

# Sustainability and Circular Economy for Telecom

**Kurt DE LANGE**

Lead of Transport & Data Networks

Network Sustainability Ambassador



## Carving our role in the Energy space



**Energy Efficiency**

**Electricity Sourcing**

## Tackling emissions in our value chain



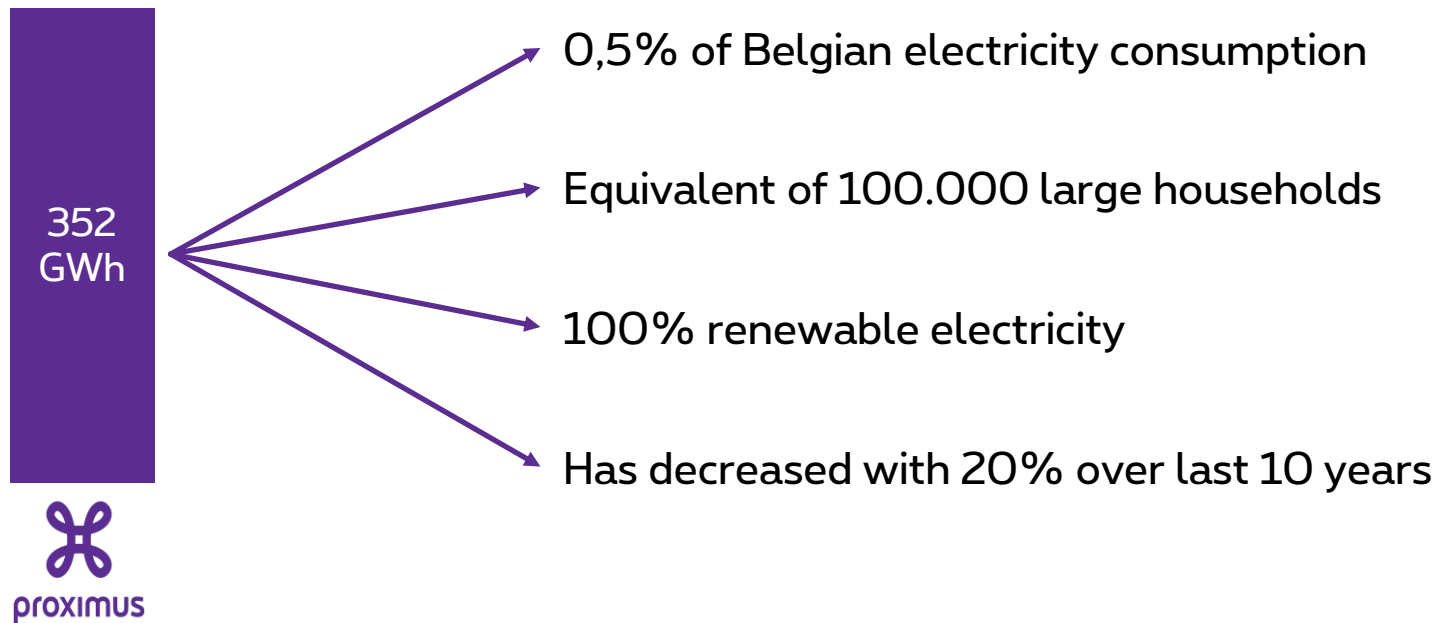
**Circular by Design**

**Supplier Engagement**

## Carving our role in the Energy space

### Energy Efficiency

# Proximus total electricity consumption



# Carving our role in the Energy space

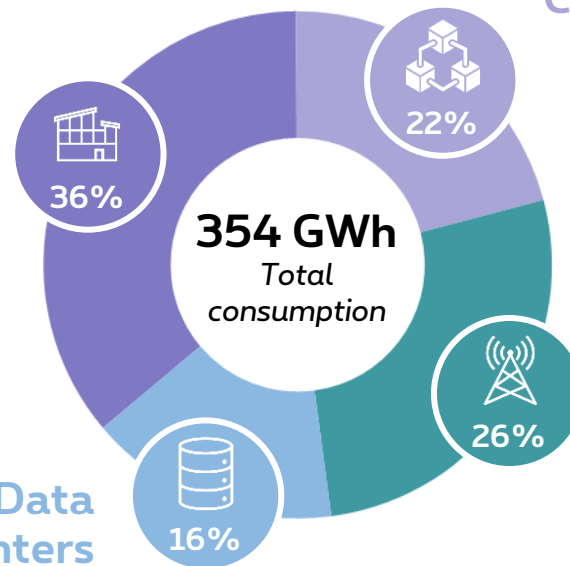
## Energy Efficiency

Our activities have an intensive electricity consumption profile, spread between buildings, mobile, street cabinets & data centers

