BEREC
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BEREC response to the European Commission's consultation on the first review of the Digital Markets Act

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Executive Summary

BEREC strongly supports the Digital Markets Act (DMA) and the European Commission (EC)'s ambition to create contestable and fair digital markets for the benefit of European citizens and businesses. While the DMA imposes many obligations which are already having a positive impact on business and end users, BEREC believes that the current regulation can be further implemented to its full potential. Moreover, new challenges have emerged since the entry into force of the DMA, and a targeted adaptation of the current regulation will provide a powerful regulatory tool to tackle them.

In this context, BEREC welcomes the opportunity to contribute to the EC public consultation on the first review of the DMA launched in July 2025[1]. This BEREC response focuses on those services and technologies which fall within – or are closely connected to – its regulatory remit, that is number-independent interpersonal communication services (NI-ICS), cloud computing services, artificial intelligence (AI), and data collection and cooperation with national authorities, European networks and the EC.

On **NI-ICS**, BEREC has closely cooperated with the EC for the horizontal interoperability provided for under Article 7 DMA[2] and has identified some potential obstacles for its adoption. These may be due to: i) the current drafting of the DMA which only grants interoperable services for *end* users, and ii) the lack of interoperability for some functionalities affecting user experience. To address these points BEREC proposes to: i) consider the application of Article 7 to communications among users in general, and ii) keep assisting the EC by providing feedback on the gatekeepers' reference offers to make sure that they adequately reflect the usages and market developments. Moreover, in the last years, NI-ICS have significantly evolved and now offer a range of functionalities to both business and end users, and integrate AI services which are directly embedded. This raises some questions as to e.g. the gatekeeper's privileged and/or exclusive access to valuable inputs, such as communication (meta)data.

Cloud computing services are already listed among the core platform services (CPSs) under the DMA, but despite the market concentration around very few players, the lock-in effects, the vertical integration, and the potential unfair practices imposed by some hyperscalers, no gatekeeper has been designated for this CPS yet. BEREC believes that their designation is now necessary and would appropriately complement the provisions under the Data Act. Moreover, given that many innovative technologies (such as AI), services and companies heavily rely on cloud computing, the DMA obligations would not only benefit the markets for cloud services but also adjacent markets (for instance thanks to Article 6(2) which would prevent gatekeeping hyperscalers to use business users' data to directly compete with them).

[1] Consultation on the first review of the Digital Markets Act, see: https://digital-markets-act.ec.europa.eu/consultation-first-review-digital-markets-act-2025-07-03_en.
[2] NI-ICS interoperability, see: https://www.berec.europa.eu/en/all-topics/ni-ics-interoperability

Since the drafting of the DMA, digital services and their usage have undergone significant changes, in particular due to the increasingly widespread use of **AI**. The development of AI models and the distribution of AI-based services heavily rely on several CPSs, and AI systems increasingly act on several layers (from infrastructure to user-facing functionalities) and as orchestrators across several CPSs. As highlighted in the DMA High-Level Group (HLG) Public Statement on AI[3], the DMA obligations already apply to AI systems that are embedded into designated CPSs, and compliance has to be assessed taking into account how AI systems determine the behaviours that are covered by the DMA provisions. The designation of gatekeepers providing cloud computing services would have a positive impact on the AI markets. Moreover, users and market participants could also benefit from the application of e.g. Articles 6(3) and 6(7) DMA which would allow and facilitate the use of AI agents provided by third-parties/competitors of the gatekeepers, of Article 6(9) that ensures data portability, and of Article 6(5) which bans self-preferencing on some CPSs etc. Other articles would need to be redrafted to some degree in order to tackle the identified issues, and in most cases a legislative process need not be necessary to implement these changes.

Finally, BEREC supports the implementation of the DMA at the European level. While being the sole enforcer of the DMA, **the EC could be further assisted by European networks and bodies as well as by national authorities**. Due to their proximity to national stakeholders (including SMEs) and users, national authorities can make a useful contribution to data collection and to supporting the EC with the implementation, monitoring and review of the regulation. The DMA HLG, composed of the relevant European regulatory networks, would provide an appropriate forum to ensure such a cooperation and further harmonisation of data.

1. Context of the public consultation

According to Article 53 DMA, the EC should evaluate this regulation and report to the European Parliament, the Council and the European Economic and Social Committee by 3 May 2026, and subsequently every three years. In particular, the EC should evaluate:

1. whether the aims of the DMA of ensuring contestable and fair markets have been achieved;
2. the impact of the DMA on business users, especially SMEs, and end users;
3. whether the scope of interoperability obligation (Article 7 DMA) may be extended to online social networking services; and
4. whether it is required to modify rules, including regarding the list of CPSs, the obligations laid down in Articles 5, 6 and 7 DMA and their enforcement.

[3] High-Level Group for the Digital Markets Act Public Statement on Artificial Intelligence, see: https://digital-markets-act.ec.europa.eu/high-level-group-digital-markets-act-public-statement-artificial-intelligence-2024-05-22_en.

As part of this first review exercise, the EC launched a consultation on the first review of the DMA on 3 July 2025.

In the present document, BEREC is providing its input focusing on the challenges identified in digital markets and proposing some solutions to tackle them in the context of the DMA. This contribution mainly focuses on markets and services where BEREC and/or its members are or could be competent in the near future or could contribute to by collecting relevant input from the stakeholders. That is NI-ICS, cloud computing services, AI, data collection and its harmonisation, and cooperation with national authorities and European networks. On top of this response, BEREC is also contributing to the discussions on the DMA review within the DMA HLG and its subgroups.

2. Number-independent interpersonal communications services

Number-Independent Interpersonal Communication Services (NI-ICS) are defined in the European Electronic Communications Code[4] (EECC) and include messaging, video-conferencing and e-mail services. In the current report, we refer to NI-ICS with a special focus on messaging services.

