In what capacity or on whose behalf are you participating in this public consultation?	End user of cloud services
In case of representing a company, please specify the type of company:	SME
Full name (of the participant or represented institution):	ACT | The App Association
Do you wish to make your name publicly available with your answer or keep it confidential (in which case it will be published as an anonymous answer)?	Public
Contact email (will remain confidential)	[CONFIDENCIAL]
1. In your opinion, what will be the main factors that will drive the growth of the sector in the coming years? (max. 300 words).	Many different factors will drive the growth of the sector; however, we highlight in our response the small app developers' perspective on competitiveness and the role of the cloud sector in supporting this. Cloud computing services have given small and medium-sized enterprises (SMEs) and startups greater flexibility, scalability, security, and cost savings. These services enable innovation and accelerate the time to market for new applications. Cloud computing services provide SMEs with access to a wide range of cost-effective solutions and on-demand scalable infrastructure support that allow them to focus on their core operations and their customers' needs. The nature of cloud infrastructure, which consists of many independent data centres located in different places, lets SMEs minimise outages and data losses by eliminating single points of failure that still exist for on-premises solutions. Notably, cloud computing services have been central in enabling accelerated digitisation during and since the COVID-19 pandemic. For example, in response to a shift towards remote work environments, roughly 60 per cent of companies moved their business to the cloud in 2022. Cloud service tools allow SMEs to scale resources according to workload demands, saving costs and enhancing market competitiveness. Moreover, the ongoing development of new cloud-based tools, such as artificial intelligence (AI) and machine learning, will further boost productivity and innovation. Enhanced data security and regulatory compliance will also drive cloud service adoption, as businesses strive to protect sensitive information while benefiting from cloud platforms' efficiencies. As ACT I The App Association (App Association) members compete in consumer and enterprise markets using AI, continued access to reliable and cost-effective cloud services will be essential for leveraging new capabilities, including quantum computing. In summary, the future growth of cloud services will be driven by factors such as AI, flexibility, scalability, security, and cost reductions.
2. How would you classify the different types of agents/operators involved in the cloud market value chain? (max. 300 words).	

3. Would you highlight any particular feature of the cloud market in Spain as compared to other European countries? How do you assess the overall competitive situation of the cloud market in Spain? Are there any particularly significant trends? (max. 300 words).	
4. In your opinion, what are the main elements that determine the dynamics of competition among cloud service providers? In your opinion, which other markets can affect the competitive dynamics in the provision of cloud services? (max. 300 words).	While pricing structures, the scope and calibre of services provided, customer support, and data portability are important factors that shape the dynamics of competition among cloud service providers, security plays an increasingly significant role in this regard. Data security is a major advantage of cloud computing services for SMEs. Cloud services invest huge amounts in security, and SMEs benefit from this because they cannot afford to deploy the same security measures in-house. For SMEs, leveraging cloud service providers' enhanced security tools, monitoring and mitigation services is critical to their operations. Cloud services are more resilient and benefit from ubiquitous security updates and monitoring. This is important because SMEs are especially reliant on consumer trust because they do not enjoy the inherent trust that comes with the brand recognition enjoyed by larger companies. Consumers are much less likely to give an SME a second chance with their data, so the inherent security provided by cloud services is especially important to SMEs, such as our members. Therefore, we consider the ability of cloud service providers to innovate and integrate cutting-edge security measures as a key competitive differentiator.
5. In your opinion, when contracting cloud services from an operator, how do the main providers' offers differ from each other? (max. 300 words).	

6. When contracting cloud services from an operator, describe in order of importance the factors that, in your opinion, are the main determinants of the contracting decision, such as, among others, price, technical quality of the service, the provider's portfolio of services, security, transparency of the contract, nationality of the provider, previous relationship with the same provider, previous knowledge by the staff, etc. (max. 300 words).	
7. When contracting cloud services from an operator, assess the extent to which contract terms and conditions are negotiable (max. 300 words).	
8. Indicate what difficulties may arise, at the time of contracting a provider's cloud services, to anticipate the final cost of use of the contracted service (max. 300 words).	

9. Assess the transparency of contract terms and conditions and indicate whether changes in contract terms and conditions are common (max. 300 words).	
10. In migrating to the cloud, explain the role of the integrator or intermediary, and its relevance to the competitive dynamics of the market (max. 300 words).	
11. For software development companies offering independent cloud-based software applications, consider which are the main channels to reach the end customer and the factors on which the choice of the chosen channel(s) depends. When offering independent cloud-based software applications, consider whether it is possible to do so in more than one marketplace from a vertically integrated provider (max. 300 words).	
12. Assess the conditions required to intermediaries to be able to sell the products of one or more cloud service providers, and whether in your opinion they affect the competitiveness of the final solution offered by the intermediary in relation to other sales channels (max. 300 words).	

