ANNUAL REPORT TO MEMBERS & OBSERVERS – ETNO IN 2016

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1. IN SUMMARY: THE YEAR OF THE TELECOMS REFORM

2016 was no regular year for the telecoms industry in the European Union. After many years of discussions and after lengthy policy debates, the European Commission gave birth to the **historic reform of the EU telecoms framework**.

While ETNO continued to follow a broad range of issues, the strategic focus of the Office and Membership was on the reform. The presentation of the Electronic Communications Code in September 2016 marked a milestone for the industry, with the European Commission prioritising **investment in new broadband networks** – with a specific accent on 5G and superfast broadband, especially fibre.

At the same time, the ETNO community continued growing in terms of visibility, reputation and numbers. ETNO confirmed itself as the most visible EU telecom associations in international and specialised media, independent surveys ranked it at the top for political influence (Cambre, 2016) and the membership positively evolved. Vivacom (Bulgaria) was appointed to the Executive Board during the November General Assembly and, at the same time, Qualcomm joined as a new observer.

Over 2016, ETNO maintained the promise of **engaging on more than just core telecoms regulation**. We lead an industry coalition on connected and automated driving and shaped the 5G debate with a dedicated ETNO taskforce. Beyond that, we published key studies and showed thought-leadership on a varied series of issues, including ePrivacy.

ETNO – in collaboration with its core media partners such as the Financial Times, Politico Europe and MLex – confirmed itself as the **main telecoms conferences organiser** on the Brussels scene, gathering hundreds of European officials and industry experts to leading events.

2. ETNO EVENTS AND NETWORKING OPPORTUNITIES

a) 16-18 May ETNO Executive Board Delegation to Washington D.C.

In the view of policymakers, on both sides of the Atlantic, currently being in the process of reviewing out-date policies and rules in light of technological, societal and market developments, an ETNO Executive Board Delegation went to Washington D.C. to meet with policy-makers and business representatives. It took off in the view of the cross-fertilisation of the debate between US and the EU, with topics being raised on the two sides of the Atlantic respectively.

During the 3-days delegation, the following topics were discussed:

- Telecoms laws: the Title II debate vs. the Telecoms Framework review
- Privacy & Security: encryption, interceptions, transatlantic cooperation, privacy shield and other privacy initiatives
- Open Internet: 1 year into the FCC's ruling & the EU's regulation

- TTIP: status of the negotiations
- IANA Transition & New ICANN governance: views from DC

The Delegation met with representatives from the FCC (Federal Communication Commission), Facebook, AT&T, The EU Delegation to the US, Google, USTelecom, Verizon, NTIA (National Telecommunications & Information Administration), ISOC (Internet Society) and ComCast.

b) 24 May ETNO-MLex Regulatory Summit 2016 – regulating for the user of the future

The 5th ETNO-MLex Regulatory Summit on the upcoming revision of European telecom rules

With the European Commission's upcoming presentation of a new set of rules for the European telecom sectors ETNO and MLex gathered stakeholders to discuss the implications of the revision.

ETNO once again partnered with MLex, the leading provider of insight, analysis and commentary to regulation and competition specialists in Europe, the US, Brazil and China.

In its fifth successful year, the ETNO-MLex Regulatory Summit once again provided a platform for up to 200 high-level delegates, representing telecom operators, the EU institutions, regulators, academics, investors and other industry stakeholders, to discuss key EU regulatory issues.

The Summit covered the topics: needs of customers, investment, innovation & 5G and future-oriented EU laws.

Keynote speakers:

Steven Tas, Executive Board Chair, ETNO

Roberto Viola, Director-General, DG Connect, European Commission

Panelists:

Michal Boni, Member of the European Parliament

Erik Debroeck, Senior Vice President, Group regulatory affairs, Orange

Antonio De Tommaso, Co-Chair, BEREC Expert Working Group "Regulatory Framework" & Director of EU and International Affairs Service, AgCOM

Lise Fuhr, Director General, ETNO

Justin Funnel, Analyst, Credit Suisse

Jos Huigen, Director Regulatory and European Affairs, KPN

Danielle Jacobs, Chair, International Telecommunications Users Group (INTUG)

Erik Jonnaert, Secretary General, European Automobile Manufacturers' Association (ACEA)

Kamila Kloc, Deputy Head of Cabinet, Vice-President Andrus Ansip, European Commission

Wolfgang Kopf, Senior Vice President of Group Public and Regulatory Affairs, Deutsche Telekom

Matthias Kurth, Executive Chairman, Cable Europe

Phillip Malloch, Vice-President – Head of Group Public Affairs, Telia Company

Enrique Medina Malo, Chief Regulatory Officer, Telefonica

Thomas Myrup Kristensen, Managing Director EU Affairs, Facebook

Markus Reinisch, Director Public Policy, Vodafone Group

Moderated by Magnus Franklin, Chief Telecoms Correspondent, Mlex

More information:

hashtag #ETNOMlex

Link to the event: https://etno.eu/events/2016/628

c) 21 June Digital4Smarties - Workshop 1

An exclusive stakeholder consultation co-organised by ETNO and EU40

With the upcoming proposal on new rules for the telecom sector by the European Commission, ETNO together with <u>EU40</u>, the network of young Members of the European Parliament, set up a workshop. It was the first among a new series of events within the format Digital4Smarties, an exclusive stakeholder consultation.

The event was co-hosted by MEPs Pilar del Castillo (EPP), Lambert van Nistelrooij (EPP), and Miapetra Kumpula-Natri (S&D). It provided an opportunity for potential rapporteurs and shadows to discuss the content of the package.

Speakers:

Members of the European Parliament;

Principal policy advisors to political groups;

ITRE and IMCO Secretariat;

Representatives from the Cabinets of Commissioners Oettinger and Ansip (DG CONNECT);

Representatives from DG Competition/ DG Growth;

Industry stakeholders;

Parliamentary assistants working on the telecoms reform package.

Moderated by Philippe Defraigne, CULLEN International as knowledge partner.

More information:

hashtag: #EUtelcoR

Link to the event: https://etno.eu/events/2016/663

d) 27 September FT-ETNO Summit 2016

Reform and Progress: The role of telecoms in a digitising world

The FT-ETNO Summit took place in Brussels in October 2016 for the 7th successful year and gathered leading policymakers, regulators, industry executives and investors from Europe and beyond to discuss and debate the direction of sector reform proposals, and their impact on the role of telecoms in the rapidly developing communications space.

The topics under discussion included the following questions:

- As the world globalises and technologies converge, is Europe able to compete against other leading markets, and can it nurture much needed, home-grown innovation?
- How resilient will the single market prove to be post Brexit?
- Is it possible to focus on both network innovation and customer experience?
- Will the prospect of increased regulation scare off tech leaders, or promote partnerships with European incumbents?
- Looking at the progress of telecom law reforms, how can Europe become a more attractive investment destination?
- How should dramatic changes in technology be translated into policy?

Opening keynote:

Jennifer Blanke, Chief Economist, World Economic Forum

Keynote speakers:

Andrus Ansip, Vice-President for the Digital Single Market, European Commission

Günther Oettinger, Commissioner for Digital Economy and Society, European Commission

Sébastien Soriano, Incoming 2017 Chairman, BEREC

Dan Thomas, Assistant Companies Editor and former Telecoms Correspondent, Financial Times

Steven Tas, Executive Chairman, ETNO

Panel: How are communications providers evolving business models and engaging with the broader value chain?

