

# HYUNDAI INDUSTRIAL

*A New Leap Through Innovation*



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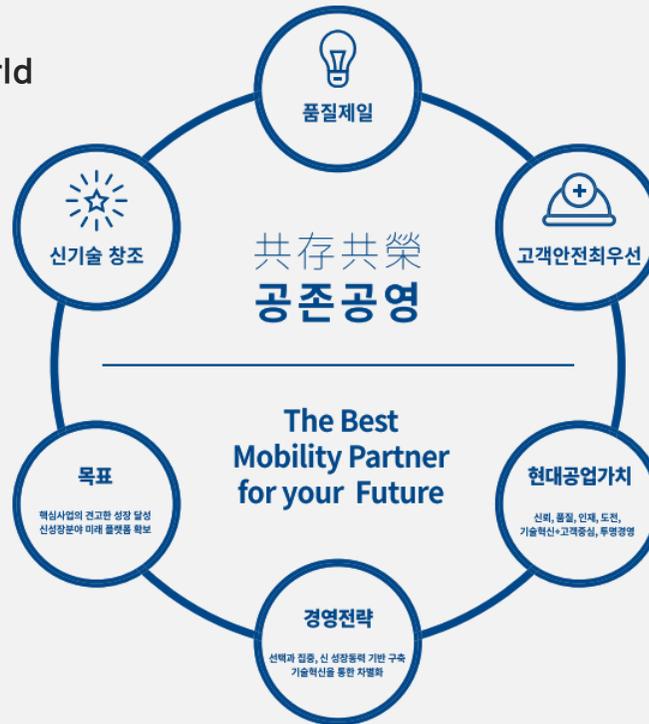
# 1. Introduction

## 1) Overview

Continuous R&D,  
with the best technology in the world

### Future Mobility Leading Company

Based on the management goal of  
"New Leap Through Innovation",  
Hyundai Industrial Co., Ltd. will lead  
the future through quality innovation,  
technology development and customer  
satisfaction.



### Management Policy

共存共榮  
공존공영

Coexistence and co-prosperity

### Vision

The Best Mobility Partner  
for you Future

Establishment year	CEO	Employees	Capital	Sales	Business	Production Sites
1978	Kang Hyun-seok Back Sang-yeol	507 [Dom 434 Overseas 73]	USD 5.9 M [KRW 7.67 Billion]	USD 237 M [KRW 307.5 Billion]	Automotive Seat components [PAD,A/REST,H/REST]	5 Location 3 Countries

# 1. Introduction

## 2) History

1969~1990



### Establishment & Leap Period

The beginning of passion and challenge

- 1969 *Established Hyundai Industry*  
[215, Bangu-dong, Ulsan]  
Supplied bus seats (HMC)
- 1972 Supplied bus seats (BENZ)
- 1976 Supplied Pony seats (HMC)
- 1978 *Established Hyundai Industrial Co., Ltd.*
- 1983 Supplied bus seats  
(Daewoo/Asia/Donga motors)  
Supplied JEEP seats (KGM)
- 1987 Relocated to the head office  
[271-6, Bugok-dong, Namgu, Ulsan]

1991~2010



### Growth Period

Development of automobile parts technology

- 1992 Selected as an excellent partner for parts development (HMC)
  - 1994 Awarded General Secretary and Prime Minister's Award
  - 1996 Obtained defective 100PPM certification (HMC)
  - 1997 Awarded 100PPM Prime Minister's Award (SMBA)
  - 2001 *Established Asan Plant*
  - 2004 *Established Beijing Plant in China*
  - 2007 Kang Hyun-seok appointed as CEO
- ISO14001:2004 certification obtained

