INNOVATION ACTIVITY LEVELS DIFFERENTIATE ACROSS MODES

Autonomous platforms in cargo transportation

Status 2/2020

○ very low ◑ medium ● very high

		Activity level
 Trucks	**Pilot operations (on public ground) initiated** – Level 4 (& 5) still a few years ahead (timeline varies significantly by manufacturer), autonomous platforms for private industrial use becoming available	◔
 Cars/ pods	**Pilot operations under way** and use cases to be tested – Level 4 (& 5) just a few years ahead (timeline varies significantly by manufacturer)	◔
 Ships	**First pilot operations starting,** regulatory IMO framework drafting to be kicked off in 2020; still limited customer demand and concerns	◑
 Drones	**Several small scale operations already established** – higher activity level in less regulated markets; physical and regulatory hurdles for heavier goods	◑ [1]
 Rail	**Autonomous operations as 'industrial automation' options**; slow moving implementation of public applications, regulatory hurdles and low customer acceptance	◔

More conservative perspectives forming about speed of implementation across all modes

1 Commercial applications; defence applications quite advanced (technology & business models)