

CUB ELECPART INC.(2231)
**Company Introduction of
2021 Investor Conference**



2021/04/21

www.cubelec.com.tw

PART 01

CUB Introduction

01

CUB Profile

Year of Establishment: 1979

Year of IPO: 2010

Capital: 43 M U.S.D.

Name of Representative : Arbula Yu, Chairman

Number of Employees: 900+

Quality Management System : IATF 16949

ISO 14001

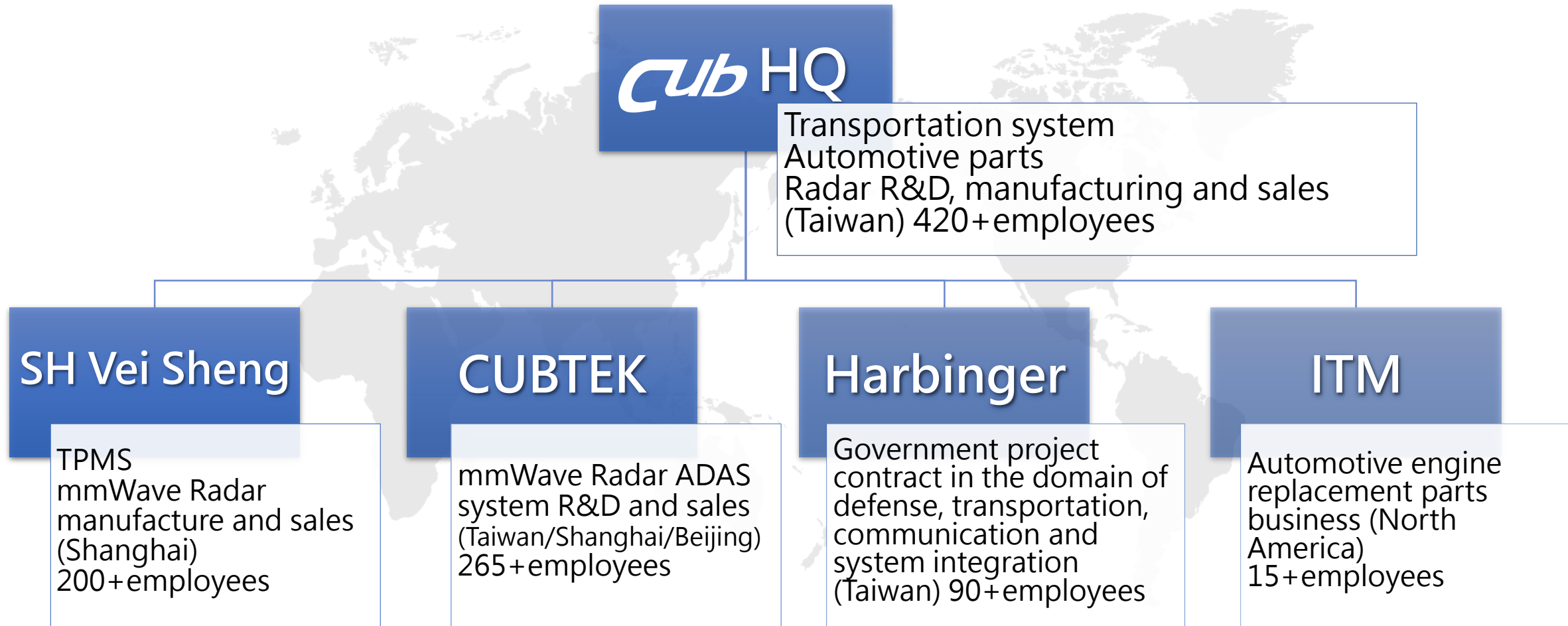


Global Sites



Company Profile

■ Cub Group



Product Line

Intelligent
Transportation

Fleet Safety
Management System

V2X

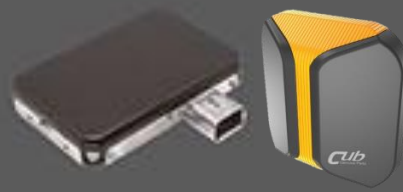
Multi-Intelligence
Safety Monitoring System



Switch/Sensor



TPMS



24GHz 77/79GHz ADAS



The largest AM auto parts
maker to USA

1979

The best universal TPMS
of the world

2007

Cross-strait leader

2016

Global top3 mmWave
Radar supplier

2021

Multi-intelligence
sensor integration⁶

PART 02

Financial Information

02

Financial Report(2015~2020)

單位：新台幣仟元 Unit: NTD	2015		2016		2017		2018		2019		2020	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Net sales 銷貨收入	2,822,080	100	3,416,549	100	3,520,466	100	4,023,647	100	4,094,666	100	3,340,199	100
COGS 營業成本	1,259,917	45	1,561,638	46	1,645,848	47	2,076,464	51	2,022,724	49	2,067,788	62
Gross Profit 營業毛利	1,562,163	55	1,854,911	54	1,874,618	53	1,947,183	49	2,071,942	51	1,272,411	38
OP Expense 營業費用	313,049	11	499,848	15	572,666	16	705,516	18	894,253	22	886,043	26
OP Profit 營業利益	1,249,114	44	1,355,063	39	1,301,952	37	1,241,667	31	1,177,689	29	386,368	12
Profit before tax 稅前盈餘	1,303,897	46	1,341,336	39	1,153,171	33	1,281,383	32	1,128,848	28	292,503	9
Consolidated income 本期淨利-業主	1,120,274	39	1,115,580	32	1,011,821	29	1,087,876	27	977,780	24	244,534	8
EPS (元) 基本每股盈餘	13.45	-	12.14	-	10.00	-	9.48	-	8.00	-	2.03	-
Capital資本額	833(M)		919(M)		1,012(M)		1,149(M)		1,228(M)		1,219(M)	

