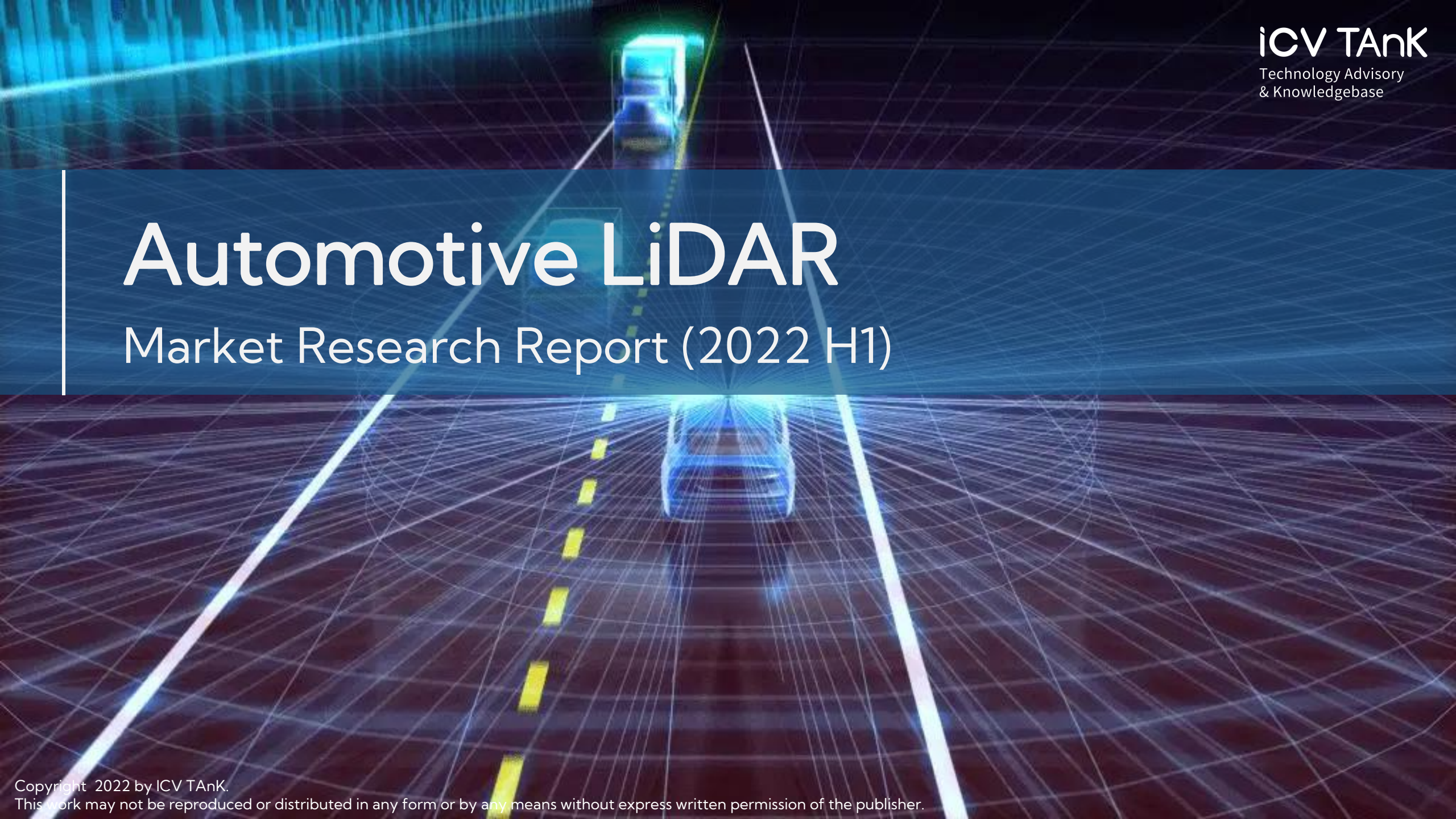

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Automotive LiDAR

Market Research Report (2022 H1)

Introduction

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The aim of this report is to evaluate the Automotive LiDAR market, the market is segmented by LiDAR type and geography. The analysts performed analysis for global market, as well as the study about the technologies that were applied to automotive LiDAR.

