

Committed to Europe

The Telecom Framework Review

Spectrum management reform

Radio spectrum is a key and scarce resource for connectivity. The need for spectrum is driven by an exponential increase in the volume of mobile data traffic. Therefore, the EU should develop a strategic plan to make sufficient and appropriate spectrum available to meet increasing demand.

In this respect the European regulatory framework has played a generally positive role which could be reinforced in the context of the telecom framework review.

The existing framework has been generally positive:

- EC Harmonization Decisions identified spectrum bands for wireless broadband (WBB). These enabled provision of mobile services and economies of scale;
- RSPP¹, the EU spectrum strategic plan, set the goal of 1200 MHz for WBB by end 2015, which offered predictability for operators to their investments;
- Flexibility measures like technology neutrality enabled gradual move to increasingly modern technologies 2G, 3G and 4G (spectrum refarming) and secondary spectrum trading served as an additional enabler of more efficient spectrum management;
- Governance structure of spectrum management with distinctive roles of European Commission, RSPG², CEPT³ and Member States enabled delivery of the spectrum goals.



Source: Cisco VNI Mobile, 2015

Despite these advantages, there are still shortcomings:

1. There is a need to increase the amount of harmonised spectrum available for wireless broadband to fulfil the future spectrum demand for mobile services.
2. The telecom framework and its regulation have globally weakened the industry and contributed to its fragmentation, with a strong risk of diminishing the benefits of a more coordinated spectrum allocation.
3. There are procedural deficiencies: the EU has fragmented spectrum allocation procedures and selection criteria, different views on the rationale to be considered when fixing the spectrum fees, various timetables and license durations. This contributed to slow deployment of modern wireless technologies

¹ <https://ec.europa.eu/digital-agenda/en/radio-spectrum-policy-program-roadmap-wireless-europe>

² Radio Spectrum Policy Group: <http://rspg-spectrum.eu/>

³ European Conference of Postal and Telecommunications Administrations: <http://www.cept.org/home>

and placed the EU behind major economies⁴. Licensing of the 800 MHz band for LTE services has spanned more than six years creating a significant gap between the first and last Member States to have the opportunity to rollout nationwide 4G services. Although the RSPG required January 1, 2013 as a deadline, some Member States are still yet to finalize their 800 MHz awards.

Orange recommends the following approach to build-up the new Telecom Framework:

1. Keep most of the existing Framework as the basis of the new one, including the current EU spectrum governance. The RSPG role could be extended.
2. Reorientation of the framework's objectives towards contribution to economic development through investment in connectivity.
3. Improving the regulatory predictability which increases efficiency and effectiveness of spectrum management⁵:
 - EC coordinated and harmonized timing and guidelines for national spectrum allocation procedures, based on well accepted criteria. **Rules for spectrum allocation should be European and binding for MS**, but implementation should stay national for the time being.
 - General requirement of transparency along NRAs' process preparing allocation and re-allocation of spectrum bands.
 - Fees for rights of use for radio spectrum of all types are to be paid not more than one year before operators can start using the radio spectrum.
 - Improvement of the national rules fixing the mobile spectrum fees.
 - Duration of the rights of use longer than 25 years.
 - General authorization regime for the deployment, connection and operation of small-area wireless access points i.e. small cells.
 - New requirement for NRAs to carefully examine risks and means to mitigate interferences with existing in-and out of band-users, prior to any spectrum band allocation.

The end goal of EU spectrum policy should be to create consistent and predictable regime for the allocation of spectrum resources to mobile services. The current market and regulatory situation impedes investment, innovation and rapid availability of spectrum for network deployment. Market players are not incentivized to provide new and innovative uses, and are prevented from establishment of economically advantageous wireless connectivity at EU scale for new digital services and applications - such as the Internet of Things, connected vehicles or other connectivity-enabled products. Uncoordinated spectrum assignments in the EU are holding back the Union's potential to benefit from the advantages of wireless broadband and the digital revolution.

About Orange

Orange is one of the world's leading telecommunications operators with sales of 40 billion euros in 2015 and 156,000 employees worldwide at 31 December 2015, including 97,000 employees in France. Present in 28 countries, the Group has a total customer base of 263 million customers worldwide at 31 December 2015, including 201 million mobile customers and 18 million fixed broadband customers. Orange is also a leading provider of global IT and telecommunication services to multinational companies, under the brand Orange Business Services. In March 2015, the Group presented its new strategic plan "Essentials2020" which places customer experience at the heart of its strategy with the aim of allowing them to benefit fully from the digital universe and the power of its new generation networks.

Orange is listed on the NYSE Euronext Paris (symbol ORA) and on the New York Stock Exchange (symbol ORAN). For more information on the internet and on your mobile: www.orange.com, www.orange-business.com, livetv.orange.com or to follow us on Twitter: [@orange](https://twitter.com/orange), [@orangegrouppr](https://twitter.com/orangegrouppr), [@orangebusiness](https://twitter.com/orangebusiness).

Orange and any other Orange product or service names included in this material are trade marks of Orange Brand Services Limited.

⁴ According to GSMA, at the end of 2014, after a decade of deployment, only 10% of connections in Europe were 4G. The United States has already 50% of 4G rollout after starting in 2009 and China Mobile reached 10% 4G connections in just 18 months.

⁵ Most of these provisions have already been proposed by the EC in its Connected Continent Initiative in 2013: <https://ec.europa.eu/digital-agenda/en/connected-continent-single-telecom-market-growth-jobs>