Hitz
Hitachi Zosen

Facility and Service
Guide to the
Hitz Advanced
Information Technology
Center A.I/TEC

From sea
to land, and
toward the future.

Flagship for Promoting ICT

A.I/TEC
Hitz Advanced Information Technology Center

Hitachi Zosen Corporation

A new future
for ICT starts here

The digital transformation that occurs when ICT is established in society brings a more enriching and joyful life and community for all. This is the ideal future that A.I/TEC is striving for. In functioning as a base of IoT/big data, AI and other ICT, we will maximize the value of products and services while developing innovative technologies and new businesses. We will leverage state-of-the-art technologies and software to vastly expand the business fields of Hitz from the traditional areas of engineering and manufacturing to the domains of business planning and services.

The trajectory of roughly 140 years of Hitz is also a history of challenging ourselves.We are continually creating new goods and services that will revolutionize the world and our future. A.I/TEC will carry on the DNA of the trailblazers before us, and steer a clear path into the future as a flagship for accelerating the development of state-of-the-art technologies.
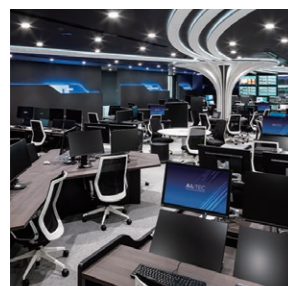
Remote monitoring and operational support services 01

◆ Real-time support with 24-hour monitoring to predict malfunctions
◆ Remote monitoring and data analysis to ensure stable plant operations
◆ Enhances power generation efficiency by analyzing data and making it visual, and using artificial intelligence (AI) to control operations
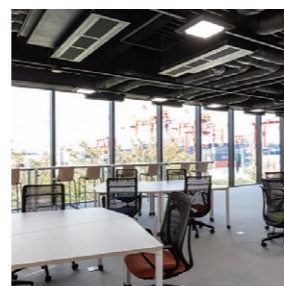
(A)development base for IoT/big data and AI 02

◆ Supports production floor digitalization for enhanced quality and improved productivity
◆ Accelerates the use of IoT/big data and AI by setting up a cloud environment and a development environment

(A)space for open innovation 03

◆ Realizes open innovation with the organic merging of the needs outside the company and the seeds and data within the company
◆ Establishes a Win-Win relationship by combining knowledge through alliances with partners across industries and fields
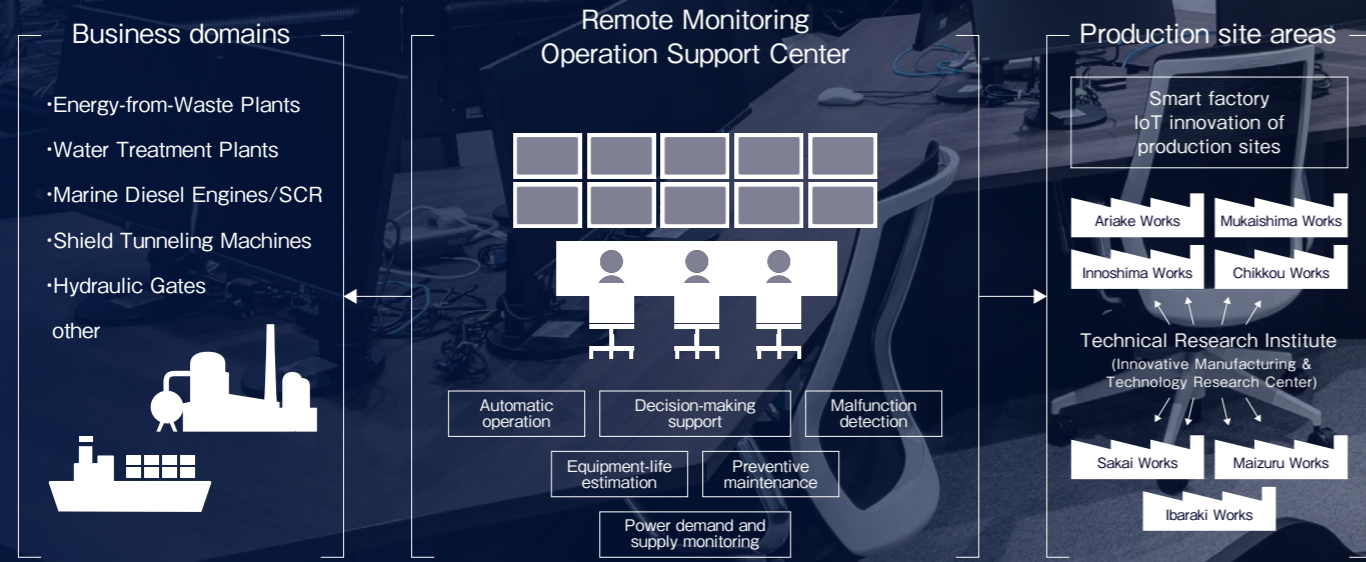
01

