

GSMA
Services Showcase
LIVE

#14 Driving sustainable growth through the circular economy

Tuesday 18 June 2024
14:00 – 15:00 BST

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Agenda

Time	Segment	Speaker
14:00	Welcome and housekeeping	Vinny Robertson GSMA
14:05	An overview of the circular economy within the mobile industry	Steven Moore GSMA
14:15	An insight into GSMA Equipment Marketplace and how it can benefit your business	Shamit Bhat GSMA
14:25	Exploring the importance of Equipment Marketplace to Vodafone's sustainability efforts	Andrew Murchison Vodafone
14:35	The value of GSMA Device Check™ to wider mobile ecosystem's sustainability efforts	Jason Smith GSMA
14:40	Assurant's Trade-in and upgrade programs supporting the circular economy	Rebekah Griffiths Assurant
14:50 – 15.00	Q&A and closing remarks	Vinny Robertson GSMA

A person wearing a blue uniform and white gloves is using a screwdriver to work on a mobile phone. The phone is open, showing internal components. The background is a blurred factory or repair shop setting with other phones and equipment. The overall color scheme is blue and white.

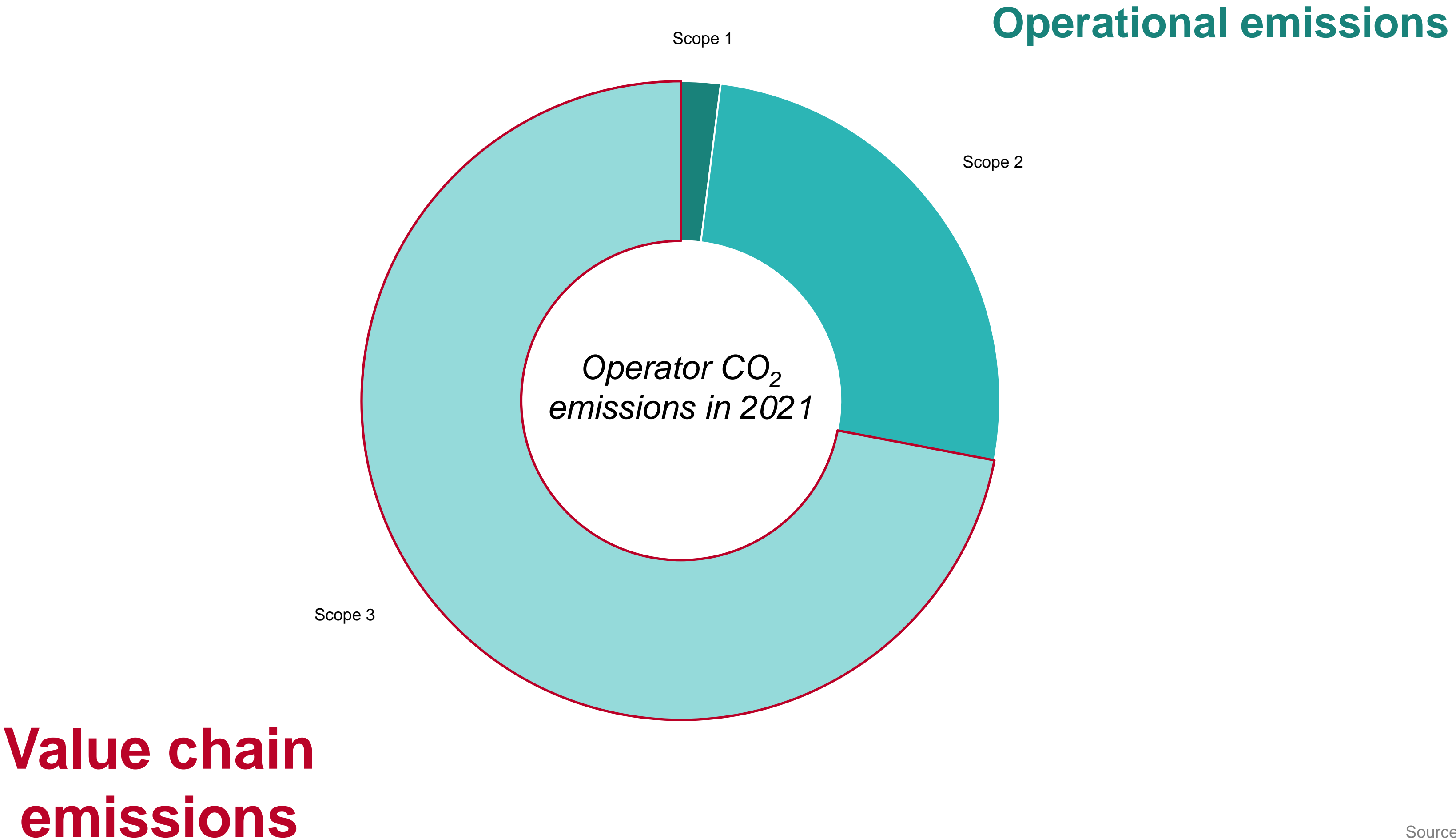
Circular economy in the mobile industry

Steven Moore

Head of Climate Action

GHG emissions of the mobile industry

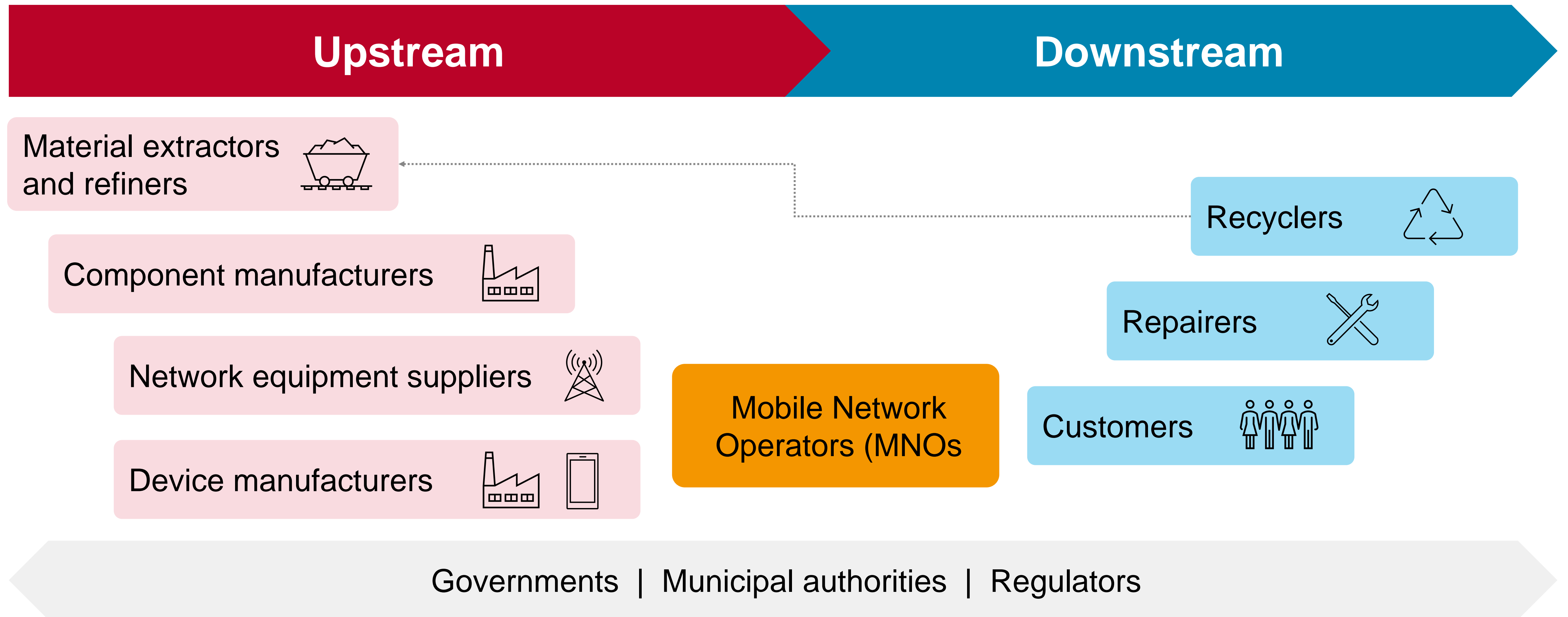
Over 70% of a mobile network operator's greenhouse gas emissions come from its value chain



Sources: [GSMA \(2022\)](#), [Mobile Net Zero 2022](#).

Key stakeholders across the value chain

Suppliers, MNOs, and customers all have a role in reducing emissions from across the value chain