PART 03

CUB Group Growing Factors

03

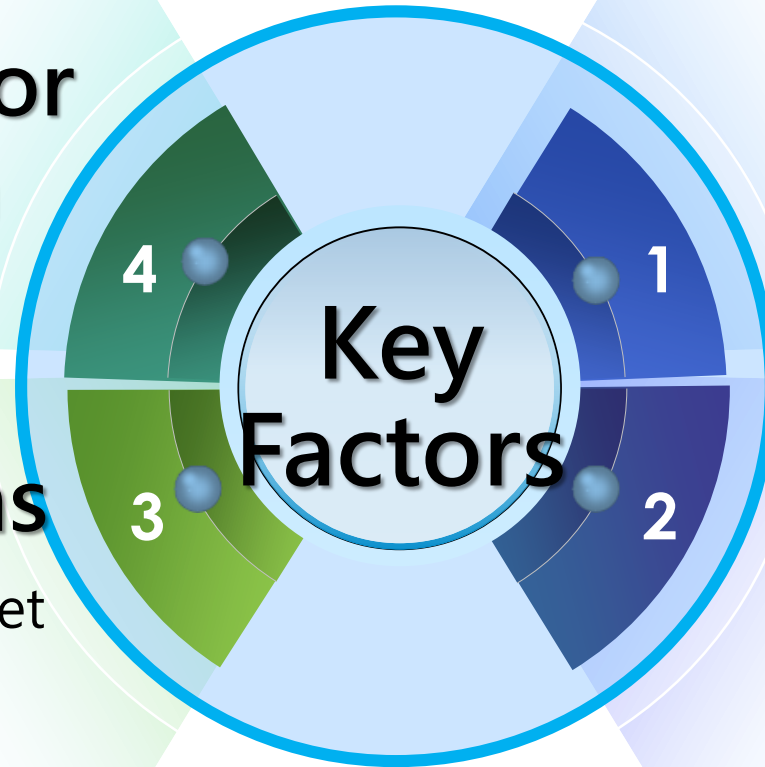
CUB Growing Factors

Multi-Sensor Integration

Intelligent Safety
Business

Applications

Growing AM Market



Competitive

In-house Development Ability
Variant Product Offering
Lean Manufacturing

Regulation

Built-in Radar

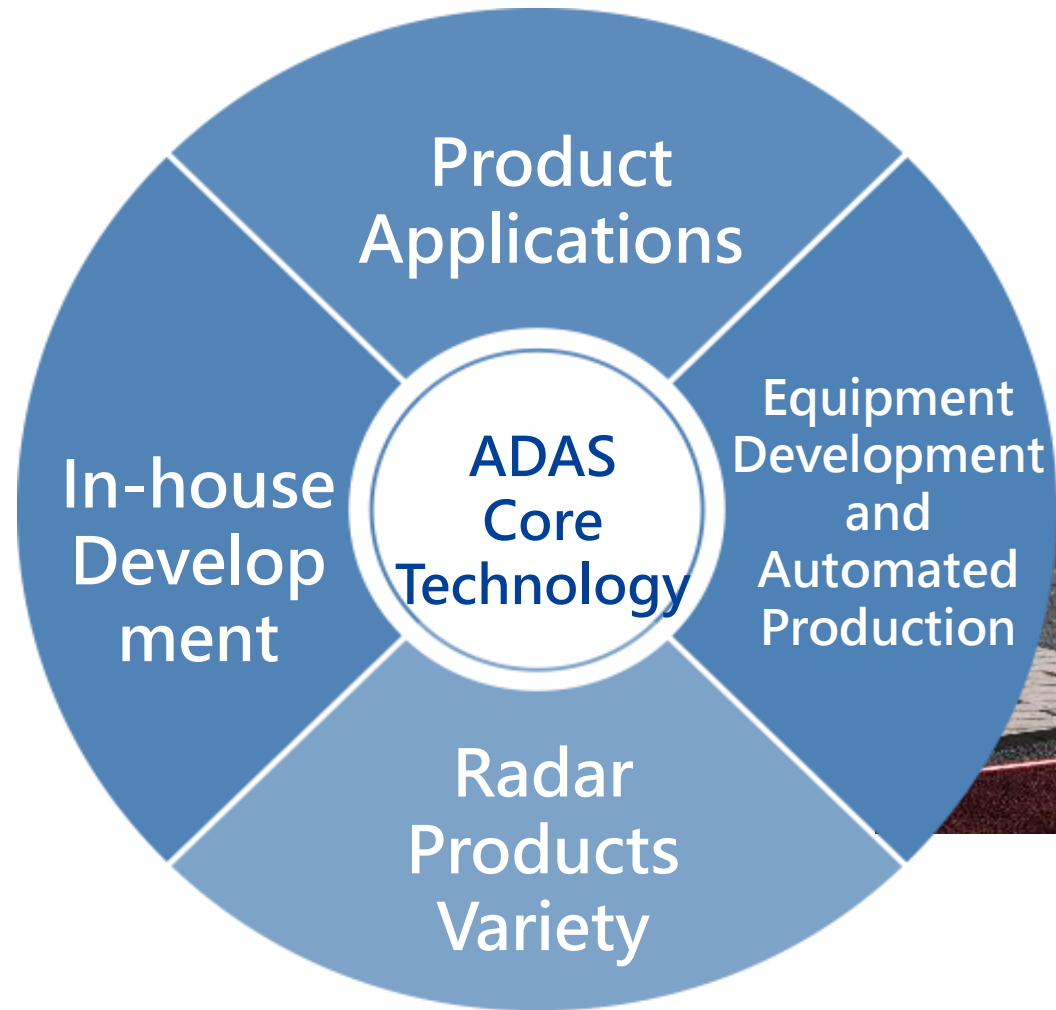
PART 04

Competitive Edge

Independent Technical Solutions
Product diversity
Lean Manufacturing

04

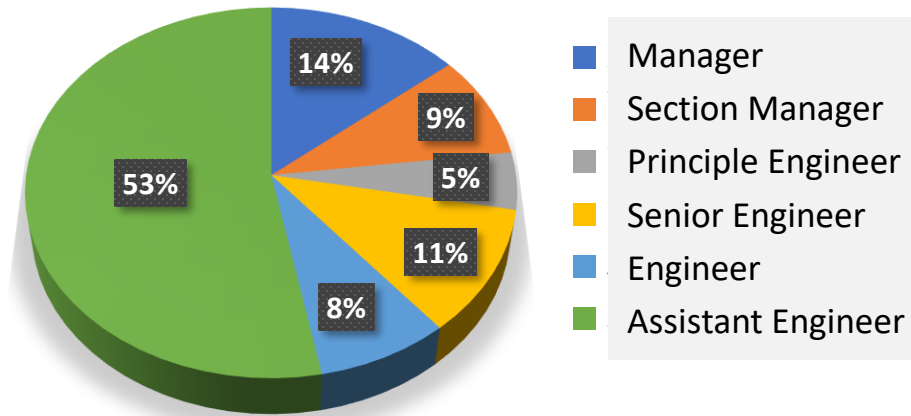
ADAS Advantages



ADAS Advantages

● Professional R&D

Engineering functions distribution



Item	Engineer	
	TW	SH
FAE	35	12
PM	9	6
S/W Engineer	54	7
H/W Engineer	21	0
ME	32	20
Total	151	45

● Patent Reword



CUB group developed 24GHz、77GHz and 79GHz Radar (both S/W and H/W) including of Radar algorithm which is core technology.

CUB has many patents related to Multi-antenna and circuit fields.

CUB's 77GHz self-developed Radar technique is flexible for customization.

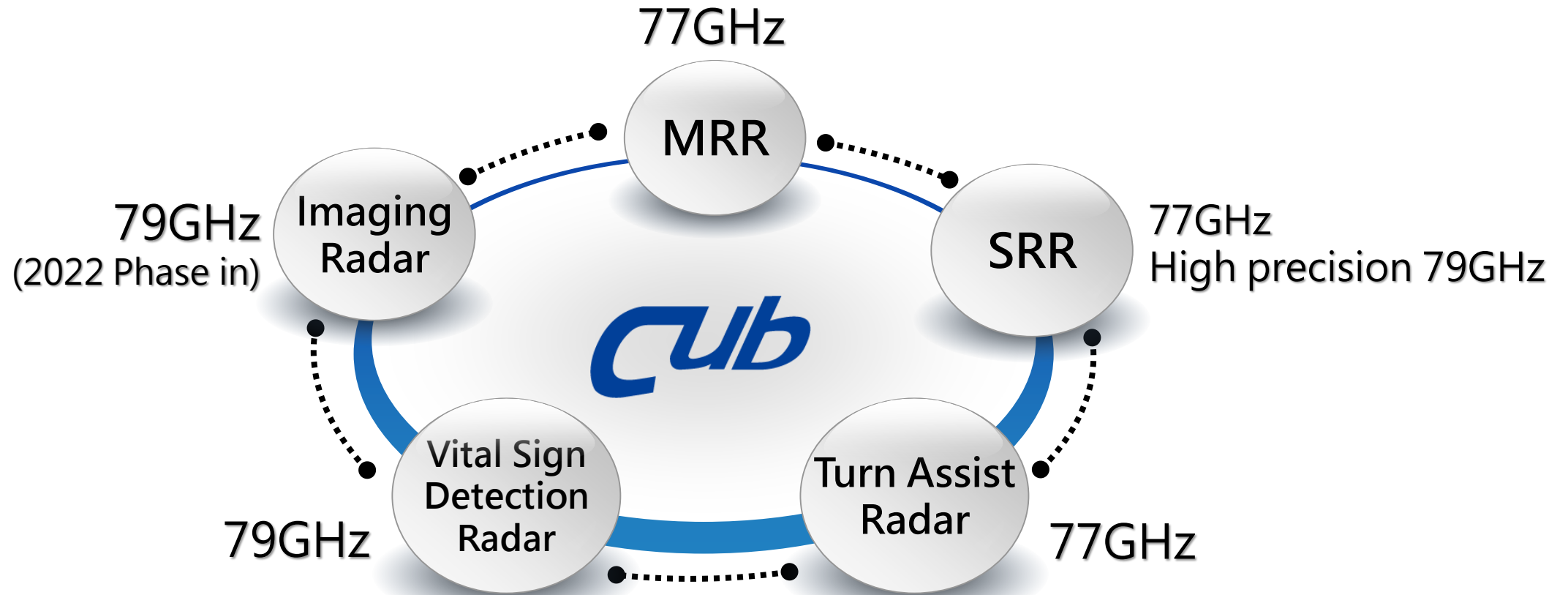
	TW	China	USA	Eu	Total(Note*)
Award	34	25	8	3	70
Examination	6	10	18	4	38
Total	41	35	26	7	108



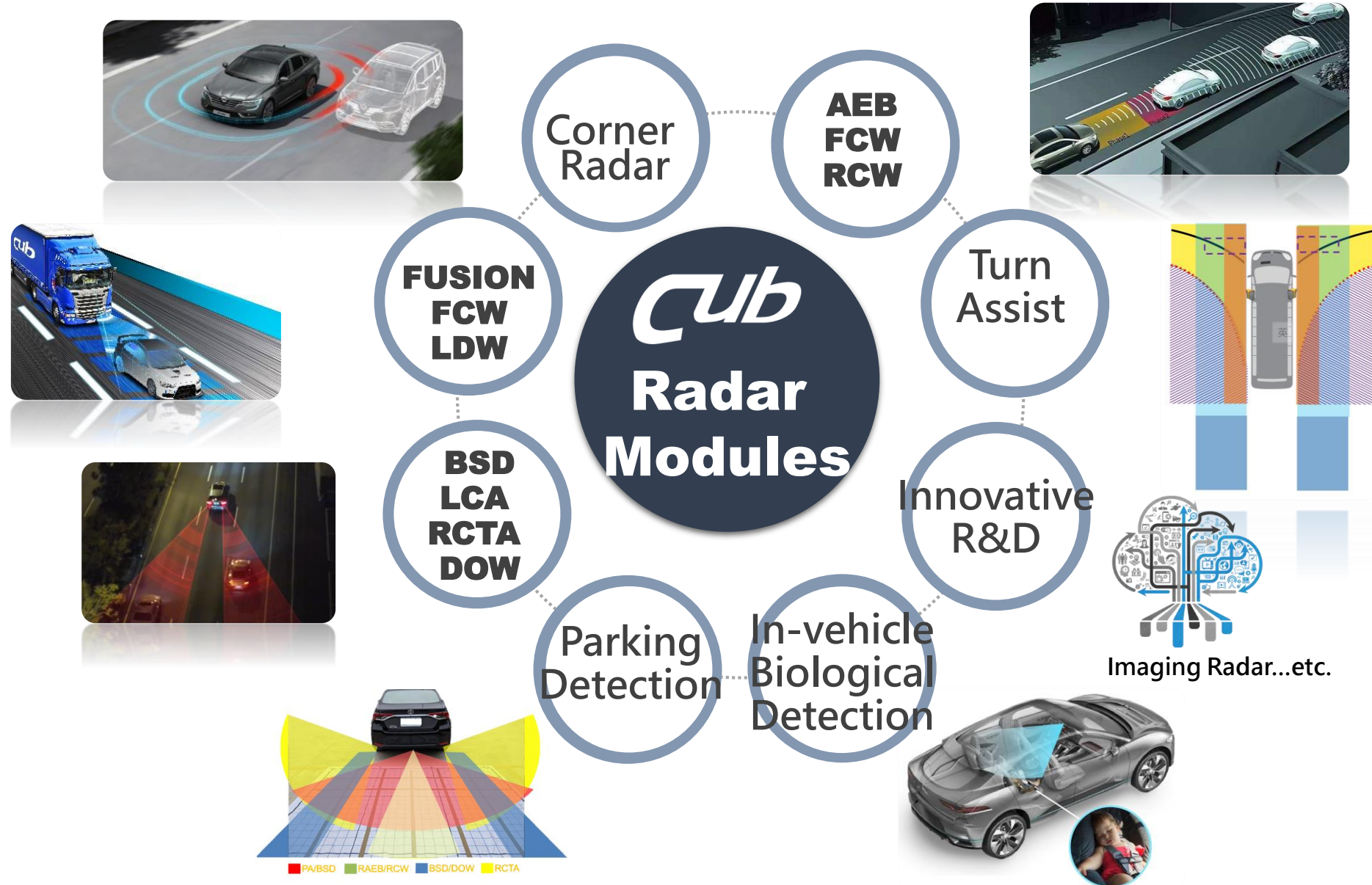
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Note*: not including unofficial applications

