ETSI comments on "Report on practices and challenges of the phasing out of 2G and 3G"

Report content	ETSI comment
2.1.1 Additional NRA information... CRC (Bulgaria) notes that, regarding the problem with ensuring customer capability to make emergency calls, the provision of voice calls and text messages over 4G and 5G in general, or complaints regarding difficulties with voice calls or SMS when roaming and issues regarding eCall support, **lies is the lack of VoLTE standardization and its impact on voice calling. Current 4G/5G Voice over LTE (VoLTE) standards do not ensure interoperability between networks and devices**. 112 calls and eCall are not guaranteed, particularly when roaming. Operators may demand 2G/3G for 112 and block VoLTE emergency calls.	To be precise, it is not because of the lack of VoLTE standardization that there are difficulties with voice calls or SMS while roaming, but because of the past implementations. There are two major causes of the failing roaming calls (and emergency calls) in the past implementations of VoLTE. First, it can be the device settings, where some of the manufacturers have disabled VoLTE functionality for networks that they have not unilaterally (one-to-one) tested. It was only recently (in late 2021) that VoLTE functionality was enabled for all networks. Second, it can be the operators' settings, where no roaming agreements between operators automatically led to disabling VoLTE calls. Nevertheless, emergency call should have worked according to the standards. The above is in line with MCA (Malta)'s comments in the same section, as it has correctly identified the implementation of the standards that brings challenges. Therefore, we propose to reword the bold-faced content as follows: "lies in the past implementation not adopting some of the VoLTE standards features and impacting voice calling. Some 4G/5G voice over LTE implementations do not ensure interoperability between networks and devices."
3.2.3.1 3GPP 3GPP was founded to provide a third-generation technology, originally not as replacement for 2G but as an evolution, and after that produced and maintained standards for 4G and 5G. Backward compatibility has always been a key element of the 3GPP standardization process, however main focus is on providing standards for newer, better and more efficient services. **Until recently most interoperability problems were invisible due**	There were indeed some issues with VoLTE standards with fragmentation and maturity in the initial deployments in 2012. However, since the deployments, many stakeholders gathered in industry fora, such as the GSMA and the SDOs in 3GPP, to work out solutions to fragmentations, and this enabled the world's first VoLTE interconnection in 2015. Since then, the standards have matured further and are now fully stable, enabling manufacturers to open up the functionality even to networks that

to successful backwards compatibility and co-existence of newer and older technologies. There was always an older, more stable version of a service available that was automatically used when not all equipment involved in a new variant proved to be interoperable. **3GPP is a very diverse organization and consensus in some cases leads to newer standards with too many degrees of optionality, causing interoperability issues. Other** organizations such as GSMA produce recommendations to reduce the number of options or settings used and improve interoperability.	have not been unilaterally tested. In addition, whilst it is true that discussions in 3GPP sometimes lead to optionality, 3GPP is the organization to provide solutions to different requirements, and it is up to the user organizations to select which of the requirements to be the minimum global requirement. Therefore, we propose to reword the bold-faced content as follows: "There have been issues with some features of VoLTE standards in the initial VoLTE deployments since 2012. However, industry inputs have stabilized the standards, and they have already provided enough interoperability for the basic services. Especially in emergency calling, it already had little room for interpretation and would operate well if implemented accordingly. 3GPP is indeed a very diverse organization, and consensus in some cases leads to newer standards with too many degrees of optionality. To compensate for this, other"