2011~Present



### Sustained Growth Period

Securing growth engines through new businesses

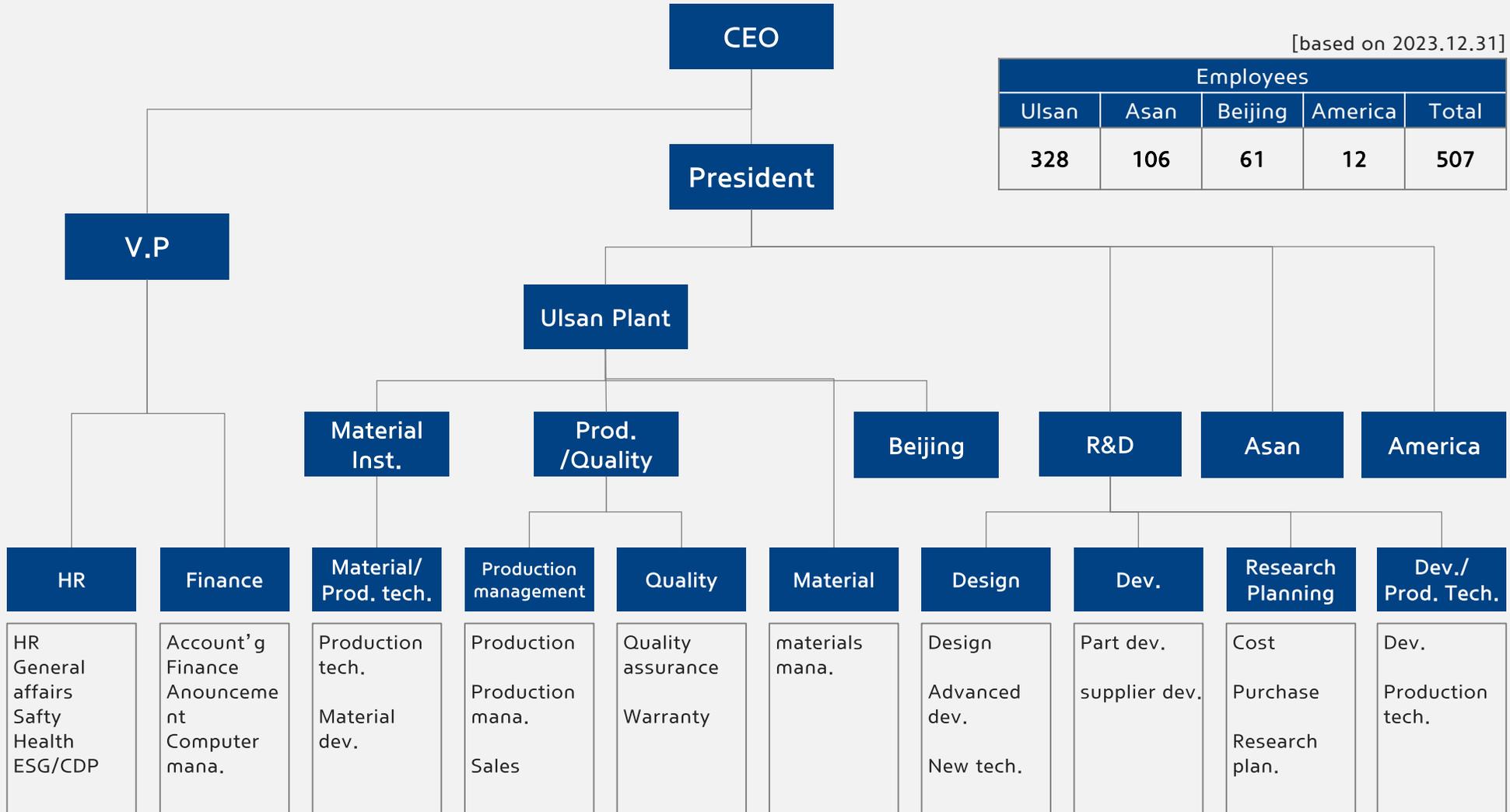
- 2013 ADeveloped ALL MDI multi-hardness seat pad  
*Listed on KOSDAQ*
- 2014 Established of R&D  
Acquired technology innovation Inno-Biz certification
- 2015 *Relocated to the head office*  
[28, Maegoksanup 5-gil, Bukgu, Ulsan]  
*Established Hwanghwa Plant in China*
- 2017 Awarded Five Million Dollar Export Tower (KITA)
- 2021 *Esrablshed Newnan Plant in the U.S. (HDI AMERICA INC)*  
*Established Maegok 2 Plant*
- 2022 Development New mechanism (Multi-stage A/REST, H/REST)  
*[Exhibited at IZB exhibition in Germany]*

