



# 5G Automotive Association's Position Paper on the eCall Legacy Fleet

November 2024



## Introduction

5GAA welcomes the renewed attention and subsequent discussions on Next Generation eCall (NG eCall) and the legacy fleet, following the second phase of the IDIADA study, presented on 12<sup>th</sup> December 2023. Whilst the opportunity to address the critical issue of the legacy fleet is welcome, we wish to draw attention to some key industry concerns.

We underline that industry cannot be held liable for the lack of service continuity of 112-based eCall for the legacy fleet, which result from obsolete legislative requirements. Since both retrofit as well as the extension of 2G/3G networks are implausible, we call for public authorities to take responsibility in informing users in the event of eCall failure, in instances outside industry control. We also encourage further research to be carried out to revise the current eCall regulatory framework so that it becomes future proof and does not lead to the same situation in the future as we have now once NG eCall becomes obsolete, or 4G networks are being transitioned to other technologies. This should be based on a transparent dialogue between authorities and industry to find the right solution.

## Legal Obligations and Expectations for the Legacy Fleet

The most pressing concern faced by the industry is the expectations placed on OEMs to ensure that their vehicles uphold an eCall system, which was made reliant on technical standards for 2G/3G mobile communication technologies. Several OEM legal counsels have underlined that OEMs cannot be held responsible if an eCall system does not work due to obsolete technological standards on which the original type-approval regulation governing eCall (EU Regulation 2015/758) was made reliant.

Currently, as per Regulation (EU) 2015/758, Article 5 §6, the vehicle manufacturers only have the obligation to *“demonstrate that, in the event of a critical system failure which would result in an inability to execute a 112-based eCall, a warning will be given to the occupants of the vehicle.”* Such requirement cannot apply when the impossibility to execute a 112-based eCall is due to circuit-switched public mobile wireless communications networks no longer being in operation on a Member State’s territory. Instead, Member State’s public authorities should inform the general public that 112-based eCall is no longer operational on their territory. It should also be clear that these vehicles will nonetheless remain fully compliant with EU WVTA including in the context of conformity of production and market surveillance procedures.

## The retrofit problem

We strongly believe that a mandatory in-vehicle NG eCall retrofit (scenario 3 in the IDIADA study) is impossible because retrofit implementations cannot ensure vehicle and system compliance with all eCall regulation requirements and the referenced detailed standards. eCall is currently part of the type-approval framework, and no process exists to re-type approve a vehicle already placed on the market under prior requirements. Furthermore, eCall is not a plug-and-play system; the control unit enabling it is deeply embedded and integrated into the vehicle's architecture, both technically and

physically. Any change to the system would likely require significant modifications on other nodes and systems of the vehicle, thus triggering certification requirements for different systems through a domino effect. It would create considerable interference within the vehicle's E&E architecture, jeopardising its overall safety.

Furthermore, the sheer volume of this retrofit, with more than 70 million vehicles (based on IDIADA's own estimates) over less than three years, is unworkable, considering the lack of a type approval process and repairers' capacity, availability of spare parts from the supply chain, and the administrative burden on OEMs and type-approval authorities to update the WVTAs since eCall requirements are an integral part of it.

## 2G/3G Sunset

We would also like to express our concern about the extension of 2G/3G networks (scenario 4). The IDIADA study's conclusions for the scenario do not reflect the reality that 2G/3G mobile networks are rapidly closing across the EU, making way for new 5G networks, resulting in unrealistic conclusions. We encourage active engagement with Mobile Network Operators (MNOs) to understand the 2G/3G sunsets better, as the dates currently included in the IDIADA study do not appear to acknowledge that the prolongation of 2G/3G is not realistic for several reasons, i.e. the need to reuse current 2G/3G spectrum for contemporary network technologies (4G/5G). Maintaining 2G/3G networks would also result in a significant loss of energy efficiency compared to 4G/5G, as well as create a risk due to the poor security of legacy technologies and future equipment availability, given the foreseeable cessation of vendors' support of circuit switched mobile technologies.

## Further research on eCall Legacy Fleet required

Any assessment of the legacy fleet must entail a quantitative and qualitative overview of the current situation beyond stats on fleet penetration, including, but not limited to, the proportion of vehicles in accidents that were equipped with eCall, the proportion of accidents that generated an eCall, the breakdown of manual and automatic eCalls, and real-life effectiveness (number of false or misleading alarms due to position inaccuracies, multiple reporting of single event etc.) that may have a detrimental impact on PSAPs' overall capacity.

Moreover, most of the research within the IDIADA study relies on benefits quantified in the 2010 theoretical study. In contrast, there appears to have been no ex-post assessment after five years of EU-mandated eCall fitment. 5GAA strongly recommends addressing this by including an eCall Use Case that would validate the research empirically.

Our members have expressed concern over the research associated with the societal costs and benefits, especially in assessing alternatives for the legacy fleet. The Commission's [Report on the Implementation of 112 the EU Emergency Number](#) mentions a total of 421,000 eCalls reported by the EU-27 and Norway in 2021 in comparison to 9,734 fatalities and 549,340 injuries for M1/N1 vehicles only (CARE database). The EENA "[112 Day Report 2023](#)" noted, however, that "*most emergency*

*services are concerned over the very high proportion of false alarms (sometimes above 90%), which results detrimental to their operations".* This raises questions on the real-life benefits for EU society compared to the study estimates under scenarios 3-4 (circa 6,000 million euros).

## Industry proposals to address the legacy fleet

The time window to figure out a win-win solution for all civil society and industry stakeholders on the legacy fleet is tight but achievable. We believe some simple facts and alternative options to those explored by IDIADA and Roland Berger should be considered, namely:

- ▶ More research must be done on the benefits of using aftermarket items for the legacy fleet (either device to be self-installed or nomadic devices already investigated under the EU-funded project sAFE), as opposed to retrofitting, to better understand the options. Such research should be done in full cooperation with industry to avoid alternatives being discarded too rapidly. However, issues around liabilities and costs of installation of such devices (including public funding possibilities) should be clarified by the Commission as soon as possible.
- ▶ We strongly oppose the consideration of the extension of eCall regulation to other vehicle categories when the priority should be on clarifying and addressing the cost-benefit analysis issues mentioned above to have a sound solution for the legacy fleet and addressing future technology evolution.

## Conclusion

Many of the topics outlined above are closely tied to the role of type-approval within eCall. The same shortcomings observed on eCall/NG eCall transition risk repeating themselves since technical requirements are mapped to specific EN standards that can only be updated by secondary legislation. A more flexible conformity assessment procedure (outside type-approval) for eCall standards based on Decision No 768/2008/EC would allow a smoother update of such standards. eCall radio layer technology should be decoupled from WVTA, and a reflection is needed on the feasibility of mandating only the eCall service. Another way for the EU is to explore the applicability in Europe of UNECE R144, which does not mandate a specific radio.

5GAA, along with entire industrial ecosystem that we represent, remains committed to working with the Commission to find a solution to the legacy fleet. By working together and engaging in an open and transparent dialogue, it is entirely possible to preserve the successes of eCall without placing unrealistic and unsustainable burdens on industry.

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