

POSITION PAPER

DIGITAL VISIBILITY OF BICYCLES IN EURO NCAP 2029 PROTOCOL

from Coalition for Cyclist Safety on awarding Euro NCAP
2029 points for vehicles that can receive and act on V2X
messages from cyclists

TO	Euro NCAP Board of Directors and Secretariat
FROM	Coalition for Cyclist Safety (C4CS) – Bicycle Industry Partners
CONTACT	info@coalitionforcyclistsafety.org
DATE	June 2026

Executive Summary

The cycling safety problem

Improving the safety of vulnerable road users is a clear European priority. Cyclist safety remains a pressing challenge in both urban and non-urban traffic environments: approximately 1,900–2,000 cyclists are killed each year on EU roads, representing about 10% of all road deaths, and around 65% of cyclist fatalities involve collisions with motor vehicles, predominantly passenger cars, vans and heavy goods vehicles. At the same time, slow progress on reducing cyclist deaths and serious injuries risks undermining public confidence in cycling if safety improvements do not keep pace with the EU's ambitions for more cycling. Serious conflicts arise not only at intersections, but also in scenarios such as curved rural roads, where cyclists may be visually obstructed or remain out of sensor reach until very shortly before a collision. For bicycles, the possibilities to improve physical protection is limited; the main evolution path is digital safety.^{1,2,3,4,5,6}

What we ask for

C4CS calls on Euro NCAP to explicitly incentivize vehicle-side V2X functions that can receive and use standardized messages from cyclists in relevant urban and non-urban scenarios. Euro NCAP can act before legislation by creating an early market incentive through its future rating schemes. A phased introduction in 2029 and 2032 would provide a practical and transparent pathway for progressively integrating cyclist-inclusive V2X functions into Euro NCAP's future rating framework. These incentives should remain technology-neutral, aligned with interoperability and standardization processes, and consistent with the industry consensus.

What we will deliver

C4CS and its bicycle-industry partners are committed to supporting the deployment of V2X-ready bicycles and related components and to helping make standardized cyclist messaging a scalable part of future bicycle safety architecture. In this way, Euro NCAP can create the incentive, and automotive and bicycle manufacturers can together turn it into long-term safety benefits.

¹ https://www.researchgate.net/publication/370865445_The_Typical_Car-cyclist_Collision_under_the_Microscope_A_GI_DAS-based_Analysis_of_the_Prevalent_Crash_Scenario

³ <https://data.consilium.europa.eu/doc/document/ST-6215-2024-INIT/en/pdf>

⁵ https://transport.ec.europa.eu/document/download/6a98d1f0-e6c1-40f1-8b6a-d48cef787fa7_en?filename=ERSO-TR-Cyclists-20240305.pdf

² https://transport.ec.europa.eu/system/files/2023-11/European_Declaration_on_Cycling_en_0.pdf

⁴ <https://etsc.eu/europes-cyclists-left-behind-as-safety-gap-widens-new-etsc-report-finds/>

⁶ <https://etsc.eu/reducing-serious-injuries-on-european-road-s-pin-flash-48/>

Why action on cyclist safety is needed now

Cyclist safety requires stronger action at European level. The European Declaration on Cycling underlines that safety is a prerequisite for growing cycling, while EU road safety policy continues to prioritize the protection of vulnerable road users.^{7,8,9}

In 2024, 1,926 cyclists were killed on EU roads; cyclists now account for around 10% of all road deaths, and about 65% of cyclist fatalities result from collisions with motor vehicles. Rising or stagnating fatalities and serious injuries risk undermining public confidence in cycling unless safety improvements keep pace with the EU's ambitions for more cycling.

^{10,11,12}

These crashes occur in both urban and non-urban environments. Relevant real-world scenarios include intersections and curved rural roads in which cyclists may be visually obstructed or remain out of sensor reach until very shortly before a potential collision, highlighting the limits of line-of-sight sensing alone.¹³

Why Euro NCAP can act now

Euro NCAP is well placed to respond quickly. Its Vision 2030 roadmap foresees the testing and assessment of safety functions enabled by V2X communication and sets out that future rating schemes should consider such functions in a technology-neutral way.

