

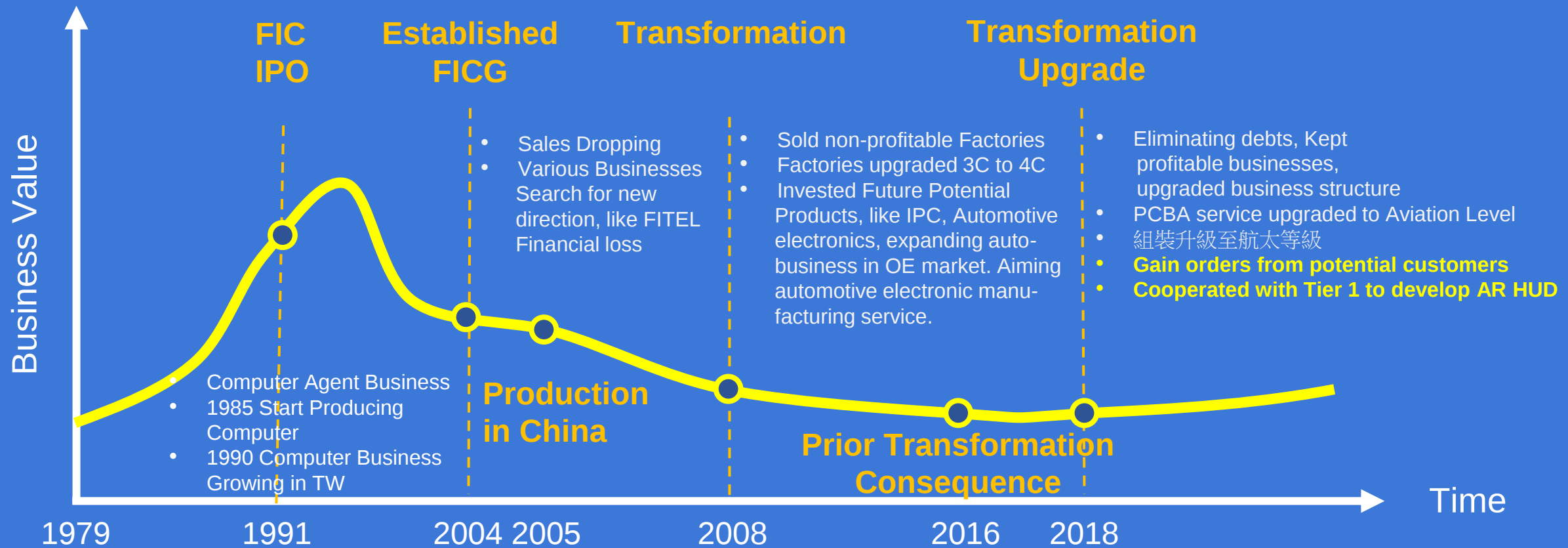


FIC GLOBAL

Future Market Position & Business

24th of Nov, 2021

FICG Historical Evolution



- The first 20 Years, focused on MB & computer assembly business, stable and IPO, but sales dropped after because of market competition severely.
- After 2008, started eliminating non-profitable factories, searched for new profitable direction

FICG Future Plan



- ARHUD drives sales and profits, and focuses on technology development, aiming for future revenue growth
- Cooperate with Tier1 and car manufacturers for automotive and green business, expanding growth curve, targeting as being an international large scale of automotive electronics supplier , and Innovative Business Model of Green energy management for creating, saving and storing energy.
- Also, profound investing in IPC business, layout in marine, military, aviation, 6G businesses.

