VISION 2040: THE ECONOMIC BENEFITS OF 6G

6G's additional contribution to the global economy in **2040** is

$1.24 TRILLION

or **0.7%** of global GDP

Dependent on timely access to spectrum capacity

Spectrum is required to enable the 6G economy

The global economy could lose up to **$520 billion** by **2040** if **6G spectrum is constrained**

$1.24 TRILLION	This is **42%** of the benefit in **2040**
	$720 BILLION
Optimal scenario	Constrained scenario

6G use cases

AI connectivity
Integrating and optimising future AI capabilities

MIoT and URLLC
Industrial automation and robotics

eMBB and FWA
Immersive experiences (extended reality)

ISAC
Joint sensing and communication, and detection

NTNs
Ubiquitous coverage, service continuity

Factors impacting 6G benefits

1 The pace of 6G adoption
Network rollout, affordability of devices and services, applications ecosystem

2 Regulatory frameworks
Cost of spectrum, amount of spectrum, licence duration, data governance, cybersecurity

3 Macroeconomic conditions
Physical and digital infrastructure, human capital and skilled workforce

Policy recommendations

LOW BANDS

Make the 600 MHz band available for 6G – and consider 500 MHz – to improve low-band coverage and capacity

MID-BANDS

Release at least 2 GHz of mid-band spectrum by around 2030. By 2035–2040 a global average of 2–2.5 GHz is needed, or 2.4–3.3 GHz in higher-demand countries. The upper 3.5 GHz, 4.5 GHz and 6–8 GHz bands should be considered.