This gives Euro NCAP the ability to create an early market incentive ahead of legislation. By rewarding cyclist-inclusive V2X safety functions, Euro NCAP can accelerate the deployment of solutions that address scenarios in which conventional line-of-sight sensing alone reaches its limits.

⁷ <https://data.consilium.europa.eu/doc/document/ST-6215-2024-INIT/en/pdf>

⁹ https://transport.ec.europa.eu/system/files/2023-11/European_Declaration_on_Cycling_en_0.pdf

¹¹ https://transport.ec.europa.eu/document/download/6a98d1f0-e6c1-40f1-8b6a-d48cef787fa7_en?filename=ERSO-TR-Cyclists-20240305.pdf

¹³ https://www.researchgate.net/publication/370865445_The_Typical_Car-cyclist_Collision_under_the_Microscope_A_GIDAS-based_Analysis_of_the_Prevalent_Crash_Scenario

⁸ https://road-safety.transport.ec.europa.eu/document/download/c82fa210-8707-4402-a9be-b70deded1d5e_en?filename=road_safety_thematic_report_cyclists.pdf

¹⁰ <https://etsc.eu/europes-cyclists-left-behind-as-safety-gap-widens-new-etsc-report-finds/>

¹² <https://etsc.eu/reducing-serious-injuries-on-european-roads-pin-flash-48/>

What should be incentivized

Euro NCAP should explicitly incentivize vehicle-side V2X functions that can receive and use standardized messages from cyclists. The focus should be on relevant urban and non-urban cyclist scenarios in which the bicycle is either visually obstructed or out of sensor reach.

C4CS follows the industry consensus as developed by the Car-2-Car Communication Consortium (C2C-CC), 5GAA and related bodies, and does not ask Euro NCAP to favor any specific communication technology. Accordingly, the assessment approach should remain technology-neutral and build on the relevant interoperability and standardization processes.

A phased integration in 2029 and 2032 would provide a practical way forward within Euro NCAP's Vision 2030 framework. From 2029, Euro NCAP could recognize vehicles that are technically capable of receiving and processing standardized V2X messages from cyclists, with proportionate requirements focused on information and awareness functions, basic plausibility checks and human-machine interface. From 2032, requirements could be strengthened and extended to more complex urban and non-urban scenarios, including the use of cyclist V2X data in automated interventions and more ambitious performance criteria.

Such a phased and transparently communicated roadmap would reflect the current maturity level of bicycle V2X and its in-vehicle use, while giving both automotive and bicycle industries a clear framework for progressively strengthening trust in cyclist-inclusive V2X safety functions within Euro NCAP's program. It would also provide an important prerequisite for investment decisions in these technologies.

What C4CS will contribute

C4CS and its bicycle-industry partners are prepared to contribute actively to this development. The coalition supports the deployment of V2X-ready bicycles and related components and aims to help make standardized cyclist messaging scalable across the market.

Euro NCAP can create the incentive, and automotive and bicycle manufacturers can together turn that incentive into long-term safety benefits.

Signatures

Endorsed by the Coalition for Cyclist Safety and its bicycle-industry partners.

 COALITION FOR CYCLIST SAFETY	Jarrett Wendt President Coalition for Cyclist Safety	 BOSCH	Claus Fleischer CEO & President Bosch eBike Systems
 GAZELLE	Aletta Kok Managing Director Royal Dutch Gazelle	 TVS E-Bike Company	Deven Kataria CEO TVS Ebike Company
 ZIV GERMAN BICYCLE INDUSTRY	Burkhard Stork CEO ZIV - German Bicycle Industry	 CANYON	Sebastian Wegerle Director Development Canyon Bicycles GmbH
 ACCELL GROUP	Jonas Nilsson CEO Accell	 VIIALA	Tomi Viiala CEO Viiala SA
 TREK	Bob Burns Global Advocacy Trek Bicycle Corporation	 DVR Deutscher Verkehrssicherheitsrat	Barend Hauwetter Head of Vehicle Safety Germany Road Safety Council
 DEKRA	Thomas Jäger Senior Vice President DEKRA	 SRAM	Rob Cappucci Director of Advocacy SRAM