FIC Global Structure



FIC Group

DMS

- ODM/DMS Service
- Digital Cluster Design
- AR HUD Design
- IVI/ADAS/ECU/BMS/VCU/OBDII Designs
- Fleet Management
- Energy Management (Create/Store/Save)
- Intelligent Surveillance Solution
- EPC(Solar Power Plant)
- Smart City Solution
- SI Business



3CEMS Group

EMS

- PCB & FPCB
- PCB Assembly
- Box-Build
- EMS/JDM
- Supply Chain Management
- Turnkey Solution
- System Assembly
- System Integration
- Server Manufacturing



Ubiqconn Tech

IPC ODM

- ARM/x86
- Windows/Android/Linux



- Rugged Mobile Computers

Balance Sheet Highlights

Unit : NT\$K

	2021.09.30	%	2020.09.30	%
Cash and cash equivalents	1,235,797	14	1,020,505	14
Accounts receivable, net	2,221,592	24	1,810,929	24
Current inventories	2,880,413	32	1,640,969	22
Property, plant and equipment	534,306	6	627,160	9
Right-of-use assets	401,390	5	474,624	6
Investment property, net	949,502	10	969,316	13
Total assets	9,146,451	100	7,439,239	100
Total liabilities	5,145,528	56	3,885,658	52
Total equity	4,000,923	44	3,553,581	48

Statements of Comprehensive Income

Unit : NT\$K

	2021.01.01~ 2021.09.30	%	2020.01.01~ 2020.09.30	%
Operating revenue	7,170,553	100	5,047,250	100
Operating costs	(6,237,710)	(87)	(4,359,750)	(86)
Gross profit from operations	932,843	13	687,500	14
Total operating expenses	(729,670)	(10)	(708,736)	(14)
Net operating income (loss)	203,173	3	(21,236)	(0)
Total non-operating income and expenses	178,954	2	89,202	2
Tax expense	(7,036)	(0)	(47,119)	(1)
Profit	375,091	5	20,847	0
Net Income Attributable to Stockholders of the Parent	227,252	3	(13,739)	(0)
EPS (NTD)	1.19		(0.07)	

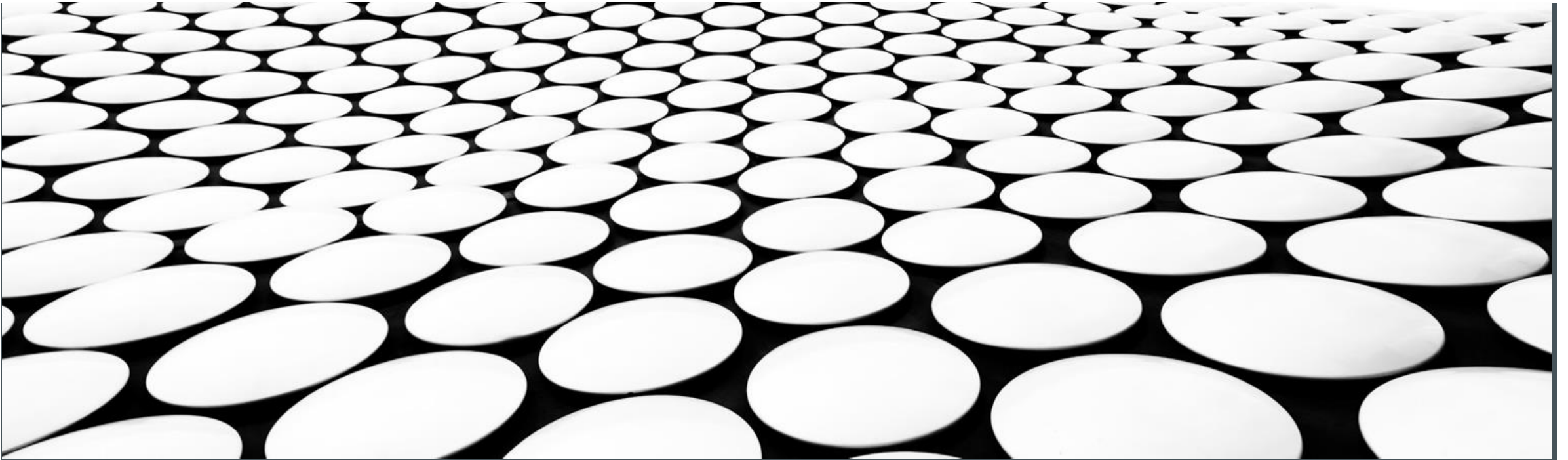
AR HUD

The Future Standard

Market Trends of Automotive Electronics



CES 2021
Innovation Awards Winner /
AR HUD – Laser Beam Scanning



Driver's Pain Point : Pay attention to many things to ensure driving safety.

