

# Functional Components Company

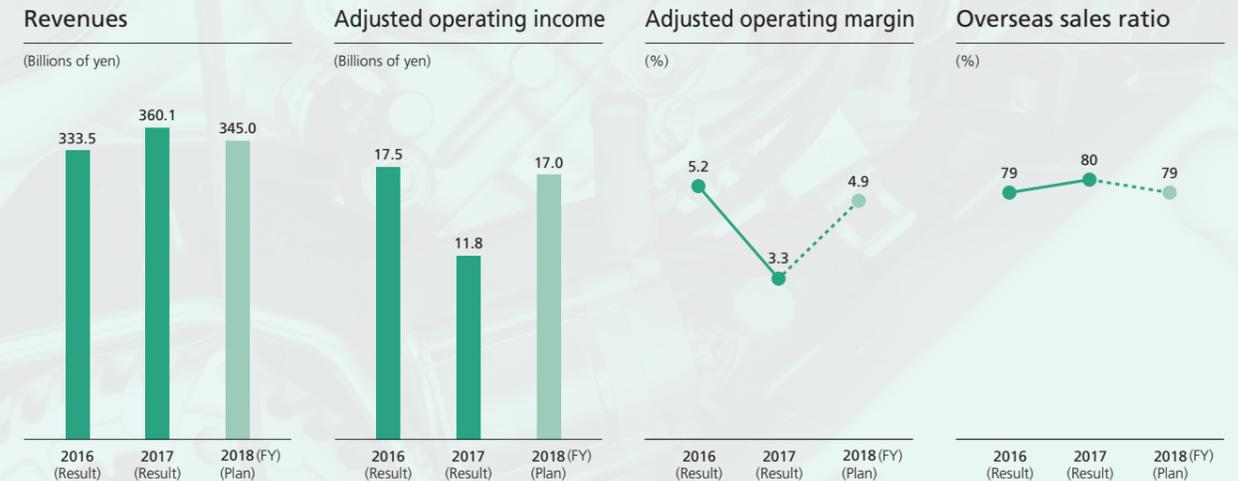


**Hiroshi Watanabe**  
President of the Functional Components Company

## Basic policy of Medium-Term Management Plan

Accept the challenge of creating new value by improving the foundation of *monozukuri* to achieve global growth

## Progress vis-à-vis numerical targets



## Business progress relative to Medium-Term Management Plan

### Business overview

The Functional Components Company is pursuing four business areas—cast iron, heat-resistant cast steel, aluminum, and piping components—under the Medium-Term Management Plan’s basic policy of “accept the challenge of creating new value by improving the foundation of *monozukuri* to achieve global growth.”

We have recently been addressing the important issues of improving business results in the heat-resistant cast steel and aluminum businesses. In the heat-resistant cast steel business, an increasing degree of difficulty in manufacturing has led to lower productivity and created issues in areas including pricing, resulting in the business recording a loss in fiscal 2017. We have realigned prices and improved productivity, however, by optimizing casting conditions and improving processing efficiency, and in March 2018, the business

returned to profitability on a single-month basis. We aim to achieve full-year profitability for fiscal 2018. The aluminum business has also seen productivity decline and recorded a loss, on excessive fixed cost reductions and an increasing degree of difficulty in manufacturing aluminum wheels. We continue to work to improve productivity, and are also reorganizing our management structure at U.S. locations to stabilize the business.

### Market trends and strategies

The Functional Components Company’s main products are cast metal automobile components, products for which higher performance and lighter weights are sought to enhance their environmental performance. Turbo components used in internal combustion engines require heat resistance and the ability to be formed into increasingly difficult shapes. For EVs,

new requirements include motor and inverter cases. At the same time, stability of supply and large casting are sought in components for commercial vehicles, as market needs diversify.

The Functional Components Company views this diversification of market needs as an opportunity, and aims to transform itself by integrating cast iron and aluminum to become the No. 1 supplier. As a step toward achieving this, we have integrated the three automotive-related business units to create a structure that is able to provide optimal solutions. In addition to our technological capabilities, we provide value to customers through our diverse product lineup and our planning and proposal skills.

