



Aluminum lightens the world

アルミでかなえる、軽やかな世界

The UACJ Group's Automotive Parts Business

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UACJ Corporation



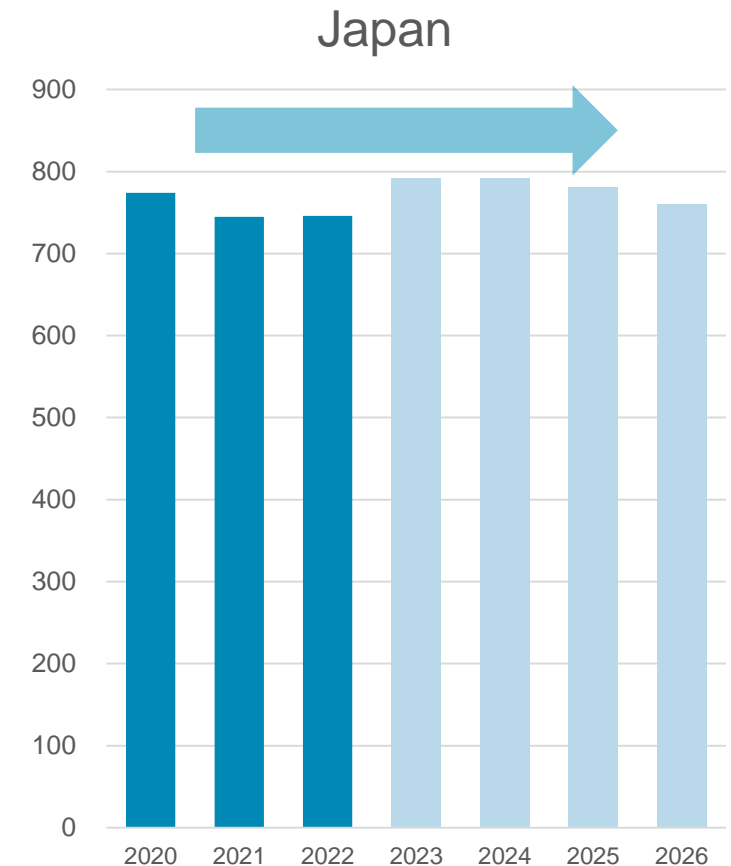
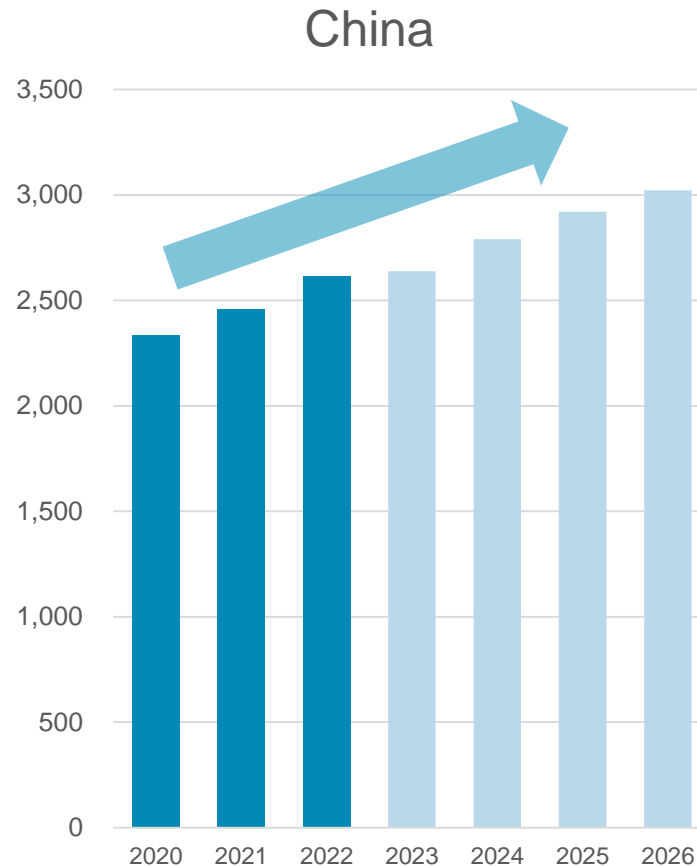
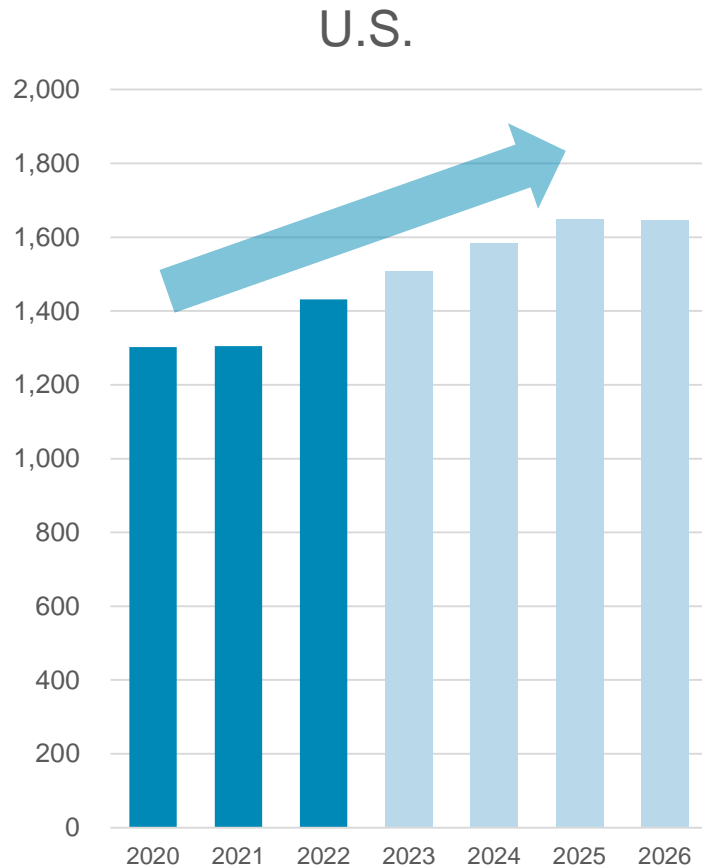
Market Conditions



Toward Recovery in Automobile Production and Demand

With cessation of global supply chain disruptions, markets are expected to recover in the medium to long term

Production Trend and Forecast by Country (units: tens of thousands of vehicles)

