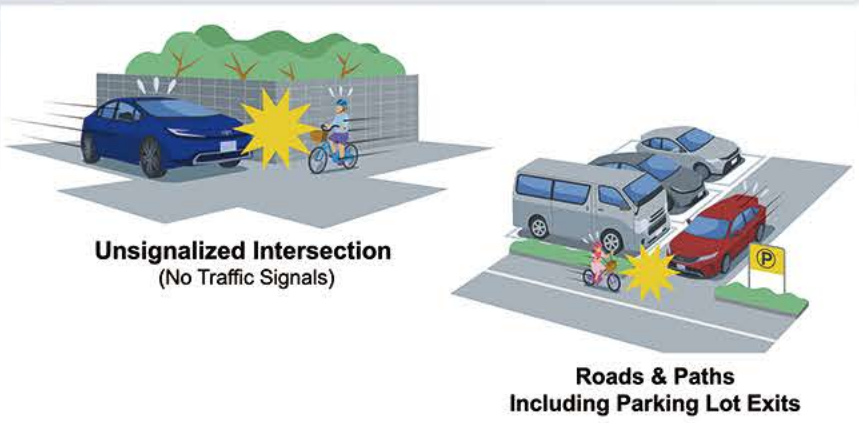
ITS Smart Pole

~ Key device to Protect Vulnerable Populations ~

Background

In Japan, many cross-traffic accidents occur between bicycles and vehicles at unsignalized intersections and single-lane roads.

It is difficult to detect vulnerable road users with only onboard sensors in the vehicle, so accident prevention requires cooperation with road-side infrastructure.



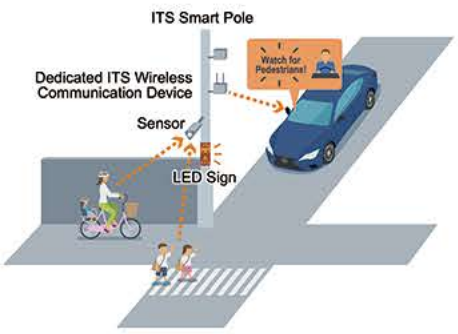
Unsignalized Intersection
(No Traffic Signals)

Roads & Paths
Including Parking Lot Exits

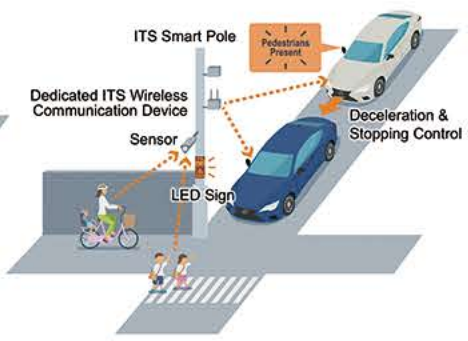
Technologies & Services

ITS Smart Poles employ sensors to detect road users hidden from sight, and use dedicated ITS wireless communication to notify drivers, bicyclists, and pedestrians with an LED sign.

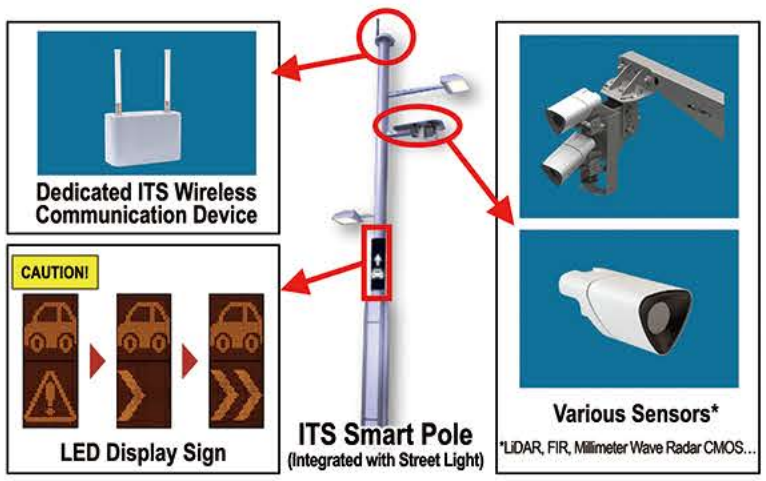
This technology can help prevent cross-traffic accidents and support autonomous driving.



Safe Driving Assist



Autonomous Driving Assist



Future Action

ITS Smart Poles are currently being tested in more than 20 regions to date, with plans for nationwide introduction.

Our goal is “ZERO Accidents for Vulnerable Road User,” by offering safe-driving assistance services and integrating them with autonomous driving technology.

Roadmap for Public Implementation of ITS Smart Poles

		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030s
Autonomous Driving Assist Infrastructure	Freeway, Motorway		• L4 Autonomy - Trucks[1]	• L4 Autonomy - Trucks (Public)[1]				Nationwide Deployment
	Local Roads		• L4 Autonomy - Limited Region Mobility Service[1] (50+ Cities)		• L4 Autonomy - Limited Region Mobility Service[1] (100+ Cities)			Nationwide Deployment
Safe Driving Assist Infra.	Local Roads	Study of Services & Architecture[2]		Finalization of Overall Vision[2]	Development & Creation of Systems[2] Public-Private Joint Research, Various Specification Studies & Decisions…		Trial Run[2]	

1. Target defined in *Vision for Garden-City Nation.*
2. Reference: *Next-Generation ITS by Ministry of Land, Infrastructure, Transport and Tourism.*

TOYOTA