WHY ROAD CRASH DATA MATTER

AUTHORS
Featured piece by Honda on the 2025 Call for Proposals Funding Priority

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Photo: Honda

INTRODUCTION

Each year, an estimated 1.2 million people lose their lives in road traffic crashes, and a multitude more suffer life-altering injuries (see Figure 1). Yet in many low- and middle-income countries (LMICs), the true scale and nature of these tragedies remain obscured by gaps in data.

Without reliable, standardised road crash data, governments and stakeholders are left navigating road safety challenges in the dark. The 2025 UNRSF Call for Proposals identifies the standardisation of road crash data collection and the use of purpose-driven analytical methods as priority areas, recognising them as the foundation for effective interventions.

Honda, as a longstanding partner of the UNRSF and a global leader in road safety, welcomes this focus. Drawing on decades of experience across diverse regions, Honda advocates for a comprehensive, evidence-based approach to road crash data—one that empowers countries to save lives through informed policy, technology, and education.

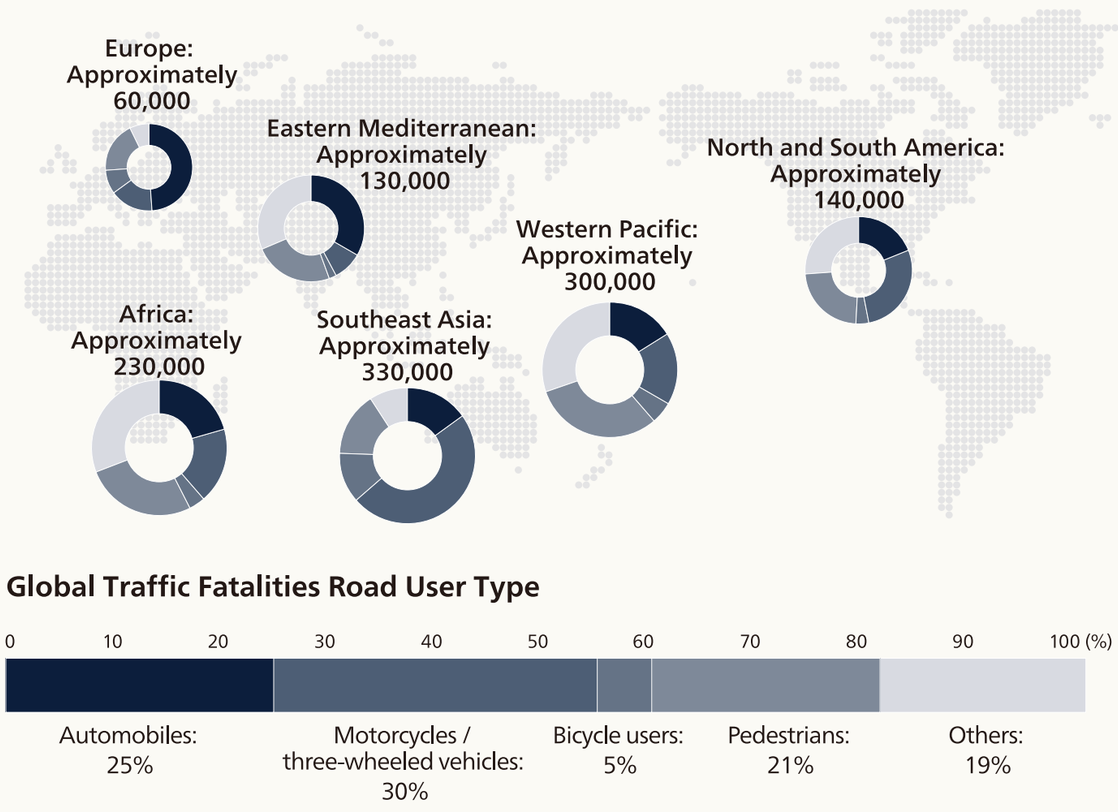


Figure 1. Global Traffic Accident Statistics (WHO)

References: Figure 1 – Initiatives Aiming for Zero Traffic Collision Fatalities | Safety | Honda Global Corporate Website (Honda) Road traffic injuries (WHO)

THE CHALLENGE

In many low- and middle-income countries (LMICs), road crash data systems remain fragmented and inconsistent, with insufficient information to effectively support traffic policy development, safety technology advancement, and infrastructure improvement. Agencies often operate in silos, using different databases and formats making data sharing and integration difficult. Real-time data is rare, and disaggregation by mode of transport, age group, or crash scenario is often missing. In-depth crash investigations — essential for understanding behavioral and environmental factors — are limited or absent. Inter-agency coordination between police, transport, health, and education sectors is weak, resulting in reactive and misaligned interventions.