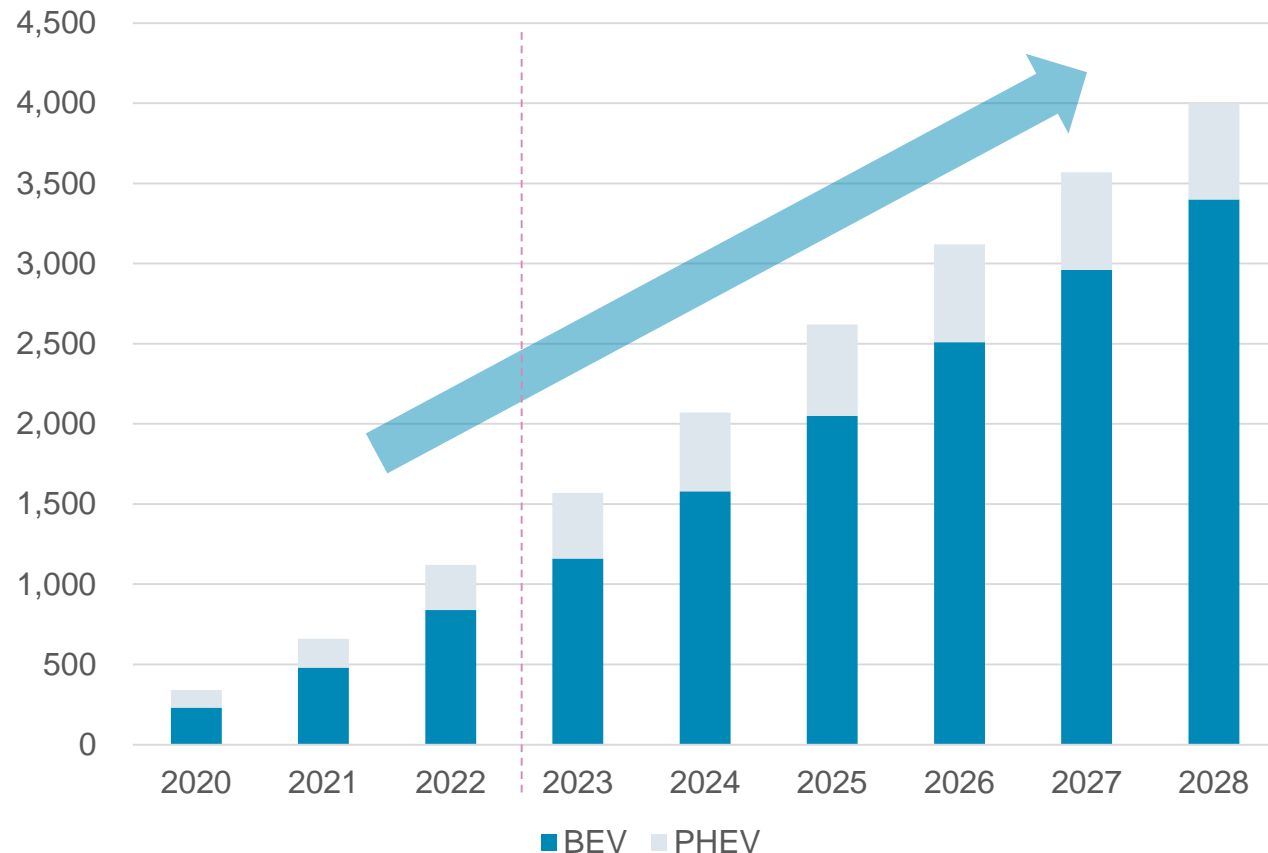


Growing EV Demand to Reduce Environmental Impact

As countries around the world aim for carbon neutrality in 2050 and the demand for decarbonization increases, demand for electric vehicles will grow rapidly

BEV*/PHEV** Production Forecast Trends

(10,000 s)

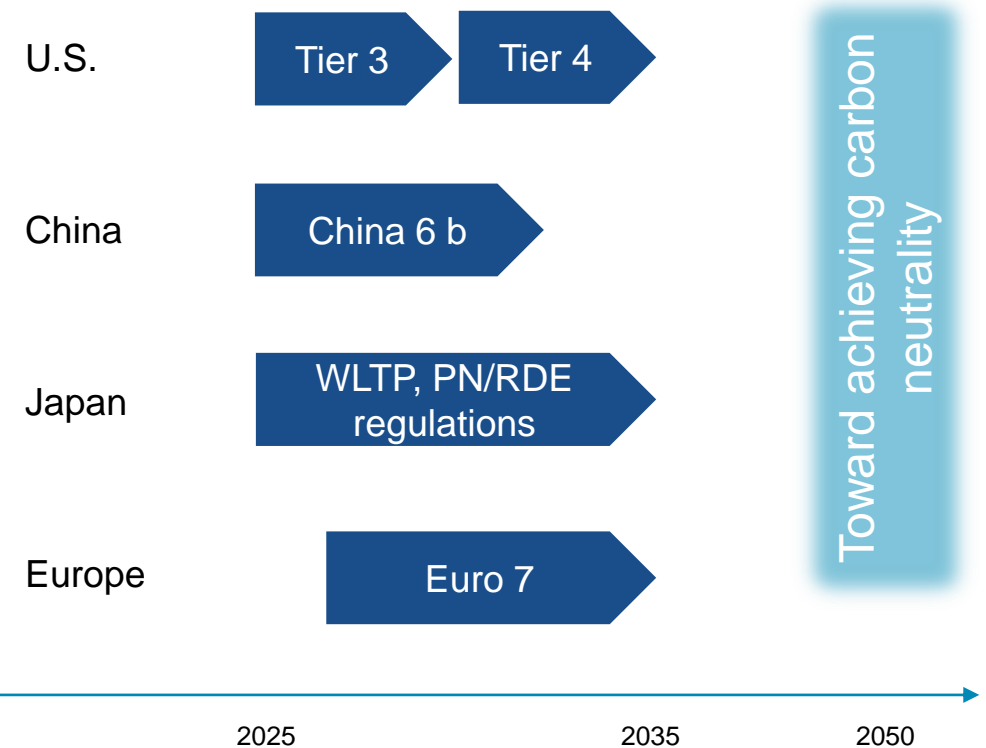


Source: UACJ research

*BEV: Battery electric vehicle

**PHEV: Plug-in hybrid electric vehicle

Fuel Efficiency Regulation Schedule by Region



Toward achieving carbon neutrality

Why Aluminum is Used for Automotive Parts

Aluminum is an effective option in electrification of vehicles to reduce CO₂ emissions and lower environmental impact

