



Future Proofing eCall Connected Vehicles in the 5G era

A Mobile Network Operators perspective

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Framing the magnitude of the problem

Installation of current generation eCall devices is increasing exponentially and is estimated to be around 90 Million vehicles by 2026

Table 4: eCall deployments forecast, EU 28

	2019	2020	2021	2022	2023	2024	2025	2026
New eCall vehicles	2.38	4.84	7.44	10.22	13.37	16.51	17.55	17.72
Installed base eCall vehicles	2.38	7.22	14.67	24.90	38.27	54.78	72.33	90.06
% of new registrations	17.2%	33.4%	49.1%	64.4%	80.5%	95%	100%	100%

Source: Consortium elaboration based on Eurostat, ACEA and GSA data

The longer we delay moving to NG eCall the bigger the legacy problem

The Impact for Mobile Operators and Society

Keeping 2G and/or 3G Networks in operation for a number of years will have a significant impact economically and strategically on Mobile Operators and will impede the development of 5G Services to European consumers

❖ **DATA**

❖ Mobile network operators (MNOs) need to meet increased data demand.

❖ **SPECTRUM**

❖ Spectrum needs to be re-farmed to ensure efficient use that serves the whole of society

❖ **ECONOMICS**

❖ Network operators should maintain their right to close legacy networks based on their individual economic decision

❖ **DIGITAL AGENDA**

❖ Imposing the provision of 2G and/or 3G services can deepen the Digital divide

❖ **ENVIRONMENT**

❖ Artificially extending 2G networks lifespan comes at the expenses of the green transition

❖ **SECURITY**

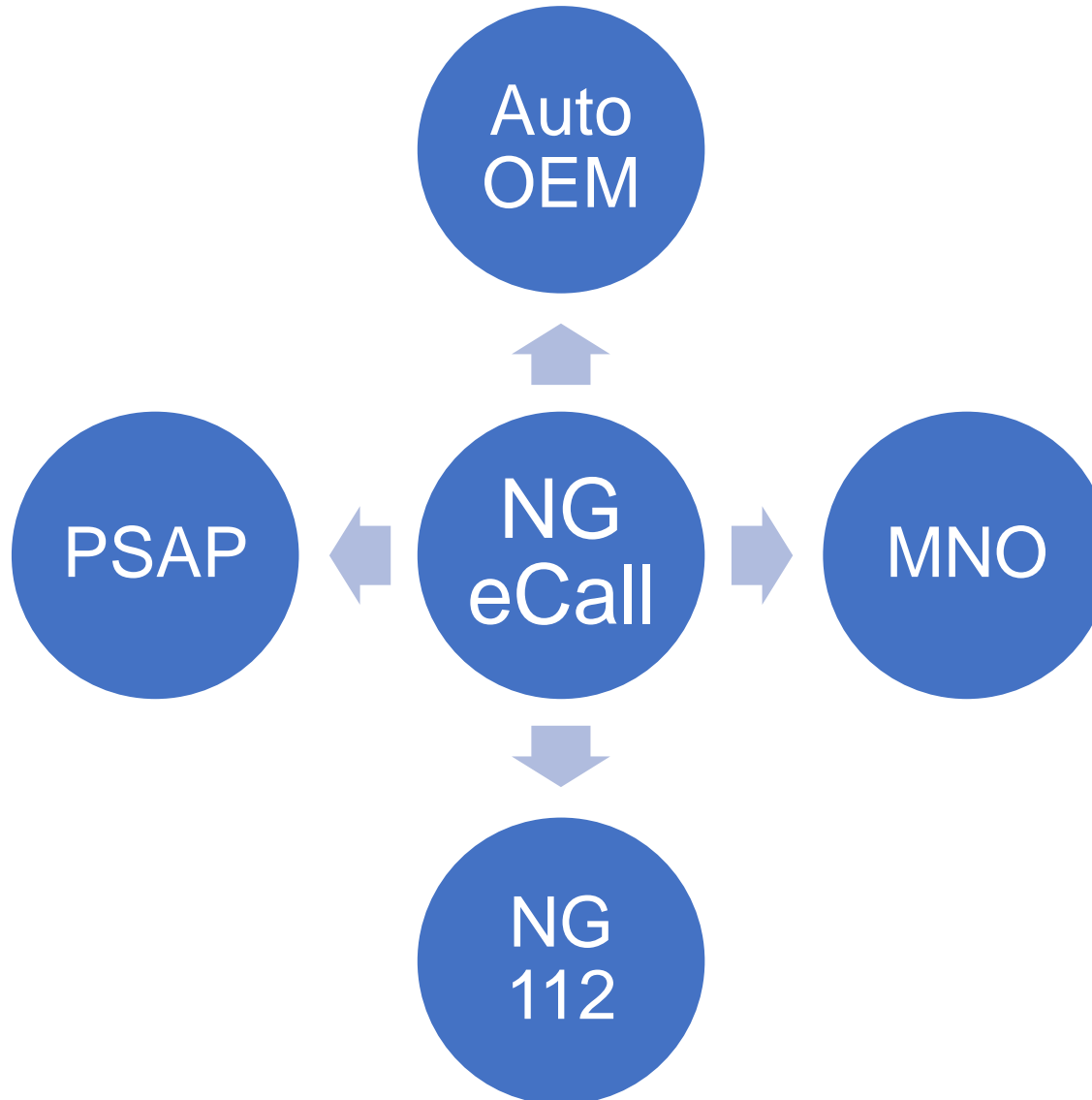
❖ Maintaining networks has a major implication for security and hardware provision



