# CUB ELECPART INC.(2231)

# 2024 H1 Investor Conference

12 June, 2024

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PART

PART 1

# 集團簡介

## CUB Introduction

# CUB Profile

**Year of Establishment**：1979
**Year of IPO**：2010
**Capital**：NTD 1.409 Billion
**Number of Employees**：900+

**Chairman**：Arbula Yu,
**Quality System**：IATF 16949; ISO 9001;
ISO 14001;ISO 26262; ISO 17025

IATF 16949

ISO 14001

ISO 9001

ISO 26262

ISO 17025

# CUB Group Affiliated Companies

**Automobile Sensors, mmWave Radar,Current Sensor, Transportation system (Changhua, Taiwan)**
400+ employees

R&D
Sales
MFG

## Subsidiary

| | CUBTEK | CUB (SH) | 3S | HARBINGER HARVEST GROUP |
|---|---|---|---|---|
| | mmWave Radar Design (Taiwan/Shanghai/Beijing/ Guangzhou) 150+ employees | mmWave Radar / TPMS Production (Shanghai, CN) 120+ employees | AI & Thermal Imaging (Taipei, Taiwan) 110+ employees | Transportation, Communication System Integration (Taipei, Taiwan) 100+ employees |
| **Share Ratio** | **45.68%** | **100%** | **73.75%** | **76.72%** |

# CUB Advantage

TAF Lab

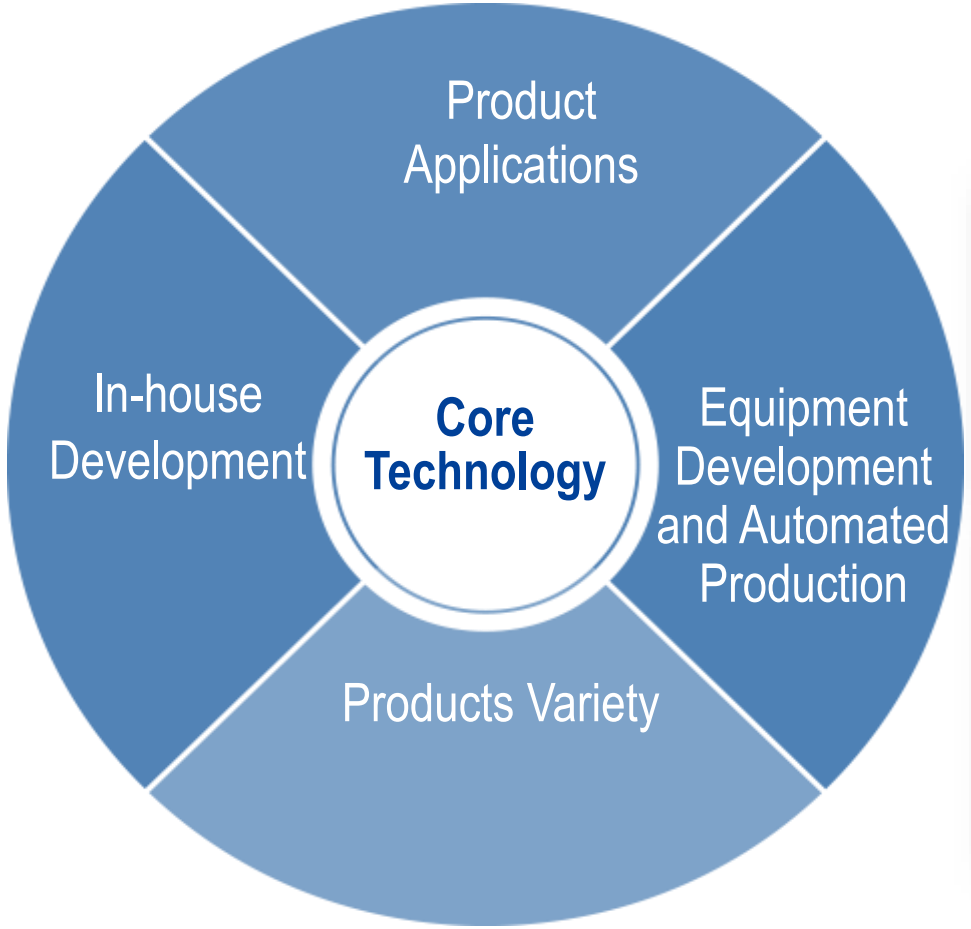
Certificate of Accreditation

CUB ELECPARTS INC.
Cub Testing Laboratory

is accredited in respect of laboratory

Accreditation Criteria : ISO/IEC 17025:2017 ; CNS 17025:2018
Accreditation Number : 3684
Originally Accredited : March 03, 2020
Effective Period : March 03, 2020 to March 02, 2023
Accredited Scope : Testing Field, see described in the Appendix

Ching-Chang Lien
Ching-Chang Lien
President, Taiwan Accreditation Foundation
Date : June 29, 2021




## Automated Production line

Taiwan
Radar*1 , TPMS*2

SH
Radar*1 , TPMS*2

Certificate of Registration

IATF 16949

Certificate of Registration

ISO 14001

Certificate of Registration

ISO 9001

# Cub Product Portfolio

## Automobile Sensors

Since 1979, Cub has been focused on developing and producing automotive sensors, including ignition sensors, position sensors, oil and position sensors, and Tire Pressure Monitoring Sensors, among others.