IoT Innovation in Support of Core Plant Operations

Incorporating Innovation

IoT innovation for developing remote monitoring and operational support services to drive progress in plants.

A.I/TEC Services

① Real-time support: Speedy support that is one-step ahead of the production site
② Troubleshooting: Verifying and analyzing data to respond to inquiries from the site, and handle any troubles that occur
③ Medium-to-long term analysis: Analysis using medium-to-long term data to estimate equipment life and implement preventive maintenance
④ Operational reporting: Regular reporting on operational trends, including the operational status of each plant and team of workers

① Real-time support
② Troubleshooting
③ Medium-to-long term analysis
④ Operational reporting

A.I/TEC
Hitz Advanced Information Technology Center

Briefing Area

Business domains

·Energy-from-Waste Plants
·Water Treatment Plants
·Marine Diesel Engines/SCR
·Shield Tunneling Machines
·Hydraulic Gates
other

Remote Monitoring Operation Support Center

Automatic operation
Decision-making support
Malfunction detection
Equipment-life estimation
Preventive maintenance
Power demand and supply monitoring

Production site areas

Smart factory IoT innovation of production sites

Ariake Works
Mukaishima Works
Innoshima Works
Chikkou Works

Technical Research Institute
(Innovative Manufacturing & Technology Research Center)

Sakai Works
Maizuru Works
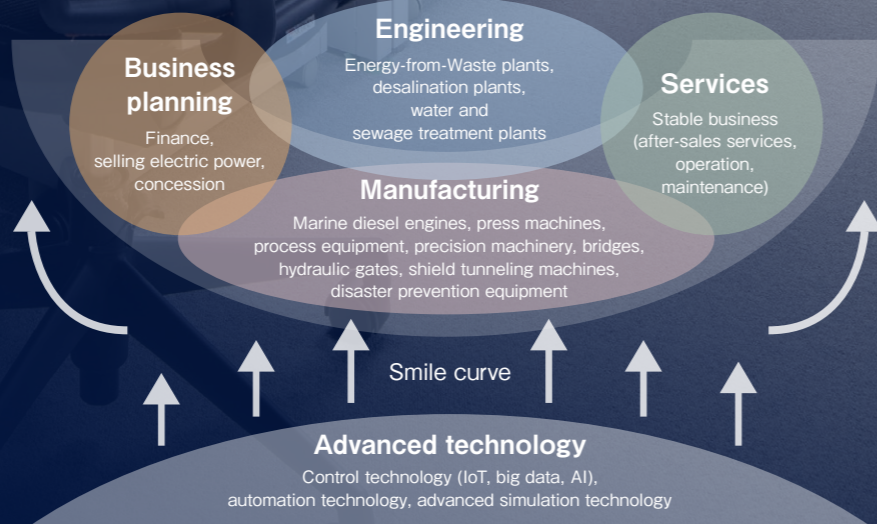Ibaraki Works

Concept
Real Time Showcase

A space that is designed to be both appealing and secure. Visitors can freely observe the monitoring services through partitioned glass, while ingenious designs have been used to securely protect all highly confidential data from being seen from the outside.