Without accurate and up-to-date data, road safety efforts are effectively left in the shadows. Education campaigns may miss their target audiences, enforcement may focus on the wrong behaviours, engineering solutions may overlook high-risk zones or traffic scenarios, and emergency response systems may be underprepared. The result is a cycle of inefficiency and preventable harm.

Honda's global experience highlights the difference data can make. In Japan, macro-level statistical data enables precise policy evaluation, while micro-level crash investigations reveal root causes and inform technology development. In Thailand, Honda- supported analysis showed that 74% of traffic fatalities involve motorcycles, with many riders lacking formal training. This insight led to targeted education and technology interventions. In contrast, low-data environments struggle to identify blackspots, assess the impact of safety technologies, or prioritise vulnerable road users.

Honda advocates for a dual approach: macro data to monitor trends and evaluate policy, and micro data to understand crash dynamics and human factors. Both are essential for evidence-based policymaking and effective and sustainable interventions. Standardisation of data elements, accessibility, and inter-agency collaboration are not optional—they are prerequisites for saving lives.

Photo Credit: Honda

THE SOLUTION SPACE

To address the systemic gaps in road crash data, countries need practical, scalable solutions that align with global best practices. Honda proposes a multi-faceted approach to support Participating UN Organisation (PUNOs) and national stakeholders in building smarter data ecosystems by conducting data analysis based on standardised road crash data elements.

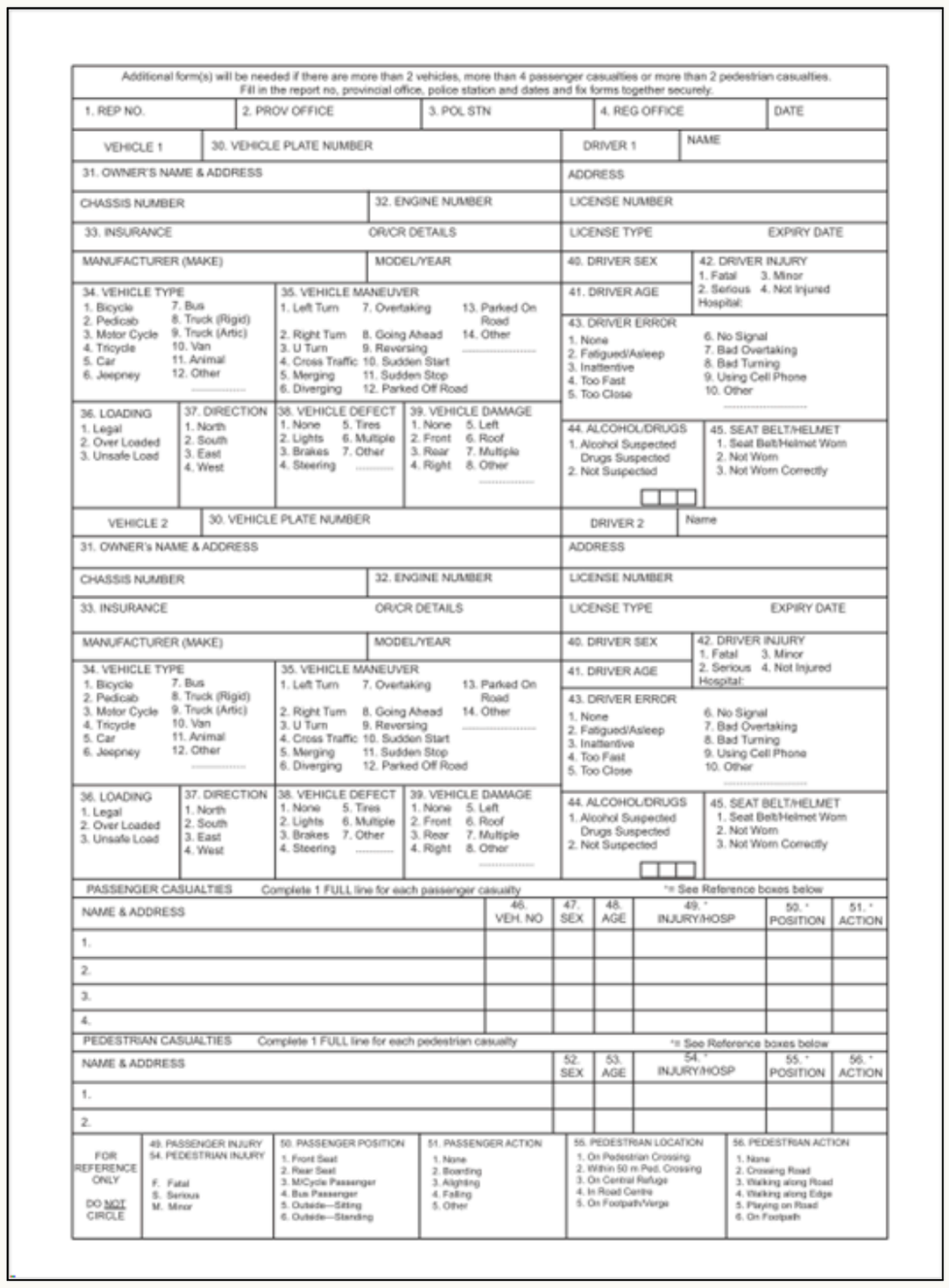
- Harmonisation of Data Collection Tools