Crankshaft Position

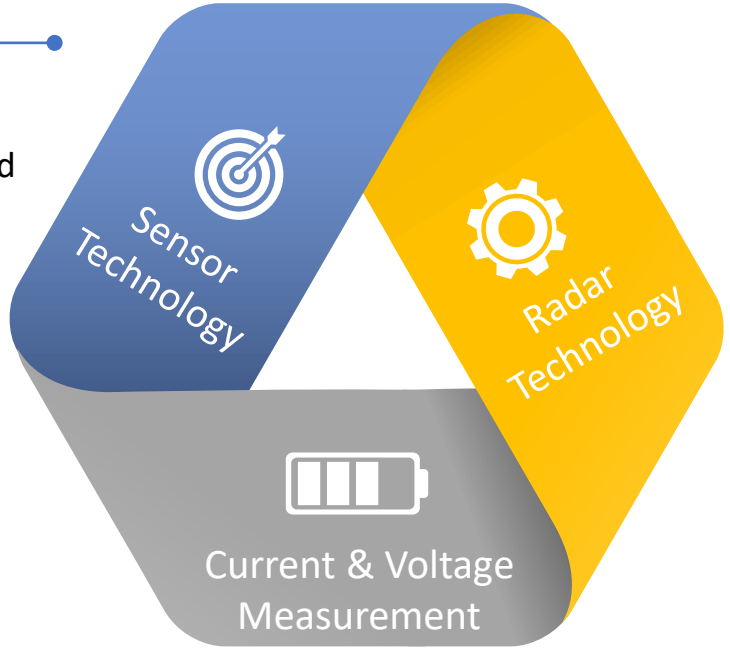
Oil Position

Speed

Universal TPMS

BLE Motorcycle TPMS

BLE Ball TPMS




## mmWave Radar

Starting from 2015, Cub enters into the mmWave Radar development and production, as a pioneer company in Asia area. Now having 4D image Radar, MRR, SRR, Turn Assist Radar, in-Carbin Radar and Kick-to-Open Radar.

4D Image

MRR

SRR

In-cabin Radar

Turn Assist Radar

Kick-to-Open Radar

## Current Shunt Sensor

Since 2023, Cub has dedicated its efforts to developing the most precise current shunt sensor in the industry. Our focus is on applications in Electric Vehicle Battery Management Systems, EV charging stations, and the Energy Storage System (ESS) market.

Shunt sensor

Shunt

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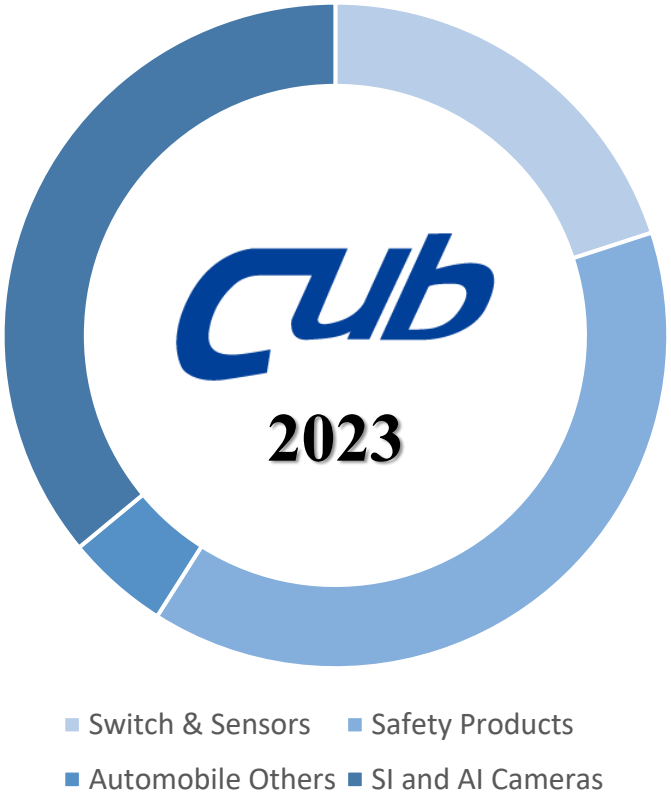
PART 2

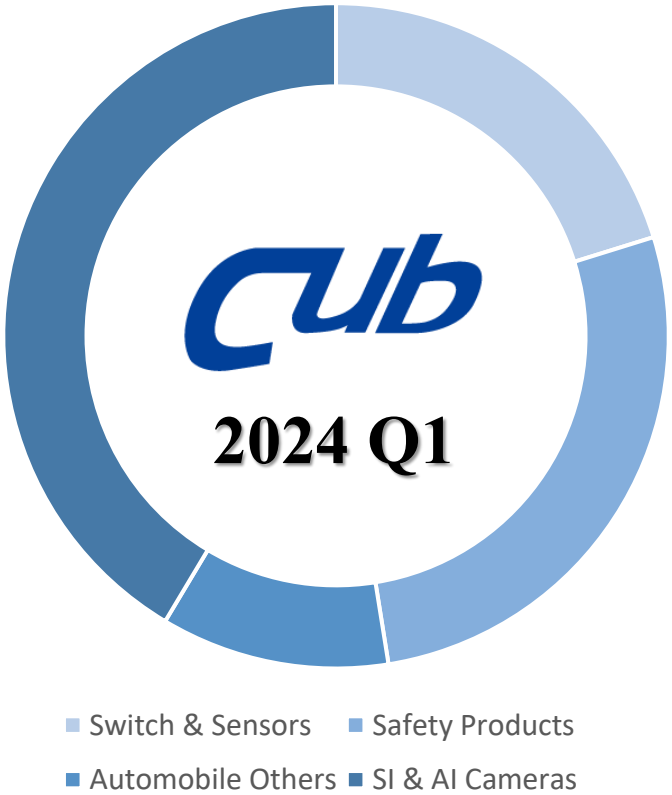
# 財務數據及營運現況
# Financial Information

# Financial Statements(2018~2024 Q1)

| 單位：新台幣仟元 NTD Thousand | 2019 | | 2020 | | 2021 | | 2022 | | 2023 | | 2024 Q1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % |
| Net sales 銷貨收入 | 4,094,666 | 100 | 3,340,199 | 100 | 4,080,435 | 100 | 3,957,949 | 100 | 4,397,594 | 100 | 1,062,643 | 100 |
| COGS 營業成本 | 2,022,724 | 49 | 2,067,788 | 62 | 2,409,425 | 59 | 2,313,881 | 58 | 2,649,478 | 60 | 684,135 | 64 |
| Gross Profit 營業毛利 | 2,071,942 | 51 | 1,272,411 | 38 | 1,671,010 | 41 | 1,644,068 | 42 | 1,748,116 | 40 | 378,508 | 36 |
| OP Expense 營業費用 | 894,253 | 22 | 886,043 | 26 | 1,078,348 | 26 | 1,191,354 | 30 | 1,306,283 | 31 | 299,671 | 28 |
| OP Profit 營業利益 | 1,177,689 | 29 | 386,368 | 12 | 592,662 | 15 | 452,714 | 12 | 441,833 | 9 | 78,837 | 8 |
| Profit before tax 稅前盈餘 | 1,128,848 | 28 | 292,503 | 9 | 582,507 | 14 | 634,612 | 16 | 461,757 | 10 | 163,408 | 15 |
| Consolidated income 本期淨利-業主 | 977,780 | 24 | 244,534 | 8 | 515,928 | 12 | 629,723 | 16 | 443,789 | 10 | 129,588 | 12 |
| EPS（元）基本每股盈餘 | 8.00 | - | 2.03 | - | 4.23 | - | 4.7 | - | 3.15 | - | 0.92 | - |
| Capital資本額 | 1,228(M) | | 1,219(M) | | 1,219(M) | | 1,341(M) | | 1,409(M) | | 1,409(M) | |