Andrus Ansip, Vice-President for the Digital Single Market, European Commission

Carlo D'Asaro Biondo, President of Strategic Relationships for Europe, the Middle East & Africa, Google

Gavin Patterson, CEO, BT Group

Giuseppe Recchi, Executive Chairman, Telecom Italia

Moderator: Nic Fildes, Telecoms Correspondent, Financial Times

Industry interview: Lessons in innovation, across continents and into technology

Derek Aberle, President, Qualcomm

Ryan Ding, President, Products & Solutions, Huawei Technologies

Jeffery McElfresh, President, DIRECTV Latin America, AT&T Services

Moderator: Daniel Thomas, Assistant Companies Editor and former Telecoms Correspondent,

Financial Times

European markets and the freedom to invest

Karim Nasr, CEO, Digital World Capital

Henrik Nyblom, Equity Analyst, Schroders Investment Management

Gervais Pellissier, Deputy CEO and Executive Director of European Operations, Orange

Roberto Viola, Director General, DG Connect, European Commission

Roger Wilkinson, Investment Leader, Global Research, Newton Investment Management

Moderator: Stephen Howard, Head of Global Telecoms, Media and Technology Research, HSBC

Panel: Europe's new telecoms laws

Dominique Leroy, CEO, Proximus

Mike Fries, CEO, Liberty Global

Günther Oettinger, Commissioner for Digital Economy and Society, European Commission

Moderator: Daniel Thomas, Assistant Companies Editor and former Telecoms Correspondent, Financial Times

Closing remarks

Nic Fildes, Telecoms Correspondent, Financial Times

More information:

Link to the event: https://live.ft.com/Events/2016/FT-ETNO-Summit-2016

View the presentation of Jennifer Blanke's Reform and Progress: The role of telecoms in a digitising

world here: https://etouches-

appfiles.s3.amazonaws.com/html_file_uploads/8c563d944b704b55aa1e41e7c4caaa37_FT-ETNO-Summit-Jennifer-Blanke.pdf?response-content-disposition=inline%3Bfilename%3D%22FT-ETNO-

Summit-Jennifer-Blanke.pdf%22&response-content-

 $\frac{type=application\%2Fpdf\&AWSAccessKeyId=AKIAJC6CRYNXDRDHQCUQ\&Expires=1494236015\&Signat\\ure=\%2FiC1n3CLsQXSIETMHQUP5Q9KSc8\%3D}{}$

Read the speech of the ETNO Executive Board Chairman here:

https://etno.eu/datas/press_corner/speeches/FT_ETNO_2016_ST_SPEECH.pdf

e) 4 November ETNO #ThinkDigital Workshop

At its 52nd General Assembly, ETNO organised a #ThinkDigital Workshop on digital networks & competitiveness, broadband regulation and the conditions for innovating in a 5G world. During the workshop the new BCG Report "Building the Gigabit Society: An Inclusive Path Toward Its Realization" was presented by Wolfgang Bock, Senior Partner & Managing Director at BCG. The event gathered business representatives and policy makers in joint discussions in two roundtables.

Speakers:

Dominique Leroy, CEO, Proximus

Markus Beyrer, Director-General, Business Europe

Gail Kent, Deputy Director-General, DG Connect

Roundtable: Regulating for inclusive broadband

Kamila Kloc, Deputy Head of Cabinet, Vice-President Andrus Ansip

Jack Hamande, President, BIPT

Steven Tas, Executive Board Chairman, ETNO

Michał Boni, Member of the European Parliament (EPP, PL)

Moderator: Magnus Franklin, Chief Telecoms Correspondent, MLex

Roundtable: Innovating in a 5G world

Jean-Pierre Bienaimé, Secretary General, 5G Infrastructure Association

Markus Borchert, Senior Vice President Market Europe, Nokia

Pearse O'Donohue, (Acting) Director of our Future Networks Directorate, DG Connect

Lise Fuhr, Director General, ETNO

Moderator: Julia Fioretti, Reporter, Reuters

f) 30 November ETNO-Politico Connectivity Summit

The joint ETNO-Politico Summit looked at the potential of 5G for transforming the EU's economy, the obstacles to rapid development and deployment and the steps needed to enable the EU to become a world leader in the next generation of telecoms technology.

Lise Fuhr, Director-General, ETNO, delivered the Opening remarks.

The event involved the following panels and speakers:

CETPanel: Reaching the Objective: the role of business and policy

Michal Boni, MEP

Björn Ekelund, Director, Ericsson Research

Dino Flore, Director General, 5G Automotive Alliance (5GAA) and Chairman of 3GPP RAN

Pierre Louette, Chief Executive Officer Delegate, Orange

CETPanel: 5G and the World

Miapetra Kumpula-Natri MEP

Paul Rûbig MEP, Vice-Chair of Delegation for relations with the Korean Peninsula

Maziar Nekovee, 5G Group Leader and Chief Engineer, Samsung Electronics

CETPanel: Sharing Spectrum

Luukas Kristjan Ilves, Counsellor for Digital Affairs, Permanent Representation of Estonia to the EU

Anna Krzyżanowska, Head of Unit "Investment in High-Capacity Networks", DG CNECT, European Commission

Markus Reinisch, Group Public Policy Director, Vodafone

CETClosing interview: Stories of innovation: Entertainment, Imagineering and All Things Digital

Matteo Gatta. Technology Strategy & Innovation Director, Proximus

More information:

Link to the event: http://www.politico.eu/event/connectivity-summit-5g-a-driver-for-digital-change/

Hashtag: #ConnectivitySummit

g) 15 December Presentation of the ETNO-IDATE Annual Economic Report

The State of EU telecoms & the gigabit ambition

ETNO together with IDATE, the digital economy think-tank, presented their Annual Economic Report on European telecoms.

The report described the state of the art for the sector and presented consolidated figures from 2015, as well as projections for 2016 and the coming years. The facts and figures presented in the report are highly relevant to the on-going policy debate on creating a European gigabit society.

On the occasion of the launch of the report, a lunch debate "From data to policy: an open discussion" was organised on the theme "The State of EU telecoms and the gigabit ambition". The discussion covered the theme of the fundamentals of the telecoms sector, including market and investment trends, broadband technologies as well as internet usage patterns and take-up of digital services.

Speakers:

François Barrault, Chairman of the Board, IDATE

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Anna Krzyżanowska, Head of Unit, Investment in High-Capacity Networks, DG Connect, European Commission

Giovanni Montalti, Executive Director, European Telecom Equity Research, UBS

Steven Tas, Executive Board Chairman, ETNO

Moderated by Alessandro Gropelli, Director of Communications, ETNO

More information:

The full Annual Economic Report can be downloaded <u>here</u>.

3. MAIN COLLABORATIONS / THIRD-PARTY EVENTS

a) 16-18 February: FTTH Conference 2016, Luxembourg



The FTTH Conference 2016 was held in Luxembourg from 16 to 18 February. Organised by the FTTH Council Europe, the annual edition involved a Workshop Day as well as Conference sessions and Exhibition. It is the largest FTTH event in the world providing a unique networking opportunity with over 3,000 participants from 85 countries.