Our 2022 electricity consumption profile



**Buildings**  
Technical, Offices & shops



## Carving our role in the Energy space

### Energy Efficiency

# Electricity consumption strategy is built on three principles

**Invest in the future sustainable networks**



**Out-phase legacy equipment and buildings**



**Optimize the existing assets**



# Carving our role in the Energy space

## Energy Efficiency

Electricity efficiency programs have generated tangible reductions, but even with additional savings, consumption will remain ~flat in coming years

Electricity efficiency programs have delivered tangible consumption savings of 30% in the past...

Proximus consumption profile 2007-2021 (in GWh)



...but forecasted consumption will remain flattish despite optimizations identified in prior years

- Mobile*

**Higher 5G traffic will increase consumption** ↑
- DC*

**Data use and digitalization will increase consumption in data centers** ↑
- Fix*

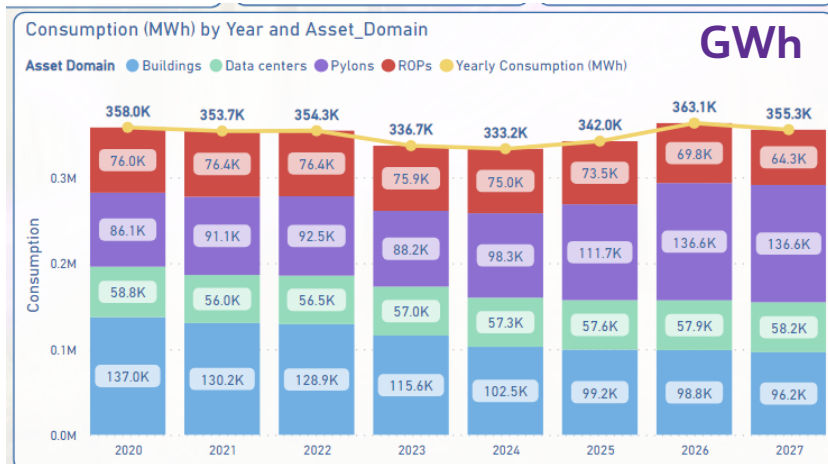
**Accelerated copper & street cabinet dismantling will reduce consumption** ↓
- Building*

**Phase-out of building and legacy network combined with efficiencies** ↓

# Carving our role in the Energy space

## Energy Efficiency

- 1 Coming years, consumption is to stay relatively flat (compared to 2022 consumption)
- 2 Roll-out of 5G causes large increase in mobile consumption, offset by efficiencies in buildings & ROPs



### Expected evolution by 2030

- Further decrease of ROP consumption
- Further increase of mobile consumption
- Data Center growth more or less steady
- Further decrease of buildings consumption