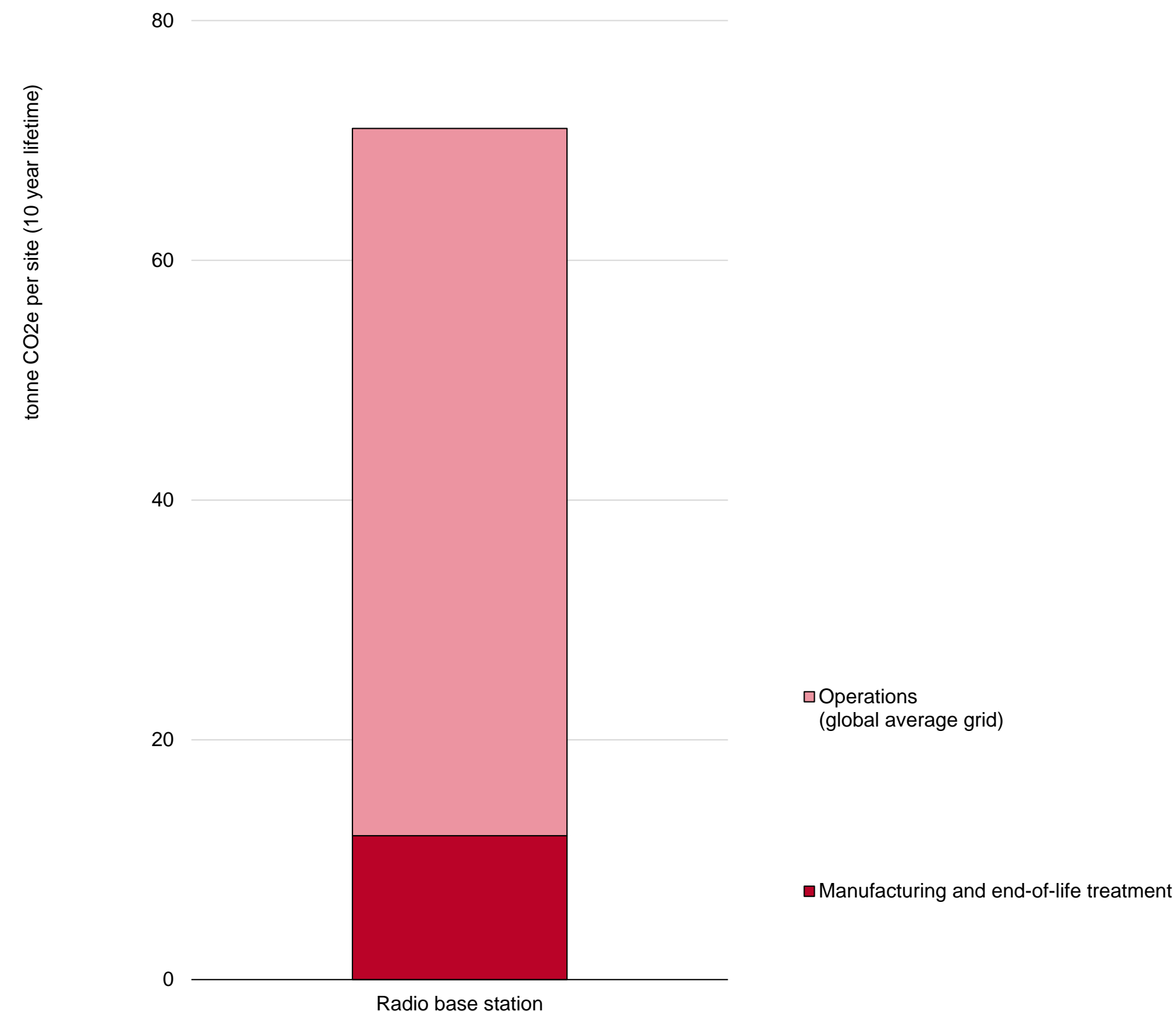


GSMA Strategy Papers on Circular Economy



Life cycle emissions from network equipment

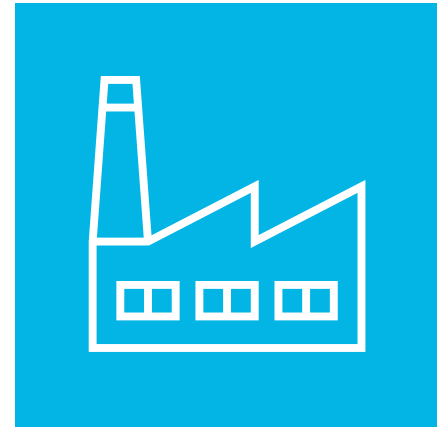
Most of the life cycle emissions of network equipment comes from operations, but embodied emissions are also important and should be addressed



- ~80% of the life cycle emissions of a radio base station come from operations
- ~20% comes from manufacturing, transport, and end-of-life treatment
- Trade-offs between refurbishment/reuse to reduce embodied emissions vs. using newer, energy-efficient equipment to reduce operational impacts

Source: Bergmark (2015), Life cycle assessment of an LTE base station based on primary data.

Key actions to increase circularity of network equipment



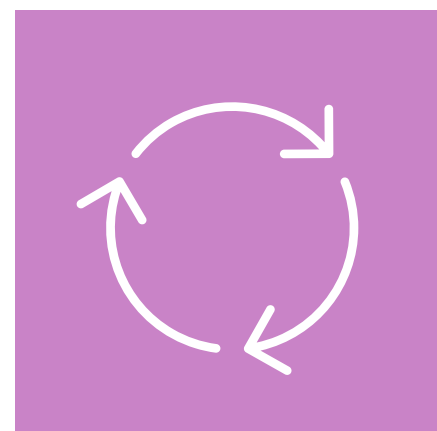
1. Reduce impacts of manufacturing network equipment



