European Round Table
for Industry

ERT Position on Regulatory Framework for 5G

Regulatory Framework for 5G

With 5G expected to cumulatively yield 2.2 trillion euros in GDP and 538 billion euros in tax revenue over the period from 2020-2034, we are witnessing a global race for leadership in this latest generation of communications technology.

Under current market conditions, the US, Japan, South Korea and China will have the fastest migration to 5G, going from early adoption to lead technology in the period to 2025. China, the single largest 5G market, will have nearly half a billion users by 2025. Despite its strategic objective to have uninterrupted 5G coverage in all urban areas and all major terrestrial transport paths by 2025, Europe will lag behind with around 30% of adoption at that time[1]. But history is not written yet and the EU also has strong assets in terms of 5G.

The ERT believes that developing the right environment for 5G, relying on an investment friendly design and implementation of the regulatory framework in Europe is a crucial aspect for its success. This will improve competitiveness, increase stakes and spawn new applications in Europe. It is the next step in civilization. Below we describe a set of measures that can be conducive to investment and innovation in 5G vs a set of options that could act as inhibitors and hamper any aspiration for European leadership in this space.

I- Regulatory incentives to investment and innovation in 5G

1. Ensuring efficient spectrum licensing and national coverage obligations

To incentivise infrastructure investment, which by definition only generates long-term return, 5G spectrum licenses should be long-term as well – ideally indefinite – and provide for clear renewal rules of any non-indefinite license. It is crucial to ensure timely availability of sufficient spectrum in all 5G pioneer bands (700 MHz, 3.4-3.8 GHz, 24.25-27.5 GHz) awarded under efficient and non-discriminatory procedures.

Any coverage obligations should be technically and economically feasible with the spectrum band they are being attached to, reasonable in terms of the timeframe and prioritise the most imminent demand also from industry.

2. Facilitating deployment

a. Easing procedure and promoting small cells deployment

5G success will require network modernisation (new antennas, new equipment) as well as a densification in the medium-long term, evolving from thousands of macro cells to additional millions of small cells. To succeed in this process, it will be critical to reduce deployment costs as well as time needed for deployment permits. The roll-out should be facilitated by creating faster approval processes for antenna sites. A harmonised light licensing regime should allow manufacturers and operators to streamline their production processes and benefit from economies of scale. For small cells, installation and operation should be subject to a general license and not requiring individual permits. Access to public infrastructure (buildings, street furniture, public ground, etc.) for deploying

1 Global Mobile Trends 2020, GSMA Intelligence, 7 Nov 2019

networks including antennas should be made as easy as possible without levying extra fees. Resulting improvements in deployment costs and speeds would bring the EU closer to its connectivity targets. Reducing barriers to small cell deployment would also create opportunities for significant energy savings. The combined effect of (i) offloading mobile services from macro to smaller cells and (ii) mobile edge caching could potentially reduce overall energy consumption and boost service performance for the user.

b. Securing voluntary network sharing agreements

Voluntary network sharing agreements are a great opportunity to reduce costs allowing for a more efficient deployment of 5G networks while improving coverage and quality. By facilitating these agreements, and giving visibility and certainty in their implementation, Europe will benefit from faster roll-out of 5G networks. A pro-network sharing policy can make a difference particularly regarding less profitable deployments undertaken also as a result of coverage obligations and in small cell environments where access to street furniture is key.

Network sharing deals, whether active or passive, can be designed so that they preserve differentiation among network sharing partners, provide better coverage, environmental and cost benefits whilst not negatively impacting competition.

c. Promoting harmonised and science-based electromagnetic field (EMF) limits

5G deployment should not be hampered by arbitrary low and fragmented local emission thresholds. The recommendations decided by international bodies are based on wide-ranging reviews of scientific research and should be followed. More binding harmonisation of limits for electromagnetic fields exposure across European markets is needed for efficient and timely development of new technology for 5G services as well as for preserving a single market.

The International Commission on Non-Ionizing Radiation Protection (ICNIRP) – an independent scientific committee recognised by the World Health Organization for its expertise – published guidelines in 1998 for exposure to radio frequency electromagnetic fields (RF-EMF). These are referenced in the 1999 EU Council Recommendation. In 2019, ICNIRP concluded an update of their guidelines following a full review of science published over the last decade and relevant to all frequencies in use by mobile, including 5G. The process included a public consultation which received more than 1,000 comments from over 120 organisations. The revised guidelines are due to be published early 2020.