Develop and implement standardised road crash data collection tools with consideration of already existing frameworks such as UNDP, WP.29, and IRAP. These tools should initially capture macro-level crash trends and enable consistent and comparable data across regions (see sample report in Figure 2). This process should prioritise usability and applicability, and must be carried out through close collaboration between PUNOs and national stakeholders. These tools should be piloted in high-risk countries to confirm and, if needed, improve them for maximum usability and impact.

- Capacity Building for Frontline Personnel

Train police officers, transport officials, and health responders in standardised crash reporting methods. Provide training for frontline personnel involved in post-crash data collection (e.g., police officers, transport authority staff, and medical professionals), emphasising the importance of continuous road crash data acquisition and practical examples of how such data is utilised (see Figure 3 showing a training session being conducted for police officers on the importance of road crash data collection). Additionally, promote simplification of road crash data input through digitalisation and IT solutions to reduce the burden of field staff. By centralising data management into an integrated system, this approach enhances data accuracy and empowers local teams to contribute effectively to national road safety strategies.

Figure 2. Sample Police Crash Report Form by CAREC



Additional form(s) will be needed if there are more than 2 vehicles, more than 4 passenger casualties or more than 2 pedestrian casualties.
Fill in the report no, provincial office, police station and dates and fix forms together securely.

