



Achieving Vision Zero Road Safety

Saving Lives Strengthens Communities.

As the world, and in particular the scientific community, focuses on solving COVID-19, another public health crisis continues to take lives and impact communities globally—road traffic crashes result in approximately 1.35 million deaths each year; between 20 million and 50 million more people suffer non-fatal injuries, with many incurring a disability as a result of their injury.¹ Vision Zero, adopted by the Swedish Parliament in 1997, holds that the worldwide ambition must be to reduce these numbers to zero. The Vision Zero philosophy—grounded in the ethical imperative to prioritize the preservation of human life in the worldwide road system—is backed up by evidenced-based measures to prevent harm.

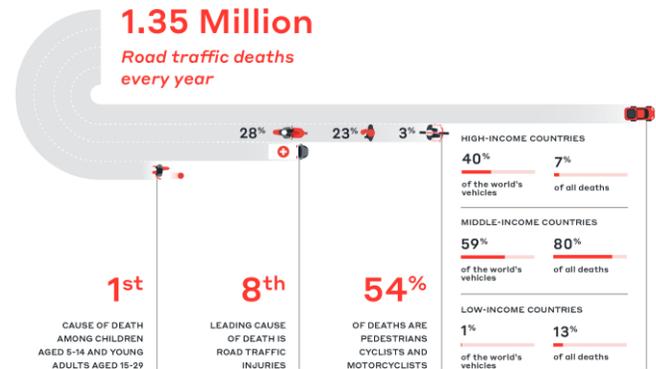
To recognize the importance of the World Day of Remembrance for Road Traffic Victims and to explore how communities can make meaningful progress in reducing road traffic fatalities and serious injuries, we spoke with WSP road safety expert Karin Hassner, based in Sweden.

Road Safety Urgency

Worldwide, more than 1.35 million people die on roads each year, and 20 million to 50 million more people suffer serious injuries.

More than half of road traffic deaths involve vulnerable road users—pedestrians, cyclists and motorcyclists.

Source: World Health Organization



Numbers are sourced from the Global Status Report on Road Safety 2018, World Health Organization.

Income levels are based on 2017 World Bank classifications, as noted in the report.

What are the principles of Vision Zero?

Karin Hassner: Vision Zero holds that no one should be killed or seriously injured within the road traffic system. When the Swedish parliament adopted Vision Zero in 1997, it recognized that fatalities and severe injuries are not acceptable consequences of travelling on the world's roads. With this understanding also came a shift from a traditional engineering road safety perspective that tends to focus on crashes as isolated occurrences due to driver errors, to a public-health-issue perspective. This shift supports creating safe systems, based on shared responsibility, to preserve human life and support healthier communities. When we look at road safety in this context, we can develop road transport systems that advance safe mobility for all people.

¹ World Health Organization, Road traffic injuries

This evolved view identifies and evaluates system interdependencies; it encourages a collaborative approach among the multiple stakeholders involved in road safety, takes into account human error when designing road systems, and emphasizes a holistic understanding that considers how the elements of road systems interact and work together. Shared responsibility fosters a deep, common awareness of system interdependencies and interfaces, which is key to understanding how to provide safe road systems for all users.

Who are the system designers involved in this collaborative effort, and how does shared responsibility work?

Karin Hassner: System designers include a wide range of professionals—all those who plan, design, implement, operate and maintain the system, as well as vehicle manufacturers, trauma and hospital-care providers, and system enforcers, plus others who support road safety. Road users are responsible for following the rules of the road transport system set by the system designers. If the users fail to comply with these rules, due to a lack of knowledge, acceptance or ability, the system designers are required to take the necessary further steps to counteract people being killed or injured. This can be done by designing infrastructure and traffic rules in such a way that they are easy to understand and follow. For example, if an urban street is designed for low speed, making the act of exceeding the speed limit difficult— rather than placing a low-speed sign in a street designed similar to a highway—it is more likely that drivers will maintain the low speed. If something does go wrong in a street designed to encourage a low-speed, it is less likely the outcome will be severe.



01 — This 2+1 road is a part of the Tran-European Transport Network connecting an important harbor, towns and the countryside north of Stockholm with the city. (Stockholm County, Sweden) / 02 — The design of a roundabout can be trialled using temporary devices. (Pesaro, Italy) / 03 — a highway through the city, closed to motorized traffic on Sundays (Rio de Janeiro, Brazil) / 04 — a speed camera, or as referred to in Sweden a life-saving camera, close to a bus stop and pedestrian refuge on a rural road (Sweden)

Vision Zero has already made an impact in areas of the world. What steps can encourage accelerated progress and widespread adoption?

Karin Hassner: First, it's necessary to embrace and commit to a Vision Zero framework toward reducing, over time, the number of deaths and serious injuries to zero, and to set up interim targets. A Vision Zero framework can guide the process. Establishing a framework requires political commitment and community awareness, which sets the stage for localized action plans and/or measures, and follow-through. It's also essential to foster the right mindset, based on the Safe System perspective—which considers the interaction of design elements, all users, modes and interfaces—and develop actions appropriate to each community context.

