

Public debriefing 50th BEREC Plenary Meeting

Annemarie Sipkes - BEREC Chair
Virtual meeting, 16 March 2022

Body of European Regulators
for Electronic Communications

BEREC

The logo for BEREC (Body of European Regulators for Electronic Communications) features the word "BEREC" in a bold, sans-serif font. The letters "BERE" are in blue, and the letters "EC" are in a dark red color. A blue curved line sweeps under the "E" and "C", ending under the "C".

Part I

- Draft BEREC Guidelines on the Implementation of the Open Internet Regulation - *OI WG Co-Chairs (ILR/Traficom)*
- Explanatory document on the Public Consultation on the draft BEREC Guidelines on the Implementation of the Open Internet Regulation - *OI WG Co-Chairs (ILR/Traficom)*
- Draft BEREC Report on Sustainability: Assessing BEREC's contribution to limiting the impact of the digital sector on the environment – *SUS WG Co-Chairs (ARCEP/CTU)*
- External Sustainability Study on Environmental impact of electronic communications – *SUS WG Co-Chairs (ARCEP/CTU)*
- BEREC Work Programme 2023 + Stakeholder Forum – *Kostas Masselos (EETT, Incoming BEREC Chair 2023)*

Q&A

Part II

- BEREC response to the public consultation on the draft revised European Commission's (EC) Guidelines on State aid for broadband networks (SAG) – *FNE WG Co-chairs (RTR/PTS) + SAI WG Co-Chairs (CNMC/ANCOM)*
- BEREC Report on regulatory treatment for fixed and mobile backhaul – *MEA WG Co-Chairs (ARCEP/CNMC)*
- BEREC Report on the outcome of the public consultation on the Draft BEREC Report on the regulatory treatment for fixed and mobile backhaul – *MEA WG Co-Chairs (ARCEP/CNMC)*

Q&A

For publication

- BoR (22) 22 28th BEREC International Roaming Benchmark Data Report – 1 April 2021 to 30 September 2021
- BoR (22) 23 Public summary of the BEREC work on the Open Radio Access Network (RAN)

<u>WG</u>	<u>Project</u>	<u>Launch date of PC</u>	<u>Closing date of PC</u>
Open internet	<ol style="list-style-type: none">1. Draft Update to the BEREC Guidelines on the Implementation of the Open Internet Regulation2. Draft Explanatory document on the Public Consultation on the draft BEREC Guidelines on the Implementation of the Open Internet Regulation	15 March 2022	14 April 2022
Sustainability	Draft BEREC Report on Sustainability: Assessing BEREC's contribution to limiting the impact of the digital sector on the environment	15 March 2022	14 April 2022

Draft BEREC Guidelines on the Implementation of the Open Internet Regulation

Explanatory document on the Public Consultation on the draft BEREC Guidelines on the Implementation of the Open Internet Regulation

OI WG Co-Chairs (ILR/Traficom) – Véronique Ney, Klaus Nieminen

Body of European Regulators
for Electronic Communications

The logo for BEREC (Body of European Regulators for Electronic Communications) features the word "BEREC" in a bold, sans-serif font. The letters "BERE" are in blue, and the letters "EC" are in a dark red color. A blue curved line sweeps under the "E" and "C", ending under the "C".

BEREC

Publication of the ECJ rulings
September 2021

Call for stakeholder input
October 2021

Public consultation of the draft guidelines
15 March – 14 April 2022 (17:00 CET)
OI-Guidelines-Consultation@berec.europa.eu

**Publication of the final guidelines and consultation
report**
June 2022

- Zero tariff options are incompatible with the obligation to treat all traffic equally
 - obligation is not limited to technical traffic management practices
 - applies also to commercial practices of the ISP such as differentiated pricing
- Non application-agnostic differentiated pricing practices are likely to be inadmissible
- There is still room for price differentiation when traffic is treated equally
 - Examples of typically admissible application-agnostic practices are provided
- OIR Art. 3(3), exception a) may apply to non-technical discriminatory measures
 - For example access to a certain application free-of-charge

