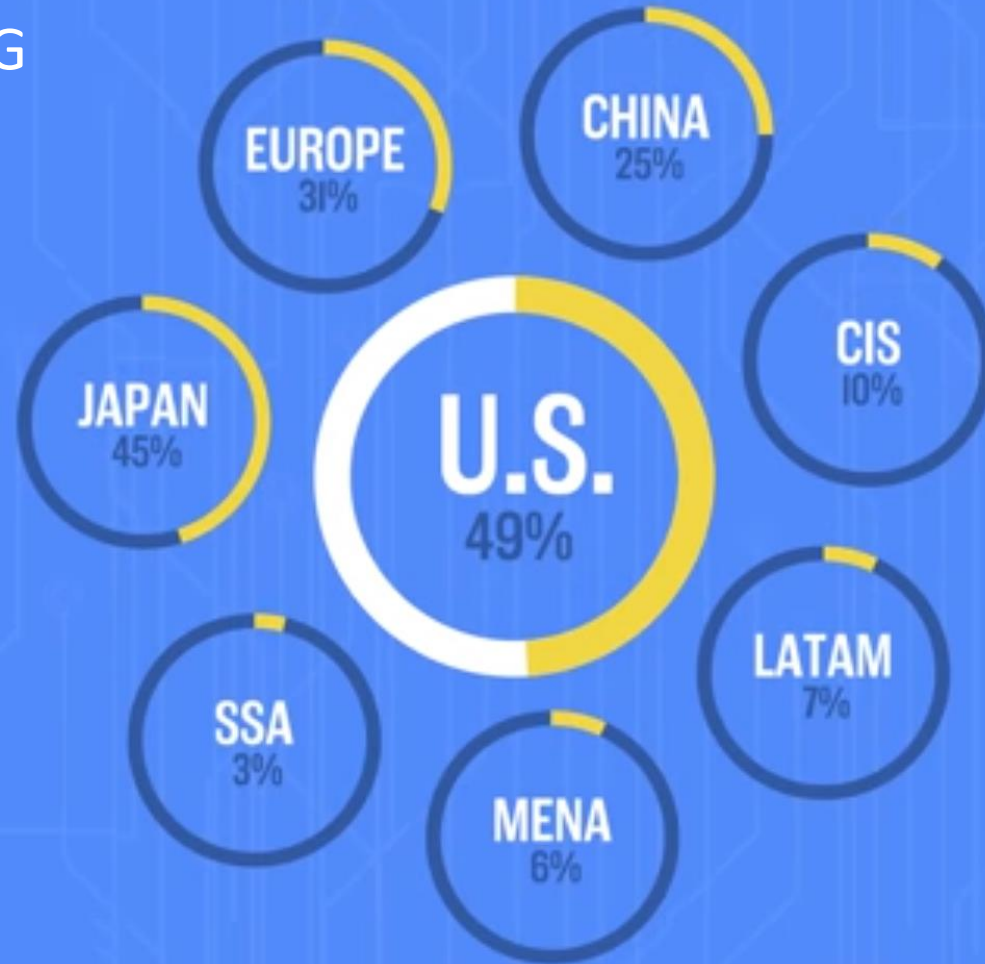


# GLOBAL SHARE OF MOBILE CONNECTIONS



SOURCE: GSMA INTELLIGENCE

By 2025- mobile connections for 5G



SOURCE: GSMA INTELLIGENCE

SUBSCRIBE



# V2X

("Vehicle-to-everything")



## Goal

Direct real-time safety communication between vehicles to road users and vehicle to infrastructure

## Technology

**DSRC/ C-ITS  
(Wi-Fi)**

**C-V2X  
5G**

# DSRC vs C-V2X

DSRC (dedicated short-range communications)- US  
C-ITS (Cooperative Intelligent Transport)-EUROPE

C-V2X (Cellular Vehicle-to-everything)

**20 years of development**

**Young technology- still in development**

Auto makers which support DSRC

Volkswagen in EUROPE

Toyota in the US

Auto makers which support C-V2X

Lexus in Australia (Toyota)

**EUROPE and US** – provide some funds for DSRC test and small scale of deployment.

**China** –focuses on C-V2X/5G

# DSRC vs C-V2X

**NHTSA** (National Highway Traffic Safety Administration) is currently finalizing a proposal that will make V2X technology a mandatory feature in US vehicles, possibly by 2020, and DSRC is expected to be the solution upon which it is based

The **European Parliament** is now inclined to support the DSRC technology, with the willingness to examine other technologies later.

The **5G automotive association** (5GAA) has recently filed a request to the US FCC to allow operation of C-V2X in the same 5.5GHz range as DSRC to support commercial deployment in 2019

The **GSMA** urges the European Commission to adopt a technology-neutral approach in developing the EU's Cooperative Intelligent Transport Systems (C-ITS), notably on safety related connectivity. It calls upon European legislators to allow the market to decide which technology prevails.

# Worldwide C-V2X Trials



# C-V2X advantages over DSRC



C-V2X's improved non-line-of-sight performance allows vehicles and drivers to **"see" more clearly** through obstructions and further around corners, **providing and earlier, more expanded view of surroundings**



C-V2X's enhanced reliability provides more certainty that **critical safety messages reach their intended destination** at a much greater communications range



C-V2X's superior resiliency to out of band emissions provides a **more dependable performance for vehicles and drivers**



C-V2X's **higher capacity to transmit data**, will allow more and higher quality information to reach the driver and vehicle



C-V2X's communications congestion control in traffic jams and other scenarios in which there is a high volume of vehicles in the same vicinity helps to **ensure more consistent performance.**