

# Using the Power of Aluminum to Enrich Lives and Create a Sustainable Society

## UACJ Group Philosophy (Our Fundamental Beliefs)



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**Our Purpose**    Contribute to society by using raw materials to manufacture products that enhance prosperity and sustainability.

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**Our Vision**    Aluminum is our passion. It inspires our work in building a better world and a healthier environment.

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**Our Values**    ▶ Respect and understand your associates  
▶ Embrace honesty and foresight  
▶ Be curious and challenging

How We Will  
Fulfill Our  
Philosophy

1

How We Will  
Fulfill Our  
Philosophy

2

How We Will  
Fulfill Our  
Philosophy

3

UACJ reexamined the purpose of its existence and in February 2020 redefined the structure of the Group Philosophy in these times of growing demand for aluminum as a material that enriches lives and industrial society and provides solutions for environmental issues. Our revised philosophy clarifies our direction forward and confirms that our past and present initiatives are leading us to the fulfillment of our purpose. Our updated philosophy clarifies the direction we should take and confirms that our past and present measures are leading us toward realizing our vision. We are confident that our mission to use the power of aluminum will help achieve a sustainable and flourishing society.

Expand our supply coverage area

Increase the industries we supply to

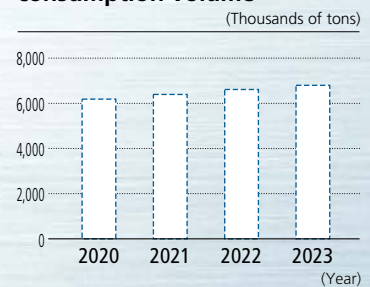
Enhance environmental initiatives

## UACJ's Purpose

### Provide materials that enrich lives and industry and contribute to a flourishing society

Aluminum is highly favored for its workability, electrical and thermal conductivity, and other attributes which have made it a common material used in industry and our daily lives. Demand for aluminum has been growing worldwide in recent years, particularly in emerging countries with rapidly growing economies. UACJ is harnessing its world-class production capacity and global supply network to provide the aluminum for a flourishing society.

#### Worldwide aluminum can consumption volume



Source: CRU Aluminium Rolled Products Market Outlook May 2018

### Helping with environment issues and the creation of a sustainable society

Aluminum has been attracting growing attention as a lightweight and easily recyclable material that can help address global warming, ocean plastic pollution, and other environmental issues that have intensified in recent years. UACJ is advancing its R&D and processing technologies to bring out the full benefits of aluminum's characteristics and create products that contributed to resolving social issues and creating a sustainable society.



Lighter cars emit less carbon dioxide



Aluminum can help reduce ocean plastic pollution

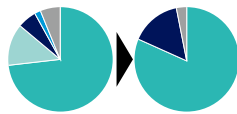
# A three-point production structure supplying over 1.5 million tons of aluminum worldwide