2.1. Implementation of Article 7 DMA

2.1.1. Identified issues

Under Article 7, the DMA introduced an obligation for a designated gatekeeper to ensure interoperability of the basic functionalities of its NI-ICS. The main objective of this horizontal interoperability obligation is to improve the contestability of NI-ICS markets, especially messaging services, by opening up access to the gatekeeper's network effects, as the market for messaging services appears to be significantly concentrated around very few players.[5]

As of 24 September 2025, the only designated gatekeeper providing NI-ICS is Meta, which must comply with the interoperability obligation since 7 March 2024 for WhatsApp and since 6 September 2024 for Facebook Messenger. Meta has published reference offers which lay down the technical details and general terms and conditions of interoperability with its

[4] Directive (EU) 2018/1972, Article 2(7). '*number-independent interpersonal communications service' means an interpersonal communications service which does not connect with publicly assigned numbering resources, namely, a number or numbers in national or international numbering plans, or which does not enable communication with a number or numbers in national or international numbering plans.*

[5] BoR (23) 92, BEREC report on interoperability of Number-Independent Interpersonal Communication Services (NI-ICS), 08.06.2023, p. 17, see: https://www.berec.europa.eu/en/document-categories/berec/reports/berec-report-on-interoperability-of-number-independent-interpersonal-communication-services-ni-ics

services.[6] The EC can consult BEREC "in order to determine whether the technical details and the general terms and conditions published in the reference offer that the gatekeeper intends to implement or has implemented ensures compliance with this obligation" (Rec. 64 DMA). On this basis, BEREC has already published three opinions[7] on Meta's reference offers under the DMA. In line with the objectives of the DMA, the implementation of the reference offer should be assessed, among other issues, regarding its potential to reach the objective of reducing barriers to entry and expansion for alternative NI-ICS providers and allow for market contestability.

At the time of writing, no third-party NI-ICS provider has yet implemented interoperability with Meta. It should be noted that the DMA has only been applicable since March 2024 and its impact may take time to fully materialise, especially as the list of interoperable basic functionalities will soon be expanded[8]. However, there may also be some barriers[9] in the current DMA for potential access seekers to both come up with a business model and to propose a service which would be attractive to users:

- **Limitation to "end user" communication:** Under Article 7, interoperability is currently limited to communication between end users. This makes it impossible to provide interoperable services that may also include communication between end users and other types of users such as business users (B2C e.g. for conversational commerce). Especially B2C is often crucial for monetising the implementation of interoperability by a competing NI-ICS provider. It therefore appears to be difficult for third-parties to find an effective business model for requesting and implementing interoperability with the gatekeeper.

- **Availability of the service based on user location:** users of the interoperable services must need to be located in the European Economic Area (EEA). For an effective implementation of Article 7 DMA, it is key to clarify how the distinction

[6] See: https://developers.facebook.com/m/messaging-interoperability/

[7] BoR (25) 21, BEREC Opinion on Meta's reference offers to facilitate Messenger and WhatsApp interoperability under Article 7 of the Digital Markets Act, 03.03.2025, see: https://www.berec.europa.eu/en/all-documents/berec/opinions/berec-opinion-on-metas-reference-offers-to-facilitate-messenger-and-whatsapp-interoperability-under-article-7-of-the-digital-markets-act.

BoR (24) 78, BEREC Opinion on Meta's reference offer published in March 2024 to facilitate WhatsApp interoperability under Article 7 of the Digital Markets Act, 04.06.2024, see: https://www.berec.europa.eu/en/document-categories/berec/opinions/berec-opinion-on-metas-reference-offer-published-in-march-2024-to-facilitate-whatsapp-interoperability-under-article-7-of-the-digital-markets-act.

BoR (24) 19, BEREC Opinion on Meta's draft reference offer to facilitate WhatsApp interoperability under Article 7 of the DMA, 15.02.2024, see: https://www.berec.europa.eu/en/document-categories/berec/opinions/berec-opinion-on-metas-draft-reference-offer-to-facilitate-whatsapp-interoperability-under-article-7-of-the-digital-markets-act.

[8] According to Art. 7 (2) DMA interoperability should be available for text messaging and the sharing of images, videos and other files between individual users within six months after the designation. Within 2 years from the gatekeeper designation (September 2025 for Meta services) the gatekeeper must also provide interoperable group-messaging functionalities; Within 4 years from the gatekeeper designation (September 2027 for Meta services) also (Video-)(Group-)Calling must be provided interoperable.

[9] See in detail also BEREC opinions listed under previous footnote.

between EEA and non-EEA users is made[10] and what happens when EEA users roam to non-EEA countries, e.g. if and under which conditions (including the timeframe) the service may be disrupted.[11]

- **Lack of multi-device support:** Support for multiple devices when using interoperability is not explicitly specified in Article 7. However, it is very common for NI-ICS providers to offer their users the possibility to use and synchronise their chats over multiple devices with different operating systems (OS) (e.g. smartphone and laptop).[12] A study by RTR finds that the possibility to use a messaging service via web browsers is provided by 73 % of the analysed services, and around 58 % of the analysed services allow to use the messaging service in an app within a Desktop-OS. Both functions are even provided – at least partly – in WhatsApp and Facebook Messenger.[13]

- **User discovery and user experience:** According to the screenshots provided by Meta[14], user discovery must be carried out manually by the users e.g. when they want to start a chat with third-party app user. In addition, functionality to set and transmit profile information is also missing. There is no possibility to convey e.g. display names, profile images, time of last online-status, etc. This can result in a degraded user experience when using interoperable functions.

2.1.2. BEREC proposals

Against this background and the evolution of NI-ICS (see Chapter 2.2), BEREC proposes the following adjustments to the DMA with regard to Article 7:

- When usages and/or market developments justify it, **make use of Article 12(3) DMA to update the list of interoperable basic functionalities** under Article 7. These changes should also take into account regulatory predictability. BEREC will keep

[10] Meta informs third-party users that the IP address is collected to estimate their general location (See Annex 1, Section 7 “Interoperabiltiy requirements” in WhatsApp and Messenger reference offers, https://www.whatsapp.com/legal/dma-notice-non-users). Assessing location via IP address can be inaccurate for different reasons: (i) IP addresses can be dynamically assigned, leased, or traded; (ii) in the case of roaming, IP addresses are usually provided by the user’s home network, and (iii) when using a VPN, the IP address depends on the VPN server.

[11] For further details, see Chapter 7 of BoR (25) 21, BEREC Opinion on Meta’s reference offers to facilitate Messenger and WhatsApp interoperability under Article 7 of the Digital Markets Act, 03.03.2025, see: https://www.berec.europa.eu/en/all-documents/berec/opinions/berec-opinion-on-metas-reference-offers-to-facilitate-messenger-and-whatsapp-interoperability-under-article-7-of-the-digital-markets-act.

