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REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

on the implementation of the open internet access provisions of Regulation (EU) 2015/2120

1. INTRODUCTION

The EU has enshrined the principle of an open internet in Regulation (EU) 2015/2120, sometimes referred to as the Telecoms Single Market Regulation[1], which applies in all Member States since 30 April 2016.

- Articles 1 and 2 set the scope and definitions
- Article 3(1) of the Regulation sets out the principle that end-users of internet access services have the right to access and distribute the information, content, applications and services of their choice.
- Article 3(2) provides that agreements between providers of internet access services and end-users must not limit the rights of end-users set out in Article 3(1).
- Article 3(3) bans blocking, throttling and discrimination between content, applications and services, subject to certain limited exceptions. Traffic management, to optimise the quality of the services transmitted, is possible as long as it is reasonable. The third sub-paragraph lays down restrictive exceptions from the obligation not to engage in traffic management measures (and not to block, slow down, alter, restrict, interfere with, degrade or discriminate between specific content, applications or services) in order to either comply with legislation, or to preserve the security of the networks or to prevent exceptional/temporary congestion management.
- Article 3(4) provides that any traffic management measures have to comply with the principles of necessity and proportionality as regards the processing of personal data and to the relevant Union framework in this area. Article 3(5) makes clear that services (other than internet access services) optimised for specific content, applications or services (sometimes called 'specialised services') can be offered under certain conditions, including that they are not detrimental to the quality of general internet access services.

The Regulation empowers BEREC to issue Guidelines in close cooperation with the Commission on the obligations of the national regulatory authorities to monitor and ensure compliance with the provisions on open internet. BEREC established an Expert Working Group on Open Internet which meets regularly and in which the Commission participates. BEREC published a first version of the Guidelines[2] in August 2016. The working group's objective is to ensure consistency in the application of the Regulation across Europe.

[1] Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and retail charges for regulated intra-EU communications and amending Directive 2002/22/EC and Regulation (EU) No 531/2012 (OJ L 310, 26.11.2015, p.1).

[2] BEREC Guidelines on the Implementation by National Regulators of European Net Neutrality Rules

Article 9 calls on the Commission to review the regulation's provisions on open internet access and submit a report to the European Parliament and the Council, 'accompanied, if necessary, by appropriate proposals with a view to amending the Regulation.'

This report assesses the implementation of the regulation since it entered into force and compares the state of play regarding access to the open internet in the Union today, including in the light of market and technological developments, against the situation that existed before the regulation became applicable.

The Commission's assessment shows the objectives of the regulation remain as relevant today as when they were first adopted and are not contested: there is broad consensus that consumers and businesses should have a right to access an open internet. It helps them to acquire information, communicate, innovate and compete in the global digital economy and is an increasingly important means for citizens to participate fully in society.

For the purposes of this assessment, the Commission gathered feedback on how the regulation changed the open internet landscape from a wide range of groups through:

- the (SMART 2017/0011) study[3], which analysed the most up to date national regulatory authorities' decisions, case law and feedback from the 28 Member States and Norway and included a stakeholder survey and targeted interviews;

- a 2018 public consultation by the Body of European Regulators for Electronic Communications (BEREC), followed-up by an opinion[4] on the implementation of the BEREC guidelines;

- regular contacts with stakeholders at all levels; and

- a targeted stakeholder workshop held on 5 December 2018.

2. BASELINE SITUATION

Before the regulation entered into force, end-users complained that Voice Over IP services (VoIP)[5] were being blocked by internet service providers.

For example, at least 21 % of fixed and at least 36 % of mobile broadband users were affected by restrictions on their ability to communicate over the internet on a peer-to-peer (P2P) basis, either for technical or contractual reasons and at least 21 % of broadband users were affected by VoIP-related restrictions, either technically or contractually[6]. In addition, innovative web start-ups faced legal uncertainty about how far they could use the internet to access their market.

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[3] Study on the implementation of the net neutrality provisions of the Telecoms Single Market Regulation (SMART 2017/0011) — Bird & Bird and Ecorys for the Commission.

[4] Opinion for the evaluation of the application of Regulation (EU) 2015/2120 and the BEREC Net Neutrality guidelines

[5] (such as Skype or WhatsApp voice calls over the Internet)

[6] 'A view of traffic management and other practices resulting in restrictions to the open Internet in Europe -' — BEREC and Commission, BoR (12) 30.