# Product Line Contribution



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PART 3

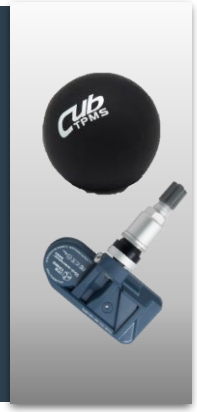
# 未來成長動能

# CUB Group Growing Factors

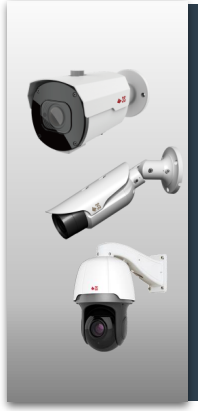
# CUB Group Growing Factors

## 毫米波雷達
**mmWave Radar**

## 大型車胎壓感測系統
**TPMS**



cub
為升集團



## 智慧安防
**Intelligent Safety & Security**

## 電流分流傳感器
**Shunt Sensor**

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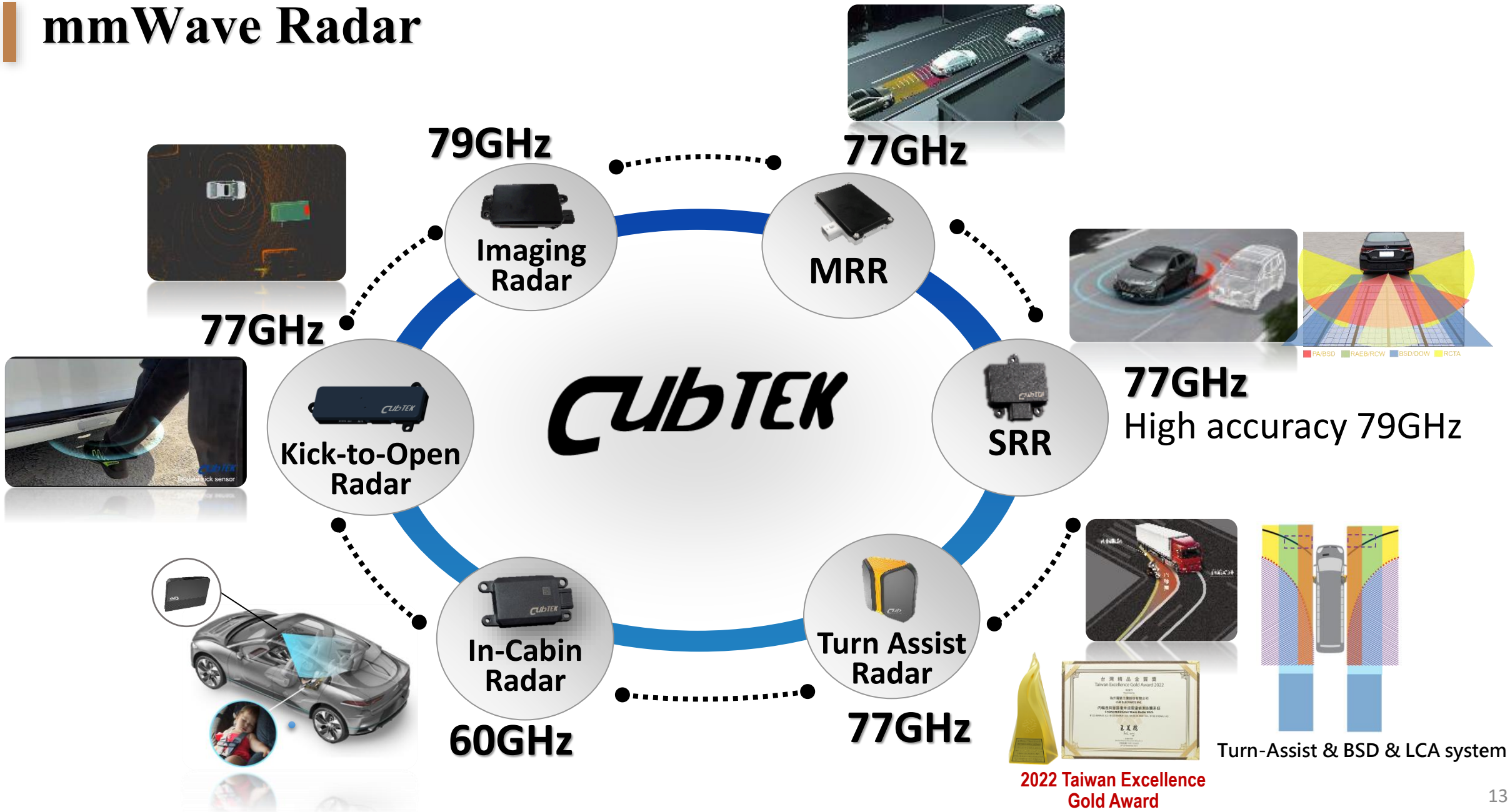
# 毫米波雷達

# mmWave Radar

# mmWave Radar



# mmWave Radar - OE projects growing

## 1 In-Cabin Radar

- North America OEM L
- North America OEM R
- China OEM T
- Southeast Asia  OEM T....etc.

## 2 BSD Conner Rader

- China OEM T
- Southeast Asia Tier 1 A
- **TOP 3 EV PV OEM**....etc.