Pain Points

- It's dangerous to look down at the cluster or navigation.
- Navigation instructions are abstract and difficult to understand.
- It's hard to see cars coming from the blind spot.
- Foreign objects that are difficult to notice on the road.
- Many driving blind spots are dangerous.
- Violation caused by unclear driving speed limit.
- Unclear pedestrian position causes traffic accident.

Needs

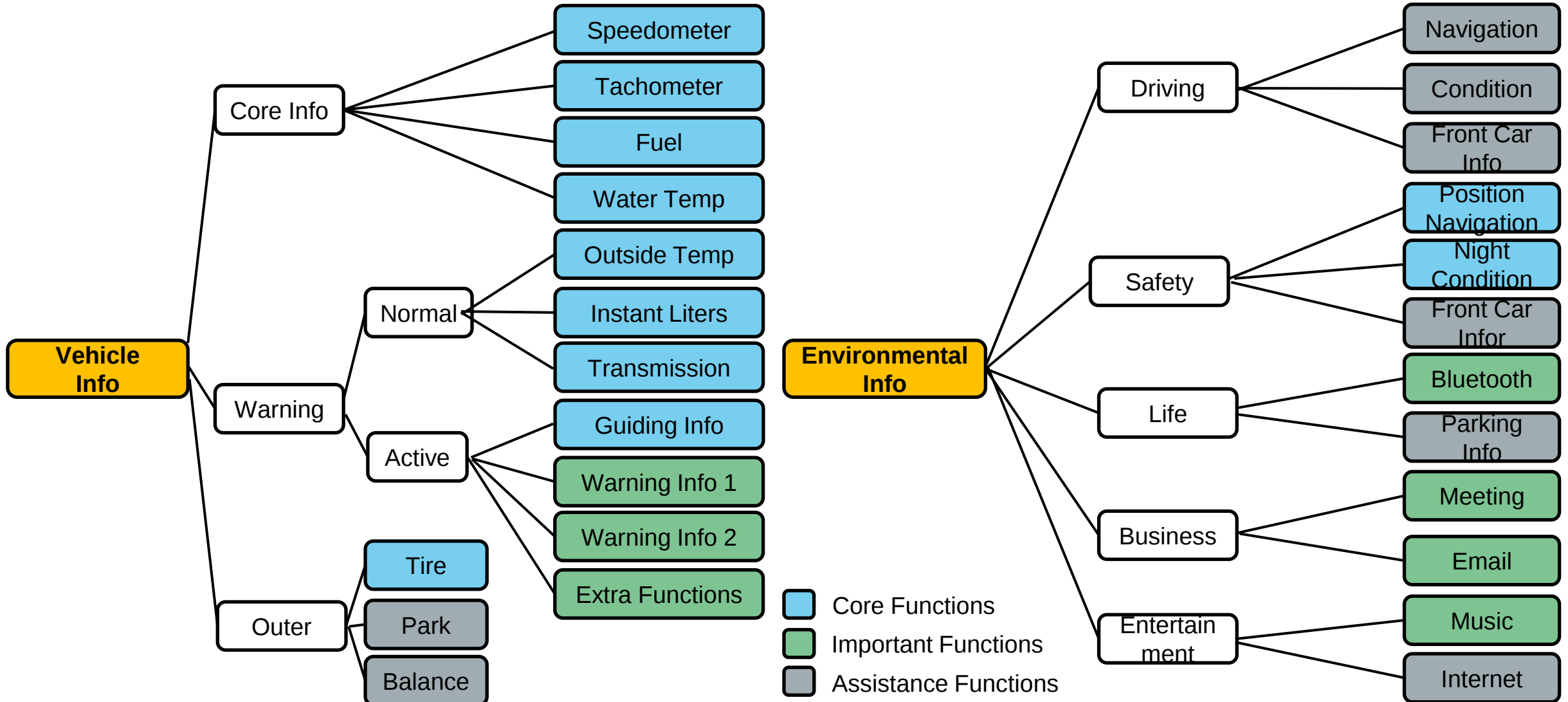
- Get the required driving information without leaving the focus on the road.
- Simpler navigation method.
- Clearer warning of foreign objects on the road.
- Remind the driver to mark the blind spot.
- Remind drivers of speed limit.
- Warn drivers of the dangers they must pay attention to while driving.