2. Make it easier to source, reuse, and repurpose existing network equipment



3. Better understand the environmental impacts of network equipment



4. Accelerate shift to more circular principles in supply chains



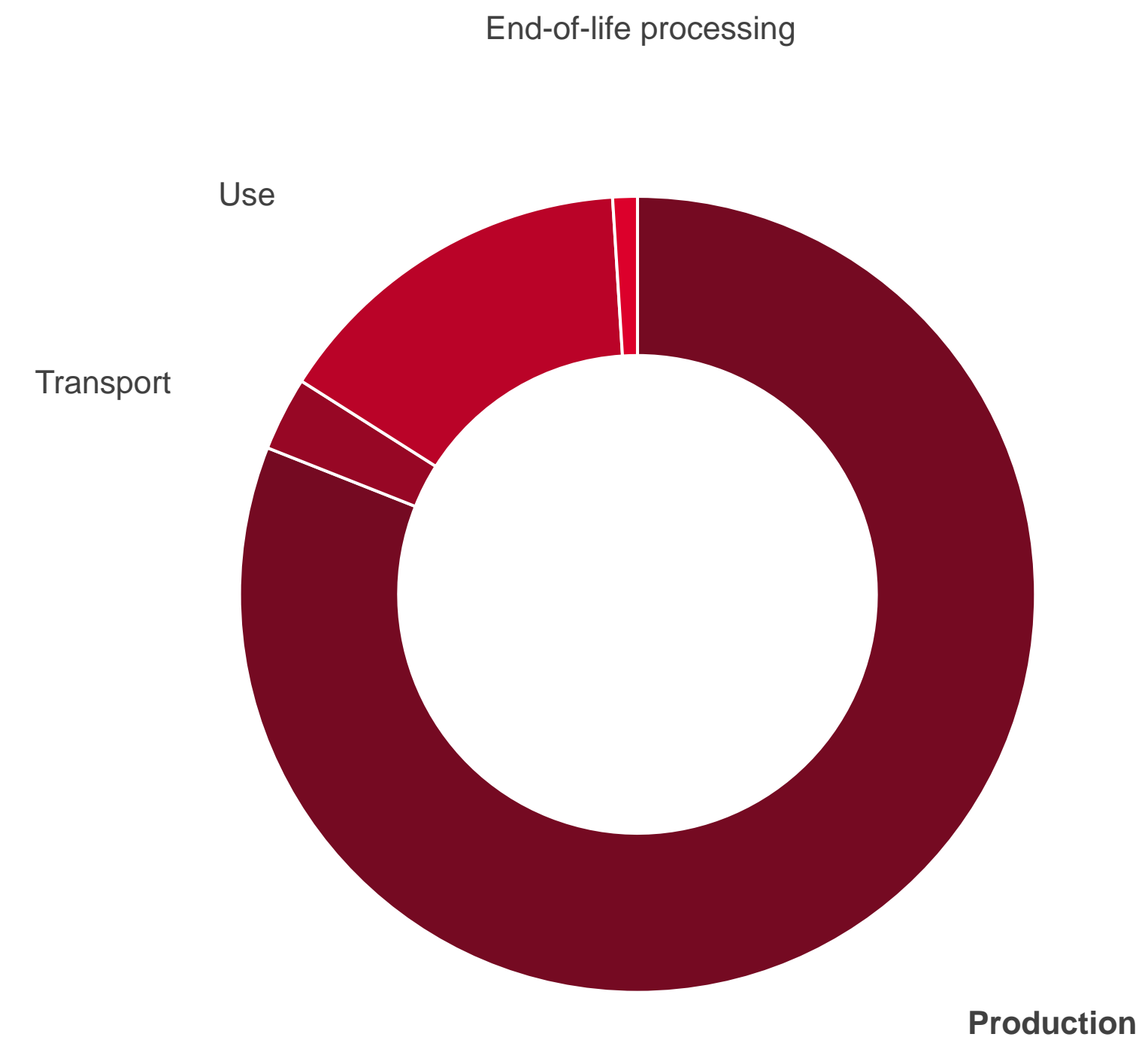
Source: [GSMA \(2022\), Strategy Paper for Circular Economy: Network equipment.](#)

Importance of circularity for mobile devices

- 80% of a smartphone's climate impact comes from its materials and manufacturing (“embodied emissions”)
- Large volumes: over 16 billion smartphones have been sold to date
- Mobile devices contain valuable and rare minerals



Life cycle carbon emissions of an iPhone 14 Pro



Sources: Apple (2022), Product Environmental Report iPhone 14 Pro; Lövehagen et al. (2023), Assessing embodied carbon emissions of communication user devices by combining approaches; GSMA (2023), Methodology Estimating the number of dormant phones worldwide.

Critical minerals in mobile devices

Mobile phones contain rare and valuable critical minerals, including gold, silver, rare earth elements, and cobalt



What critical minerals could be recovered from five billion phones



The cobalt in them could help make batteries for



Source: GSMA (2022), Strategy Paper for Circular Economy: Mobile Devices; GSMA (2023), Reuse, Refurbish, Recycle.

The industry vision of circular economy

THE INDUSTRY VISION FOR 2050

Devices with as long a lifetime as possible made with 100% recyclable and recycled content, 100% renewable energy and where no device ends up as waste

OVERARCHING CONCEPTS FOR DEVICE CIRCULARITY

Maximise longevity

Zero waste

SYSTEM TRANSFORMATION ACROSS VALUE CHAIN

Collaborate
with your
suppliers

Engage
your consumers

Partner with
repairers and
recyclers

Source: GSMA (2022), Strategy Paper for Circular Economy: Mobile Devices.

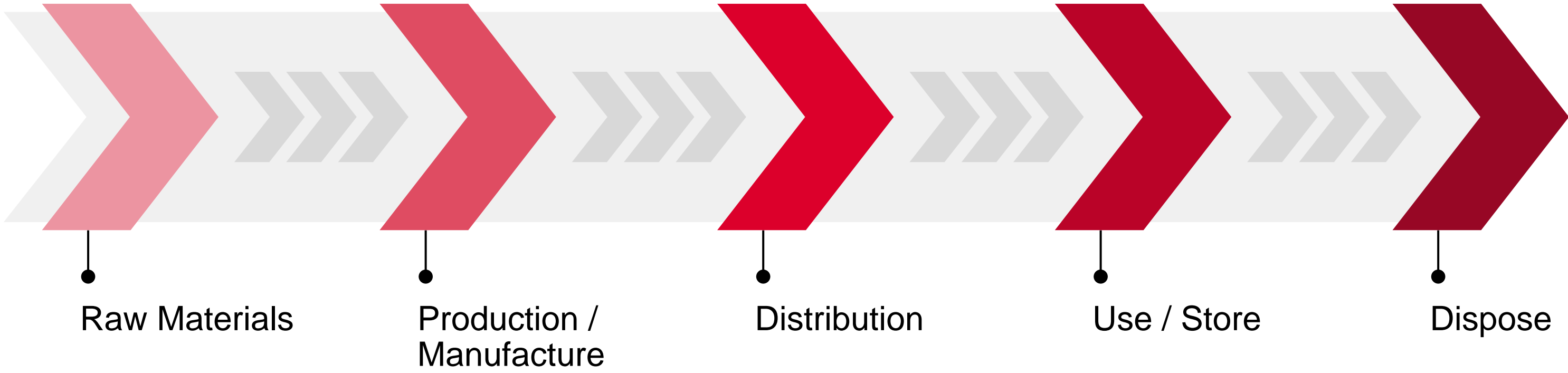
**Trade in old business models for
new sustainable ones.**