- Legal references (EECC, ECJ rulings) → *updated/added*
- Guidance on zero-rating and non application-agnostic practices → *deleted*
- Guidance on assessment of differentiated pricing practices → *added*
- Examples on commercial practices that are typically admissible → *added*
- Clarification on equal treatment obligation and zero tariff option → *added*
- Comprehensive assessment for less clear cases (paragraph 56) → *deleted*
- OIR Art. 3(3), exception a) may apply to non-technical discriminatory measures → *added*

Background on the update the Guidelines

Information about the public consultation

Description of the proposed major clarifications

BEREC's reading of the ECJ rulings

**Draft BEREC Report on Sustainability: Assessing
BEREC's contribution to limiting the impact of the digital
sector on the environment**

**External Sustainability Study on Environmental impact of
electronic communications**

SUS WG Co-Chairs (CTU/ARCEP) - Kateřina Děkanovská, Sandrine Elmi Hersi

Body of European Regulators
for Electronic Communications

BEREC

The logo for BEREC (Body of European Regulators for Electronic Communications) features the word "BEREC" in a bold, sans-serif font. The letters "BERE" are in blue, and the letters "EC" are in a dark red color. A blue curved line sweeps under the "E" and "C", ending under the "C".

- I. Background**
- II. Key results
- III. Conclusions

BEREC's strategy 2021-2025:

- BEREC stated its ambition to work on sustainability considering the ICT-related parts of the Green Deal and the Agenda 2030 targets to identify the SDGs that could be relevant for BEREC
- More precisely, BEREC identified in its strategy its

potential contribution to assess and reduce the digital sector's impact on the environment and also identified raising awareness of the environmental impact of electronic networks as a relevant lever for end-users' empowerment.

SUSTAINABLE DEVELOPMENT GOALS



BEREC just published two deliverables on ICT sustainability:

- 1. External study on the evaluation and impact assessment of the effect of electronic communications on the environment (with WIK and RAMBOLL) [Disclaimer. NOT REPRESENTING BEREC'S VIEWS]:**
 - Provides a literature review on ICT and especially ECNs' effects on the environment to feed BEREC's work;
 - Identifies actions taken in the sector to minimise networks' environmental footprint;
 - Analyses the potential levers of actions for NRAs to act on sustainability.
- 2. BEREC report on Sustainability: assessing BEREC's contribution to limiting the impact on the environment:**
 - Summarizes main results of BEREC's activities on ICT sustainability since 2020 (including the above-mentioned external study as well as regulatory framework analysis, case studies, stakeholders' interview, technical workshops);
 - Maps existing initiatives to avoid duplicating of the work;
 - Provides a first outline of BEREC's possible activities on the new topic that constitutes sustainability.

Forewords and executive summary

Chapter 1: Introduction

ICT-related goals at EU and international level, key figures, BEREC's first approach

Chapter 2: Case studies

Analysis of NRAs' first initiatives (case studies on Arcep, ComReg, Traficom)

Chapter 3: BEREC initial findings

2020 Workshops, BEREC's opinion on BCRD and State Aid Guidelines recast

Chapter 4: Summary of stakeholders' initiatives

Bilateral meetings' main outputs

Chapter 5: External study key results

Relevant findings from BEREC's external study

Chapter 6: Conclusions

Key learnings of the different parts from the report and outline for BEREC's future work on sustainability to create the necessary conditions for a common ambition on the topic.

