

# ITU-WBA webinar: Greening Digital Companies, Monitoring Emissions & Climate Commitments

23 June 2022

## Session One:

9:00 - 10:15 CEST/15:00 - 16:15 CST

## Session Two:

18:00 - 19:15 CEST/12:00 - 13:15 EDT

The two sessions are to accommodate different time zones.

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World  
Benchmarking  
Alliance



# Framework

## Companies

| Headquarters  | Hardware  | Telecom services | IT Services | Total      |
|---------------|-----------|------------------|-------------|------------|
| East Asia     | 13        | 18               | 17          | 48         |
| Europe        | 4         | 25               | 4           | 33         |
| North America | 14        | 8                | 24          | 46         |
| Other*        | 0         | 17               | 6           | 23         |
| <b>Total</b>  | <b>31</b> | <b>68</b>        | <b>51</b>   | <b>150</b> |

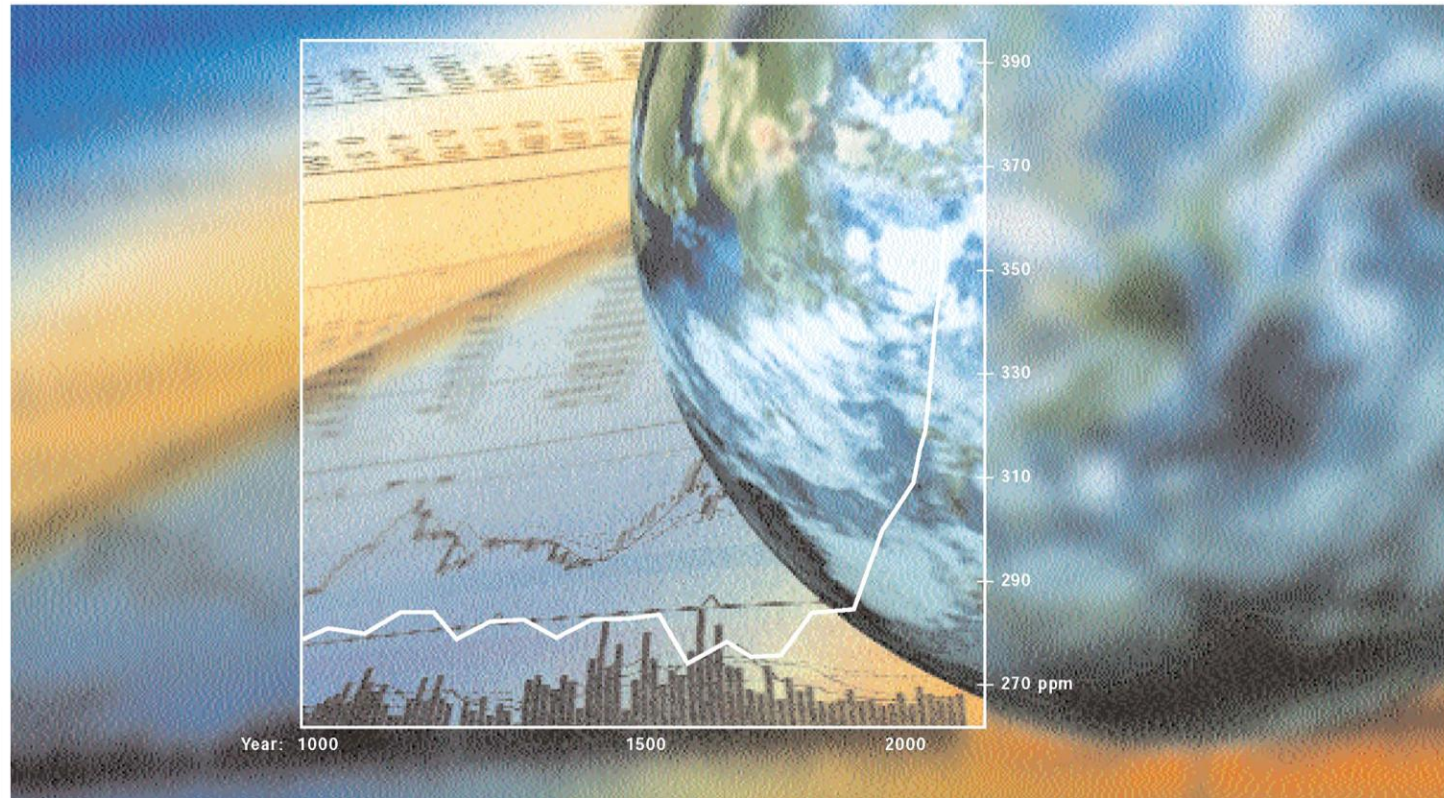
World Bank classification. \* Latin America & Caribbean, Middle East & North Africa, Pacific, South Asia and Sub-Saharan Africa