77GHz / 79GHz Product Line

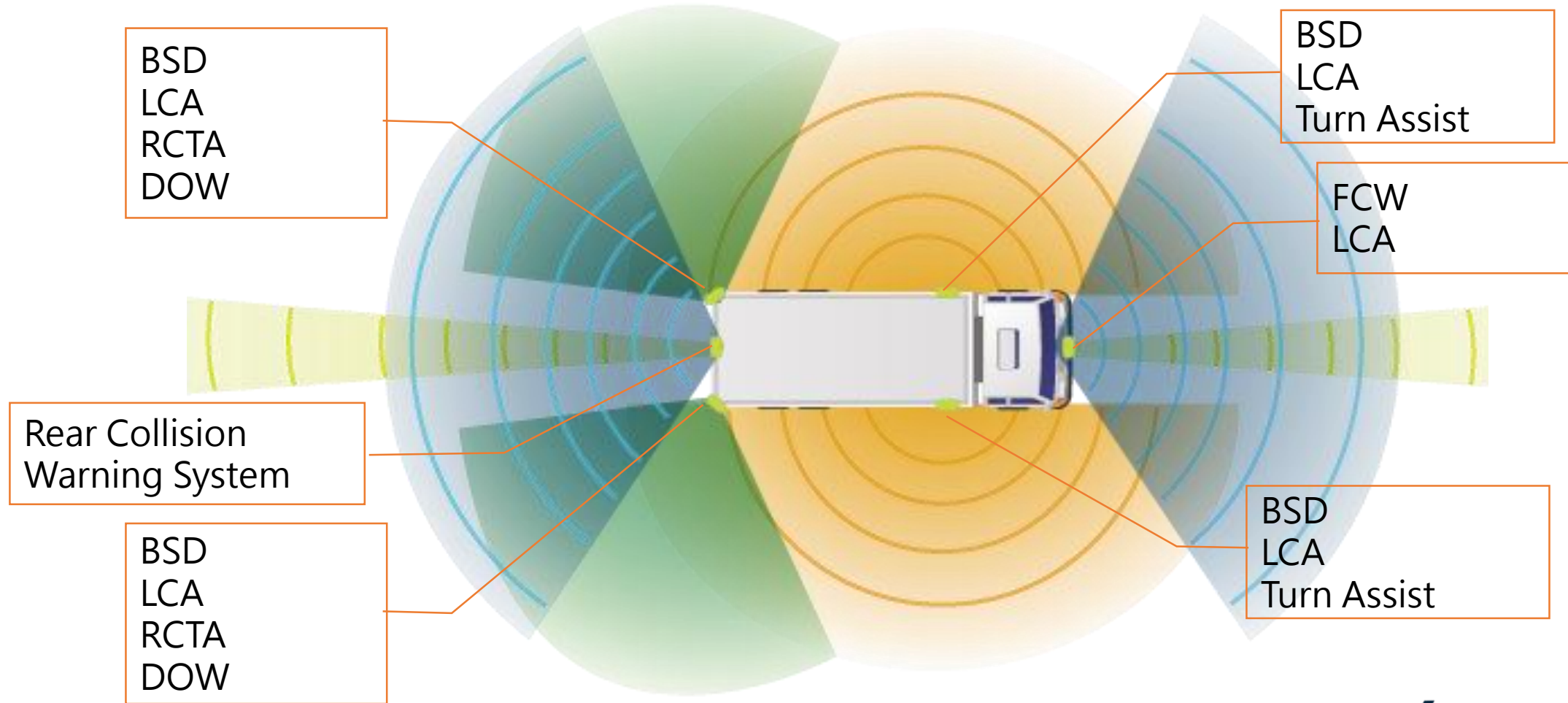


ADAS Applications



ADAS Application of Commercial Vehicle

■ Commercial Vehicles Driving Assistance

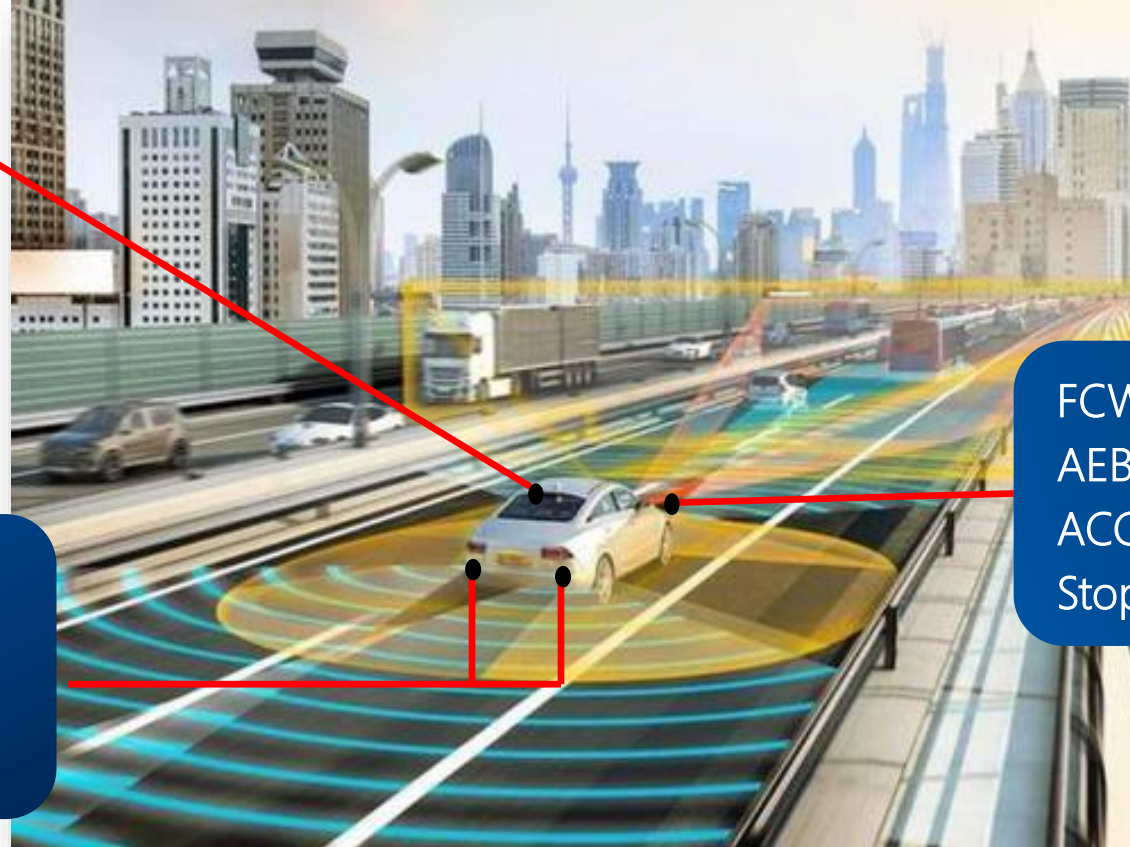


ADAS Application of Passenger Car

■ OEM Passenger Cars

In-vehicle
Biological Detection

BSD
LCA
RCTA
DOW



FCW
AEB
ACC
Stop & Go

ADAS Application of Passenger Car

■ In-vehicle Biological Monitoring

■ Vital signs detection

- ◆ Euro NCAP starts to rate for cars whether it supports in-car kids presence detection.
- ◆ USA is considered to execute **HOT CARS act**, which force to built-in alarm system to make sure no kids stay alone in a car.
- ◆ China is following EU regulations, major car makers pay attention to related technologies.

In the case, the number of new cars with in-vehicle life presence gradually increased in 2022.

In particular, **radar technology**, which can sense light breathing and heart rate, detect sleeping baby and pet, become a leading technology in this field.