**To reach your environmental and
financial targets faster.**

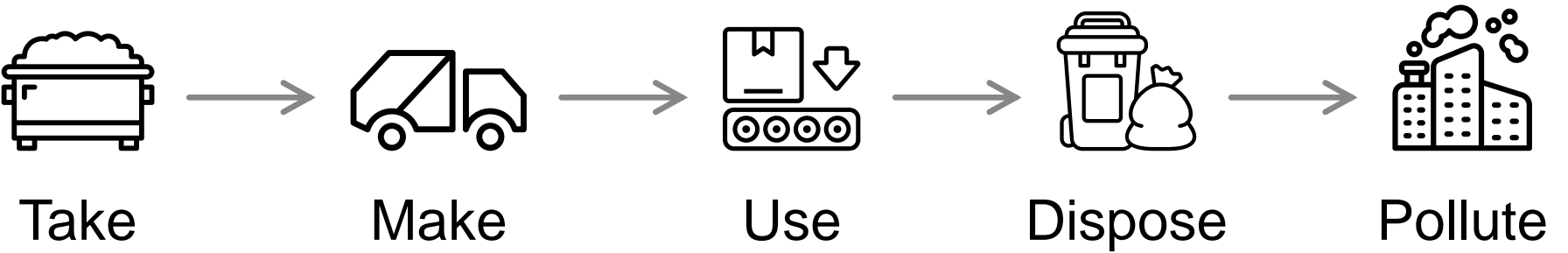
GSMA Equipment Marketplace

The Telecom sector will never reach net zero with linear supply chains

Linear



Linear economy



75%
of the telecom industry's carbon emissions come from its supply chain (Scope3)*

* Source: GSMA analysis based on CDP (2023) and corporate sustainability reports

Circular economy



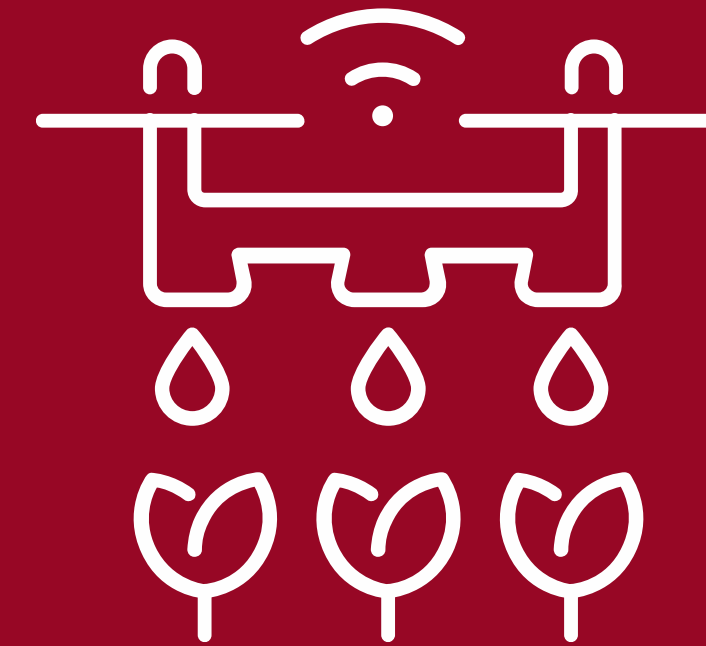
GSMA Equipment Marketplace

The first global digital platform to source, resell, reuse, and recycle pre-owned network equipment



Vision

Transition the telecom industry to a circular sustainable network economy, achieving net zero by 2050.



Mission

Use GSMA Equipment Marketplace to enable the industry to transition from a linear to a circular sustainable network economy faster.

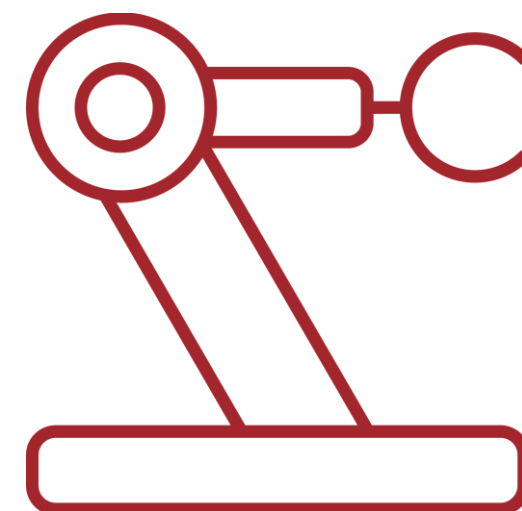
GSMA Equipment Marketplace

The first global digital platform to source, resell, reuse, and recycle pre-owned network equipment



Planet ESG benefits

- Lower CO2 emissions by 90% vs manufacturing new equipment
- Reduce embodied carbon and Scope3 emissions
- Divert e-waste from landfills with our zero-landfill policy
- Recycle what you cannot reuse
- Reduce demand for critical minerals



Buyer benefits

- All equipment comes with 2-year warranty
- All stock renewed - fully tested and refurbished
- Save 61% on OEM Catalogue price when buying from marketplace
- Shorter procurement lead times for network equipment assets



Seller benefits

- Monetise redundant or unused assets
- Clear your warehouses to reduce equipment depreciation, aged stock and liabilities
- Gain a global view of your inventory in real time across group companies

How does it work?