## 3 FCW Radar

- China CV OEM FJ
- China CV OEM CN
- China CV OEM SX ....etc.

**Global Project Opportunities!**

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# 商用車胎壓感測系統
# Commercial Vehicle TPMS

Confidential & Privilege

# EU Regulation Triggered CV TPMS demand

## EU Regulation – Commercial Vehicle TPMS： 2024.7.6

## 2 Growing Factor：

- **OEM TPMS Market**
- **Retrofit Market**

**★全球唯一**
**球型胎壓感測器**

**CUB delivery the CV TPMS to EU Tire Customer.**

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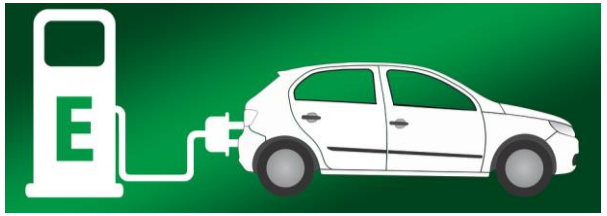
PART

PART 3-3

# 電流分流傳感器

## Shunt sensor

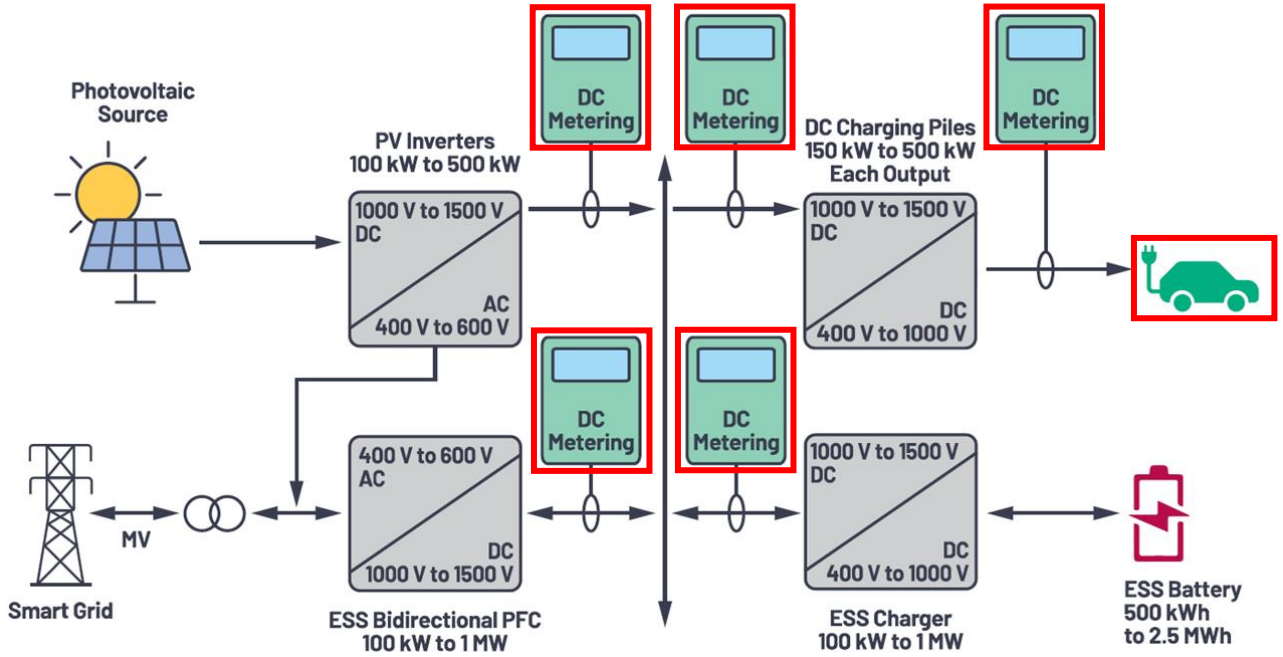
# Shunt sensor - Energy Efficiency management Key component