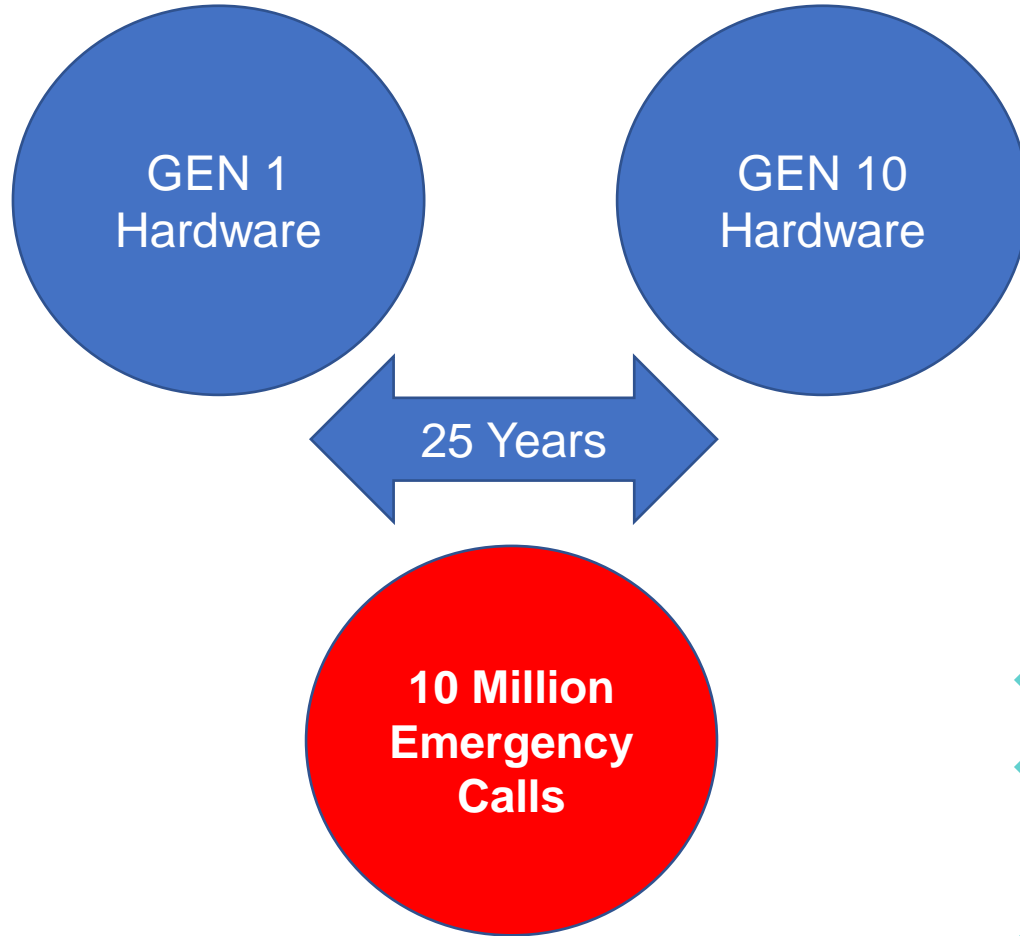
The whole ecosystem must be considered for NG eCall

GSMA worked with ETNO to agree the Telco view and consulted other ecosystem players