Aluminum's contributions

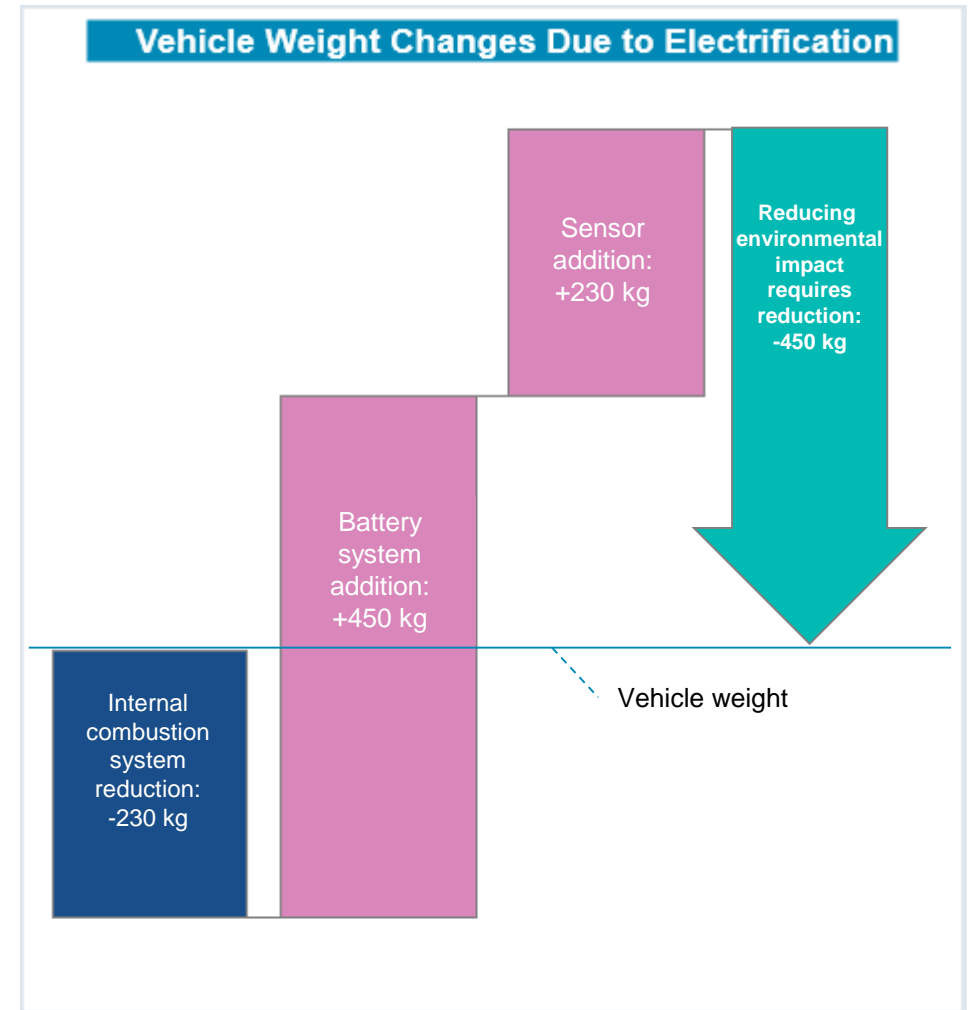
- Weight reduction in vehicle bodies
- Reduced environmental impact

Aluminum's advantages

- Lightweight, shock-absorbing (e.g. for bumpers)
- Light and strong with high specific strength (strength-to-weight ratio)
- Recyclable many times into the same product with minimal use of energy

Benefits from using aluminum

- Lighter body weight improves fuel economy and extends driving range
- Easier horizontal recycling reduces environmental impact



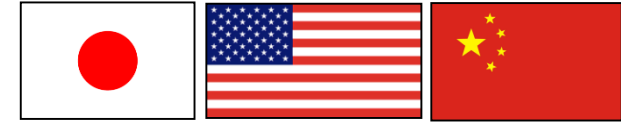
Automotive Parts Business Domain



Scope of UACJ Group Business in Automotives



Automotive parts business (extrusion/forging/casting)
Manufacture of bumpers, crash boxes, etc.



Sunroof guides



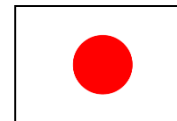
Bumpers



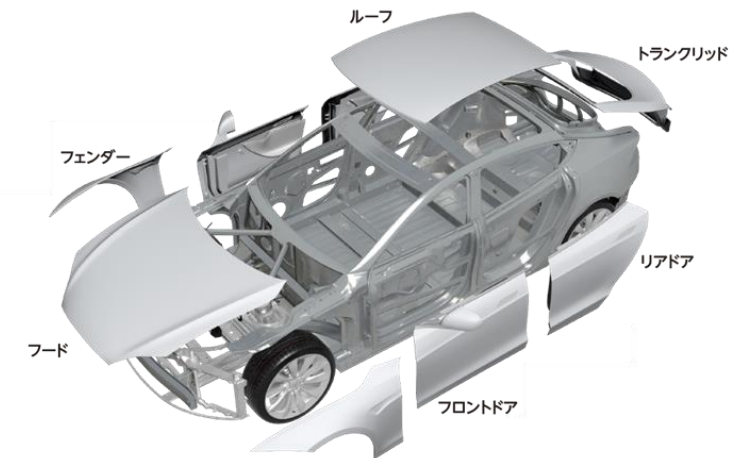
Crash boxes



Battery housings



Flat Rolled Products Business
Manufacture of body panels, etc.



Why UACJ is a Preferred Provider



Strengths of UACJ's Automotive Parts Business



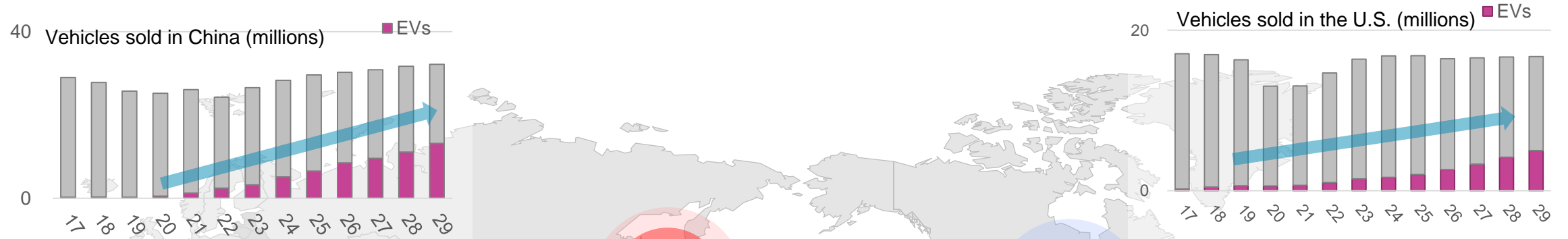
Development and manufacturing system with access to regions and markets with high needs for lighter weight

One-stop service system from material development to parts processing

Meticulous consultation/prototyping services during development, mainly for Japanese OEMs, helps accelerate customer development

Automotive Parts Business Division: Global Network

Development and manufacturing system with access to regions and markets with high needs for lighter weight

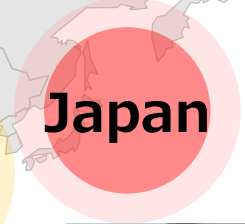


DUB (From 2019)

DICASTAL UACJ BOLV AUTOMOTIVE COMPONENTS CO., LTD.
 Joint venture with aluminum wheel manufacturer and extrusion company
 Mass production of automotive structural parts began in 2021



China



Japan



MTC (From 2020)

Mobility Technology Center
 Newly established as a global development base for the automotive parts business
 Enables rapid proposal-based development in collaboration with each manufacturing site



U.S.