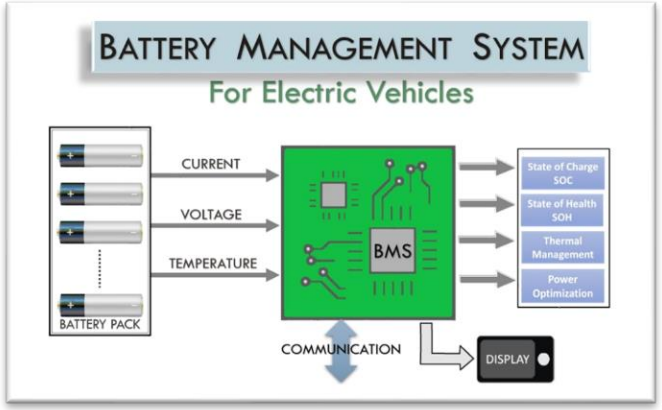



**EV Charging Pile**

**Energy Storage**

**AI Data Center**

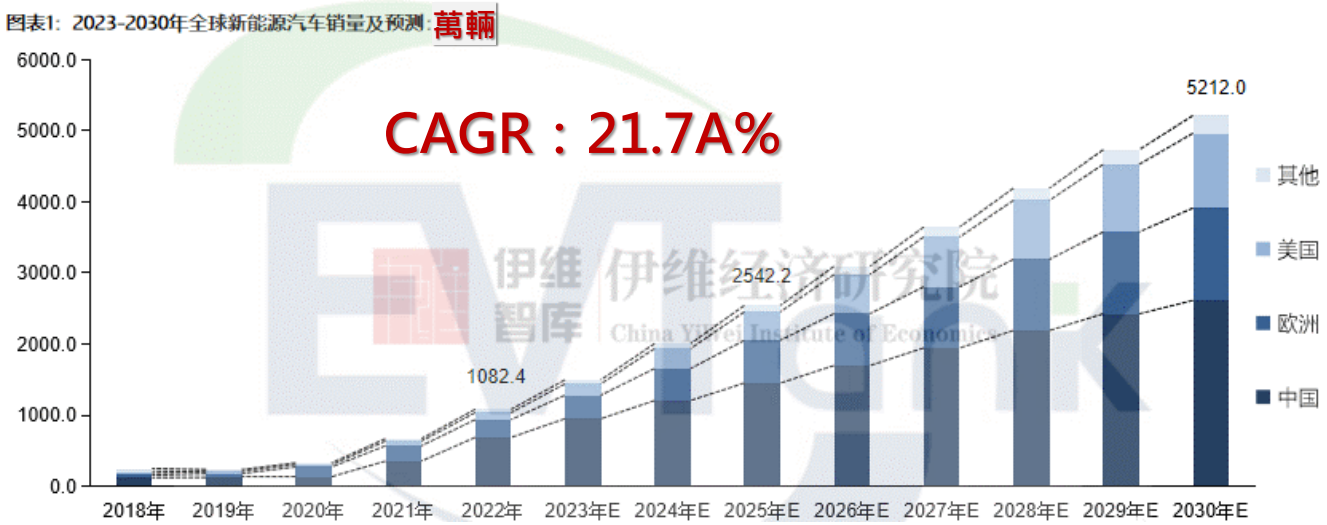


# Shunt Base Current Sensor

Shunt Sensor Q’ ty will be increase by year due to EV requirement.

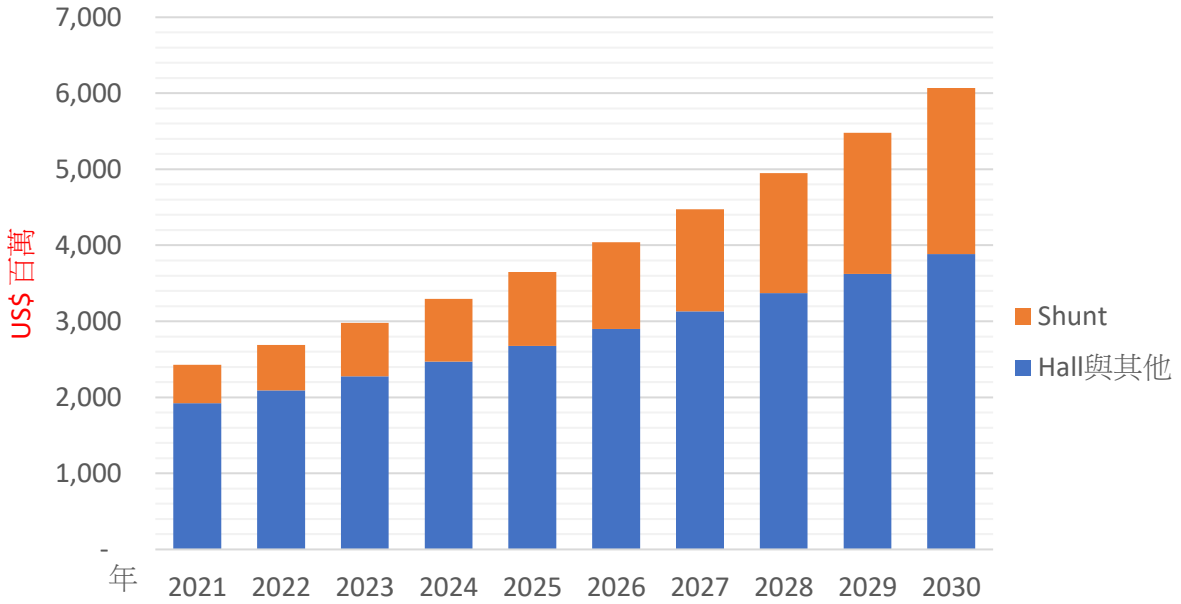
## EV




資料來源:EVTank, 伊維智庫整理

## Current sensor Market cap in world wild

**Current sensor CAGR：9%**
**Shunt base CAGR ： 17.6%**

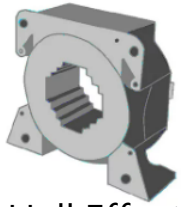



資料來源: Sphericalinsights 2022/Nov; MarketWatch 2023/May

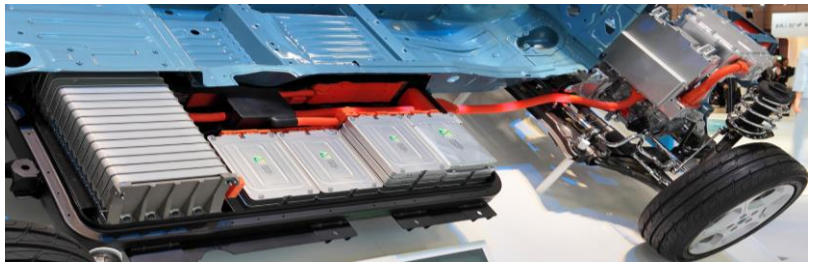
# Shunt Sensor Advantages

## High-precision

CUB Shunt sensor Accuracy:
0.08%



Hall Effect Accuracy: <2% (hall base)



High precision and function enhanced current measurement device .Intelligent, digital shunt-based current, voltage and temperature sensors for battery management systems (BMS)

## Insulation measurement

- Active insulation monitoring

## Multiple measure function

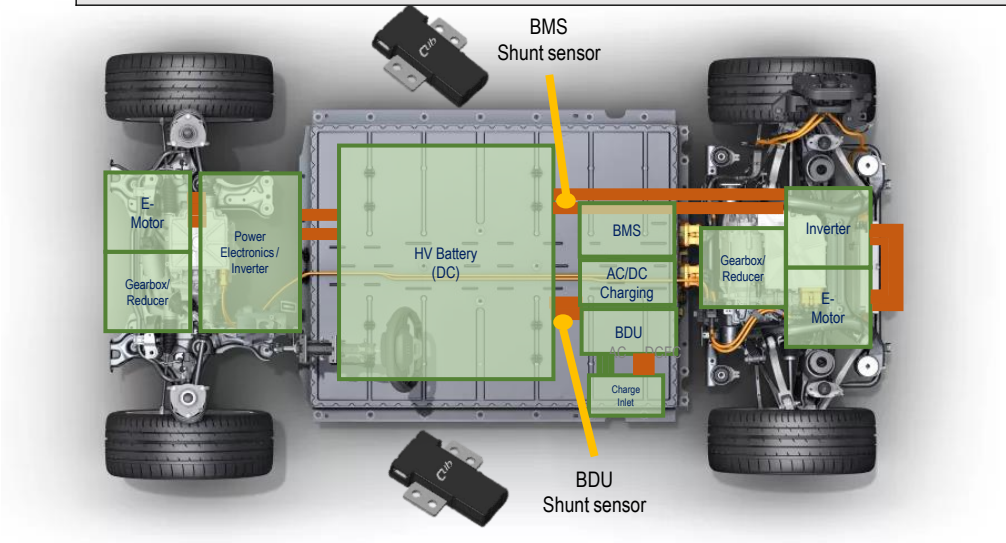
- Up to 6 high voltage measurement channels

