

# An Introduction to Setting Science Based Targets

With CDP, GSMA and The Carbon Trust

# SPEAKERS



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# Mobile industry commitment to climate action

Last year in February 2019, the GSMA Board committed to take climate action by declaring:

*“the mobile industry will work on a path to achieve net-zero greenhouse gas emissions by 2050 and will align climate targets accordingly”*

The process for achieving this was agreed to be the following:





# Progress on climate action

There has been excellent progress on all three areas:

### Member's Climate Disclosure

- More than 50 mobile operators groups disclosed their climate risks to CDP in 2019
- These operator groups covered two-thirds of global connections

### Mobile Industry Pathway to Net Zero Emissions

- Consortium of ITU, GSMA, GeSI and SBTi
- Calculated and agreed Net Zero ICT sector pathway
- For mobile, fixed line, and data centre operators

### Target setting by Mobile Operators

- 29 operators representing 30% of global connections have committed to or set science-based carbon reduction targets
- SBT operators have combined revenue of \$600bn



# Next steps for the industry

Many operators have committed to or set science based carbon reduction targets

Would like to understand how to align SBTs to the new Net Zero pathway



# THE SCIENCE BASED TARGETS INITIATIVE (SBTi)

## Overview



SCIENCE  
BASED  
TARGETS

876

Companies have formally committed to set SBTs

365

Companies have approved targets

An initiative by



WORLD  
RESOURCES  
INSTITUTE

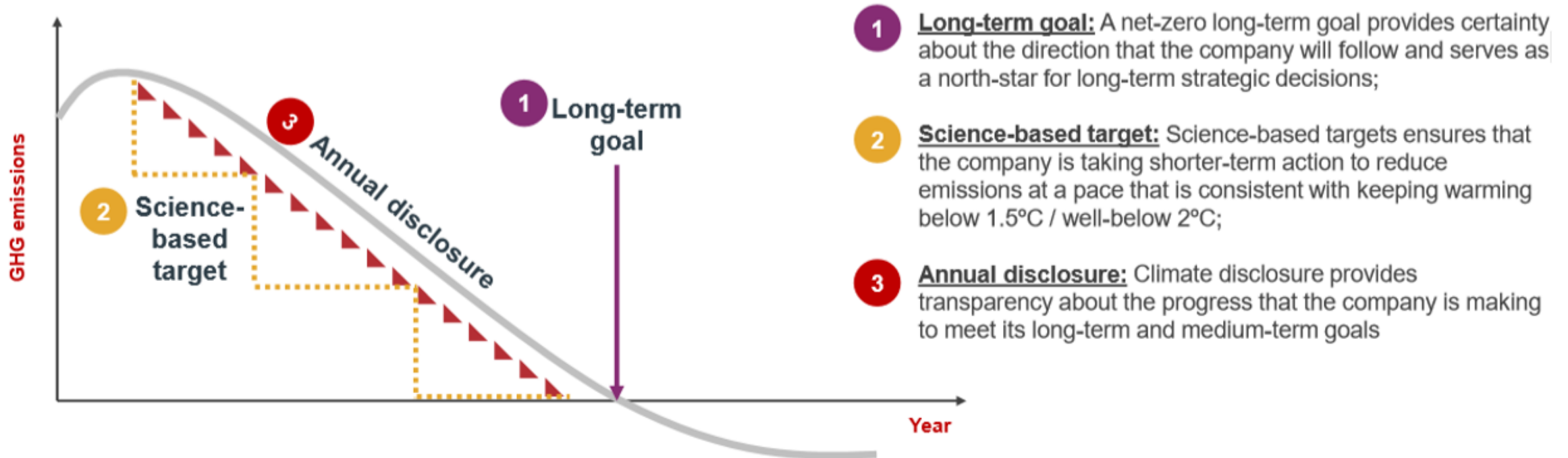
In collaboration with

**WE MEAN  
BUSINESS**

# SBT 101

SBTs are a key tool for the low-carbon transition

*“GHG emissions reduction targets that are consistent with the level of decarbonization that, according to climate science, is required to keep global temperature increase within 1.5 to 2°C compared to pre-industrial temperature levels”*



# HOW TO GET STARTED

Joining the SBTi



SBTi Call to Action Guidelines



# FOUNDATIONS OF SBT SETTING

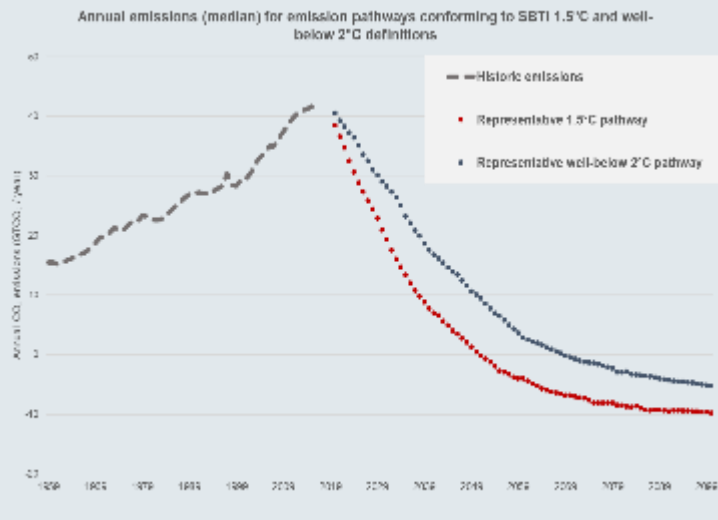
Key components behind a science-based target

1

## Emissions scenario

*What is the global carbon budget?*

- IEA B2DS
- IPCC SR1.5



2

## Allocation approach

*What is my share?*

- Absolute contraction
- Intensity convergence

SBT approach

A) Absolute-based approach

B) Sector-based approach

3

## Company profile

*How much do I need to reduce?*

- Company-specific info

What's my baseline carbon footprint?

