

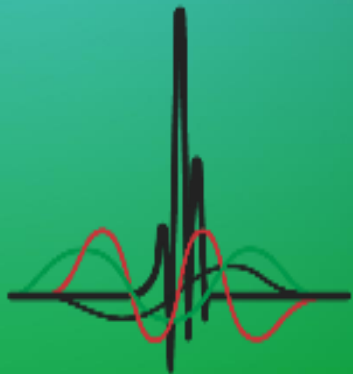
Advancing the Sustainability Agenda

Brahim GHRIBI

ICT Development Forum, UAE TDRA

November 2023

The Nokia logo is displayed in white, uppercase letters within a dark blue circular area. This area is surrounded by a thick white ring, all set against a green-to-blue gradient background.



ITUWRC
DUBAI 2023

COP²⁸
UAE

Targets 2023 onwards

Our ESG targets in 2023

Environment

- 75% renewable electricity in our own facilities
- 65% reduction of facilities' emissions
- 50% reduction of average power consumption of 5G mMIMO Base Station

Security and privacy

- 95% mandatory training completion related to privacy

2023



2024

Bridging the digital divide

Nokia's fixed and broadband technologies connecting **400 million** additional residential subscribers covering unconnected and underserved

Responsible business

- A minimum of **27%** female hires in global external recruits
- Zero critical or fatal incidents for employees and suppliers
- 100%** of suppliers performing high risk activities pledge their commitment to Nokia's life-saving rules
- Cohort of **40** Senior Leaders conduct Safety Tours to Sites to increase Monitoring visibility
- 98%** tin, tantalum, tungsten and gold traceability and conflict-free status and extended due diligence to cobalt and mica
- Ethical Business training (EBT) completed by **95%** of employees

Responsible business

- 95%** of projects to be compliant with HRPIA standards
- Reduction in Total Recordable Incident Frequency Rate (TRIFR) and Lost Time Incident Frequency Rate (LTIFR) for Nokia employees and suppliers

Environment

- 100% renewable electricity in our own facilities
- 65% reduction of Scope 1 and 2 GHG emissions, including 85% reduction from facilities

Industrial digitalization

Industry verticals adopting private wireless customers, in line with business plan



2025

Bridging the digital divide

Harness Nokia technology, capabilities and funds to improve the lives of **1 500 000** through social digitalization projects, digital skill building, and connecting the unconnected or underserved

Responsible business

- 98%** tin, tantalum, tungsten and gold traceability and conflict-free status and extended due diligence to cobalt, mica and two additional minerals
- 80%** of suppliers receive satisfactory sustainability score from supplier performance evaluation
- TRIFR and LTIFR at industry benchmark

Environment

- 50% reduction of our total GHG emissions (Scope 1, 2 and 3)
- Final assembly suppliers reach zero emissions
- 50% reduction of suppliers' GHG emissions
- 73% reduction of logistics GHG emissions
- 95% circularity rate for waste from our offices, labs, manufacturing, installation and product takeback
- Increase recycled content in source materials:
 - Cast aluminum used in mechanical parts: to **90%**
 - Wrought aluminum, steel and copper alloys, as well as polycarbonate plastics used in mechanical parts: to **50%**

2030

Bridging the digital divide

Provide broadband based digital services with **2 billion** more subscriptions

Responsible business

- Maintain at least **85%** favorability of employee/line manager engagement on the importance of ethics and compliance
- 100%** of suppliers delivering high risk activity to meet or exceed "H&S preferred supplier" status
- Increase the share of women employees to **25%**

Environment

Net zero emissions in our value chain



2050

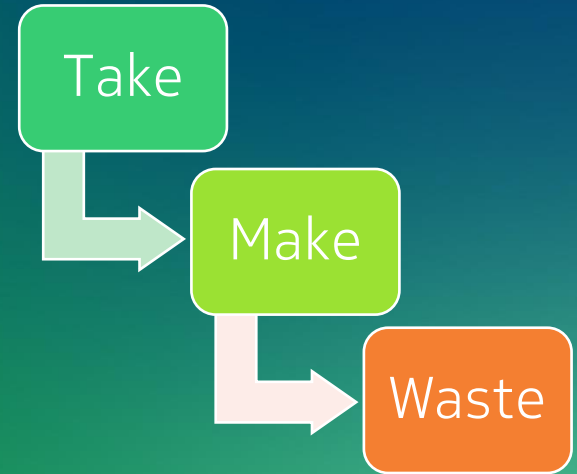


People & Planet 2022

The linear economy is not sustainable

Today's global economy is based on a linear system

- Humanity is currently **using nature 1.6 times faster** than our planet's ecosystems can regenerate¹
- The linear economy **does not price in** the cost of environmental / social damage and biodiversity loss and **geodiversity** loss
- Only **17%** of e-waste in the electronics industry is recycled²



