

IHI Corporation

IHI شركة

Company Profile (as of 31 March, 2019)

- ◆ Founded : December 5, 1853
- ◆ Capital : 107.2 Billion Yen (965.5 Million USD)
- ◆ Net Sales (Consolidated, FY2018) : 1,483.4 Billion Yen (13,365.2 Million USD)
*1USD=110.99 Yen (as of March 31, 2019)
- ◆ Number of Employees (Consolidated) : 29,286
- ◆ Group Companies : 217 (172 subsidiaries, 45 affiliates)

Business Areas and Products



Social Infrastructure & Offshore Facilities Business Area

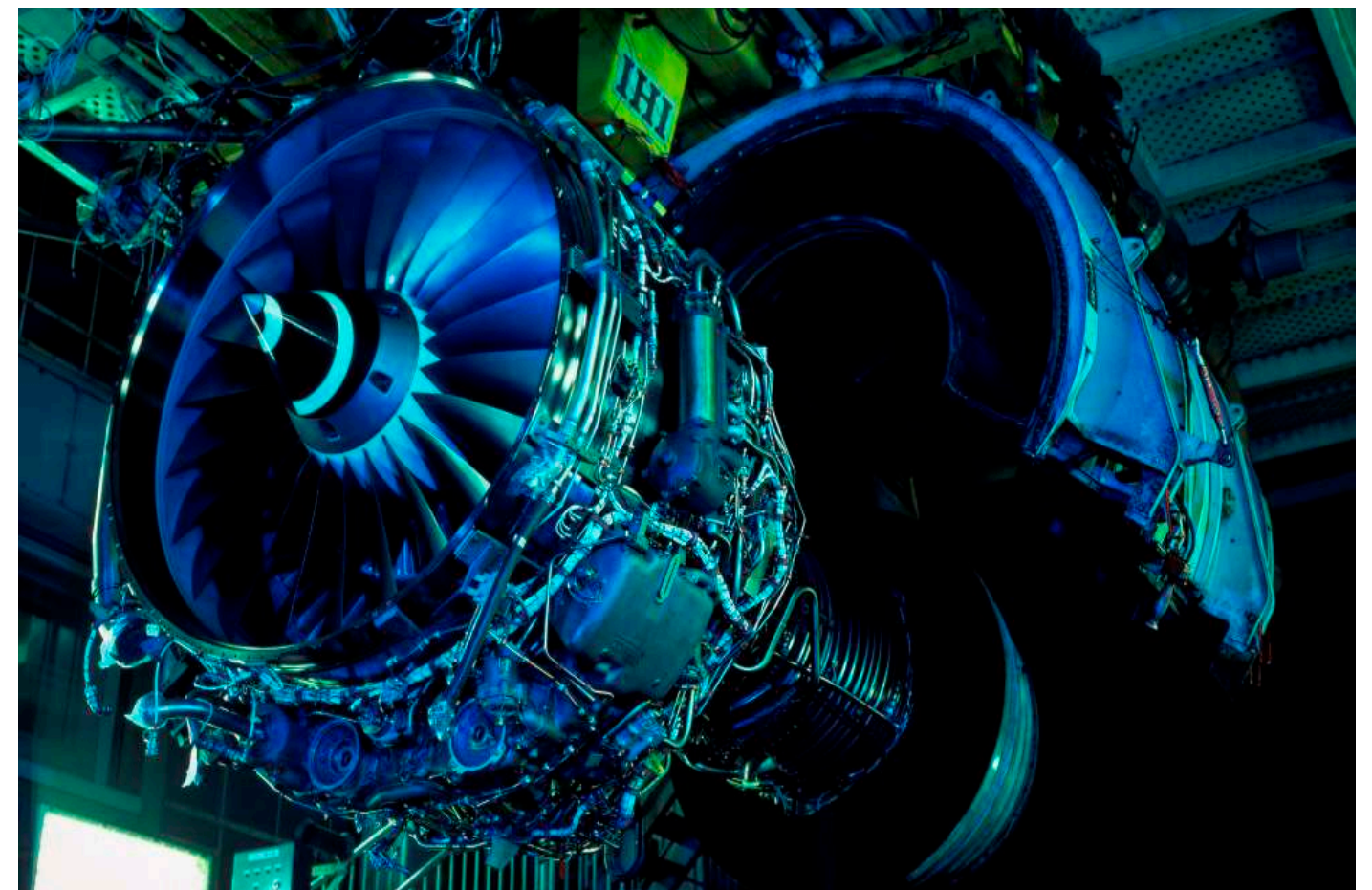


Photo is provided by J-POWER (EPDC)

Resources, Energy & Environment Business Area



Industrial Systems & General-Purpose Machinery Business Area



Aero Engine, Space & Defense Business Area

Outlook - Social Infrastructure & Offshore Facilities Business Area

نظرة مستقبلية - البنية التحتية الاجتماعية ومنشآت
المناطق التجارية البعيدة عن الشاطئ