Lise Fuhr represented ETNO on the panel on access regulation.

Link to the event: https://etno.eu/events/2016/571

b) 20-21 April: Net Futures

Lise Fuhr, ETNO Director General, spoke at the NET FUTURES conference, organised by the European Commission.

The conference wishes to maximize competitiveness of the European technology industry. It gathered over 1.000 attendees, to form an interconnected community involving companies, organizations and people in Research & Innovation, Market Validation & Living Lab Research, Business Development, Entrepreneurship & Enterprise Strategy, and Policy Making.

The conference was sponsored by ETNO, Telefonica, Ericsson, GSMA, and EIT Digital among others.

Topics that were discussed included parallel tracks on:

- Developing standards & Interoperability
- Making the most of the Data Economy
- Democratising the Internet

Mrs Fuhr spoke at the Opening Plenary about the top priorities of the Telecoms review. Mrs Fuhr focused on the topics of deployment of broadband, how to help the investment environment and how to make innovative services for citizens. The other speakers of the Opening Plenary were European Commission Vice-President Andrus Ansip, Mats Granryd, Director General GSMA, Jim Kurose, Assistant Director of the National Science Foundation (NSF) in the US, and Susana Sargento, Professor DETI in University Aveiro, Veniam Co-Founder. The session was moderated by Karen Boers, Director Startups.be.

More information:

Link to the event: http://netfutures2016.eu/

Video of Lise Fuhr's speech about network investment and innovation: https://etno.eu/home/news-room/pictures-videos/past-events/?key=1963-19843566495442ed035dcba468ad7626

c) 21 September: FT Cyber Security Summit Europe 2016 - Fighting back against the cyber aggressors

The third annual FT Cyber Security Summit Europe explored the dangers facing companies large and small. It provided a platform for experts from businesses, software firms, public sector organisations, consultants and research institutes to discuss the big question of the day: how do you protect corporate systems, communications and information (including customer data) from cyber aggressors?

ETNO sponsored the event.

More information:

Link to the event: https://live.ft.com/Events/2016/FT-Cyber-Security-Summit-Europe-2016?reference=etno&utm_campaign=2016pftcybersecuritysummiteurope&utm_medium=etno&utm_source=emh

4. THE #THINKDIGITAL BLOG & VIDEOS

The series of #ThinkDigital interviews and blog posts gives ETNO the opportunity to speak to a few essential stakeholders from across the digital value chain. This year, video interviews with key stakeholders was added as a feature to the #ThinkDigital series.

The aim of this series is to gather views from all players on a wide range of topics related to the creation of a modern, smart digital society capable of competing at a global level and delivering topnotch services to citizens, consumers, governments and businesses alike.

All material is available on the ETNO #ThinkDigital Blog www.think-digital.eu

04 a) 'THINK DIGITAL' INTERVIEWS

The 2016 #ThinkDigital posts included opinions on broadband investment, spectrum policy, the Digital Single Market, IoT and trust, as well as digital skills and many more.

For direct access to each interview, please click on the links below:

1. 4 February: Creating a successful Digital Single Market

https://etno.eu/news/etno/2016/844

In this ETNO #ThinkDigital interview, MEP Barbara Kappel discussed the review of the current telecom framework and the Digital Single Market Strategy: "The review should be about a real, free framework for competition".

2. 18 February: Speed, latency, content, ubiquitous coverage: Pleasing today's Digital consumer

https://etno.eu/news/etno/2016/847

In this ETNO #ThinkDigital interview, Matthias Kurth, Executive Chairman of Cable Europe spoke about the role of cable operators in broadband investment and what matters most to consumers: "The best stimulus for broadband growth is an investor-friendly climate, teamed with a fading out of regulatory constraints where competition is alive and well."

3. 14 April: Making 5G a reality for the connected consumer

https://etno.eu/news/etno/2016/861

In this ETNO #ThinkDigital interview, Andreas Geiss, Head of Unit for Spectrum Policy in DG CONNECT discussed spectrum policy and how to ensure widespread, high-speed and reliable connections: "5G is much more than just higher speeds, it is about new services and business cases (the verticals). Connected vehicles, remote health care and smart cities are just a few examples of the wider scope we are looking at."

4. 28 April: Altice Labs showcasing innovation at the Net Futures 2016 event

https://etno.eu/news/etno/2016/863

On the occasion of the Net Futures 2016 event, ETNO interviewed Helder Biscaia, Director of Business Development at Altice Labs, the innovation arm of Portugal Telecom on the benefits of IoT for users and to ensure trust, and innovation among telecom providers.

5. 30 June: Embracing the Digital Economy and the changes it brings

http://www.think-digital.eu/?n=2016/877

In this ETNO #ThinkDigital interview, Christina Colclough, Head of EU Affairs, Uni Europa discusses digital skills and how companies can embrace digitisation while ensuring their employees keep up. "We need to look at the Digital Economy and everything it brings with it in terms of potential and challenges, of new business models, of changing customer behaviour, but also in terms of actually making our societies work on the social, economic and environmental levels."

04 b) 'THINK DIGITAL' VIDEOS

1. Phillip Mallock, Vice-President – Head of Group Public Affairs, Telia Company

https://etno.eu/home/thinkdigital-blog/thinkdigital-videos/phillip-malloch-thinkdigital-video

In this ETNO #ThinkDigital video interview, Phillip Mallock, Vice-President – Head of Group Public Affairs, Telia Company shares his thoughts on 5G from a business viewpoint and what it means for how their networks are structured and augmented to serve different customer usage points.

2. June: Kamila Kloc, Deputy Head of Cabinet, Vice-President Andrus Ansip, European Commission

In this ETNO #ThinkDigital video interview, Kamila Kloc, European Commission, shared her view on how different stakeholders have developed their understanding for the importance of having spectrum coordination. She shares her hopes for a high level of ambition the negotiations between The European Parliament, the Council and also the European Commission.

3. June: Jos Huigen, Director Regulatory and European Affairs, KPN

https://etno.eu/home/thinkdigital-blog/thinkdigital-videos/jos-huigen-thinkdigital-video-june-2016

In this ETNO #ThinkDigital video interview Jos Huigen, KPN, shares his thought on investment needed to ensure a Gigabit Society and how to recoup them. For this, it is of vital importance that all players involved know what the future regulations will look like – for them, but also that there will be a regulatory level playing field between all players involved. This is in the interest of users.

4. June: MEP Michal Boni

https://etno.eu/home/thinkdigital-blog/thinkdigital-videos/MEP-Boni-thinkdigital-video-june-2016

In this ETNO #ThinkDigital video interview MEP Boni, explains why he views the main aim of the telecom review as to ensure high-qualified connectivity to all users. He discusses why more proinvestment regulation, certainty and long-term, future-proof solutions are needed. There is a need for much more flexibility, co-regulation and better competitive conditions for the European telecoms markets. This is for the future, for 5G, for huge investments and for users.

5. June: MEP Gunnar Hökmark

https://etno.eu/home/thinkdigital-blog/thinkdigital-videos/MEP-Hokmark-thinkdigital-video-june-2016

In this ETNO #ThinkDigital video interview, MEP Gunnar Hökmark, gives his view on coordinated networks: "I want European coordinated nets: meaning that we can all over Europe have the same telecom services giving us the best mobile broadband in the world, highest capacities and in the lead regarding 5G. That's best for European citizens."