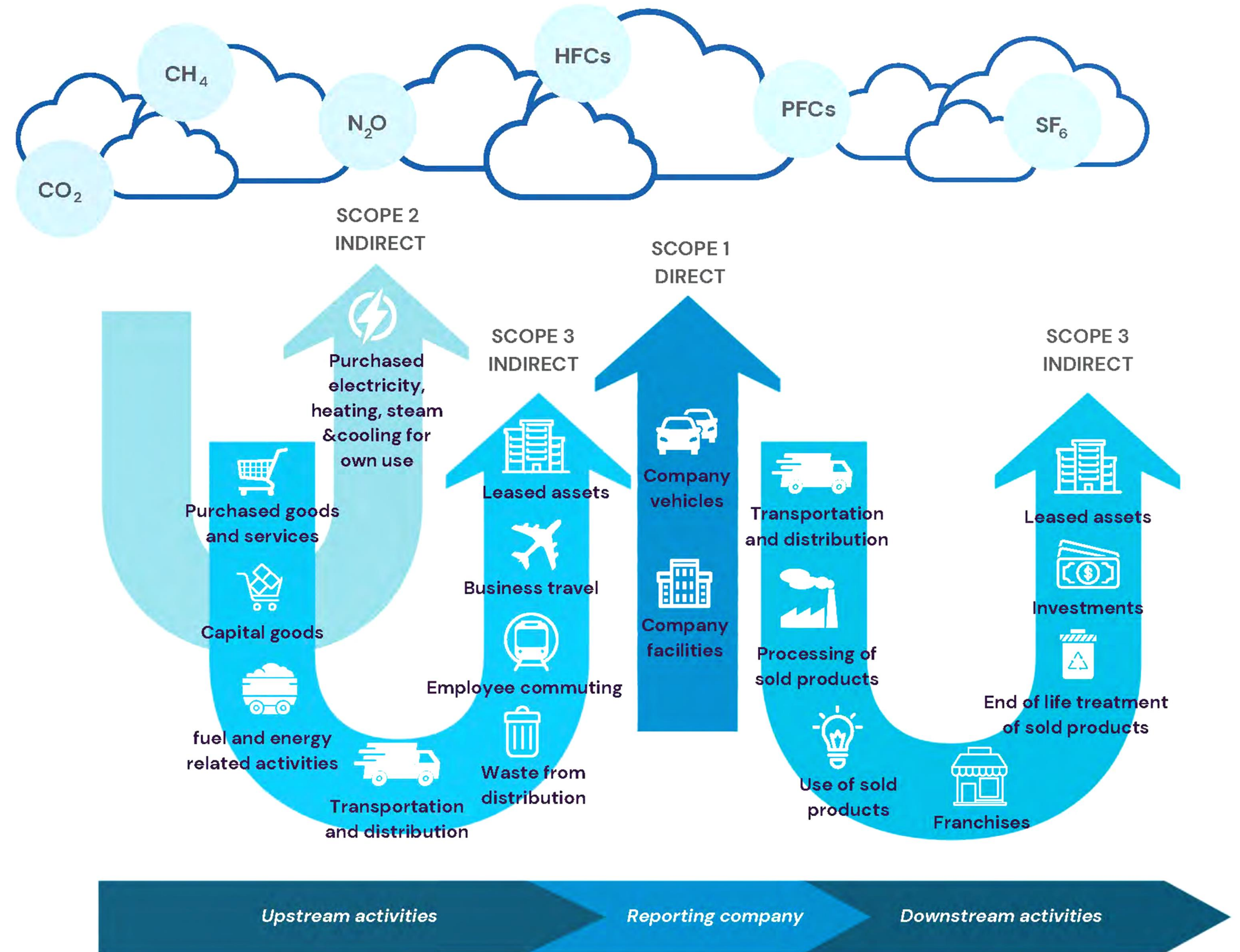
# Framework

## Methodology

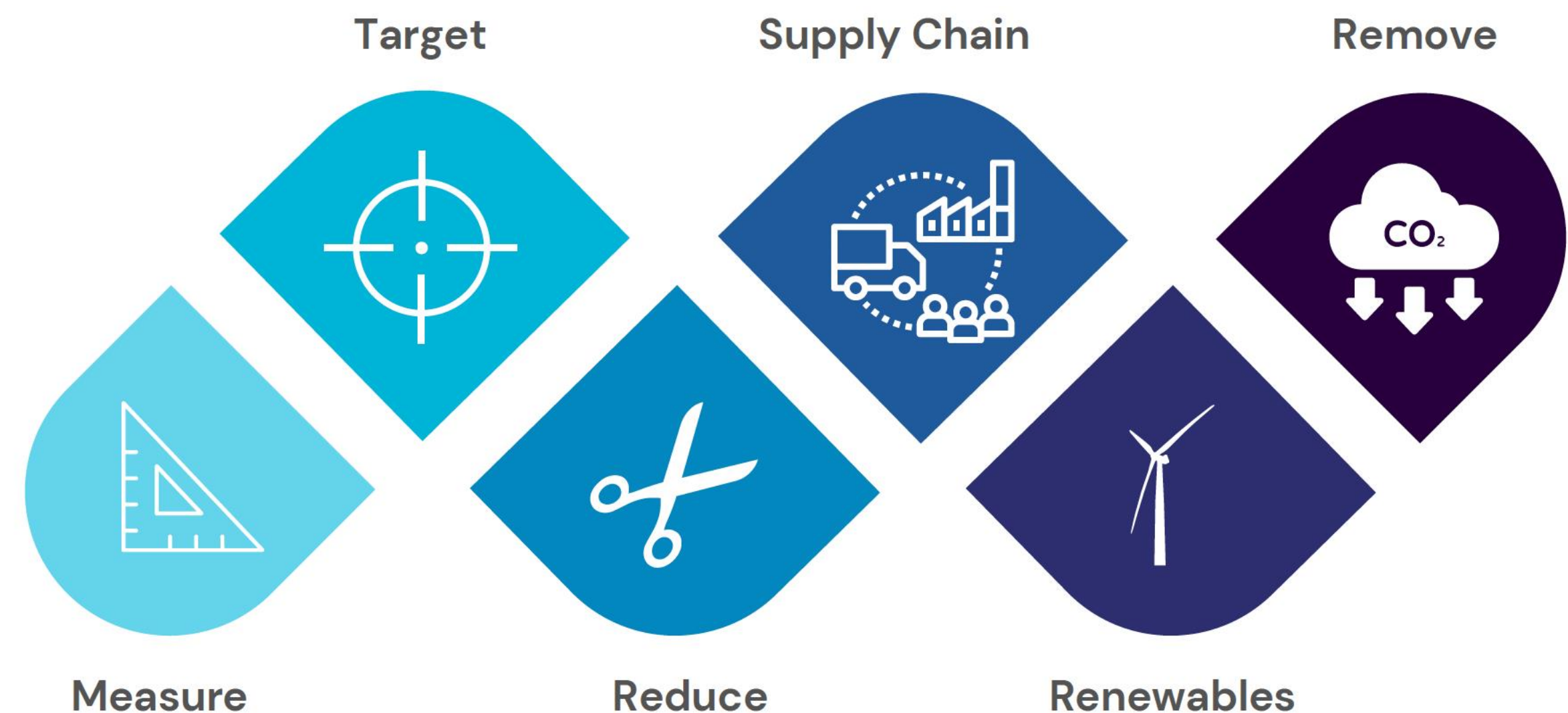
The Greenhouse Gas Protocol



A Corporate Accounting and Reporting Standard  
REVISED EDITION



# Decarbonization practices of digital companies



# Measure

## Gap in the availability, depth and transparency of emissions and energy data

- 21 companies report no emissions data
- Scope 2:
  - Some only report market-based Scope 2 emissions.
  - Others report a single Scope 2 figure without specifying if it is market- or location-based
- Scope 3:
  - Some companies not reporting it at all (32/129)
  - Some report only a total
  - Some report only a few categories
  - Some use non-standard terminology
- Sometimes unclear about the use of renewables
- Reporting of offsets is often vague
- Assurance of emissions data increases transparency, comparability and reduces errors

2020 Swisscom climate report  
in accordance with ISO 14064

Direct and indirect climate  
impact of Swisscom's  
activities  
(Scope 1, 2 and 3 emissions and  
savings)