[12] For further details, see Chapter 3 of BoR (25) 21, BEREC Opinion on Meta’s reference offers to facilitate Messenger and WhatsApp interoperability under Article 7 of the Digital Markets Act, 03.03.2025, see: https://www.berec.europa.eu/en/all-documents/berec/opinions/berec-opinion-on-metas-reference-offers-to-facilitate-messenger-and-whatsapp-interoperability-under-article-7-of-the-digital-markets-act .

[13] More than just Text Messages: The Numerous Functionalities of Messengers, RTR (2024): https://www.rtr.at/TKP/aktuelles/publikationen/publikationen/messenger_functionalities.en.html.

[14] https://developers.facebook.com/m/messaging-interoperability/ Last consulted by BEREC on 1 September 2025

assisting the EC to make sure that the gatekeepers' reference offer allows to reach the DMA contestability objective.

- Consider including in the list of basic functionalities the possibility **for interoperable communication which is not limited to end users alone** (e.g. B2C) to achieve the contestability objectives aimed by the DMA. It should be noted that given the definition of NI-ICS under the EECC, such communication would only concern interpersonal and interactive exchange among persons, and would thus exclude machine-to-machine and machine-to-person communications (e.g. consumer service chatbots or application-to-person, A2P-messaging). Moreover, BEREC recommends conducting a prior in-depth analysis to assess the potential competitive impact[15], as well as the implications for data security in order to ensure that the extension of interoperability to B2C communication does not weaken user protection or create new risks.

- **Clarify the conditions to identify EEA vs. non-EEA users,** as well as to avoid unjustified restrictions to interoperability in case of users roaming outside the EEA.

- **Allow for multi-device support** across different devices and OS when making use of the interoperable basic functionalities.

- Explore provisions to **enhance interoperable user experience** e.g. by provisions on automated **user discovery**.

From a legal perspective, BEREC points out that some changes could already be implemented through Article 12(2)(b) and 12(3) DMA, which empower the EC to adopt delegated acts to amend the DMA with regard to the concerned users, as well as the list of basic functionalities identified in Article 7(2), by adding or removing functionalities of NI-ICS. BEREC remains available to provide further input and feedback if such a revision of the list of basic functionalities is considered in the near future.

[15] BEREC recognises the potential danger that interoperable B2C services could weaken monetisation possibilities of alternative, independent NI-ICS not making use of interoperable access and strengthen gatekeeper dominance in different communication markets, therefore potentially weakening overall competition in (C2C or other) communication markets.

2.2. Evolution of NI-ICS

2.2.1. Identified issues

NI-ICS are a crucial means of communication throughout Europe[16], and although multi-homing[17] is possible and common, the market for messaging services is significantly concentrated, with WhatsApp and Facebook Messenger (both provided by Meta) dominating the market in Europe.[18] A large user base (i.e. the number of contacts with which communication can be initiated via a service) appears to be the critical reason for selecting a particular messaging service, and for not switching to another one.[19] Thus, proprietary network effects between users represent barriers to switching, market entry and expansion.

In recent years, many messaging services not only extended their range of innovative communication functionalities for end users (e.g. emoji, stickers, GIFs, message editing and read receipts, voice messages, attachments[20]) but also added functionalities especially for business users. In some cases, stand-alone applications or Application Programming Interfaces (APIs) are provided for commercial users (e.g. WhatsApp Business), for example to facilitate customer support or buying/selling activities through real-time chat-based interactions between customers and businesses, often referred to as "conversational commerce". Furthermore, in addition to text, photo, video and voice messaging, services often also include additional features such as online advertising services based on (targeted) ads, payment services, AI powered functions (e.g. message summaries, translations, smart replies, image generation, search), content/broadcasting functions (e.g. "channels" functions).

At the same time, the increasing relevance of certain AI services raises several competition questions, since such integration has the potential to reinforce the gatekeeper's market power and to allow the company to leverage it onto other markets, given e.g. tying with the messaging services, and the access to certain NI-ICS inputs, data and interfaces. There are several

[16] The share of the European population using messenger increased from 65% in 2019 to 79% in 2024. Eurostat (2025): Individuals - internet activities, see : https://ec.europa.eu/eurostat/databrowser/view/isoc_ci_ac_i__custom_545478/bookmark/table?lang=en&bookmarkId=ebca102c-f7c5-402a-9cef-6c96970d2d6d&c=1752765979532

[17] Where multiple messaging services are used simultaneously.

[18] In a European cross-country survey 61% of consumer identified WhatsApp – and 23% Facebook Messenger – as their main messenger application. See: BoR (21) 89, Analysing EU consumer perceptions and behaviour on digital platforms for communication. Analysis report, 10.06.2021, p. 35, 42: https://www.berec.europa.eu/en/document-categories/berec/reports/analysing-eu-consumer-perceptions-and-behaviour-on-digital-platforms-for-communication-analysis-report; BoR (23) 92, BEREC report on interoperability of Number-Independent Interpersonal Communication Services (NI-ICS), 08.06.2023, p.14-15: https://www.berec.europa.eu/en/document-categories/berec/reports/berec-report-on-interoperability-of-number-independent-interpersonal-communication-services-ni-ics

[19] Switching barriers for key Internet services, RTR (2022), see: https://www.rtr.at/TKP/aktuelles/publikationen/publikationen/switching_barriers.en.html (German, executive summary available in English), p. 44.