1. REP NO.	2. PROV OFFICE	3. POL STN	4. REG OFFICE	DATE

VEHICLE 1	30. VEHICLE PLATE NUMBER	DRIVER 1	NAME
31. OWNER'S NAME & ADDRESS		ADDRESS	
CHASSIS NUMBER	32. ENGINE NUMBER	LICENSE NUMBER	
33. INSURANCE	OR/CR DETAILS	LICENSE TYPE	EXPIRY DATE
MANUFACTURER (MAKE)	MODEL/YEAR	40. DRIVER SEX	42. DRIVER INJURY: 1. Fatal 2. Serious 3. Minor 4. Not Injured; Hospital:
34. VEHICLE TYPE: 1. Bicycle 2. Pedicab 3. Motor Cycle 4. Tricycle 5. Car 6. Jeepney 7. Bus 8. Truck (Rigid) 9. Truck (Artic) 10. Van 11. Animal 12. Other	35. VEHICLE MANEUVER: 1. Left Turn 2. Right Turn 3. U Turn 4. Cross Traffic 5. Merging 6. Diverging 7. Overtaking 8. Going Ahead 9. Reversing 10. Sudden Start 11. Sudden Stop 12. Parked Off Road 13. Parked On Road 14. Other	41. DRIVER AGE	43. DRIVER ERROR: 1. None 2. Fatigued/Asleep 3. Inattentive 4. Too Fast 5. Too Close 6. No Signal 7. Bad Overtaking 8. Bad Turning 9. Using Cell Phone 10. Other .....
36. LOADING: 1. Legal 2. Over Loaded 3. Unsafe Load	37. DIRECTION: 1. North 2. South 3. East 4. West	38. VEHICLE DEFECT: 1. None 2. Lights 3. Brakes 4. Steering 5. Tires 6. Multiple 7. Other	39. VEHICLE DAMAGE: 1. None 2. Front 3. Rear 4. Right 5. Left 6. Roof 7. Multiple 8. Other	44. ALCOHOL/DRUGS: 1. Alcohol Suspected Drugs Suspected 2. Not Suspected	45. SEAT BELT/HELMET: 1. Seat Belt/Helmet Worn 2. Not Worn 3. Not Worn Correctly

VEHICLE 2	30. VEHICLE PLATE NUMBER	DRIVER 2	Name
31. OWNER's NAME & ADDRESS		ADDRESS	
CHASSIS NUMBER	32. ENGINE NUMBER	LICENSE NUMBER	
33. INSURANCE	OR/CR DETAILS	LICENSE TYPE	EXPIRY DATE
MANUFACTURER (MAKE)	MODEL/YEAR	40. DRIVER SEX	42. DRIVER INJURY: 1. Fatal 2. Serious 3. Minor 4. Not Injured; Hospital:
34. VEHICLE TYPE: 1. Bicycle 2. Pedicab 3. Motor Cycle 4. Tricycle 5. Car 6. Jeepney 7. Bus 8. Truck (Rigid) 9. Truck (Artic) 10. Van 11. Animal 12. Other	35. VEHICLE MANEUVER: 1. Left Turn 2. Right Turn 3. U Turn 4. Cross Traffic 5. Merging 6. Diverging 7. Overtaking 8. Going Ahead 9. Reversing 10. Sudden Start 11. Sudden Stop 12. Parked Off Road 13. Parked On Road 14. Other	41. DRIVER AGE	43. DRIVER ERROR: 1. None 2. Fatigued/Asleep 3. Inattentive 4. Too Fast 5. Too Close 6. No Signal 7. Bad Overtaking 8. Bad Turning 9. Using Cell Phone 10. Other .....
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PASSENGER CASUALTIES — Complete 1 FULL line for each passenger casualty — *= See Reference boxes below

NAME & ADDRESS	46. VEH. NO	47. SEX	48. AGE	49.* INJURY/HOSP	50.* POSITION	51.* ACTION
1.						
2.						
3.						
4.						

PEDESTRIAN CASUALTIES — Complete 1 FULL line for each pedestrian casualty — *= See Reference boxes below

NAME & ADDRESS	52. SEX	53. AGE	54.* INJURY/HOSP	55.* POSITION	56.* ACTION
1.					
2.					

