

Development of Truck Platooning



Objective

The logistics industry in Japan is faced with the social issues such as shortage of truck drivers and increase of the greenhouse effect gas, so that the automated driving technology is expected to solve those issues and improve logistics efficiency. The Japanese government intends to commercialize the truck platooning without drivers in the following trucks.

Outline

1. What is Truck Platooning?

Truck Platooning comprises a number of trucks. The platooning technology is expected to save fuel consumption and labor costs by applying the automated driving function to the following trucks. Platooning is also expected to improve traffic safety by assistance of the following trucks' braking with no reaction time.

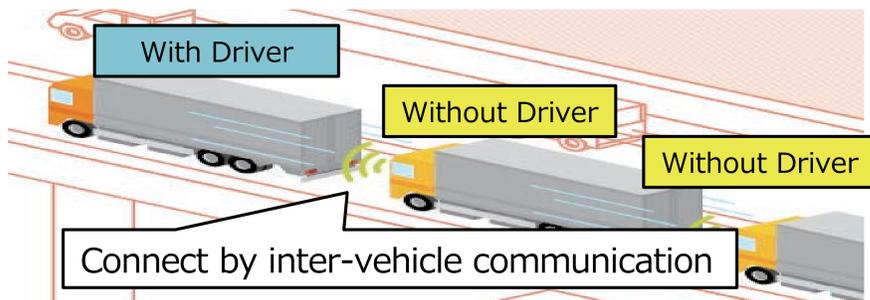


Image of Truck Platooning



(Source: Hino Motors Ltd.)

Image of 25t Truck for Platooning

2. Roadmap of Truck Platooning Development

- The truck platooning project of METI and MLIT started from April in 2016, and the world's first demonstration of the truck platooning system with driver was conducted utilizing CACC of different manufacturers' trucks on a public road (Shin Tomei Expressway) in January, 2018.
- Further demonstrations of the advanced truck platooning systems with drivers on a public road are planned in 2018~2019.
 - ① The platooning system utilizing CACC+LKA of different manufacturers' trucks
 - ② The automated platooning system that the following trucks automatically follow the lead truck
- The Japanese government intends to realize the truck platooning without drivers in the following trucks in 2020 and commercialize it in 2022.
 - Prime Minister Shinzo Abe held the fifth meeting of the Council on Investments for the Future at the Prime Minister's Office in February, 2017 and requested the relevant cabinet ministers to work together to proceed the automated driving projects including the truck platooning.



The demonstration of the truck platooning in January, 2018



The Prime Minister made a statement.

	2016	2017	2018	2019	2020	2021	2022-
What to Realize	Technical Development		Proving Test		Expansion		
Vehicle Development	Development of Element Technologies for Platooning		Proving Ground Test of Platooning		Realization of Platooning on Express Way (Without drivers in following trucks)	Preparation for Real Production	Commercialization of Platooning (Without drivers in following trucks)
Experiment Proving Test		Test Planning	CACC Trial	Platooning Trial on Express Way		Commercialization of Platooning (With drivers in all trucks)	
Regulations	List up of Review Items	Assignment of Test Site					
Infrastructure	Assignment of Test Site	Assignment of Test Site			Realization of Platooning on Express Way (Without drivers in following trucks)	Preparation of necessary infrastructure	Commercialization of Platooning (Without drivers in following trucks)

Figure of roadmap of Truck Platooning Development