The automation-driving system consists of three main departments who are respectively responsible for: perception sensing, decision-making, and executing

Generally, vision system, radar system, and LiDAR system are main types of sensors for perception sensing department. At present, the fusion of multi-sensors is the choice for most automobile manufacturers who are on the track of driving automation.

Classifications of Automotive LiDAR

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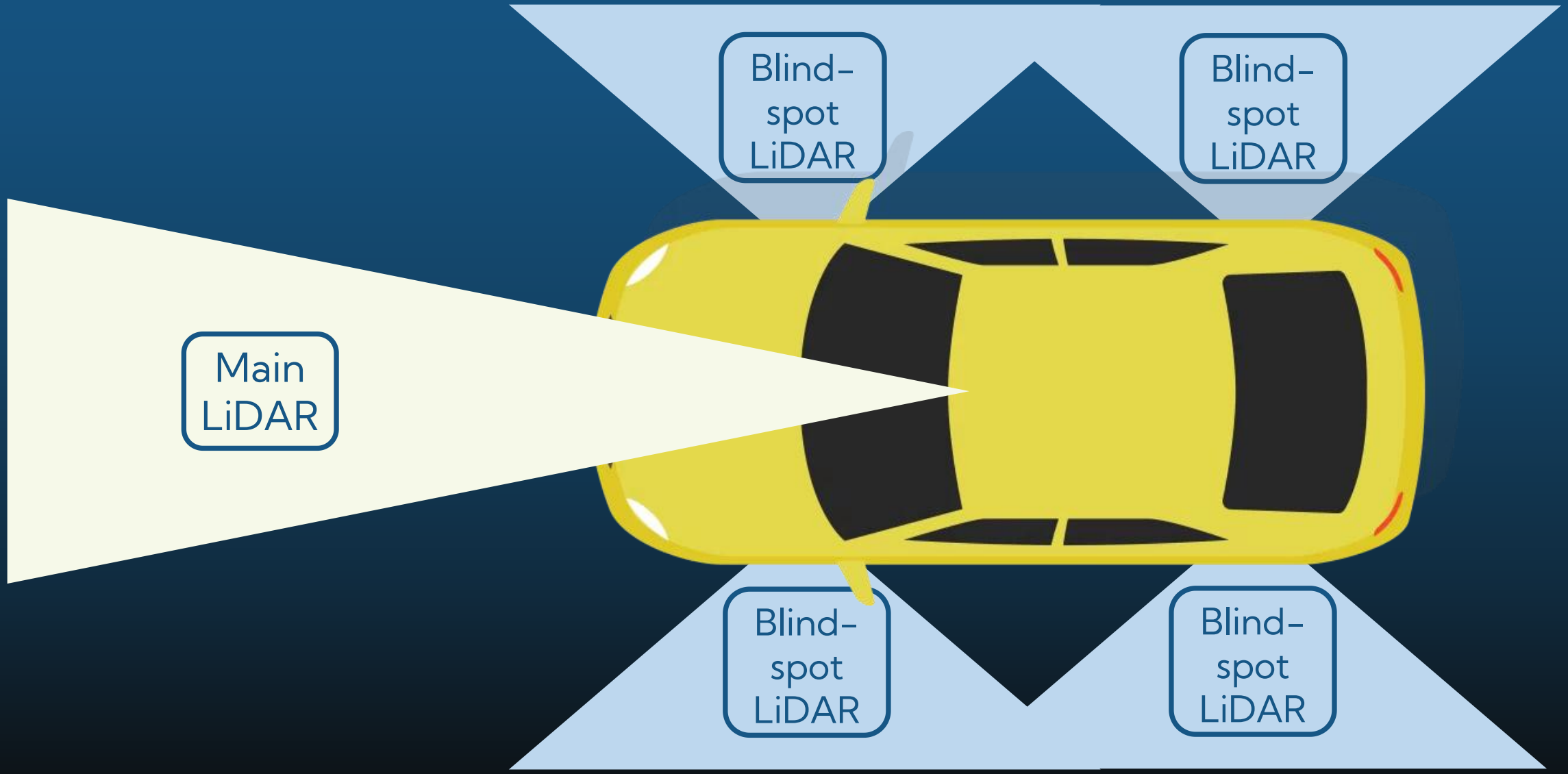

Configuration Assumptions

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LiDAR System: number of LiDARs

	Main LiDAR	Blind-spot LiDAR
L0	0	0
L1	0	0
L2/L2+	0	0
L3	1	0
L4/L5	1	4

> With considering about the configuration of existing automobile models and the developing ADAS technologies, ICV generated more reasonable assumptions about the number of LiDARs for each level of automation (as above table shows), which are used for the following analysis.