## Japan

### Shifting to product lines with high production efficiency and geared to emerging market trends

#### Fukui Works Product Lines (Concentrate on can stock, LNG carrier tanks)

- Can stock
- LNG tanks
- Other
- Foil stock
- Heat exchanger materials

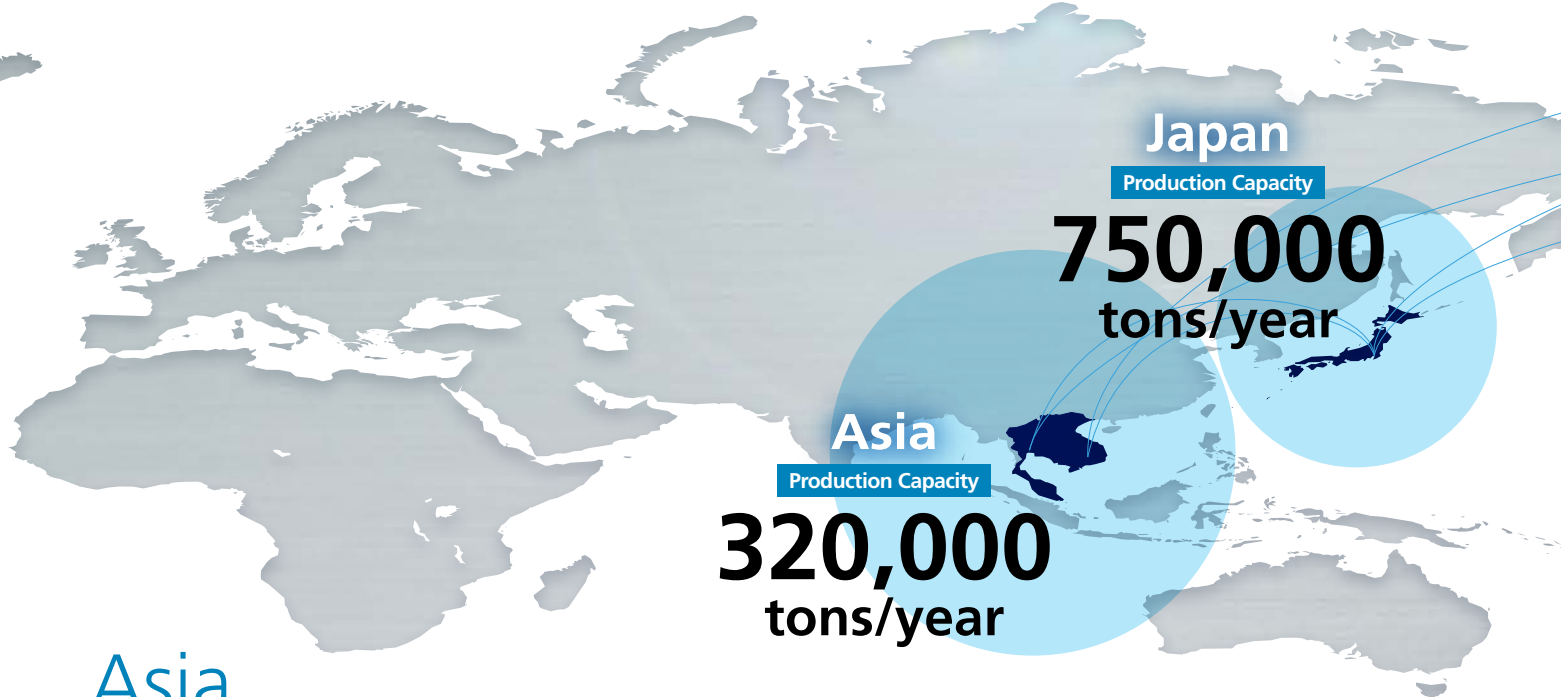


#### Nagoya Works Product Lines (Transfer can stock to another factory)

- Can stock
- Automotive sheet
- Print plate
- Cap materials
- Foil stock
- Heat exchange materials
- Fin stock
- Other



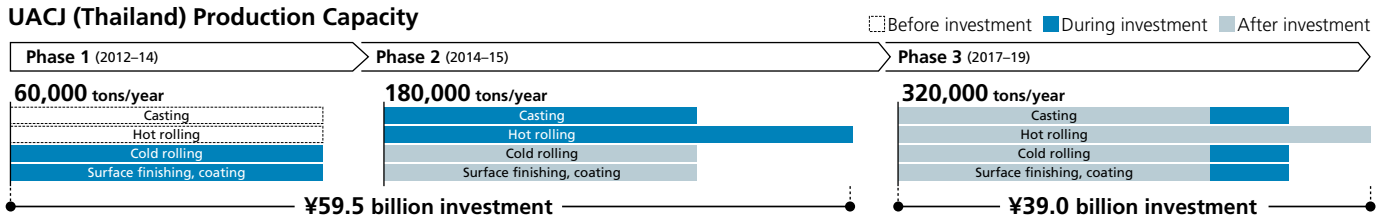
UACJ has a formidable presence in Japan where it commands over 50% of the market flat-rolled aluminum products. However, the Japanese market is expected to shrink as the country's population declines. To maintain profitability amid diminishing demand, we have taken advantage of our system of production sites across the country to redistribute production and raise production efficiency. We will continue consolidating our production bases to optimize our production network in Japan and offer a wide variety of cost-competitive products.