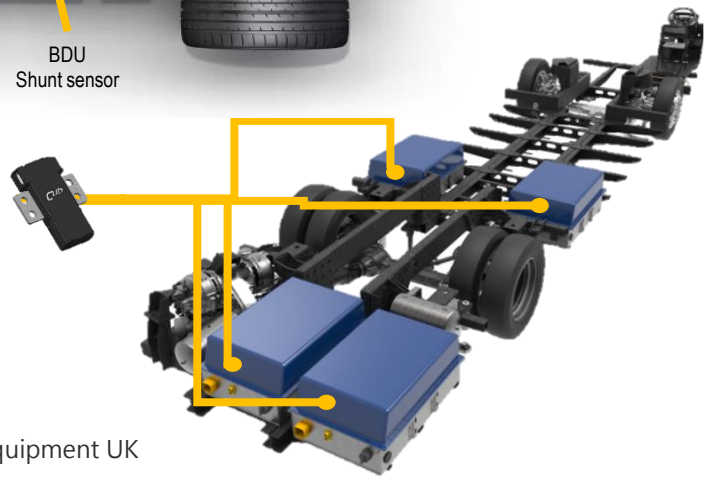
# Shunt Sensor Application

## EV

**BMS/BDU**

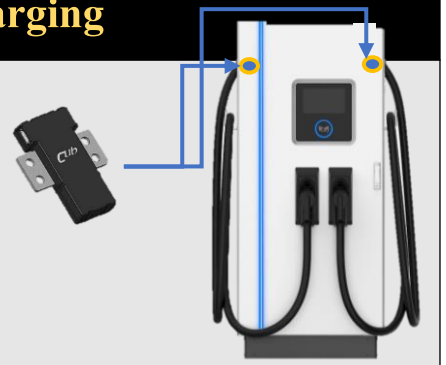
Voltage: ±1000V
Current: ±300A /±600A /±1000A /±2500A




## Charging Pile

**DC charging / Fast Charging**



Voltage : 1500V
Current: ± 400A / ± 600A

- DC charge pile

## Energy Storage

Current: ±400A /±600A

- Battery Module BMS
- Server Rack BMS
- AC to DC、DC to DC

Data resource : Equipment UK

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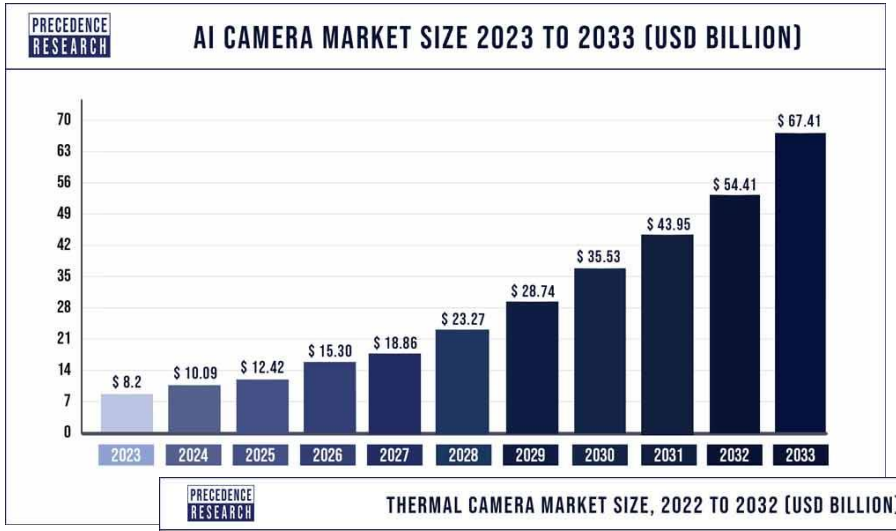
PART 3-4