In this report, the Automotive LiDAR is classified into two types, based on their functionalities. The main LiDAR scans the area in front of the vehicle, while the blind-spot LiDAR is responsible for providing the real-time perceptions of objects all-around the vehicle.

Regions & Automobile Manufacturers

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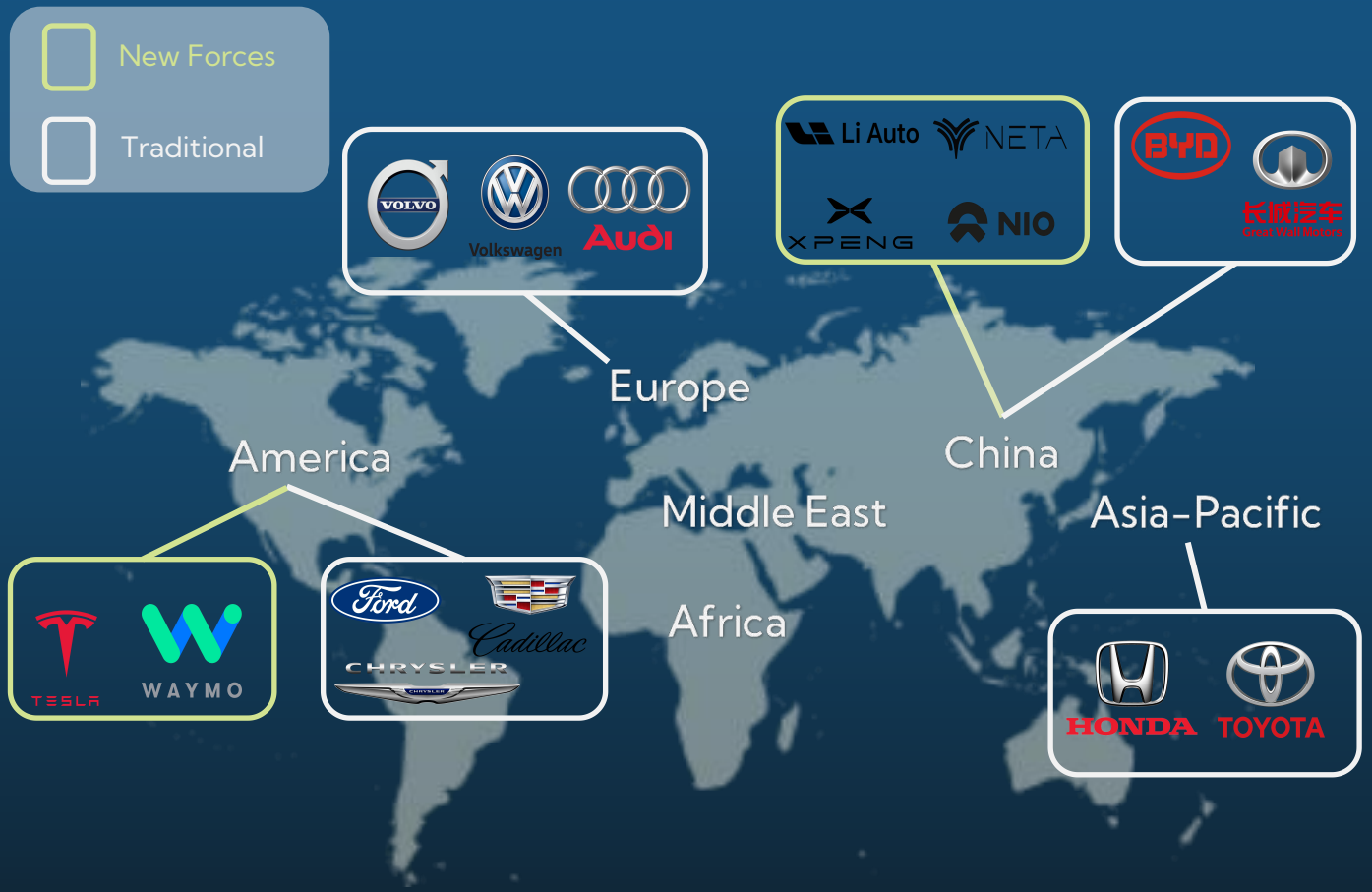

In this report, ICV classified the automobile manufacturer into two types, the new car-making forces and the traditional carmakers.