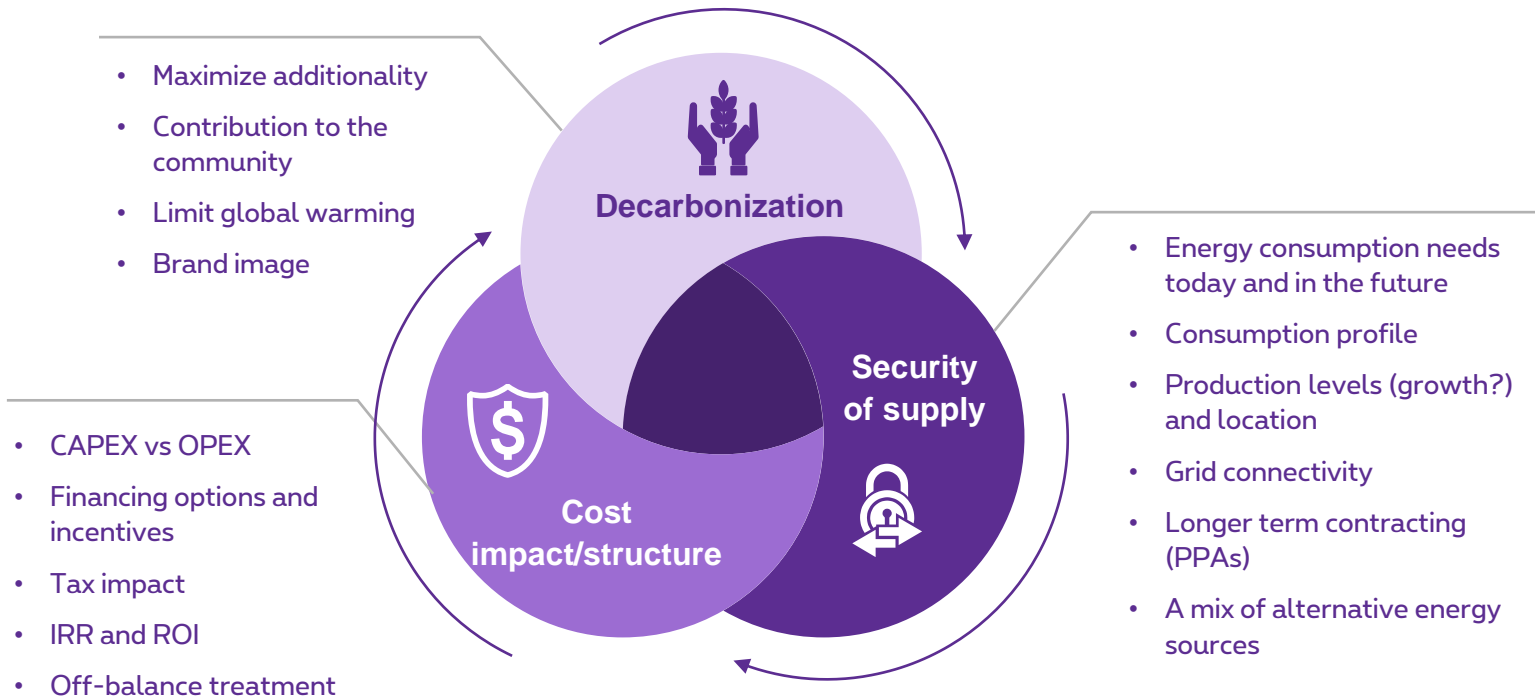


**Will efficiencies compensate for mobile increase? Uncertain at this stage**

# Carving our role in the Energy space

## Electricity Sourcing

Our energy strategy should define the right balance between decarbonization, costs and security of supply





# Carving our role in the Energy space

## Electricity Sourcing

Reaching our Green sourcing ambition translates into 4 key enabling domains to be developed in our roadmap