What's my baseline carbon intensity?

Where in my value chain are emission hotspots?

Across which sectors do my activities spread?

How much will my business grow?

# SBTi CRITERIA (Version 4)

## Overview



Latest SBTi Criteria



**Level of ambition (Scope 1+2):** At a minimum – consistent with the level of decarbonization required to keep temperature increase to well-below 2°C while we encourage efforts towards 1.5°C.



**Progress:** Both the target timeframe ambition (base year to target year) and the forward-looking ambition (most recent year to target year) must meet the ambition criteria.



**Boundary:** All company-wide Scope 1 and 2 GHG emissions (> 95%);



**Timeframe:** 5-15 years into the future;

**Reporting:** Disclose GHG emissions inventory on an annual basis.



**Scope 3:** A Scope 3 screening is required. An ambitious Scope 3 target is required when Scope 3 emissions cover > 40% of total emissions.

This slide represents a summary and not a comprehensive overview. Please refer to the SBTi website for the full criteria and recommendations

# The Campaign

Campaign launched on 13 June with an open letter co-signed by more than 25 business, civil society and UN leaders.



SCIENCE  
BASED  
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

**WE MEAN  
BUSINESS**

**ALIGN YOUR  
EMISSION REDUCTION  
GOALS WITH THE**

**1.5°C PATHWAY**

**#OurOnlyFuture**

# Campaign Progress

**200+**  
Companies

Over \$3.6  
trillion  
market  
cap

Over 5.6  
million  
employees

**36**  
sectors

**38**  
countries





# Science-based target approach for the ICT Sector

Veronika Thieme - Consultant

May 2020



**Our mission is to  
accelerate the move to  
a sustainable,  
low carbon economy**

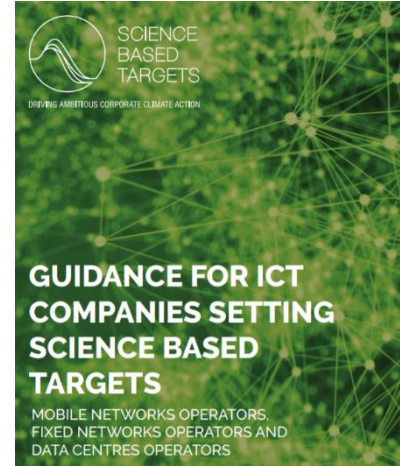


An economy fit for the planet

# Science-based target setting for the ICT sector

Sector-specific guidance was published in February 2020.

This was developed through a collaboration of:



**International Telecommunication Union**

ITU is the United Nations specialized agency for information and communication technologies



**GSMA**

The GSMA represents the interests of mobile operators worldwide, representing more than 750 operators



**Global Enabling Sustainability Initiative**

GeSI provides information and resources for social and environmental sustainability through digital technologies

# Science-based target setting for the ICT sector

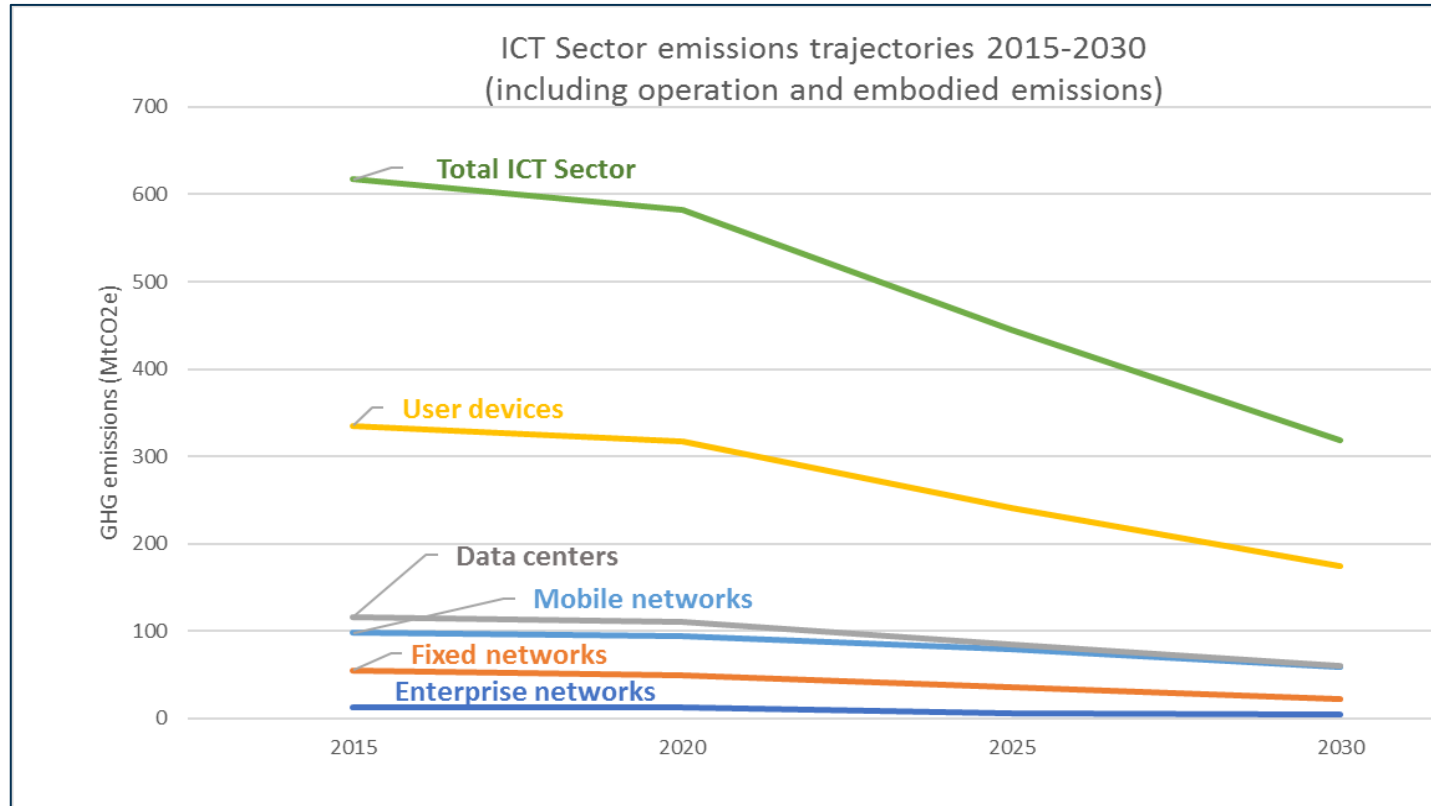
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- The ICT sector SBT approach defines criteria for the development of **Scope 1 and 2 emission reduction targets**. The method does not set any additional requirements for scope 3 emissions other than the standard SBTi Criteria.
- The ICT sector SBT approach covers:
  - **Mobile telecoms** network operators
  - **Fixed telecoms** network operators
  - **Data centre** operators
  - **ICT Equipment manufacturers\***
- Based on sector and sub-sector pathways for the ICT sector published in the ITU-T Recommendation L.1470 *'GHG emissions trajectories for the ICT sector compatible with the UNFCCC Paris Agreement'*