As the developing stages of automation-driving are different between countries/ regions, this report will divide the whole market into five sub-markets:

1. China
2. Europe
3. America
4. Asia (exclude China), Oceania, and Middle East Region (hereinafter referred to as "AOME" region)
5. Africa

Market Segments – by LiDAR Types

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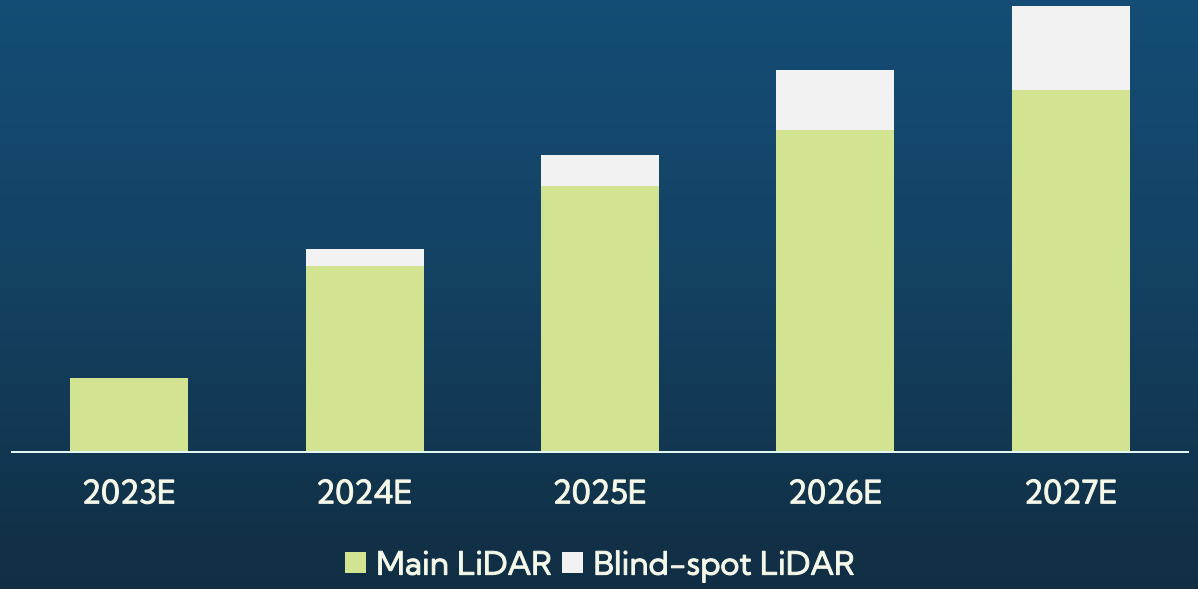
Market Size – Segments (2022 H1)

Market Size Forecasts – Segments (23′~27′)



The Blind-spot LiDAR was just launched by manufacturers in 2022 and has not yet been mass-produced, so that no sales data for the first half of 2022. The market size of automotive LiDAR was estimated to be $2.86 million in 2023, then could grow to $17.34 million in 2027.

