

# KHI's Innovation

カワる、  
サキへ。

Changing forward

Kawasaki Heavy Industries, Ltd.

Christiana Xu

5/9/2019

# Kawasaki Group's Value Creation Road

## Provide comfortable movement of people and transportation of goods

1897

Launches Cargo-Passenger Ship *Iyomaru*, Kawasaki Dockyard's first ship as a publicly traded company.



1925

Completes construction of merchant ship *Florida Maru*, equipped with Hele-Shaw electro-hydraulic steering gear.



1964

Delivers Series 0 Shinkansen electric train to the Japanese National Railways.



1972

Unveils Z1 motorcycle.



1979

The BK117 helicopter's first flight.



## Respond to needs of aging society and shortage of labor through automation

1969

Develops first Kawasaki-Unimate 2000, the first Japan-made industrial robot.



## Improve social infrastructure

1991

Kawasaki-built shield machines successfully complete work on the Eurotunnel.



1998

Opening of Akashi Kaikyo Bridge, for which Kawasaki oversaw main tower construction.



## Create clean energy

2007

Kawasaki Green Gas Engine tops world record with 48.5% generating efficiency.



2015

Develops low-NOx combustion technology for gas turbines running on 100% hydrogen.



# Overview

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Net Sales

**\$14 billion**

**¥1,574 billion**

Employee

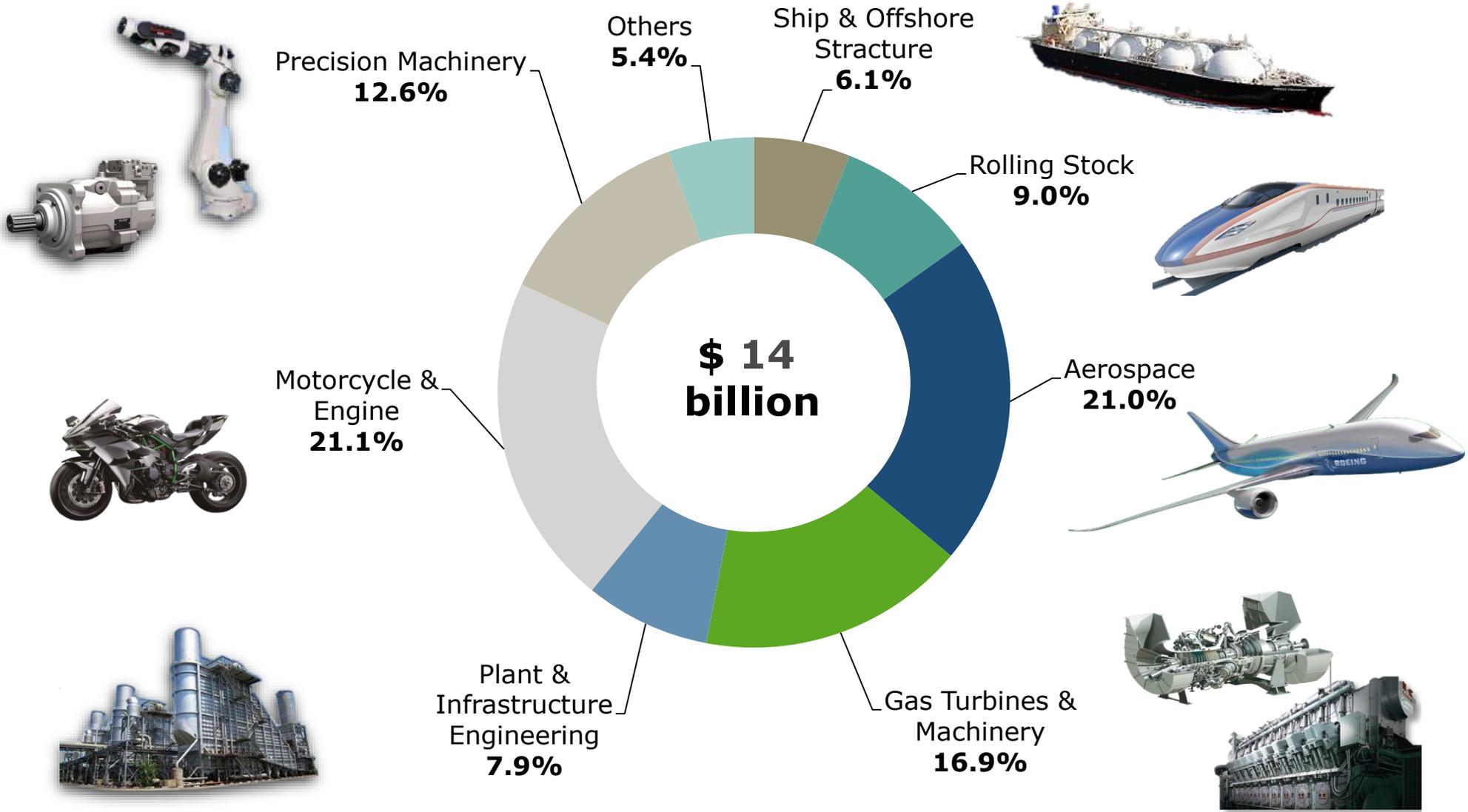
**35,805 people**

Global Network

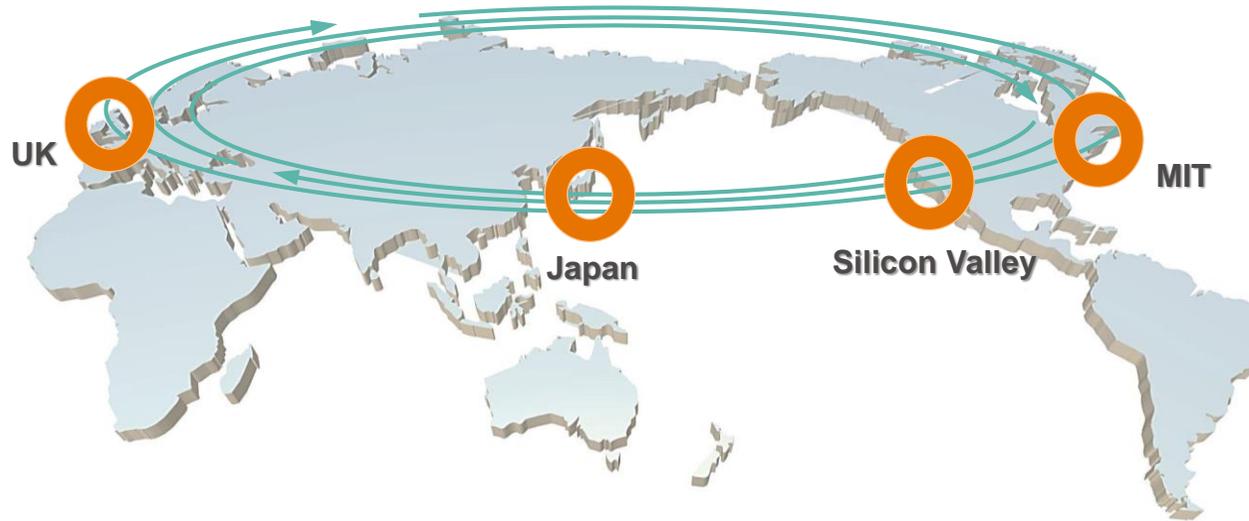
**93 Subsidiaries**

**(As of March 31, 2018)**

# Net Sales Business Segment (Year ended March 31, 2018)



# Global Innovation Network



## Innovation Catcher in Japan

- Accelerate innovation/R&D
- Create value to BU
- **Corporate R&D**
  - Technology Evaluation
- **Innovation Group,**
  - started from 10/2017
  - opened a new office at Wework in Tokyo 4/2018
  - reorganized to Corporate Planning