[20] For an overview of functions see also: More than just Text Messages: The Numerous Functionalities of Messengers, RTR (2024): https://www.rtr.at/TKP/aktuelles/publikationen/publikationen/messenger_functionalities.en.html.

examples for this. Firstly, in early 2025, the current gatekeeper Meta **pre-installed its AI service** "Meta AI" on its NI-ICS without any prior request from users and without the possibility for them to uninstall it. Secondly, NI-ICS are evolving from text-based messaging tools into **multifunctional access points**, where communication increasingly occurs via smart displays, voice commands, and virtual assistants – and where traditional interpersonal messaging coexists with integrated services such as search, content creation, and AI-driven querying. Such AI services can be provided by the messaging service itself or by a third-party: (i) directly in-app by the NI-ICS provider (e.g., Meta AI in both WhatsApp and Facebook Messenger), (ii) via NI-ICS API by a third party (e.g. ChatGPT as chat "partner" in WhatsApp[21]), (iii) via the operating system (e.g. transcription of voice messages in WhatsApp), or (iv) by a combination of approaches (e.g. Google Gemini mobile app[22]). End-to-end encrypted communication typically must be decrypted before AI processing, which usually requires access to plaintext messages; the processing can be done either on-device, preserving privacy and security by keeping data local, or server-side, enabling more advanced analysis and scalability. Thirdly, **access to valuable inputs** is crucial. Indeed, in the described context, communications data – including message metadata, NI-ICS interaction patterns (i.e. metrics of engagement), and user interactions with integrated AI services – represent a valuable data source for training and fine-tuning of AI models; characteristics are a variety of data formats in large volumes, and high velocity due to real-time communication. Access to interaction data (e.g. a message 'like') seems to play an important role in training quality, enabling providers to constantly personalize and improve their services ('feedback effects').

All these additional features benefit from large user bases, high engagement and time spent on messaging services due to positive feedback loops: more users (due to direct and indirect network effects) result in more user data, which can be used to provide better-targeted additional and innovative features. Messaging services therefore have the potential to serve as anchor for **leveraging market power to other services**. Demand synergies with other (monetized or not) CPSs and more in general (platform) services or products in the ecosystem of the provider can contribute to ecosystem expansion and lock-in effects. WeChat (the dominant social and messaging app in China), for example, began as a messaging service but rapidly expanded its functionalities combining chat, social media, payments, and a wide range of integrated services. These features transformed WeChat into a "Super App" where users can accomplish many daily digital tasks. At the same time, NI-ICS can be a target of leveraging of market power.[23]

[21] See: https://chatgpt.com/link/whatsapp.

[22] On Android devices, Gemini mobile app can be used to make calls and send messages on WhatsApp. Other functions, like read and reply to notifications and summarizing messages, are performed by the app with the support of the Utilities app, see: https://support.google.com/gemini/answer/15574928?hl=en. Last consulted by BEREC on 9 September 2025

[23] In 2024 the EC adopted a preliminary finding that Microsoft abused its dominant position by bundling Teams with its productivity suite Office/Microsoft 365. Customers could not get the suite without Teams, giving Teams an unfair distribution advantage and disadvantaging competitors due to limited interoperability with rival products, see: https://ec.europa.eu/commission/presscorner/detail/en/ip_25_1233

2.2.2. BEREC proposals

The inclusion of NI-ICS under the DMA CPS is relevant and justified by current and foreseeable market dynamics and evolution. Moreover, based on the developments described under section 2.2.1, BEREC proposes to:

- **Consider extending Article 6(3) to NI-ICS** in order to allow end users to uninstall the bundled AI conversational agent[24], as well as to easily change the default settings on the NI-ICS, including settings concerning the use by gatekeepers of NI-ICS data in training and refining AI models. Indeed, data from NI-ICS-related interactions with AI services (user information, model/agent actions, system prompts) play an increasingly important role. This creates a competitive advantage especially when data is leveraged across platforms (e.g. Meta AI utilising data from WhatsApp chats, Facebook Messenger chats and Instagram chats).

- **Ensure user control, data protection and confidentiality of communication**. When it comes to the integration of AI features and the use of NI-ICS data for training and fine-tuning AI models, transparency and user control over private communication data are essential. Data protection and the confidentiality of communications as well as the resulting strict requirements and prohibitions on the use of data must also remain in place in the context of AI.

BEREC will continue to monitor and analyse further developments in the digital markets and the impact and effects of the practices implemented by large digital platforms, especially related to tying/bundling practices and ecosystem effects of NI-ICS. BEREC contributes to the identification and definition of harmonised metrics for NI-ICS relevant for regulatory tasks.[25] Some BEREC members collect and regularly publish user and traffic data for NI-ICS (collected from users as well as directly from providers).[26] Data enables market monitoring and can help in an assessment of the impact of remedies and measures. The data collected by BEREC members also already contributed to the market investigation by the EC concerning Apple's NI-ICS "iMessage".[27]

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[24] See also the launch of an investigation by the Italian competition authority AGCM into Meta. By combining Meta AI and WhatsApp Meta may abuse its dominant position. AGCM (2025): 576 - The Italian Competition Authority launches investigation into Meta over abuse of dominant position. See: https://en.agcm.it/en/media/press-releases/2025/7/A576

[25] BoR (21) 127, BEREC Report on harmonised definitions for indicators regarding over-the-top services, relevant to electronic communications markets, 30.09.2021, see: https://www.berec.europa.eu/en/document-categories/berec/reports/berec-report-on-harmonised-definitions-for-indicators-regarding-over-the-top-services-relevant-to-electronic-communications-markets

[26] See e.g. Bundesnetzagentur: https://www.bundesnetzagentur.de/DE/Fachthemen/Digitales/Onlinekommunikationsdienste/Marktbeobachtung/start.html , RTR: https://app.23degrees.io/viewSub/wzIE4c83iONoe8f2-report-jahresbericht-2024/EOuQsrGfQKNCUcqG-bar-grouped-vertical-7-1-anzahl-gespraechsminuten and https://www.rtr.at/TKP/aktuelles/publikationen/publikationen/internet_based_communication.html, CNMC: https://blog.cnmc.es/2024/05/24/panel-de-hogares-cnmc-redes-sociales-y-mensajeria-instantanea/

[27] CASE DMA,100022, p.5-6, see: https://ec.europa.eu/competition/digital_markets_act/cases/202416/DMA_100022_2757.pdf

3. Cloud services

3.1. Identified issues

The provision of cloud services requires significant investments in infrastructures, such as data centres and network connectivity, as well as in IT resources and specialised staff. There are substantial barriers to entry and expansion in cloud services, namely related to significant fixed costs, economies of scale and scope and ecosystem effects. These characteristics are barriers to market entry that can raise competition concerns. In Europe, Amazon (AWS) and Microsoft account for more than 50% of the regional market and their share continues to steadily rise[28].

