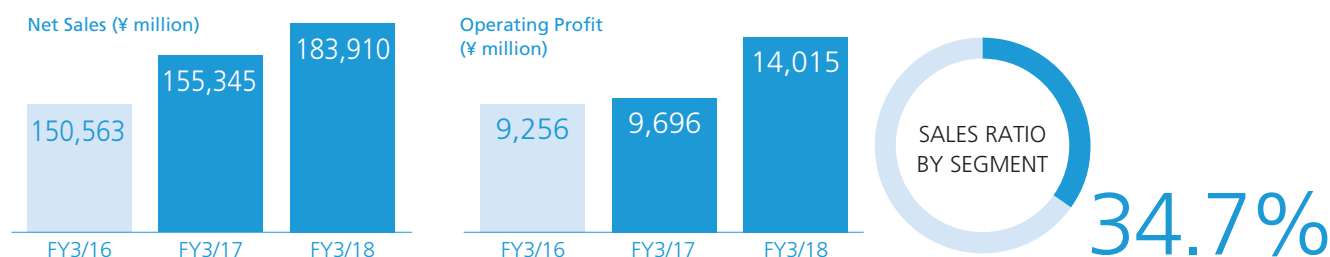


# Major Projects in FY3/18

## Domestic Civil Engineering



### LNG Berth Construction in the Soma LNG Terminal Construction Project

Fukushima Prefecture

This LNG terminal was constructed for the purpose of establishing a robust energy network linking both the Sea of Japan and the Pacific Ocean sides for a stable supply of gas that is resilient to natural disasters and other emergencies. We constructed an international berth for accepting large vessels and a domestic berth for distribution in Japan. We introduced construction information modeling (CIM) for port construction on a full-scale basis for the first time in Japan. This enabled us to confirm various operations prior to the work, contributing to the improvement of safety, construction periods, and quality.

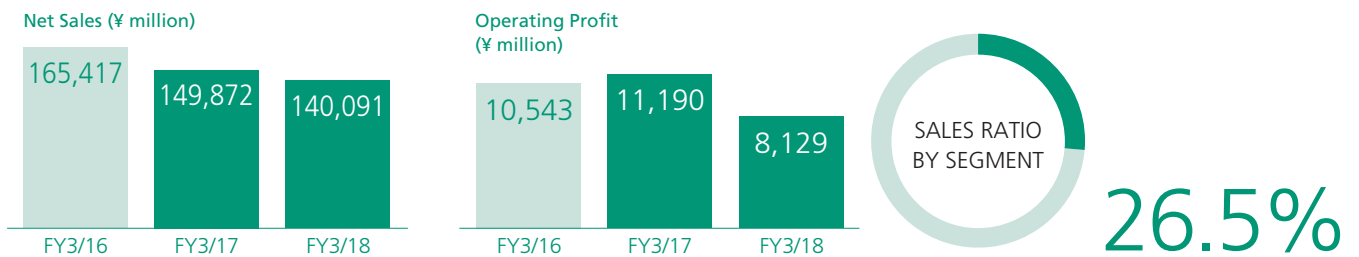


### Toyama Shinko Thermal Power Station LNG-fired Unit 1

Toyama Prefecture

The Toyama Shinko Thermal Power Station previously consisted of two coal-fired plants and two oil-fired plants with a total generating power of 1.5 million kW. With the recent reconfiguration, by replacing Coal-fired Unit 1 with LNG-fired Unit 1, it has become the first thermal generation plant in Japan that uses three types of fuel (coal, petroleum, and LNG), with a total generation power of 1.6747 million kW. It will contribute to the stable delivery of electric power and the reduction of CO<sub>2</sub> emissions. We constructed a pier complex where LNG vessels and oil tankers can dock.

## Domestic Building Construction



### Shiogama Fish Market

Miyagi Prefecture

This fish market once flourished as a base for fisheries in the North Pacific Ocean. Today, the market is known for its bountiful fresh marine products, mainly from the waters off and along the Sanriku coast, one of the most abundant fishing places in Japan. Most notable are a variety of tuna, including the Sanriku Shiogama Higashimono branded bigeye tuna. The new fishing market, which was reconstructed after the 2011 earthquake and tsunami, is equipped with a display area, viewing deck, canteen, stalls, main conference room, medium-sized conference room, and seafood-promoting studio. The market is open to the general public, and on catch days, visitors can attend the auction for tuna caught by long-line tuna ships.



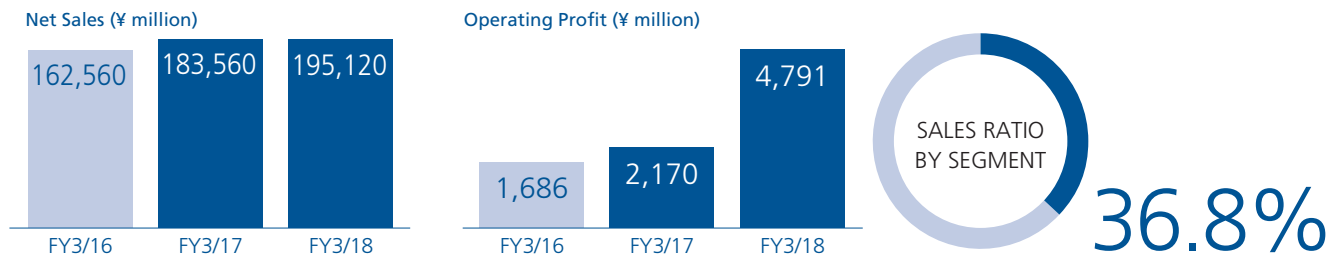
### Iwakuni Kizuna Stadium

Yamaguchi Prefecture

This project was conceived to construct a baseball stadium, which is a main feature of the residential and sporting facility development plan in Iwakuni City for the U.S. Marine Corps in Japan. In order to deal with the special shape of the baseball stadium, we adopted BIM and three-dimensional measurements. The facility was named Kizuna Stadium, and at the opening event, there was a friendly baseball match between Japanese and American high school students. Since then, the stadium has become a popular recreational spot for local citizens.

# Major Projects in FY3/18

## Overseas



### Lach Huyen Infrastructure Construction Package 6

Vietnam

This was the first project completed as part of the deep-sea (14 meters below sea level) container terminal construction project on Cát Hải island in Haiphong City in northern Vietnam using a Japanese ODA Loan. Apart from the land reclamation, we carried out soil improvement and seawall construction using the CDM method on the rear side of the steel pipe sheet pile seawall and the PVD method on the stone seawall and on the container terminal. After the construction of cargo handling facilities by the port operation company, the port was inaugurated in May 2018.



### Sengkang Integrated Hospital

Singapore

Sengkang Hospital is one of the largest hospitals in Singapore. It was built in Sengkang housing estate in the northeast region of Singapore to meet the healthcare demands of the region. The hospital comprises the Medical Centre, Acute Hospital and Community Hospital. This integrated hospital has two floors underground and ten floors above ground, eventually providing about 1,400 beds. The building information modeling (BIM) technology was utilized from the start of the project and contributed to high construction quality and productivity.