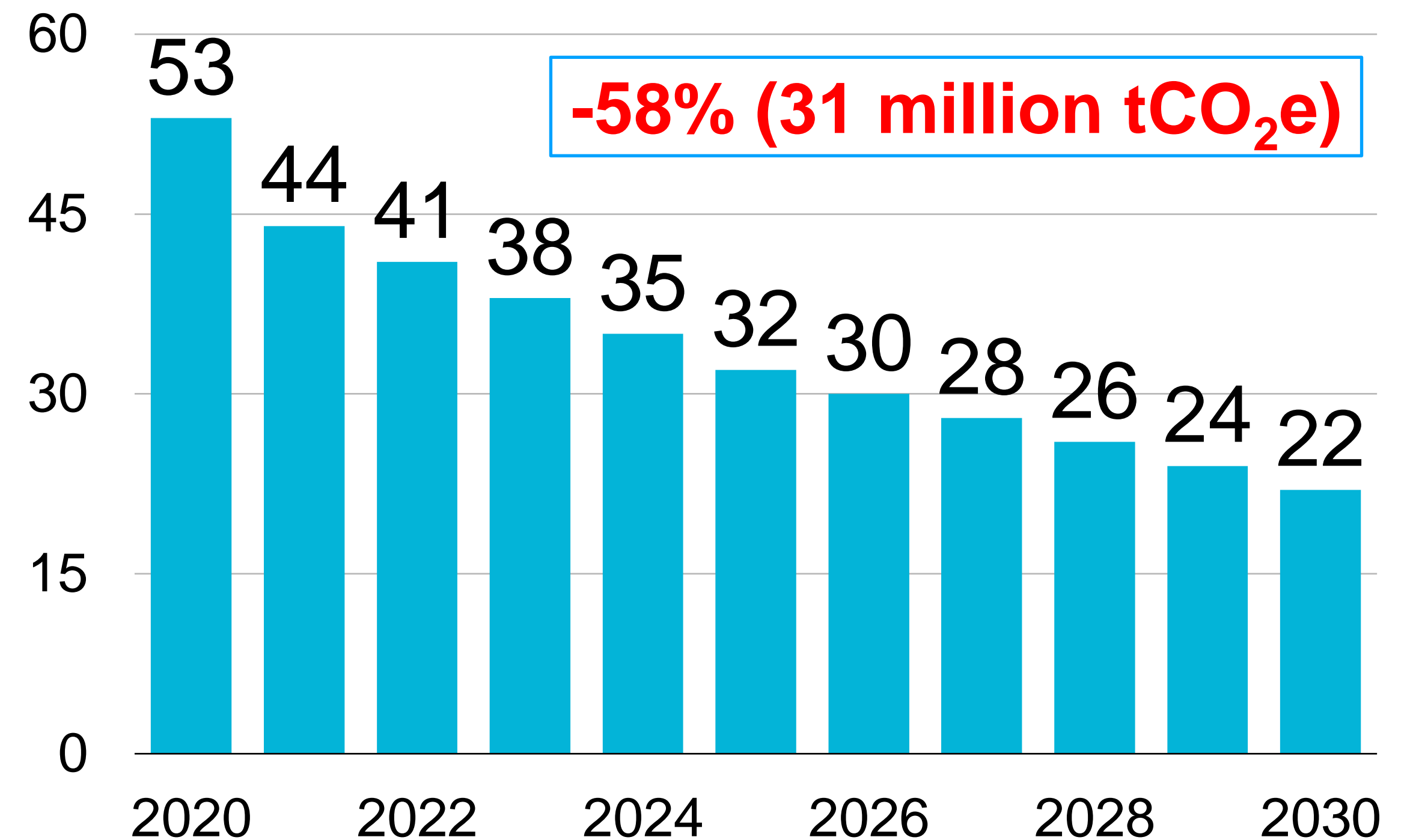
Climate strategy of Swisscom

# Targets

## Vary widely in ambition, scope and measurement

- 86 have established an emissions reduction target
- 58 are based on the Science Based Targets initiative (SBTi)
- Some companies aim to eliminate their entire footprint by 2030 while others plan to eradicate their operational emissions by 2030. Other companies are less ambitious with longer term targets.
- Intensity-based targets are used by some companies making forecasting their future impact impossible and can result in higher emissions.
- While SBTi calls for also establishing Scope 3 targets if they account for at least 40% of a company's total footprint, not all have.
- Some companies have set dates by which they will be procuring 100% renewable electricity.
- By 2030, 38 tech companies plan to be carbon neutral

**GHG operational emissions (market-based) target reduction**  
**60 companies representing 30% of Scope 1 & 2 emissions**  
**Millions tCO<sub>2</sub>e**



# Reduce energy use

- Facility wide energy savings mainly through smart metering
- Big improvement in telecom equipment
  - 5G 6.6 times more energy efficient than 4G
  - Fiber optic 100 times more energy efficient than copper wire
- Mixed picture for data centers
  - PUE flatlined in older data centers