6. June: Liz Williams, Director of Tech Literacy and BT Education, BT

https://etno.eu/home/thinkdigital-blog/thinkdigital-videos/Liz-Williams-thinkdigital-video-june-2016

In this ETNO #ThinkDigital video interview, Liz Williams, Director of Tech Literacy and BT Education, BT explains what by BT is called at the "tech literacy paradox" and why it matters. Further she discusses how to build a culture of tech literacy where tech skills are valued alongside numeracy and literacy.

7. June: Lise Fuhr, Director General, ETNO

https://etno.eu/home/thinkdigital-blog/thinkdigital-videos/lise-fuhr-thinkdigital-video-june-2016

In this ETNO #ThinkDigital video interview, Lise Fuhr, Director General, ETNO gives her view on what is required in order to reach the goals of 5G, of the Internet of Things, and of the Digital Single Market in general. We need a regulation that is simpler, that is more pro-investment, and that is future-oriented. ETNO is a strong believer that the telcos are a very important part of an ecosystem and that to reach 5G we need to work together with the other players of this ecosystem.

8. September: Cristina Vela, Senior Advisor, Telefonica

https://etno.eu/home/thinkdigital-blog/thinkdigital-videos/cristina-vela-thinkdigital-videoseptember-2016

In this ETNO #ThinkDigital video interview, Cristina Vela, Senior Advisor, Telefónica and Chair ETNO Data Protection, Trust & Security WG, gives her view on data protection and privacy and how they can build trust and confidence as well as drive the uptake of new digital services. With the adoption of the General Data Protection Regulation the proposed ePrivacy Regulation is also discussed.

9. September: MEP Lambert Van Nistelrooij

https://etno.eu/home/thinkdigital-blog/thinkdigital-videos/lambert-van-nistelrooij-thinkdigital-video-september-2016

In this ETNO #ThinkDigital video interview, MEP Lambert Van Nistelrooij gives his view on the upcoming review of the telecom framework and what the role of telecoms will be in delivering services.

10. September: MEP Miapetra Kumpula-Natri

https://etno.eu/home/thinkdigital-blog/thinkdigital-videos/Miapetra-kumpula-natri-thinkdigital-video-september-2016

In this ETNO #ThinkDigital video interview, MEP Miapetra Kumpula-Natri gives her view on how to use European innovation for the creation of jobs. Additionally she also discusses the need for connectivity and access to Internet for everyone.

11. September: Steven Tas, Executive Board Chair, ETNO

https://etno.eu/home/thinkdigital-blog/thinkdigital-videos/steven-tas-thinkdigital-video-september-2016

In this ETNO #ThinkDigital video interview, Steven Tas, Executive Board Chair, ETNO, shares his thoughts on the opportunities that will come to life thanks to the interaction between innovation and ultrafast broadband networks as well as the massive scale-up in investments that will be required to ensure that Europe becomes a global leader in digital.

04 b) 'THINK DIGITAL' BLOGPOSTS

1. 27 January: Machines with a deeper understanding of digital content, big data as a solution to addressing greater societal challenges – telecom trends in 2016

https://etno.eu/news/etno/2016/842

In this ETNO #ThinkDigital blog post, Bjørn Taale Sandberg, Senior Vice President and Head of Telenor Research outlines his best guess at the six most important trending areas of 2016. These involve among others co-creation with customers, how big data will address societal challenges, Softwarisation, machines and Digital Content, as well as levelling out the playing field in the Digital Economy.

2. 9 February: Revising the regulatory framework for electronic communications

https://etno.eu/news/etno/2016/846

In this ETNO #ThinkDigital blog post, David Lewin, consulting director at Plum shares his ideas about the revise of the regulatory framework for electronic communications, with particular focus on the regulation of fixed broadband access. With this backdrop he answers the question of how the EU's regulatory framework should change so as to promote fixed access infrastructure investment and competition whilst preserving efficient service-based competition. "These proposals focus regulation on the right regulatory objective – the long-term interests of end-users."

3. 16 March: Dutch Presidency action plan to seize digital opportunities

https://etno.eu/news/etno/2016/853

In this ETNO #ThinkDigital blog post, Stefan Koreneef, Attaché for Telecom, Digital Agenda and Postal at the Permanent Representation of the Netherlands to the EU shares the priorities of the Dutch EU Presidency. He also shares the agenda with a wide range of events in Brussels and in Amsterdam to discuss the impact and opportunities of digital: from cyber security to eHealth, from e-commerce to quantum technologies. "Connecting sectors as the only path to transformation in Europe".

4. 29 April: Aiming for the highest innovative standards in Europe

https://etno.eu/news/etno/2016/864

In this ETNO #ThinkDigital blog post, ETNO shared its thoughts after the Net Futures 2016 event, hosted by DG CONNECT's Mario Campolargo, Director "Net Futures". In line with the Commission's strategy, the event focused on digital innovations and ETNO, the association representing Europe's leading telecom operators was very proud to be part of this future-looking gathering. "The huge growth potential of the Internet of Things depends on ability to roll-out superfast broadband networks."

5. 27 May: Member States go pro-innovation and pro-investment

https://etno.eu/news/etno/2016/869

In this ETNO #ThinkDigital blog post, Lise Fuhr, Director General, ETNO writes about the positive developments following the Digital Single Market Strategy. She also comments on the observation of many stakeholders taking position, such as a group of Member States wrote a letter to fellow ministers to underline the importance of completing the Digital Single Market.

6. 31 May: A new framework for the future connectivity of European users

https://etno.eu/news/etno/2016/870

In this ETNO #ThinkDigital blog post, Michal Boni discusses the digital revolution and the need to build a new digital competitive advantage for the European Economy and Development in the interest of all. He notes that the key is to ensure access of all users to high-qualified connectivity. "Today, we have to respond to the new challenges. We need to re-balance the models of infrastructure-based and service-based competition".

7. 6 June: Audiovisual Media Services in Europe - Adapting rules to the new innovative landscape

https://etno.eu/news/etno/2016/872

In this ETNO #ThinkDigital blog post, Caterina Bortolini, Legal/Regulatory advisor, Telecom Italia and Digital Single Market Working Group Chair, ETNO together with Marta Capelo Gaspar, Director of Public Policy, ETNO present their view on the proposed update to the current EU Audiovisual Media Services (AVMS) rules by the European Commission. "It is important that the new framework does not impose unnecessary regulatory burdens on players in areas where self-regulatory initiatives are already effectively implemented."

8. 23 June: Messaging Apps, SMS, Voice or Internet calls? Preferences vary among 16-35 year olds

https://etno.eu/news/etno/2016/875

In this ETNO #ThinkDigital blog post, Bjørn Taale Sandberg, Head of Telenor Research, presents the new Digital Frontrunners study by Telenor. The study surveyed "digital frontrunners" - digitally advanced young people who use Internet on their mobile phones - from Thailand, Malaysia, Pakistan, Norway, Sweden, Serbia, and Hungary. "The survey shows that the preferences differ from market to market. Traditional telco services like voice calls and SMS are still an important part of communication habits in most of the surveyed countries".

