# **Smart Factory & Energy Efficiency**

"Electricity business law amendment passed by National Assembly '18.5.29

The amended Electricity Business Act established a new electricity brokerage business that collects electricity produced or stored in renewable energy, energy storage devices, and electric vehicles of less than 1 megawatts and trades in the electricity market.

At present, the electricity generated by solar power plants <u>must be sold</u> <u>directly by the operators in the electric power market</u>, but the amendment allows **intermediaries to trade electricity on behalf of consumers with solar power plants or electric cars.** 

The amended Electricity Business Act clarified the legal status of the operators by charging electric cars based on the Smart Grid Act to electric cars as an electricity charge.

### V2G and less than 1MW PV



# Virtual Power Plant : EV parking lot → Power Plant?



## **ChargEV: EVC platform business**



#### < ChargEV Service Application>









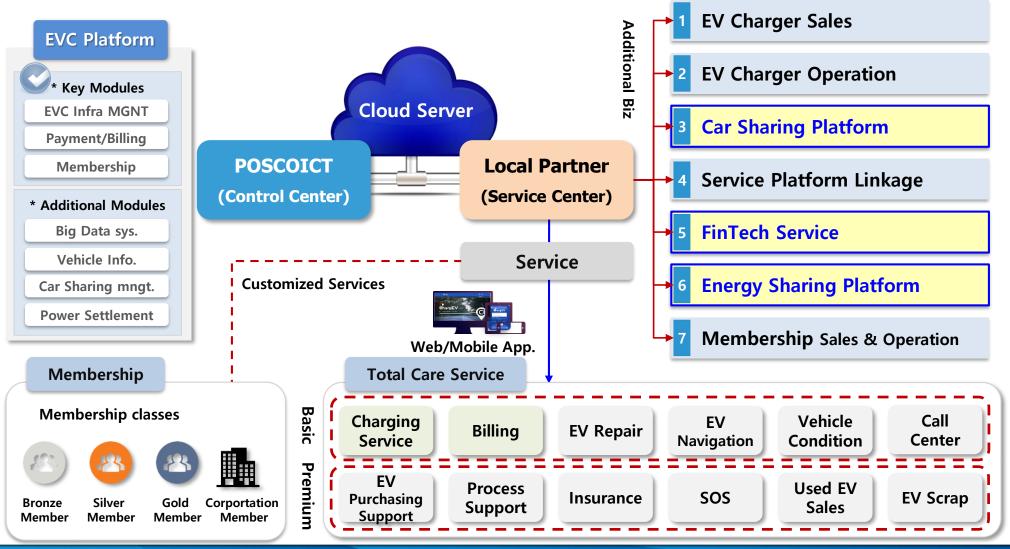


Charging Infra. Monitoring Screen

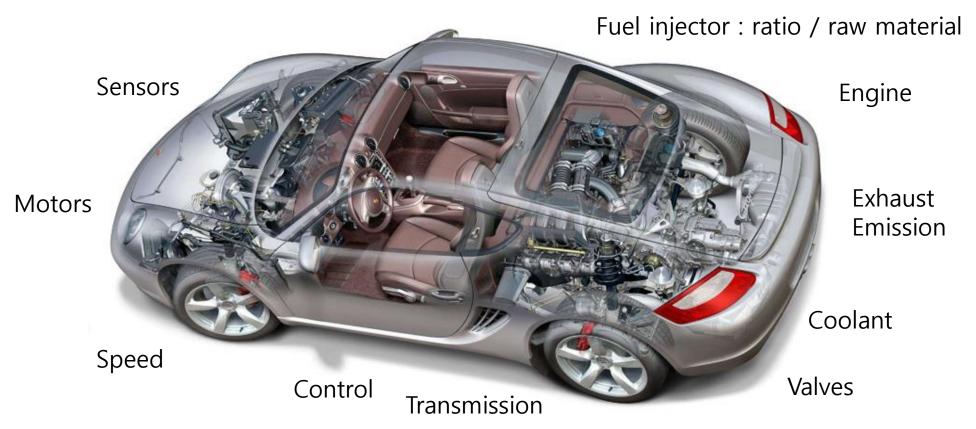


Hyundai Motors' Membership Card

### **ChargEV**: **EVC** business model

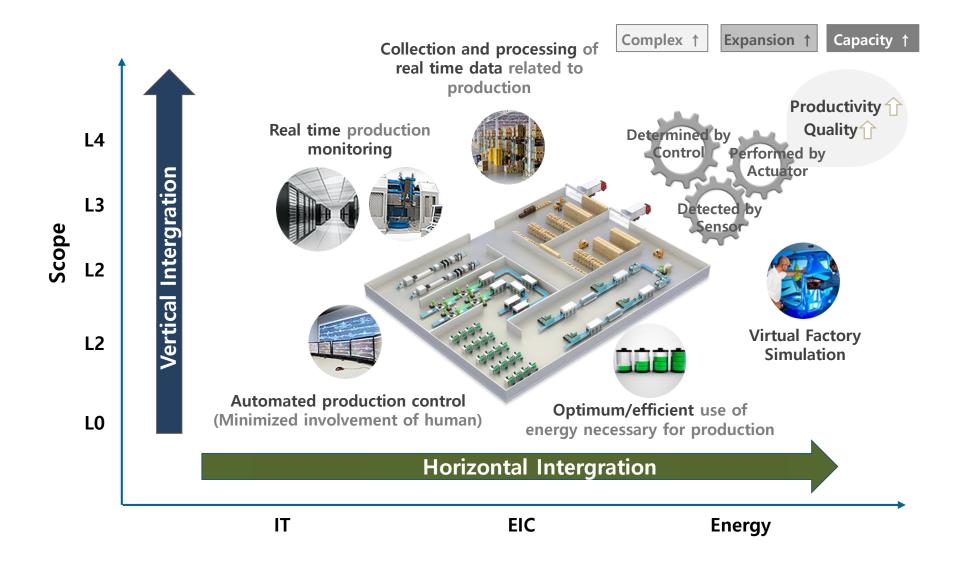