Major subsidiaries

IHI GROUP

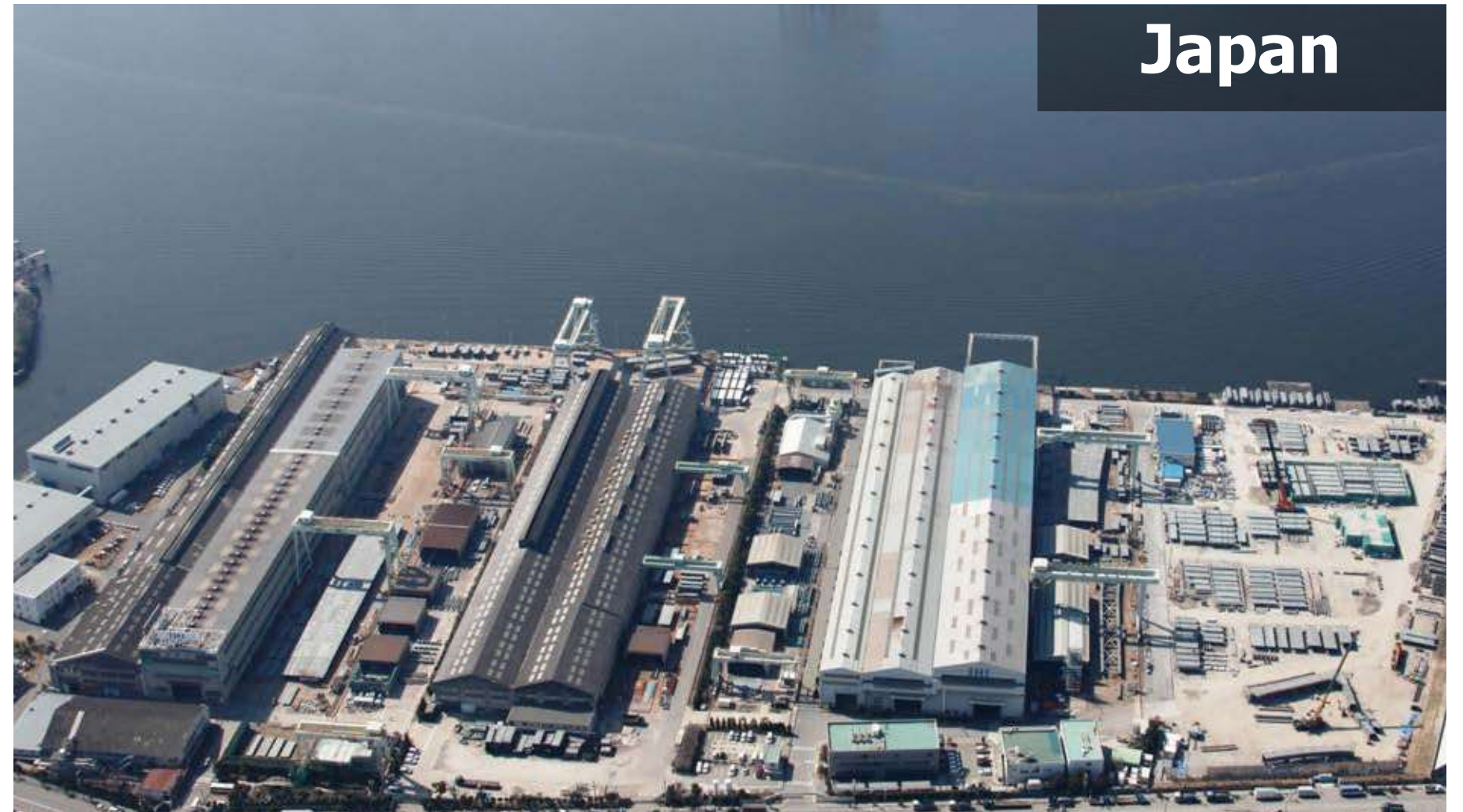
4 major subsidiaries for Social Infrastructure & Offshore Facilities Business Area.

Bridge & Gate

IHI Infrastructure Systems Co., Ltd.

Main Activity

design, fabrication, construction, assessment, repair and maintenance of bridges, gates and various other steel structures. The fabrication, sales and installation of disaster prevention equipment.



Japan

Shield Tunneling Machine



JIM TECHNOLOGY CORPORATION

Main Activity

sales, design, procurement, manufacturing, field work and after-sales services related to shield tunneling machines and other equipment related to tunnel construction



Japan

Bridge & Steel Structure

IIA IHI Infrastructure Asia Co., Ltd.

Main Activity

manufacturing of steel bridge, steel structure and concrete bridge & concrete structure



Vietnam

Concrete Bridge & Concrete Structure

I&H I&H Engineering Co.,Ltd

Main Activity

PC bridge girders, PC spun piles, building components, factory main equipment and several other constructions related products with the technology of high intensity PC.



Myanmar

IHI CORPORATION

<https://www.ihico.jp/en/>

IHI Realize your dreams

IHI Business in Road Bridge Construction

أعمال IHI الطرقية
بناء الجسور

History of IHI in Bridge Field

Over 130 years of History

- ◆ IHI has over 130 years of history in bridge construction
- ◆ IHI has constructed over **4,500 steel bridges** and **8,000 concrete bridges** at home and abroad.

IHI Infrastructure Systems Co., Ltd.; Bridge operating company of IHI

- ◆ Founded: November 1, 2009
- ◆ Employees (Consolidated): 865 (as of April, 2019)
- ◆ Activities: Engineering, Fabrication, Construction and Maintenance of Steel & Concrete Bridges and Water Gates

Global Experience in the past 10 years and Ongoing Projects



Completed
2nd Bosphorus Bridge
(1998, Turkey)

Ongoing
1st & 2nd Bosphorus Bridge
Rehabilitation
(2013~, Turkey)



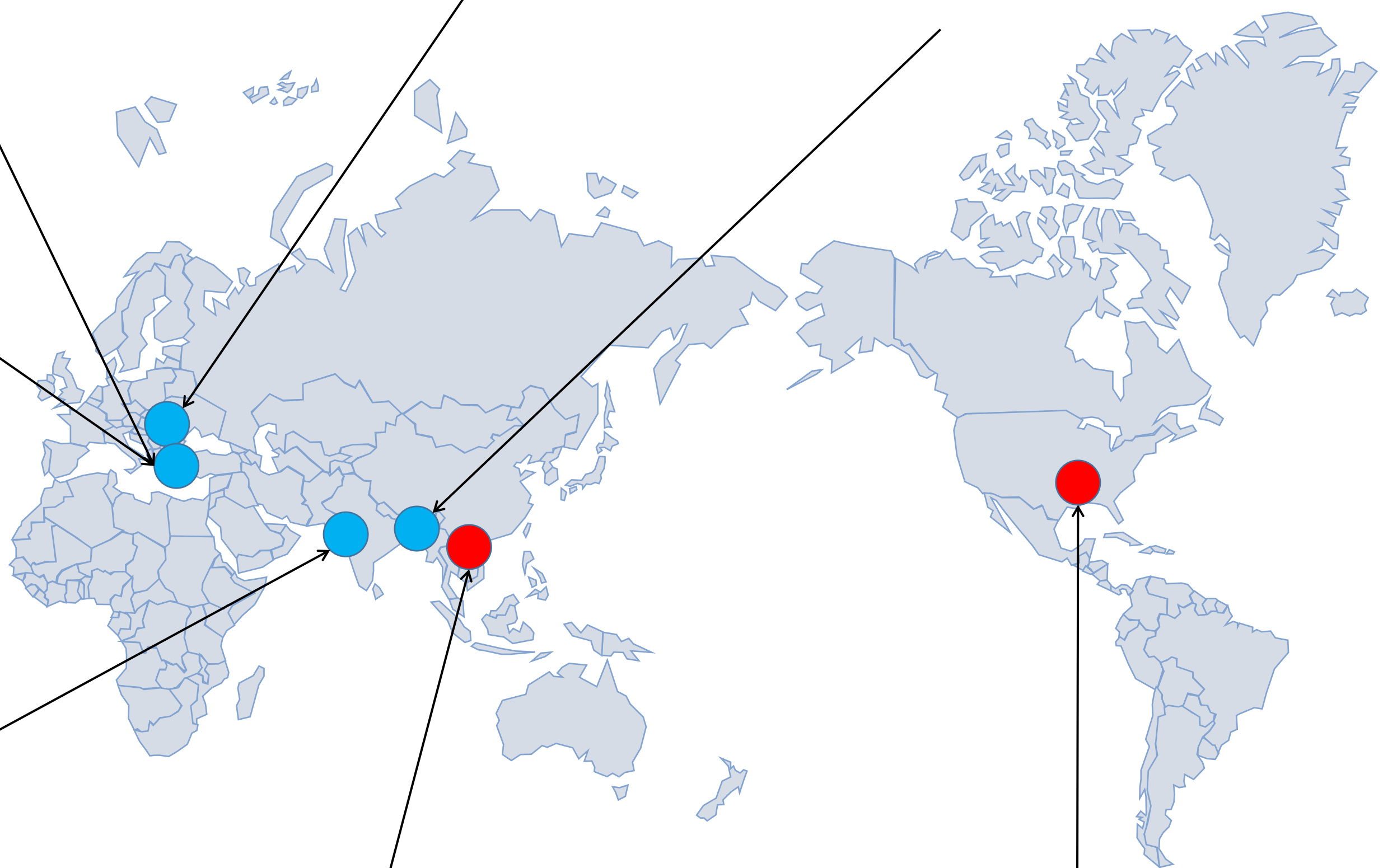
Ongoing
Braila Bridge
(2018~, Romania)