All parties in the eCall ecosystem must be IP enabled neutral technology



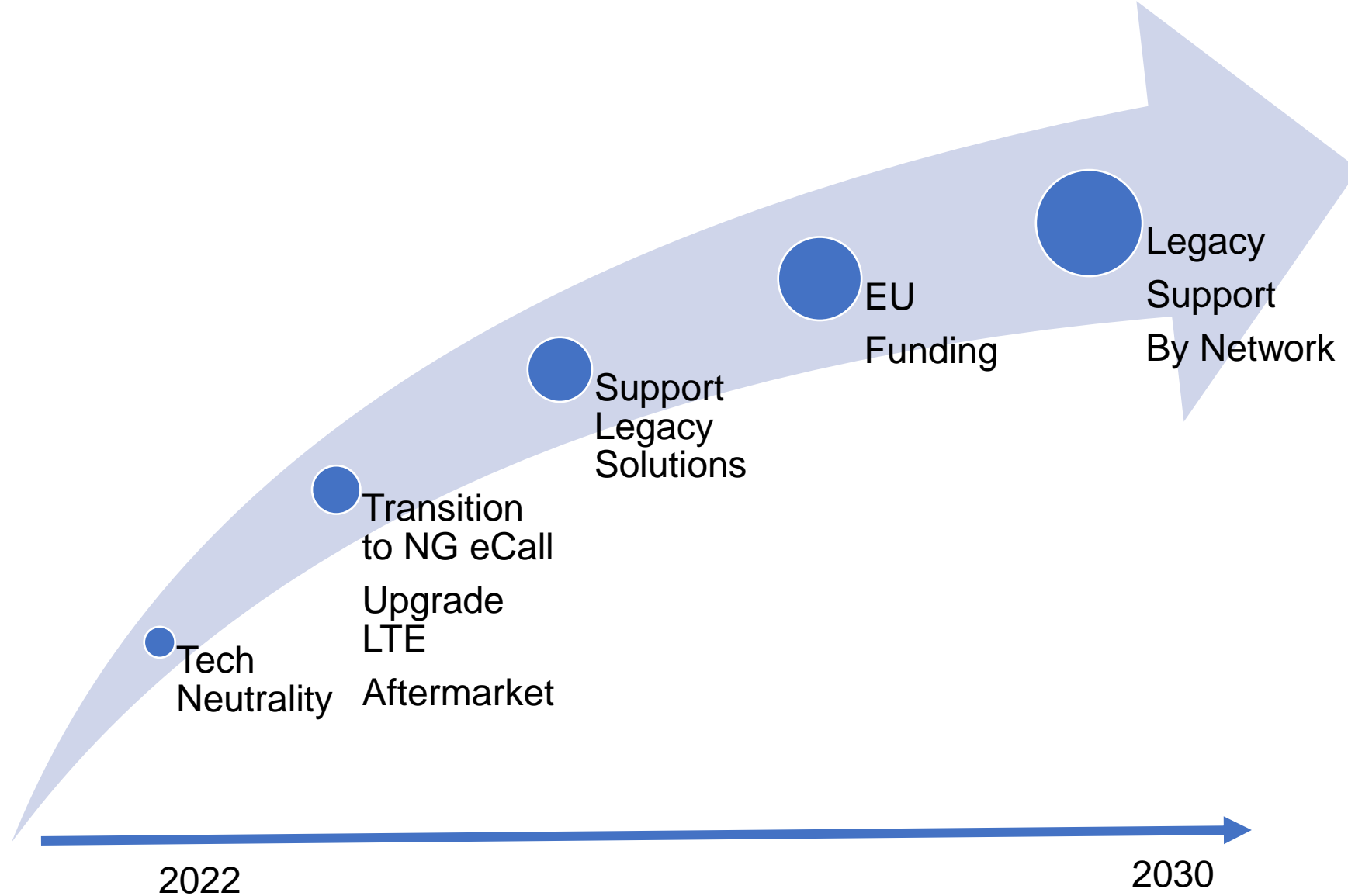
Onstar US – are there lessons to be learned ?



- ❖ Can eCall be delivered by flexible solutions ?
- ❖ Upgrading and changing technology should be done in a fixed time
- ❖ Integrate with Telematics Unit?



Timeline for Action



Timeline for Action – in detail

- New technology-neutral eCall Regulation (type-approval and related acts) to be amended, adopted by European Commission and enter into force by **end-2022 the latest**.
- OEMs to start installing NG eCall/remotely programable/exchangeable modules by end-2022; by **end-2024** all new vehicles sold in the market should be NG eCall only
- New vehicle categories to start with NG-eCall only by 2024
- MNOs have initiated to phase out 2G/3G between **2020** and **2025**, whereas the optimal transition path of their choice beyond this date will depend on market and technology specifics, and may require alignment with NRAs.
- By **2022**, the industry will develop solutions for the transition period that need to be implemented country-by-country, which will also assess the amount of needed public funding to be economically feasible.
- Retrofitting to be acknowledged, completed and formalised as a process by **end-2024**; standards should already be available in 2022.
- Aftermarket eCall solution to be completed (including testing) and formalised by **end-2024**; **standards should already be available in 2022**.
- The European Commission to make available public funding to support OEMs and alternative solutions to legacy networks starting from **2022**, under the RRF/ recovery package (or other relevant instruments)
- Legacy networks availability until **2030 at the latest**. By then deployment of all alternative solutions simultaneously would have ensured that the remaining legacy fleet will continue to have access to emergency services through NG eCall.

Conclusions

- ❖ **NG eCall Technology** – must be neutral and mandated as soon as possible
- ❖ **Moving to Multi-mode solutions** – New vehicles must have upgraded to 4G/5G ready for NG eCall asap.
- ❖ **Maintaining a 2G Network for eCall** – for 15+ years is damaging to the growth of 5G, incurs substantial cost for Mobile Operators and contradicts many EU policies on the Environment , Security and the Digital Revolution
- ❖ **Maintaining a 3G Network**– Its unclear why 3G should be supported and will delay the re-farming of spectrum for 5G support study and consultation process
- ❖ **EU Funding** – should be made available to the ecosystem to future proof the Next Generation eCall