# Supply chain

## Companies working with suppliers

- Disclose emissions data
- Procure renewables
- Adopt targets



EXponential ROADMAP INITIATIVE

RACE TO ZERO

**1.5°C Supply Chain Leaders**  
Driving climate action throughout global supply chains

ERICSSON     



  
DISCLOSURE INSIGHT ACTION

**ENGAGING THE CHAIN:  
DRIVING SPEED AND SCALE**  
CDP Global Supply Chain Report 2021

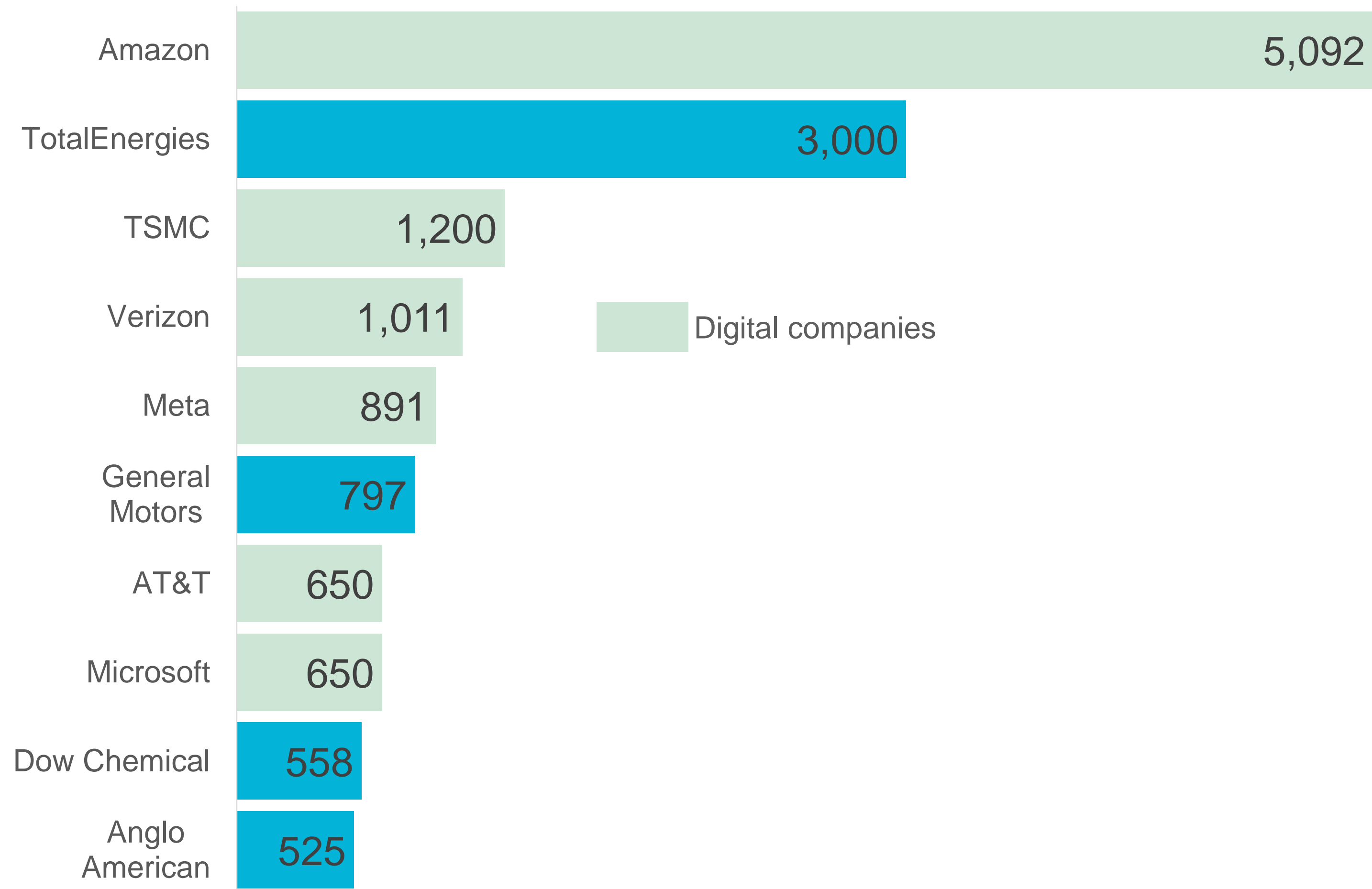
FEBRUARY 2022

Written in collaboration with Boston Consulting Group 



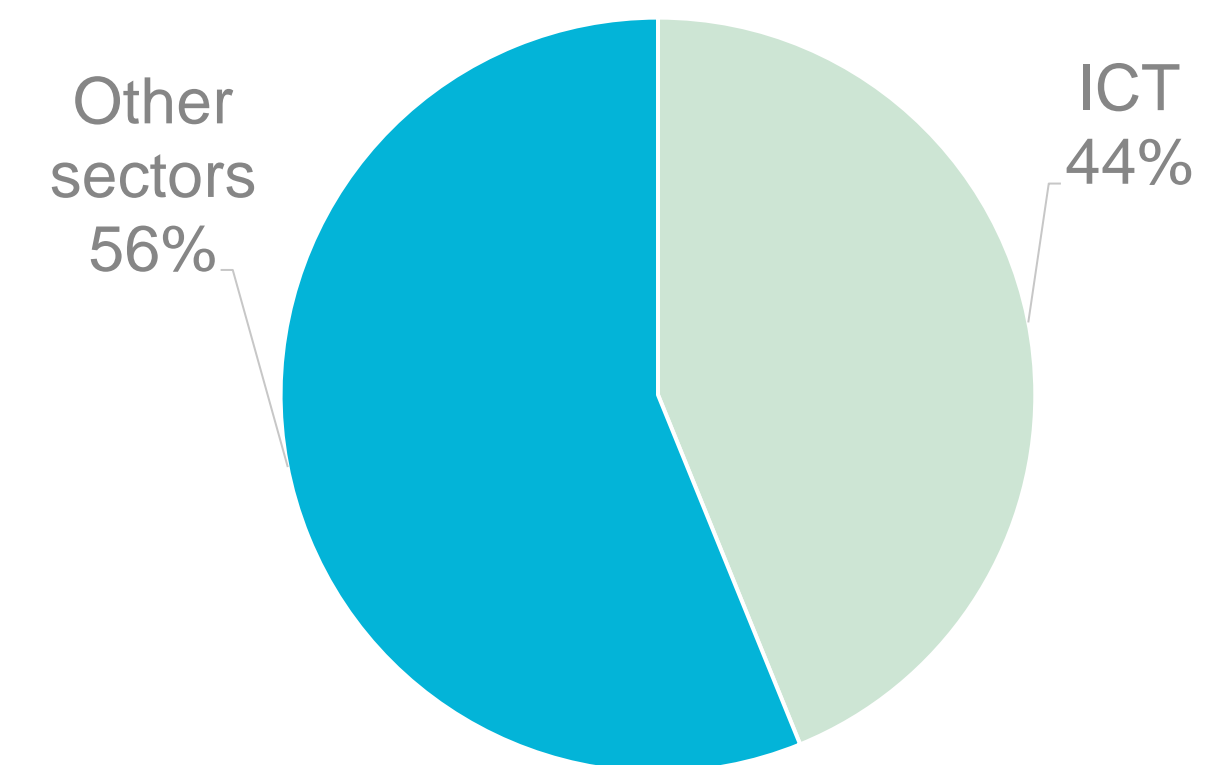
# Renewables

## Top 10 corporate purchases of renewable electricity, MW, 2020



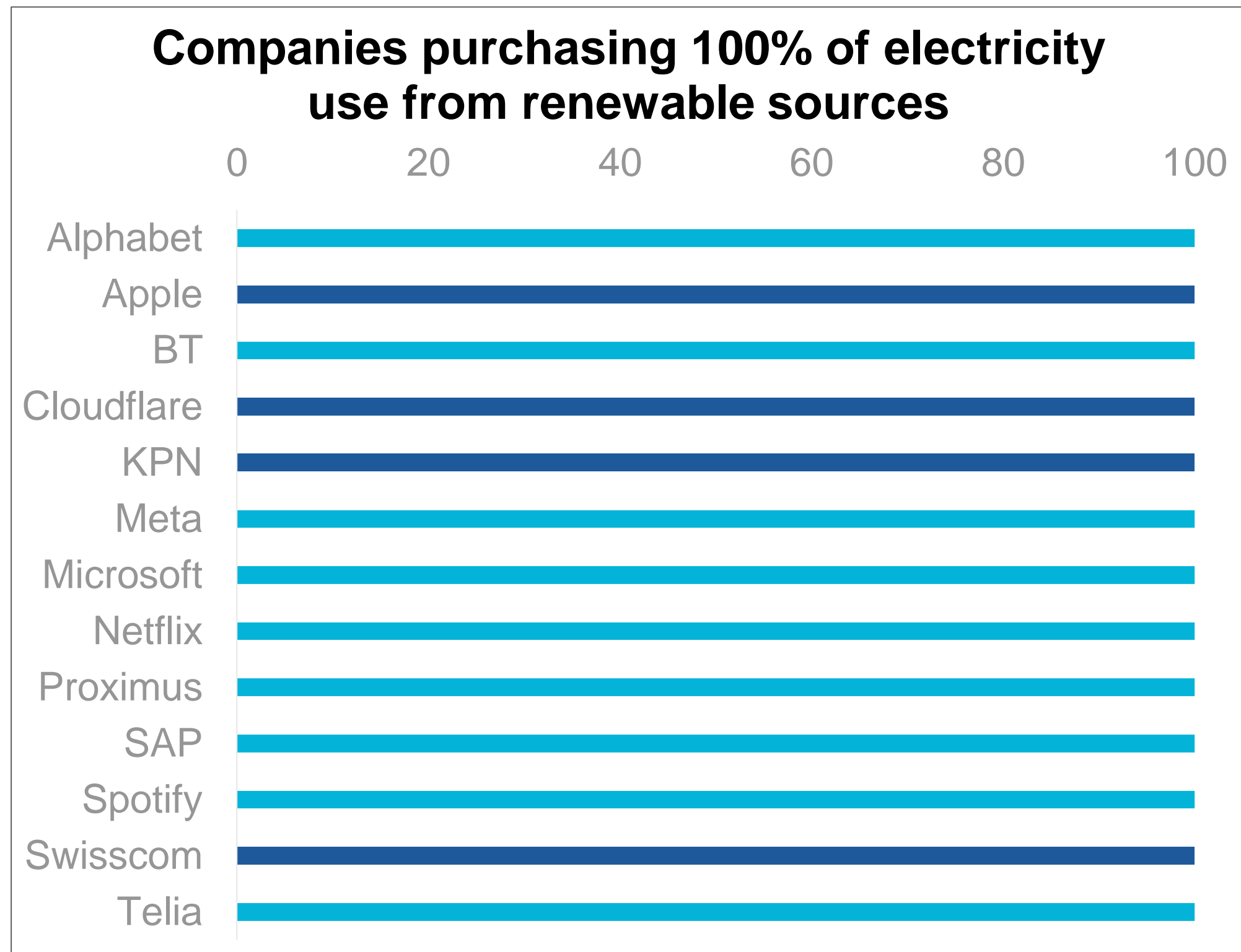
Source: BloombergNEF.

Global renewable power purchase agreements, volume, 2020



Source: IEA.

