ETNO POSITION PAPER

EU Taxonomy and the European telecommunications sector

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Executive Summary

The European telecommunications sector is a **major contributor to the fight against climate change**. The sector is greening its own operations, and rolling out more energy-efficient, next generation networks, which play an important enabling role for smart solutions, thus reducing the environmental impact across other sectors of the economy and society.

The EU taxonomy is an important instrument to direct financing to green solutions and economic activities, **which should recognise the pivotal function of electronic communications networks as an essential enabler** of a greener economy.

Context and State of Play

The European telecommunications sector is firmly committed to the fight against climate change and the race towards net zero. Not only have European telcos drastically stepped up their efforts to reduce their own carbon footprint, but they are also a major enabler of emissions reduction in other sectors of the economy and across society.

Our sector welcomes its inclusion in the EU Taxonomy as one of the six relevant sectors that can support the mitigation of climate change in Europe, by helping to decarbonise many other activities. There nevertheless remain difficulties in quantifying the real impact of digitalisation on the decarbonisation of the European economy on account of the description of ICT sector activities in the delegated acts.

European green and digital targets

Europe has long been faced with numerous environmental challenges (climate change, depletion of natural resources, pollution, and biodiversity loss and transformation), as well as public health emergencies on a global scale (COVID-19 pandemic), all of which have increased the urgency with which public policy needs to adapt, driving a green and digital transformation of the economy. In order to tackle these challenges, the European Commission presented the European Green Deal[1]. At the same time, the EU is driving the digitalisation agenda with its Digital Compass[2]. In particular, by 2030, Europe aims to provide access to 5G and fibre networks to all Europeans.

This twin-transition approach has been endorsed by the European Council (December 2020) and the co-legislators (December 2022 approval of Digital Decade), and is reflected in the priority areas for the allocation of NextGeneration EU recovery funding (€750 billion in public funding for Member States, of which 37% must go to climate action and 20% to promoting digitalisation, including next generation connectivity, such as 5G[3]).

Recent developments and energy sobriety

From mid-2022, Europe has been facing an energy supply crisis, sparked by Russia's invasion of Ukraine, which has caused a rise in energy prices, and exacerbated already rising inflation rates. This has a knock-on effect on the telecommunications sector, leading to possible delays in network

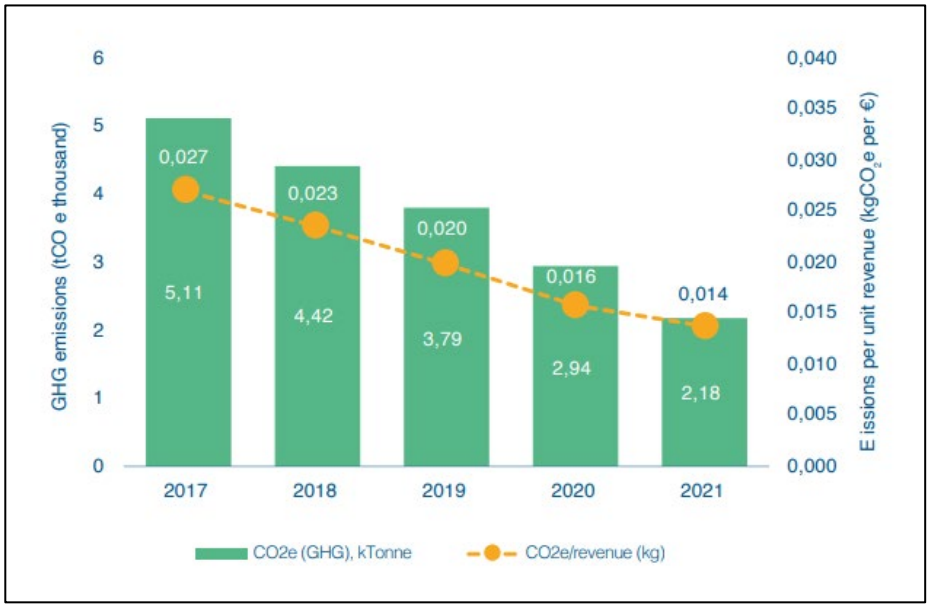
[1] European Commission Communication: European Green Deal, COM (2019) 640 final, 2019.
[2] European Commission Communication: 2030 Digital Compass – the European way for the Digital Decade, COM(2021) 118 final, 2021.
[3] European Communication on the EU budget powering the recovery plan for Europe, COM/2020/442 final, 2020.

investment, and the achievement of the 2030 digital targets[4]. This situation has, however, accelerated the development of smart digital solutions as a way to quickly reduce energy consumption across the EU energy grid[5].