Already back in 2020, the European data strategy[29] identified the regulation of the cloud sector as a major challenge in fostering a data-driven economy. Problems identified included the low market share of European cloud service providers, the risks of dependency on non-European providers, the high market concentration, and user lock-in – particularly due to low service interoperability and limited data portability.

BEREC has already analysed some issues concerning cloud markets in its reports on the entry of large content and application providers into the markets for electronic communications networks and services[30], on cloud and edge computing services[31] and in its external study on the trends and cloudification, virtualization, and softwarization in telecommunications[32]. Moreover, cloud services have recently been investigated by regulatory and competition authorities in Europe, amongst which ACM[33], Autorité de la Concurrence[34], Ofcom[35] and CMA[36]. They all highlighted competition issues, followed by several recommendations to

[28] Cloud Market Share Trends to Watch in 2025, see: https://www.emma.ms/blog/cloud-market-share-trends
[29] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A European strategy for data, 19 February 2020.

[30] BoR (24) 139, BEREC Report on the entry of large content and application providers into the markets for electronic communications networks and services, 03.10.2024, see: https://www.berec.europa.eu/en/all-documents/berec/reports/berec-report-on-the-entry-of-large-content-and-application-providers-into-the-markets-for-electronic-communications-networks-and-services
[31] BoR (24) 136, BEREC Report on Cloud and Edge Computing Services, 03.10.2024, see: https://www.berec.europa.eu/en/all-documents/berec/reports/berec-report-on-cloud-and-edge-computing-services
[32] BoR (23) 208, External study on the trends and cloudification, virtualization, and softwarization in telecommunications, see: https://www.berec.europa.eu/en/document-categories/berec/reports/external-study-on-the-trends-and-cloudification-virtualization-and-softwarization-in-telecommunications
[33] Market Study Cloud Services, 2021, see: https://www.acm.nl/system/files/documents/public-market-study-cloud-services.pdf
[34] Opinion 23-A-08 of 29 June 2023 on competition in the cloud sector, see: https://www.autoritedelaconcurrence.fr/sites/default/files/attachments/2023-09/23a08_EN.pdf
[35] Cloud services market study, 05.10.2023, see: https://www.ofcom.org.uk/__data/assets/pdf_file/0027/269127/Cloudservices-market-study-final-report.pdf
[36] Cloud infrastructure services, Final decision report, 31.07.2025, see: https://assets.publishing.service.gov.uk/media/688b8891fdde2b8f73469544/final_decision_report.pdf

address them. In particular, the CMA proposed to consider the designation of AWS and Microsoft as actors with strategic market status under the British Digital Markets, Competition and Consumers Act.

In the DMA, cloud computing services are already listed among the CPS, which implies that they feature a number of characteristics such as very strong network effects, a significant degree of dependence of both business users and end-users, lock-in effects, vertical integration, and data driven-advantages that can be exploited by the undertakings providing them and can be combined with unfair practices undermining the contestability of such services[37]. Although the markets for cloud services are proved to be concentrated around very few players, as of 24 September 2025, no gatekeeper has been designated for this CPS.

The Data Act[38] aims to remove a number of contractual, technical, and commercial barriers to switching cloud providers and to deploying multi-cloud strategies. Some BEREC members have been designated – or are in the process of being designated – as the competent authorities for the implementation of (some chapters of) the Data Act and, in particular, those which concern switching between data processing services and interoperability (where the national competent authority is required to have experience in the field of data and electronic communications services).

In this context, in the last months, some BEREC members have exchanged with several stakeholders in the cloud markets and have identified some issues that deserve to be tackled and monitored:

- **Cloud services' customers face both commercial and technical barriers** when seeking to multi-cloud or switch their cloud provider. This can generate lock-in effects, leading to weaker competition between providers.

- Lock-in effects are further reinforced by **unfair licensing practices implemented by large vertically integrated providers** who leverage the widespread use of some of their cloud software to favour their own cloud infrastructure offerings. Customers of the corresponding software would encounter more difficulties in running it on competing cloud platforms, with higher prices and technical restrictions.[39]

- **Many innovative technologies (such as AI) and companies heavily rely on cloud computing services**. Large cloud providers may therefore benefit from detailed data and information generated or provided by their (business) users, and use them to directly compete with them or to develop other innovative services. For instance,

[37] See Recital 2 DMA.
[38] Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828
[39] CISPE, *Unfair Software Licensing Practices*, 21.06.2023, see: https://cispe.cloud/website_cispe/wp-content/uploads/2023/06/Quantification-of-Cost-of-Unfair-Software-Licensing_Prof-Jenny_-June-2023_web.pdf; Competition and Markets Authority, *Cloud infrastructure services: Final decision report*, 31.07.2025, see: https://assets.publishing.service.gov.uk/media/688b8891fdde2b8f73469544/final_decision_report.pdf (especially Appendices S and T).

several partnerships between AI developers and large cloud providers, who are vertically integrated and also provide AI services, have been established to facilitate access to the computational power necessary for training and using AI models. While preferential access to computing resources can stimulate competition among AI developers, some clauses in these partnerships may not be fair[40], and these relations may enable the cloud provider to obtain relevant data that could be used to enter adjacent markets and (unfairly) compete with some of its business users.

3.2. BEREC proposals

Competitive issues identified in cloud markets are or can be tackled under different regulatory frameworks, depending on the objectives and/or the targeted actors. Concerning the points highlighted under section 3.1:

- BEREC proposes to **designate gatekeepers providing cloud computing services**, using the procedure laid down in Article 3(8) in case the quantitative thresholds were not met. The qualitative criteria were already recognised to be significant in the DMA impact assessment – see for instance the size (including turnover, market capitalisation, operations and position of the undertakings)[41], the data-driven advantages, scale and scope effects[42], business user or end user lock-in[43], the conglomerate corporate structure or vertical integration of the undertaking[44].