# Renewables


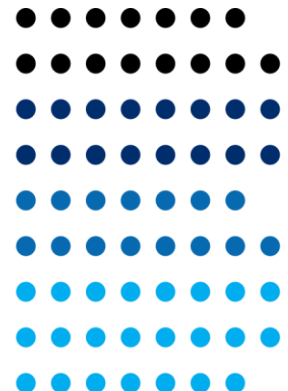



**CALL TO ACTION**

24/7 Carbon-free Energy Compact to Accelerate the Decarbonization of Electricity Grids

**7** AFFORDABLE AND CLEAN ENERGY

# Companies reporting carbon neutrality, 2020

Alphabet   **BOOKING**  
**HOLDINGS**  **CLOUDFLARE**

*elisa* Infosys  **kpn**  **Microsoft**

 **Meta**  **proximus**  **salesforce**

 **Spotify**  **swisscom** **TELE2**

 **Telstra**

 **Telia Company**

# Implications for low- and middle-income economies

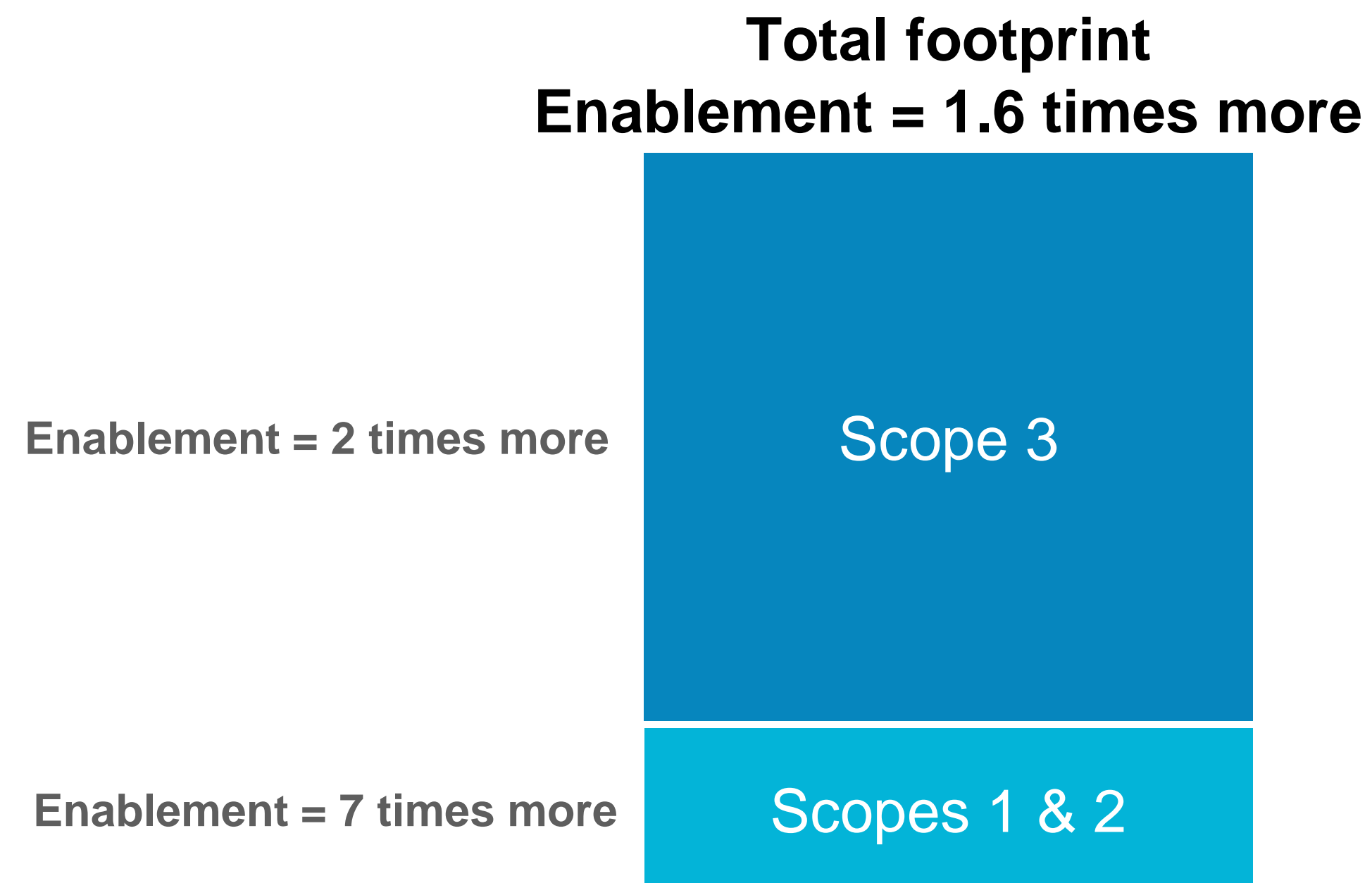
- 46 companies headquartered in LMIs
- Many others have operations in LMIs
- Bulk of emissions in LMIs from Chinese headquartered companies
- Grid access and reliability challenges
- Restrictive energy markets
- Energy policy increasingly an investment decision