Vodafone Introductions and Plans

The team and challenges

- Andrew Murchison – VNO
- Team accountability
 - Spare Part Management
 - Site Clearance
 - Battery removal
 - Battery Maintenance
 - Decommissioning removal obsolete equipment
- H&S
- Site availability
- COOS
- Discontinued stock
- Save service – reduced costs
- Switch To Green

Network Operations

Within Operations success is measured several ways whilst reducing costs.

SLA and KPI's to keep service to our customers, yet in the most challenging economic climate we have all experienced.

A circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible.

Goals

Aiming for net zero operations in Europe by 2028 and in Africa by 2035

Aiming for net zero across our full value chain by 2040

19

We have established Vodafone's climate ambitions – to reach net zero by 2040.

Now we are focused on the most challenging part: executing the plan to achieve our goals and make the transition to a low-carbon economy



Benefits Equipment Marketplace

Green Benefits

- Lower CO2 emissions by 90% vs manufacturing new equipment
- Reduce embodied carbon and Scope3 emissions
- Divert e-waste from landfills with our zero-landfill policy
- Recycle what you cannot reuse
- Reduce demand for critical minerals

Tangible benefits

- Monetise redundant or unused assets
- Clear warehouses to reduce equipment depreciation, aged stock and liabilities
- Gain a global view of your inventory in real time entire estate

Procurement Benefits

- Shorter lead times for network equipment assets
- All equipment comes with 2-year warranty
- All stock fully tested and refurbished
- Save 61% on OEM Catalogue price when buying from marketplace