Annexes : glossary (I) and bilateral meetings summary (II)

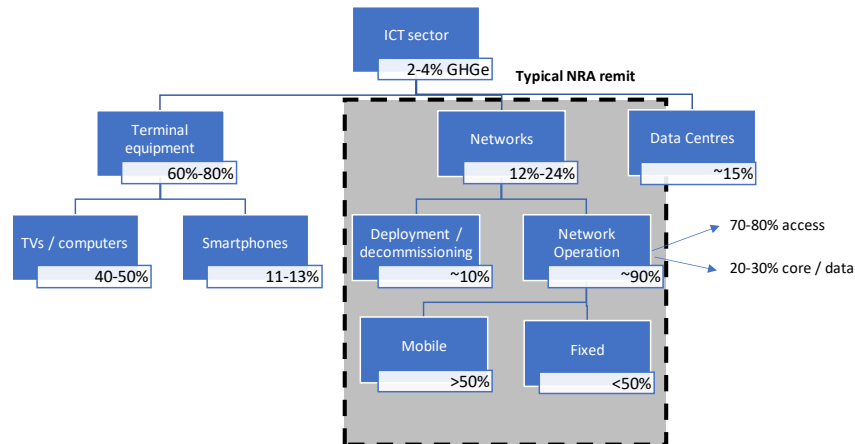
- I. Background
- II. Key results**
- III. Conclusions

The digital sector's footprint represents 2-4% of GHG global emissions (in comparison, global aviation, including domestic and international, passenger and freight transport, accounts for 1.9% of GHG emissions) but ICTs' can have positive enabling effects on other sectors.

- Devices account for 60-80% of ICT carbon footprint, datacenters for 15-20%, networks between 12-24%. The range of figures is explained by the lack of standardized data and common assessment methodologies.

- The future trajectory of ICT's carbon footprint is subject to debate. One of the most common estimations evaluates that in 2030, the digital sector could account for 14% of global GHG emissions (taking into account energy efficiency gains but not indirect impacts such as enablement and rebound or enabling effects).

BEREC also acknowledges other types of environmental impacts to mitigate, such as raw materials and minerals consumption, waste production and the lack of available data and analysis.



NRAs' first sustainability-related initiatives

- Sustainability is a new area of expertise for BEREC and national authorities but some NRAs within BEREC pioneered actions on this topic notably due to their national context.
- Case studies from Arcep, ComReg and Traficom are presented in the report as examples.

ARCEP : reports, national strategy, data collection and additional competencies

COMREG: 2 calls for inputs, one horizontal legislation, consumer survey

TRAFICOM: national strategy, external studies, first data collection

- Other NRAs mentioning specific sustainability-related initiatives: NMHH; ACM, MCA, CNMC, UKE, PTS, Ofcom
- Majority of NRAs : no direct mandate but potential regulatory actions with positive effects to reduce the sector's adverse effects on the environment (such as EECC art. 44, BCRD)

BEREC's first findings & publications on sustainability

1

Workshops and summary report

(2020): two sets of workshops were organized for BEREC experts under the title 'Sustainability within the digital sector. What is the role of BEREC?'

- Among the participants : DG Connect, Joint Research Centre (JRC), Council of European Energy Regulators (CEER), RSPG, IEA, GESI, and Ericsson.
- Main conclusions : enabling role in the continuous digitalization of the society, which can lead to significantly lower energy consumption in other sectors. However, we should be aware of the rebound effects as the efficiency gains might not keep track with the rapid growth of the sector and associated emissions.

2

Opinion on BCRD recast

(2021): the Commission asked in 2020 for BEREC's opinion in order to understand the positions of NRAs regarding different areas that might be covered by BCRD directive revision, including the sustainability of ECNs. Among the main analysis of BEREC on sustainability:

- Lack of data and common methodologies and the need to consider the different type of impacts on ECNs' lifecycle;
- Potential solutions : environmental criteria, sharing of best practices and experience, data-driven regulation