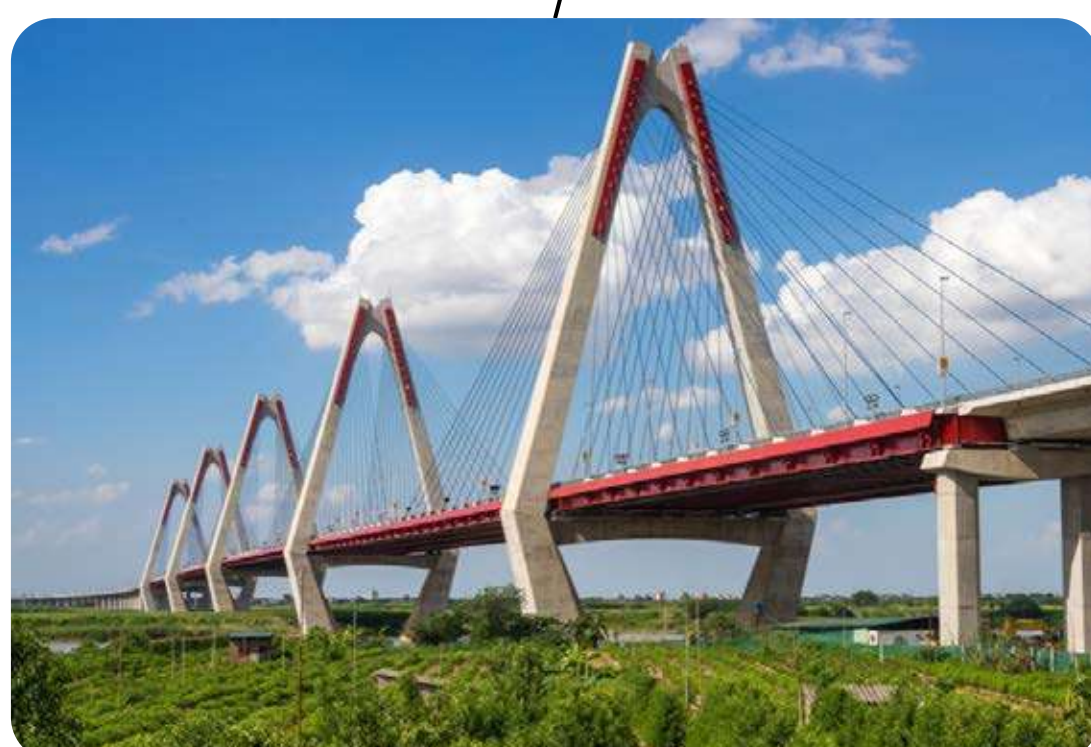
Ongoing
Kanchpur, Meghna, Gumti
2nd Bridges and
Rehabilitation
(2015~, Bangladesh)



Completed
Osman Gazi Bridge
(2016, Turkey)



Ongoing
Mumbai Trans Harbour Link
Project (2017~, India)



Completed
Nhat Tan Bridge
(2014, Vietnam)



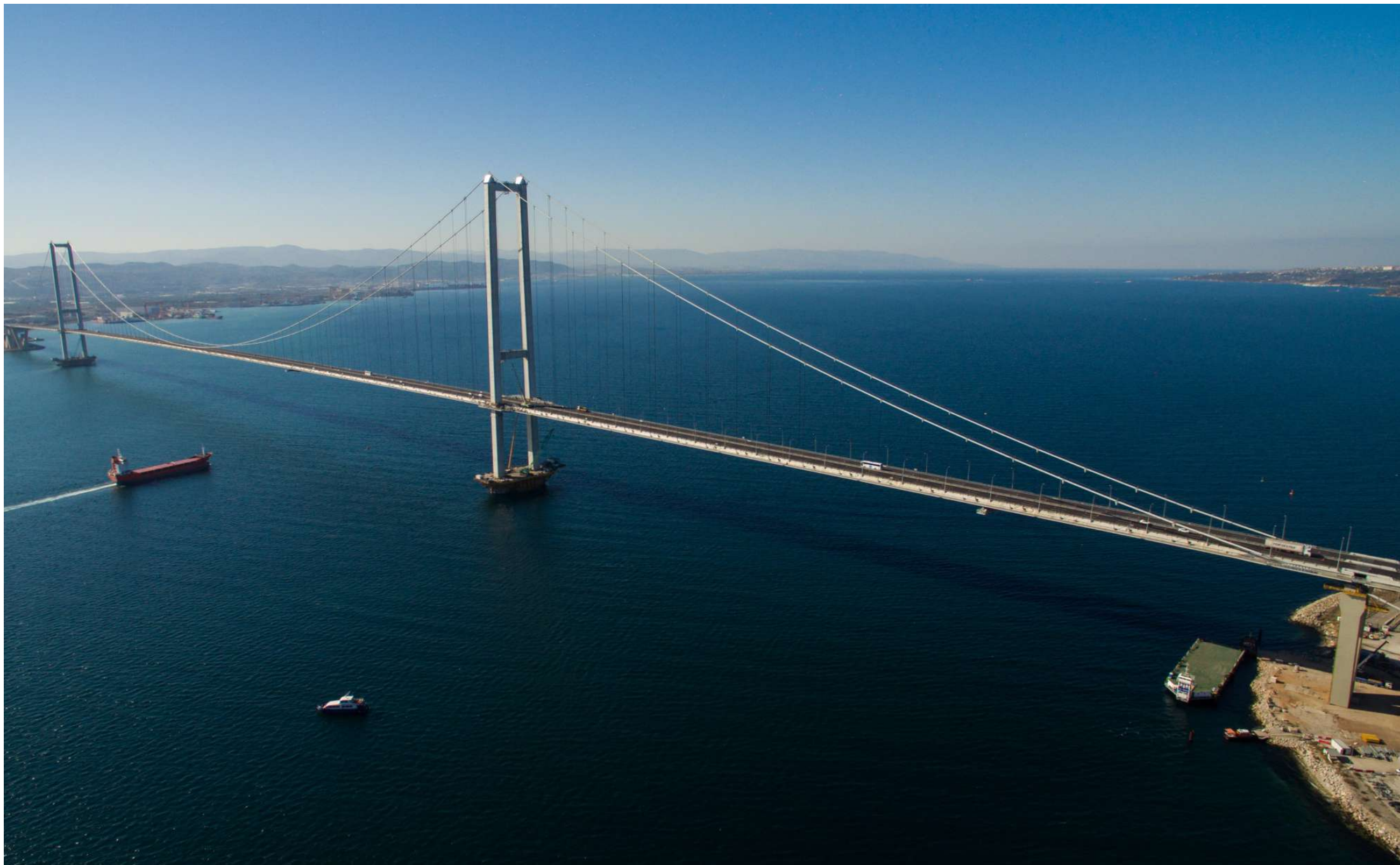
Completed
Huey P. Long Bridge
(2012, Louisiana, U.S.A)