# 1. Introduction

## 3) Organization

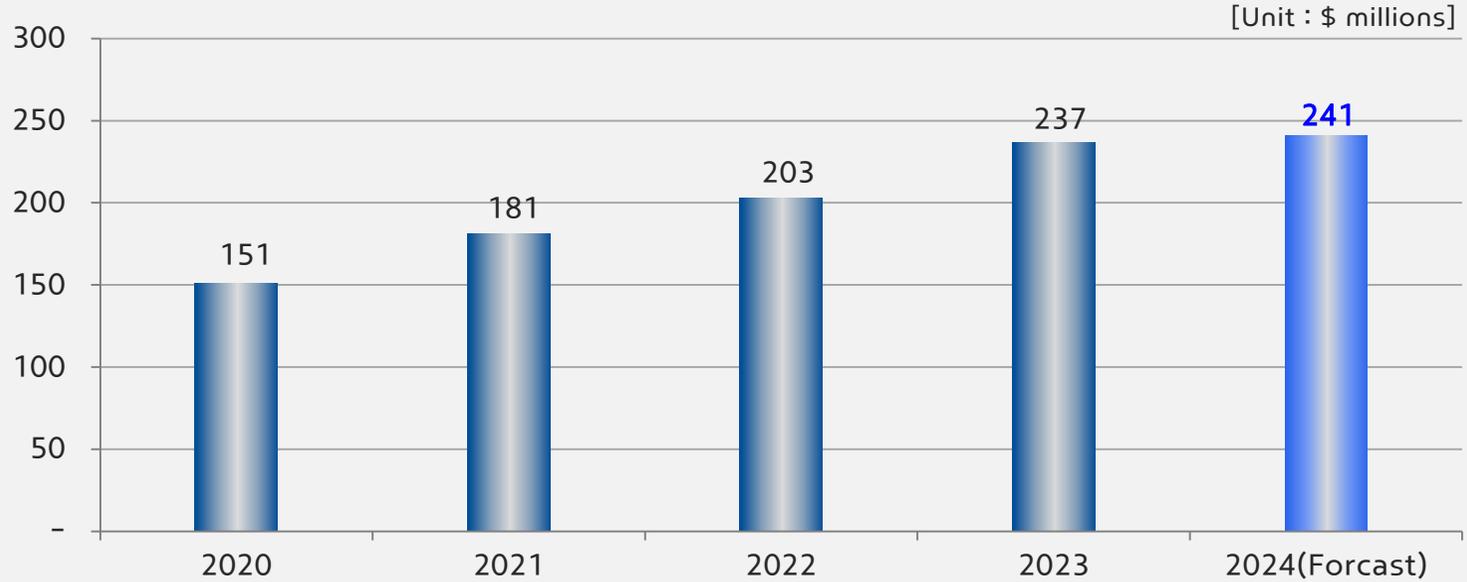
[based on 2023.12.31]