9. 1 September: ePrivacy Directive called into question: time to move forward

https://etno.eu/news/etno/2016/881

In this ETNO #ThinkDigital blog post, Prof. Dr. Patrick Van Eecke and Raf Schoefs from the Global law firm DLA Piper takes a deeper look into to the arguments supporting the long term goal of repealing the ePrivacy Directive to the benefit of consumers.

5. STUDIES AND REPORTS

1. February 2016: Fostering investment and competition in the broadband access markets of Europe

ETNO, the Association representing Europe's main telecom operators, has published a new report by Plum, the leading telecoms consultant. The report, "Fostering Investment And Competition In The Broadband Access Markets Of Europe", considers how best to change the EU Telecoms Regulatory Framework.

Despite telecom operators' sustained investment efforts, Plum identifies a gap in investment in high-speed broadband infrastructure and concludes that the current set of rules "has played a significant role in creating an investment challenge for Europe". A series of policy measures could be put forward to achieve long-term consumer welfare and innovative markets however.

In the report, Plum sets out a series of key principles that should shape the revised Framework, so as to stimulate investment and infrastructure-based competition in the supply of fixed broadband infrastructure.

Plum finds that sound regulation should be grounded on the interest of end users and on competitive outcomes in retail markets, rather than on notional wholesale markets.

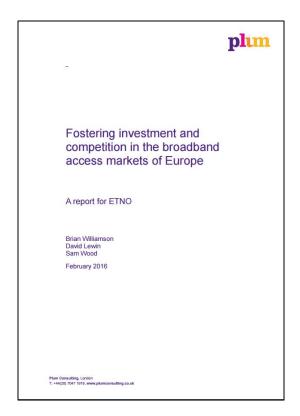
For this reason, it recommends that:

- Long-term customer interest should be the single objective given to National Regulatory Authorities
- If there is effective competition in a retail market, wholesale regulation should be withdrawn

Plum also identifies regulatory principles that would stimulate market players to invest and innovate more.

For this reason it suggests that:

- Voluntary commercial agreements should be encouraged and, whenever possible, take precedence over regulated outcomes ('ex post' oversight by sector regulators)
- Regulation should remain technology-neutral, allowing operators to invest in the most efficient technology
- Operators who wish to do so should be allowed the freedom to switch-off of legacy networks
- Regulation should be significantly simplified and in principle be limited to one single access product



Read the Press Release here: https://etno.eu/news/etno/2016/845

Download the report here:

https://etno.eu/datas/publications/studies/PlumStudy2016.pdf

2. May 2016: ETNO Policy Paper Towards a new Telecoms Framework

This Policy Paper summarises the ETNO position on the Review of the Telecoms Framework. The EU telecoms regulatory framework played an important role in the context of the liberalisation of formerly monopolistic telecommunications markets.

Since then, markets have changed dramatically, with the emergence of new players, convergence in technology and services, and radically different patterns of consumer behaviour. Today, increased choice and innovation provide citizens and businesses with a wide range of choice of services, at affordable prices.

The market dynamics show a continuing trend of transformation in a fast-paced and rapidly changing environment.

ETNO welcomes the drive of the European Commission to conduct a review aimed at dealing with the current policy challenges, acknowledging the more complex market structure and increased competition between different technologies and services in telecom markets.

A new set of rules is required to address barriers to innovation, investment in network

deployment and to operate across markets, thereby enabling the provision of better services for citizens and businesses.



Download the report here:

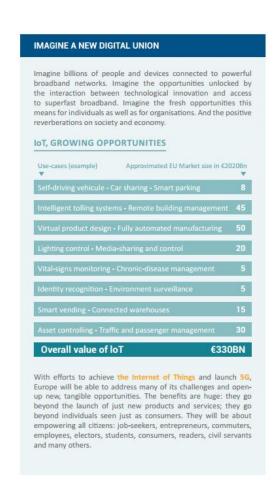
https://etno.eu/datas/publications/studies/2016 Summary TelcoFrameworkReview.pdf

3. May 2016: ETNO study A new digital Union, What's in it for citizens with IoT and 5G

Read ETNO's vision for a digital Union. This paper highlights how telecom networks will be the backbone of the new digital Union. Super-fast and ubiquitous networks access is a prerequisite to all the innovative applications, products and services. The European Union should accelerate its efforts to lay the basis for the new digital Union now.

European policymakers and governments have a crucial role to play: smashing barriers to investment and innovation. Putting the focus on networks, among other things, is an important step towards achieving a fully digitalised Europe, in which both citizens and businesses are empowered to grow and prosper.

The current regulatory framework has created competitive markets. The new regulatory framework should let them work and deliver massive broadband deployment.







Download the report here:

https://etno.eu/datas/publications/studies/Narrative Final 2016.pdf

4. August 2016: ETNO Study on the revision of the ePrivacy Directive

ETNO has presented the new report prepared by the international law firm DLA Piper UK LLP (Brussels office). ETNO is calling for the European legislator to repeal Directive 2002/58/EC ("ePrivacy Directive"), which has been slated for review by the European Commission. Regulation 2016/679 ("General Data Protection Regulation" or "GDPR"), formally approved in April 2016, is meant to apply to all players offering services to European citizens, notwithstanding the sector they are active in, and aims to achieve a full and horizontal harmonisation in the area of privacy, based on the principle of technology neutrality and adapted to the needs of a digital society.

While ETNO fully supports this idea, it is convinced that such harmonised privacy area will not be realized as long as the ePrivacy Directive continues to exist next to the GDPR. Since the start of the GDPR discussions, and even prior to that, ETNO has expressed its request to repeal the e-Privacy Directive. ETNO believes that if the ePrivacy Directive were not to be repealed

and continues to exist next to the GDPR, there is a significant risk that legal uncertainty for consumers as well as telecom providers will continue to last, which is to be avoided at all cost.

Against this background, and further building on the results and findings of the previous study on the ePrivacy Directive in which DLA Piper came to the conclusion that there are solid arguments in support of repealing the ePrivacy Directive.

The upcoming review of the ePrivacy Directive is a unique opportunity:

- To build consumer trust by reducing the regulatory complexity of having a dual data protection regime whereby consumer face inconsistent and different privacy experiences for functionally-equivalent services;
- To achieve a true level playing field between telecom providers and other market players (such as for example providers of over-the-top services) in order to ensure that the same technologically neutral principles apply to all stakeholders; and
- To ensure a consistent application and enforcement of a single set of data protection principles valid in the same way throughout the entire European Union



Download the report here:

https://etno.eu/datas/publications/studies/DPTS_Study_DLA_04082016_ePrivacy_Final.pdf

5. November 2016: Building a Gigabit Society

ETNO has presented the new report prepared by BCG – the Boston Consulting Group. This report provides a practical perspective on how European telcos can contribute to achieving Europe's connectivity ambitions in an inclusive way.

The main finding of this new BCG report is that the best path towards the gigabit society lies in a technology-inclusive approach supported by a broad range of investment models. The objective is to ensure that no European territory is left behind, by connecting as many citizens as possible in the shortest period of time and with the best technology.