Vital signs
detection

Privacy
protection

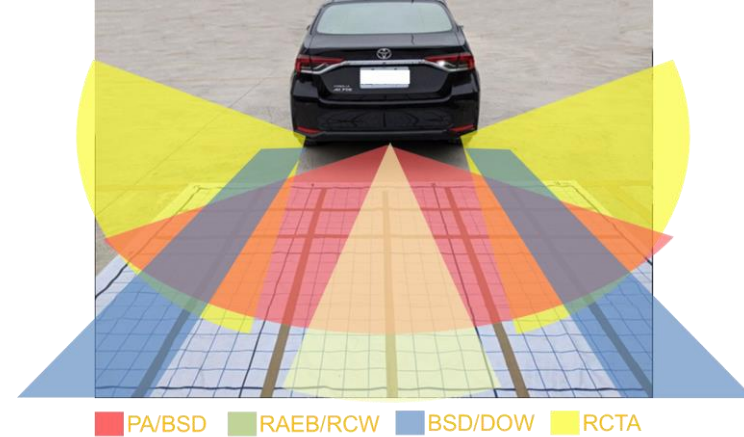
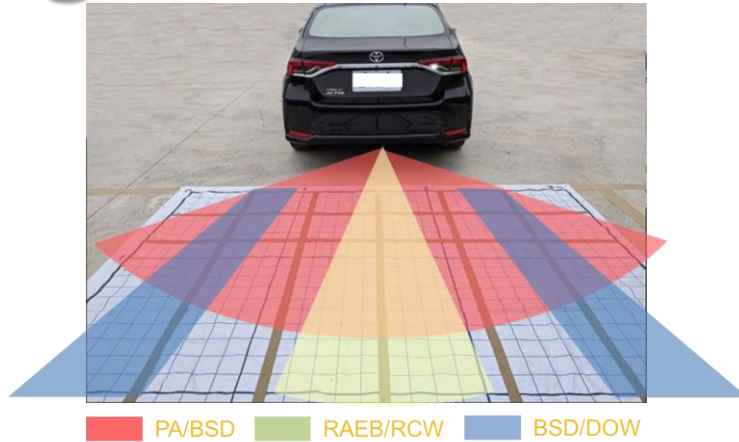
V2X

No
environmental
effect

China
Car Maker
Approved

ibelec.com.tw

Passenger Cars



	Parking Assist + BSD	Support Auto-Parking
High Speed	BSD 、 PA 、 RCW	BSD 、 PA 、 RCW 、 RCTA
Low Speed	PA	PA 、 RCTA
Stop Mode	DOW	DOW
Features	<ul style="list-style-type: none"> - Combined several driving assist functions to reduce total installing time. - Replace rear side Ultrasound sensor, drilling into bumper is not required. 	<ul style="list-style-type: none"> - Replace rear side Ultrasound sensor, drilling into bumper is not required. - Support Auto-parking, replace 6 ultrasound sensors (long + short distance) - RAEB supports reverse parking and braking.

Lean Manufacturing

■ Cross strait automated production line

Taiwan

- ▶ Automated Production Line x1
- ▶ Capacity: 100Kpcs/month



Shanghai

- ▶ Automated Production Line x1
- ▶ x1
- ▶ Capacity: 100Kpcs/month



Target
Capacity
50M pcs/year

■ Quality System



IATF 16949



ISO 14001



ISO 9001

Cub

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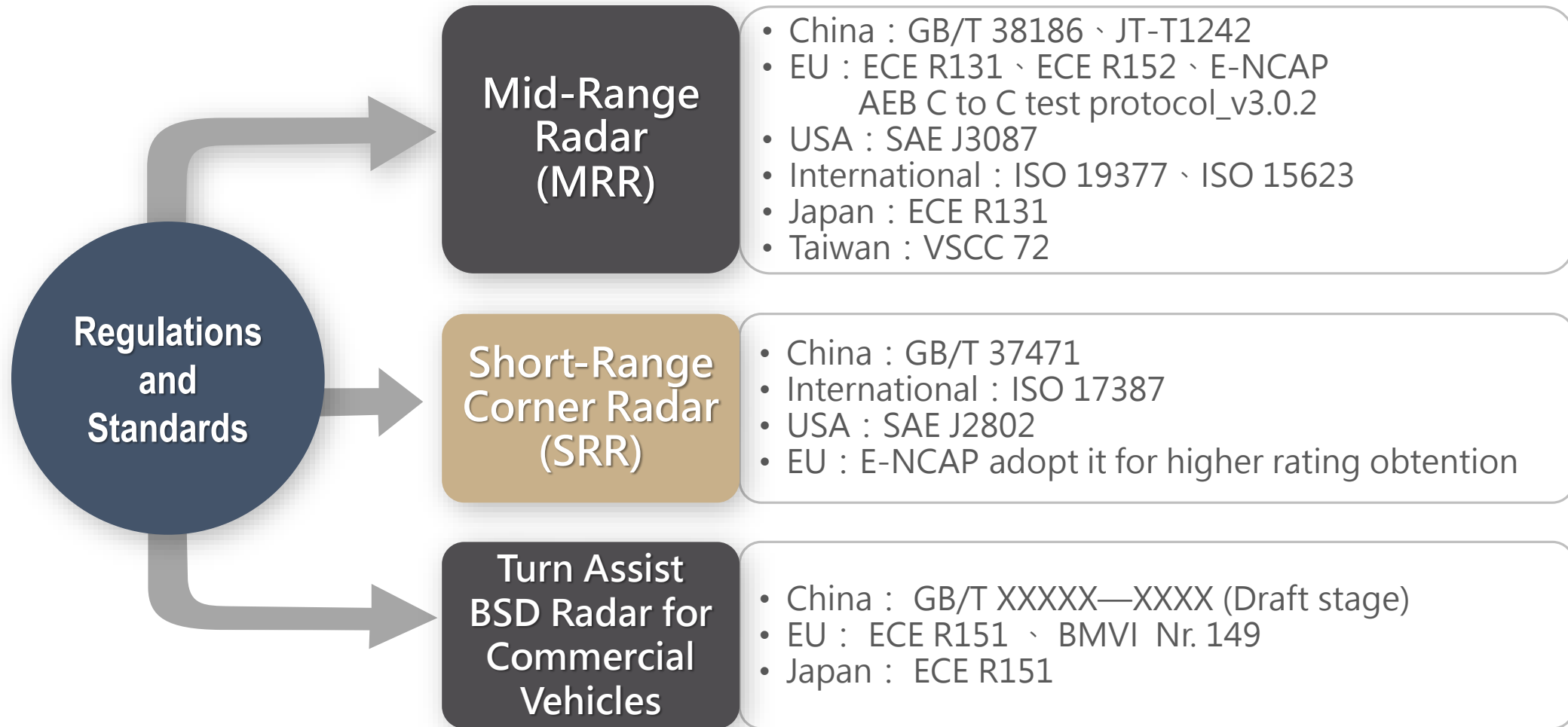
PART 05

Regulation

Pre-installed Radar

05

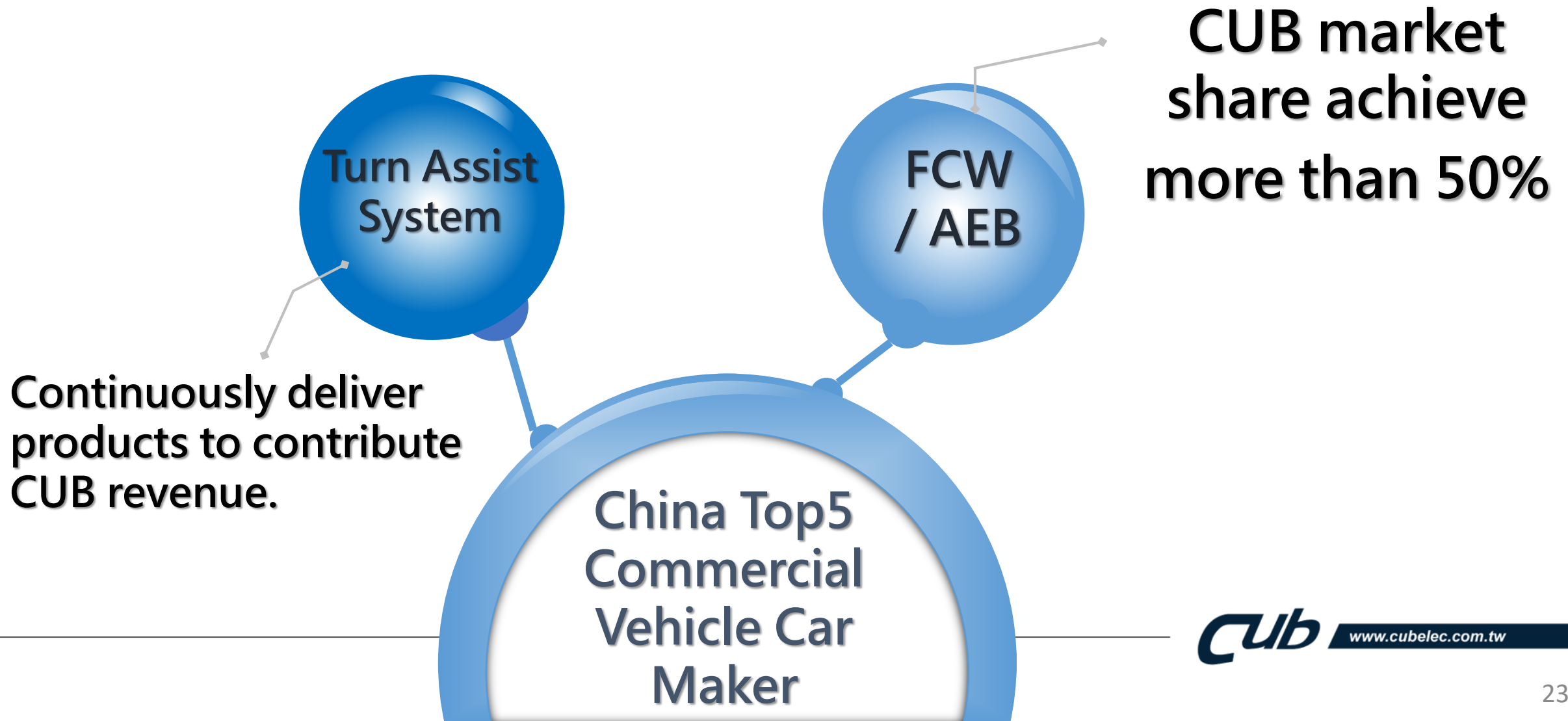
Global Regulations



Regulations Triggered

- ADAS Application of Commercial Vehicle

■ China Commercial Vehicle OEM



Regulation Triggered — China FCW Market Estimation

2020 China Truck Sales Volume and FCW Radar Scale						Car Qty Unit: 10K
Ranki ng	Truck Maker	2020 Jan.~Dec.	FCW Radar			
			Regulation (GB/T33577-2017) Force implement (JT/T1178.1-2018 Tractor) (JT/T1178.2-2019 Truck)			
			Tractor	Truck	Amount	
1	一汽解放	37.69	23.27	2.88	26.15	
2	東風集團	31.11	11.40	3.94	15.34	1.82
3	中國重汽	30	15.64	2.87	18.51	3.82
4	陝汽集團	22.73	14.13	1.72	15.85	5.34
5	北汽福田	15.02	9.24	1.16	10.40	3.22
6	上汽紅岩	8.01	2.54	1.09	3.63	1.38
7	江淮汽車	5.39	1.39	0.80	2.19	0.61
8	大運汽車	3.57	3.22	0.07	3.29	1.20
9	徐工汽車	2.77	0.90	0.37	1.27	0.53
10	華菱汽車	2.12	0.60	0.30	0.91	0.20
11	其他	3.89	1.17	0.54	1.71	0.72
Total		162.30	83.49	15.76	99.25	32.20