Employees				
Ulsan	Asan	Beijing	America	Total
328	106	61	12	507

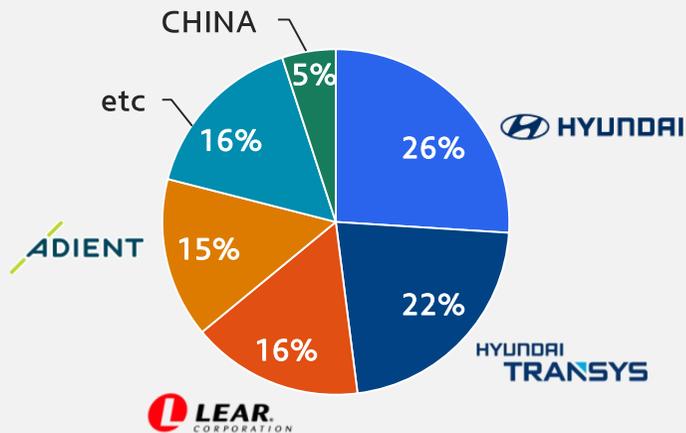


# 1. Introduction

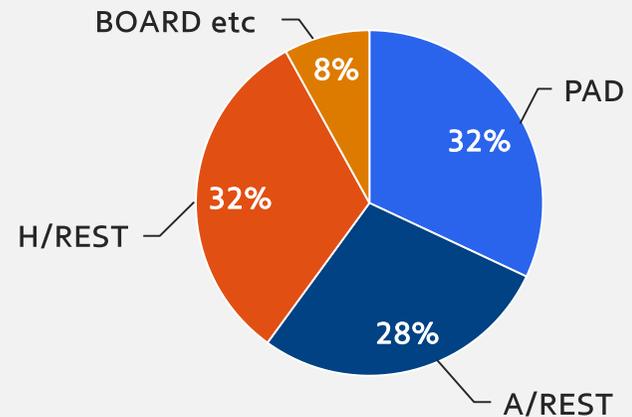
## 4) Sales revenue



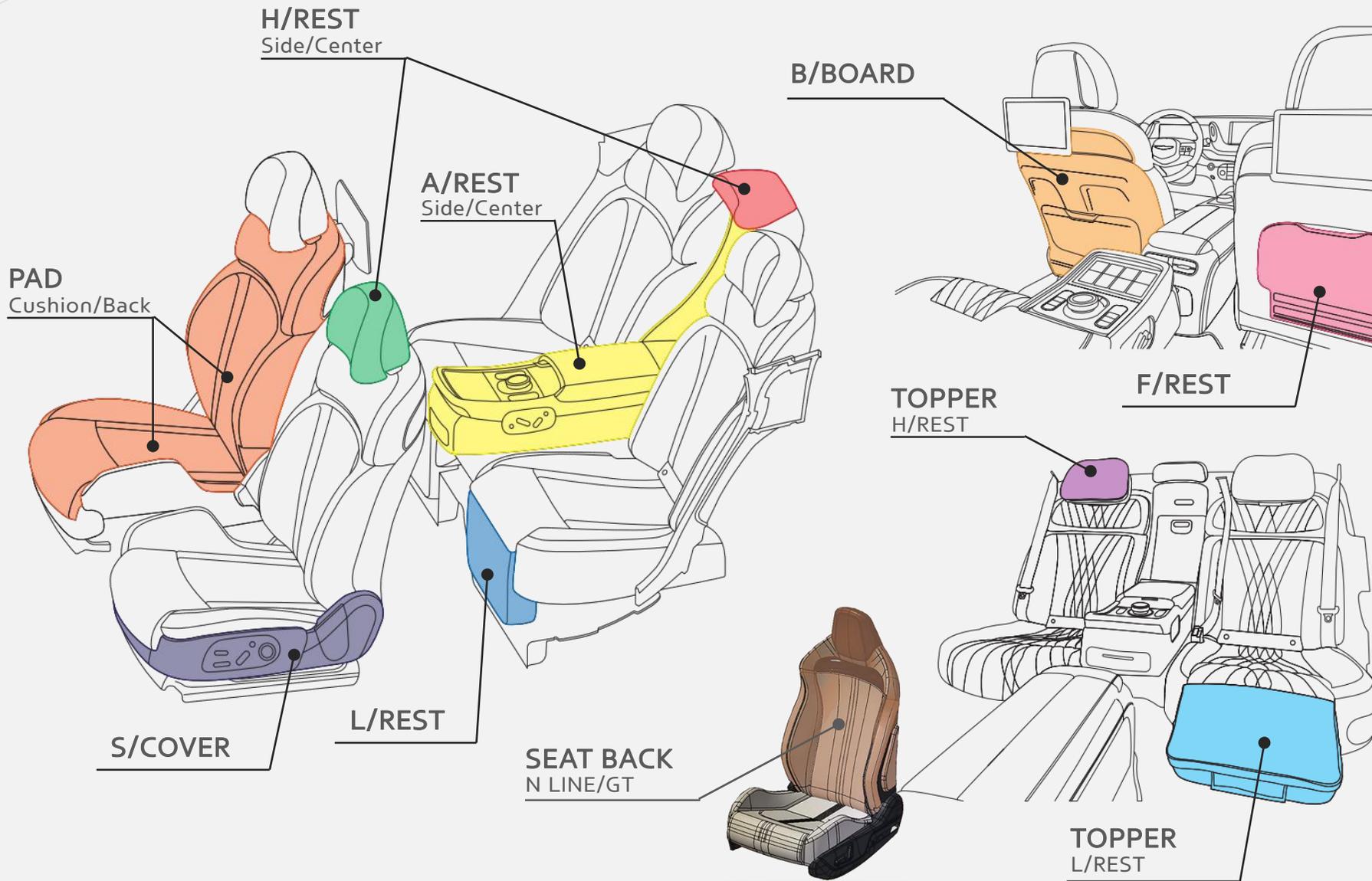
### Customer share



### Products share

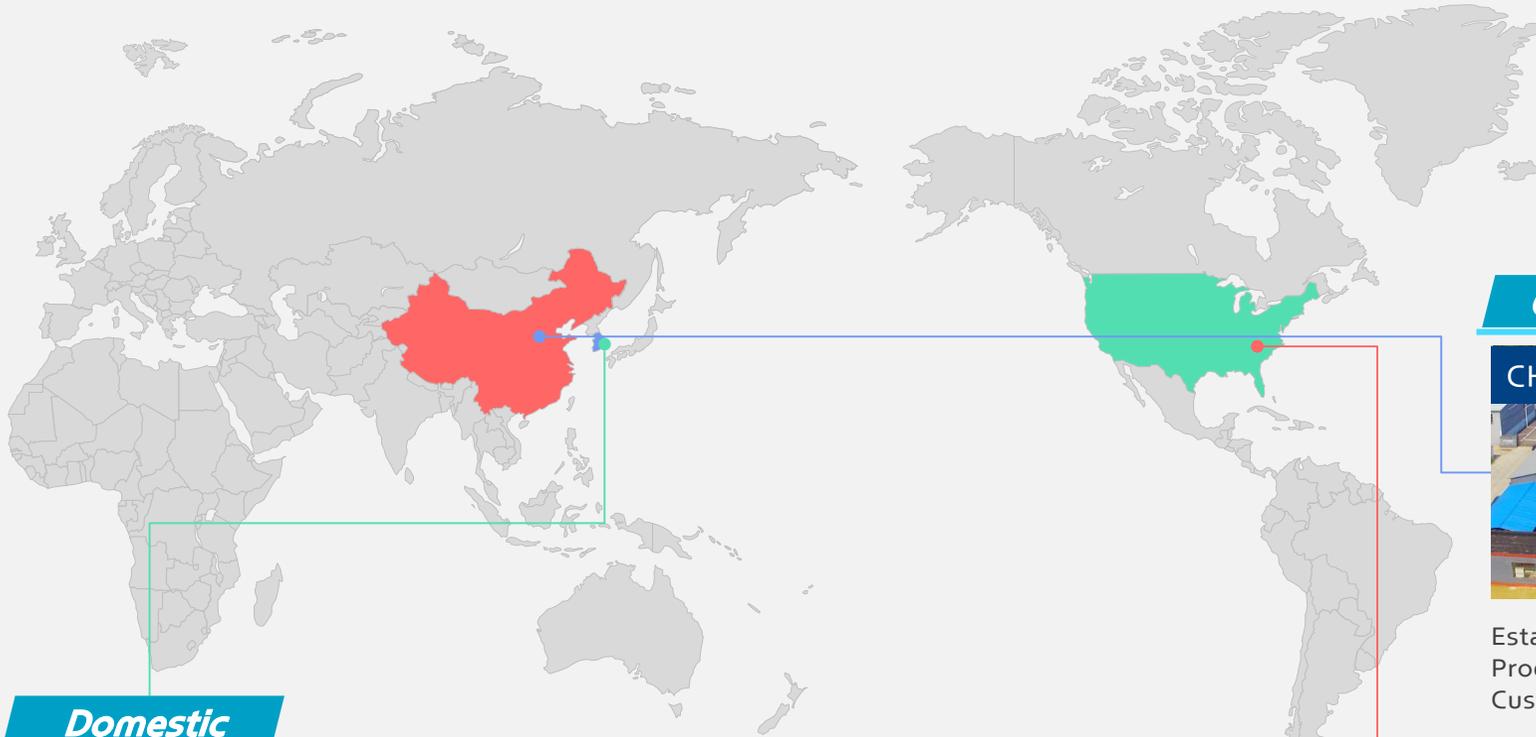


# 2. Products



# 3. Production sites

## 1) Global Locations



### Overseas

#### CHINA | Beijing



Established | Jul 2004  
 Products | A/REST,H/REST  
 Customers | HYUNDAI TRANSYS ADIENT

#### AMERICA | Newnan



Established | Jul 2021  
 Products | A/REST,H/REST,L/REST  
 Customers | HYUNDAI TRANSYS ADIENT

### Domestic

#### KOREA | Ulsan[H.Q.]



Established | Sep 1978  
 Products | PAD,A/REST,H/REST  
 Customers | HYUNDAI TRANSYS HYUNDAI



#### KOREA | Maegok 2



Established | Dec 2021  
 Products | A/REST,B/BOARD  
 Customers | HYUNDAI TRANSYS HYUNDAI

#### KOREA | Asan



Established | Nov 2001  
 Products | A/REST,H/REST  