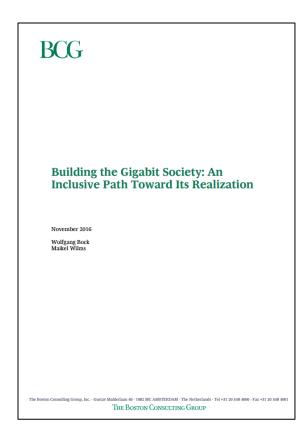
The BCG report finds that "connecting all households to a Very High Capacity (VHC) network by 2025 should be possible in combination with substantial 5G coverage by the same year". The condition is to use a mix of technologies and allow an increase of the annual network investment, financed by improved returns, by demand stimulation measures and by subsidies for challenging areas.

The BCG report finds that the required investment to fund the gigabit society vision is €660 billion if delivered via FTTH only. This includes €360bn to enable FTTH broadband for all European households, €200bn in 5G radio access networks as well as €100bn for low-latency proximity data centres.

This effort is expected to be funded mainly by private investment, even though at the current pace this would take up to 30 years. However, with the technology-inclusive approach proposed by BCG, the objective can be achieved by 2025. This requires both an investment-centric regulatory environment and improved returns on investment, to allow an additional annual investment of €10bn.

Lise Fuhr, ETNO Director General, said: "The gigabit society is a vision for universal access and fair participation into Europe's digital future. The investment effort of ETNO's companies can turn that vision into reality. The new Electronic Communications Code needs to incentivise a technology-inclusive approach supported by diverse investment models".

Wolfgang Bock, BCG Senior Partner & Managing Director, said: "The European Commission has recognised the crucial role of networks and has set ambitious connectivity goals. Mobilising the massive investment required is possible, but it depends on flexible regulatory and technological choices, tailored to local conditions".



Download the report here:

https://etno.eu/datas/ETNO%20Documents/Gigabit society final ETNO-BCG 2016.pdf

Read the Press Release here: https://etno.eu/news/etno/2016/892

6. December 2015: ETNO Annual Economic Report 2016

ETNO and IDATE, the digital economy think-tank, have presented their Annual Economic Report on European telecoms.

The report describes the state of the art for the sector and presents consolidated figures from 2015, as well as projections for 2016 and the coming years. The facts and figures presented in the report are highly relevant to the on-going policy debate on creating a European gigabit society.

In 2015, Capital Expenditure levels (CapEx) grew 4% with respect to 2014, bringing the total sector investment in EU28 to €47bn/year. ETNO member companies lead such investment effort, representing over 70% of the sector investment in fixed networks – or 60% of the total,

mobile and fixed. In Europe's 5 key markets (DE, IT, FR, ES, UK), ETNO members and cable companies amount to 83% of the fixed investment.

CapEx growth is good news for the EU, as companies and policymakers push to upgrade Europe's digital networks. However, there remains a significant investment challenge before the EU can achieve its 5G and gigabit society goals.

Good and stable revenues are vital to a sustainable investment environment. For this reason, it is positive to note how the industry bleeding seems to have stopped. Revenues growth perspectives, while far from booming, are expected to stabilize as from the end of 2016. EU28 service revenue growth should switch from negative to 0% in 2016, while turning slightly positive across the markets in which ETNO companies operate (+0,2%).

However, the gap with the United States remains significant, with EU telcos being expected to score €221bn annual revenues in 2016, compared to €306bn in the US.

As Europe gears up for launching 5G – the future technology integrating and fixed networks – encouraging data come from the Internet of Things (IoT) and Machine to Machine (M2M) world. According to IDATE, utilities, electronics, automotive and wellness are important sectors that will drive the IoT revolution. By 2025, IDATE expects more than 1.8 billion units to be connected, with utilities alone contributing 470 million units. Similarly, M2M will contribute with 3.6% of the total mobile revenues by 2020.

ETNO Chairman Steven Tas commented: "The on-going review of Europe's approach to regulation is essential to stimulate future investments in faster networks. With the right rules, we can support the creation of a European gigabit society".



ANNUAL ECONOMIC REPORT I 2016



Download the report here:

https://etno.eu/datas/publications/annual-reports/ETNO%20AER2016%20FINAL.pdf

Read the Press Release here: https://etno.eu/news/etno/2016/898

1. REGULATORY REFORM, INNOVATION AND INVESTMENT

11 January – ETNO statement

"Telecoms empower EU citizens' lives", Lise Fuhr starts her mandate as ETNO Director General

20 January – Press Release

<u>Digital Single Market - Investment & innovation in telecoms are crucial for Europe's growth</u>

04 February – ETNO Think Digital Interview

ETNO Think Digital Interview: Creating a successful Digital Single Market

04 February - Press Release

Telecom Reform - report proposes new focus on consumer welfare and innovation

09 February- ETNO Think Digital blog post

ETNO Think Digital blog post: Revising the regulatory framework for electronic communications

17 February – Position Paper

ETNO response to the Public consultation on the review of national wholesale roaming markets, fair use policy and the sustainability mechanism referred to in the Roaming Regulation 531/2012 as amended by Regulation 2015/2120

18 February – ETNO Think Digital Interview

ETNO ThinkDigital Interview - Speed, latency, content, ubiquitous coverage: Pleasing today's Digital consumer

03 March - Press Release

EU consultations: stakeholders stress role of powerful broadband

16 March- ETNO Think Digital blog post

ETNO ThinkDigital Blog: Dutch Presidency action plan to seize digital opportunities

21 March - Position Paper

RD423 - Review of the horizontal Consumer Protection Legislation

19 April – Press Release

Digital industrial leadership: telcos welcome new strategic approach

28 April – ETNO Think Digital Interview

ETNO ThinkDigital interview - Altice Labs showcasing innovation at the Net Futures 2016 event

19 May – Press Release

ETNO meets with US regulators and stakeholders

27 May- ETNO Think Digital blog post

ETNO ThinkDigital blog: Member States go pro-innovation and pro-investment

31 May - Press Note

ETNO Press Note: Leading Telecom CEOs meet with the European Commission

31 May- ETNO Think Digital blog post

ETNO ThinkDigital Blog: A new framework for the future connectivity of European users

31 May – Position Paper

RD429 - ETNO Position on Draft Directives on certain aspects concerning contract for the online and other distance sales of goods and of digital content

09 June - Joint Statement

UNI Europa and ETNO sign joint declaration on Telework

23 June- ETNO Think Digital blog post

ETNO ThinkDigital blog: Messaging Apps, SMS, Voice or Internet calls? Preferences vary among 16-35 year olds.

29 June - Press Release

European Single Market: ETNO supports positive digital reforms

30 June – ETNO Think Digital Interview

ETNO ThinkDigital interview – Embracing the Digital Economy and the changes it brings

06 July - Position Paper

Draft regulation on the cross-border portability of online content services

28 July - Position Paper

RD435 - ETNO comments on draft ECC Report 255

01 September – Joint Position Paper

<u>Public consultation for the Fitness Check of EU consumer and marketing law - Complementary Policy Paper of ETNO and GSMA</u>

09 September – Press Note

ETNO on Roaming Fair Use Clause

13 September – Joint Note

ETNO and GSMA note on the implementation of the Roaming Fair-Use Policy

14 September – Press Release

<u>Press Release: ETNO welcomes vision for a gigabit Europe, calls for further incentives for broadband roll-out</u>

27 September – CEO Statement

CEO Statement

19 October - Joint Statement

ETNO and GSMA members' position on the fair use limits in terms of volume

07 November – Press Release

New BCG report calls for inclusive gigabit society, €660bn required to reach the goal