- If designated under the DMA, gatekeeping cloud providers would be submitted to, among others, Article 6(2) DMA and therefore **prevented from using data generated by business users (or by the customers of these business users) in order to compete with them**. This would contribute to preventing the gatekeepers from benefitting from their position in cloud markets and from leveraging their market power

[40] An investigation by the Federal Trade Commission in the United States suggests that these partnerships could allow cloud providers to access various data about their partner AI models, such as training data, performance data, financial data, and even intellectual property; Federal Trade Commission, *Partnerships Between Cloud Service Providers and AI Developers*, January 2025, see: https://www.ftc.gov/system/files/ftc_gov/pdf/p246201_aipartnerships6breport_redacted_0.pdf

[41] AWS and Microsoft Azure's market shares in revenues for IaaS and PaaS combined are estimated at 46% and 17% respectively in France, at 30%-35% and 40%-45% respectively in the Netherlands, and 30%-40% each in the United Kingdom and EEA. Google Cloud Platform (GCP), in third place, has less than 10% market share in these areas. See Autorité de la concurrence, Avis 23-A-08; ACM, Market Study Cloud services; CMA, Cloud Infrastructure Services, Final decision report.

[42] This is already mentioned in the EC impact assessment report for the DMA (part 1/2), see: https://digital-strategy.ec.europa.eu/en/library/impact-assessment-digital-markets-act.

[43] This is already mentioned in the EC impact assessment report for the DMA (part 1/2), see: https://digital-strategy.ec.europa.eu/en/library/impact-assessment-digital-markets-act. Moreover, the Data Act recognises that a regulatory intervention is needed to lower barriers to switching and to multi-homing.

[44] This is already mentioned in the EC impact assessment report for the DMA (part 1/2), see: https://digital-strategy.ec.europa.eu/en/library/impact-assessment-digital-markets-act.

onto other markets which heavily rely on cloud services (e.g. a dominant cloud provider developing its own AI agent)[45].

- Concerning **cloud switching and the use of multi-cloud**, the Data Act provides for relevant obligations aimed at addressing these issues[46].
- **With regard to the unfair licensing practices,** an extension of Article 6(12) DMA (which requires gatekeepers to apply fair, reasonable and non-discriminatory conditions of access to some CPS) to cloud computing services (which include SaaS solutions) could be considered. This would allow, for instance, alternative cloud providers to offer their users equivalent conditions for using the gatekeepers' SaaS solutions.

The Data Act and the DMA are powerful tools to: i) implement interoperability and portability of cloud services, and to promote open interfaces, and ii) promote open, competitive and fair digital markets, respectively. These regulations should be used and implemented to their full potential.

However, there may remain competitive issues in the provision of cloud computing services which might require an *ex ante* asymmetric intervention in the future if those issues cannot be addressed by the consistent application of the current legislation and thus there is market failure. BEREC and its members will keep exchanging with relevant cloud stakeholders and monitoring the market dynamics and practices, in order to contribute to the implementation of the current regulations and to their interplay, as well as to the shaping of other appropriate regulatory interventions.

4. Artificial intelligence

4.1. Identified issues

As already seen in the context of NI-ICS under section 2.2.1, the rapid development and uptake of AI enables opportunities for innovation and growth, but its increasingly widespread use across multiple services may also pose challenges to the safe, fair, and contestable digital environment enhanced by the DMA. In particular:

[45] An investigation by the Federal Trade Commission in the United States suggests that these partnerships could allow cloud providers to access various data about their partner AI models, such as training data, performance data, financial data, and even intellectual property. The negative impact on competition that it may have could be mitigated by BEREC's proposal. See Federal Trade Commission, *Partnerships Between Cloud Service Providers and AI Developers*, January 2025.

[46] By establishing the rights of customer and obligations of the provider in terms of switching which must be clearly set out in a written contract (Article 25), by removing switching and egress charges (Article 29) and obstacles to effective switching (Articles 23 and 30(1-5)), as well as Articles 34 and 35.

- The development of **AI models and the distribution of AI-based services heavily rely on several CPSs**. This is the case for CPSs providing the necessary inputs (e.g. cloud computing services, see for chapter 3.1) and for CPSs where AI is commonly integrated (e.g. OS, search engines, virtual assistants, NI-ICS, web browsers). Some CPSs are now significantly reshaped by (additional) AI-based tools: on search engines, AI systems do not merely support traditional search but increasingly deliver pre-processed, contextually tailored responses or outcomes, effectively replacing the search function with AI-driven answer engines. Moreover, other OS-embedded AI services may become the main way users interact with applications and content on their device.

- On top of this dependency, **AI systems increasingly act on several layers** (from infrastructure to user-facing functionalities) **and as orchestrators across several CPSs**. As an example, in order to execute a specific task (e.g. schedule a meeting), an AI system can autonomously access and integrate data and information from multiple sources: a user's calendar (cloud services), messages (NI-ICS), and other third-party applications (online intermediation). **AI systems thus reinforce the ecosystemic nature** of the gatekeepers and can exacerbate its negative effects (e.g. lock-in effect, access to exclusive data/inputs, technical/commercial restrictions on third-party service providers).

4.2. BEREC proposals

As highlighted in the DMA HLG Public Statement on AI[47], the DMA obligations already apply to AI systems that are embedded into designated CPSs, and compliance has to be assessed taking into account how AI systems determine the behaviours that are covered by the DMA provisions. Furthermore, the DMA regulates the type of personal and business data available to train or operate gatekeepers' AI systems by requiring the consent of end users for certain types of data processing and by banning use of such data in competition with business users.

BEREC supports an effective enforcement of the current DMA provisions which are relevant for AI. In particular:

- As explained under Chapter 3, **the designation of the largest cloud service providers as gatekeepers would have a positive impact on the AI markets**. Such actors would be submitted to, among others, Article 6(2) DMA and would therefore be prevented from using data generated by business users (e.g. AI companies), or by the customers of these business users, in order to compete with them.

[47] High-Level Group for the Digital Markets Act Public Statement on Artificial Intelligence, see: https://digital-markets-act.ec.europa.eu/high-level-group-digital-markets-act-public-statement-artificial-intelligence-2024-05-22_en.