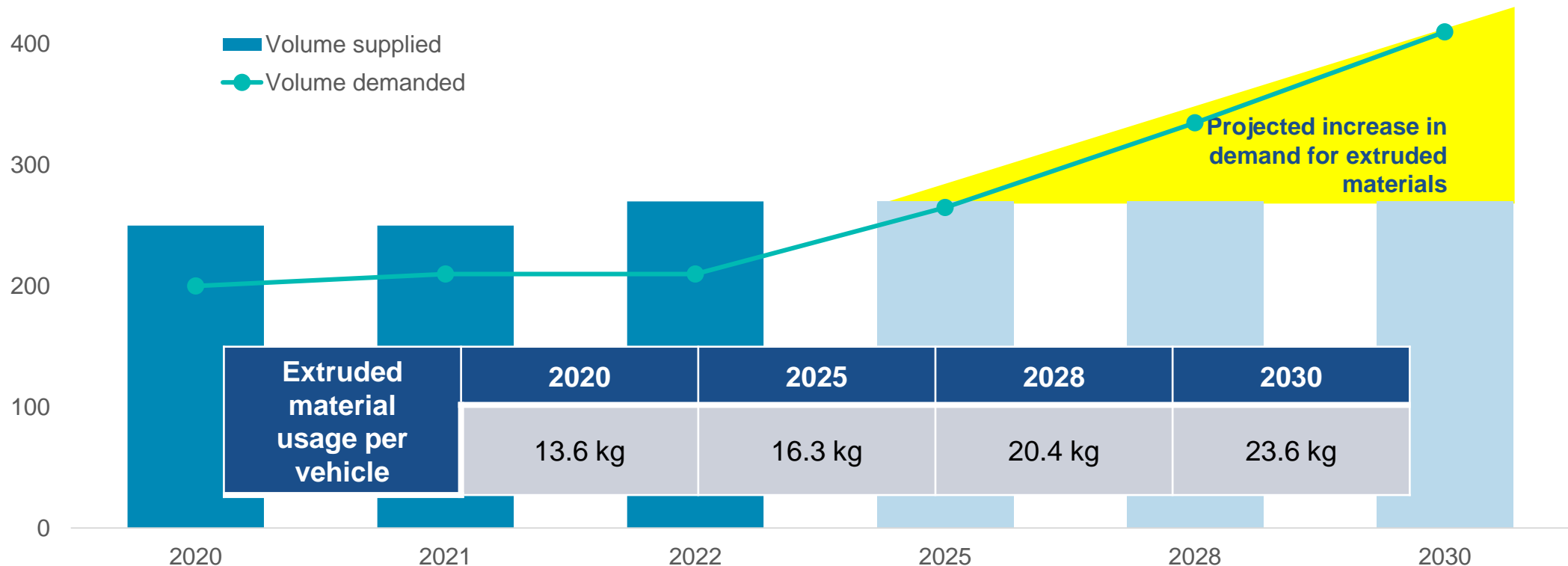
UWH (From 2016)

UACJ Automotive Whitehall Industries, Inc.
 Established in 1974, joined UACJ Group in 2016
 Manufacturing parts via integrated system from extrusion to assembly

Rapid Growth Expected in Aluminum Extruded Material Demand

North America is expected to experience supply shortages as the adoption of extruded materials increases in line with the need for lighter vehicles. UWH has already installed several additional extrusion presses and will be able to appropriately capture the growing demand

Demand/Supply Outlook for Aluminum Extruded Material in the U.S. (thousands of tons)

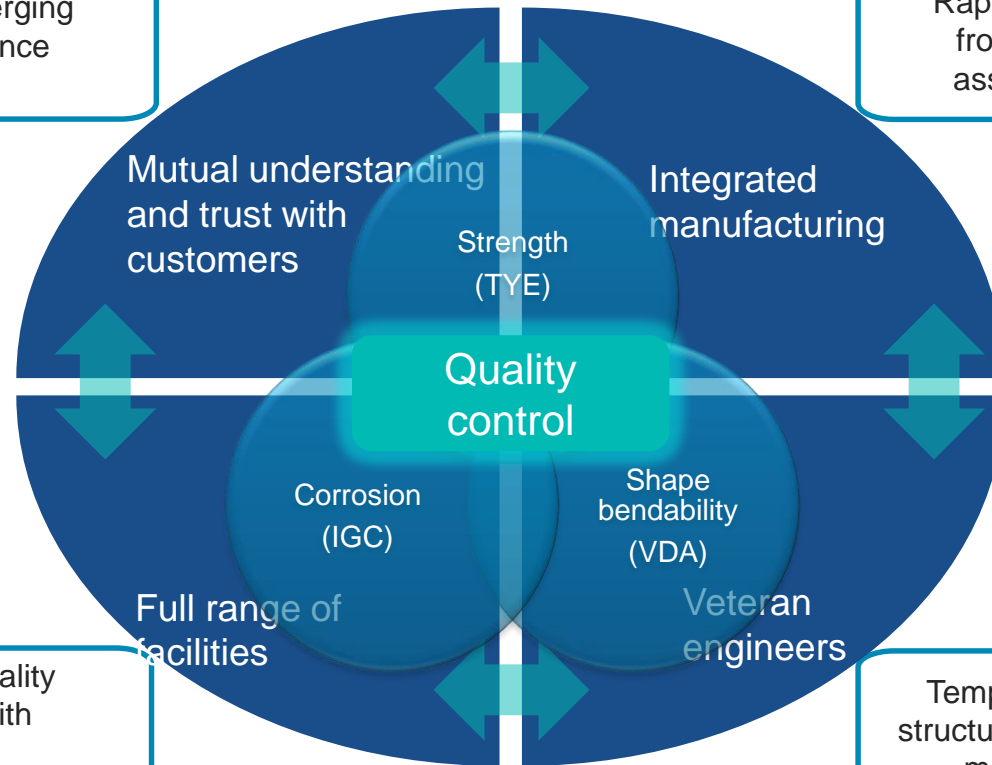


One-stop System from Material Development to Parts Processing

UWH's unique processes meet the diverse needs of our customers
Empowering manufacturing through combination of skills and techniques
cultivated over the years, including facilities, manufacturing conditions, and expertise

Partnerships with emerging
EV manufacturers since
their inception

Rapid support for everything
from extruded material to
assembly and processing



Difficult to achieve quality
and stable supply with
other facilities of
equivalent performance