Solution

- The vehicle information is displayed on the front windshield.
- AR dynamic navigation indication.
- Night and road blind spot visual emphasis function.
- Visual reminder of real-time road conditions and speed limit.
- Visual dynamic object emphasis reminder.

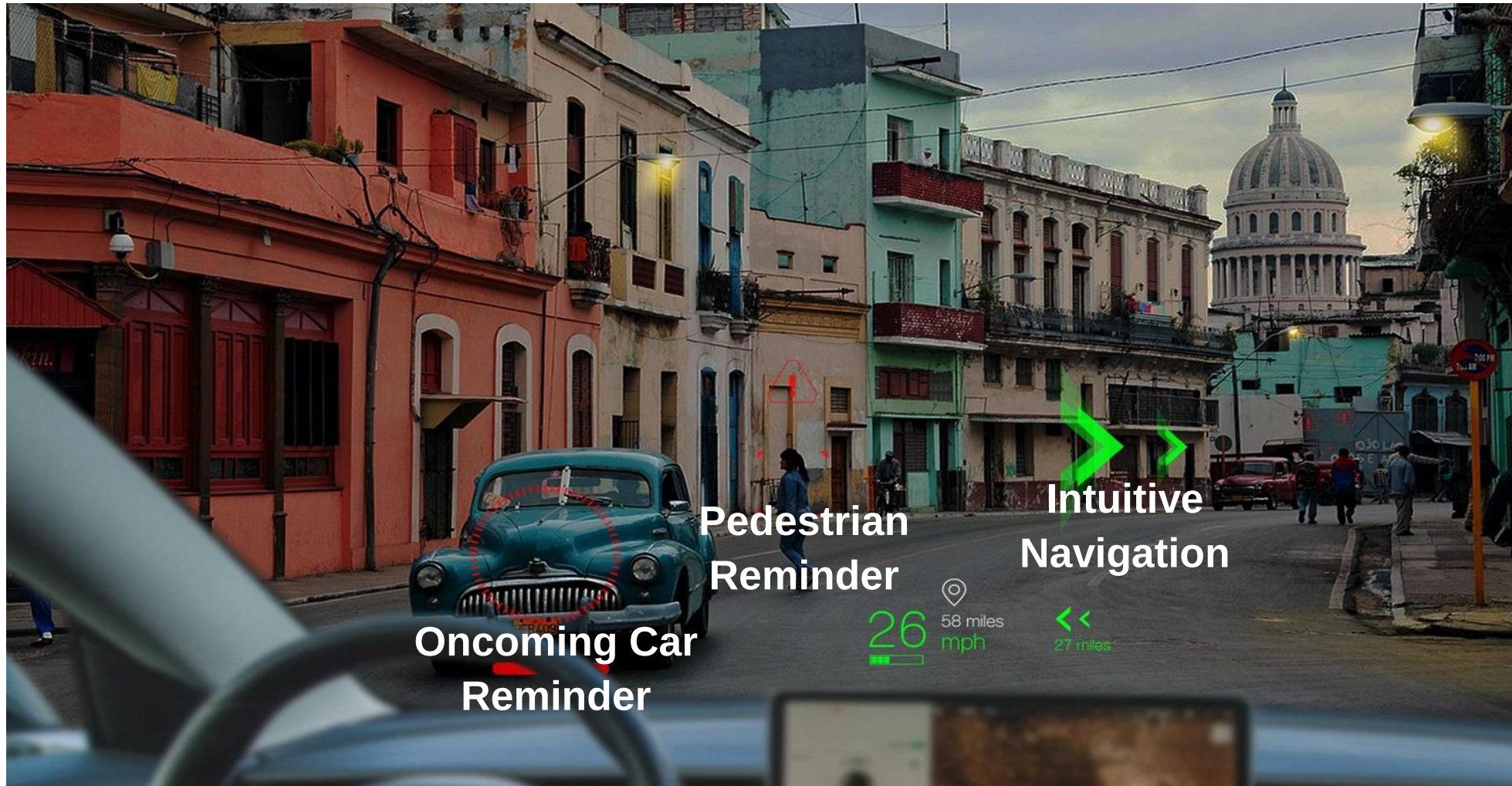
Drivers can have a better experience of safety information.