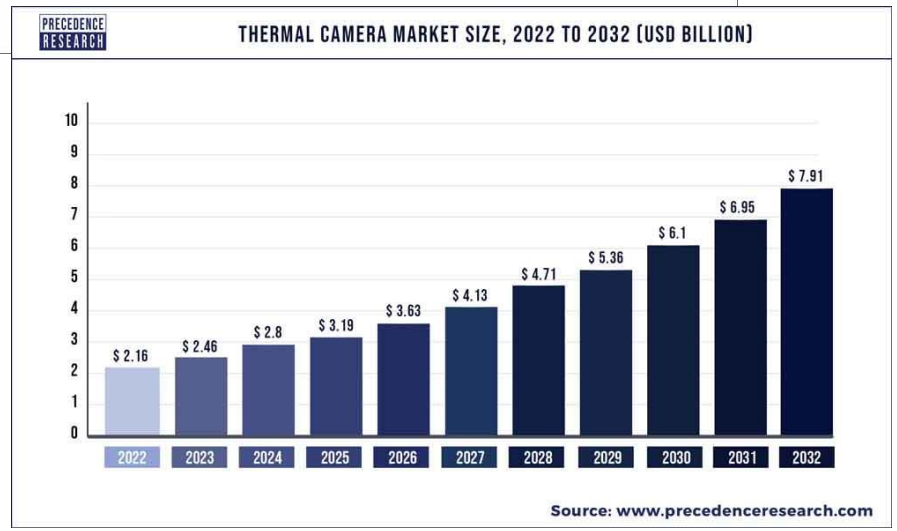
# 智慧通訊、安防、系統整合

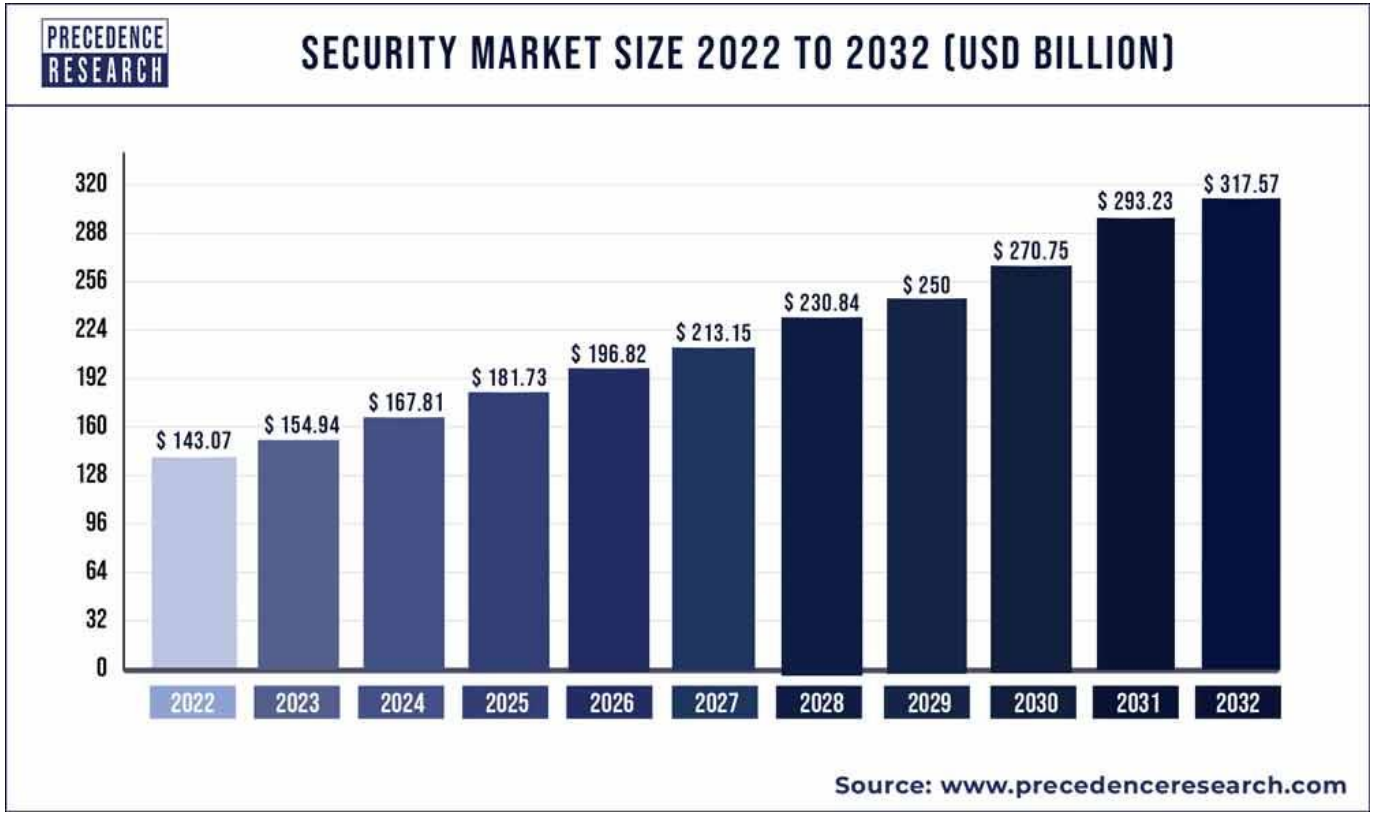
## Intelligent Safety& Security

# Intelligent Safety& Security

## AI Imaging and Thermal Imaging gain the OEM & ODM Order of EU & US market




資料來源:Precedence Research Pvt. Ltd.

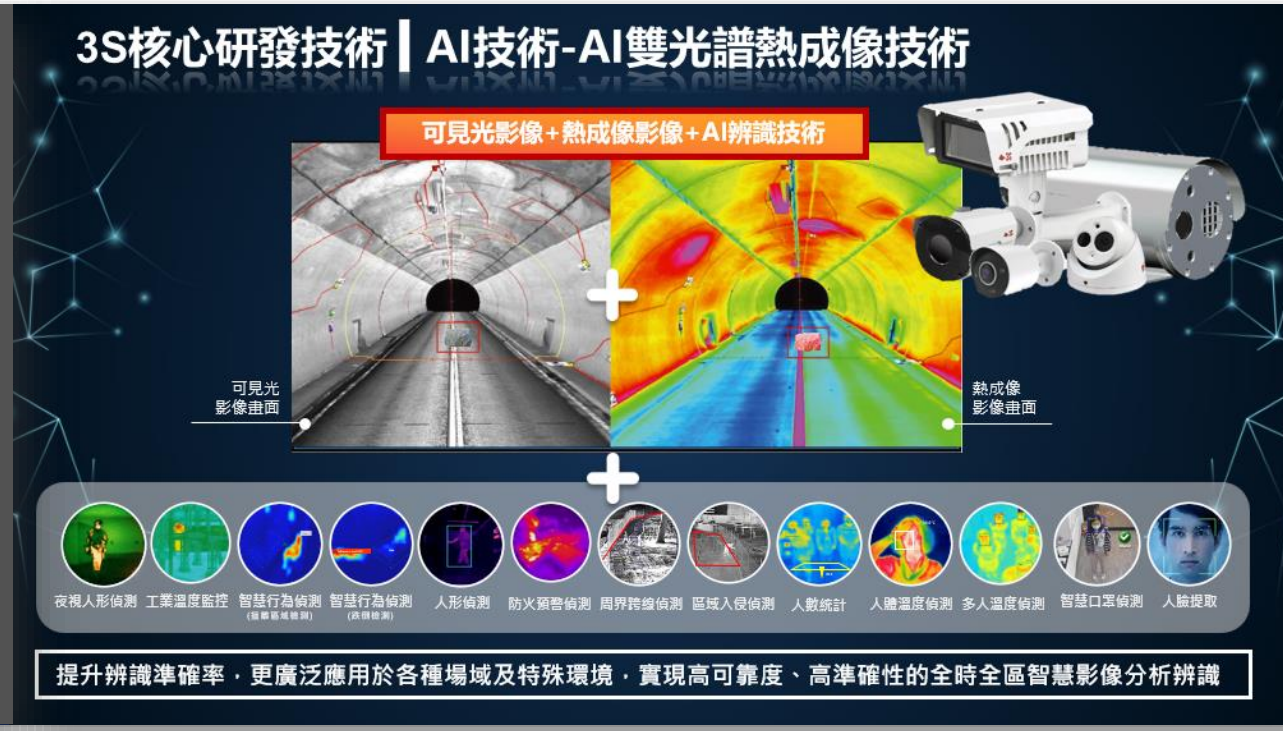
# 3S is an expert on AI camera & Thermal Camera