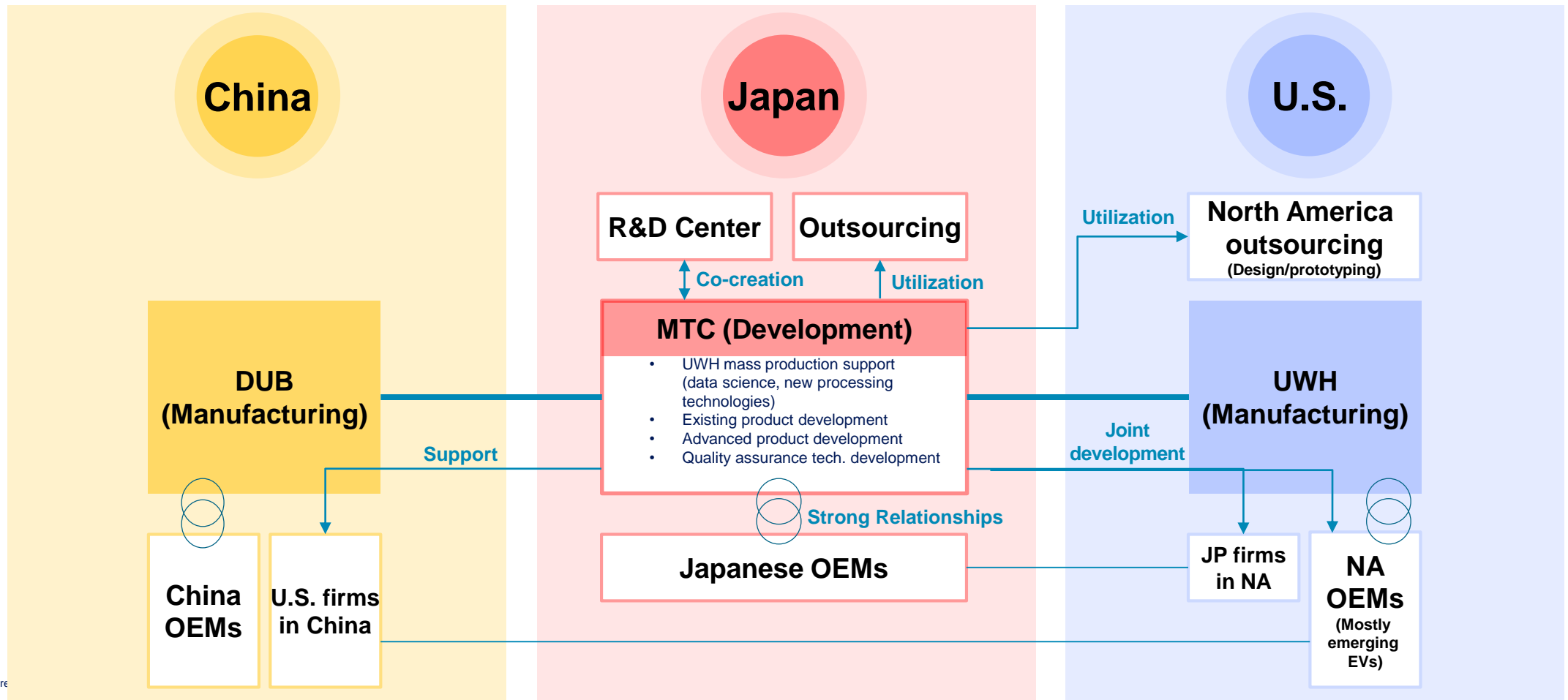
Temperature control, surface
structure control, soft aspects for
mastering hard aspects



UACJ Group Development and Manufacturing Structure

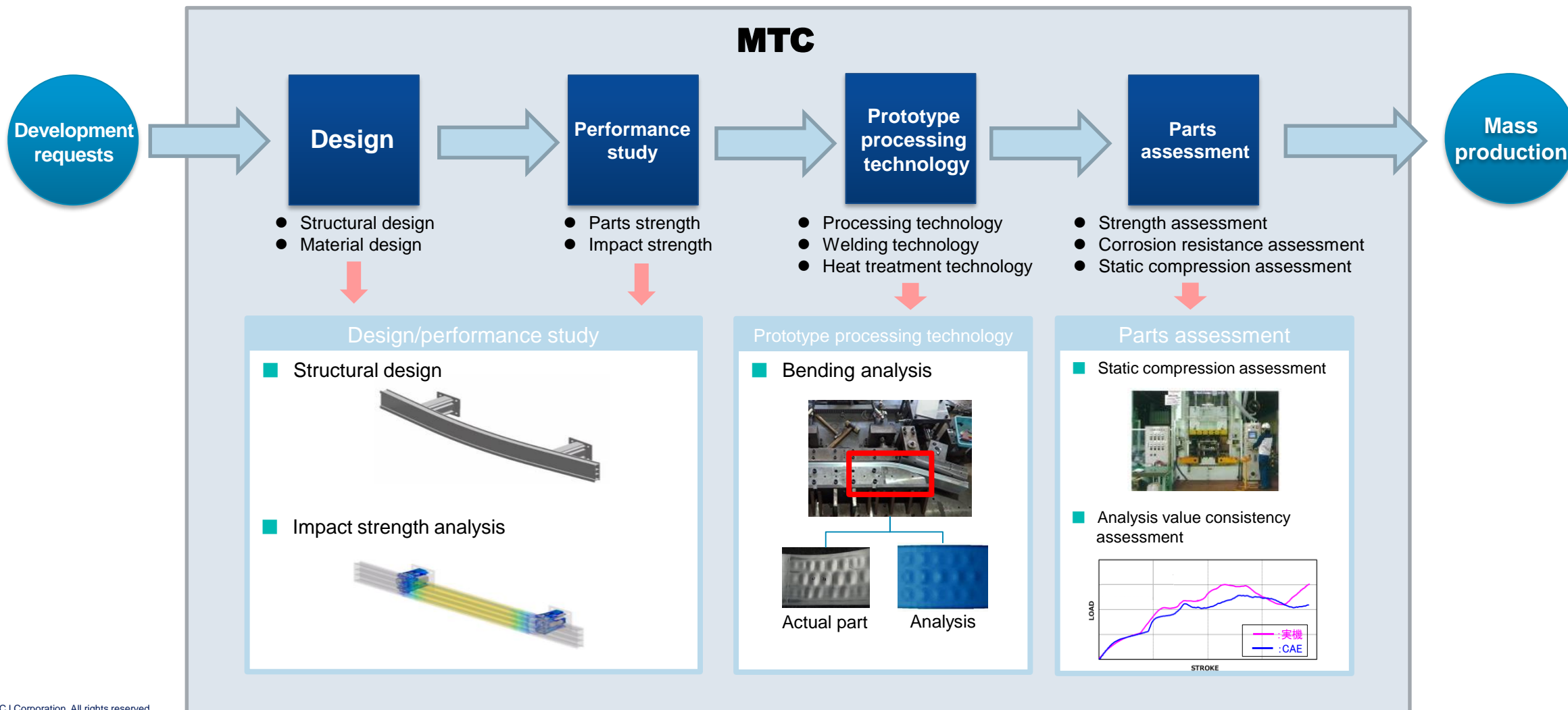
Established a three-point network throughout Japan, the U.S., and China, with production bases in high-demand areas. A development system is in place adapted to next-generation technologies, such as technological innovation and electrification, with an eye to CASE