AR HUD provide complete dynamic information
 Becomes an indispensable display screen (function) of the vehicle.



AR HUD PROVIDES ACTIVE DRIVING INFO, FUTURE STANDAR FUNCTION

Tesla has removed the cluster. In the future, AR HUD will become the standard and function of future vehicles under the **driver's pain points, active driving** and **safety demands**.



Dual Projection Display

► B projection (far)

Navigation
ADAS
LDW, FCW
PD, TSD

► A projection (near)

Steady:

Speedometer
Direction
Manual pilot
Autopilot
Car info
360°

Non-Steady:

Tachometer
Gas meter
Incomings
System failure
Warnings
Charging

ZONE

status / DMS

warning

car info

meter

autopilot

direction

DMS:

Facial ID
Fatigue
Abnormal Action
Distraction

10m

4m

BUSINESS OPPORTUNITIES OF AR HUD



Mercedes-Benz

- AR HUD首輛量產車，除了車輛與導航指引外，可將ACC和LDW等警示內容投影至前方。

7th S-class AR HUD效果



前一代S-class HUD效果



- CES 2020與Samsung合作展出AR HUD，可將投影距離拉長至8~10m，也可延伸至70m。

Audi展示AR HUD



- Lyriq將採用Envisics全息投影技術的AR HUD。
- Lyriq為凱迪拉克首款SUV電動車，預計2022年量產、2023年開賣

Lyriq內裝