The use of harmonised limits (reflecting science-based ICNIRP guidelines) and compliance assessment methods (based on IEC international standard) is essential to the effective and timely roll-out of 5G. Harmonised, science-based limits implemented consistently provide reassurance to those in the public who have concerns about new technology and a good foundation for government health agencies to provide public education on mobiles, masts and health. Based on transparent and independently defined EMF limits, we call on national and European public authorities to tackle disinformation about health consequences with clear educative and pedagogic 5G networks communication programmes.

The European industry (telecoms and users) remains committed to complying with European and national regulations and international standards and norms concerning EMF limits.

II- Regulatory inhibitors to investment and innovation in 5G

1. Inflated spectrum prices

Spectrum should be made available without levying excessive fees. Recent 5G spectrum auctions in Europe are a tax that constraints resources that would otherwise be available to invest more in 5G networks roll-out. Governments shall not use 5G auctions to maximise spectrum prices but rather incentivise build-out of 5G as critical infrastructure in order to drive the digital transformation that societies and economies require. Badly designed spectrum auction and allocation conditions will only delay 5G deployment and hamper any aspiration for European leadership in this space. While the objective of regulators and governments should be to maximise connectivity coverage and quality of services, the current approach to spectrum auctions in many European countries will produce the opposite effect.

In countries where the spectrum has already been auctioned, governments should reinvest the earnings into subsidies for better network coverage, following the example of Germany and the United Kingdom.

2. Spectrum fragmentation

A harmonised framework for 5G spectrum, deployment and operation is decisive for early availability at pan-European scale avoiding fragmentation. Allocation of spectrum resources should enable public nationwide and private local industrial 5G networks in the most efficient way to maximise usage of scarce spectrum resources. Collaboration across sectors and with regulators should be facilitated to improve the understanding of the needs of various business cases and enable co-innovation. Solutions offered by operators and a well-functioning secondary market for spectrum (spectrum sharing, leasing, trading) should also be possible.

3. Artificially promoting unsustainable competition

Providing special treatment for a new entrant in spectrum auctions with privileged assignments or lower coverage obligations are factors that artificially introduce competitive distortions in the market, create significant uncertainties for long term network investments and are not conducive to investment at all. In case of lower coverage obligations new entrants can cherry pick coverage in the most economically attractive urban areas. Mandatory national roaming further suffocates infrastructure investment and competition, slowing down 5G roll-out in total.

4. Continue enacting revenue depressing measures

With telecom operators in Europe already under financial turmoil, enacting new revenue depressing measures will only further reduce their ability to cope with the increasing investment needs to deploy fibre and 5G. After the complex implementation of Roam Like at Home provisions by European Telcos for the benefit of European citizens, with another direct negative financial impact on the revenues of the sector, the threat is now an unnecessary additional regulatory intervention to lower the wholesale roaming caps or termination rates. These are measures that neither benefit network deployment nor European citizens, but favour new business models based on arbitrage for service providers that do not invest into mobile network infrastructures. Theses revenues can be better used to accelerate 5G deployment across Europe.

5. Disruptive actions on supply chain security

The ERT supports the harmonised, comprehensive, fact and risk-based approach taken so far by the EU to ensure the security of 5G networks. Security and resilience are critical success and sustainability factors for 5G. A holistic approach is required to protect users whose de-facto security experience is also determined by the security of networks. Security of networks is determined by standards, products, network deployment and operational security. The 5G security toolbox adopts a comprehensive approach to address all four layers. No single risk mitigation measure alone can be considered sufficient. Effective protection of European citizens and businesses will depend on the implementation of the proposed mitigation measures by the EU Member States.

To ensure continued high quality service provision in some European markets with significant exposure to high risk vendors in 4G and 5G it is important that the EU and its Member States put in place effective mitigating actions in line with the EU toolbox while ensuring that in exposed Member States enough time is allowed to avoid disruption of services and equipment supply for 5G networks. In case Member States decide to adopt restrictions and/or exclude some equipment already installed, they should ensure that corresponding costs are compensated through adequate measures, including fiscal measures.

While mitigating immediate security risks, Europe needs to take appropriate measures to lower in the medium to long term dependencies with regard to individual manufacturers of network equipment and ensure 5G and beyond 5G EU capacities and a level playing field in the telecom equipment market.

The European Round Table for Industry (ERT) is a forum that brings together around 55 Chief Executives and Chairs of major multinational companies of European parentage, covering a wide range of industrial and technological sectors. ERT strives for a strong, open and competitive Europe as a driver for inclusive growth and sustainable prosperity. Companies of ERT Members are situated throughout Europe, with combined revenues exceeding €2 trillion, providing around 5 million direct jobs worldwide - of which half are in Europe - and sustaining millions of indirect jobs. They invest more than €60 billion annually in R&D, largely in Europe.

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