## Asia

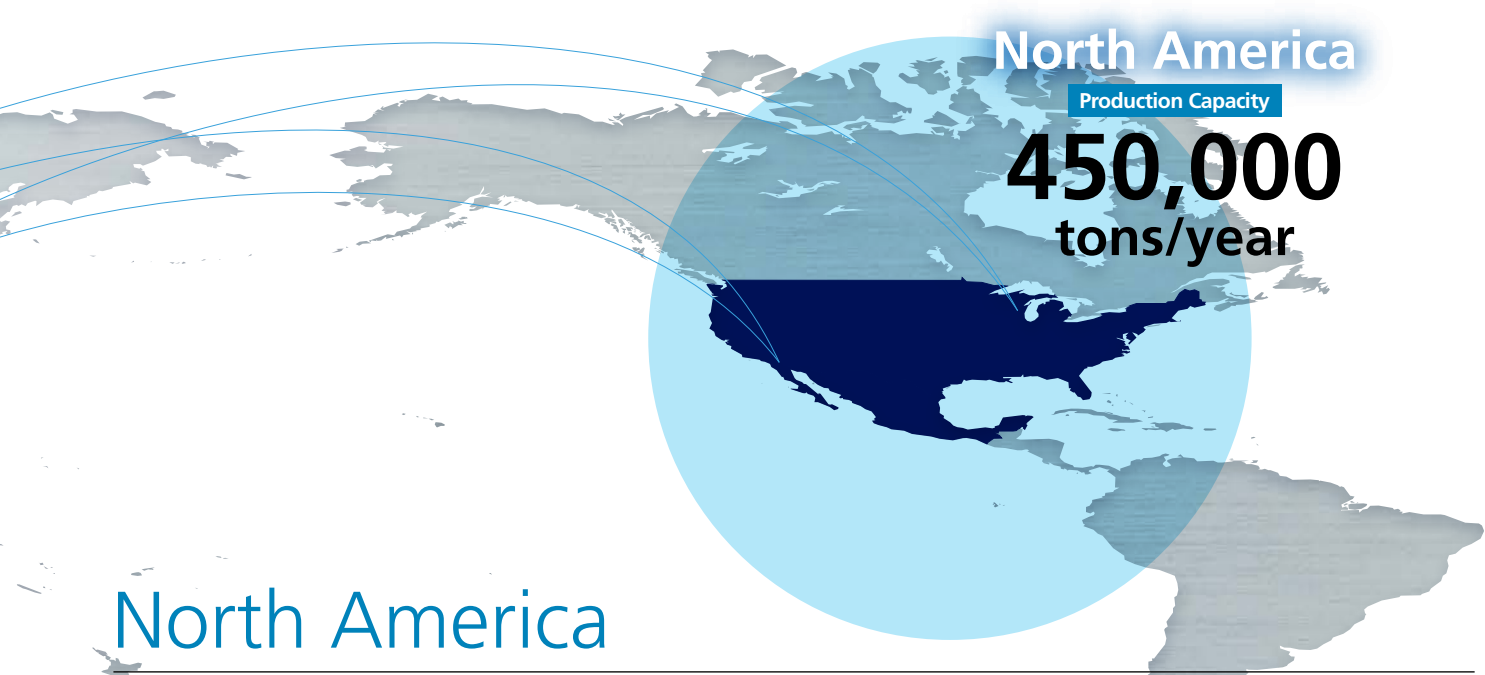
### Raised annual production capacity to 320,000 tons in the greenfield of the flat-rolled aluminum industry

#### UACJ (Thailand) Production Capacity



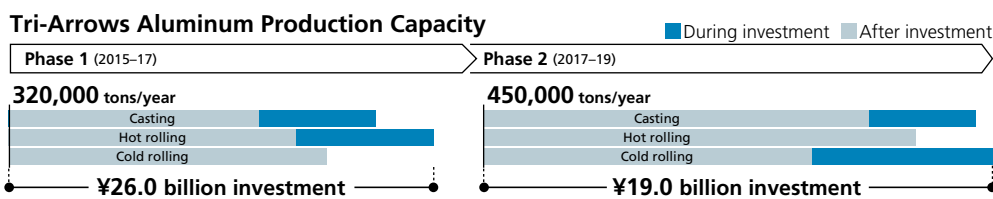
Aluminum demand in Asia is growing in line with the region's economic expansion. UACJ has created unrivaled production capacity in the region. Over three phases, We implemented a three-phase plan to expand capacity at UACJ (Thailand)—our core production base in Southeast Asia—to position us for the evolving market environment and competition. We plan to make maximum use of this expanded capacity to broaden our supply coverage to Africa, South America, and other areas where aluminum demand is also brisk.

UACJ has capacity to produce over 1.5 million tons of aluminum annually and a world-class supply network to meet the strong demand worldwide for aluminum. Our three primary production bases in Japan, the United States, and Thailand can each produce over 300,000 tons annually, enabling us to provide a consistent supply of cost competitive products to customers around the world.