3

Opinion on State Aid Guidelines revision

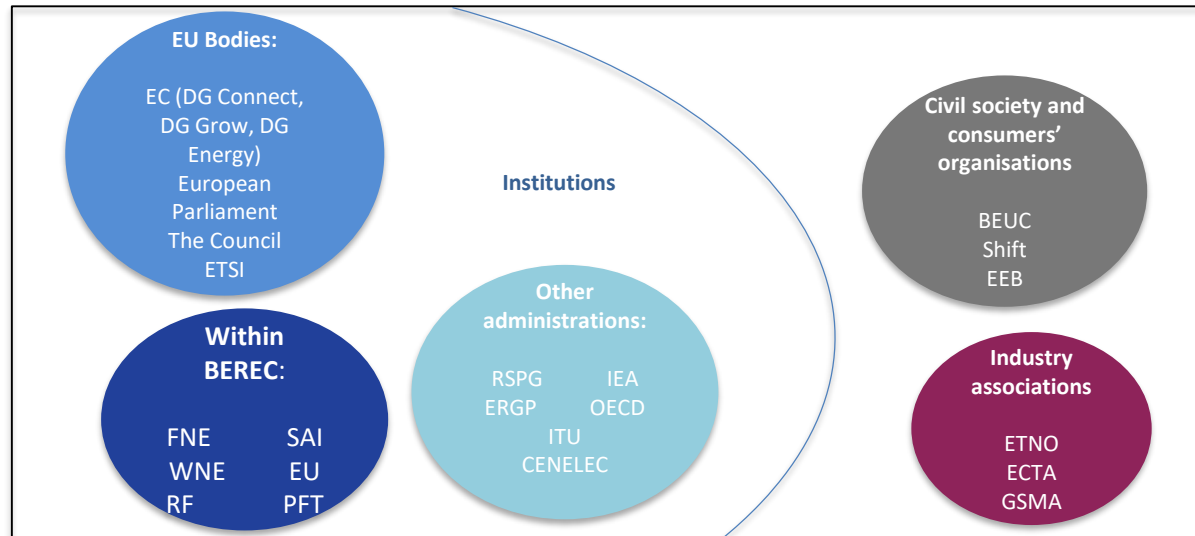
(2022): In its response to the Commission's public consultation regarding the draft revised EC Guidelines on State Aids for broadband networks, BEREC welcomed that environmental aspects are considered in the proposal:

- BEREC supported that the Draft Guidelines encourages re-use of existing infrastructure is to limit the environmental footprint of network deployment.
- BEREC also welcomed the promotion of environmental criteria introduction for MS in order to favor most environmentally efficient technologies and stressed the importance of common targets and indicators to do so.

ICT sustainability (and environmental issues) is gaining importance in stakeholders' agenda. To gain knowledge and avoid duplicating of the work, BEREC organized 25 bilateral meetings :

- There was a general consensus on the positive effects of digitalization on other sectors' decarbonisation as well as on the significant environmental footprint of digital technologies, especially devices, and on the manufacturing phase.
- The main levers of actions mentioned by stakeholders for BEREC's potential contribution were related to data collection, incentives for the sector, and consumer awareness mechanisms.

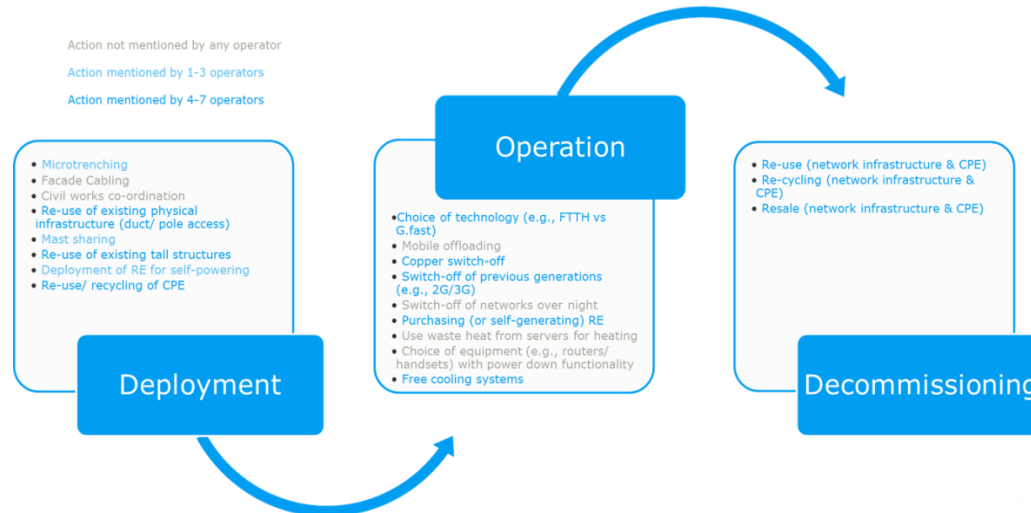
BEREC's bilateral meetings on sustainability (2021-2022)