UACJ Group's Global Development and Manufacturing Structure



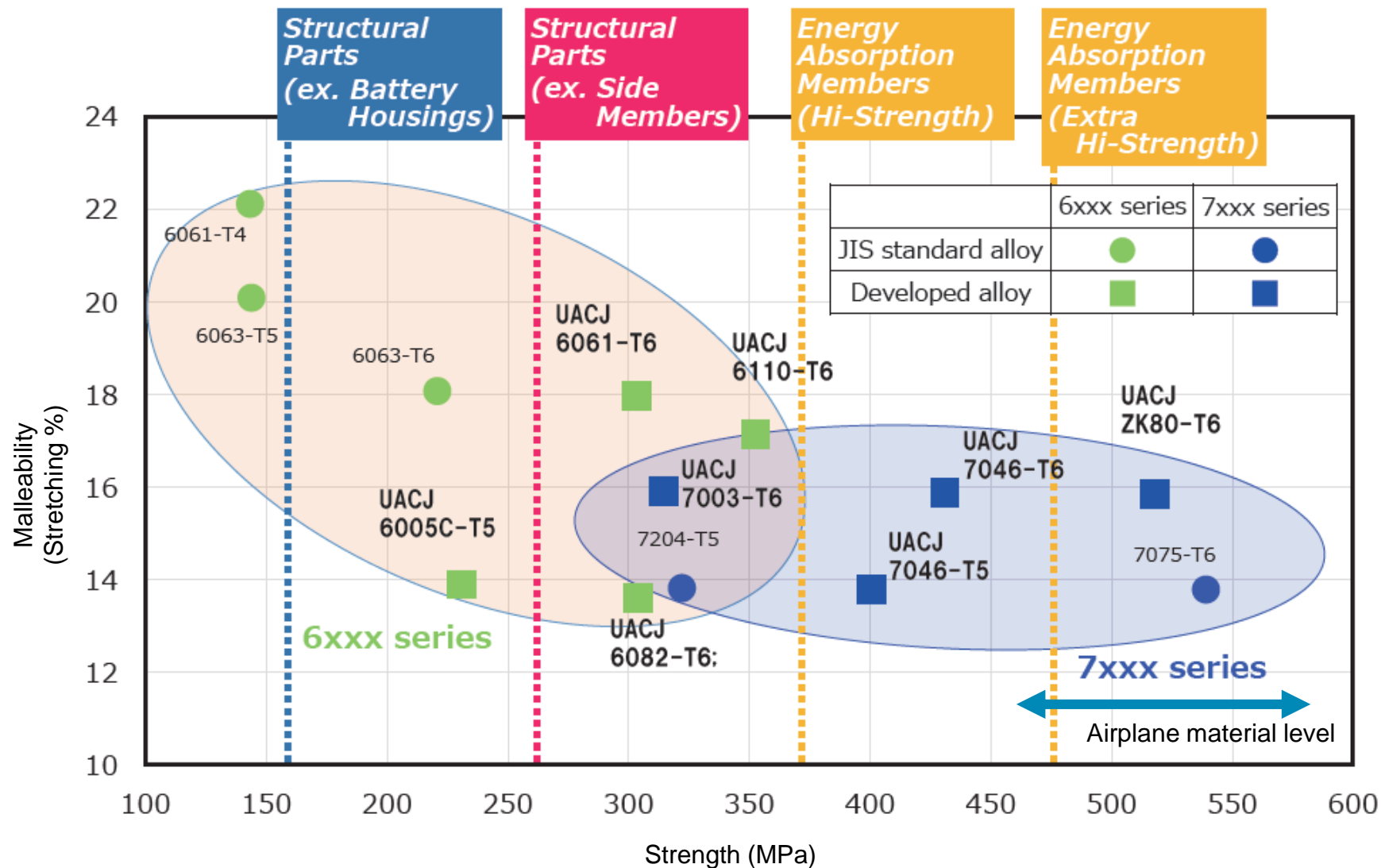
MTC Development Efforts

Actively participating from the advanced development phase of parts and building a system to support development and prototyping