Renewables



Data Insights



Flexibility



Energy Efficiency

# Carving our role in the Energy space

## Electricity Sourcing



### Renewables

**Increasing self-generation and transitioning to a portfolio of PPAs to ensure supply security**

#### Challenges

**Green energy will become a scare resource** that we need to proactively secure

**Evaluating a PPA opportunity is complex** (fit in the mix, contractual terms, price, etc.)

**Supply contracts can be a barrier** for cPPAs



### Data Insights

**Data is paramount to optimize and manage our electricity consumption**

We need to **collect more electricity data**

We need a **scalable centralized space** to gather the massive amount of data

Use data to realize **savings/optimizations**

# Carving our role in the Energy space

## Electricity Sourcing



**Flexibility to reach 24/7 which can be achieved through storage and demand response**

**Flexibility**



**Energy efficiency eases the 24/7 transformation and go hand in hand while data is key to reach this**

**Energy Efficiency**

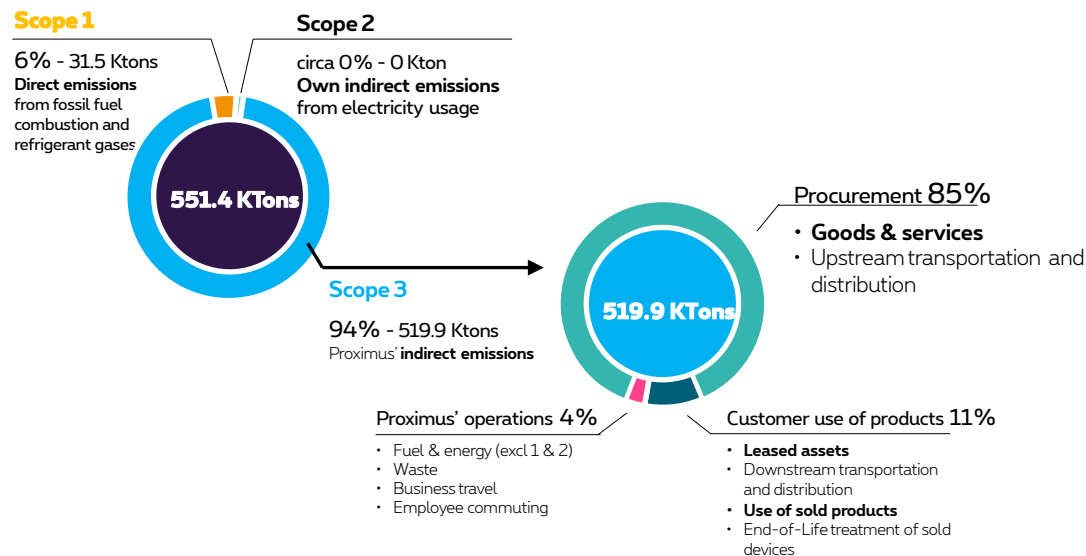
### Challenges

- 24/7 will require to **develop electricity storage options**
- Being able to **adapt its electricity demand based on the renewable production** is key for 24/7
- Demonstrating/managing 24/7 matching requires specific tooling

**We are front runners in energy efficiencies (no more quick wins)**

# Tackling emissions in our value chain

## Acting with an SBTi approved Net Zero target for 2040



Proximus Group CO2 footprint in 2022

## Targets

vs 2020 baseline

**-95%**

scope 1&2 by 2030

**-60%**

scope 3 by 2030

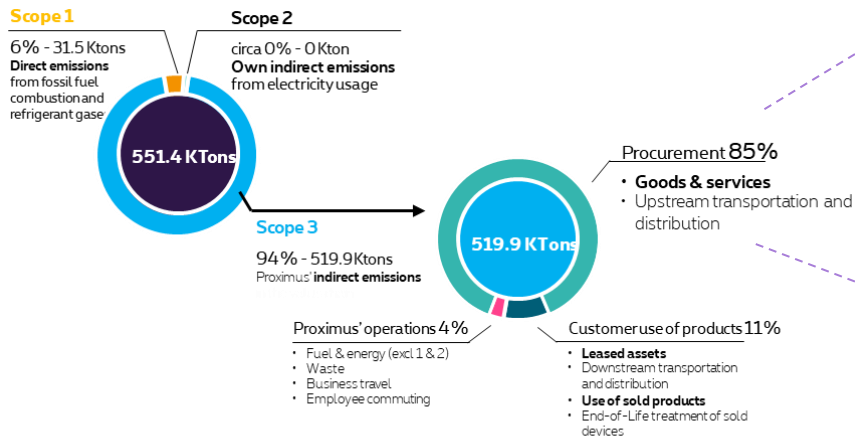
**-90%**

scope 3 by 2040



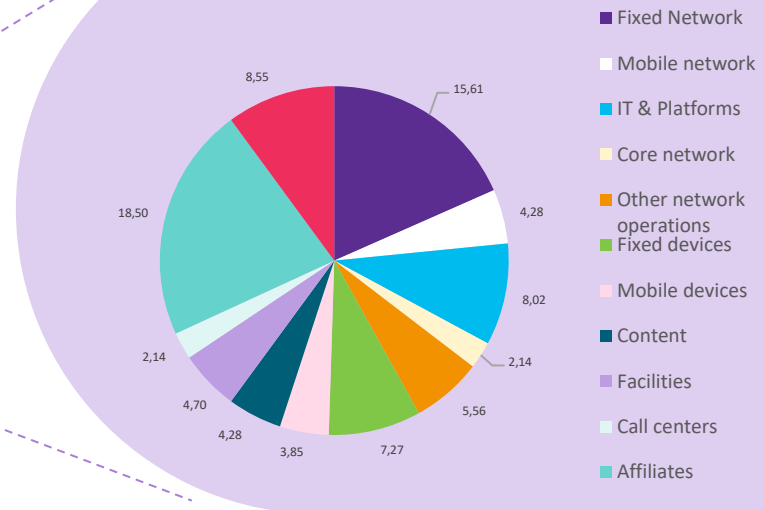
# Tackling emissions in our value chain

Zooming in on Proximus it becomes clear that more will be needed with Scope 3 as main challenge, mainly linked to what we buy and the usage of our products



Proximus Group CO2 footprint in 2022

Purchased Goods & Services + Capital Goods CO2e breakdown by type (% of c.1&2)



# Tackling emissions in our value chain

## Champion Change Internally

Transform the way we operate from a business perspective to steer for carbon avoidance enacting circularity by design

**Source less**  
Business model Design

**Source right**  
Product & Service Design

## Accelerate Change Externally

Engage with suppliers to enable the transformation by setting targets, reducing their own footprint and providing accurate data