- 投資WayRay，2019年展出採用全息投影技術的AR HUD概念車，投影距離15m，展示車款為Genesis G80。

Hyundai展示AR HUD

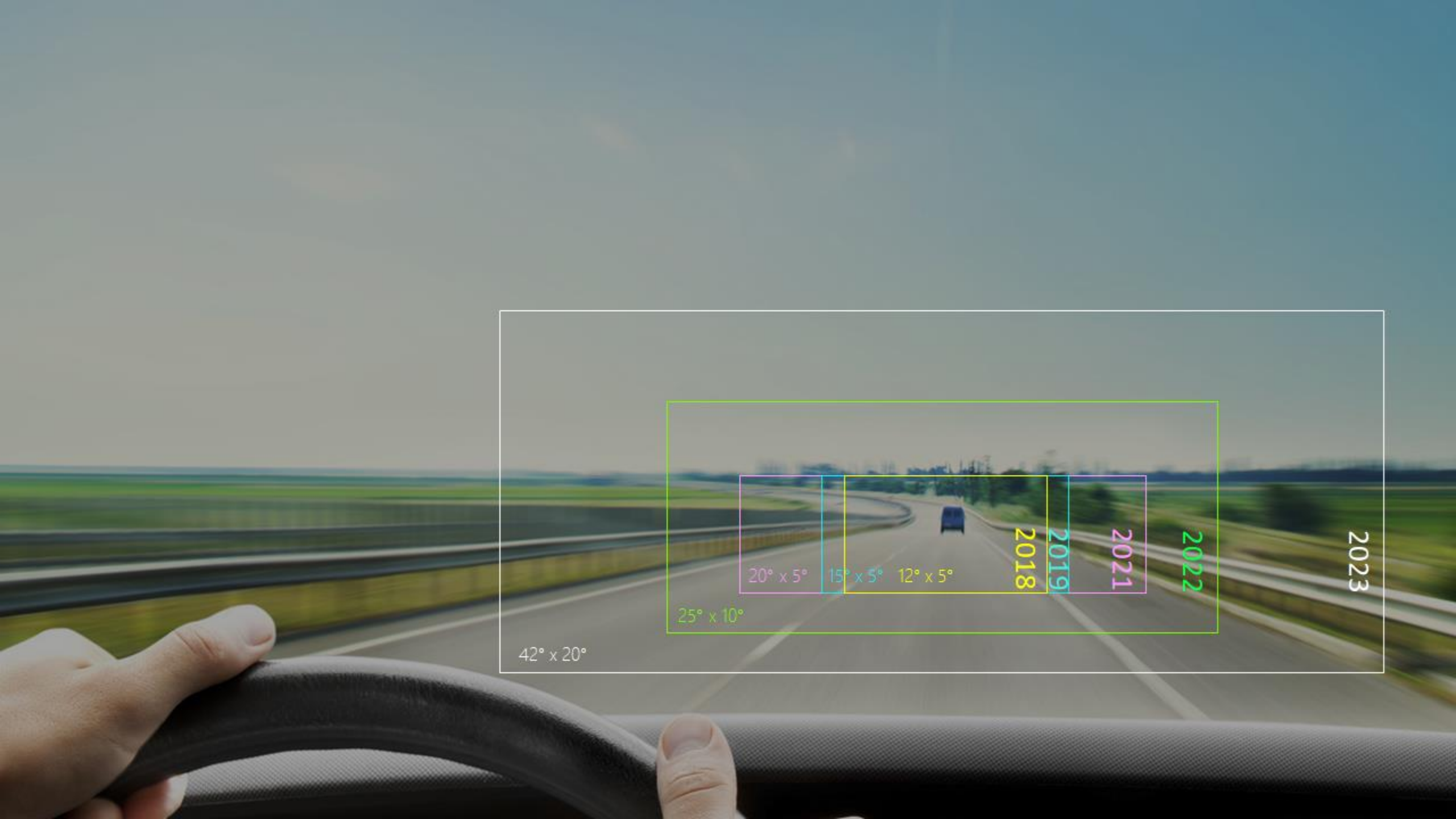


- 與劍橋大學合作開發3D AR HUD。

Land Rover展示AR HUD



CAR MANUFACTURERS POSITIVELY IMPLEMENTING AR HUD INTO CARS



2023

2022

2021

2019

2018

$12^{\circ} \times 5^{\circ}$

$15^{\circ} \times 5^{\circ}$

$20^{\circ} \times 5^{\circ}$

$25^{\circ} \times 10^{\circ}$

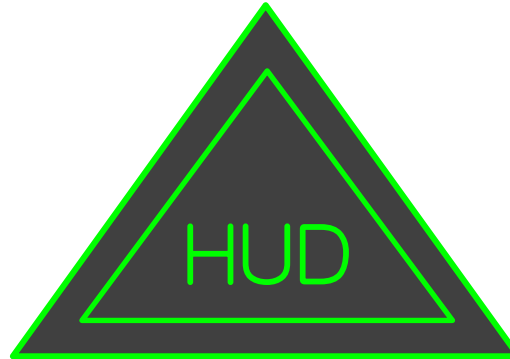
$42^{\circ} \times 20^{\circ}$

AR HUD Light Sources Comparison

LBS becomes mainstream of Light Source in the future

TFT (Thin Film Transistor)

Brightness: Lower
Projection becomes blurry when zooming in
Grayscale / Backlight: Translucent, projected images on windshield
Low light utilization, inefficient energy management that requires space and design for heat dissipation



DLP (Digital Light Processing)

Brightness: Higher
Large projection size
Grayscale/backlight: backlight light leakage / gray scale: not dark enough
Low light utilization, inefficient energy management that requires space and additional design for heat dissipation

LBS (Laser beam Scanning)