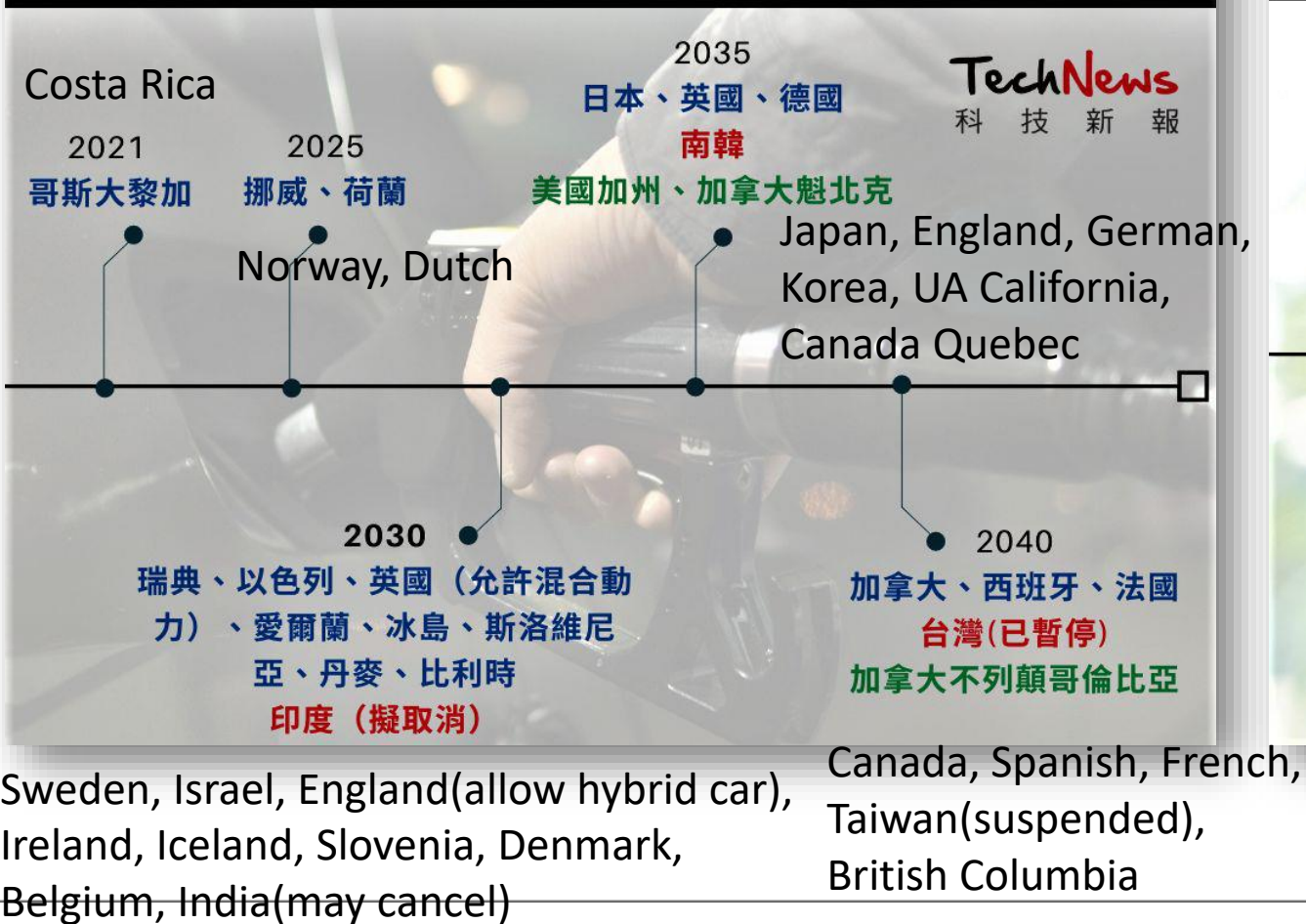
2021 Shipping Q keeps increasing market share achie more than 50%