 Customers | ADIENT HYUNDAI TRANSYS

### 3. Plants

#### 2) Production capacity [Ulsan/Maegok2 Plant]

##### **PAD LINE**

[Operating day: 22day/month, based on operating time: 17hrs/day]

Name of Line	Production items	Length (m)	Carrier (EA)	Mold up (EA)	CAPA (pcs/month)	Productive amount (pcs/month)	Working ratio (%)
Line 1	PAD	78	42	84	195,118	160,461	82
Line 2	PAD	78	42	84	195,118	161,715	83
Line 3	PAD	78	42	84	195,118	170,044	87
<b>Total</b>			<b>126</b>	<b>252</b>	<b>585,354</b>	<b>492,220</b>	<b>84</b>

##### **ASSEMBLY LINE**

[Operating day: 22day/month, based on operating time: 8.5hrs/day]

Name of Line	Production items	CAPA (car/month)	Productive amount (car/month)	Working ratio (%)
Assembly	A/REST	6,178	5,170	84
	B/BOARD	1,980	1,683	85
	BACK ASSY	1,540	1,309	85
<b>Total</b>		<b>9,698</b>	<b>8,162</b>	<b>84</b>

### 3. Plants

#### 2) Production capacity [Asan Plant]

##### **PAD LINE**

[Operating day: 22day/month, based on operating time: 10hrs/day]