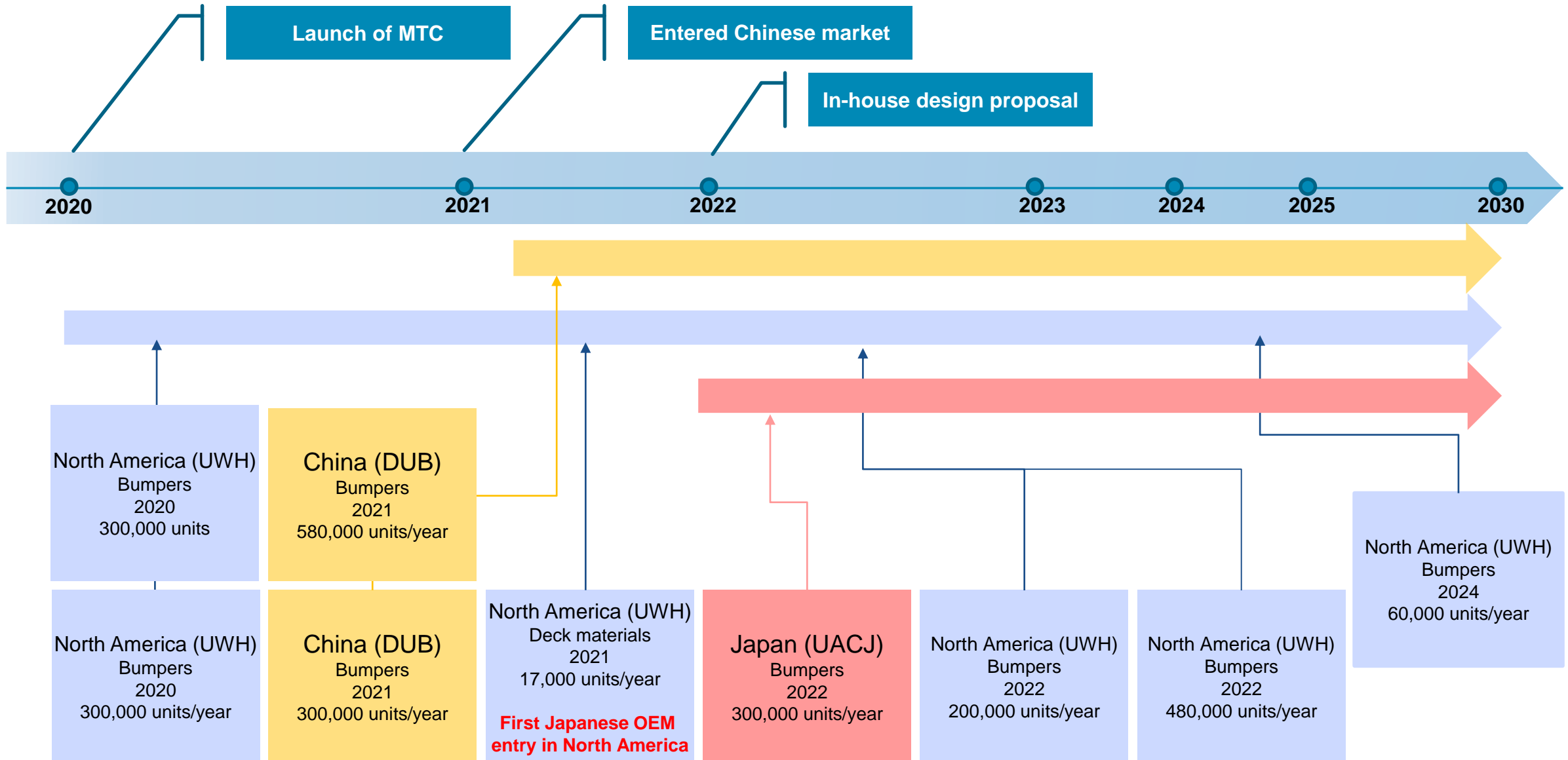


Product Development Maximally Leveraging Cultivated Skills and Techniques

Wide range of product lineup to meet diverse customer needs



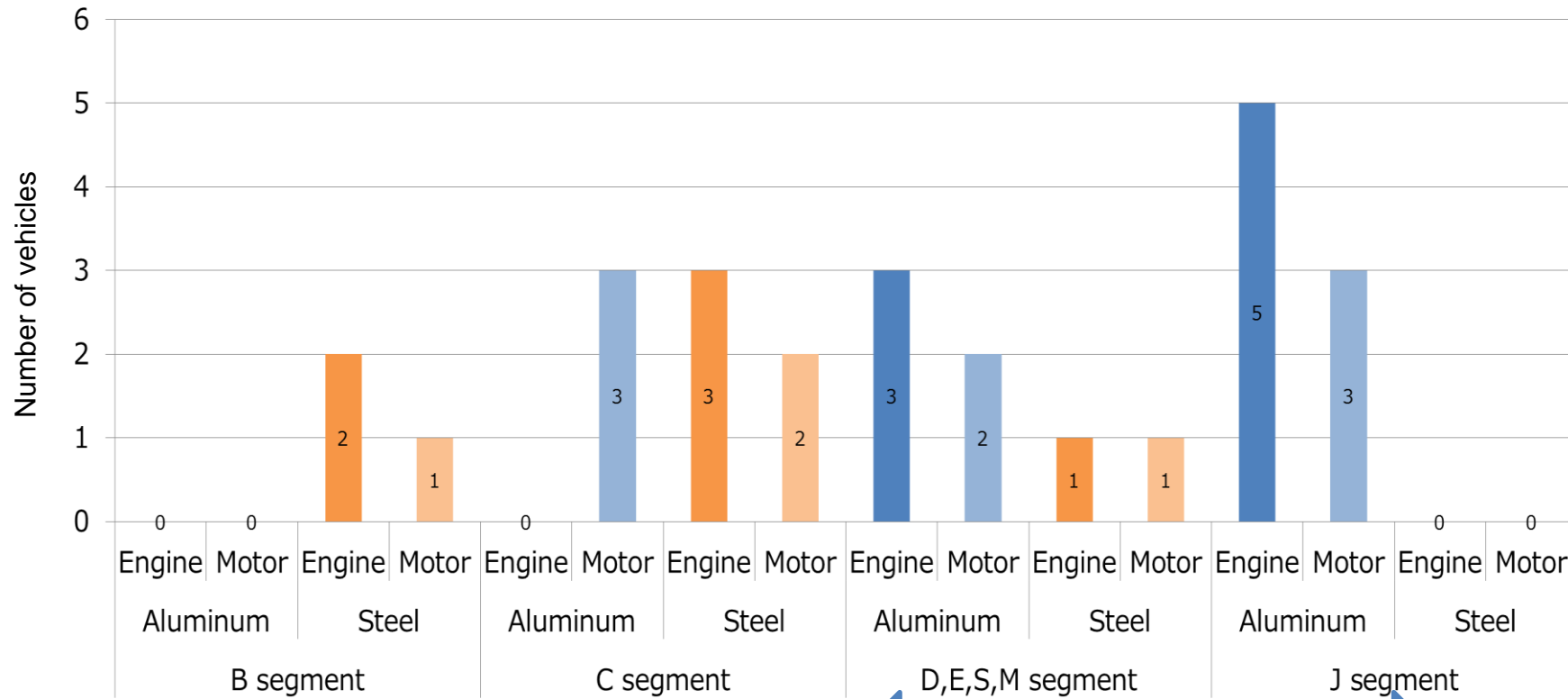
Products Developed Jointly With Customers



Trends in Adoption of Bumper Beam Materials

There are many examples of aluminum adoption in the D-segment and above, and no examples of adoption in engine vehicles in the C-segment and below. We will promote development so that the adoption of aluminum will grow alongside electrification progress