13. Assess whether there are significant barriers to entry in the cloud services or cloud infrastructure market. If so, indicate and describe what type of barriers (e.g., regulatory, investment size, availability of qualified staff, other) and indicate which services or cloud layer (IaaS, PaaS, SaaS) are affected by each barrier (max. 300 words).	
14. In your opinion, assess which cloud layers (IaaS, PaaS, SaaS) present the greatest competitive challenges and explain why (max. 300 words).	
15. For companies already present in the cloud market, what are the main obstacles to their activity and to competition in the sector? (max. 300 words).	

16. Assess what technical or economic difficulties exist for migrating to the cloud. Indicate, in your opinion, which solutions could be implemented to mitigate them (max. 300 words).	Migrating to the cloud has become increasingly accessible and straightforward for SMEs, thanks to significant advancements and competitive offerings in the industry. Modern cloud services provide a range of scalable pricing options, transparency, and robust support, making it easier than ever for companies to transition their operations. App Association SME innovators currently enjoy a range of pricing options with the ability to scale depending on their needs. Over the last 20 years, our members have seen many price decreases in the cloud services they use. As our members grow and their needs evolve, they routinely leverage pay-as-you-go approaches and specially tailored services. App Association members take advantage of transparent pricing for cloud computing services across providers, which has enabled informed business planning decisions and enhanced competition. As they scale, some members have also benefitted from advantageous price offerings through volume discounts. Also, some App Association members leverage cloud offers that include open-source licensed software and software development kits (SDKs) and application programming interfaces (APIs) made available under open-source licenses. Such open-source tools, depending on the context of use, may be ideal for a SMES' needs (e.g. a small business may prefer to freely use and modify a software solution to enable processing in the cloud with one or more providers and/or on premises). Further, some open-source APIs enable seamless switching between cloud providers. All in all, small app developers, such as our members, do not generally face economic difficulties when migrating to cloud-based services. On the contrary, they are satisfied with the current landscape which allows them to innovate and grow.
17. In your opinion, once the services of one cloud provider have been contracted, what technical, economic or other factors might make it difficult to change provider? In your opinion, which solutions might be implemented to mitigate these difficulties? (max. 300 words).	
18. In your opinion, what are the difficulties in contracting the services of more than one cloud provider? In your answer, please assess aspects of vertical interoperability (between services located in different cloud layers), horizontal interoperability (between services located in the same cloud layer) and interoperability of the data produced when using different cloud services. In your opinion, what solutions could be implemented? (max. 300 words).	Many App Association members, and the majority of cloud users, leverage two or more public cloud providers. Our community will often, depending on the unique circumstances they face, switch between cloud providers and between cloud and on-premises solutions. Cloud computing has made it easier than ever for SMEs to move between different services, with the costs for making such a switch continuing to decrease, especially since many providers now offer portability toolkits. Cloud computing competes with on-premises IT services. Many SMEs find the solutions they need across different offerings, some cloud-based and other on-premises. Today, 85 per cent of data infrastructure spending is allocated to on-premises solutions. Additionally, from the SMEs perspective, combined offerings of services can result in economies of scale, leading to more cost-efficient solutions. For example, a cloud provider could offer combined migration, storage, analytics, and cybersecurity monitoring/mitigation services together for a discount, savings SMEs money. Cloud services providers can differentiate themselves from each other to attract new customers and retain their existing ones, and such offerings may include bundling and linking services to best serve the user experience and needs. SMEs cloud users widely benefit from this dynamic, which the CNMC should consider pro-competitive.

19. Assess the advantages and disadvantages of adopting interoperability standards or protocols, including their impact on competition and/or innovation (max. 300 words).	
20. When contracting services from the same cloud provider, and from the point of view of its commercial offer, assess what obstacles exist to contracting each service separately (max. 300 words).	
21. When contracting additional services from a cloud provider, assess the relationship between contracting these services and the discounts for the use of additional services (max. 300 words).	
22. Assess the existing obstacles to competition in the public procurement of cloud services, and indicate the solutions that could be implemented in your opinion (max. 300 words).	

23. Provide additional comments on other barriers, distorting factors or issues that you consider relevant to the functioning of this sector (max. 500 words).	
24. Assess the current European and national regulatory framework in its ability to promote an efficient and competitive operation of the cloud services market. If so, how could it be improved? (max. 500 words).	
25. In your opinion, what other regulations could affect the competitive dynamics of the cloud sector? If so, how could they be improved? (max. 500 words).	

26. Provide additional comments on other solutions or recommendations (not necessarily of regulatory nature) to improve the competitive dynamics in the cloud sector (max. 500 words).	