## 『AI Edge Computing IC』 Development

3S focus on the AI camera、 Thermal Camera、AI IoT equipment、 software development and OEM/ODM.

Thermal Camera AI camera

NDAA NATIONAL DEFENSE AUTHORIZATION ACT TAA COMPLIANT GSA Schedule Contract # 47QTCA24D0011

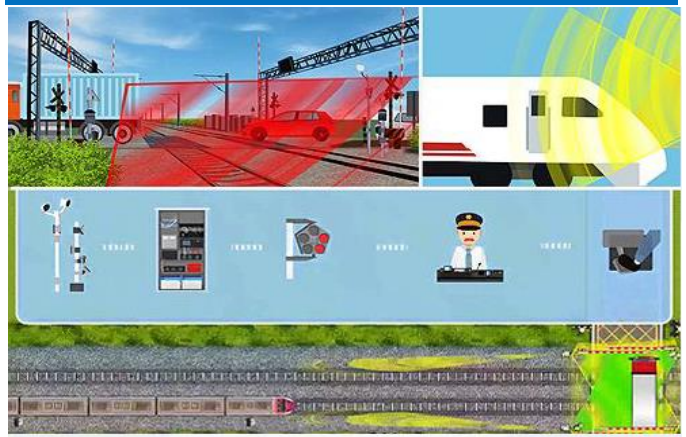


# HARBINGER HARVEST Projects

## Radio Communication System

## 5G + Radio communication system integration

## Level Crossing Automatic Obstacles Detection System



## Level Crossing Barrier System

## Tunnel Communication System

## Axle Temperature And Pantograph Detection System

# Intelligent Safety& Security market triggered Harbinger & 3S Growing

**Rail Industry、 Safety & Security Projects Contribution Growing!**

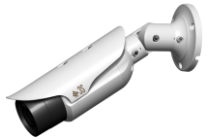
高雄捷運

Metro Taipei

台灣高鐵
TAIWAN HIGH SPEED RAIL

**AI Imaging and Thermal Imaging gain the OEM & ODM Order of EU & US market**

Thermal Imaging.



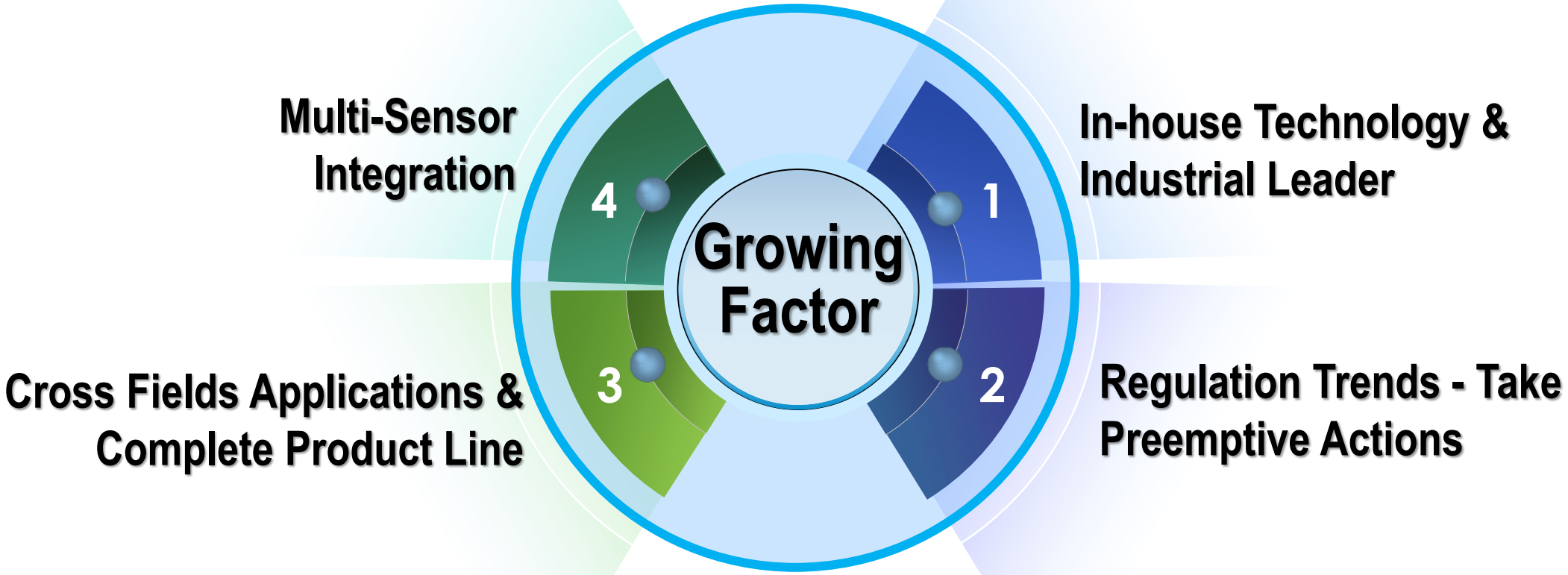
AI Imaging

NDAA NATIONAL DEFENSE AUTHORIZATION ACT

TAA COMPLIANT

GSA Schedule
Contract # 47QTCA24D0011

# CUB Growing Factor



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