Our members are fully committed to the climate transition, and play a fundamental role in Europe's decarbonisation efforts, reducing environmental impact by cutting our energy consumption and being carbon neutral well before 2050. Furthermore, we are expanding the offer of IoT solutions, smart grids and other connected solutions, which are a key enabler of climate action across the EU.

***Greening of* our networks and operations**

The European telecommunication sector is among the corporate leaders in terms of Europe's climate goals: most of ETNO's members have committed to achieving the EU goals ahead of time, which translates into a constant decrease of Scope 1 and 2 GHG emissions and emissions per unit revenue generated (see figure), which reflects the ongoing efforts of reducing the own footprint of the sector's networks and operations as a whole.



Source: ETNO State of Digital 2023

The key levers for the "greening of" the sector are:

- Deployment of **new high-speed mobile networks**, which are designed to not only increase network performance, but operate more efficiently – coupled with the sunsetting of less energy-efficient legacy technologies (2G / 3G)
- Deployment of **fibre networks**, which are also expected to deliver significantly higher rate of energy efficiency – together with the decommissioning of less-efficient copper networks

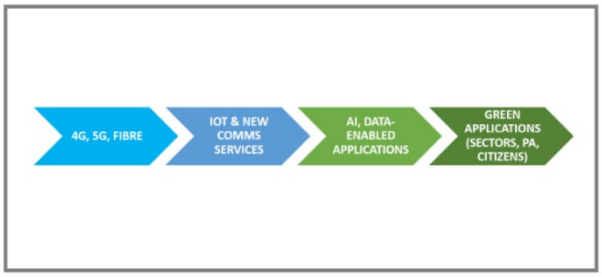
[4] CEO statement on the role of connectivity in addressing current EU challenges ceo_statement_sept.2022_26.9.pdf (etno.eu)

[5] European Commission Communication on the energy system - EU action plan, COM(2022) 552 final: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0552&qid=1666369684560

- Emphasis on **renewable energy consumption**, with the switch from fossil fuels to renewable energy sources. In 2021, 83% of the total energy used by ETNO members was from renewable sources, up from 71% in 2018[6].
- **Acceleration of carbon-offsetting strategies**: most ETNO members have committed to be net-zero before 2050
- Promoting **circularity and eco-design** along the supply chain and also within companies
- **Improving energy efficiency of data centres**, which are primarily used as part of network infrastructure, as well as for cloud services.

In recent years, telecoms operators have made great progress on reducing energy consumption by investing in new, more efficient technologies. Ongoing innovation efforts are needed to ensure that emissions continue to fall, while data traffic rises.

***Greening by* networks**



European telecommunication networks and services provide significant enabling potential in terms of helping other sectors reduce their own carbon footprint. This is best visualised in the figure, which illustrates digitally-enabled value chains for a green economy. New, energy-efficient telecoms networks are also smarter platforms for innovation. On top of these networks, European telecoms companies and other companies are able to **provide IoT and new communication services** in general. This, in turn, is the springboard for providing green applications across broad sectors of the economy (e.g. transport, manufacturing) and society (e.g. households or the public administration).

The enabling potential of next generation networks has been quantified in a recent BCG report: the uptake of digital solutions enabled by 5G and fibre networks can reduce carbon emissions by up to 15%. Key enablers include 30% emission cuts thanks to smart cities and 30% emission cuts through digital transformation in the transport sector[7]. Relevant sectorial studies (e.g. GeSI) about the enablement effect have long explored contribution of digital technologies to different industrial sectors, including calculations of abatement factors related to different use cases. Starting last year, ETNO members are working on concrete use-cases regarding the enabling potential of the sector. This is taking place within the EU-funded project European Green Digital Coalition (EGDC), a business initiative, supported by EU institutions, which aims to harness the emission-reducing potential of digital solutions, including connectivity solutions, for all other sectors.