IHI Business in Road Bridge Construction

أعمال IHI الطريقية
بناء الجسور

Major Project Experience (New bridge construction)

Osman Gazi Bridge (Izmit Bay Crossing Bridge) / Turkey - Completed -



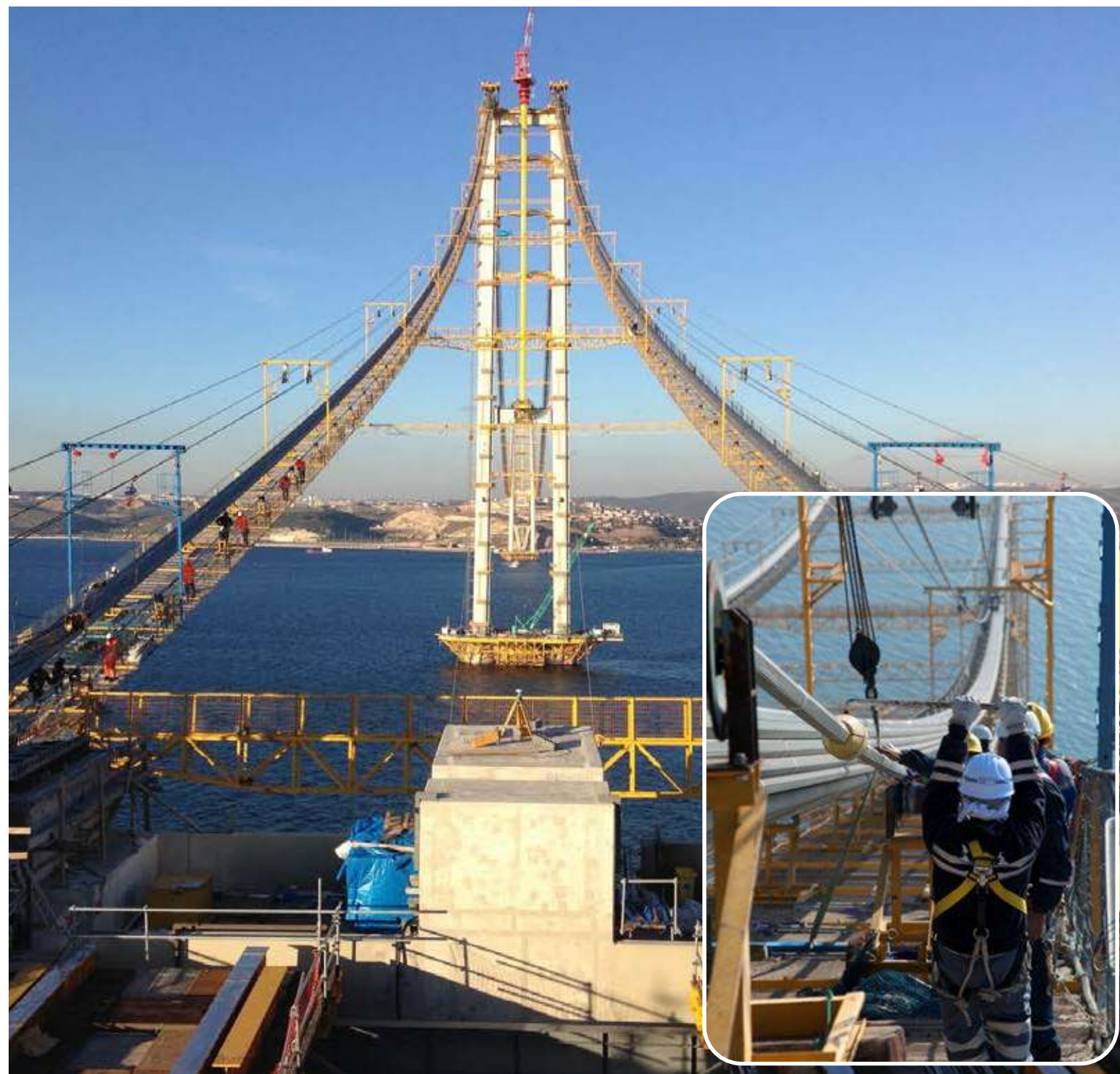
- ◆ Location:
Gebze, Turkey
- ◆ Finance Scheme:
Project Finance for BOT
Project
- ◆ Construction Period
42 months
- ◆ Project Scheme
Design build, Full Turn-key
- ◆ Bridge Type
Suspension Bridge
- ◆ Total Length
2,682m
- ◆ Main Span Length
1,550m