Furthermore, some consumer practices were subject to restrictions or the blocking of certain services, such as the practise of 'tethering', which entails using a smartphone to connect to the general cellular network, and sharing this connection with other devices by opening a Wi-Fi hotspot from the smartphone.

Consumers also complained that internet connection contracts lacked transparency about speed and the management of traffic.

3. COMMERCIAL DEVELOPMENTS OF AUTHORISED SERVICES. IMPACT OF ARTICLE 3(1)

The regulation addresses contractual conditions and commercial practices applied by internet access services.

Successful resolution of blocked services

Article 3(3) bans the blocking of access and restricts traffic management measures. This obligation has allowed consumers to benefit from access to websites and services of their choice. VoIP services, in particular, have developed freely since the regulation entered into force and consumer associations have welcomed this as a clear success of the regulation.

Successful introduction of the choice of terminal equipment

According to Article 3(1), the end-user has the right to opt for the terminal equipment they want to use. The practice of 'tethering' is now accepted by all EU internet access providers, which is deemed as an improvement by consumer associations.

4. COMMERCIAL DEVELOPMENTS OF OFFERS AT DIFFERENTIATED PRICES - ARTICLES 3(2) AND 3(3)

Article 3(2) requires that contractual conditions and commercial practices do not limit the end-users' rights set out in Article 3(1).

Differentiation on price: Zero-rating

Legal basis and zero-rated offers

An offer is called 'zero-rated' when an internet service provider applies a marginal price of zero to the data traffic associated with a particular application or category of applications (and the data consumed does not count towards any general data cap). Internet service providers often provide it at no extra cost to the user.

Although the term 'zero-rating' does not appear in the regulation, such commercial offers were taken into account by the co-legislators. In particular, Article 3(2) states that 'Agreements between providers of internet access services and end-users on commercial and technical conditions and the characteristics of internet access services such as price, data volumes or speed, and any commercial practices conducted by providers of internet access services, shall not limit the exercise of the rights of end-users laid down in paragraph 1.'

Effect of zero-rated offers on consumers

Interest groups hold a variety of — often contrasting — views about the impact of zero-rated offers. For example, consumer associations[7] view the overall impact of zero-rated offers as negative for the consumer and think that they should be prohibited. They consider that such offers distort competition between the companies offering the content or applications that are included as zero-rated and other companies offering similar content and applications[8]. In contrast, internet service providers consider that the regulation allows them to propose different offers with different prices and gives freedom to the end-user to choose between these offers.

Both the level of competition in the market and the inclusiveness of the selected applications affect consumers. Such offers are more likely to benefit consumers in cases when the level of competition is high in either the internet access market or the content and applications markets and when data is comparatively affordable (even when there is a charge)[9]. Furthermore, these offers are less likely to have a distorting effect on the content market if they include entire categories of applications (for example all music streaming services) than if they include a restricted list of applications.

Regulatory practices for zero-rating offers

The BEREC guidelines define zero-rating offers and recommend that national regulatory authorities assess them on a case-by-case basis. The guidelines list a range of factors that need to be taken into account in the context of the specific market circumstances in the various Member States[10].

Even if a lower/zero price is applied for certain applications — rather than an entire category — whose data consumption does not count towards the data cap, this is an economic (rather than a technical) incentive to use those applications. According to the BEREC Guidelines, such types of zero-rating would not be *ipso facto* prohibited the regulation[11].

However, because of Article 3(3), internet service providers must treat all internet traffic equally when providing internet access service, without discrimination, restriction or interference. Thus, according to the same guidelines, a zero-rating offer where all applications are blocked or slowed down once the data cap is reached, except for the zero-rated applications, would contravene Articles 3(3) first and third paragraph sub-paragraphs[12].

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7 Source: stakeholder workshop of 5 December 2018.

8 In the Netherlands, a Court found that Article 3 of the Regulation contains no categorical prohibition on price discrimination and that a zero-rating offer for music services was authorised - see District Court of Rotterdam 20 April 2017, ECLI:NL:RBROT:2017:2940. After the Court decision, a citizens' rights association challenged the authorisation but the District Court of Rotterdam dismissed the challenge. : see Bits of Freedom vs ACM ECLI:NL:RBROT:2019:414 case.