\* Pathway for ICT equipment manufacturers was not included in the original release of the methodology. It will be added later in 2020.



# Overall sector trajectory



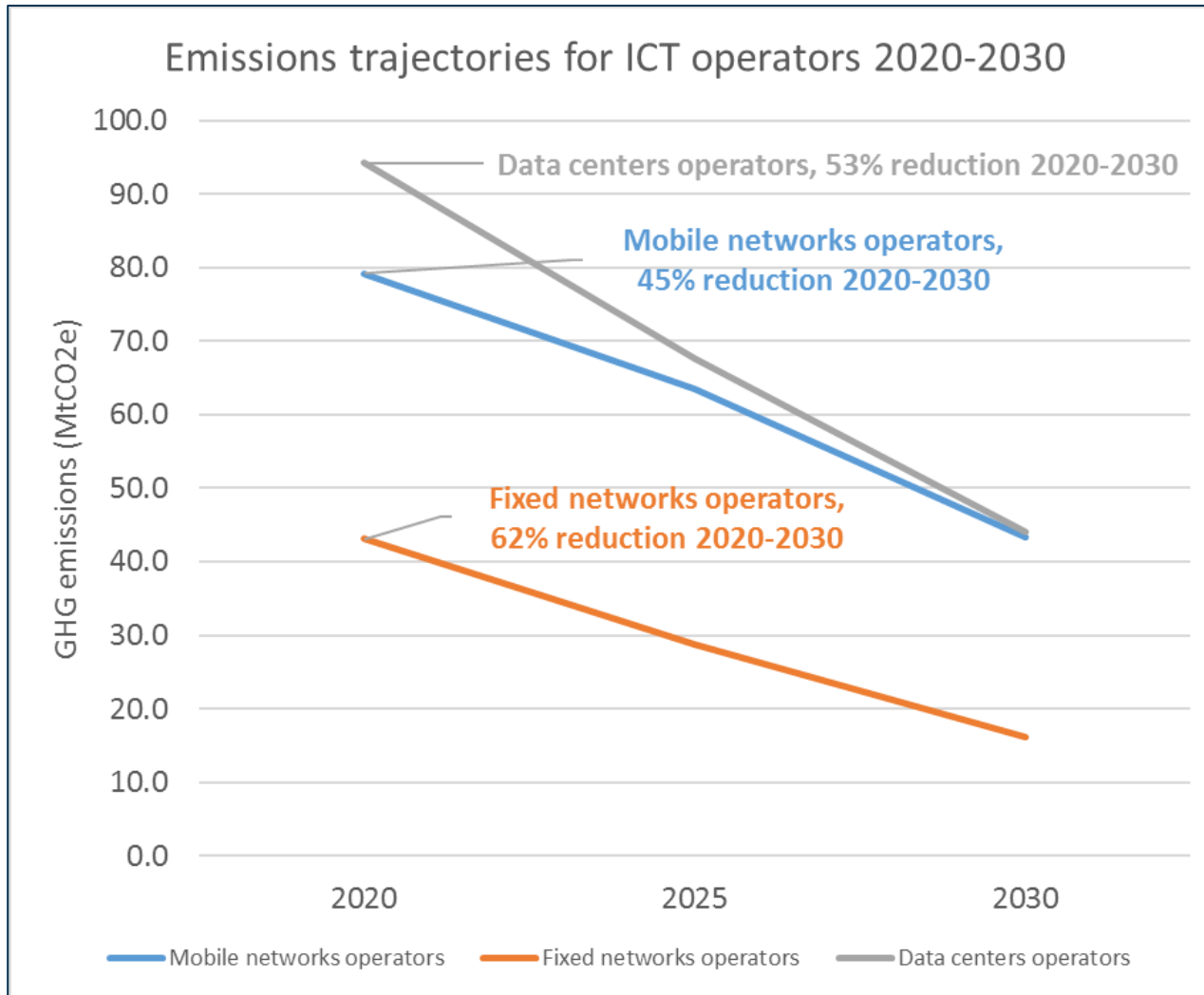
*Note: Graph shows ICT sector emissions from a company accounting perspective. Hence it does not include emissions related to electricity grid losses and electricity supply chain. Values including those are about 20% higher.*