# Digital technology driving emissions reductions

- IoT and big data applications
- Blockchain
- AI and cloud-based platforms
- Robotics
- Mobile apps, online and collaborative platforms

# Scope 4: Enablement?

Nine telecommunications operators, 2020



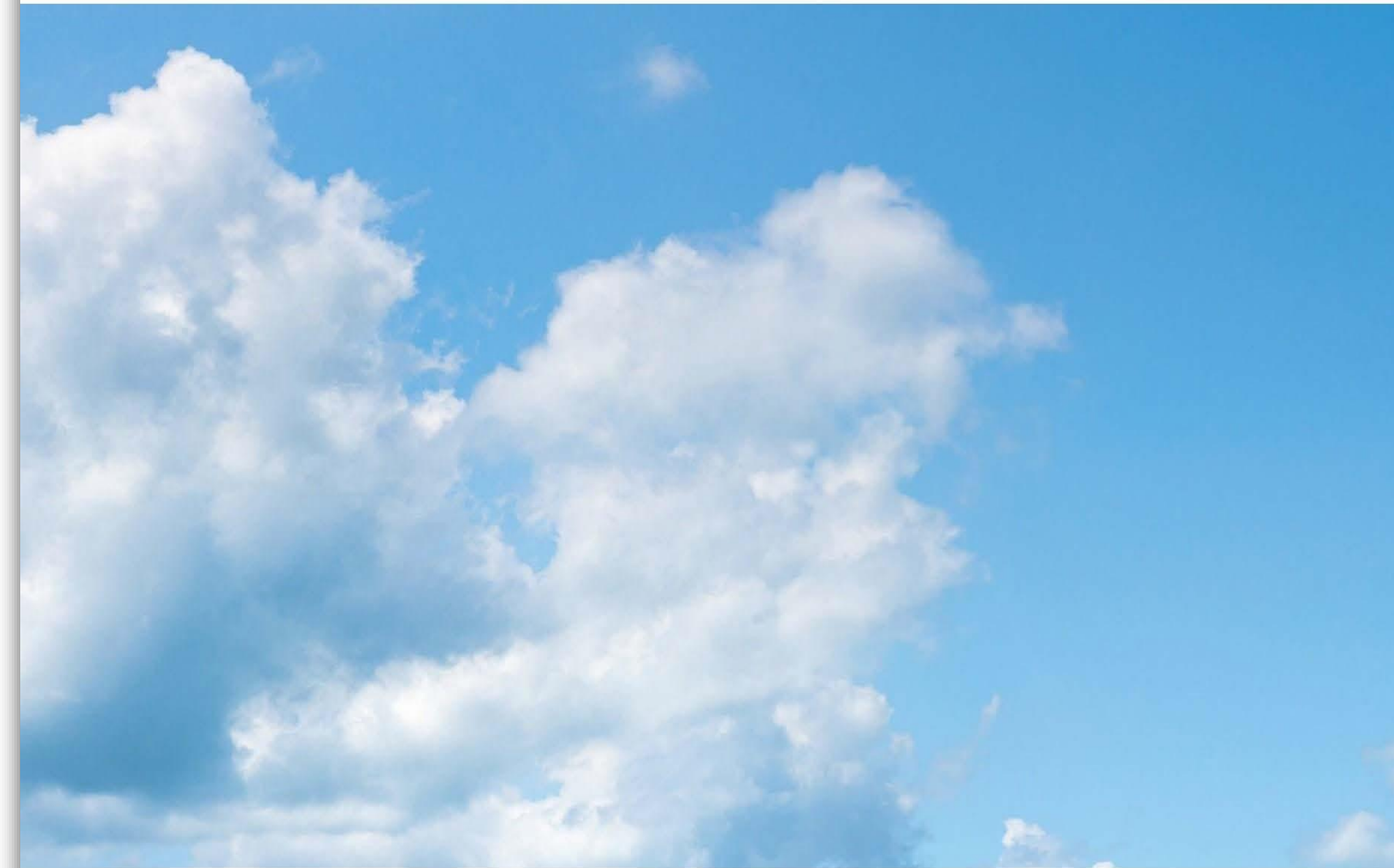
## Enablement

- Cloud services
- Smart buildings
- Video conference
  - Telework
- Smart energy
- Smart mobility

# From offsets to removals

- Moving from voluntary offsets (“carbon neutral”) to carbon removal (“Net zero”)
- Digital companies have provided over \$4 billion for carbon removal initiatives