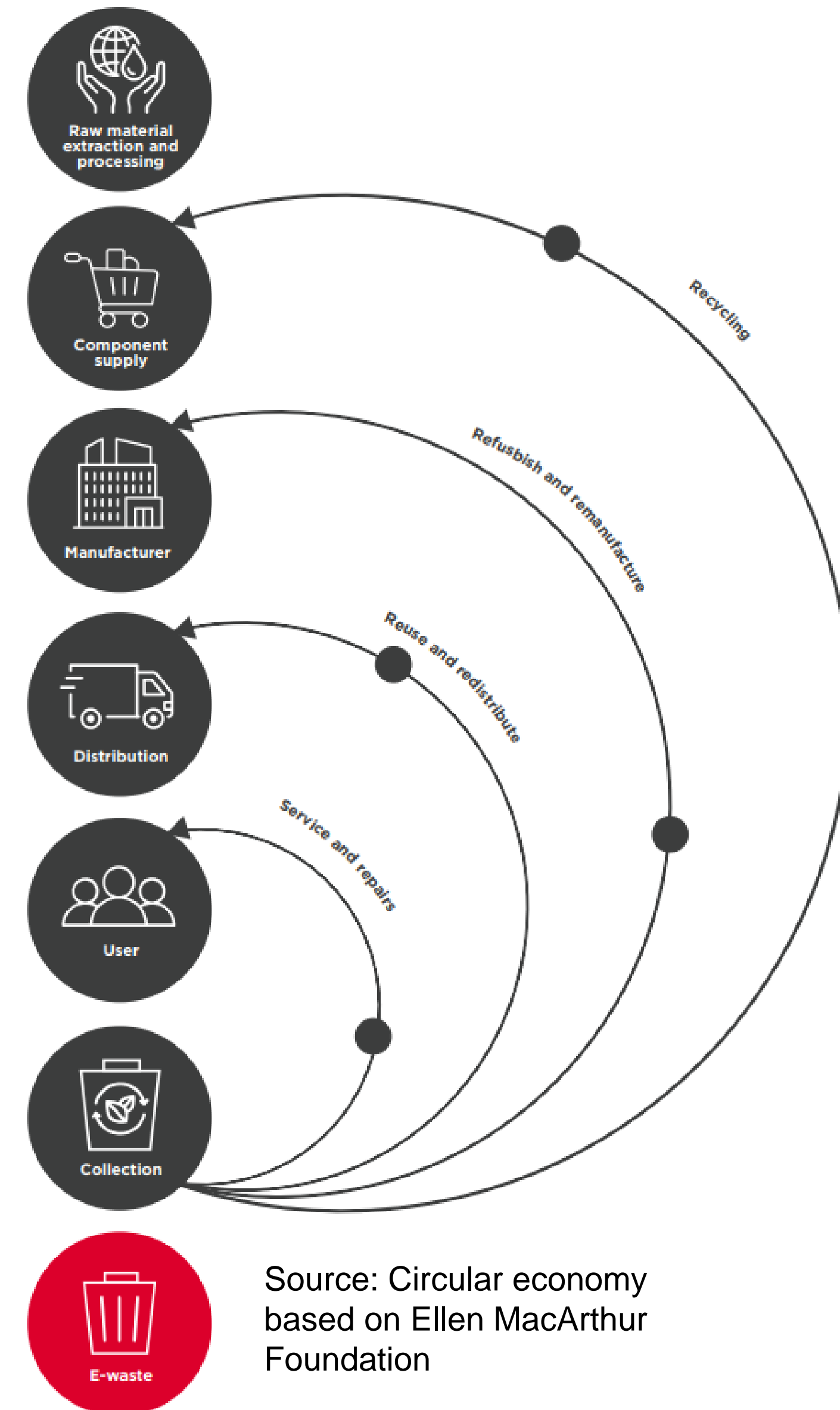
Summary

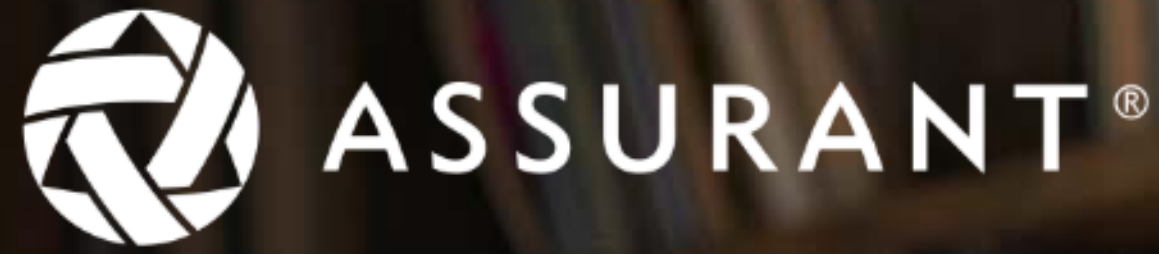
- This platform has successfully supported Vodafone to reuse, resell and recycle decommissioned network equipment since we started using it in 2021. It has delivered new revenue and savings opportunities, while also contributing to a reduction of our carbon footprint. We are delighted to see this platform opening to serve businesses across our whole industry, enabling a more circular economy for network equipment at greater scale.
- Vodafone's collaboration with Shields and Marketplace to create a sustainable and innovative network is an excellent step towards a greener and more efficient telecom industry.
- The ability to reuse, resell, and recycle technology and resources not only helps in reducing waste but also promotes a circular economy within the industry.
- This approach can set a precedent for other telecom companies to follow, potentially leading to significant environmental benefits and cost savings.
- By focusing on sustainability and innovation, Vodafone and its partners are not only contributing to environmental conservation but also enhancing operational efficiency and resilience. This collaboration could indeed influence the future of the telecom industry, making it more sustainable and responsible.
- As someone looking forward to influencing the future of the telecoms industry, your involvement in such initiatives can have a significant impact. Embracing and promoting sustainable practices can help drive industry-wide changes, leading to a more sustainable and innovative future for telecommunications.