- **Trajectory is compatible with a 1.5°C scenario**
- **Trajectories based on:**
  - Detailed bottom-up research data for 2015 baseline
  - ICT energy projections to 2030
  - Electricity grid decarbonisation in line with 1.5°C

***The ICT trajectories were checked against three other 1.5°C scenarios:***

- IPCC 1.5°C P2 scenario
- SBTi 1.5°C absolute reduction scenario
- 1.5°C scenario, where ICT has fixed share of global electricity use (based on IEA ETP scenarios)

# Sub-sector trajectories

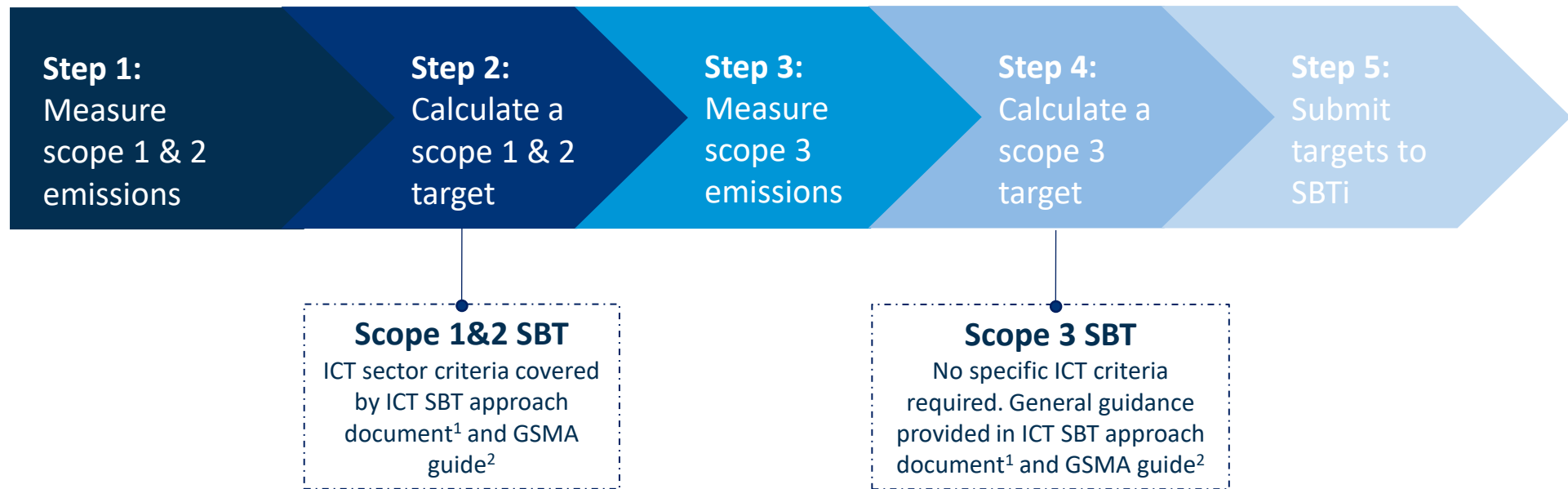


- Sub-sector trajectories are for operator emissions only.
- These trajectories are used to develop a company's Scope 1&2 science-based target
- Due to the fast-changing nature of digital technologies, ICT company targets should be set no further ahead than 2030

Sub-Sector	Percent GHG reduction 2020-2030
Mobile network operators	45%
Fixed network operators	62%
Data centre operators	53%