### **Smart Factory...** Controlling your machine



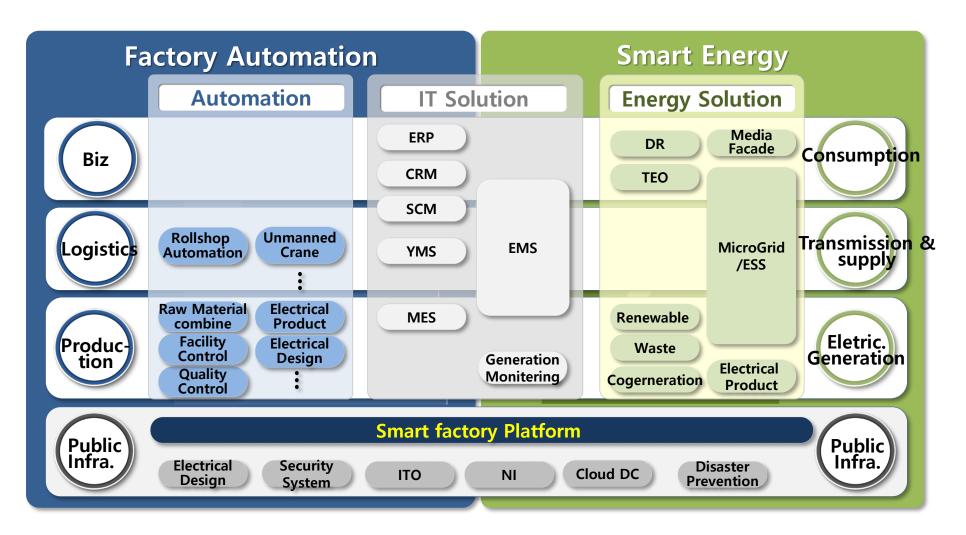
Battery : Electricity

# **Smart Factory**



# **Smart Factory & Energy**

✓ Integrating Engineering – IT and Energy



## **Smart Safety / Wearable device**

**Smart Safety Solution** 

Lantern On/Off

Camera

Lantern

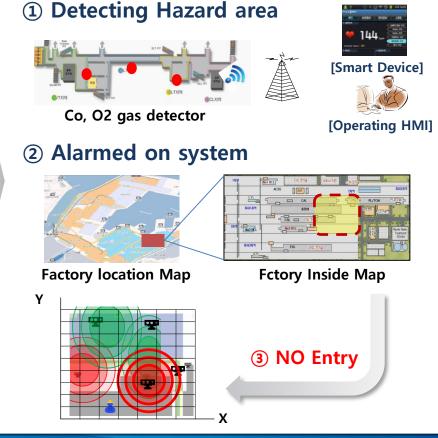
Strengthening workplace safety using Smart helmet & watch combined with cutting-edge IoT technology

# Video recording button Video calling button CO/Temp/Humidity/O2 sensor Right side Back side Smart Helmet Smart Watch Left side Front side

Emergency

button

### √ Hazard Detecting



## **POSCO ICT Smart Factory - Strength**

### Best in continuous manufacturing process in the world

### ✓ Structure of Industry Automation

Level 4	ERP
Level 3	MES
Level 2	<b>Process Computer</b>
Level 1	PLC
Level 0	Facility

### **Upper layer**

A company,
B Company ...

### **Lower layer**

A company,
B Company ...

# POSCO ICT Covered total lav

**Covered total layer For Smart Factory** 

### ✓ POSCO ICT's strength

- Knowledge of total layers: Lower Layer(POSCON) + Upper Layer(POSDATA)
- Both Industrial DNA and Internet DNA
- Data access to entire process, reference of POSCO's world-best continuous process

# Thank You!