Steel Shaft for tower foundation



South Anchorage



Cable erection



Deck erection

Braila Bridge / Romania - Ongoing -



- ◆ Location
Braila, Romania
- ◆ Construction Period
48 months
- ◆ Project Scheme
Design build
- ◆ Bridge Type
Suspension bridge
- ◆ Total length
1,974m
- ◆ Main span length
1,120m

IHI Business in Road Bridge Construction

أعمال IHI الطرقية
بناء الجسور

Major Project Experience (Rehabilitation Works)

1st and 2nd Bosphorus Bridge Rehabilitation Project / Turkey - Ongoing -

- ◆ Location: Istanbul, Turkey
- ◆ Construction Period: December 2013 - August 2017 *Additional scope is ongoing
- ◆ Scope of IHI: Replacement of hanger cables, installation of cables & anchorage dehumidification systems, etc.
- ◆ Bridge Type: Suspension Bridge

<Remarkable works>

1. Hanger cable replacement (1st Bosphorus Bridge)

<Before>



Inclined cable and gusset plate (Before the replacement)



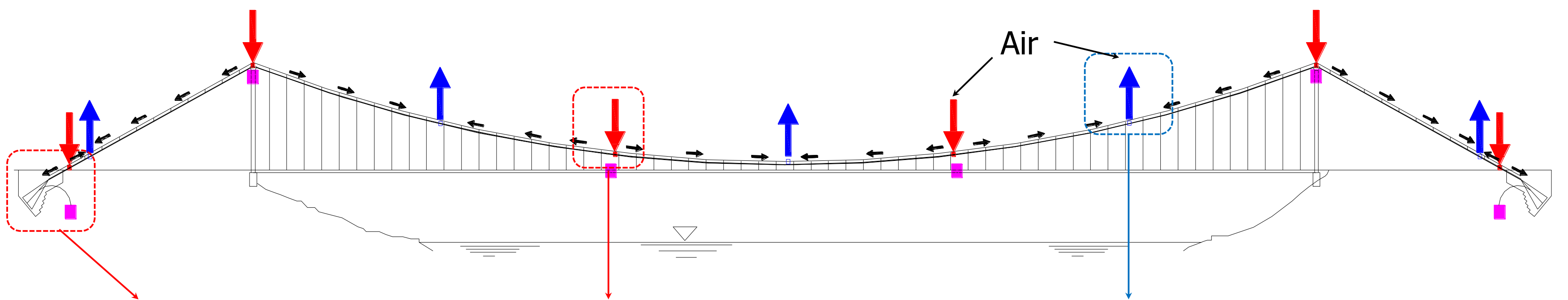
<After>



Vertical cable and gusset plate (After the replacement)



2. Dehumidification Systems (1st Bosphorus Bridge and 2nd Bosphorus Bridge)



Spray room in anchorage



Plant room for dehumidification system



Exhaust sleeve and sensor

<Legend>

- ↓ Air Injection Sleeve
- ↑ Air Exhaust Sleeve
- Air Plant Room

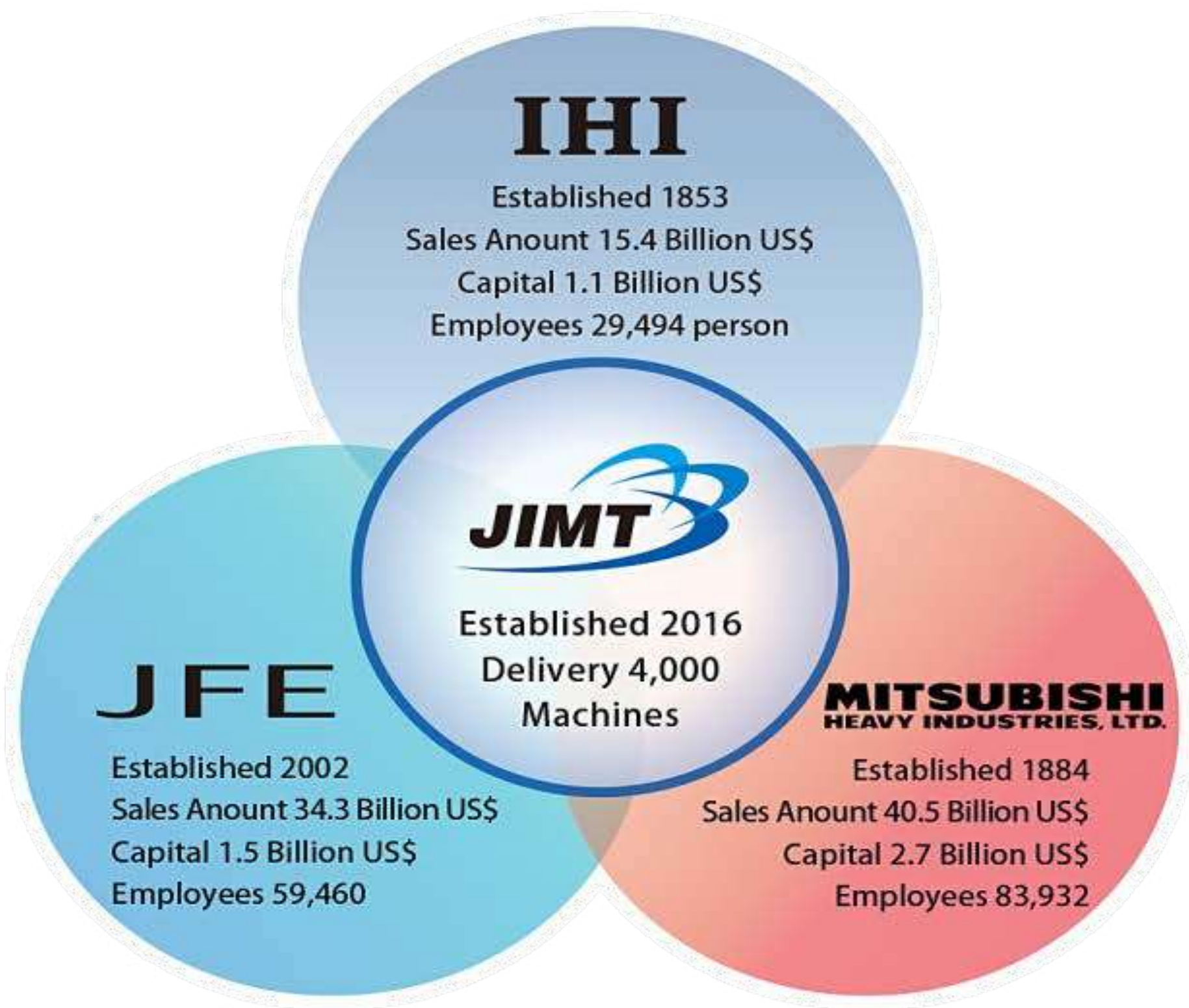
IHI Business in Road Shield Tunneling Machine

أعمال IHI الطريقية
آلة شق الأنفاق باستخدام الدرر

Company Profile

History & Organization

JIM TECHNOLOGY(JIMT) is No.1 Japanese Shield Tunneling Machines manufacturer which was as a joint venture by parent companies IHI, JFE Engineering and MHI in 2016.