9 A European Commission study for DG COMP looked into these effects in 2017.

10 BEREC guidelines (2016), para 43-48.

11 BEREC guidelines (2016), para 42.

12 BEREC guidelines (2016), para 55.

The SMART study[13] found that the national regulatory authorities decisions were consistent in this regard. Working together within the BEREC working group, they have ensured consistency in the decisions that apply in the different Member States. There are consistent trends in implementation between Member States. For example, zero-rating offers applicable to all applications of a given category and that are blocked along with the user's other internet traffic once the general cap is reached and that do not make other differentiation in traffic, were generally regarded as lawful. Regulatory interventions have focused on technical differentiation and on rather specific offer conditions. Some decisions also clarified roaming-related aspects.

As previously mentioned, BEREC plans to continue this collaborative work with the Commission, to clarify the guidelines where possible, and provide a step-by-step methodology for assessing zero-rating cases.

Differentiation on quality

Article 3(2) also provides that agreements between providers of internet access services and end-users on characteristics (such as price, data volumes or speed) must not limit end-users ability to exercise their rights as laid down in paragraph 1.

End-users therefore have the right to choose differentiated prices for different parameters of quality of service (e.g. data volumes or speeds) as long as the rights laid down in Article 3(1) are not limited for any of them.

Quality of service may vary depending on the terminal equipment used, coverage of the network, the content and other objective factors. For example, when two end-users have subscribed to services of different quality, they may experience varying transmission performance. However, in principle, they are considered as being treated equally if traffic management measures are based on objective technical justifications that benefit the overall quality and/or efficiency of the network. Evidence to date does not indicate that, as a general proposition, the availability of services with different speed, volume or other characteristics, at different prices, would have harmed consumers or their ability to exercise their rights under Article 3(1).

Since Article 3(2) allows for commercial agreements, the protection of consumers who have purchased services with lower quality is normally ensured by the transparency measures provided in Article 4 of the regulation, the general measures for the protection of end-users rights included in Chapter IV of the Universal Service Directive[14] and the general consumer protection regime. At this stage, it does not appear that additional measures are needed to strengthen this general protection regime.

BEREC is working closely with the Commission to clarify this subject in its guidelines.

User-controlled network blocking

The internet service providers raised[15] possible future offers where connected objects may connect only to their producer's application and where the end-user may wish to

[13] The SMART 2017/0011 study.

[14] Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (OJ L 108, 24.4.2002, p. 51–77).

[15] Source: stakeholder workshop on 5 December 2018.

restrict the possibility of connection only to their own devices. A typical example would be a person buying a burglar alarm or a webcam and restricting the devices that are authorised to configure it to those of the premises' inhabitants. In such a case, the internet service provider would implement the access restrictions in the network, but at the request of the end-user. In this case, the choice given to the end-user by Article 3(2) to agree on technical conditions with the internet service provider is relevant. In such a scenario, the obligations in Article 3(3) that apply to the operator blocking end-points do not apply to cases where the end-user is fully in control of —– and establishes item by item — what is blocked or not (and the other technical or commercial conditions of the internet access service do not vary depending on their choice.) However, such practices should be closely monitored in order to ensure that no such choice is imposed by the internet service provider. On the contrary, it should remain under the permanent control of the end-user with easy initial opt-in and subsequent opt-out[16].

5. TECHNOLOGY DEVELOPMENTS AND THE TRAFFIC MANAGEMENT PROVISIONS OF ARTICLE 3(3)

5G

The Commission's Communication on the Gigabit society[17], the 5G action plan[18] and the European Electronic Communications Code[19] establish ambitious objectives for the roll out 5G networks and provide for solutions that can allow innovative services to flourish. 5G technologies are being standardised by the electronic communications industry and will soon reach the market.

5G enables industrial transformation through wireless broadband services provided at gigabit speeds. 5G promises high-speed data connections, low latency and the capability to exploit any available wireless resources from Wi-Fi to 4G and to handle millions of connected devices simultaneously (the 'internet of things'). It also opens the possibility to make network organisation flexible, with software parameters allowing innovative business models across multiple sectors (e.g. transport, health, manufacturing, logistics, energy, media and entertainment).

The regulation was deliberately conceived as a principles-based set of rules so that it could be applied to the foreseeable development of new technologies and services, provided they remain consistent with the open internet ecosystem. This is reflected in recital (1) which identifies the double objective of the regulation: "to protect end-users and simultaneously to guarantee the continued functioning of the internet ecosystem as an engine of innovation".

Slicing

Network slicing technology works to create virtual separation between parts of the network. It opens new possibilities for organising the provision of different services by allocating resources rapidly.

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16 Related discussions are in BEREC guidelines paragraph 17, 38 and 55.