FOR REFERENCE ONLY — DO NOT CIRCLE

49. PASSENGER INJURY / 54. PEDESTRIAN INJURY: F. Fatal; S. Serious; M. Minor

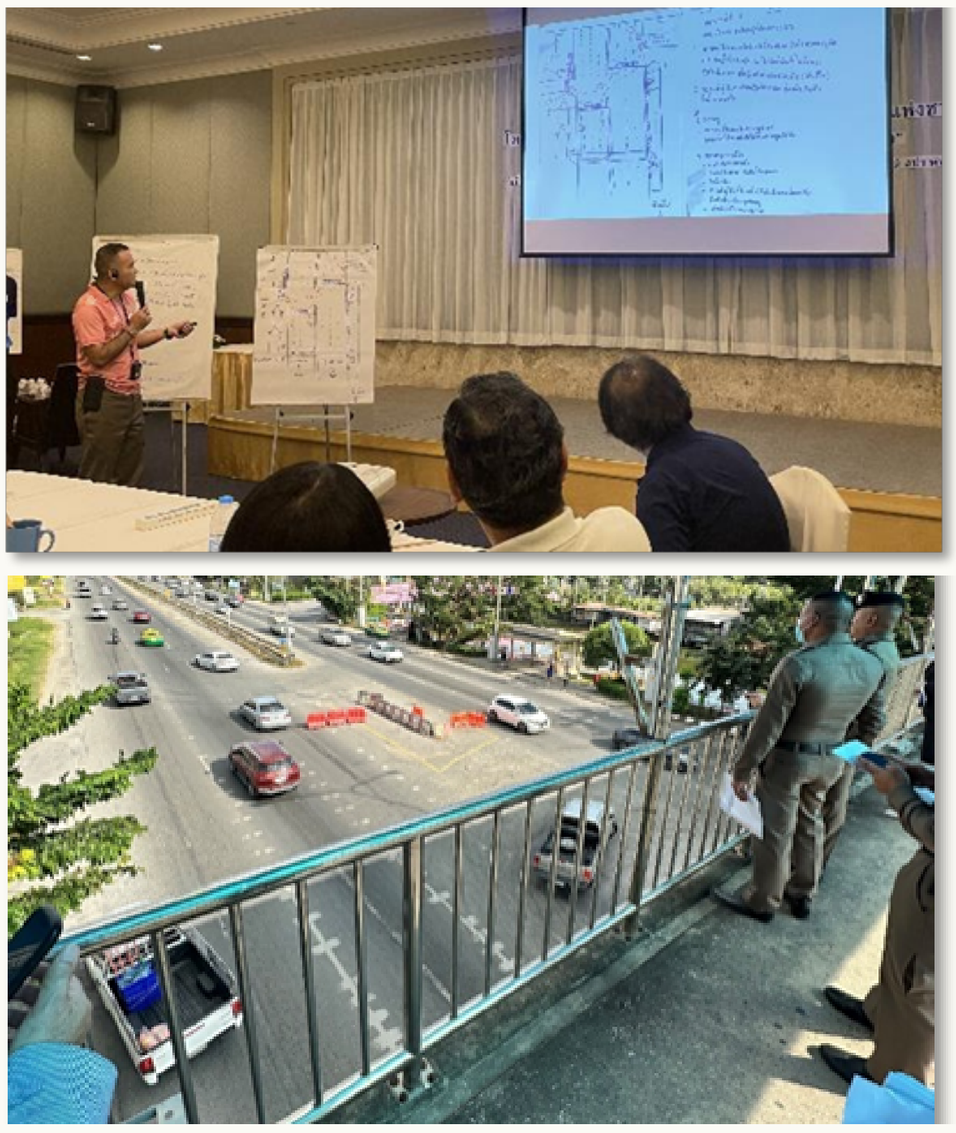
50. PASSENGER POSITION: 1. Front Seat 2. Rear Seat 3. M/Cycle Passenger 4. Bus Passenger 5. Outside—Sitting 6. Outside—Standing

51. PASSENGER ACTION: 1. None 2. Boarding 3. Alighting 4. Falling 5. Other

55. PEDESTRIAN LOCATION: 1. On Pedestrian Crossing 2. Within 50 m Ped. Crossing 3. On Central Refuge 4. In Road Centre 5. On Footpath/Verge

56. PEDESTRIAN ACTION: 1. None 2. Crossing Road 3. Walking along Road 4. Walking along Edge 5. Playing on Road 6. On Footpath

Figure 3. Training session of importance of road crash data collection for police



References: Figure 2. Central Asia Regional Economic Cooperation (CAREC) Road Safety Engineering Manual 6: Identifying, Investigating, and Treating Blackspots | Asian Development Bank

THE SOLUTION SPACE

- Digitisation and visualisation of Data Systems

Implement digital dashboards for real-time data visualisation, enabling policymakers and traffic participants to identify blackspots, monitor trends, and evaluate interventions. Experience with scenario-based crash analysis and heatmap tools demonstrates that technology can transform raw data into practical insights and actionable information (see Honda SAFETY MAP in Figure 4 showing black spot locations, areas with frequent sudden braking, and additional locations identified by users as dangerous).