GSMA Device Information Services

- Circular economies rely heavily upon an efficient and trustworthy secondary market
- Device theft and fraud disrupt the circular flow of resources, hinder recycling efforts, and weaken consumer confidence in sustainable practices
- GSMA Device Check and related services are key to establish trust
 - Device Check: lost/stolen/fraud, broken/faulty, counterfeit detection, 3rd party claims
 - Device Database: device type verification, counterfeit detection
 - Device Compatibility: will it work where I need it to?





Trade-in and Upgrade Programs Supporting the Circular Economy

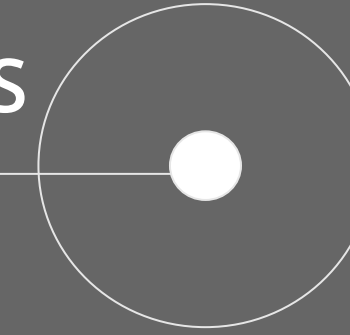
Rebekah Griffiths, Assurant
VP Product Management & Strategy



Advancing the connected world alongside the **world's top brands**



TELECOMMUNICATIONS

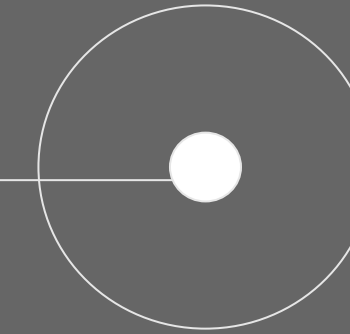


7 of the Top 10
global telecommunications brands

Source: Telecoms 150 2023 Ranking by Brand Finance



MOTOR VEHICLES

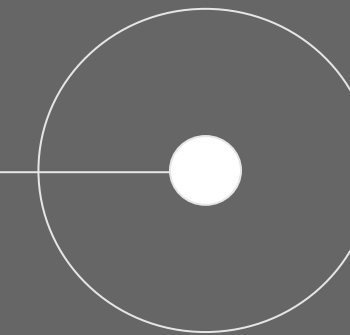


8 of the Top 10
global auto manufacturing brands

Source: 2022 Best Global Brands by Interbrand



HOUSING

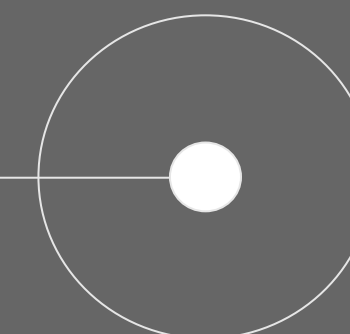


6 of the Top 10
mortgage servicers

Source: Internal research



RENTERS SOLUTIONS

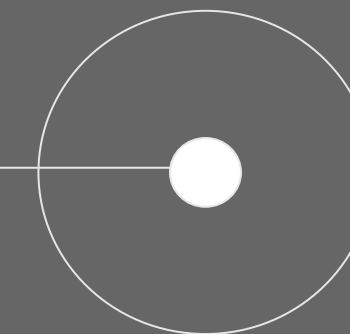


4 of the Top 5
property management companies
in the U.S.