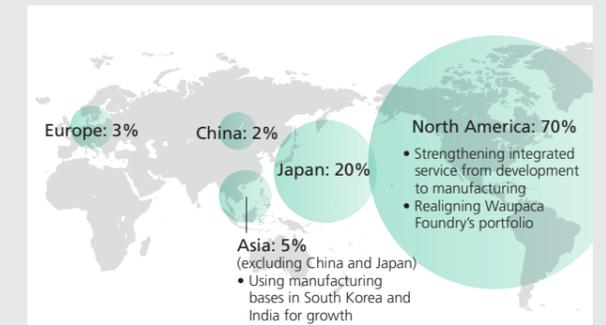
### Strengthening our global supply structure

Overseas sales account for approximately 80% of the Functional Component Company’s sales. Going forward, we intend to strengthen our global supply and service structures further. In the automotive sector, we plan to strengthen our integrated services from design and development to manufacturing of lighter weight products in North America; and in Asia, to use our manufacturing bases in South Korea and India to expand our business in developing markets.

### Realigning Waupaca Foundry’s portfolio

Waupaca Foundry, Inc. is North America’s No. 1 manufacturer of cast iron products, with an overwhelming presence from its economies of scale and strong cooperative relationships with leading customers. Going forward, we will look beyond passenger vehicles and strengthen our earnings base by expanding our product lineup to meet needs for high added value in the heavy duty sector.

### Sales by region and major initiatives



### Piping components business

In addition to the growth of existing businesses and the strengthening of its *monozukuri* capabilities, the piping components business is pursuing growth by developing and enhancing a solutions business as a new business.

Along with investing management resources in growth businesses like mass flow controllers and flexible piping systems, we intend to strengthen our *monozukuri* capabilities through capital expenditures that will bring innovation to processes at domestic manufacturing bases.

We are also launching a new solutions business that will be able to contribute to the resolution of social needs in areas including energy conservation, labor shortages, and achieving a safe, peaceful society.

### Market trends and strategies

Mechanism	Required needs	Response		Our product	
		Existing business	Enhancement domain		
Passenger vehicles	Combustion system	High mileage/Low cost	<ul style="list-style-type: none"> <li>Conformity to heat-resistance requirements</li> <li>Design, casting, processing/Response ability of locations</li> </ul>	<ul style="list-style-type: none"> <li>Diverse heat-resistant components technology</li> <li>Strengthen design &amp; evaluation, processing</li> </ul>	<ul style="list-style-type: none"> <li>Heat-resistant cast steel</li> <li>Heat-resistant cast iron</li> </ul>
		Small gasoline/Turbo	<ul style="list-style-type: none"> <li>Form, size, materials</li> <li>Combine light weight and heat dissipation</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate gravity casting, LPD*1, HPD*2 methods</li> <li>Develop new materials and methods</li> </ul>	<ul style="list-style-type: none"> <li>Battery cases</li> <li>Motor/inverter cases</li> </ul>
	EV	Diversified specifications Multifunctional	<ul style="list-style-type: none"> <li>Optimization of materials x strength design</li> <li>Response ability of locations</li> </ul>	<ul style="list-style-type: none"> <li>Develop new materials</li> <li>Japan, U.S.A., South Korea, India</li> </ul>	<ul style="list-style-type: none"> <li>Aluminum wheels</li> <li>Suspension components</li> </ul>
Non-passenger vehicles	Load bearing Low cost Accommodate large size	<ul style="list-style-type: none"> <li>Stable supply</li> <li>Large casting</li> </ul>	<ul style="list-style-type: none"> <li>Waupaca Foundry, Inc.</li> <li>Horizontal casting technology</li> </ul>	<ul style="list-style-type: none"> <li>Ductile and gray iron</li> <li>Large ductile cast iron</li> </ul>	

\*1 LPD: Low-pressure die-cast; \*2 HPD: High-pressure die-cast