## North America

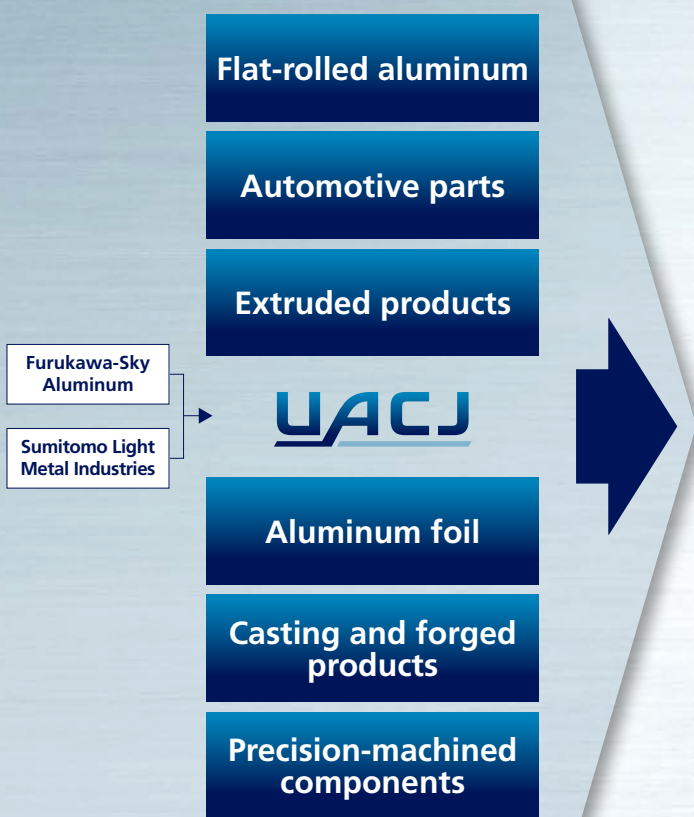
**As competitors shift their focus to automobiles, we are building a production structure to further establish our position as the world's leading supplier of can stock**



The United States has long been the largest market for can stock, but aluminum manufacturers in the country have been shifting the focus of their production to meeting the growing demand from the automobile industry. Tri-Arrows Aluminum (TAA), one of UACJ's major bases in North America, has made the strategic decision to continue concentrating its world-class production capabilities on meeting demand for can stock, for which there has been concern of a supply shortage. The company's upfront investments have expanded its production capacity, positioning it to take full advantage of the anticipated tightening of supply and demand for can stock. Utilizing the production capacity that has been increased through upfront investment, we will steadily capture demand for canned materials, which may be short of supply capacity.

# Enhanced ability to provide added-value solutions that will expand aluminum's use in society

**Advanced machining capabilities accumulated through business integration**



**New advanced processes enable new solutions**

## 2016

Added new processing and solution capabilities by acquiring a leading maker of automotive structural materials and other products in North America

## 2018

Accelerated commercialization of products meeting local needs in growing overseas markets by establishing R&D bases in the United States and Thailand

## 2019

Boosted our development capabilities through co-creation with customers by opening an innovation space to increase customer contact

### Key addition widened our automotive parts supply coverage with addition of UWH

The addition in 2016 of UACJ Automotive Whitehall Industries (UWH) was a key development for the UACJ Group in the automotive field. A leading supplier of aluminum structural parts and materials in North America, UWH gave us new processing and solution capabilities in the automotive field that enabled us to expand our lineup of automotive parts and materials.

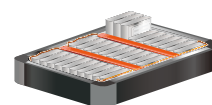
UACJ Automotive Whitehall Industries also has a firmly established customer base that has provided new sales destinations for UACJ Group products and vastly increased sales of automotive parts and materials.

Before aluminum can be used in a product, it must be processed to have functions needed for specific applications. UACJ has various advanced machining processes that it has acquired through business integration, and the installation of new equipment at UACJ Automotive Whitehall Industries (UWH) has added new processing capabilities. We have also boosted our commercialization capabilities by establishing new R&D bases in the United States and Thailand to our bases in Japan. We are continuing to enhance our ability to develop solutions for aluminum needs and to supply products to a wide range of fields.