15 December – Press Release

IDATE & ETNO unveil new Annual Economic Report on the European telecoms sector

2. OPEN INTERNET AND LEVEL PLAYING FIELD

06 April – Joint Position Paper

ETNO-GSMA Position Paper on the BEREC Guidelines for the implementation of the Open Internet provisions of the TSM Regulation (2015/2120)

25 May - Press Release

Online platforms: telcos stress importance of horizontal view of the digital value chain

06 June - Press Release

EU Open Internet Guidelines: let's not slow down our 5G ambition

19 July - Joint Position Paper

Joint Etno-Gsma response to the BEREC Open Internet Guidelines Consultation

3. COMPETITION AND TAX ISSUES

29 February – Position Paper

ETNO response to the EC consultation concerning empowering the national competition authorities to be more effective enforcers

10 May - Press Note

ETNO press note on German vectoring plans

06 June- ETNO Think Digital blog post

ETNO ThinkDigital Blog: Audiovisual Media Services in Europe - Adapting rules to the new innovative landscape

15 June - Position Paper

ETNO response to the Termination Rates Recommendation

01 July – Position Paper

RD431 - ETNO Contribution to the BEREC Draft Report on "Challenges and Drivers of NGA Rollout and Infrastructure Competition" - BoR (16) 96

01 July – Position Paper

RD432 - ETNO response to the public consultation on the draft BEREC common position on Layer 2 Wholesale Access Products - BoR (16) 95

14 July - ETNO Note

RD434 - Etno Note On Trade Negotiations

4. PRIVACY, TRUST AND NETWORK SECURITY

23 March - Position Paper

RD424 - ePRIVACY DIRECTIVE: FORTHCOMING REVIEW

14 April – Press Release

Data protection regulation a key milestone. Let's now move fast on ePrivacy

29 April – Position Paper

RD426 - ETNO response to the European Commission public consultation on the evaluation and modernisation of the legal framework for the enforcement of IPRs: intermediaries

03 May - Position Paper

RD427 - ETNO position on the proposal for an EU decision on the 470-2790 MHz band

08 May - Position Paper

RD428 - ETNO on GDPR implementation

05 June – Joint Statement

<u>Joint Industry Statement: Empowering trust and innovation by repealing the e-Privacy Directive</u>

20 June - Position Paper

D430 - ETNO position paper on Privacy Shield

01 September- ETNO Think Digital blog post

ETNO ThinkDigital Blog Post - ePrivacy Directive called into question: time to move forward

21 December - Press Release

e-Privacy Review: telcos warn that EU industry might be excluded from data economy

5. SPECTRUM MANAGEMENT, IOT, 5G AND CONNECTED DRIVING

27 January- ETNO Think Digital blog post

Machines with a deeper understanding of digital content, big data as a solution to addressing greater societal challenges – telecom trends in 2016

03 February – Joint Statement

Joint ETNO-GSMA Industry Statement on Harmonising Spectrum Use in the EU

22 February – Joint Statement

Automotive and telecom industries set joint priorities for connected and automated cars

23 February – Joint Statement

Joint Statement - 5G: tech and telecom industries support initiatives to put EU in the lead

06 April – Press Release

5G empowering vertical industries

14 April – ETNO Think Digital Interview

ETNO ThinkDigital interview - Making 5G a reality for the connected consumer

29 April- ETNO Think Digital blog post

ETNO ThinkDigital Blog: Aiming for the highest innovative standards in Europe

13 May - Press Release

ETNO promotes 5G fact-finding visit with the EBU

07 July – Press Release

<u>Press Release - 5G: ETNO endorses Industry Manifesto, stressing importance of collaboration and investment</u>

07 July – Joint Press Note

<u>Joint Press Note: Automotive and telecoms sectors to launch EU project for connected and</u> automated driving

28 July - Position Paper

<u>RD436 - ETNO Response to the RSPG consultation on "spectrum related aspects for next-generation wireless systems (5G)"</u>

10 November - Press Release

Spectrum: ETNO welcomes Parliament vote, calls for more ambition

14 December – Position Paper

RD437 - ETNO Position Paper for the Trilogue Negotiations on the UHF Band Decision

6. NAMING, ADDRESSING AND NUMBERING

22 January - Position Paper

RD420 - Comments on Draft ECC Recommendation (16)01 "3rd Party Access to Number Portability Data (NP Data)"

22 January - Position Paper

<u>RD421 - Comments on Draft ECC Report 248 "Evolution in CLI usage – decoupling of rights of use of numbers from service provision"</u>

7. INTERNET GOVERNANCE

11 March - Press Release

ETNO welcomes ICANN 55 decisions

26 September – Press Release

European telcos support a swift transition of IANA functions to ICANN

8. HUMAN RIGHTS, ENVIRONMENT, ANTI CORRUPTION

27 January - Communication on Engagement

<u>Communication on Engagement to the UN Global Compact and its ten Principles in the</u> areas of Human Rights, Labour, Environment and Anti-Corruption

1. ETNO WORKING GROUPS 2016

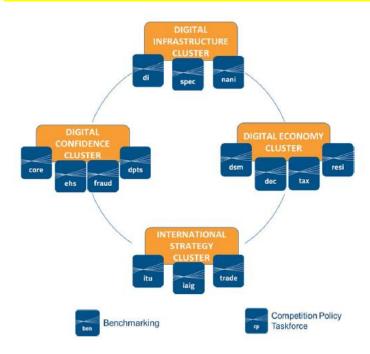
ETNO's Working Groups (WGs) - a key strength of the Association - cover a broad range of topics directly relevant to the business of telecom operators. The WGs are the engine of the Association and the bottom-up approach when formulating ETNO position papers ensures that all ETNO member interests are captured.

Increasingly, as issues, technologies and conversations converge, ETNO's working groups are working closer together, often within clusters, to ensure a good spread of knowledge and competency and allowing for more robust ETNO positions.

As from 2015, Working Groups operate in 4 main clusters: the digital infrastructure cluster, the digital confidence cluster, the digital economy cluster and the international strategy cluster.

Such structure ensures an interactive exchange between working groups, promotes a holistic approach to ETNO's policy positioning and it better reflects the current market and technology dynamics.

Note to designer: Create a graphic with the below diagram:



In 2016, the working groups contributed to all the main aspects of the Digital Single Market debate and to the Electronic Communications Code specifically, developing a comprehensive policy paper outlining the Association's priorities. They also worked proactively to develop concrete policy asks for the forthcoming review of the telecoms framework, including both access and services regulation, and competition policy.

The full list of ETNO Working Groups can be found online: https://etno.eu/home/working-groups/overview

ETNO WG Chairs in 2016



Chair: Thierry Denant (Orange), thierry.denant@orange.com

https://www.etno.eu/home/working-groups/benchmarking



Competition Policy Task Force

Chair: Marc Lebourges (Orange), marc.lebourges@orange.com

Vice-Chairs: Grania Holzwarth, Deutsche Telekom; Marta Vejseli, Telekom Austria

https://www.etno.eu/home/working-groups/competition-policy-task-force



Corporate Responsibility

Chair: Danilo Riva (Telecom Italia), danilo.riva@telecomitalia.it

https://www.etno.eu/home/working-groups/corporate-responsibility

Chair: Alena Trifirò (Telecom Italia), alena.trifiro@telecomitalia.it.