Source: 2023 NMHC 50 Largest Apartment Managers List



CREDIT CARD SERVICES



4 of the Top 7
U.S. credit card issuers

Source: Nilson Report, Feb. 2023

Sustainability is part of our DNA and embedded into our products

ASSURANT'S COMMITMENT

EVANGELIZE

PRODUCTS & SERVICES



62%
of our board is diverse in gender, race or ethnicity



1,700
charitable organizations supported worldwide each year



160 million
Mobile devices repurposed since 2009



US\$5 million+
in grants, disaster relief, matching gifts, and in-kind support annually



60%
of our global workforce is female

Celebrating Earth Day 2024 Impact of trade-in and upgrade programs



Supply Chain

- Sustainable Sourcing, Packaging & Services
- Certified Pre-Owned Device Usage

Product Level

- Carbon "Offset it Forward"
- Data-Driven Consumer Messaging

Insights & Reporting

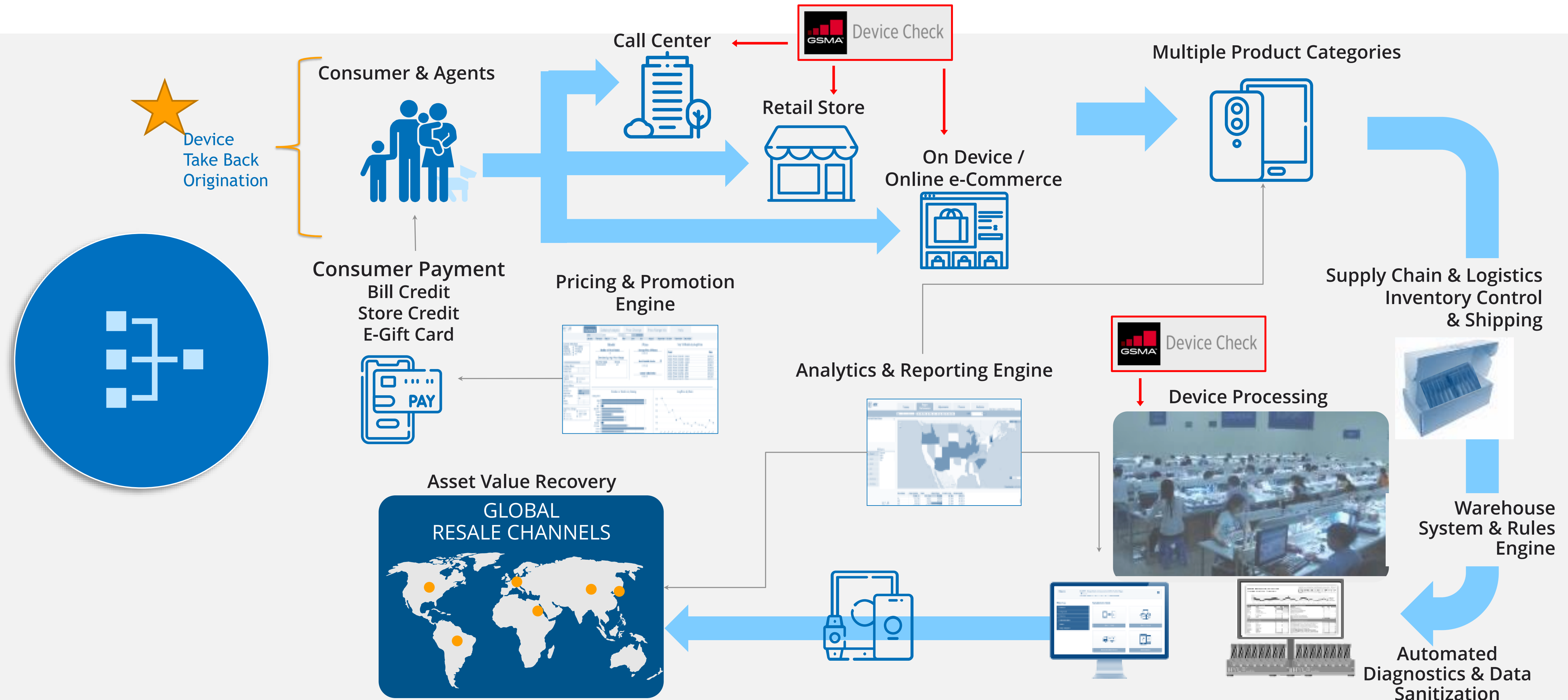
- Carbon IQ & Sustainable Analytics



Assurant offers a comprehensive suite of device lifecycle technologies and services

DEVICE PROTECTION	TRADE-IN & UPGRADE	SUSTAINABILITY SOLUTIONS	DEVICE INSIGHTS	SOFTWARE & SUPPORT	OMNICHANNEL SUPPORT	CLAIMS MANAGEMENT	SERVICE & REPAIR	3PL & DEVICE PROCESSING	DEVICE DISPOSITION
62 million mobile devices protected globally	22 million transactions supported annually	32,000 metric tons of e-waste diverted from landfills	1 billion market intelligence data points	Over 400 million downloads worldwide	218 million customer contacts around the world through emails and chats across our global care centers	99% of claims approved within seconds of submission	1,100+ convenient repair locations, plus come-to-you repair service	13 million automated diagnostics and valuations performed through our functional and cosmetic testing solutions	16.1 million devices sold in 2022

GSMA Device Check instrumental in the Trade-in & Upgrade process





**Thank you
for joining, any
questions?**