Name of Line	Production items	Length (m)	Mold up (EA)	CAPA (pcs/month)	Productive amount (pcs/month)	Working ratio (%)
Line 1 (Cut&Sew)	A/REST, H/REST	Ø7.0	22	112,000	90,900	81
Line 2 (Cut&Sew)	A/REST, H/REST	Ø7.5	22	110,000	93,000	84
Line 3 (PIP)	H/REST	5.5	20	54,000	7,000	13
<b>Total</b>			<b>64</b>	<b>276,000</b>	<b>190,900</b>	<b>69</b>

##### **ASSEMBLY LINE**

[Operating day: 22day/month, based on operating time: 10hrs/day]

Name of Line	Production items		CAPA (car/month)	Productive amount (car/month)	Working ratio (%)
Assembly	A/REST	DN8/CE/MQ4/BD/HM/MV	42,100	33,400	79
	A/REST	CV/DL3/GL3	20,900	16,000	77
	H/REST	GN7/GL3/DL3/CV/MQ4	45,500	38,400	84
	L/REST	MV	5,000	3,000	60
	RR SIDE SEAT	DN8/DL3	9,900	7,000	71
<b>Total</b>			<b>123,400</b>	<b>97,800</b>	<b>79</b>

### 3. Plants

#### 2) Production capacity [Beijing Plant]

##### *PAD LINE*

[Operating day: 22day/month, based on operating time: 10hrs/day]

Name of Line	Production items		Length (m)	Mold up (EA)	CAPA (pcs/month)	Productive amount (pcs/month)	Working ratio (%)
Line 1 (PIP)	H/REST	NX4c/TMc/ID	10	20	66,440	9,016	14
Line 2 (Cut&Sew)	A/REST, H/REST	NX4c/TMc/DN8c/DU2	10	30	72,600	36,183	50
<b>Total</b>				<b>50</b>	<b>139,040</b>	<b>45,199</b>	<b>33</b>

##### *ASSEMBLY LINE*

[Operating day: 22day/month, based on operating time: 10hrs/day]

Name of Line	Production items		CAPA (car/month)	Productive amount (car/month)	Working ratio (%)
Assembly	A/REST,H/REST	NX4c/TMc/DN8c/DU2/CN7c	110,000	47,700	43
<b>Total</b>			<b>110,000</b>	<b>47,700</b>	<b>43</b>

# 4. R&D

## 1) Overview

### Verification

- Stiffness/Performance
- NVH/Environment/Material
- Durability



Test item	Retained quantity	Test Equipment
Structure/Function	2	Durability, Static load
physical property test	7	Universal material tester etc.
Regulation test	3	Flammability, Heavy metals, VOC

### Proto

- Prototype manufacturing
- Problem analysis and improvement
- Prototype Assembly verification



Equipment	Retained quantity
OptiTex(Pattern CAD)	2 copy
Digitizer	1 copy
Cutting plotter	1 copy

### Design

- New technology development
- PMS operation
- In-house design of seat components (A/REST, H/REST, Cup holder)



Equipment	Retained quantity
CATIA V5	10 copy
LS-DYNA	1 copy
Hyper Mesh	1 copy

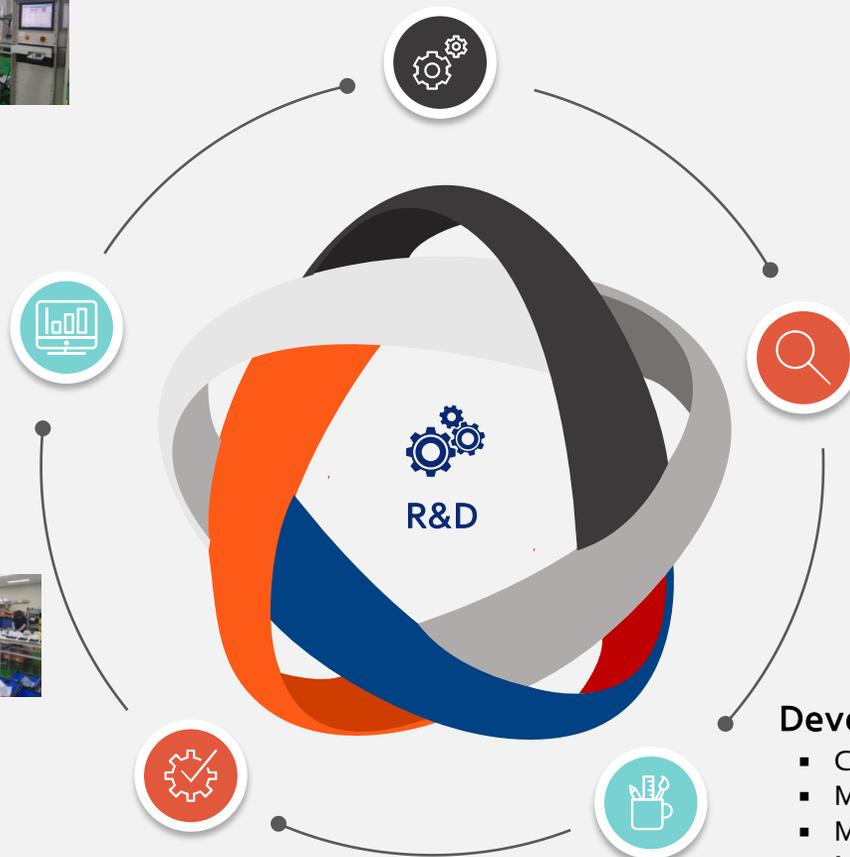
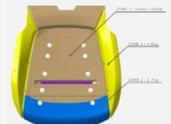
### Analysis