EU Taxonomy

In the European Green Deal, the EU has set targets to transform the EU into a modern, resource-efficient and competitive economy. To meet the 2030 climate and energy targets, and fight against climate change, the EU needs to bridge the investment gap of €350 billion per year. Additional

[6] ETNO, The State of Digital Communications 2023, research conducted by Analysys Mason, 2023. https://etno.eu/library/reports/112-the-state-of-digital-communications-2023.html

[7] ETNO, Connectivity and Beyond, research conducted by BCG, 2021. Reports (etno.eu)

investment is needed to meet the EU's broader environmental targets, estimated at €100-150 billion a year[8]. As such, the EU Taxonomy provides a classification system to companies and investors for making decisions about investing in projects and economic activities that have a significant positive impact on the climate and the environment.[9]

ETNO recognises that the **EU Taxonomy is an essential tool** for achieving the EU's climate and energy goals, as it helps direct capital flows towards green investments. **ETNO members are already reporting on the EU Taxonomy in the most accurate way possible.** Nevertheless, there remain several challenges on this front, and it appears so far that the technical screening criteria of the taxonomy could be improved to make it more user-friendly.

As it stands, the inclusion of the ICT sector in the EU taxonomy is not promoting the appropriate contribution to the digitalisation of other sectors, as numbers disclosed do not reflect figures similar to the impact and investments needed to achieve the green and digital transition.

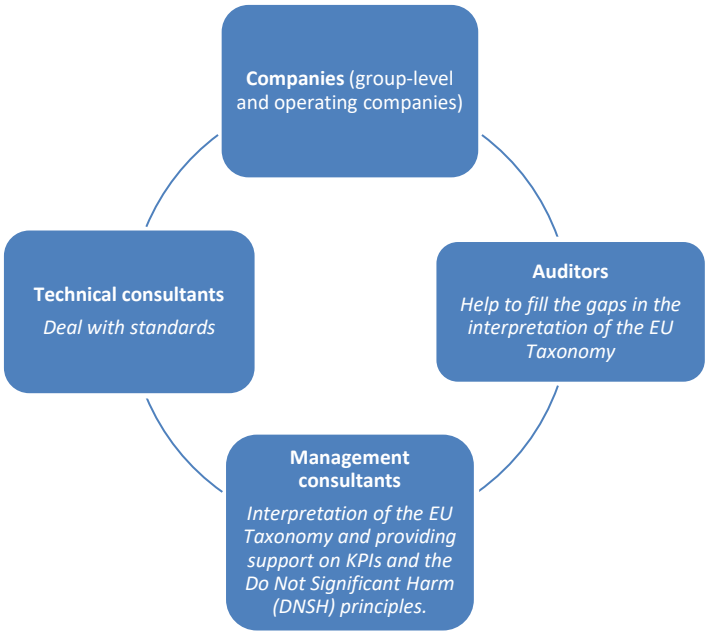
It is important to note that several of our concerns are echoed in the Usability Report of the Platform on Sustainable Finance. These include technical issues, where there is confusion on the definition of economic activities, and a need for clarification on the interpretation of eligibility criteria.

[8] EU Platform on Sustainable Finance: Technical Working Group, Part A, Methodological report, March 2022, Platform on Sustainable Finance: Technical working group - Methodological report (europa.eu)

General considerations on the EU Taxonomy

ETNO and its members are aiming to reach the current EU sustainability targets, and are supportive of the objectives of the European Commission's work on the EU Taxonomy. With a view to providing real-life feedback on its understanding and applicability across EU markets, ETNO members have identified a series of general, horizontal considerations arising from our current understanding of the EU Taxonomy. In particular:

- The current text appears not to fully grasp the **major enabling potential of the ICT sector**. The criteria included in the current Climate Delegated Act appear to only partially reflect the role that networks can play in facilitating the green transition. The ICT sector plays, and will continue to play, a **fundamental role in moving Europe towards a greener economy and society**, and as such, this should be reflected in the Taxonomy.
- The telecoms sector faces too high a degree of **complexity in taxonomy reporting**, due to ambiguity in the description of the activity and the technical screening criteria for Activities 8.1 and 8.2. Furthermore, such complexity also creates great variation in Taxonomy-eligibility reporting among ETNO members. This results in third-party verified disclosures which cannot easily be compared across the sector.
- The figure below provides an overview of the **different actors currently involved** in EU Taxonomy reporting, based on the experience of European telecommunication operators. This complexity leads to ETNO members having to devote significant resources (e.g. funds, staff, consultants), in order to get support in the interpretation of Activities 8.1 and 8.2 of the Climate Delegated Act. Companies need to work with a range of actors to complete their taxonomy reporting, which adds complexity to processes. The concept of materiality has been widely adopted in financial reporting, but it is not explicitly mentioned and recognised as a tool to use for the EU Taxonomy reporting.