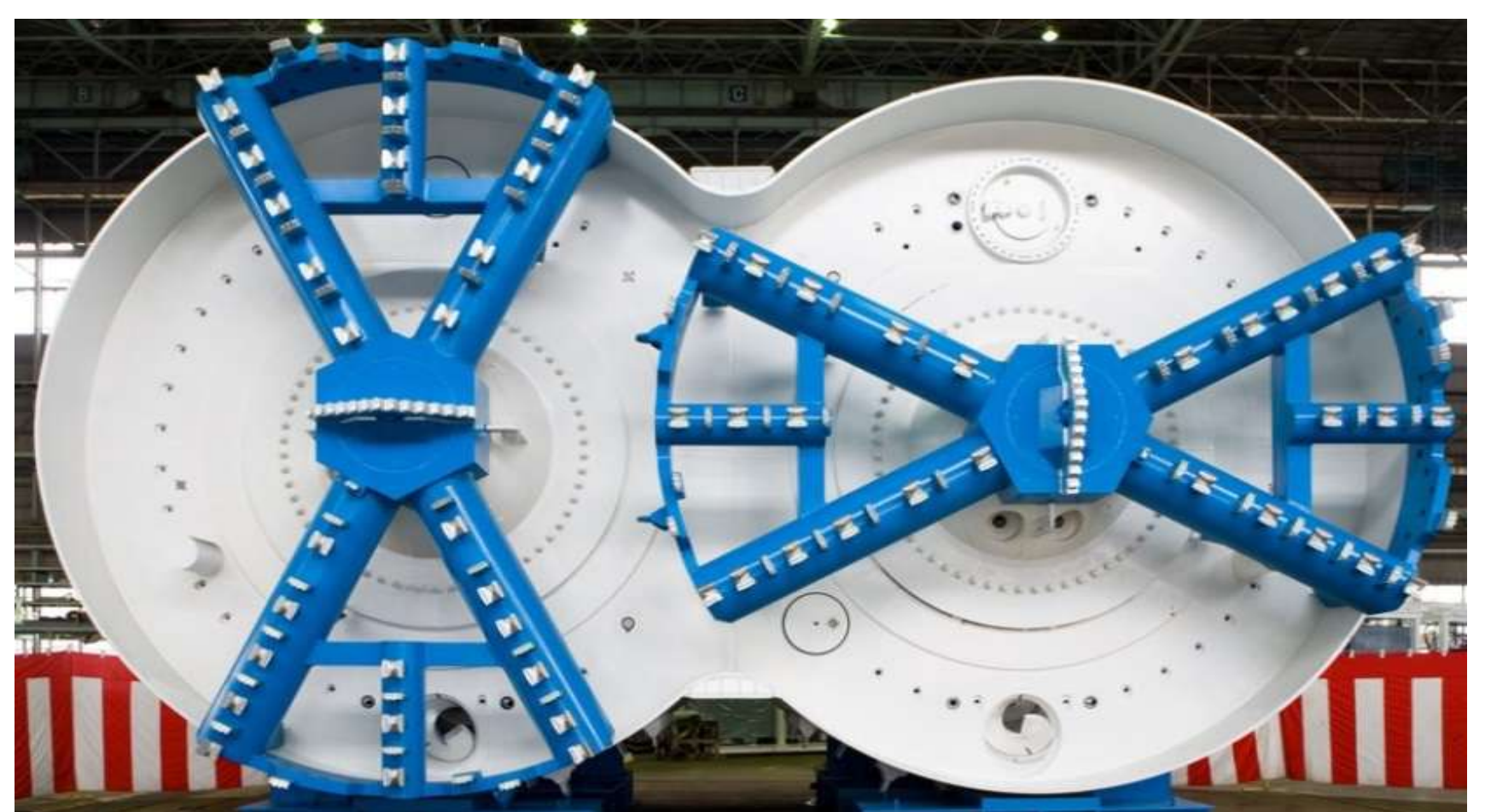
Our Features

We can supply Shield Tunneling Machines and Total Tunneling Systems. Our mission is to provide total solutions most suitable for customer requirements.

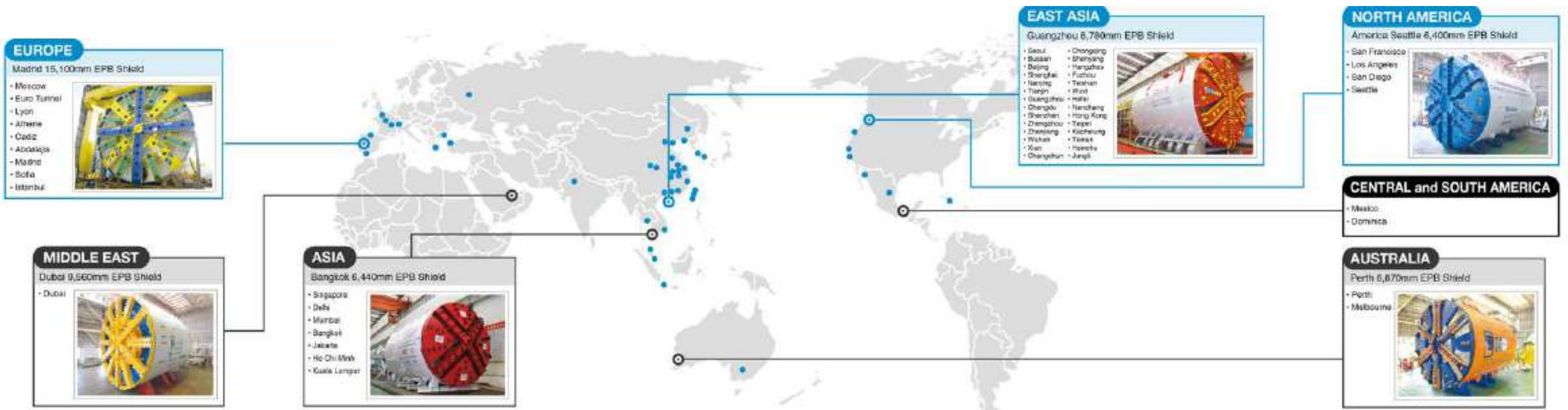


R&D, Flexible Design

We have developed various types of machines to provide solutions for restricted conditions of construction.