1. Assessment of ICT and ECNs' effect on the environment: The digital sector's footprint represents 2-4% of GHG global emissions. Devices account for 60-80% of ICT carbon footprint, datacentres for 15-20%, networks between 12-24%. The future trajectory of ICT's carbon footprint is subject to debate. One of the most common estimation evaluate that in 2030, the digital sector could account for 14% of global GHG emissions (taking into account energy efficiency gains but not indirect impacts such as enable and rebounds effects).

2. Actions developed by operators to minimize their impact during the different phases of ECNs lifecycle e.g., re-use of infrastructures, mast sharing, microtrenching (deployment phase), energy efficiency (operation phase), waste management (decommissioning phase) Energy efficiency gains in the operation phase seem to have limited the increase of energy consumption of digital infrastructures and associated GHG emissions.

3. Potential levers available for NRAs: Art 44 of EEC & BCRD, switch of legacy technology/promotion of energy efficient technologies and in cooperation with OCAs to improve data accuracy and methodologies, label/Code of Conducts, consumer awareness.



- I. Background
- II. Key results
- III. Conclusions**

First conclusions: Outline of possible activities for BEREC

Data & indicators:

- To take part in the process of identification and definition of indicators to assess the environmental impact of ECNs;
- Item 5.3.3 Work Program 2022 on sustainability indicators for ECN/ECSs.

Use of existing regulatory tools for sustainability:

- Art. 44 of EECC, BCRD, State Aid schemes and spectrum management as potential lever to promote environmental sustainability (in collaboration with RSPG);
- Encourage migration to more energy-efficient next-generation technologies.

Encouraging environment-friendly practices of digital players in collaboration with other relevant bodies:

- Assessing common criteria of what is a “good” practice for limiting the environmental footprint of electronic communications;
- Collaboration with other relevant public bodies to encourage sustainable practices.

Promoting end-users’ empowerment in terms of environmental information on ICTs:

- Data-driven approach to raise awareness in terms of environmental information about the impact of devices, services and certain uses and most sustainable practices;
- Create positive incentives for providers.

Other potential research questions: sustainability in terms of economic and social impacts (e. g. with relation to BEREC’s work on the digital divide), further analysis on indirect effects of ICTs included enabling effects (substitution/optimisation) and rebounds effects, infrastructures’ resilience adaptation to climate change.

PUBLIC CONSULTATION in duration of 4 weeks (from 15 March to 14 April 2022)



Workshop for stakeholders on 4 April 2022

Analysis of stakeholders' contributions in April/May

**Expected publication of the final report and the report
on the outcomes of the public consultation
in June 2022**

BEREC Work Programme 2023

Kostas Masselos
Incoming BEREC Chair 2023 (EETT, Greece)

Body of European Regulators
for Electronic Communications

The logo for BEREC (Body of European Regulators for Electronic Communications) features the word "BEREC" in a bold, sans-serif font. The letters "BERE" are in blue, and the letters "EC" are in a dark red color. A blue curved line underlines the "BERE" part of the logo.