- Product Performance Pre-verification
- Durability Pre-verification



### Development

- Components Development
- Mold Development
- Material Development
- Multi-hardness foam material research



# 4. R&D

## 2) Patent status

### Patent Result

#### Patents

Domestic : 47  
Overseas : 4

#### Utility Models

Overseas : 1

#### Patent pending

Domestic : 9  
PCT : 2



자동차용 헤드레스트(슬라이딩 타입)



자동차 시트용 헤드레스트의 각도 조절 구조



자동차 시트용 헤드레스트의 전후방 위치 조절장치



자동차 시트용 다중방향 직립 이경도 원통체



자동차용 컵홀더(스링 랙업 컵홀더)



차량 시트의 암레스트(KU)



헤드레스트 스테이의 밀림 돌기 제거 장치 및 제거 방법



헤드레스트 스테이의 홈 성형 장치 및 성형방법

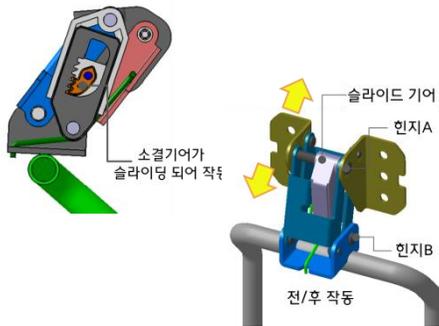
# 4. R&D

## 3) New technology

### H/REST

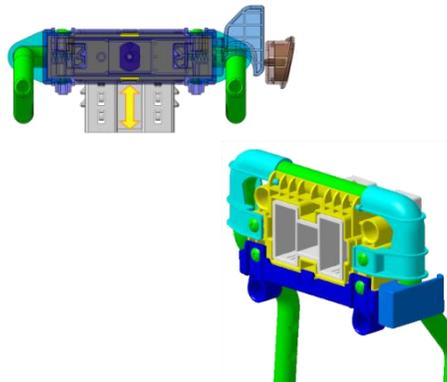
#### Tilting type

- ▷ Sliding forward/backward by securing slide gear to hinge A/B



#### Sliding type

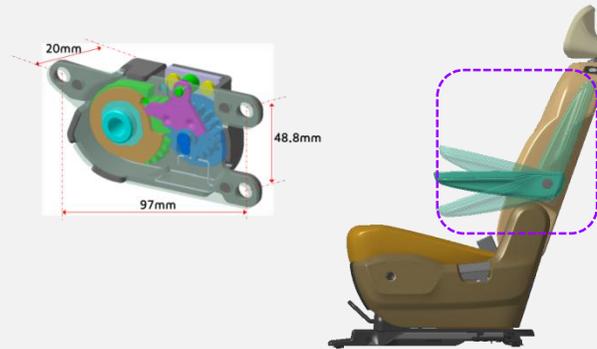
- ▷ 35mm position adjustable when operating the side button (4step)



### A/REST

#### Multi-stage type

- ▷ Compact size can be applied to various products that require angle adjustment



#### Nonstep cylinder type

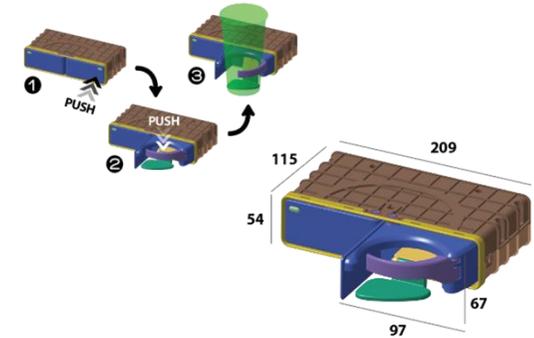
- ▷ The angle of the armrest can be finely adjusted by utilizing the gas cylinder