Market Segments – by Geography

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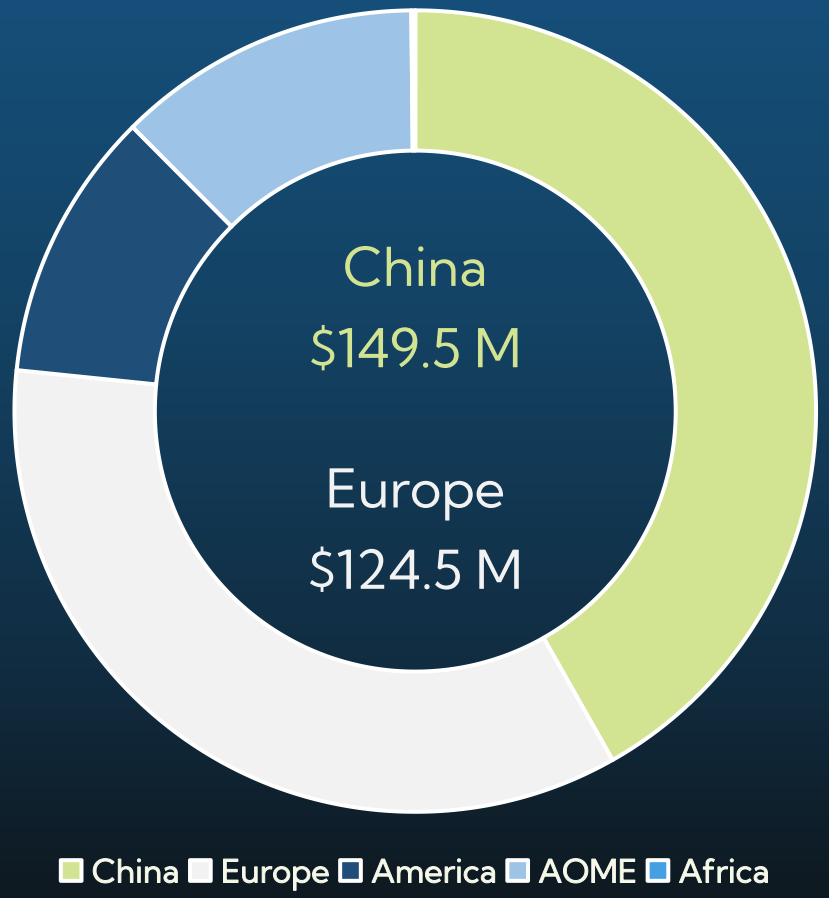
Market Size – Segments (2022 H1)



Chinese market and European market took more than 75% of the global market shares in the first half of 2022.

For the first half of 2022, the global market was worth $357.5 million. China took the largest piece of market share with sales of $149.5 million, followed by Europe with sales of $124.5 million.

Market Segments – by Geography

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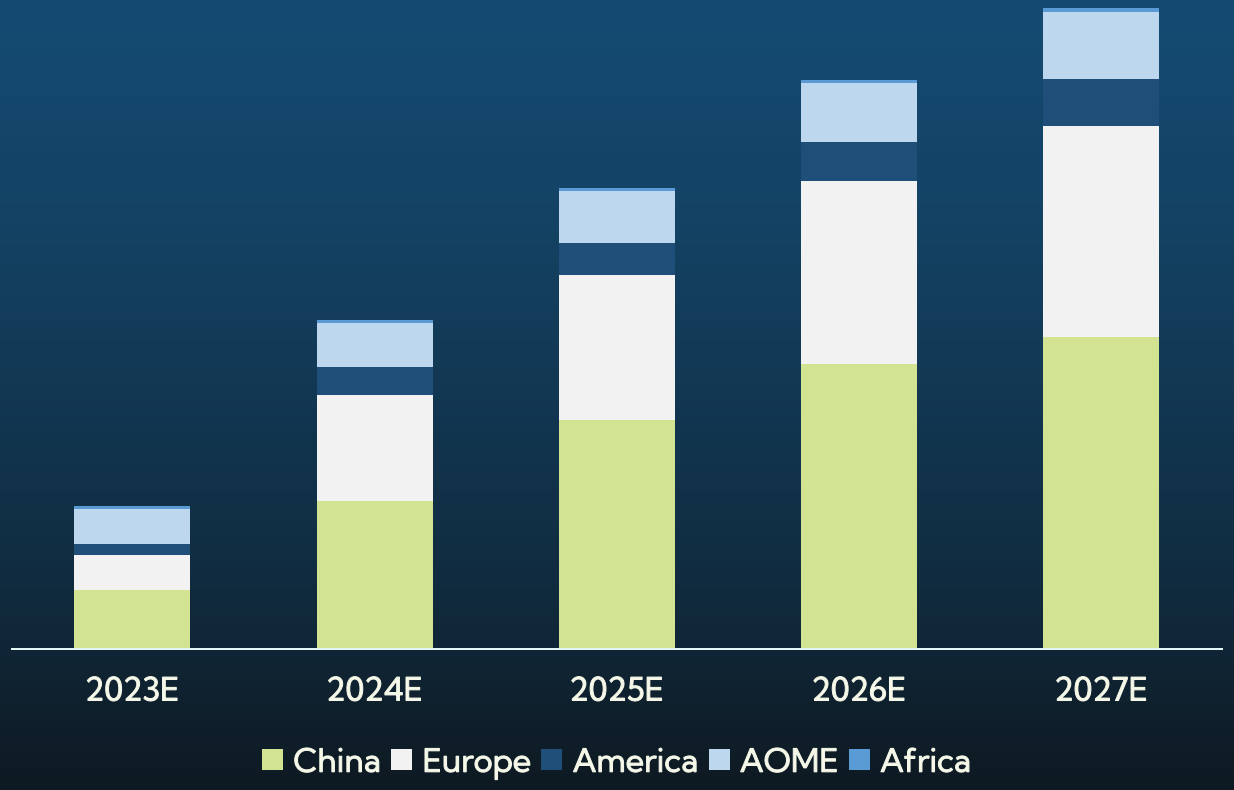
Market Size Forecasts – Segments (23′~27′)