# Steps for setting an SBT for a mobile operator

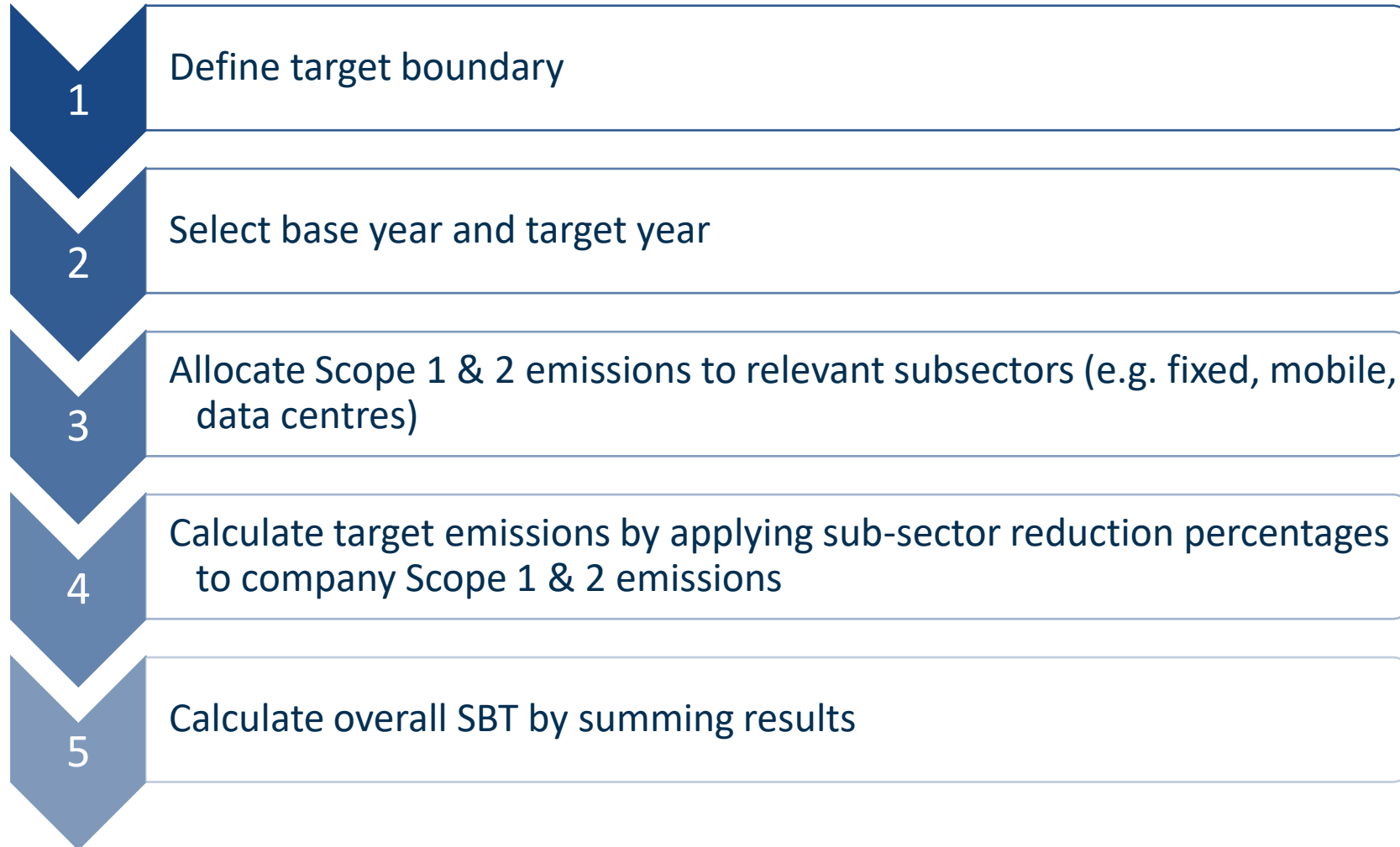
- MNOs wishing to set SBTi approved science-based targets should follow these five key steps:



1. ITU, GeSI, GSMA, SBTi, 2020, Guidance for ICT companies setting science based targets – Mobile networks operators, fixed networks operators and data centres operators  
2. GSMA, 2020, Setting climate targets: A step by step guide for mobile network operators to set science based targets

# Calculating a scope 1 & 2 target – ICT specific guidance

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# Scope 1 and 2 target - calculation example

- Mobile and fixed line operations company
- Baseline: 2019 baseline
- Target year: 2025
- Combine electricity related scope 1 and 2 emissions with support activities such as office buildings and / or a transport fleet.
- 2019 Mobile operations Scope 1 and 2 emissions – 250 ktonnes CO<sub>2</sub>e
- 2019 Fixed operations Scope 1 and 2 emissions – 150 ktonnes CO<sub>2</sub>e.
- The ERFs for the mobile operations is found to be 0.794 and 0.652 for the fixed operations.
- The company's resulting science-based target (SBT) for 2025 is then given by:

$$\begin{aligned} & \text{SBT (2025)} \\ & = \\ & 0.794 \times 250 \text{ KTONNES CO}_2\text{E} \\ & + \\ & 0.652 \times 150 \text{ KTONNES CO}_2\text{E} \\ & = \\ & 296.3 \text{ KTONNES CO}_2\text{E} \end{aligned}$$

# Considerations for setting a scope 1&2 science-based target

## Geographical considerations

- As with other SDAs, no consideration is given for different geographical operations.
- It is recognised that there are significant differences geographically for ICT operators (e.g. electricity grid factors, availability of renewable electricity certificates)
- It may be possible to address this issue in a future revision of the ICT SDA, although that would need to follow any generic development of methodology by the SBTi.

## Intensity metrics

- The ICT sector approach takes an absolute approach, as opposed to an intensity approach used for most other sectors<sup>1</sup>.
- Companies may still express their targets as intensities, so long as the absolute reduction is in line with the trajectories defined in this SDA.

