Internet, fixed and mobile telecom and postal networks constitute the “Infrastructures of freedom.” Freedom of expression, freedom to communicate, freedom to access knowledge and to share it, but also freedom of enterprise and innovation, which are key to the country’s ability to compete on the global stage, to grow and provide jobs. Because it is essential in all open, innovative and democratic societies to be able to enjoy these freedoms fully, national and European institutions work to ensure that these networks develop as a “common good,” regardless of their ownership structure, in other words that they meet high standards in terms of accessibility, universality, performance, neutrality, trustworthiness and fairness.

Democratic institutions therefore concluded that independent State intervention was needed to ensure that no power, be it economic or political, is in a position to control or impede users’ (consumers, businesses, associations, etc.) ability to communicate.

France’s Electronic Communications and Postal Regulatory Authority (Arcep), a neutral and expert arbitrator with the status of Independent Administrative Authority, is the architect and guardian of communications networks in France. As network architect, Arcep creates the conditions for a plural and decentralised network organisation. It guarantees the market is open to new players and to all forms of innovation, and works to ensure the sector’s competitiveness through pro-investment competition. Arcep provides the framework for the networks’ interoperability so that users perceive them as one, despite their diversity: easy to access and seamless. It coordinates effective interaction between public and private sector stakeholders when local authorities are involved as market players.

As network guardian, Arcep enforces the principles that are essential to guaranteeing users’ ability to communicate. It oversees the provision of universal services and assists public authorities in expanding digital coverage nationwide. It ensures users’ freedom of choice and access to information, accurate and safe, against possible net neutrality violations. From a more general perspective, Arcep fights against any type of silo that could threaten the freedom to communicate on the networks, and therefore keeps a close watch over the new intermediaries that are the leading Internet platforms.

**Who said what?**

**Dividing lines, in a selection of quotes:**

**BEREC (Body of European Regulators for Electronic Communications)**
BEREC considers that the Regulation leaves considerable room for the implementation of 5G technologies, such as network slicing, 5QI and Mobile Edge Computing. To date, BEREC is not aware of any concrete example where the implementation of 5G technology as such would be impeded by the Regulation.

**FCC (American Regulator)**
An other negative consumer impact from the (previous) FCC’s heavy-handed regulations (on net neutrality) has been less innovation. We shifted from a wildly successful framework of permission-less innovation to a mother-may-I approach that has had a chilling effect.

**GSMA (GSM Association) and ETNO (European Telecommunications Network Operators)**
The EU and Member States must reconcile the need for Open Internet with pragmatic rules that foster innovation. The telecom industry warns that the current least neutrality guidelines, as put forward by BEREC, create significant uncertainties around 5G return on investment.

**EDRi (European Digital Rights)**
We are deeply concerned that the ongoing technological standardisation of new telecommunications technologies [5G, NFV, SDN] may undermine the current net neutrality protections in the European Union (EU).

**TRAI (Indian Regulator)**
Network performance optimization aligned to net neutrality concepts offers a blueprint for how IoT devices and their communication capabilities should be planned, architected and deployed to minimize burden on the network, by being proactive about improving the efficiency and speed of their data, and also pose it as a source of competitive advantages.

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The promises of 5G, the next generation of mobile network

Capacity
- 5G will deliver unparalleled speeds for increasingly bandwidth-hungry applications.

Instantaneousness
- 5G will reduce latency for real-time services.

Specialisation
- 5G will make it possible to tailor traffic streams’ properties to certain applications.

Virtualisation
- 5G will rely more heavily on software-defined networking to deliver more features.

Energy efficiency
- 5G will make it possible to adjust transmitters to the objects’ needs, which can also increase their lifespan.

Reliability
- 5G will provide greater security for certain data streams, notably on public networks.

Net neutrality: ensuring non-discrimination on the Internet

The Internet’s core values
- Net neutrality guarantees that every user can access any online content or service using the device of their choice.

User rights
- Net neutrality ensures non-discrimination, allowing users to choose the speed that matches their needs.

Freedom of expression and information
- Net neutrality allows content providers to offer their online services without ISPs acting as gatekeepers.

Permissionless innovation
- Net neutrality guarantees users’ freedoms, with due consideration to others.

Innovation and non-discrimination in practice:
5G opens the way for innovative applications...

... and new cooperations to design

The Internet’s core values
- Freedom of expression and information
- Net neutrality ensures non-discrimination
- User rights
- Permissionless innovation

Net neutrality compliance with the end-to-end principle, with the understanding that intelligence is located on the network’s edge, with no central control.

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In practice:
- 5G opens the way for innovative applications...
- ... and new cooperations to design

- Remote surgery, via ultra-reliable real-time virtual reality
- Smart farming, its drones and ground-based sensors
- New internet access services with prices tiered by quality, allowing users to choose the speed that matches their needs.

How to provide different QoS levels without discriminating?
How to be transparent with customers on the different available connection speeds?
How to optimise the transmission of certain services without harming the overall quality of internet access?

In what does the regulator do?
- It enforces net neutrality rules and imposes penalties on those that breach it;
- It co-develops diagnostic tools: reporting platforms, apps for detecting traffic throttling, etc.