Countries can take the lead and adopt Vision Zero, as Sweden did in 1997. Not only Sweden but several other countries in Europe, some which used to have a high rate of road fatalities, have shown tremendous progress over years of carrying out effective measures. Among them

are Spain and Estonia, which are now among best performers in Europe.²

Cities showing progress are models for others to follow. In 2021, 30 kilometres per hour will be the default speed limit in Paris and Brussels.³ Bilbao in Spain has already introduced a 30-kilometre-per-hour speed limit in many of their streets. Through speed limits and infrastructure design actions, Helsinki and Oslo have created the context for low speeds on their streets. In 2019, no pedestrians or bicyclists died on the streets of these two capital cities,⁴ so they are great examples to emulate.

Cities and countries that have shown significant progress have often used several tools: speed management, safe areas for vulnerable road users, enhanced legislation regarding the usage of seat belts, helmets, and child restraints, as well as better equipment at road work sites.

Vehicle safety legislation can also play an important role. Greater collaboration between vehicle manufacturers and infrastructure owners and operators will move the industry forward to bring about widespread safe outcomes. Finally, it's possible for consumers to make responsible choices; asking safety-specific questions when researching planned purchases or when booking services as part of travel plans encourages greater availability of clear information, which makes it easier for people to make informed decisions.



05 — Removable humps ensure low traffic speeds at this crossing. (Stockholm, Sweden) / 06 — A bike parking close to a pedestrian crossing reduces the risk that cars park close by. (Brussels, Belgium) / 07 — A “pop-up” demonstration project as part of a public involvement campaign supporting implementation of the Armour Road Complete Street Plan (North Kansas City, Missouri, United States). Phase 1 improvements have now been constructed, and since completion no serious injury or fatal crashes have occurred / 08 from the Christchurch Major Cycle Network Project (New Zealand): Visualizations like this one were key to informing the public how the project would impact their neighbourhood, and instrumental in gaining community support. The project has separated pedestrians and people on bikes from vehicular traffic, and surveys show the number of people on bikes has increased significantly.

COVID-19 continues to draw upon the resources of countries around the world. In this difficult time period, how can communities also address improved road safety?

Karin Hassner: Even though countries with a high amount of car travel and goods movement have been able to improve their road safety level, a good start for communities is to plan for mobility environments where travelling by car is not only unnecessary but not more attractive than walking, biking or using public transport. Worldwide, we see cities introducing new pedestrian and bicycle infrastructure as a result of COVID-19 restrictions in public transportation. However, this infrastructure needs to be safe. More vulnerable road users in the streets together with less car traffic at higher speeds makes it even more challenging to protect vulnerable road users.

² [European Commission, “Road safety: Europe’s roads are getting safer but progress remains slow,”](#) June 11, 2020

³ [ETSC- European Transport Safety Council, “30km/h limits set to spread in 2021,”](#) October 30, 2020

⁴ [ETSC, “Zero cyclist and pedestrian deaths in Helsinki and Oslo last year,”](#) February 11, 2020

People always need safe environments to move about in their daily lives. Infrastructure improvements often take time to put in place. Planning the path to a better future should begin now, to support communities as they move through COVID-19 and people resume more activities.

Today, system designers can apply measures to prevent road fatalities. The results of implemented countermeasures not only demonstrate progress but indicate potential for continued advancement in communities that have already shown progress—and for areas to begin to their journeys by following best practices.

Can you propose one or two takeaways to guide thinking and action toward Vision Zero?

Karin Hassner: The big message is that we now have, at our fingertips, the means to prevent road traffic deaths around the world. Fatalities and serious injuries are not inevitable consequences of mobility and should not be accepted as such. We already have the tools necessary to accelerate worldwide progress through localized long-term journeys toward zero. It's important to note that achieving a higher level road safety also helps shape inclusive communities where all people can live quality lives and prosper.

Very much like COVID-19, the costs as a result of road traffic crashes in terms of the number of lives lost and the impact to the economy are high; also similar to COVID-19, road traffic collisions happen unexpectedly as people go about their daily lives, often leaving family and friends in a grievous situation, emotionally and economically. If a family loses a mother, father, child or other member, the rest of the family is impacted for life.

Vision Zero can be thought of as the world's readily available and proven "vaccine" to prevent harm and enable safe mobility on the world's roads. By following best practices, it is possible for a city or country to reduce loss of human life in a relatively short timeframe. If a measure is proven to work somewhere, it is more likely to work in other contexts too, with possible adjustments, of course, especially as new modes of mobility are introduced.

To sum up, I'll borrow from the Swedish poem *I rörelse [In Motion]* by Karin Boye:

Målet är ingenting. Resan är allt. This means:
The goal is zero. The journey is everything.

**For more on Vision Zero from WSP, see [Vision Zero, Setting a higher standard for road safety](#)*

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