The starting point is building circularity into product design. “Essentially, you want to keep things in the loop and in use for as long as possible,”²

FINANCIAL TIMES

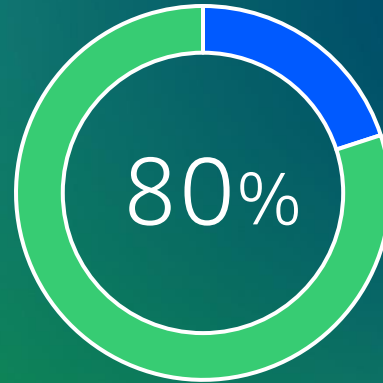
1. United Nations – Facts & Figures [\[link\]](#)

2. Financial Times; 23 February 2023 [\[link\]](#)

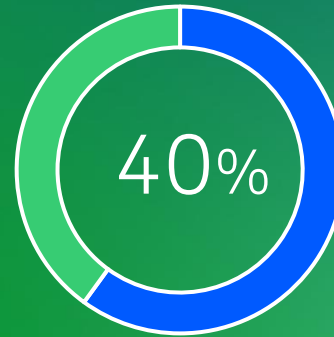


No green without digital

The twin green and digital transitions go hand in hand. Digital technology is key to solving the climate crisis.

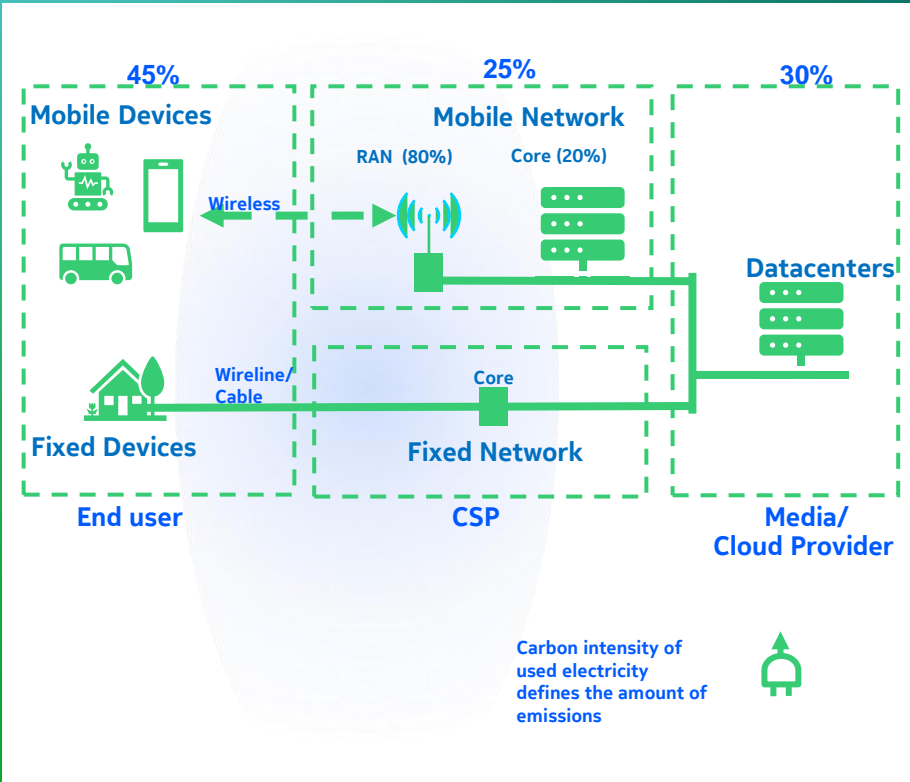


80% of CO₂ emissions come from physical industries like energy, transport, manufacturing and buildings



Digitalization could **deliver 40% of the CO₂ savings** needed to achieve **net zero by 2050**