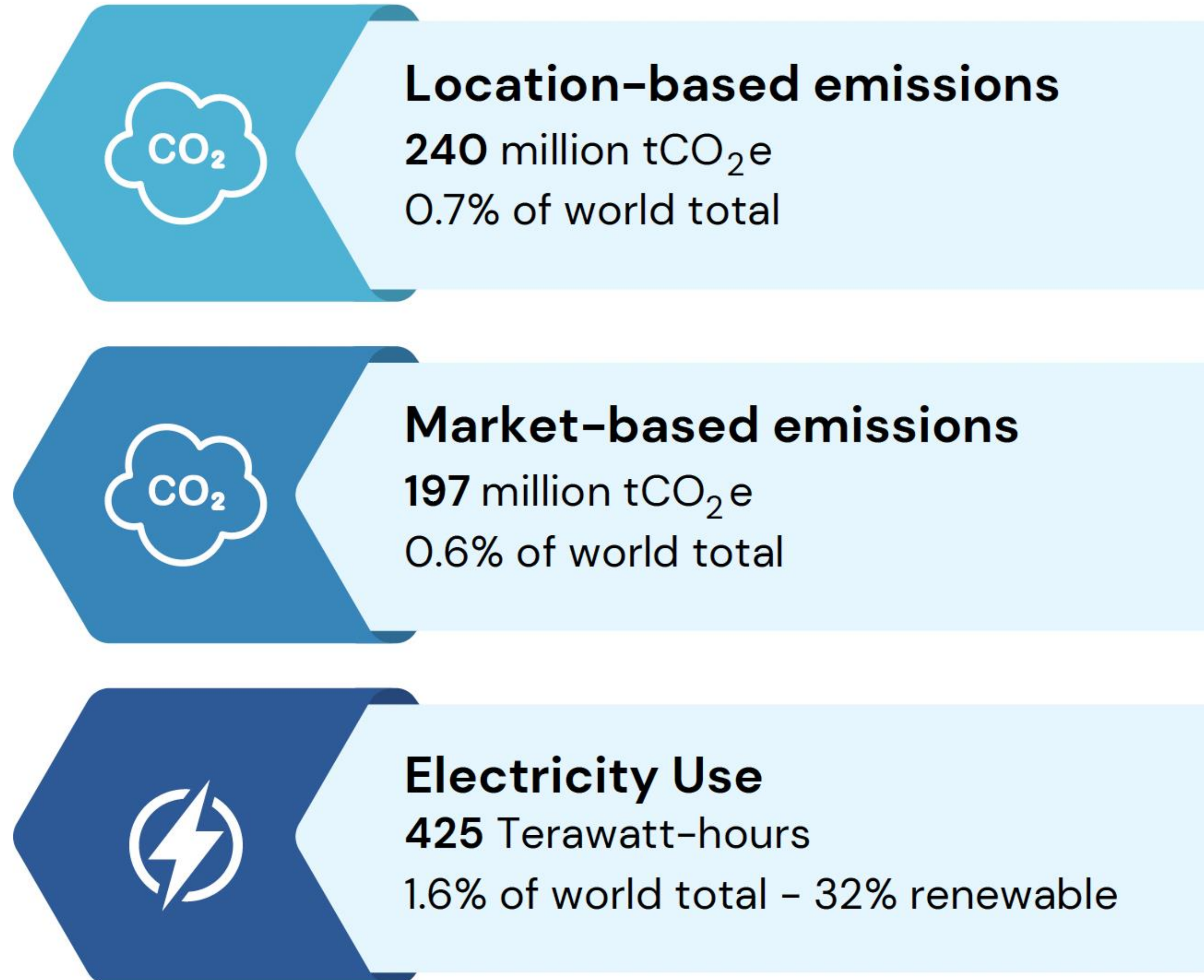
## Criteria for high-quality carbon dioxide removal