⇒ Child Protection Task Force

Chair: Pedro de Vasconcelos Gonçalves (Portugal Telecom),

pedro.v.goncalves@telecom.pt

https://www.etno.eu/home/topics/corporate-responsibility/child-protection



Data Protection, Trust and Security

Chair: Cristina Vela Marimon (Telefonica), cristina.velamarimon@telefonica.com

https://www.etno.eu/home/working-groups/data-protection-trust-security



Digital Economy and Consumers

Chair: Malte Firlus, Deutsche Telekom: malte.firlus@telekom.de

Vice-Chair: Luisa Rossi, Orange, luisa.rossi@orange.com



Digital Infrastructure

Chair: David Garcia Indurain, Telefonica <u>david.garciaindurain@telefonica.com</u>

Vice-Chairs: Manuel Braga, Deutsche Telekom Manuel.Braga-Monteiro@telekom.de

Volcy Lesca, Orange volcy.lesca@orange.com



Digital Single Market

Chair: Caterina Bortolini (Telecom Italia) caterina.bortolini@telecomitalia.it

Vice-chair: Sylvie Le Franc (Orange) sylvie.lefranc@orange.com

https://www.etno.eu/home/working-groups/digital-single-market



Employment, Health and Safety

Chair: Jean-Luc Godard (Orange): jeanluc2.godard@orange.com

https://www.etno.eu/home/working-groups/employment-health-safety



International Affairs and Internet Governance

Chair: Christoph Steck (Telefonica): christoph.steck@telefonica.com

https://etno.eu/home/working-groups/international-affairs-and-internet-governance



International Telecommunication Union

Chair: Dominique Würges (Orange), dominique.wurges@orange.com

https://www.etno.eu/home/working-groups/International-Telecommunication-Union



Naming, Addressing and Numbering

Chair: Donatella Chiara (Telecom Italia), donatella.chiara@telecomitalia.it

https://www.etno.eu/home/working-groups/naming-addressing-and-numbering



Network and Services Security, Fraud and Cybercrime

Chair: Samir Albadine (Orange): samir.albadine@orange.com

https://etno.eu/home/working-groups/network-and-services-security-fraud-and-cybercrime



Research and Innovation

Chair: Pierre-Yves Danet (Orange): pierreyves.danet@orange.com

https://www.etno.eu/home/working-groups/research-innovation



Spectrum (SPEC)

Chair: Anna Matsouka (OTE): amatsouka@ote.gr

https://www.etno.eu/home/working-groups/spectrum



Chair: Costanzo Perona (Telecom Italia), costanzo.perona@telecomitalia.it

https://www.etno.eu/home/working-groups/tax



Chair: David Frautschy Heredia (Telefónica), david.frautschy@telefonica.com.

https://www.etno.eu/home/working-groups/trade

2. ETNO ORGANISATION

General Assembly



- Chair: Dirk Lybaert, Chief Corporate Affairs Officer (Proximus)
- Vice-chair: Maja Mandic, Head of Legal, Regulatory & Compliance (Croatian Telecom)

Executive Board

Chair: Steven Tas, Director Regulatory; PROXIMUS

- Valeria Barbaro, Head of Brussels Office/Ivo Ivanovski Director International Regulatory & European Affairs; TELEKOM AUSTRIA GROUP
- Carlos Rodriguez Cocina, Head of Brussels Office; TELEFONICA

- Ramazan Demir, Chief Regulation Officer; TÜRK TELEKOM
- Roland Doll, Executive Vice President International Government Relations; DEUTSCHE TELEKOM
- Luigi Gambardella, Vice-President, Public and Economic Affairs Relations; TELECOM ITALIA
- Vianney Hennes, Head of Brussels Office; ORANGE
- Jos Huigen, Director Regulatory and European Affairs; KPN
- Phillip Malloch, Vice-President, Head of Public Affairs Head of Brussels Representation; TELIASONERA
- Marta Neves, Director, Competition and Regulatory Affairs; PORTUGAL TELECOM
- Adrian Whitchurch, Vice President of European Affairs; BT
- Christian Wulff Sondergaard, Vice President Public Affairs; TELENOR



Administrative Committee

- Chair: Thomas Müller, SWISSCOM
- Members: Roland Doll, DEUTSCHE TELEKOM; Vianney Hennes, ORANGE; Michele Bellavite, TELECOM ITALIA
- Permanent Observer: Steven Tas, PROXIMUS

3. ETNO STAFF

Director-General



Lise Fuhr, Director General (as from January 2016)



Marta Capelo, Head of Public Policy capelo@etno.eu



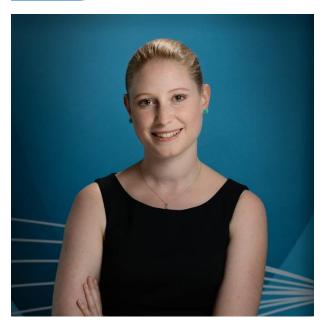
Francesco Versace, Head of Competition and Regulatory Affairs versace@etno.eu



Natalia Vicente, Public and Regulatory Affairs Officer <u>vicente@etno.eu</u>



Alessandro Gropelli, Head of Communications and Media <u>gropelli@etno.eu</u> (twitter: <u>@agropelli</u>)



Joanne Mazoyer, Digital Communications Officer (until September 2016) <u>mazoyer@etno.eu</u>



Gabriel Daia, Digital Communications Officer (as from November 2016) daia@etno.eu



Anne Vallès, HR, Finance and Corporate Events Manager valles@etno.eu



Isabelle Claeys, Events and Operations: claeys@etno.eu

4. ETNO MEMBERS AND OBSERVERS

Full ETNO Members

- 1. ALBtelecom (Albania)
- 2. Telekom Austria Group (Austria)
- 3. Proximus (Belgium)
- 4. BH Telecom (Bosnia and Herzegovina)
- 5. Vivacom (Bulgaria)
- 6. T-Hrvatski Telekom (Croatia)
- 7. Cyta (Cyprus)
- 8. TDC (Denmark)
- 9. Elisa (Finland)
- 10. TDF Group (France)
- 11. Orange (France)
- 12. Deutsche Telekom (Germany)
- 13. OTE (Greece)
- 14. Magyar Telekom Group (Hungary)
- 15. Siminn (Iceland)
- 16. Eir (Ireland)
- 17. Telecom Italia (Italy)
- 18. Lattelecom (Latvia)
- 19. TEO (Lithuania)
- 20. POST Group Luxembourg (Luxembourg)

- 21. Makedonski Telekom (Macedonia)
- 22. GO (Malta)
- 23. Telenor (Norway)
- 24. Orange Polska (Poland)
- 25. Portugal Telecom (Portugal)
- 26. Telekom Romania (Romania)
- 27. Slovak Telekom (Slovakia)
- 28. Telekom Slovenije (Slovenia)
- 29. Telefonica (Spain)
- 30. TeliaSonera (Sweden)
- 31. Swisscom (Switzerland)
- 32. KPN (The Netherlands)
- 33. BT Group (The United Kingdom)
- 34. Türk Telekom (Turkey)

ETNO Observers

- 1. Huawei (China)
- 2. Nokia (Finland)
- 3. Ericsson (Sweden)
- 4. Cisco (USA)
- 5. AT&T (USA)
- 6. Verizon (USA)