- Systems Approach to Governance

Establish interministerial taskforces to coordinate data sharing and policy alignment. Engagement with UNDP, WHO, UNECE, and other relevant agencies is encouraged to support the development and operation of these structures. The creation of centralised investigation units can further enhance the depth, consistency and reliability of road crash data.

- Private Sector Partnerships

Honda stands ready to contribute its technical expertise, data analysis capabilities, and safety technologies to UNRSF-funded projects. From motorcycle safety rating schemes to crash biomechanics research, private sector innovations can complement public sector efforts and accelerate progress toward Vision Zero.

By investing in harmonised, technology-enabled, and collaborative data systems, countries can move from reactive to proactive road safety management—saving lives through smarter decisions.

Figure 4. SAFETY MAP produced by Honda.
8.4 billion km's worth of floating car data is utilised per year. Points where "sudden braking" occurs frequently + Points where "traffic collisions" occur frequently and information posted regarding "dangerous spots" = Pedestrians, drivers and riders all can live with greater peace of mind through advance awareness of dangerous places.

References: Figure 4. Honda SAFETY MAP

HONDA IN ACTION

Honda has set two global road safety targets: to reduce traffic collision fatalities involving its motorcycles and automobiles by 50% by 2030, and to achieve zero traffic collision fatalities by 2050 (see Figure 5). To achieve this, the company invests in safety technologies, education programmes, and data-driven policy support. Honda believes that achieving these milestones requires not only innovation in vehicle design, but also a deep understanding of human behaviour – through research in biomechanics and neuroscience – to promote behavioural change and implement comprehensive initiatives aimed at eliminating road crashes. Road crash data analysis is the starting point for identifying causal factors.

Honda's road safety works is organised under its 5E framework (see Figure 6): Evaluation, Education, Engineering, Enforcement, and Emergency Medical Services. This approach links data collection and analysis to practical interventions, combining vehicle design, training, enforcement support, and post-crash response.

The company applies both macro-level statistical data and micro-level in-depth crash investigations. Macro-level data helps identify trends in traffic incidents, monitor the effectiveness of policy measures and the adoption of in-vehicle safety technologies, and map high-risk zones. Micro-level data, such as behavioural analysis and scenario-based crash reconstructions, reveal the underlying causes of collisions. In Thailand, for example, a Honda-supported study by the Thailand Accident Research Centre (TARC) found that 74% of traffic fatalities involved motorcycles, and 37% of those involved collisions with passenger cars. The study even identified the specific crash scenarios.

The study's findings led to targeted interventions, including rider education programmes and predictive assessments of crash reduction effects for safety technologies.

Honda also leverages its engineering expertise to develop and deploy safety technologies informed by road crash data. This includes research into motorcycle airbags, safety rating schemes, and biomechanical analysis for rider and passenger protection. Honda's ICT and AI-based training platforms enable scalable, high-quality rider education, even in resource-constrained environments.

Road safety education is another focus area. Honda runs programmes in 43 countries and regions, training instructors and delivering safety awareness programs through traffic education centres and dealerships, with a strong focus on protecting children in traffic environments. These initiatives are increasingly linked with school curricula and driver licensing systems, ensuring that children not only learn essential safety behaviour but also grow up with a deep understanding of responsible mobility.

Collaboration with governments, UN agencies, and research institutions in support of evidence-based policymaking is a key part of Honda's approach. Honda actively contributes to UNECE processes and advocates for the harmonisation of road crash data standards worldwide.
Whether through data-driven policy support, technology innovation, or grassroots education, Honda's actions reflect a deep belief: that road safety is not just a technical challenge, but a shared responsibility. By aligning engineering with evidence-based policies and education, Honda continues to drive progress toward a world free from traffic fatalities.