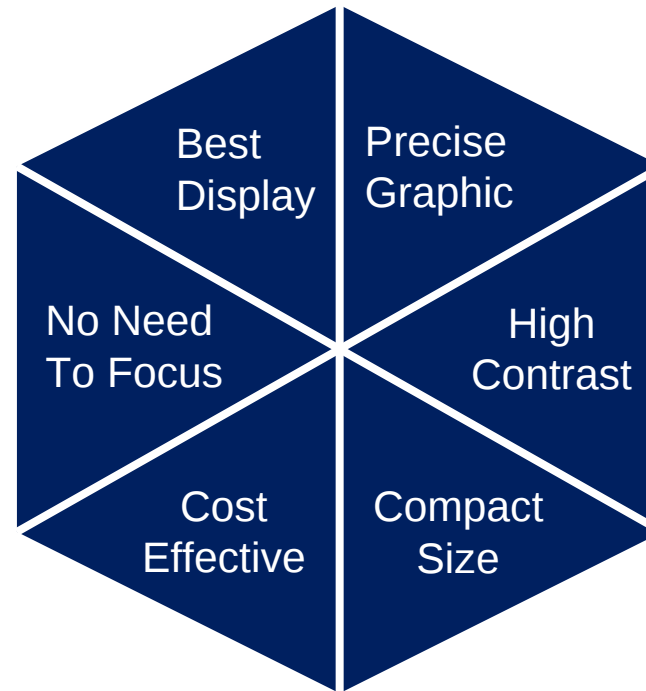
Brightness: Higher
Large projection size
Free focus
Small HUD package
Easier heat dissipation

FIC AR HUD Advantage

Image quality of AR HUD in multi scene (day and night) Need to solve: brightness, color, clarity, contrast, ghosting... Etc
LBS(LASER Beam Scanning) The Best Solution

The presentation of virtual imaging distance and image size depends on adjusting the optical design angle and sensing elements, while the volume is the smallest without focusing design.

There is no need to design images for car windshields in order to match cars, and which can save the cost on customized the windshields.



High contrast (80000:1) clear and accurate imaging recognition: such as user icons, people, traffic lights, scenes, etc.

High contrast resolution and virtual animation makes it easy for drivers to distinguish real scene from virtual reality.

The integration technology is very difficult, so it is necessary to effectively integrate the information software and hardware into the limited space (10°HFOV 8L; 20° 16L; 30° 24L; 40° 30L; 50° 35L).

Utilizing LBS as light source, providing high resolution virtual imagery, and custom made UI/UX for AR functions