BEREC

Publication of Outline WP2023

28/01/2022

Call for input

16/03/2022

Stakeholder Forum

23/03/2022

Deadline for input

15/04/2022

Adoption of draft WP for PC

06/10/2022

Adoption of the final WP

08/12/2022

10th STAKEHOLDER FORUM

|| 23 March 2022

Discover our forum

Register now: <https://berec-stakeholder-forum.eu/>

09:00-12:45: Meet & Greet

14:00-14:35: Opening & Stakeholder Engagement

14:35-15:00: Presentation of Europe's Digital Decade Police Programme

15:00-16:00: Panel I – Artificial Intelligence: Recent Advances, Future Trends and Regulatory Challenges

16:30-17:10: Panel II – Digital Platforms Regulation: Towards the Effective Enforcement of the Digital Markets Act

17:10 – 17:25: Presentation of BEREC's Study on Evaluation and Impact Assessment of the Effect of Electronic Communications on the Environment

17:25 – 17:30: Closing Remarks

BEREC Stakeholder Forum 2022 Agenda



BEREC response to the public consultation on the draft revised European Commission Guidelines on State aid for broadband networks

FNE WG Co-Chairs (PTS/RTR) - Lars-Erik Axelsson, Wilhelm Schramm
SAI WG Co-Chairs (CNMC/ANCOM) - Begoña Garcia, Iulia Zaim-Grigore,

Body of European Regulators
for Electronic Communications

BEREC

The logo for BEREC (Body of European Regulators for Electronic Communications) features the word "BEREC" in a bold, sans-serif font. The letters "BERE" are in blue, and the letters "EC" are in a dark red color. A blue swoosh underline starts under the "E" and extends to the right, ending under the "C".

Introduction

- The EC launched this public consultation on **19 November** last year and closed it on **11 February**
- The BEREC response to this public consultation consists of two parts
 - Part I: Draft Guidelines except Annex I 'Mapping'
 - Part II: Annex I 'Mapping' of the Draft Guidelines

Main points of Part I of the BEREC response

The role of NRAs in granting State aid

- It should be considered to make the consultation of NRAs in the design of State aid measures mandatory
- The Member States should ensure that the NRAs are provided with sufficient resources and competences

Market definition

- Member States should have the possibility to combine fixed, mobile and backhaul networks in a single State aid scheme

Market Failure

- BEREC does not share the EC's view on the market failure definition
- Agreement with definition of white areas and the principle definition of grey areas
- Regime for black areas is likely to result in a severe distortion of competition and crowding out of private investment (save very specific circumstances)

Step-change

- White area: Agreement, however, taking into account mobile networks should be possible
- Grey area: Slight adaptation is necessary in order to ensure certainty for investment recovery on the existing networks
- Black areas: No need to define step-change

Design of wholesale access conditions

- Any State aid scheme should have wholesale access obligations attached to it
- All wholesale access products may be required in principle and NRAs should have the possibility to adjust the access obligations' portfolio

Design of wholesale access prices

- The pricing principles continue the current practice which is welcome
- However, it is important to adapt the wording slightly

NRA Guidelines for local authorities

- New provisions provide more flexibility for NRAs

Technological neutrality

- The technological neutrality principle is followed which is welcome
- However, in case of wholesale access obligations an unrestricted application of this principle seems not possible

Use of existing infrastructure

- If the scope of the revised BCRD is limited to VHCN, this may have a negative impact on State aid
- This needs to be considered in the revision of the BCRD

Reporting obligations

- The NRAs should also be a recipient of the report that Member States must submit to the EC every two years

Social and connectivity vouchers

- The possibility to issue social vouchers is welcome
- In case of connectivity vouchers, BEREC is of the view that it needs to be ensured that the potential negative impacts are minimized

Climate- and environmental impact

- Guidelines should also assist in specifying indicators for network operators to report the environmental impact of the planned network deployment and mitigating measures
- BEREC's and NRAs' expertise on the sector should be taken into account when defining these indicators

Final provisions

- An appropriate transition period should be foreseen in order to allow ongoing aid measures to be finalised under the current regime for reasons of legal certainty

GBER

- Needs to be aligned with the final EC Guidelines with regard to certain aspects

Main points of Part II of the BEREC response

The role of the BEREC GLs and EC provisions

- The State Aid Guidelines should recognize the purposefulness of Art. 20, 21 and 22 of the EECC in delivering information relevant to state aid notifications.
- The GSND (geographical surveys of network deployments) should be the primary source of data for state aid. Annex I of the draft SAG should complement the BEREC Guidelines on Art. 22 EECC.
- Granularity of information -> Alternatives to Annex I should be allowed until 21st of December 2023, in conformity with the expectations set in Art. 22 of the EECC.