**Supplier Engagement**

Engage to  
**REDUCE & DISCLOSE**

**SBTi Validated Near-term Target & Public Disclosure of Emissions**

# Tackling emissions in our value chain

## Circular by Design

### Source less Business model Design

Circular Business Models	Network & Data Centres
Circular Inflow	Key asset redesign
Product Use Extension	Repair and Reuse Resell of equipment
Product-as-a-Service	Leasing or Service models
Sharing Platforms	Network sharing
Resource Recovery (End of life recycling)	Network phase-out Copper recycling

### Example Repair and Refurbish of Leased Customer Premise Equipment

Product Use Extension	Product-as-a-Service (e.g., Lease model)
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With a Leasing model for CPE, we retain ownership allowing us to collect, repair, and refurbish

2021

493k +  
CPE devices  
refurbished

12 kTon +  
emissions  
avoided

33M€ +  
Cost savings

1 refurbished device = 1 less purchased device

# Tackling emissions in our value chain

## Circular by Design

### Source Right Product & Service Design

Include environmental criteria in product requirements and supplier evaluations

Enable comparability & standardization of products and suppliers through collaboration with industry associations



Bbox v3 vs HGW4  
 CO2e/unit | -30%  
 Energy Use | -20%  
 Plastic Use | -50%  
 Recycled plastic



GeSI  
GLOBAL e-SUSTAINABILITY INITIATIVE



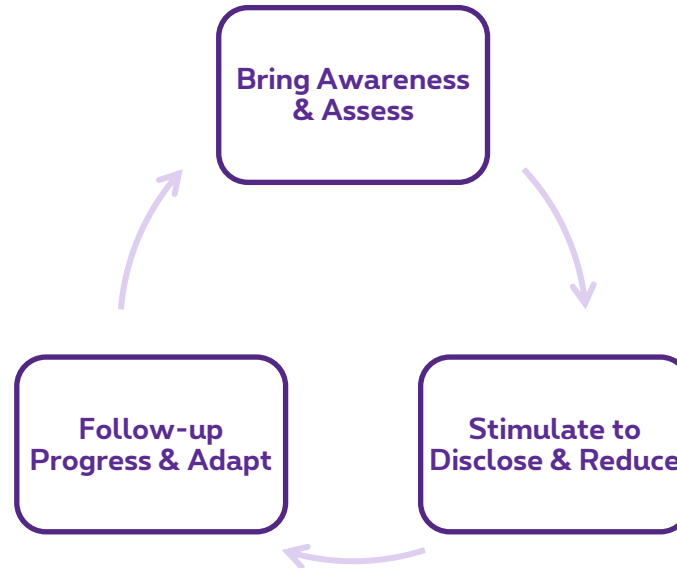
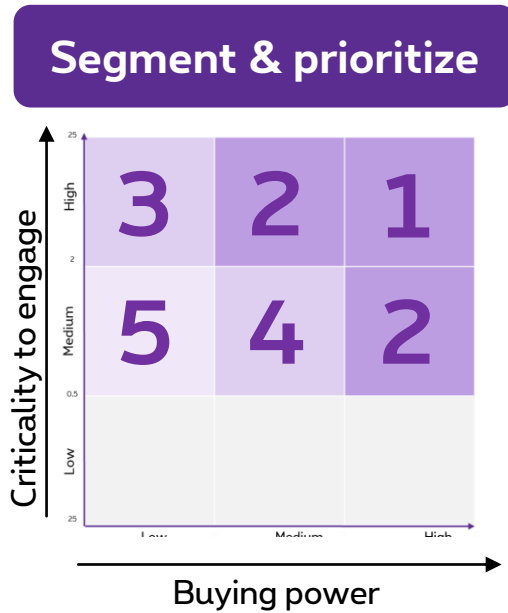
Customer nudging when they buy green we buy green



# Tackling emissions in our value chain

## Supplier Engagement

We enable their transformation leading to setting targets, reducing their own footprint and providing accurate data



**150**  
Top strategic suppliers by CO2 emissions

**85%**  
of 2022 scope 3 Category 1&2 emissions covered

## Carving our role in the Energy space



**Energy Efficiency**

**Electricity Sourcing**

## Tackling emissions in our value chain



**Circular by Design**

**Supplier Engagement**

### Carving our role in the Energy space



Energy Efficiency

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### Tackling emissions in our value chain



Circular by Design

Supplier Engagement

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