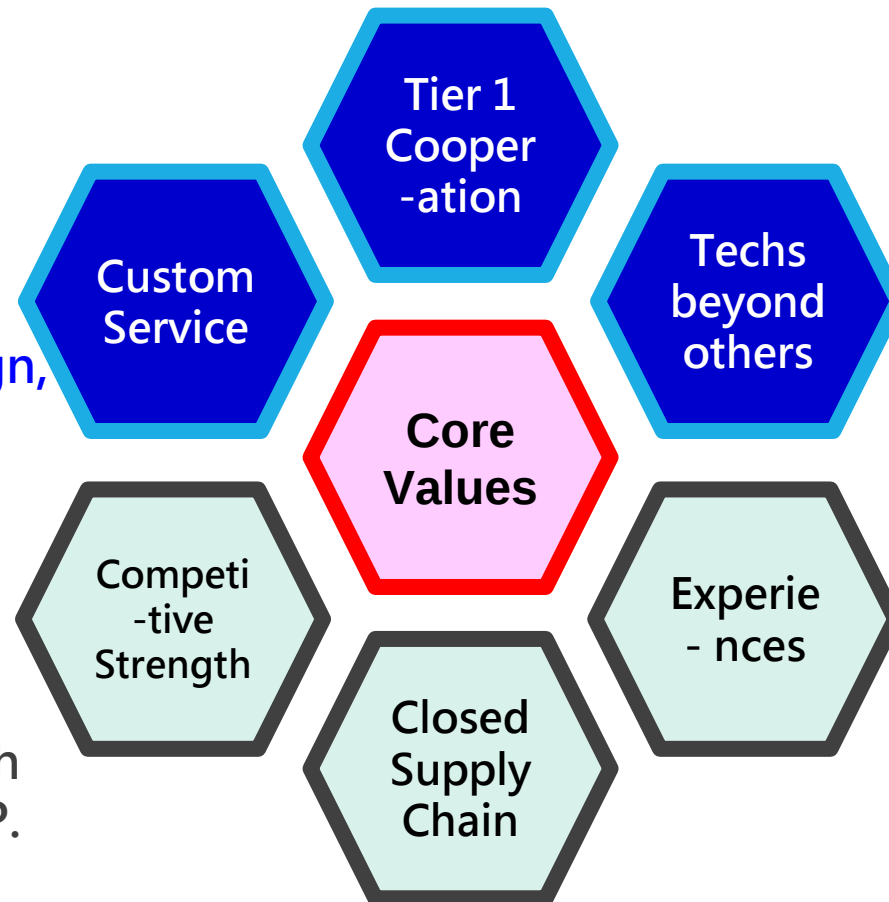
FIC AR HUD Core Competences

Cooperate with International Tier 1 manufacturer for 4 years, ready into MP stage in 2022.
Providing ODM services to customers, and custom made products, also businesses from chipset to turnkey solutions, contracting with various oversea partners.

■ Strong software design experience, capable to cooperate with Tier1 car manufacturers, providing custom made UX/UI design, virtual imagery design, optical driver design.

■ Custom made AR HUD different windshields

■ Profound experiences with OE car manufacturers SOP.



Expect **2023** : FOV: 42°, VHOV: 30°, VID: 20M
(Others: FOV: 10°, VID: 10M)

Expect **2025** : FOV: 50°, VHOV: 35°, VID: 35M
(Others: FOV: 20°, VID: 25M)

■ 3CEMS group, FICG subsidiary, in automotive electronic manufacturing industry for many years.

Quality Assurances

Automotive Electronic Design & Manufacturing Regulations and Certification

VERIFICATION

EVT

工程驗證測試階段

DVT

設計驗證測試階段

PVT

生產驗證測試階段

MP

量產階段

FEMA

失效模式與效應分析

PPAP

生產件批准程序

APQP

先期產品品質規劃

MSA

測量系統分析

SPC

統計製程管制

ISO

IATF 16949

汽車業品質管理系統

ISO 16750

道路車輛, 電氣電子裝備環境條件及試驗

ISO 15008

道路車輛.傳輸資訊和控制系統

ISO 20653

道路車輛.防護等級電氣設備對外物防護

ISO 4892

老化性能測試

ISO 10605

靜電放電測試

ISO 13766

EMS 檢測. 電氣環境干擾

ISO 7637

道路車輛- 傳導和耦合產生的電氣干擾

ISO 3795

汽車材料防火性能測試

SAE / IEC

SAE J1757

成像品質法規

SAE J1113

車輛零組件EMC傳導暫態試驗

SAE J1939

車載網路(CAN)

IEC 60068

環境試驗條件

IEC 60204

工業機械電氣設備安全

IEC 60417

設備使用圖形符號

IEC 60950

電氣設備安全

ECE-R46

汽車後視鏡認證標準及要求

ECE-R10

整車EMC測試法規



車輛研究測試中心
Automotive Research & Testing Center



FIC AR HUD FUTURE PLANS



- ☐ Optimized AR HUD Products: Like naked-eye 3D functions



- ☐ Vertical integration with high value supply chains, design self-MEMS, driver chipsets, control chipsets, custom made optical alignment equipment



- ☐ Horizontal expanding business into oversea markets, providing AR HUD SW & HW technology business to international customers

FICG Businesses Keep Growing



Investing in AR HUD Branding Business, Providing MEMS transceiver as in Automotive Electronics Design Services



Electronic Manufacturing Service EMS/PCBA, Focus on Automotive, Industrial, Communication, Medical, Marine, Aviation and Consumer Electronic Products



IPC, Rugged Computer, Targeting Mid-High End Markets and Applications, Custom Made and Self-Branding Products

Conclusion

- **AR HUD provides completed 3D visualized information like ADAS and HMI experiences, it'll be standard.**
- **FIC with supreme technology and key customers for the future car business, providing extreme car techs.**
- **Along with AR HUD business expanding globally, shipment will gradually and annually increase, lower manufacturing cost and driving more profits in the future.**



THANK YOU