Delivery Records



JIM TECHNOLOGY CORPORATION

<http://www.jimt.co.jp/en/>

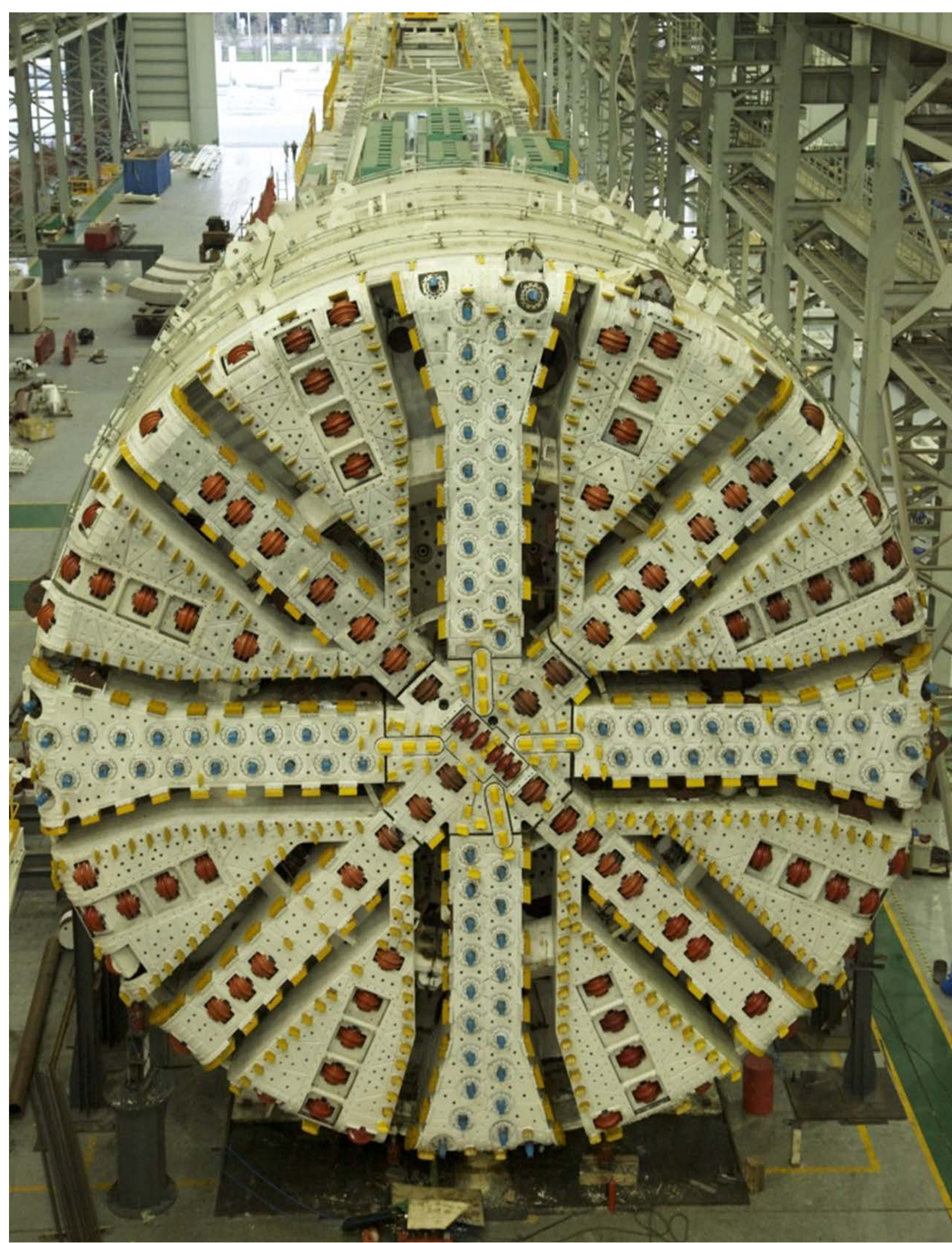


IHI Business in Road Shield Tunneling Machine

أعمال IHI الطرقية
آلة شق الأنفاق باستخدام الدرر

Overseas Track Record of Road Tunneling Machine

JIMT has delivered more than 400 units of shield tunneling machines overseas except Japan. Large-diameter machines over 10m for road tunnel are also included in our track record. We will continue to supply suitable machines for the development of infrastructure around the world.



Location	Nanjing, China
Type	Slurry machine
Outer Dia.	14.93m
Distance	4.1km/3.6km
Delivery	2012



Location	Madrid, Spain
Type	EPB machine
Outer Dia.	15.01m
Distance	3.6km×2
Delivery	2005



Location	Lyon, France
Type	EPB machine
Outer Dia.	10.96m
Distance	3.2km×2
Delivery	1992