Proportionality

- The information to support state aid interventions depends on the specificities. PAs should have the authority to design proportionate data requests.
- In many cases the GSND will prove sufficient for current networks and if available also for some planned deployments. The duplication of data requests should be avoided by all means.

Planned deployments and forecasts

- BEREC calls for additional standards which would enable the collection of less granular information, given that forecast data as detailed as required by Annex I would, in general, not be available for longer forecast periods.
- If data on future deployment plans is readily available in the GSND, BEREC sees no need to require (again) the information. The PC should be focused only on the validation of the existing results.

Others

- The Draft SAG should use the “premises passed” concept as defined in the BEREC Guidelines on Art. 22.
- BEREC seeks more clarity on the use and understanding of certain terms in the peak-time conditions characterization.

BEREC Report on regulatory treatment for fixed and mobile backhaul

BEREC Report on the outcome of the public consultation on the Draft BEREC Report on the regulatory treatment for fixed and mobile backhaul

MEA WG Co-Chairs (CNMC/ARCEP) - Jorge Infante, Chiara Caccinelli

Body of European Regulators
for Electronic Communications

BEREC

The logo for BEREC (Body of European Regulators for Electronic Communications) features the word "BEREC" in a bold, sans-serif font. The letters "B", "E", "R", and "E" are in a dark blue color, while the "C" is in a dark red color. A thin, dark blue curved line starts under the "R" and sweeps under the "C", ending under the "C".

Context

- Motivation:
 - Backhaul especially relevant for deployment of 5G and VHCN in rural/remote areas
 - New EC recommendation on relevant markets addresses mobile backhaul
- Based on two comprehensive questionnaires for NRAs and operators sent in April 2021: 35 responses from NRAs and 60 responses from Operators
- Workshop with stakeholders' associations organised by BEREC in June 2021
- Open to public consultation 5th October-5th November 2021

Public consultation

- Public consultation from 4 October to 5 November 2021
- 11 responses (no confidential responses, all published in the BEREC website):
 - Associations: BREKO, FTTH Council Europe, ECTA, ETNO and ELFA
 - Operators: Open Fiber (Italy), Liberty Global (The Netherlands), Deutsche Telecom (Germany), GasLine (Germany), Deutsche Glasfaser (Germany), and the Vodafone Group

Summary feedback from stakeholders

- **Some stakeholders considered that there is no need to regulate backhaul for different reasons (not included in the RRM, BCDR is enough, may inhibit investment), while others pointed out a need for regulation in case of doubt**
 - BEREC: Case by case analysis (NRAs). 3CT. Retail mobile markets: apply modified Greenfield approach. BCDR: depends on national circumstances. Maintaining regulation must be justified.
- **Comments on Italian and German cases**
 - BEREC: Refer to the corresponding NRAs.
- **More fine-grained analysis on type of operators and NRAs regulation**
 - BEREC: Data collected does not allow for distinguishing among other type of operators, and the report is focused on a comprehensive view.
- **Common position: mixed views (market not in RRM is beyond BEREC tasks; need prepare a CP in an early stage)**
 - BEREC: CPs not necessarily on markets in the RRM. Need for best practices applying RRM to build a robust CP, so no CP not envisaged at the moment.

Outcome of the public consultation

- BEREC thanks stakeholders for their input
- In general, responses were focused on the general case for regulating backhaul. BEREC considers that a case by case analysis is needed.
- Final report: Adapt some wording to avoid misunderstandings and footnotes regarding being cautious on the input provided by operators part of a group.