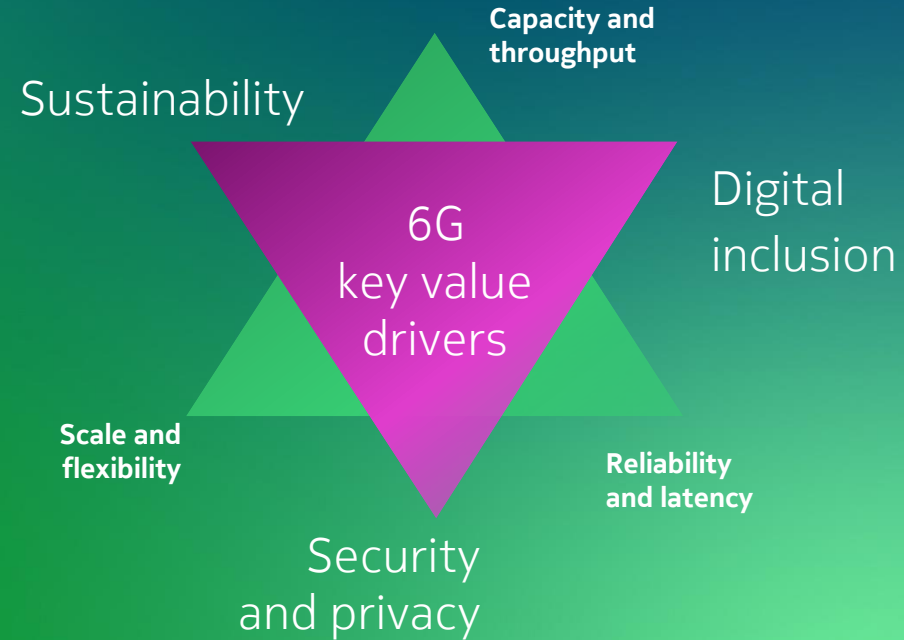
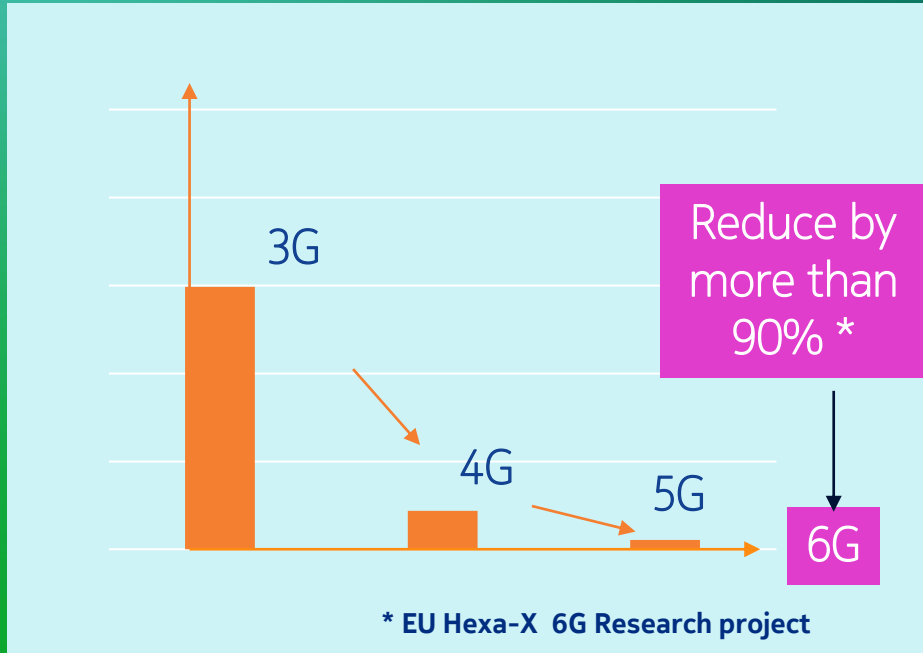
Data centres and data transmission networks are responsible for 1% of energy-related GHG emissions (IEA)



“Since 2010, emissions have grown modestly despite rapidly growing demand for digital services, thanks to energy efficiency improvements, renewable energy purchases by information and communications technology (ICT) companies and broader decarbonisation of electricity grids in many regions.” IEA

We won't sacrifice sustainability for performance

Energy per bit during busy hour for site



Minimizing our footprint

Examples of product related developments and innovations



Improving product

energy efficiency
44% less energy was used
on average by the
customer base station
sites we modernized in
2022