Obligations currently applying to CPSs also appear to be relevant to address the identified issues. For instance,

- **The combination of Articles 6(3) and 6(7) DMA would allow and facilitate the use of AI agents[48] provided by third-parties/competitors of the gatekeepers.** Indeed, Article 6(3), which allows end users to uninstall any software application in a gatekeeper's OS, as well as to easily change the default settings on the OS, virtual assistant and web browser they may use, implies that users should be able to uninstall pre-installed AI agents[49]. Moreover, Article 6(7) requires the gatekeeper to: i) allow providers of services/hardware effective interoperability with the same hardware/software features accessed or controlled via the designated OS or virtual assistant as are available to services or hardware provided by the gatekeeper, and ii) provide business users and alternative providers of services with effective interoperability with the same OS, hardware or software features used by the gatekeeper. The implementation of these obligations would benefit from a structured and regular monitoring of interfaces concerning OS hardware and software features, as well as the development of APIs, proprietary and open specifications and standards between virtual assistants and other services, including NI-ICS (e.g. when accessing, processing or sending messages, see Chapter 2.2), OS (e.g. the protocols App Intents[50] by Apple or the Model Context Protocol[51]) and associated terms and conditions.

- AI agents also greatly benefit from data generated by the users (e.g. conversational or interactions data). There is therefore a risk of concentration dynamics strengthened by data-driven feedback loops and lock-in effects. **Data portability obligations** as provided for under Article 6(9) DMA can have a positive impact on market dynamics. In the longer term, an extension of Article 6(11) may be considered in order to provide third-party undertakings with access on fair, reasonable and non-discriminatory terms to relevant data.

- **The ban on self-preferencing** (Article 6(5) DMA) can be very relevant in the context of AI agents. As it is worded now, the article can already tackle some of the issues raised by AI embedded in search engines when it favours the gatekeepers'

[48] AI agents can be described as autonomous AI systems performing multiple steps to complete a high-level goal. An example for an AI agent could be an app-less phone, where users interact with the AI agent, which in turn performs tasks across different domains and services autonomously (e.g. automated travel bookings based on user's preferences, availability and location), with limited or no human input. Large players might also be able to coordinate AI tech stack layers (including e.g. OS, devices, chips, apps and services and related data) towards these, and therefore optimise the quality of inputs for their AI services within the ecosystem. While in some cases AI agents may fall within the DMA CPS definition of virtual assistants, in the current response and as a first step, BEREC makes proposals concerning AI agents integrated into other CPSs (OS, search engines, etc.) and not as a stand-alone CPS.

[49] According to Article 6(3), the gatekeeper can restrict such un-installation in case of software applications that are essential for the functioning of the OS or of the device.

[50] See: https://developer.apple.com/documentation/appintents

[51] See: https://www.anthropic.com/news/model-context-protocol

services/products. However, the current wording of Article 6(5) DMA would not allow to prevent gatekeepers providing OS or NI-ICS from favouring their own AI service. An analysis could be carried out to determine whether an amendment of the article is needed and proportionate to tackle this aspect.

- Concerning the integration of AI within NI-ICS, please see proposals under section 2.2.2.

The implementation of the above-mentioned provisions would also ease compliance with Article 6(6) DMA which guarantees end users' freedom of choice and switching among services.

- Moreover, in order to take account of the gatekeepers' ecosystemic nature, an extension of Article 5(7) DMA could also be considered. Article 5(7) aims to "avoid a situation in which gatekeepers indirectly impose on business users their own services provided together with, or in support of, CPSs"[52] (such as identification service, web browser engine and payment service in the current drafting). The obligation also already covers the prohibition to require end users to use those services. In the same spirit, gatekeepers providing OS or app stores could be prohibited from forcing business users (developers) to interoperate with the gatekeeper's AI agent as a condition for distribution. This extension could mitigate lock-in effects in gatekeepers' ecosystem by protecting the business users' freedom of choice as to whether to make their apps and services compatible with the virtual assistant provided by gatekeepers controlling the OS.

A designation of AI agents as a specific CPS, such as virtual assistants[53], can also be relevant. However, in the short term, BEREC believes that the implementation of the (current, or extended, as proposed above) DMA obligations on the existing CPSs allows – without any delay – to tackle many of the most urgent issues raised by AI.

Furthermore, as highlighted by the French competition authority in its Opinion on generative AI, Model-as-a-Service (MaaS) now offer a marketplace for generative AI models, which could be increasingly relevant for business users (AI model providers) using MaaS marketplaces to reach end users (developers). Gatekeepers already offer their customers MaaS marketplaces (e.g. Vertex AI Model Garden on Google Cloud, Amazon Bedrock on AWS, Azure AI on Microsoft Azure), where generative AI models, designed to integrate seamlessly with other services of the cloud provider, can be accessed.[54] BEREC therefore recommends close

[52] See Recital (43) DMA

[53] According to Article 2(12) DMA, virtual assistant means a software that can process demands, tasks or questions, including those based on audio, visual, written input, gestures or motions, and that, based on those demands, tasks or questions, provides access to other services or controls connected physical devices. Currently, AI assistants increasingly serve as the front-end access point to more autonomous AI agents, acting as the user-facing interface which triggers and coordinates agentic workflows across multiple services.

[54] The French Autorité de la concurrence highlights this in its Opinion on the competitive functioning of the generative artificial intelligence (Opinion 24-A-05 of June 28, 2024); the British Competition & Markets Authority

monitoring of relevance and design of such marketplaces (which have elements similar to app stores), in order to anticipate potential adjustments and designations, if needed.

BEREC actively contributes to the HLG subgroup dedicated to AI and will further cooperate with the EC and other European networks to ensure that the DMA can tackle the issues raised by AI.

5. Cooperation with national authorities and European networks

BEREC supports the implementation of the DMA at the European level. While being the sole enforcer of the DMA, the EC could be further assisted by European networks and bodies as well as by national authorities. Indeed, due to their proximity to national stakeholders (including SMEs) and users, national authorities can make a useful contribution to data collection and to supporting the EC with the implementation, monitoring and review of the regulation.