## Overseas Innovation Arm

- Directly report to Corporate Planning and Corporate R&D
- Function: Research/Deal Sourcing/Project Implementing Support
- **Silicon Valley Office:** Overseas hub for open innovation network
  - started from 10/2016
  - team of 2(1 from Corporate R&D, 1 from Corporate Planning)
- **UK Office**
  - started from 4/2018
  - team of 1(from Corporate R&D)
  - focusing on energy sector

# Startups

- Areas of interests

Precision Machinery/Industrial Robotics

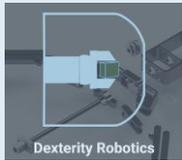
Mobility System

Industrial IoT

Advanced Manufacturing

Digital Marketing

Energy System



# Learn from the other large companies

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- Corporate Venturing Program Research:  
Source from interviews, conferences, reports.

ACARIO

 Mitsubishi Corporation

IHI Realize your dreams

 **YAMAHA**  
YAMAHA MOTOR VENTURES  
AND LABORATORY SILICON VALLEY

**HONDA**

 **TOYOTA**

**KOMATSU**

**TOTO®**

**SAMSUNG  
NEXT**

Hyundai Capital

Merck KGaA  
Darmstadt, Germany

# Advanced Research

**Universities**: primary access point to university research

**Stanford** | US-Asia Technology Management Center

- Open Innovation Research



- Technology-oriented Research(AI, Robotics)



**Berkeley**  
UNIVERSITY OF CALIFORNIA

- Technology-oriented Research(AI, Robotics)

**Accelerator/Incubator**: primary access point to university research approaching to commercialization



- Based in San Diego



- Based in Japan

# Progress



- Build open innovation ability to deliver values
  - fundamental and theoretical understanding of open innovation
  - refine activities and do a better job of implementing innovation
- Pro. Dasher's Annual speech at KHI
- Annual report for US-ATMC visiting scholar program

世界の人々の豊かな生活と地球環境の未来に貢献する

Kawasaki, working as one for the good of the planet  
“Global Kawasaki”