2021 Shipping Qty
keeps increasing ,
market share achieve
more than 50%.

Banning Gas Cars - Trend of Electric Cars

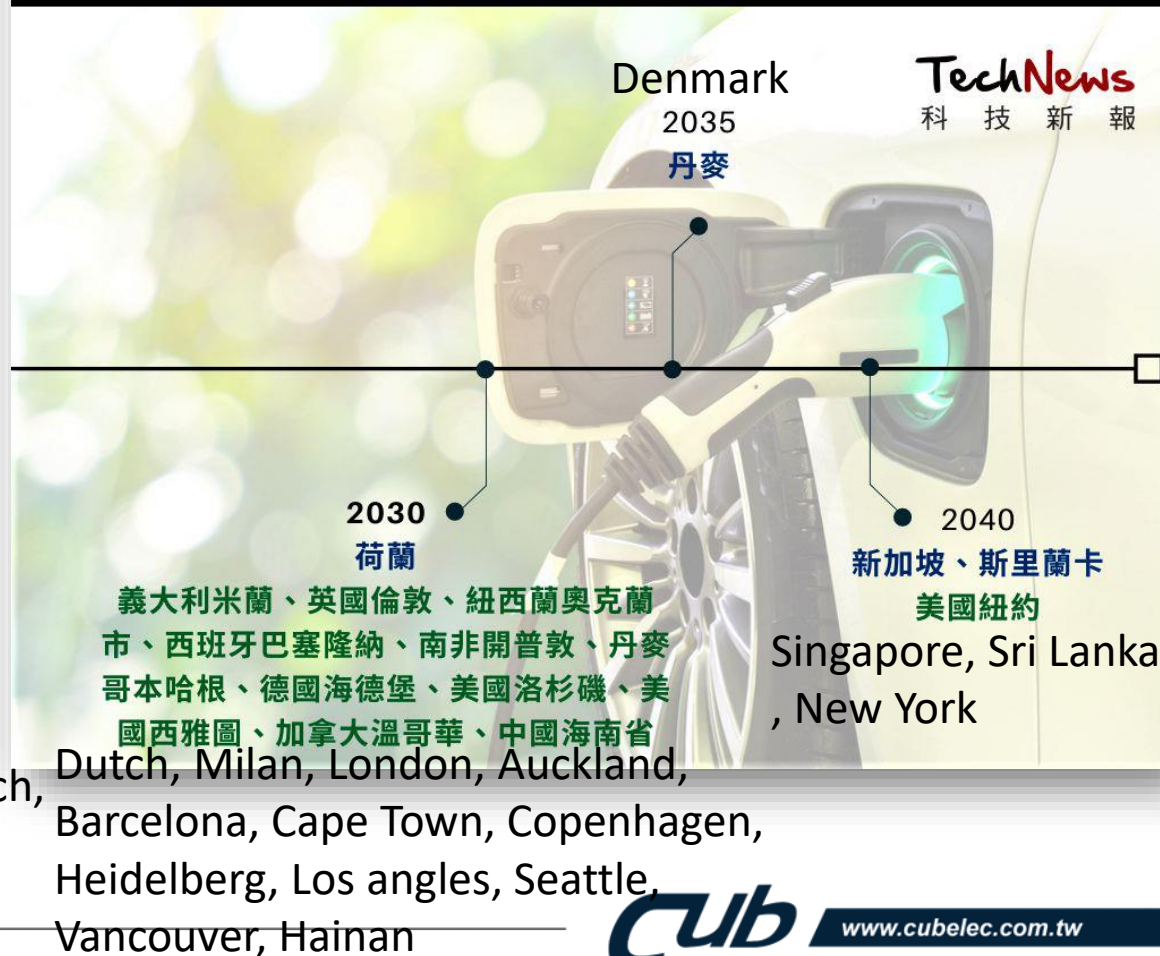
Schedule of banning new gas cars

全球「禁止新燃油車銷售」時間表一覽



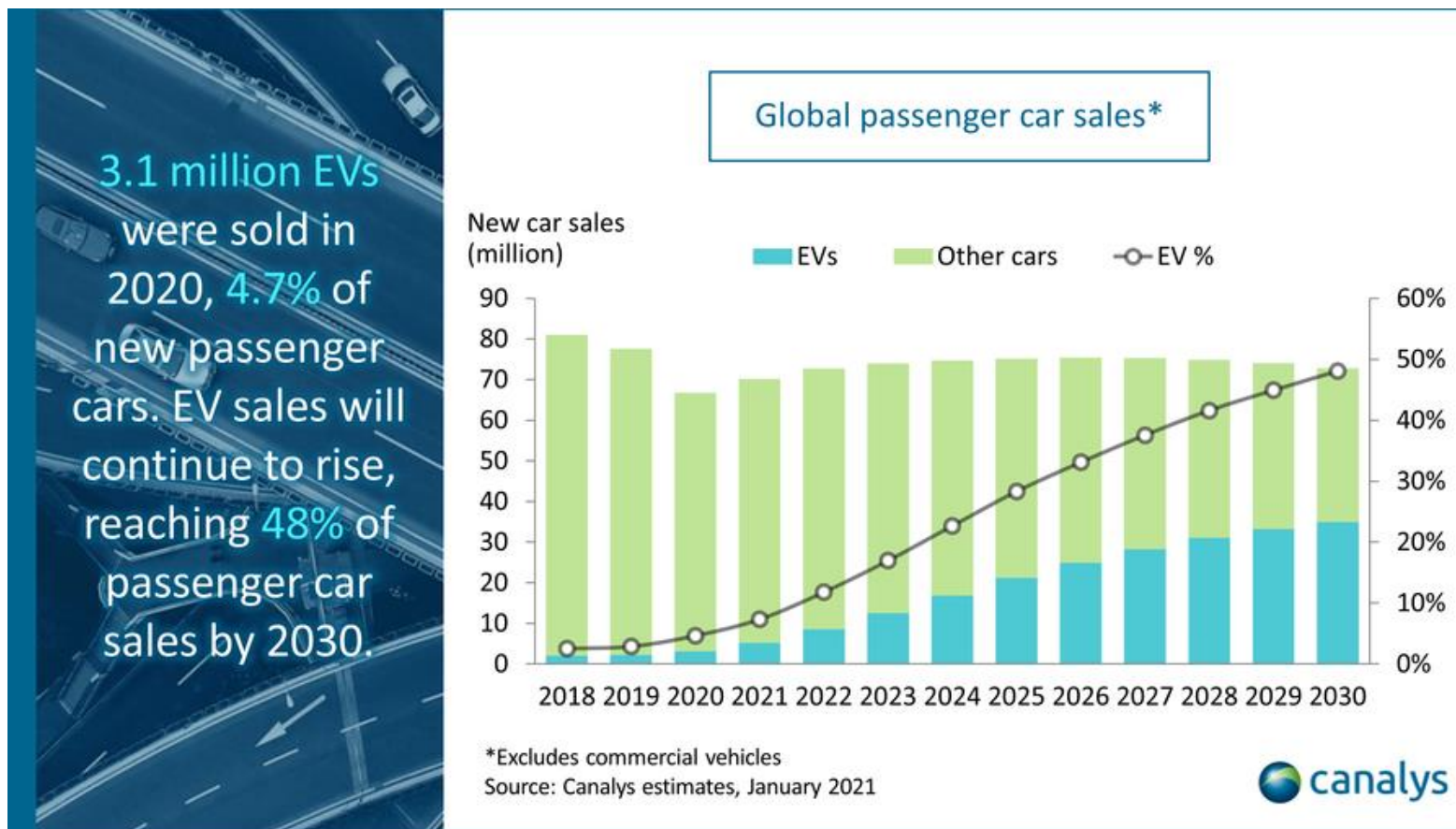
Schedule of prohibit from non-electric cars on road

全球「禁止非電動車上路」時間表一覽



Electric Car Intellectualization — Radar Rapid Growing

ADAS plus driverless will be the mainstream.



North America Electric Car Trend

Our NA partner received new order with extreme high amount of electric bus .

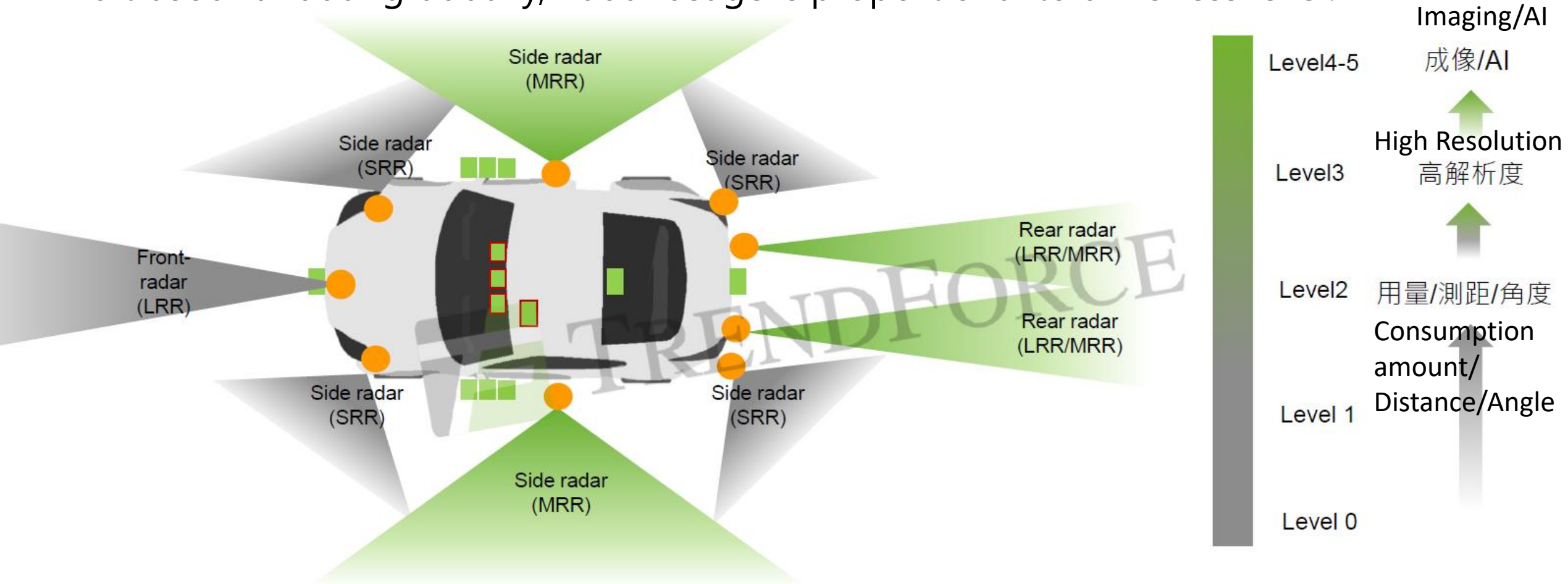
Pedestrian detection is must.

MIH Electric Car Platform

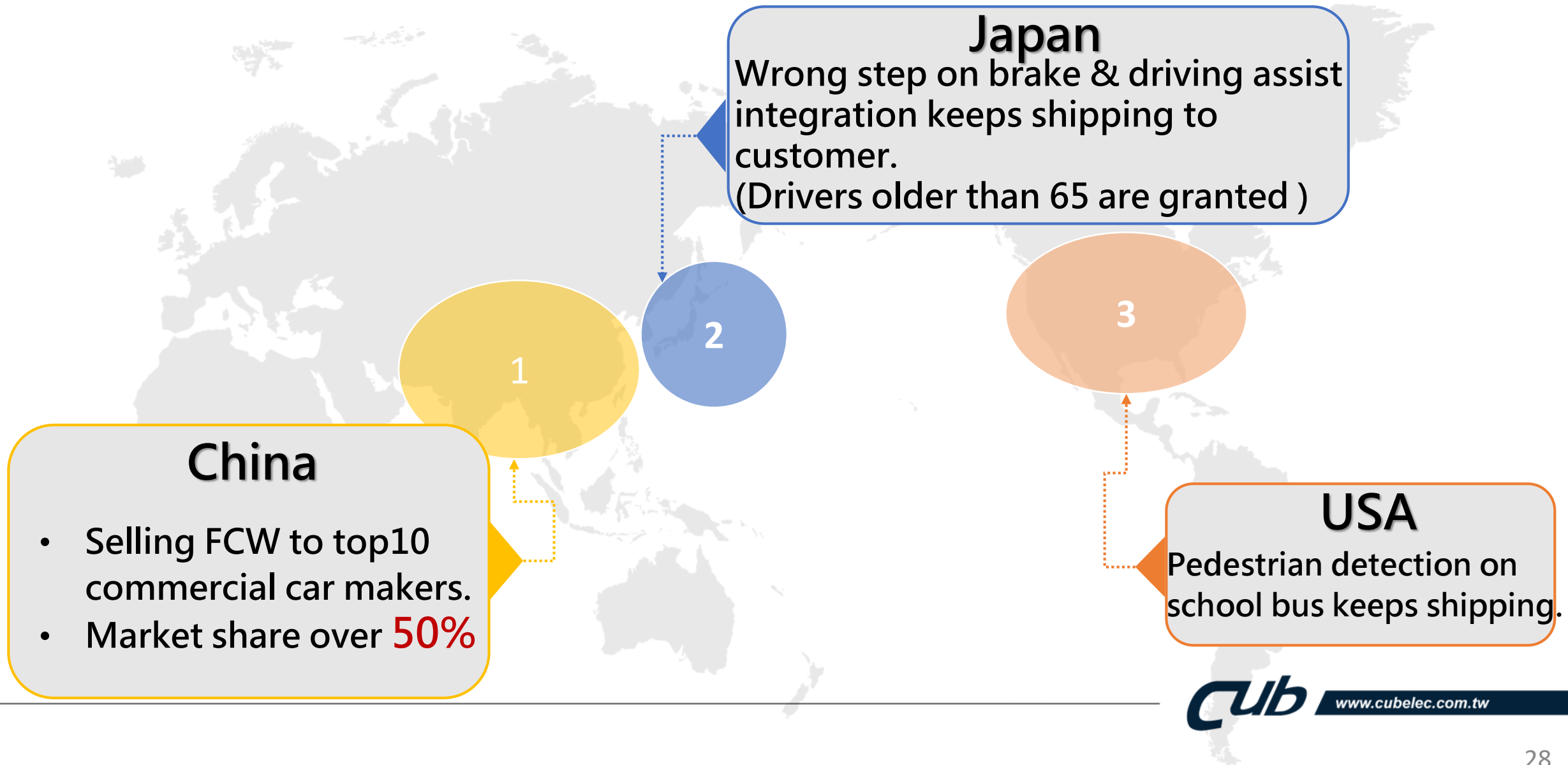
CUB group is key partner.