17 Connectivity for a Competitive Digital Single Market — COM(2016) 587.

18 5G for Europe: An action plan — COM(2016) 588.

19 Directive (EU) 2018/1972 — European Electronic Communications Code.

5G introduces more possibilities to deliver connectivity that is adapted to the service being offered. Some services need high and consistent data speed (for example augmented reality), and some need different features like the possibility to connect a number of low-power devices (for example health sensors in a house).

5G architecture could enable forms of reasonable traffic management measures that optimise traffic depending on the objective characteristics of the content, application or service, thereby improving the system's general performance and flexibility.

Article 3(3) second sub-paragraph provides that providers may implement reasonable traffic management measures. However, 'such measures shall not monitor the specific content and shall not be maintained for longer than necessary'. Depending on the choices made when deploying 5G networks, there could be a future need to assess precisely what content is 'specific' and what is not. At this stage, the Commission is not aware of any concrete example where this provision would hinder implementation of slicing technology. The Commission will continue to follow this issue closely as 5G develops in the market.

BEREC has announced that it welcomes dialogue between interest groups and national regulatory authorities if the former are uncertain of whether a specific use of a 5G technology complies with the regulation. The Commission supports this stakeholder dialogue and will work closely with BEREC on the updated guidelines.

6. TECHNOLOGY DEVELOPMENTS AND SPECIALISED SERVICES - ARTICLE 3(5)

Services other than internet access services

Article 3(5) provides for the possibility to offer services other than internet access services (herein referred to as 'specialised services'), which are optimised for specific content, applications or services, or a combination thereof, where the optimisation is necessary to meet requirements of the content, applications or services for a specific level of quality.

It sets out that internet service providers may only offer or facilitate such services if the network capacity is sufficient to provide them in addition to any internet access services without degrading their quality.

There have been few questions regarding the application of Article 3(5) since the regulation entered into force, because not many novel kinds of specialised services have been launched.

According to a survey[20], the same kinds of specialised services have been offered for some time by a wide range of internet service providers — mainly managed voice calls (Voice over IP — VoIP) and television through internet (IPTV).

The industry expects new specialised services to appear, facilitated by 5G networks. No commercial 5G services are available yet and stakeholders have expressed uncertainty about the future interpretation of Article 3(5) by national regulatory authorities. The condition laid down in Article 3(5) is that specialised services can be offered 'only if the

[20] The SMART2017/0011 study.

network capacity is sufficient to provide them in addition to any internet access services provided' and that '[s]uch services shall not be usable or offered as a replacement for internet access services, and shall not be to the detriment of the availability or general quality of internet access services for end-users'.

While internet service providers support the underlying principle of the regulation, they are concerned — along with some content providers — that the current BEREC guidelines do not provide sufficient flexibility in its examples of how to satisfy those conditions, obliging them to reserve dedicated resources for these new services and lose the benefit of the dynamic allocation of capacity. They also point out that any specialised service that complies with the conditions in Article 3(5) should be permitted without needing prior authorisation before it is launched. Providers underline that they want to avoid a situation in which the presumed complexity of the ex post assessment would lead them in practice to seek explicit permission before developing or launching any service. They have also emphasised that the example in the guidelines concerning measuring performance by making a test of the internet access service while all specialised services are shut down is hardly applicable in practice since some vertical services cannot be delayed due to their special nature.

Consumer and civil society organisations and content providers consider that both the regulation and the guidelines are flexible enough to accommodate 5G services.

In view of a next generation of specialised services, questions on the application of Article 3(5) may come up. It might become necessary to further clarify when optimisation of services can be considered to be necessary on technical or commercial grounds, when 'network capacity is sufficient' and when specialised services are 'to the detriment of the availability or general quality of internet access services. Such clarifications may be necessary'. Such clarifications may be necessary in order to ensure end-user protection and to guarantee the continued functioning of the internet ecosystem as an engine of innovation.

BEREC has announced[21] that it will consider providing further clarifications in the guidelines on how to assess, on case-by-case basis, whether a service other than internet access complies with the conditions set out in Article 3(5). The Commission will work closely with BEREC on this update to the guidelines.

Network performance measurement

The emerging growth of network slicing and specialised services raises the challenge of how to give end-users the flexibility to benefit from a dynamic allocation of resources, while complying with the Article 3(5) obligation to not allow specialised services to act to the detriment of the quality of the general internet access services.