### CUP HOLDER

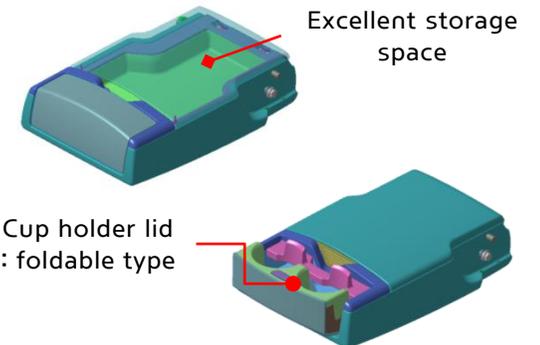
#### Swing-down type (GEN 2)

- ▷ Increase the depth of cup storage compared to the previous one (60 → 67mm)



#### Foldable type

- ▷ The cup holder foldable type secures the storage space inside the armrest



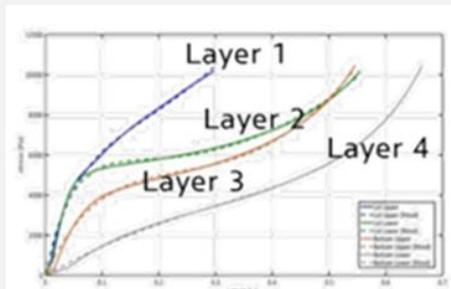
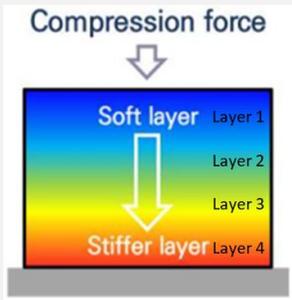
# 4. R&D

## 3) New technology

### Multi-Layer Harness Foam

#### ▶ Technical Overview

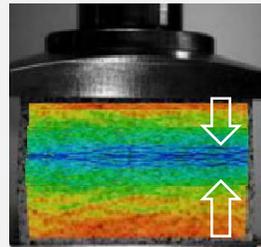
- Sequential gradient hardness characteristics appears from the compression force side to the bottom of Foam pad (Using a single raw material)



Upper : Soft  
 Middle : Medium(Existing Equivalence)  
 Lower : Hard

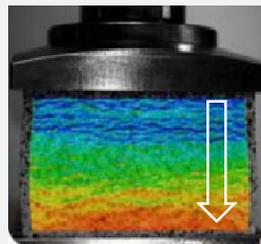
#### ▶ Compression characteristics

- Blue part has a large rate of change in compression range



Compressed from the middle layer

Traditional Foam

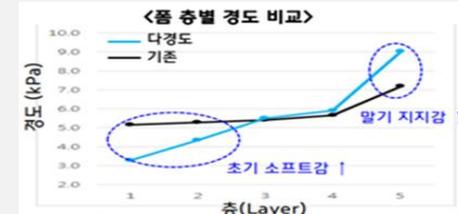


Compressed sequentially from the top

Multi-Layer Hardness Foam

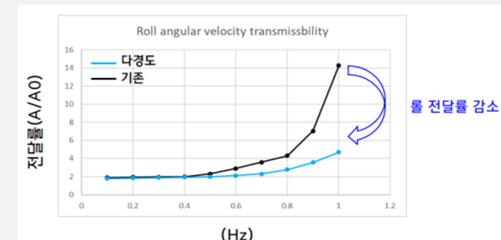
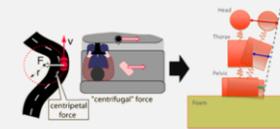
#### ▶ Technical effect

- Improved seating comfort and slimming



- Excellent roll stability

→ Reduced motion sickness or discomfort



# 4. R&D

## 4) Certificate status

### Quality/Environment/Safety Management System

System	Registration date	Certificate authority	Notes
IATF 16949	2005. 05. 10	KFQ	Ulsan(H.Q) / Asan Plant
IATF 16949	2006. 07. 25	KFQ	Beijing Plant
ISO 14001	2007. 11. 20	KFQ	Ulsan(H.Q)
ISO 45001	2013. 09. 16	KFQ	Ulsan(H.Q) / Asan Plant
UL	2021. 10. 26	EUROFINS	Ulsan(H.Q)

### Certificates



[IATF 16949]



[ISO 14001]



[ISO 45001]



[UL]

A world map in a light gray tone is centered on the page. Overlaid on the map is a network of white lines connecting various circular nodes, creating a global connectivity theme. The text "Thank You" is written in a bold, blue, sans-serif font across the middle of the map.

**Thank You**