The growth of automotive LiDAR is expanding at a CAGR of 43.4% over next five years

China was expected to continue be the biggest market of automotive LiDAR, though the proportion of sales in Chinese market will have a decreasing trend over the next five years. In turn, the proportion of sales in AOME market will slightly increase in five years.

Core Technologies of Automotive LiDAR

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Hybrid-solid State

Rotating
Mirror (RM)

MEMS
Mirror

Fully Solid State

Flash
Technology

Optical
Phased Array
(OPA)

Core Technologies – Hybrid Solid LiDAR

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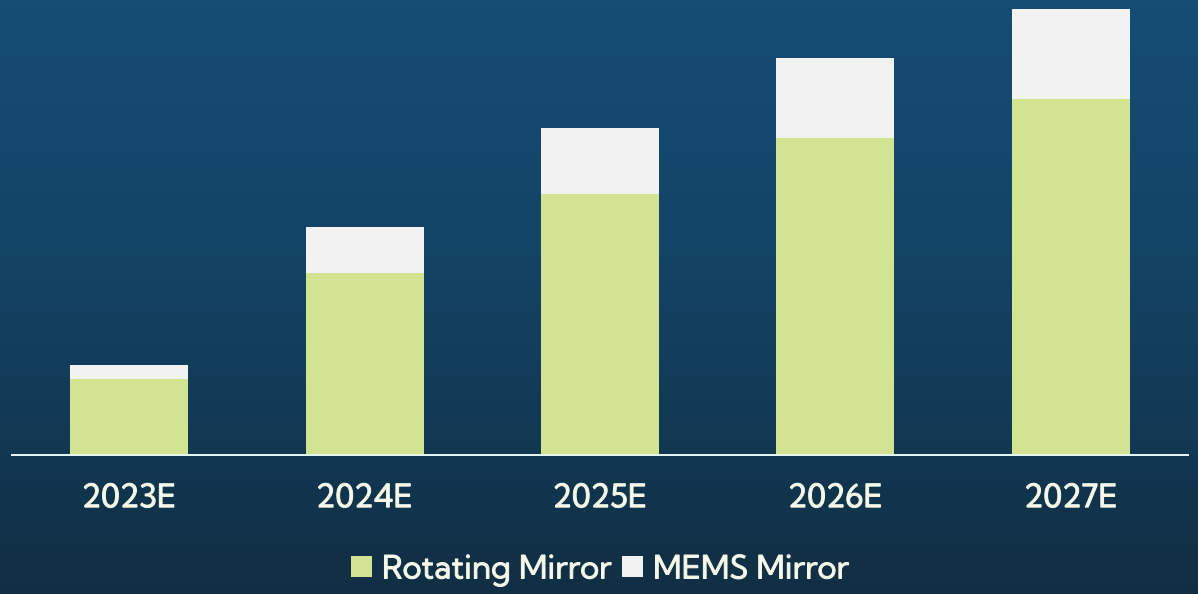
Market Size (2022 H1)

Market Size Forecasts – Technologies (23′~27′)



About 89% of hybrid solid LiDAR sold in first half of 2022 adopted rotating mirror technology, ICV's analysts predicted that the rotating mirror technology would still be the mainstream in the future.

Contact Us

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At ICV we are passionately curious about New Technology, and we strive to deliver the most robust market data and insights, to help our customers make the right strategic decisions.

We bring together the deepest intelligence across the widest set of capital-intensive industries and markets. By connecting data across variables, our analysts and industry specialists present our customers with a richer, highly integrated view of their world.

That is the benefit of The New Intelligence. We are able to isolate cause and effect, risk andopportunity in new ways that empower our customers to make well-informed decisions with greater confidence.

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