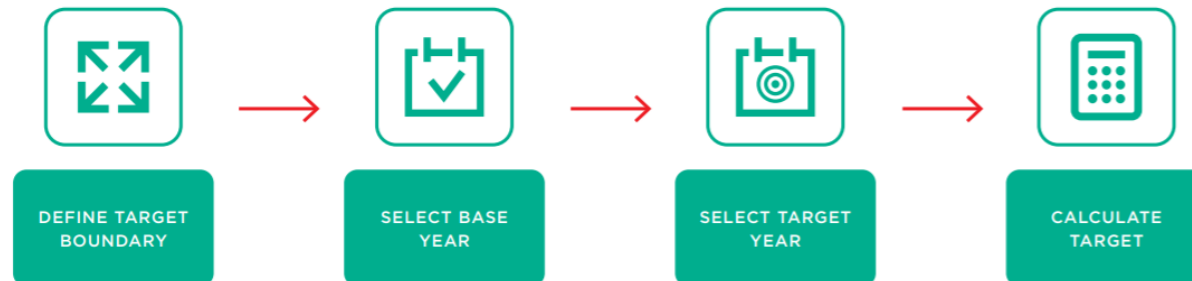
## Allocation of “non-ICT” emissions

- Most ICT companies will have “non-ICT” activities (e.g. fleets, offices, etc.)
- These will typically have small emissions associated with them compared to ICT operations.
- The recommended approach to account for these activities is to combine all their scope 1 and 2 emissions and derive a single SBT using the ICT sector method, which is consistent with the overall 1.5°C trajectory.

1. The absolute approach is a consequence of following the SBTi standard SDA methodology with a zero convergence in 2050.

# Setting a scope 3 target – ICT specific guidance

- A company must set a scope 3 target when its scope 3 emissions are **40% or more of its total scope 1, 2, and 3 emissions**.
  - *Most MNOs will have significant value chain emissions and will likely meet the 40% criterion*
- The scope 3 target must cover at least **2/3 of total scope 3 emissions**.
- The most significant scope 3 categories for an ICT company are likely to be:
  - **Category 1** – Purchased Goods and Services
  - **Category 11** – Use of Sold Products
- The general process for setting a scope 3 target is summarised below:



# Approaches to calculating a Scope 3 target

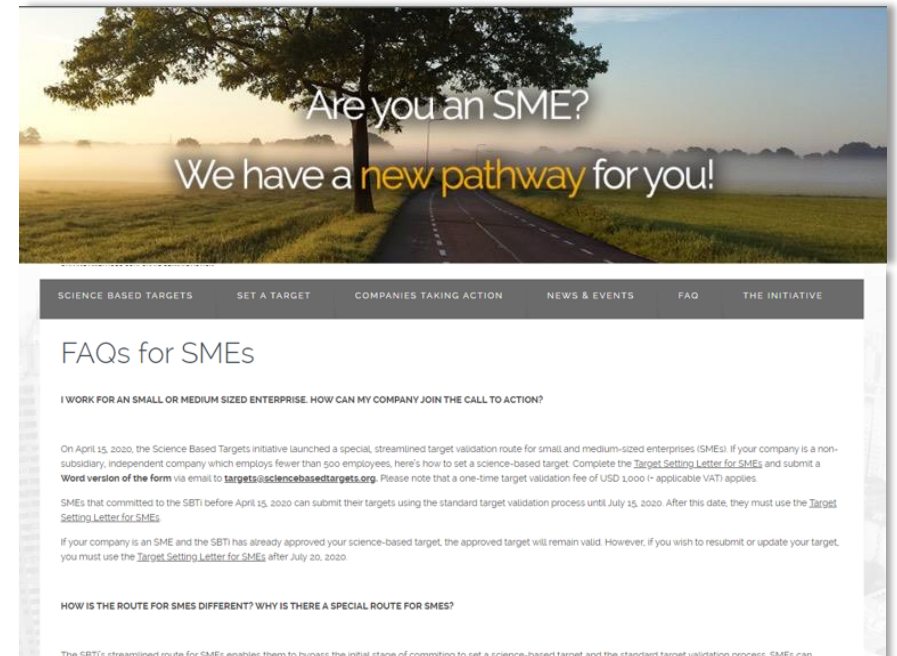
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- There are a number of approaches available for an ICT company to calculate its scope 3 target.
- Scope 3 targets can be:
  - An **absolute reduction target** aligned to below 2°C
  - An **economic or physical intensity target**,
  - or a **supplier or customer engagement target**,
  - or a **combination** of the above.
- For most MNOs the most suitable options for setting a scope 3 target are likely to be:
  - An **absolute target** (for both categories 1 and 11), or
  - A **combination** of an **absolute target or supplier engagement target for category 1** together with an **absolute target or a customer engagement target for category 11**



# Supplier engagement target considerations: New SBT route for SMEs

- When setting supplier engagement targets with SME suppliers, it is worth considering the **new SBT route for SMEs** released by the SBTi, which will become **come into force from July 15<sup>th</sup> 2020**
- Through the streamlined SME route, companies can immediately set a **scope 1 and 2 SBT** by selecting one of several **pre-defined options**.
- For **scope 3**, SMEs are required to **commit to measure and reduce** emissions, **without** a strict requirement to set a **quantified target**.
- This simplified approach for SMEs balances the need for them to take account of emissions across their value chains without imposing too great a burden on them.