IHI Business in Road Shield Tunneling Machine

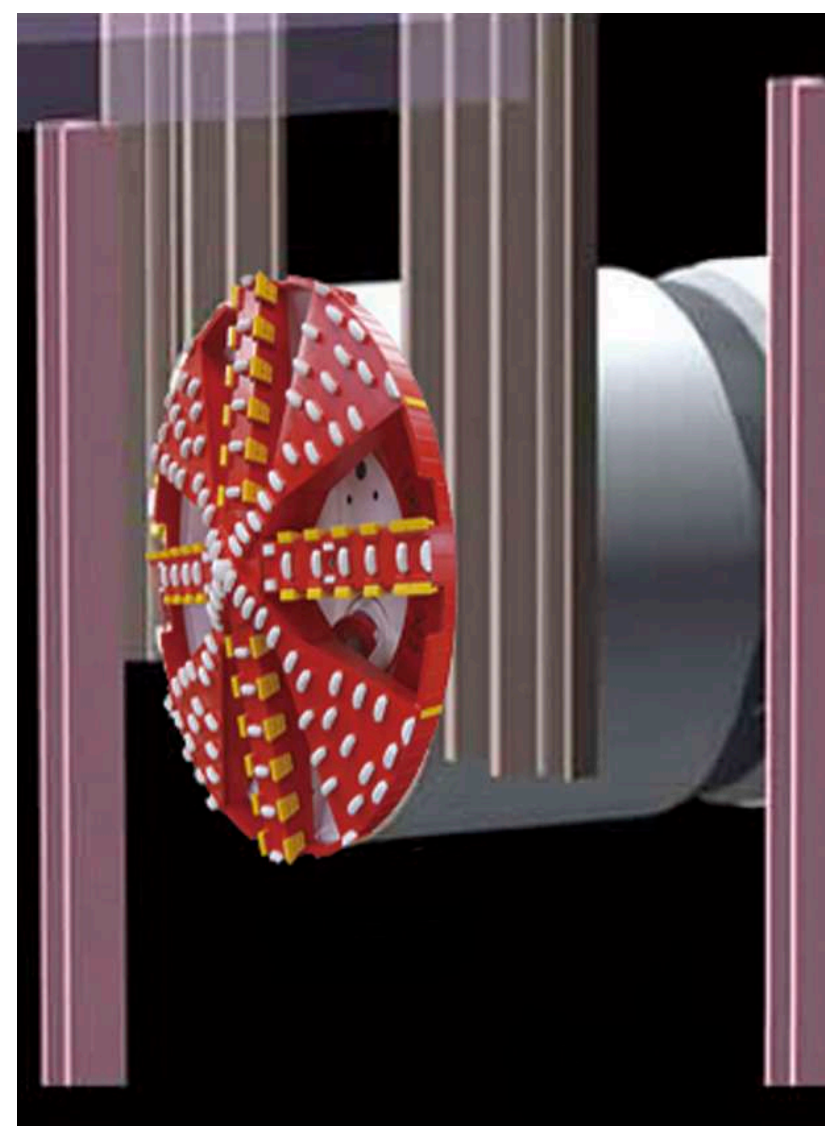
أعمال IHI الطرقية
آلة شق الأنفاق باستخدام الدرع

Largest-Diameter Tunneling Machines for Tokyo Outer Ring Highway Project

The ongoing project will connect three expressways(Kan-etsu expressway ~ Chuo expressway ~ Tomei expressway) by underground tunnels in Tokyo, Japan. 4 tunneling machines of **16.1m** outer diameter, which is the largest diameter in Japan, are in operation. JIMT has supplied 3 units of them and contributed to the establishment of a smoother transportation network in the metropolitan area.



Client	Taisei Corporation
Type	EPB
Outer Dia.	16.1m
Distance	7km
Delivery	2018
Remarks	Obstacle Cutting



Obstacle Cutting Image



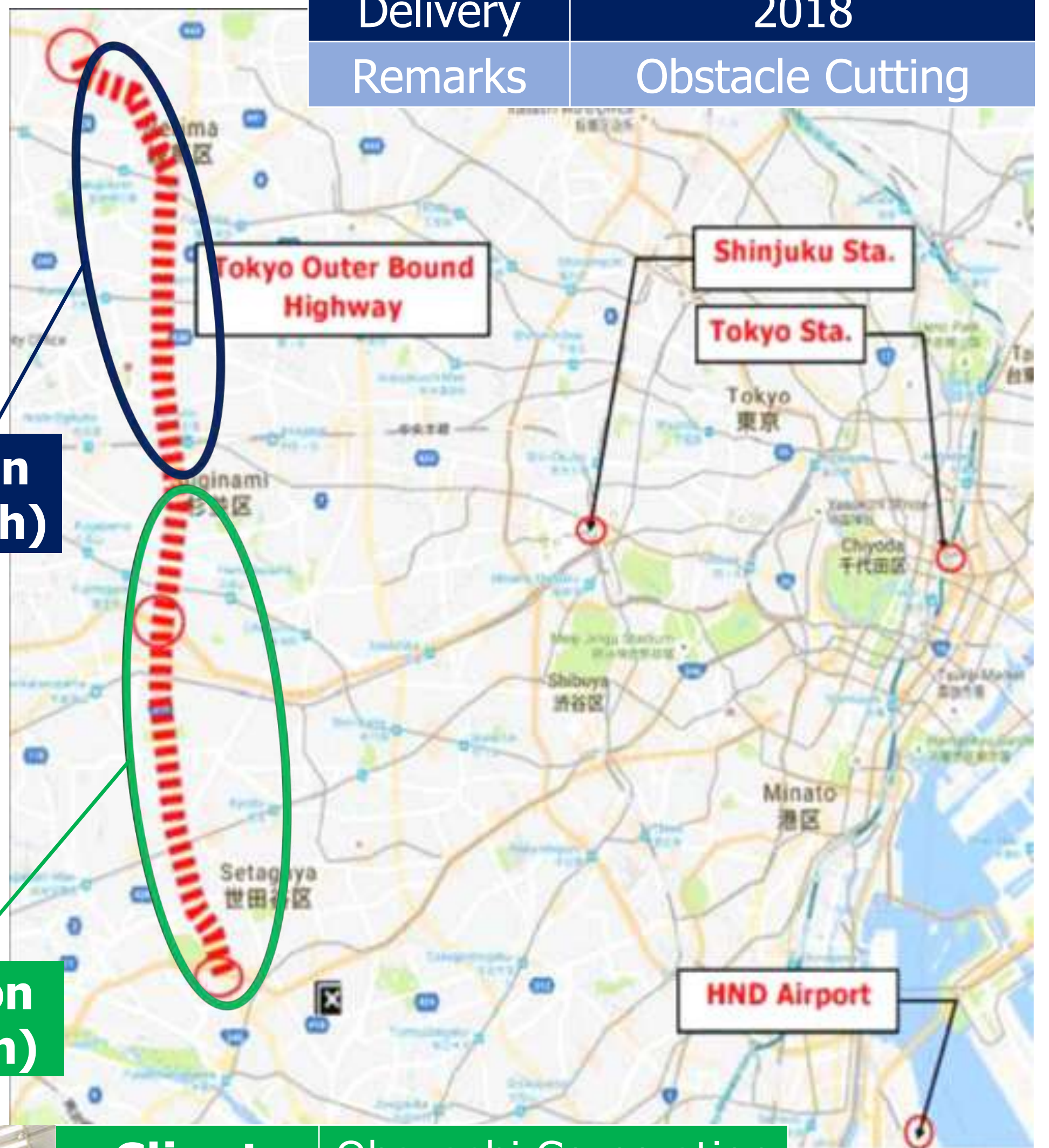
Client	Shimizu Corporation
Type	EPB
Outer Dia.	16.1m
Distance	7km
Delivery	2018
Remarks	Obstacle Cutting



Tokyo,
JAPAN

North Section
(Oizumi-south)

South Section
(Tomei-north)



Client	Obayashi Corporation
Type	EPB
Outer Dia.	16.1m
Distance	9km
Delivery	2016
Remarks	Multi Drive Unit