Activity 8.2: Data-driven solutions for GHG emissions reductions

The text of Activity 8.2 (Data-driven solutions for GHG emissions reductions) allows for different interpretations, which has been addressed in the recently published Commission FAQ (December 2022). This has led to significant divergence in reporting across the ETNO membership, which results in limited comparability across leading companies in the telecoms sector. This, in turn, can lead to confusion among investors and other stakeholders.

ETNO members report KPIs based on different approaches, criteria and interpretations (inclusion/exclusion of networks, inclusion of all or partial IoT solutions, inclusion of 5G). Part of the difference can be explained by company-specific factors, such as the markets in which the companies operate. At the same time, the difference can also be attributed to the divergent interpretations of the EU Taxonomy framework. Regardless of the interpretation and approach, most companies' figures have been verified by a third party (where legally required), and these approaches are transparent, reliable, and justified.

The shortcomings are related to the description of the activity on the one hand, which can be divided into i) definition ICT solution, ii) examples, iii) other terminology iv) technical screening criteria.

Definition of ICT solution: The concept of "ICT solution" is not currently defined in the Climate Delegated Act. ETNO would welcome a clear definition of "ICT solution", which reflects market realities. This could be inspired by existing definitions, such as that of the ITU-T in *Enabling the Net Zero transition: Assessing how the use of information and communication technology solutions impact greenhouse gas emissions of other sectors*:[10]

Definition of ICT solution: A system encompassing ICT goods, ICT networks and/or ICT services that contributes to meeting a technical, societal or business challenge.

Examples: The examples mentioned in the description of the activity do not fully reflect all current technological realities: IoT, 5G and AI are listed, while fixed network technologies are not mentioned, but play a fundamental role in digitalisation, such as FTTH.

Other terminology: The wording "[…] *predominantly aimed at* […]" is used on numerous occasions, both in the description and technical screening criteria in relation to Activity 8.2. It is difficult for companies to ascertain to which party an ICT solution might be predominantly aimed, as this constitutes an assessment of the intentionality of use. The **intentionality** approach is unique in this context, with no other Taxonomy activity being directly linked to use by client or consumer.

Technical Screening Criteria: There are several ways for companies to demonstrate compliance with the technical screening criteria, but despite this, the technical screening criteria are very difficult to implement in practice for activity 8.2 but also 8.1.

Conducting a **life cycle assessment** (LCA) is a useful but complex exercise, which ETNO supports in principle. However, LCAs represent considerable administrative burden, financial cost to the organisation, problems of data availability, and the result is often not comparable across

[10] ITU-T L.1480 (12/2022)

companies. Furthermore, there is no clear definition or threshold for the concept of "substantial contribution to climate change mitigation", which exacerbates difficulties with interpretation.

Activity 8.1: Data processing, hosting and related activities

Regarding Activity 8.1, the technical screening criteria are clearer, but technical screening criterion 1 cannot be verified by a third party, because the implementation of the expected practices contained in the European Code of Conduct on Data Centre Energy Efficiency is by-design based on self-assessment.

The FAQ states that the Code of Conduct will shortly be complemented with an assessment framework to assist auditors in verifying a data centre's compliance with the relevant expected practices set out in the Code of Conduct on Data Centre Energy Efficiency. ETNO welcomes the fact that the European Commission and Joint Research Centre (JRC) are working in trying to fill in the gaps for this technical screening criteria, but considering timeframes, this leads to the situation whereby companies were unable to report alignment for 2022.

Draft notice FAQs impact

The Draft Commission Notice on the interpretation and implementation of certain legal provisions of the EU Taxonomy Climate Delegated Act, published on 19 December 2022, provides guidance on a number of points, of which the most relevant for the telecom sector is question 159.