→ Find more information in our [FAQs for SMEs](#)

# A challenging target for a dynamic sector

- The 1.5°C trajectory is a challenging one which will not happen without commitment and ambitious simultaneous action regarding:



## Continued implementation of energy efficiency plans

- Network equipment & technologies energy efficiency improvements
- EE interventions to corporate buildings and upgrading the company transport fleet to low carbon vehicles



## Switch to renewable / low carbon electricity supply

- **Scope 1 emission reductions:** switching from fossil-fuel based onsite-generation to renewables (e.g. solar PV)
- **Scope 2 emission reduction:** purchasing renewable energy for electricity consumption



## Encouragement of carbon consciousness among end-users

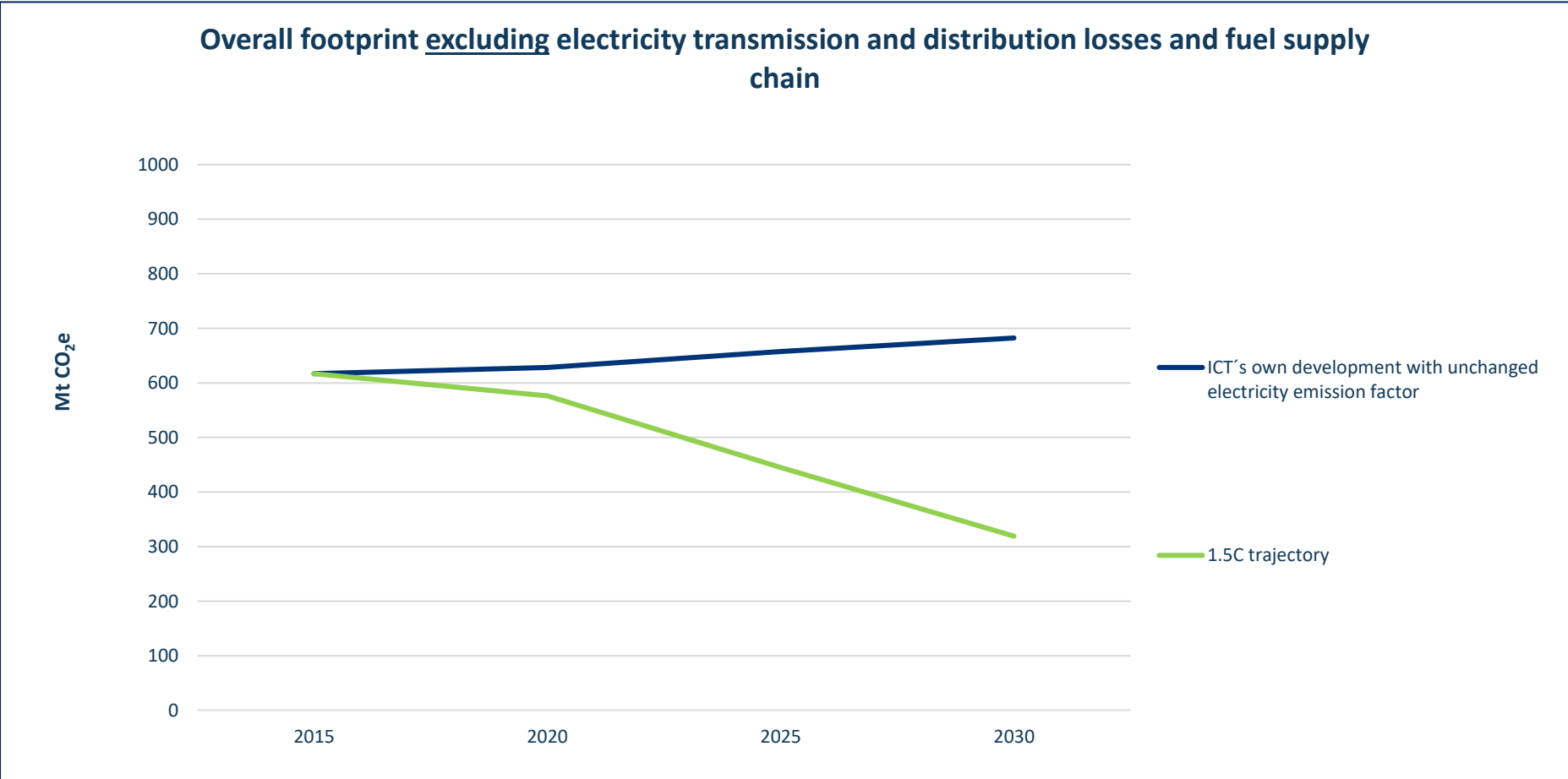
- Investing in activities that incentivise consumer awareness of the carbon footprint of ICT products
- Strengthening the case for decarbonisation of whole value chain



## Engagement with suppliers across the value chain

- Long-term engagement strategy with suppliers
- Collaboration opportunities within industry and across other ICT companies

# The importance of renewable electricity sources



# COMMIT TO 100% RENEWABLE ENERGY



**RE 100**

**232**

**Companies have committed**

**THE CLIMATE GROUP**



# RE **100** PUBLICLY COMMIT TO SOURCE 100% OF GLOBAL ELECTRICITY CONSUMPTION FROM RENEWABLE SOURCES

- Businesses account for the majority of global electricity consumption.
- Corporate RE demand is an essential driver of the energy transition and a low-carbon future.