Bumper Beam Materials in Vehicles Exhibited in Euro Car Body, 2019 to 2021



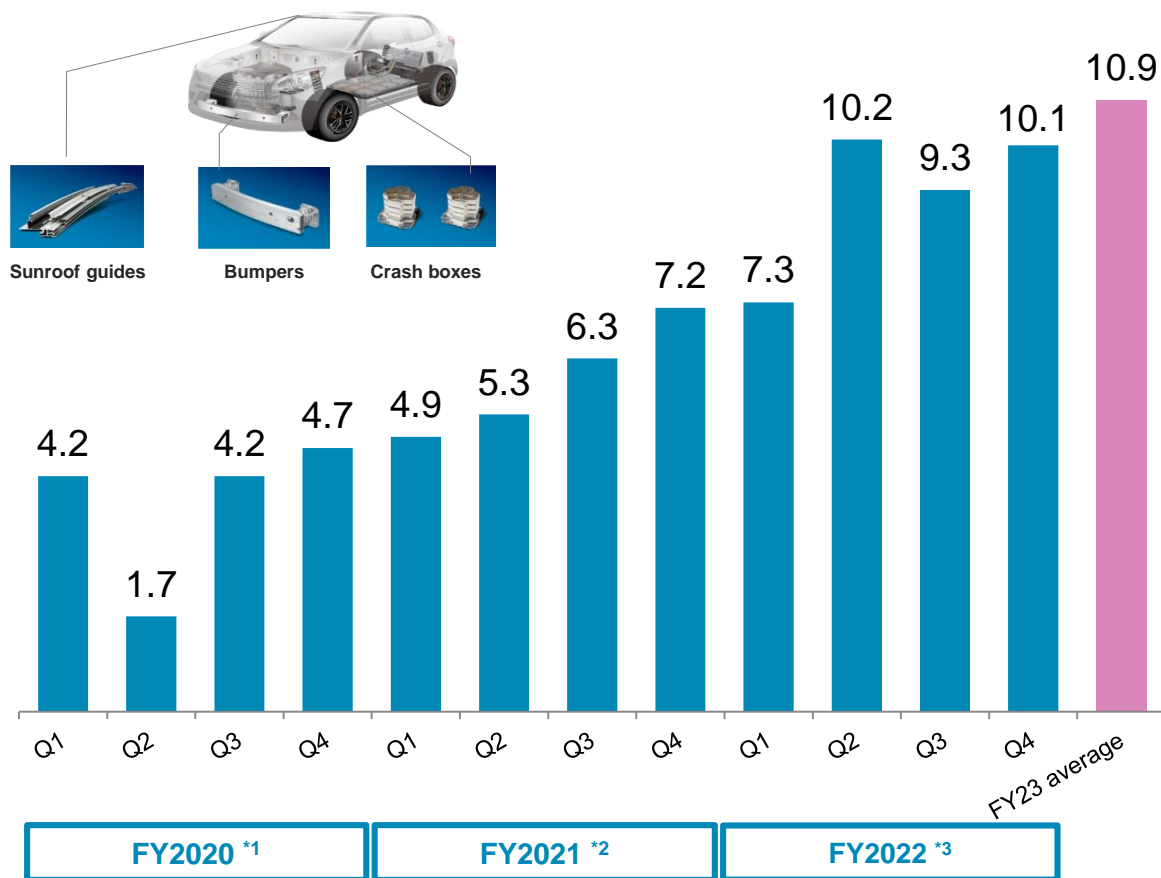
Aluminum adoption in engine vehicles

Encouraging greater use of aluminum going forward

Automotive Parts Business: Status of UWH

Despite new line introduction in FY2022 based on customers' sales plans, actual demand was delayed due to automotive production disruptions

UWH Net Sales Over Time (billions of yen)



FY2022 Summary

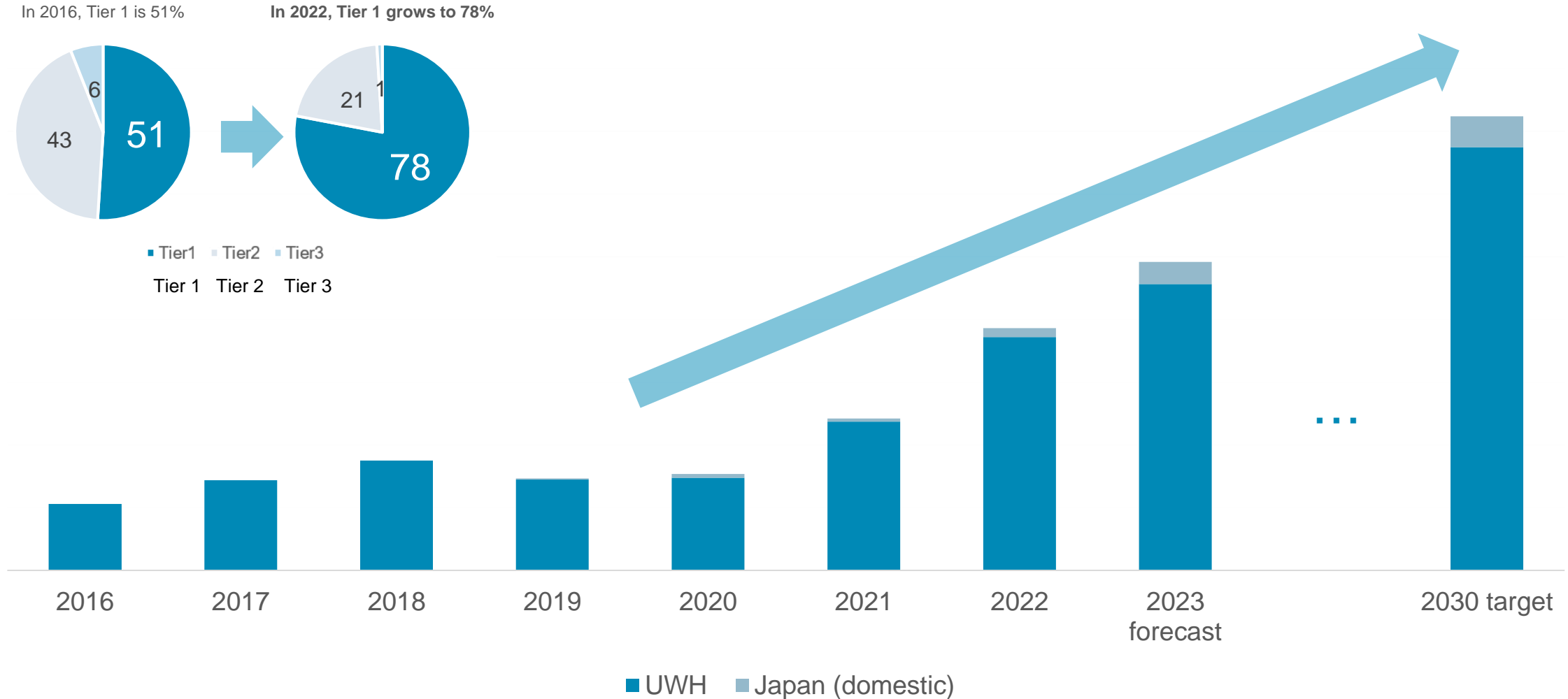
- Market environment** :
- There is a prevailing auto production disruption due to semiconductor shortages, etc.
 - In the mid- to long term, demand for U.S.-made EVs is expected to increase due to the U.S. government's Buy American Act
- Sales** :
- Negotiations are underway with customers to guarantee against sales fluctuations due to auto production disruptions, which has resulted in a delay in actual demand
 - Sales increase was due to the effect of higher aluminum ingot prices
- Production system** :
- New production line started operation, but sales were affected by low capacity utilization
 - Automating, reducing costs, etc. to prepare for recovery in demand

Profit:

	FY2021	FY2022	FY2023 (Plan)
Net sales	23.7	36.9	43.5
Operating income	(1.5)	(2.8)	2.2
Ordinary income before inventory valuation effects	(1.8)	(4.4)	0.6
Ordinary income	(1.8)	(4.2)	0.7

Automotive Parts Business Division: Net Sales

Focusing on rapidly achieving profitability at UWH by eliminating effects of automobile production disruptions caused by semiconductor shortages, etc.





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