Question 159. Are electronic communications networks (telecommunication) covered under the activities "Data processing, hosting and related activities" in Section 8.1. or "Data-driven solutions for GHG emissions reductions" in Section 8.2 ?

Electronic communications networks (telecommunication) as such are not included as an activity under the current coverage of the Taxonomy Climate Delegated Act.

Section 8.2 of Annex I to the Climate Delegated Act targets specific digital solutions that are developed with the predominant (main) purpose to reduce emissions. Such solutions can be an innovative combination of digital networks and technologies and applications such as 5G, Internet of Things, Artificial Intelligence (AI), and blockchain.

An example of such a solution can be a precision farming solution, solutions for improving the energy efficiency of buildings or AI based solutions that reduce the energy consumption of 5G base stations. Consequently, solutions that significantly reduce emissions of the electronic communications services compared to best available alternative technologies are eligible under Section 8.2 of Annex I to the Climate Delegated Act.

While the generic public electronic communications network is an important and necessary infrastructure for the ICT solutions mentioned above, the predominant purpose of its deployment is often not to reduce emissions. In cases where the electronic communications network is deployed and used in the context of the solution for GHG emissions reductions (for example, a specific machine-to-machine communication infrastructure to be used for precision farming) it is eligible under Section 8.2. Additions to a public electronic communication infrastructure, as required in the context of supporting the connectivity needs of the solution for GHG emissions reductions (such as network enhancement or support of network features required for the solution), are also eligible under Section 8.2.

ETNO welcomes the initiative of the European Commission to support companies' reporting efforts with the FAQ, however we wish to raise a number of concerns.

Limited parts of the connectivity included: Some language in the FAQ leads to the assumption that, when electronic communication networks are used to support solutions that reduce GHG emissions, they could be considered eligible under the Taxonomy. However, this appears to be based on an assumption that networks could be deployed, separated, split or divisible per access or solution provided to client, which is not the case. Networks cannot be considered as detached parts of technology because they are **not capable of autonomous data transmission**. The entire network must be running and operational, in order to provide data transmission from one point to another.

New concept in place not part of the Delegated Act: electronic communication services*:* Electronic Communications Services are not included in the Climate Delegated Act. Under the EECC, these are defined as "services normally provided for remuneration over electronic communications networks [which] includes the following types of services: internet access service, interpersonal communications service and services used wholly or mainly for the sending of signals, such as transmission services used for the provision of machine-to-machine services and for broadcasting."[11]

The 'greening-of' effect is considered as eligible: Among the examples provided are AI solutions which contribute to reducing the energy consumption of mobile network base stations. This implies that the 'greening of' effect is considered eligible as opposed to the 'greening by' effect associated with enabling activities. This consideration represents an opportunity to report the energy efficiency of the telecommunication networks achieved through the implementation of such solutions *in the network itself*. However, this can only be achieved by considering networks as part of Activity 8.2 as enablers.

Next steps

ETNO continues to support an open and constructive dialogue for future publications related to the ICT sector in the Taxonomy, to support a clear interpretation, with fit for purpose criteria. As a sector, we continue to look for ways to **implement Taxonomy reporting** in a way that is transparent, avoids greenwashing and provides high quality data as far as possible in the sector, respecting that there are various interpretations.

The European Commission should consider the recognition in the EU Taxonomy of the 'greening of' and 'greening by' aspects of electronic communications networks, and the most appropriate technical screening criteria. We recommend that the **full enabling potential of electronic communications networks** be thus recognised by a clear inclusion in the EU Taxonomy, which would recognise not only the substantial efforts taken by European telecoms network operators to reduce their emissions and environmental impact, but also the fact that next generation telecoms networks are **an unavoidable component in the greening of the whole economy**.

For questions and clarifications regarding this position paper, please contact **Ross Creelman** (**creelman@etno.eu**), Public Policy Manager, ETNO.

[11] Directive (EU) 2018/1972

ETNO (European Telecommunications Network Operators' Association) represents Europe's telecommunications network operators and is the principal policy group for European e-communications network operators. ETNO's primary purpose is to promote a positive policy environment allowing the EU telecommunications sector to deliver best quality services to consumers and businesses.

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