Measuring network performance is a complex task as it depends on multiple factors, such as other end-users using the network or the distance between a mobile phone and the base station antenna, and comparing performance over time requires statistical analysis.

Internet service providers insist on the importance of reflecting the many drivers of network performance when interpreting measurements. Consumer and civil rights organisations acknowledge the complexity of this task but insist on the need to verify quantitative information.

[21] Quoted BEREC opinion.

BEREC is working on updating guidelines in this area[22] and has launched a procurement procedure to develop the relevant software tool.

7. CONTRACTUAL TRANSPARENCY, REGULATORY MONITORING AND PROCEDURES

Transparency obligations in Article 4

Article 4(1) has contributed to transparency as regards conditions included in contract for internet access services for end-users and appears to be effective for the information that internet service providers publish on their websites. Consumer associations received much fewer complaints about the quality of internet access services than before the regulation became applicable.

The European Electronic Communications Code[23], which will apply from December 2020, will complement this provision by further harmonising the transparency rules with a free and independent comparison tool.

Supervision and enforcement — Article 5

Baseline: situation before 31 December 2016

Some Member State had legislation in place on open internet access or on transparency of information and some had self-regulation or co-Regulation measures. Such Member States had the possibility to maintain until 31 December 2016 such national measures and, in such case, they had the obligation to notify the Commission those measures by 30 April 2016. The figures below illustrate this situation:

[22] Quoted BEREC opinion.

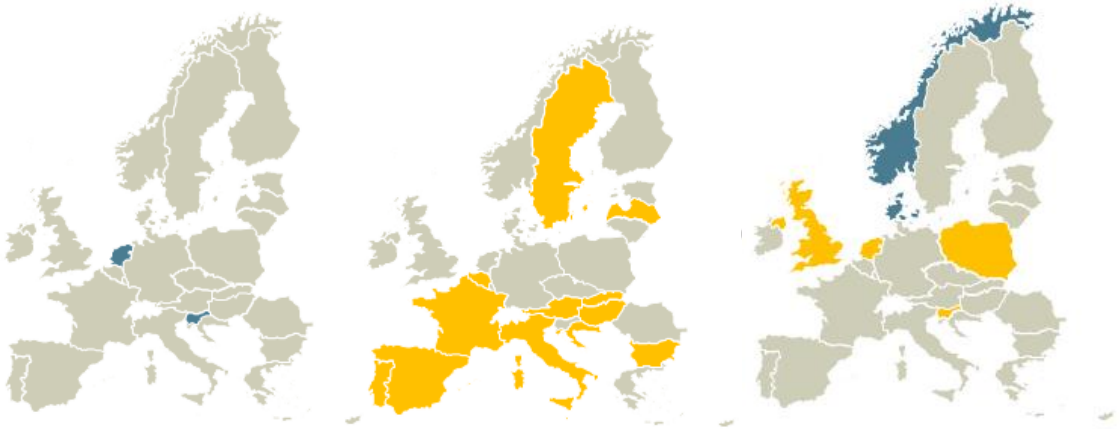
[23] Directive (EU) 2018/1972, Article 103.

Maps 1, 2 and 3[24]:

1 Pre-existing legislation on open internet access (banning blocking, throttling and zero-rating offers)

2: Pre-existing legislation on transparency

3: Pre-existing self-regulation (yellow) **and co-regulation** (blue)