Join the **232 members**

- Set target date prior to 2050
- Demonstrate progress
- Report annually



**228 TWh** demand for renewable power per year



**140 markets** of impact



**US\$5.4** trillion of total combined revenue





**Thank you!**

**Questions?**





# Appendix slides

# Intensity metrics calculation example

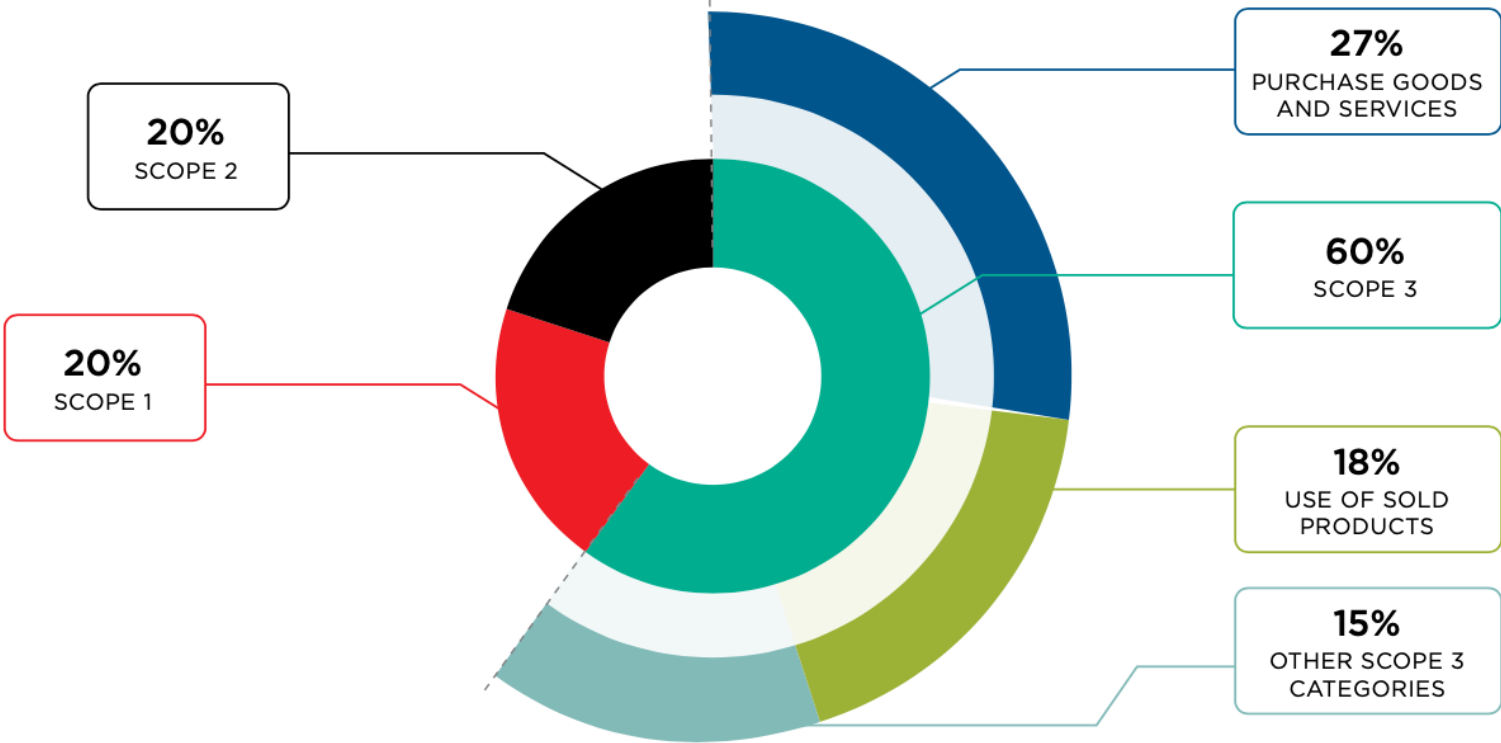
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- A fixed line telecommunications operator has Scope 1 & 2 emissions in the base year of 2019 of 150 ktCO<sub>2</sub>e, and has 5 million subscribers. This is equivalent to an intensity metric of 30 kgCO<sub>2</sub>e per subscriber.
- For the target year of 2025 the absolute emissions target is  $0.652 \times 150 = 97.8$  ktCO<sub>2</sub>e. The forecast number of subscribers for 2025 is 6 million, then the intensity target for 2025 is  $97.8/6 = 16$  kgCO<sub>2</sub>e per subscriber.



# Scope 3 target worked example

Example of company emissions breakdown by scope



# Scope 3 target worked example

## Summary of scope 3 targets for worked example

CATEGORY	SHARE OF SCOPE 3 EMISSIONS	TARGET TYPE	TARGET	SHARE OF EMISSIONS COVERED BY TARGET
PURCHASED GOODS AND SERVICES	45%	Supplier engagement	80% of suppliers by spend to set SBTs	36%
USE OF SOLD PRODUCTS	30%	Emissions reduction	46% emission reductions by 2030 compared to 2019 levels	30%

# FAQs

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- ***Why does the ICT approach not follow the standard SDA methodology?***  
The standard SDA approach is based on the IEA ETP, which does not have a separate pathway for the ICT sector, hence it was necessary to develop a specific pathway and SBT approach
- ***Why is an absolute approach used for the ICT sectoral target-setting approach instead of an intensity approach?***  
The ICT approach is an absolute approach for two reasons:
  - No intensity metrics could be defined that adequately capture the production output of the ICT sector
  - The standard SDA approach tends to an absolute approach where the convergence point in 2050 is zero
- ***Why has the ICT sector been sub-divided into sub-sectors?***  
The sub-sectors exist as each has different opportunities to decarbonise based on the energy use and technologies
- ***Why has 2030 been chosen as the maximum allowable target date?***  
2030 been chosen as the maximum allowable target date recognising the fast changing nature of the ICT sector
- ***Why are the reduction percentages for the ICT operator sub-sectors greater than the standard SBTi 1.5°C rate of 4.2% per year?***  
More stringent reductions for the ICT operator sub-sectors are needed to keep the overall sector aligned with 1.5°C, recognising that ICT manufacturing is more challenging to decarbonise