Figure 5. Honda Safety Goals Scenario toward the Realization of "Zero traffic Collision Fatalities" by 2050

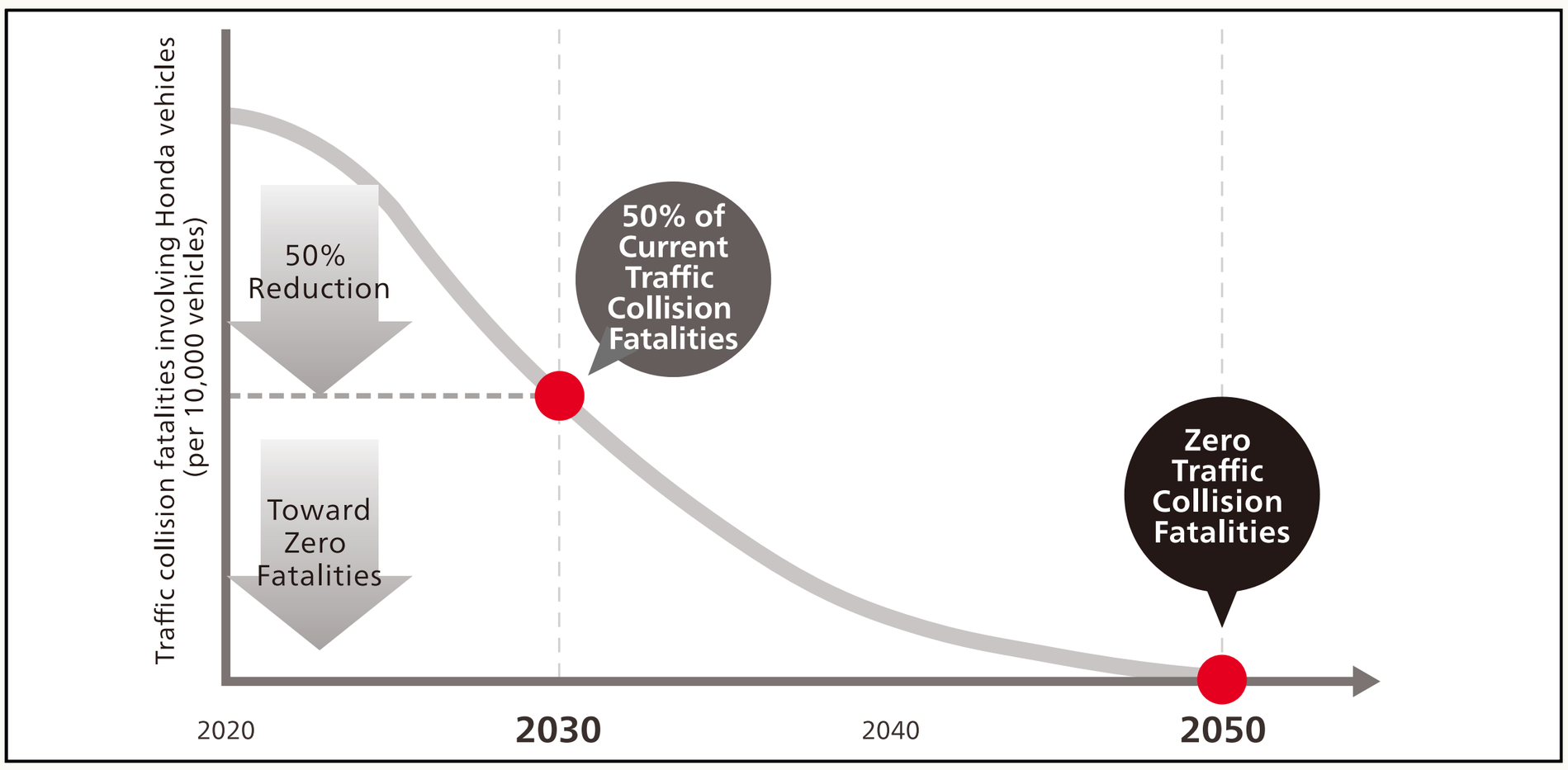
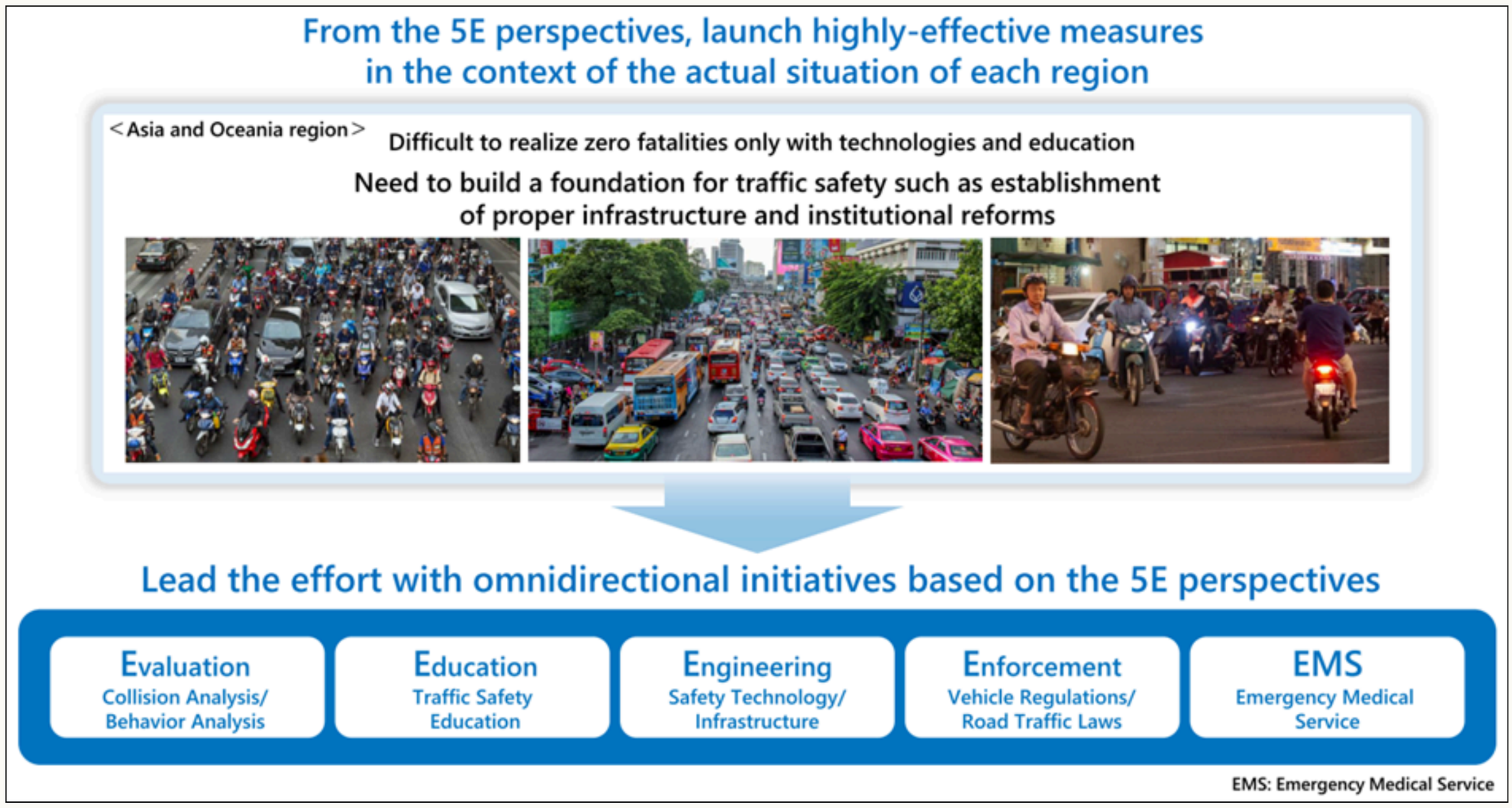


Figure 6. Honda 5E approach



A CALL TO ACTION

Honda calls on governments and Participating UN Organisations (PUNOs) to place road crash data reform at the heart of their 2025 UNRSF proposals. Road crash data that is standardised, accessible, up-to-date and actionable is not a technical luxury—it is a necessity for saving lives. Smarter data systems enable targeted road safety education, effective enforcement, safer infrastructure development, and timely and well-prepared emergency care. Data empowers countries to invest wisely, innovate boldly, and protect their most vulnerable road users. As we move toward Vision Zero and Honda's own 2050 goal of zero traffic fatalities, let us build the data foundations that make these ambitions achievable.

SEE RELEVANT RESOURCES.