Map 1 **Map 2** **Map 3**

Implementation of the regulation after December 2016

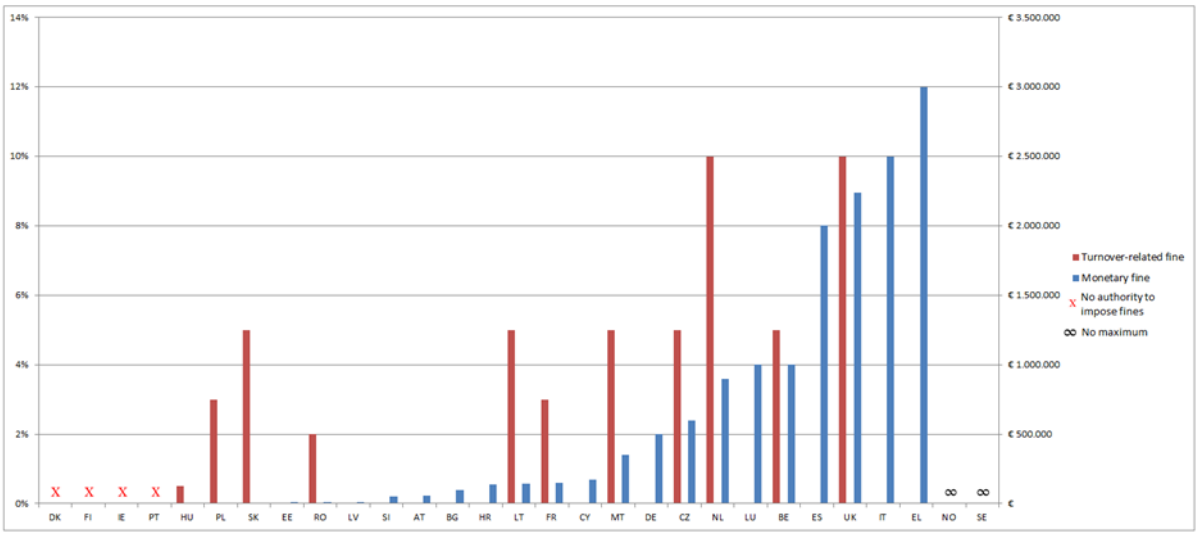
The supervision and enforcement of the regulation is still comparatively recent and work in progress. A number of investigations by individual national regulatory authorities into certain topics are under way. Yet, the implementation has been consistent throughout the Union. The issues that have arisen were mainly transparency (contract information), zero-rating and traffic management measures. National regulatory authorities are addressing them in a coordinating manner. Indeed, within BEREC they established a working group to exchange practises and strive to maintain consistency in their application of the regulation. This coordination process led the decision-making in the Member States to converge widely.

Sanctions — Article 6

Sanctions differ widely between Member States. For example, in some Member States, penalties are linked to a company's turnover, others have a fixed maximum amount and some have a combination of the two. For similar violations of, for instance, Article 3, the fixed maximum amounts range from around EUR 15 000 to EUR 3 million and turnover-related maximum fines range from 0.5 % to 10 %. The type of penalties imposed (fines and/or periodic penalty payments with or without the possibility to impose other sanctions such as suspension of activities) also differ between Member States.

[24] data from the SMART2017/0011 study.

Figure 1: Overview of maximum fines (turnover-related and monetary)[25]



Only very few penalties have been imposed to date and all of them were well below the applicable maximum.

Since effective, dissuasive and proportionate sanctions are crucial for the correct implementation of the regulation, the Commission is monitoring the implementation of this provision in the Member States.

[25] The SMART2017/0011 study.

8. CONCLUSION

Compared with the situation in 2015, before the regulation applied, end-users and content application providers express great satisfaction with today's state of affairs. Internet service providers also support the principles of an open internet and do not consider that it is necessary to amend these principles.

One of the regulation's objectives was to support the internet as an engine of innovation. Today, digital businesses are clearly flourishing as evidenced by start-up clusters in very dynamic places across Europe. The emergence of these start-ups is, in part, thanks to their ease of access to their customers, which the regulation supports. In addition, the regulation does not seem to affect the investments made by providers of internet access services. All market participants highly appreciate the legal certainty that it has created, as having predictable rules is crucial for their investment decisions.

From the assessment of the first two and a half years of implementation, the Commission concludes that the regulation's principles are appropriate in light of the development of the market and that they are effective in protecting the end-user and promoting the internet as an innovation engine.

Experience of how the regulation is applied is still limited due to the relatively short time it has been in application. A further period of regulatory stability will enable regulators, stakeholders and end-users to become more familiar with its application. Such stability is ensured in the EU through directly applicable, principles-based legislation, supported by all relevant stakeholder communities, and underpinned by flexible mechanisms to ensure consistent decision-making at national level.

Therefore, the Commission concludes that it would not be appropriate to propose amendments to the Regulation at this stage. The Regulation will continue to protect European internet users and allow them to continue to benefit from access to information, and content, applications and services according to their choice.

The Commission shall continue to monitor developments in the market, in light of the developments in technology and services.

In particular, it shall work closely with BEREC, which is carrying out a coordination process that has successfully led Member States to converge their decision-making. BEREC plans to continue this collaboration in the future. Interest groups have made comments on BEREC's implementation guidelines and called for them to be adapted to reflect market and technology developments. BEREC has begun its work on updating the Guidelines and plans to deliver in 2019, "in close cooperation with the Commission" as provided for in Article 5(3), and should continue in the future, to ensure that the Guidelines reflect in an appropriate manner the development of the market.