Driverless Policy

To deal with complicated environment when driving, resolution、detection distance、detection angle、bandwidth...etc., has to be leveled up. SRR will replace ultrasound radar gradually, Radar usage is proportional to driverless level.



Market Achievement



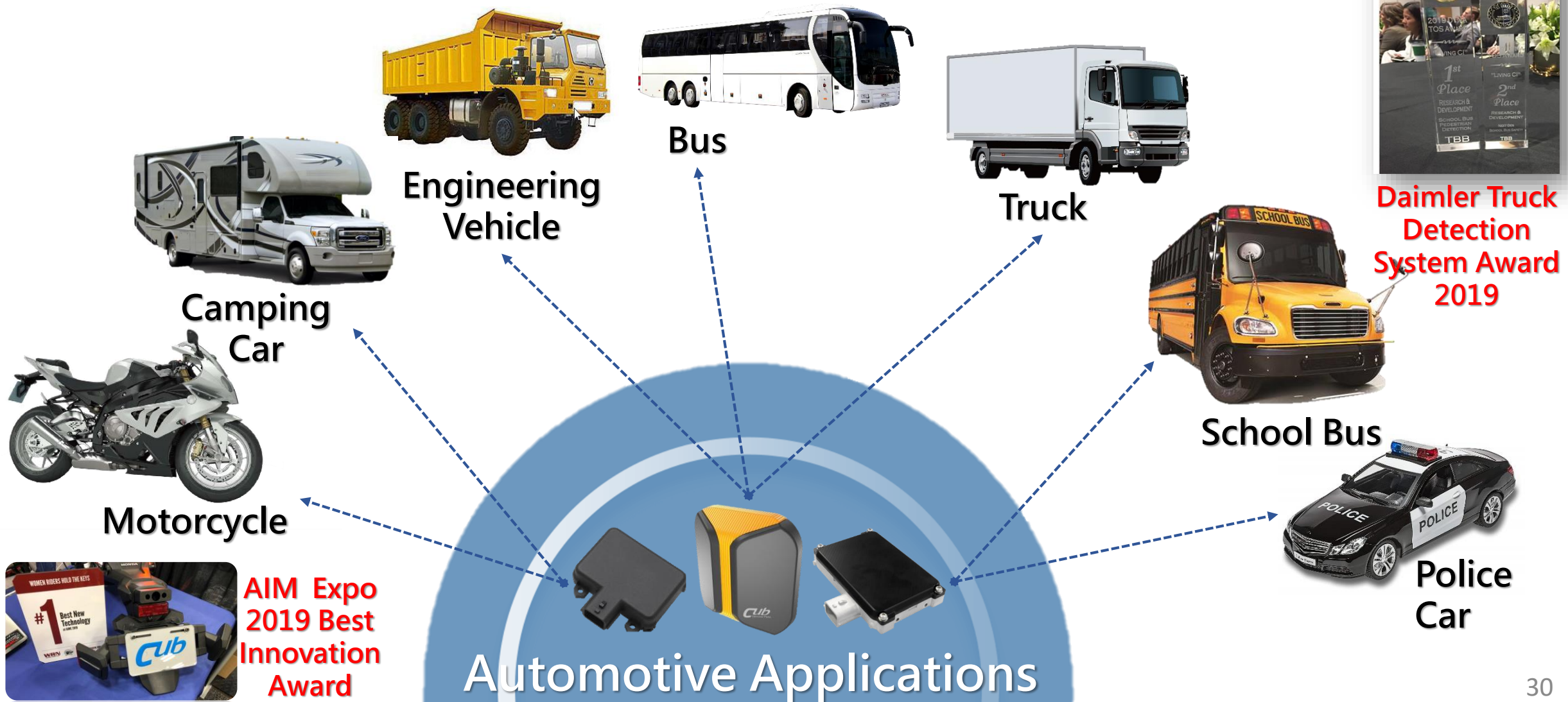
PART 06

mmWave Radar Applications

Growing AM Business

06

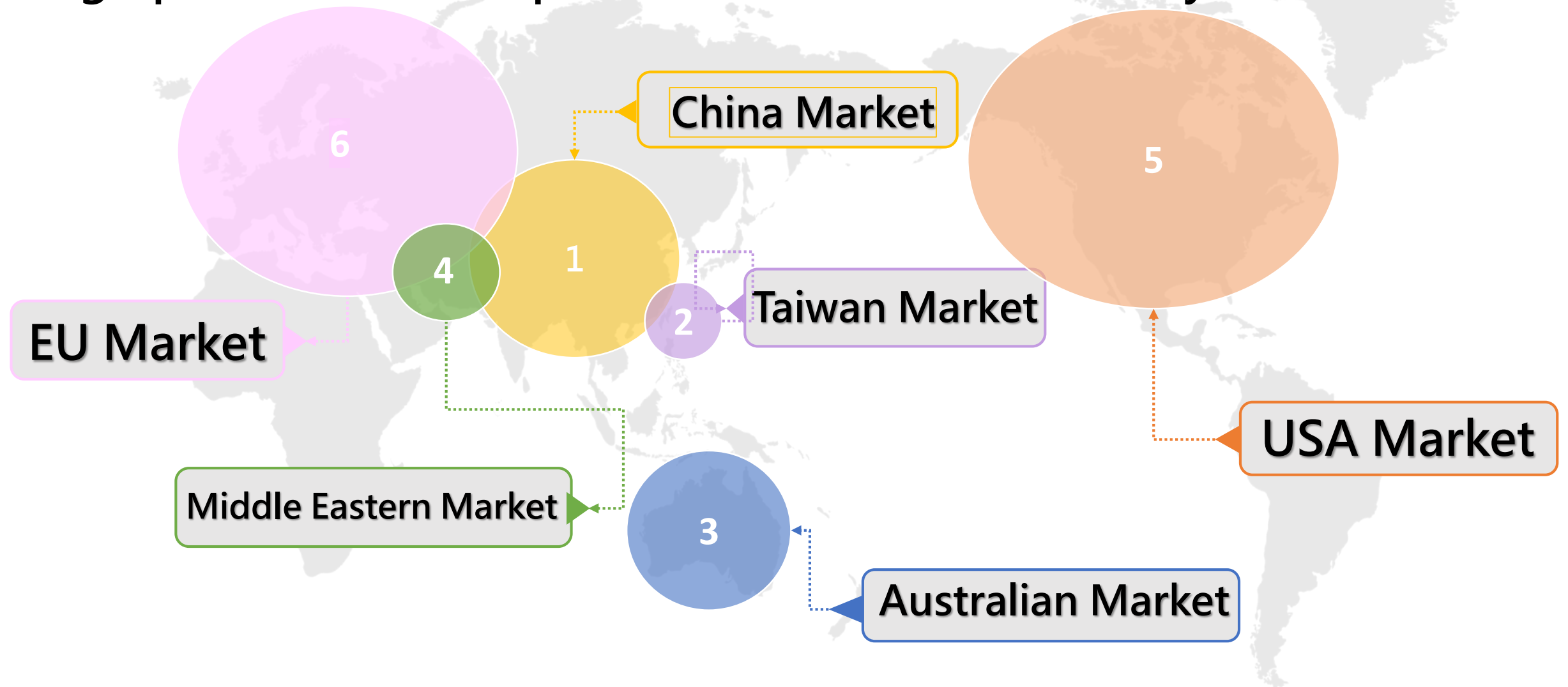
AM Applications – Automotive Field



AM Applications

–Turn Assist for Commercial Vehicle

High potential technique, the 1st radar turn assist system of the world



AM Applications

–Public Engineering and Others



Medical
LTC

Public
Transport/
Driverless/
ADAS



Agricultural



Plant Protect Drone

Radar

Public
Utilities



Railroad Crossing Monitor

Intelligent
Traffic



Others



Security Monitor

PART 07

Multi-Sensor Integration

Intelligent Safety, Time to Market

07

Multi-Sensor Integration

Intelligent Safety , Time to Market

	Anti-Light Interference	Unaffected whether day or night	Unaffected by Fog	Detection Sensitivity	Location Accuracy	Shape	Speed Accuracy	Privacy	Biological Characters	Traffic Signal & Lane Detection
mmWave Radar	Good	Good	Good	Good	High	No	High	Yes	Breath 、 Heartbeat	No
Imaging Radar	Good	Good	Good	Good	High	Yes	High	Yes	Breath 、 Heartbeat	No
Thermal Imager	Medium	Good	Medium	Good	Low	Yes	Low	No	Temp	No
Image	Bad	Bad	Bad	Medium	Low	Yes	Low	No	Breath 、 Heartbeat (N/A at night)	Yes