## An easy-to-use material for a wide range of fields

### Solutions ①

Battery modules for electric vehicles



Automotive



Beverage cans



Aircraft & space



Construction



Shipping

IT



### Solutions ②

Lightweight automobile bumpers



### Solutions ③

Strong and highly designable smartphone bodies



## Commercialization capabilities enhanced by an integrated R&D and manufacturing structure

The UACJ R&D Division conducts basic research separately from product development. Our basic research seeks to develop materials and production technologies that will bring out the potential of aluminum from a long-term perspective. The Manufacturing Division uses production technology created by the Research and Development

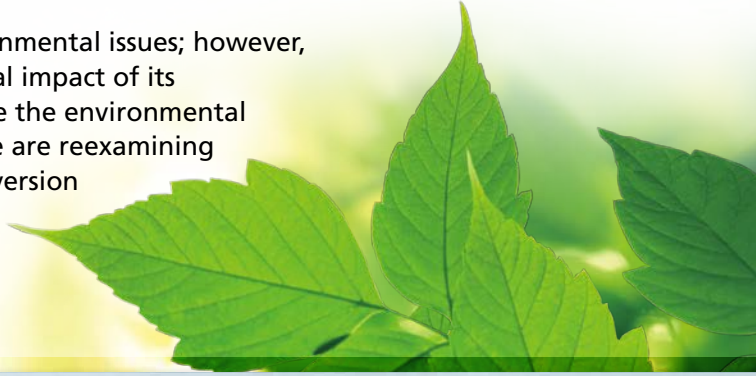
Division to boost production quality and productivity.

Our core R&D bases in Japan and overseas in the United States and Thailand work with manufacturing and sales departments to identify local needs and business opportunities, and to accelerate the commercialization of new products.

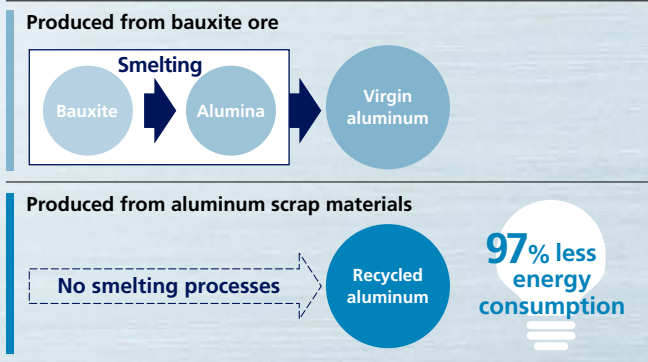
# Maximized aluminum environmental features through improved supply chain performance



Aluminum has vast potential as a solution to many environmental issues; however, producing more aluminum will increase the environmental impact of its manufacturing processes. UACJ is taking steps to minimize the environmental impact from the increasing use of aluminum products. We are reexamining how we use recycled materials, the potential for fuel conversion from oil to natural gas, and other aspects of the manufacturing process while also working to reduce the overall environmental impact from the supply chain.



**UACJ aluminum manufacturing processes save energy and resources**






**Actively introduce scrap recycling furnaces to increase the use of scrap materials, which uses significantly less energy than production from raw materials**

UACJ is taking active steps to increase the volume of aluminum it produces from recycled materials, and is systematically installing scrap and recycling furnaces at Group companies. In recent years, Tri-Arrows Aluminum expanded its recycling facilities in 2018 and currently uses scrap for 80% of its raw materials, and UACJ (Thailand) installed recycling facilities in 2019. Using scrap materials also costs less than using raw materials. UACJ will continue aggressively expanding its recycling capacity.



A scrap recycling furnace

**Main initiatives**

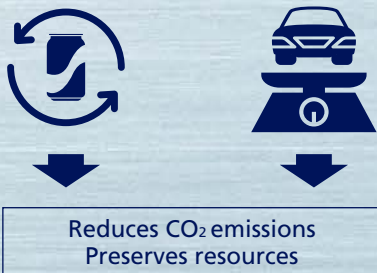
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**Mitigate climate change**
  - Install energy-efficient equipment, update old equipment
  - Convert fuel sources from heavy oil to liquid natural gas
- 
**Prevent pollution**
  - Install exhaust-gas treatment equipment
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**Prevent water pollution**
  - Reuse factory waste water

**Raising the industry sustainability standard through the ASI**

In July 2020, UACJ became the first Japanese aluminum rolling manufacturer to join the global aluminum industry group Aluminium Stewardship Initiative (ASI). Through our membership, we will actively contribute to setting global standards for the aluminum industry and support the ASI's commitment to sustainability throughout the industry supply chain.



**Recycling Lighter vehicles**



**Working with industry groups to increase awareness of aluminum's environmental benefits**

UACJ is a member organization of the Japan Aluminium Association and works with the association in public relations activities to promote the environmental benefits of aluminum. The Company joins with the Japan Aluminium Can Recycling Association in can collection activities and also participates in various environmental education events. We are passionate about increasing the use of aluminum products as a way to help realize a recycling-oriented society.