# Results



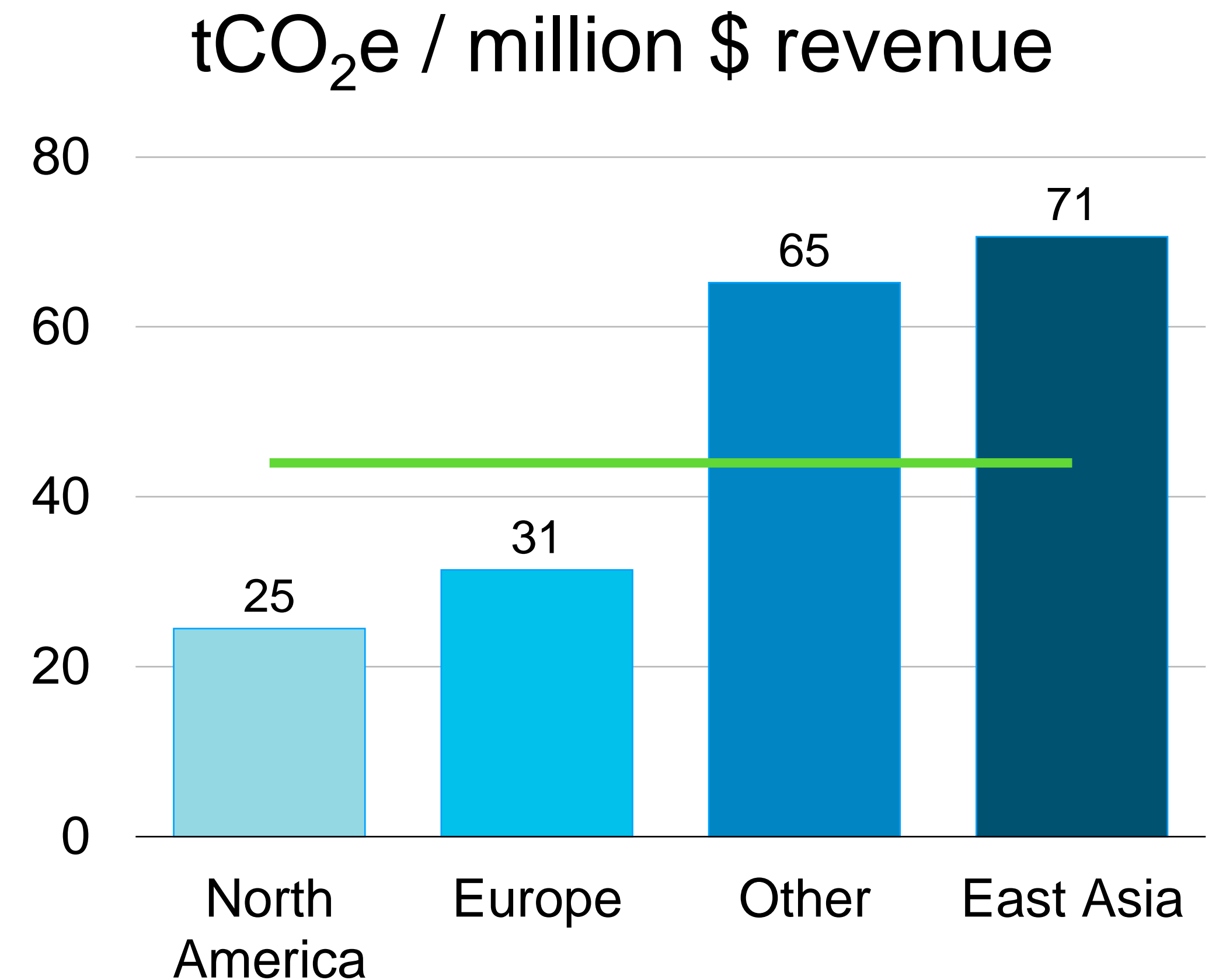
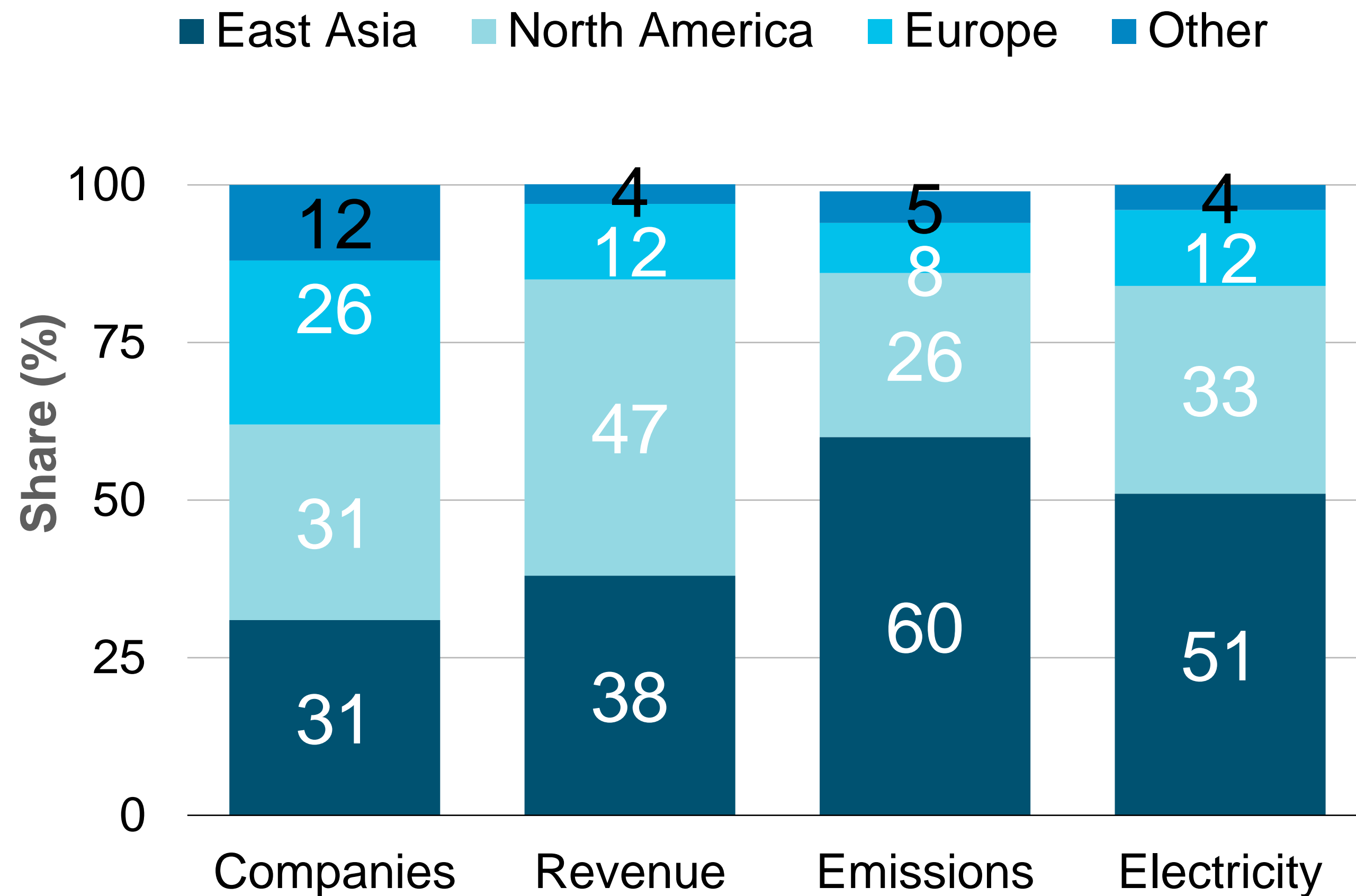
# Results



Emissions refer to Scope 1 & 2. Data refers to 2020.

# Results

## By region of company headquarters, 2020



# Assessment

## Top performing digital companies in climate disclosure assessment, 2020

| Company    | Headquarters | Industry         | Overall | Data | Target | Performance |
|------------|--------------|------------------|---------|------|--------|-------------|
| Elisa      | Finland      | Telecom services | A       | A    | A      | B           |
| Cisco      | USA          | Hardware         | A       | A    | A      | B           |
| Apple      | USA          | Hardware         | A       | A    | A      | A           |
| Akamai     | USA          | IT Services      | A       | A    | A      | C           |
| Ericsson   | Sweden       | Hardware         | A       | A    | A      | B           |
| IBM        | USA          | IT Services      | A       | A    | A      | B           |
| Microsoft  | USA          | IT Services      | A       | A    | A      | B           |
| Proximus   | Belgium      | Telecom services | A       | A    | A      | B           |
| Facebook   | USA          | IT Services      | A       | A    | A      | B           |
| Swisscom   | Switzerland  | Telecom services | A       | B    | A      | A           |
| Adobe      | USA          | IT Services      | A       | A    | B      | B           |
| Alphabet   | USA          | IT Services      | A       | A    | A      | B           |
| Telefonica | Spain        | Telecom services | A       | A    | B      | B           |
| Vodafone   | UK           | Telecom services | A       | A    | B      | C           |
| Tele2      | Sweden       | Telecom services | A       | B    | A      | B           |
| SAP        | Germany      | IT Services      | A       | B    | A      | B           |

- Target
- Company has a time bound commitment to reduce emissions
- Commitment is near term and not intensity-based
- Target aims for operational carbon neutrality by 2030
- Data
- Discloses all 8 data points: i) Scope 1, ii) Scope 2 location-based, iii) Scope 2 market-based, iv) Scope 3, v) energy use, vi) share of renewables in energy use, vii) electricity use, viii) share of renewable in electricity use
- Dedicated environmental report
- Evidence of third party verification of emissions data
- Evidence verification is informed by ISO 14064
- Performance
- Share of renewables in electricity
- Proportion of GHG emissions (location based) to US\$ revenue
- Proportion of GHG emissions (market based) to electricity use

Companies shown in order of total points.

# Conclusions

- Many digital companies are playing an important role in reducing emissions
- East Asian companies need to catch up
- Developing countries
- Better accounting and clear goals needed

”Rather than simply offsetting emissions, we need to work together to focus on eliminating carbon from the electricity sector entirely.”

—24/7 CFE Compact

”...carbon dioxide removal is essential if the world is to achieve its universally agreed Sustainable Development Goals (SDGs).”

—UN Sustainable Development Group