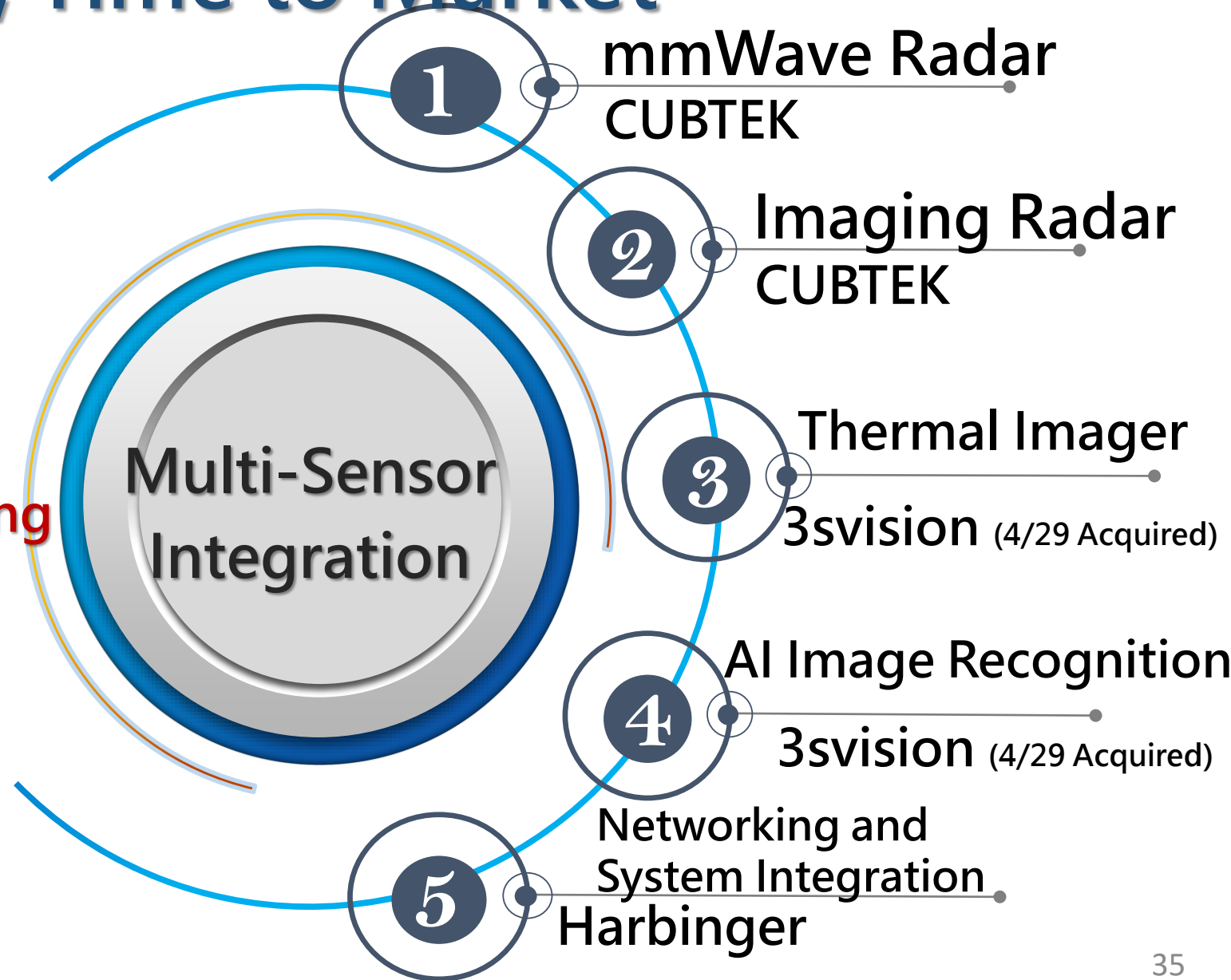


Multi-Sensor Integration

Intelligent Safety , Time to Market

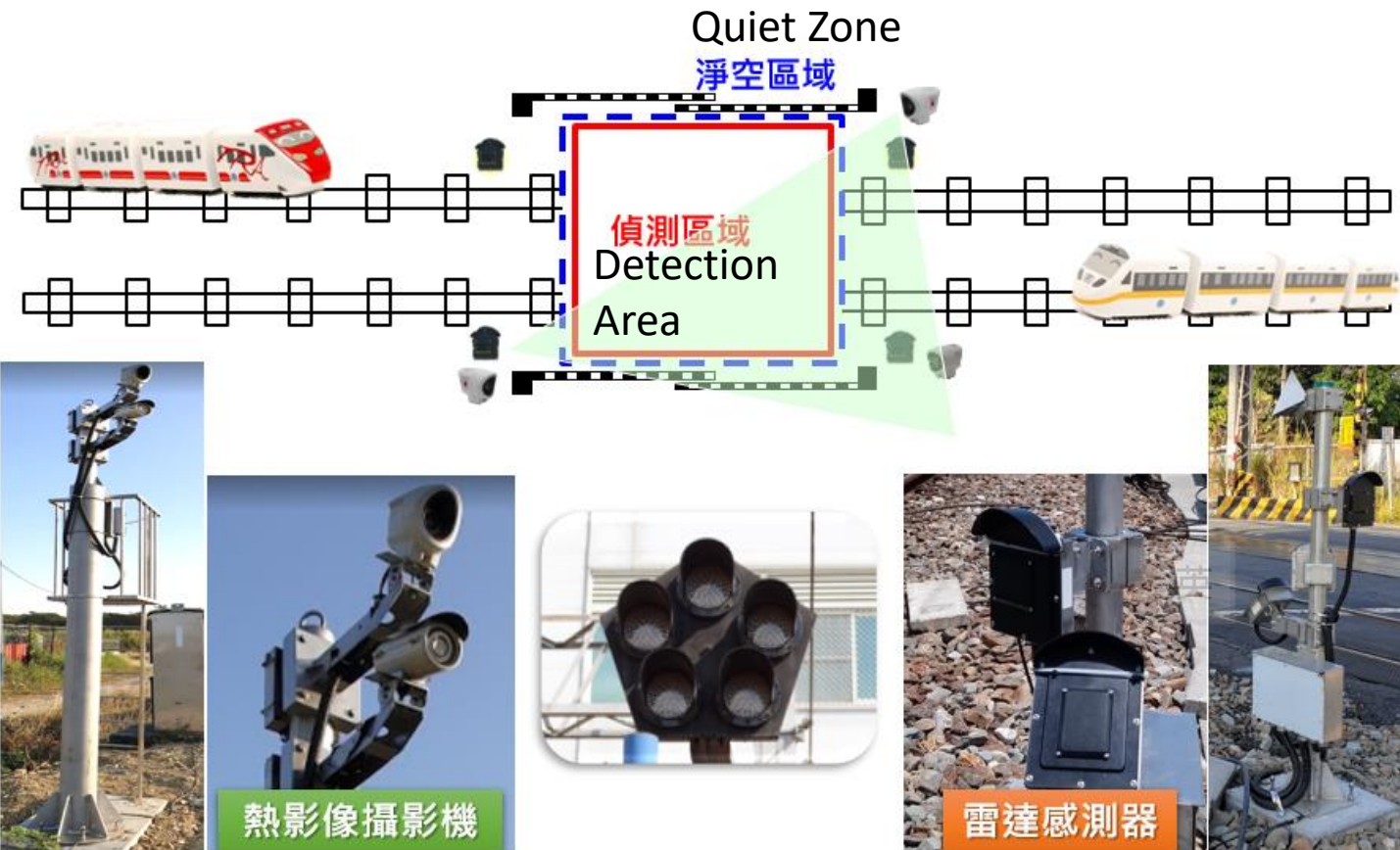



**Approaching
Strategy**



Intelligent Safety Motoring Achievement

◆Obstruction Detection of Railroad Crossing (Taiwan Railway)



Thermal Imaging Camera

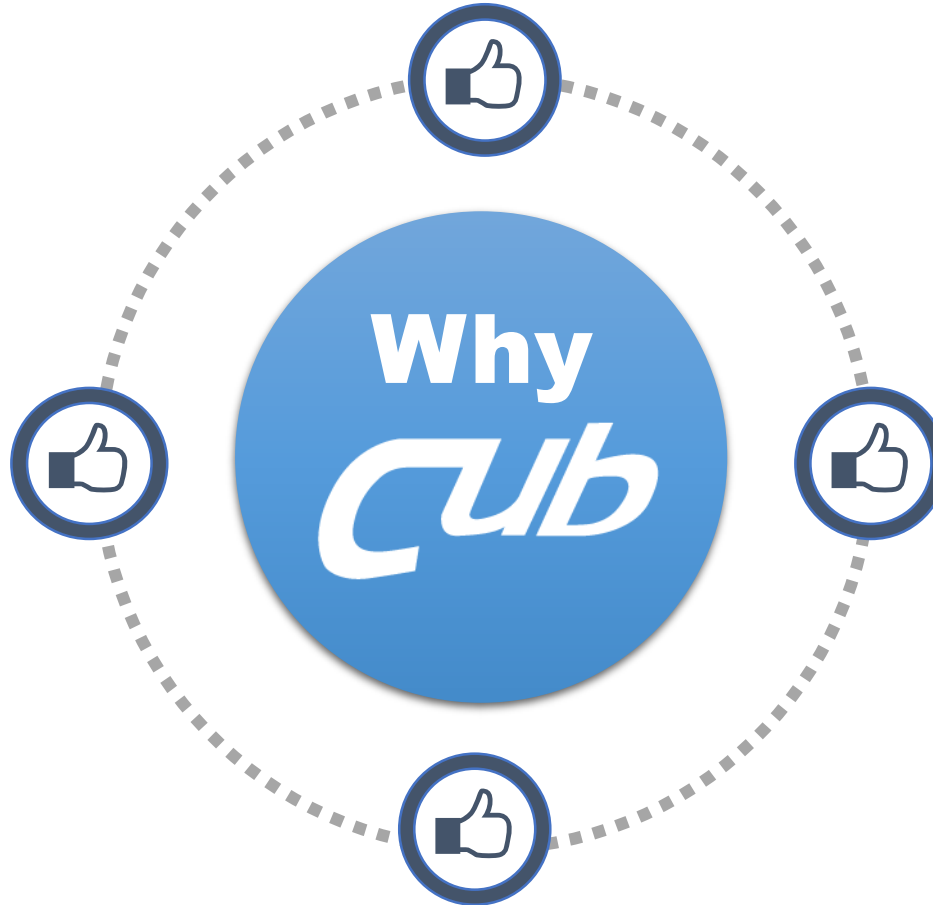
Radar Sensor

◆Intelligent Intersection Motoring System



Regulation Trends - Take Preemptive Actions

In-house Technology
& Industrial Leader



Cross Fields Applications
& Complete Product Line

Reliable Supplier of Our Customers



Your Driving Safety Guard

Q & A