Innovations in cooling (Liquid Cooling) and circular practice

Capture **80%** of waste
heat for re-use and
regeneration of electricity



Green Cells

/renewable energy
Self powering Base station

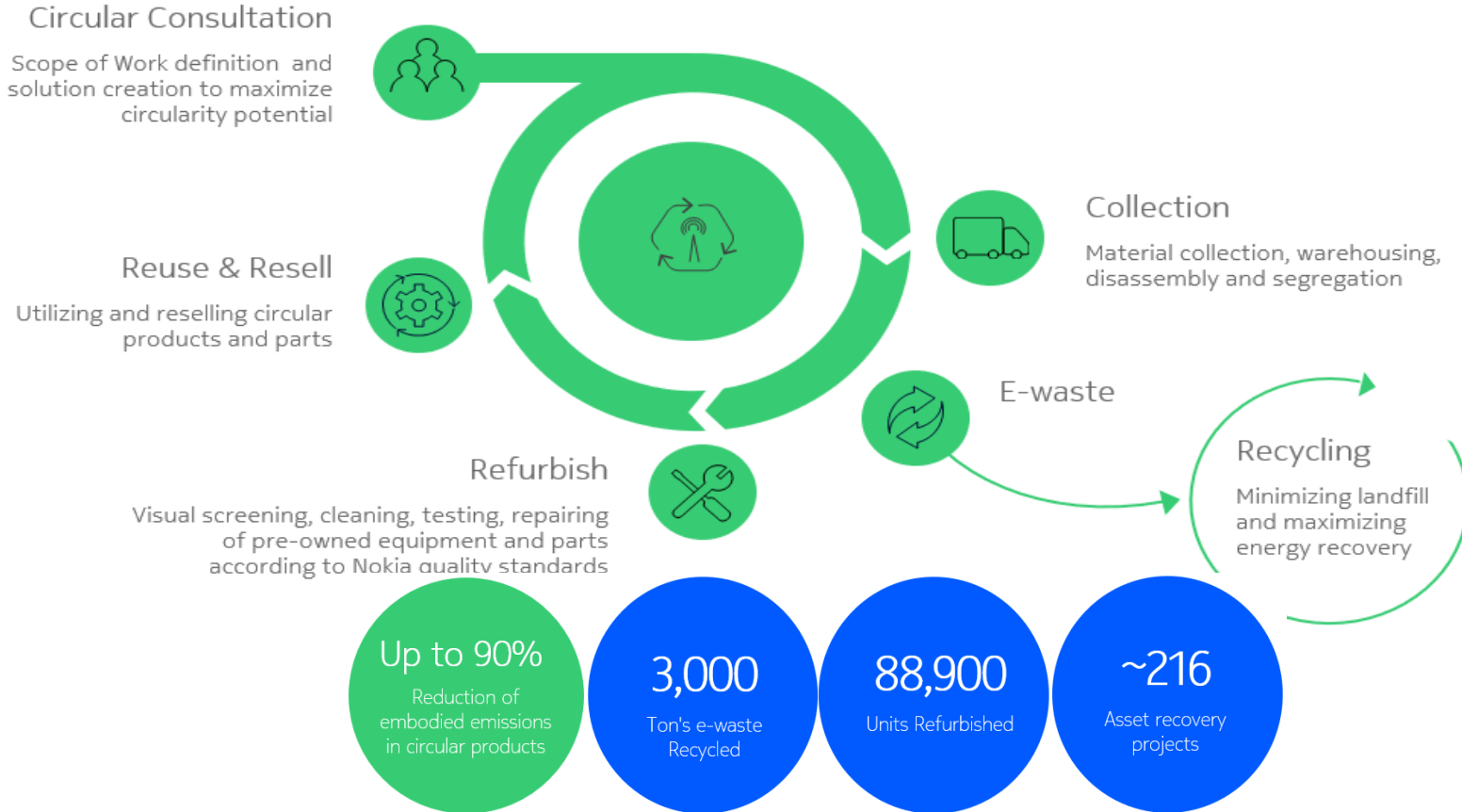


Harness AI for more sustainable energy (Nokia AVA)

Savings ranging
from **8-15%**
on top of BTS energy
features

NOKIA

Nokia Circular products and services



NOKIA