As highlighted in BEREC Report on the *ex ante* regulation of digital gatekeepers (BoR (21) 131)[55], a systematic and targeted data collection is necessary. By means of objective, structured and easily-comparable data, the effects of an intervention can be measured and adapted when necessary. The regular publication of non-confidential data can also raise awareness of rights defined in the DMA (e.g. of end and business users, as well as providers competing with gatekeepers) and the impact of its enforcement. Data could concern e.g. traffic and usage of service as a whole and of specific functionalities[56], detailed pricing and commission rates, A/B testing[57] etc., and could be collected from gatekeepers, as well as from market players and more generally from users (e.g. via surveys or crowd-sourcing). The Digital Services Act (DSA) already requires some regulated actors to provide national competent authorities, the EC and researchers with access to the data necessary to monitor and assess

(CMA) pointed out in its final decision report on cloud infrastructure services (published on 31 July 2025) that cloud providers need to offer a wide selection of foundation models on their platforms in order to be competitive in this field; it anticipates that demand for AI models might increasingly drive greater demand for other cloud services over time, see: https://www.gov.uk/cma-cases/cloud-services-market-investigation#final-report (p. 13 and 194)

[55] BoR (21) 131, BEREC Report on the ex ante regulation of digital gatekeepers, 30.09.2021, see: https://www.berec.europa.eu/sites/default/files/files/document_register_store/2021/10/BoR%20%2821%29%20131%20BEREC%20Report%20on%20GKs%20-%20Clean%20final.pdf.

[56] For example, data concerning the use of the messaging services or functionalities relative to the use of social network services or functionalities within the same application could help in regulatory assessments.

[57] A/B testing is a research technique used in user experience to compare two versions of a webpage or app to evaluate which one achieves specific predefined objectives more effectively. Users are randomly assigned to either version A or version B, enabling businesses to gather data on which design, content, or feature more successfully prompts desired actions, ultimately supporting data-driven enhancements.

compliance with the regulation[58]. The DMA would benefit from being supplemented by a similar provision.

Beyond data collection, BEREC has already contributed to the harmonisation of indicators and approaches at supranational level. The DMA HLG could provide an appropriate forum for further harmonisation between different sectors and regulatory approaches across different regulatory instruments.

In addition, under the guidance of the EC, national authorities and their European networks could contribute more – thanks to the information collected and exchanges with national stakeholders – to monitoring the use of the services covered by the DMA, or the practices of gatekeepers which prove to be more harmful for businesses and end users. Complemented by a formal power in the medium term, this would enable national authorities and European networks to report to the Commission any conduct that could restrict the implementation of the DMA or limit its effects.

Finally, BEREC actively contributes to the DMA HLG. The HLG should identify and assess the current and potential interactions between the DMA and other rules and contribute to consistent transdisciplinary approaches and synergies.[59] BEREC fully supports further strengthening of such cooperation as part of the evolving EU governance framework.

[58] According to Article 40 DSA providers of very large online platforms or of very large online search engines shall provide the digital services coordinator of establishment or the Commission, at their reasoned request and within a reasonable period specified in that request, access to data that are necessary to monitor and assess compliance with this Regulation.
[59] See Art. 40 DMA.

Annex

Table 1: Implemented functions of Messengers[60]

Nr.	Functionality	Telegram	WhatsApp	Signal	Skype	Viber	Discord	Facebook Messenger	Snapchat	Instagram Direct Messaging	iMessage	Google Messages	TikTok Direct Messaging	SMS	Share of services
1	Text message	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
2	Text message with emoji	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
3	Message reaction with emoji	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	92%
4	Choose your profile name	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	92%
5	"Person typing"-display	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	92%
6	Animated GIFs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	92%
7	Send sticker (partially transparent)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	92%
8	Animated sticker sending	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	92%
9	Delete emoji reaction	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	92%
10	Video message attachment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	85%
11	Read receipt	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	85%
12	Image as message	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	85%
13	Direct reply to a message	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	85%
14	Profile picture setting and changing	✓	✓	✓	✓	✓	✓	✓	◯	✓	✓	✗	✓	✗	81%
15	Edit sent messages	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	77%
16	Message with more than one image	✓	◯	✓	✓	◯	✓	✓	✓	✓	✓	◯	✗	✗	73%
17	Usage in web browser	✓	✓	✓	✓	✗	✓	✓	◯	✓	✗	✓	✓	✗	73%
18	Delete sent message for everyone	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	69%
19	Voice message attachment	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✗	✗	69%
20	File attachment	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✗	✗	69%
21	"Person is online"-display	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✗	✓	✗	69%
22	Image and text combined	✓	✓	✓	◯	✓	◯	✓	✓	✓	◯	◯	✗	✗	69%
23	Video and text combined	✓	✓	✓	◯	✓	◯	✓	✓	✓	◯	◯	✗	✗	69%
24	Time of reading display	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓	✓	✗	69%
25	Initiate contact via username	✓	✗	✓	✓	✗	✓	✓	✓	✓	✗	✗	✓	✗	62%
26	Usage in app on Windows/Mac/Linux	✓	◯	✓	✓	✓	✓	◯	◯	◯	◯	✗	✗	✗	58%
27	Biography / short profile	✓	✓	✓	✓	✗	✓	✗	✗	✓	✗	✗	✓	✗	54%
28	Confirmation of message delivery	✗	✓	✓	✗	✓	✗	✓	✓	✗	✓	✓	✗	✗	54%
29	Profile badge	✓	✗	✓	✗	✓	✓	✗	✓	✓	✗	✗	✓	✗	54%
30	Disappearing message per contact	✓	✓	✓	✗	✓	✗	✓	◯	✗	✓	✗	✗	✗	50%
31	Share location (for a time)	✓	✓	✗	✗	✓	✗	✓	✓	✗	✓	✗	✗	✗	46%
32	Format text (bold, italics)	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	46%
33	Phone number visibility optional	✓	✗	✓	✓	✓	✓	✗	✗	✗	✓	✗	✗	✗	46%
34	GIF and text combined	✓	✓	✓	✓	✗	◯	✗	✗	✗	◯	◯	✗	✗	42%
35	View picture message once option	✓	✓	✓	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗	38%
36	Forwarding of one message	✓	✓	✗	✓	✗	✗	✓	✗	✓	✗	✗	✗	✗	38%
37	Time of delivery display	✗	✓	✗	✗	✗	✗	✗	✓	✗	✓	✓	✗	✗	31%
38	Profile video	✓	✓	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	23%
	Share of functionalities	95%	89%	87%	79%	75%	75%	75%	74%	72%	68%	53%	47%	5%	

Source: RTR (2024), More than just text messages: The Numerous Functionalities of Messengers[61]

[60] Notes: Green tick represents function is fully supported, yellow circle is partial support and red cross no support.
[61] See: https://www.rtr.at/TKP/aktuelles/publikationen/publikationen/messenger_functionalities.en.html