A.I/TEC is staffed to provide 24-hour remote monitoring of Energy-from-Waste Plants and other power-generation facilities. We are pioneers in rolling out sophisticated remote monitoring and operational support services in energy-from-waste plants. The Center offers a range of advanced remote monitoring and operational support including real-time support, trouble-shooting, medium-to-long term analysis, and operational reporting. We also offer services to ensure reliable operations and optimize the volume of power generation. We will work with you to reduce life cycle costs by cutting back on the power, chemicals, fuel and other utilities required to run the facility, and introducing various initiatives to extend equipment life and realize more economical operations over the long term. The Center also offers support to implement labor-saving in your plant's operations and pass on operational technologies. By analyzing vast amounts of accumulated big data, we will continue to develop even more high-level operational support, including remote monitoring and operational support services such as automated combustion control using AI. IoT innovations are driving the evolved technical capabilities at the core of even higher-dimensional plant operations.

02

Real value is born from progress

Attaining Real value

A development base for IoT/big data and AI to use state-of-the-art technologies to maximize product value.

At A.I/TEC, we are focused on driving forward digital innovation in energy-from-waste plants and other engineering business domains, and in the production floor areas of your factory. We are building a base for applying IoT and big data based on our track record in power generation facilities, including the Energy-from-Waste plants that we are already digitalizing. Currently at A.I/TEC, we are rapidly developing a diversity of products and services utilizing IoT/big data and AI, including RPA robotization of remote monitoring tasks, and new services combining drone control with AI. We will continue to boldly move forward with development focused on the future. This dedication drives the progress that will create the real value required by the next generation.

Business planning
Finance, selling electric power, concession

Engineering
Energy-from-Waste plants, desalination plants, water and sewage treatment plants

Services
Stable business (after-sales services, operation, maintenance)

Manufacturing
Marine diesel engines, press machines, process equipment, precision machinery, bridges, hydraulic gates, shield tunneling machines, disaster prevention equipment

Smile curve

Advanced technology
Control technology (IoT, big data, AI), automation technology, advanced simulation technology

03

An open innovation space to drive the creation of new products and businesses

A.I/TEC is developing a space for companies, universities, and research institutions to collaborate in creating revolutionary open innovation. We will support a seamless and continuous process in all stages from research studies to actual development, in a space that organically merges people, goods, data and all other resources.

The Center's laboratories are equipped with features to leverage the technological strengths and know-how of our partner companies and organizations, which will further strengthen creativity and create a synergy effect from open innovation that will accelerate the development of new technologies.

We will work together with all researchers, engineers and businesses. A.I/TEC continually supports open innovation for the trailblazers who will unlock the future.

IT vendors
Customers
Research institutions
A space for open innovation
People
Data
Goods
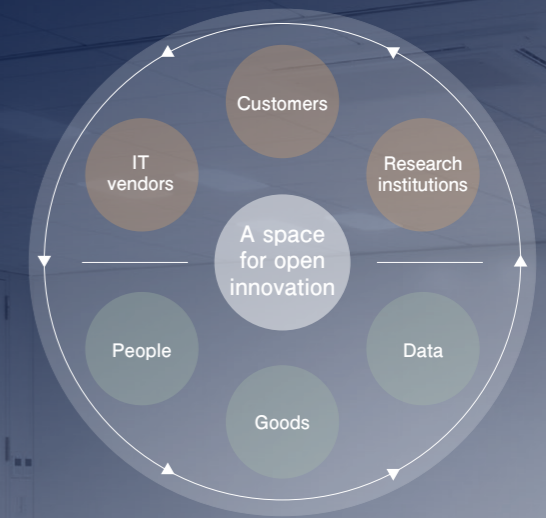
Open innovation for future competitiveness

Furthering Competition From Open Innovation

Hitz
Hitachi Zosen

A.I/TEC communication graphics "Flock of wild geese leader/DOGAN"

Symbol Representing a Flagship for Promoting ICT

A flock of wild geese flies freely through the sky in a V-formation. Their leader, called dogan in Japanese, gathers information from all angles and uses it swiftly to detect any danger while leading the flock in the right direction. The dogan is the symbol of A.I/TEC, which serves as a flagship to promote state-of-the-art ICT. Everyone at the Center has the courage of the dogan deep in their hearts, as they constantly monitor operations to ensure safety and security while aiming for a bright future.

Hitz Advanced Information Technology Center A.I/TEC

Building overview

Business owner	Hitachi Zosen Corporation
Location	7-89, Nankokita 1-chome, Suminoe-ku, Osaka, Japan
Site area	16,120㎡
Building area	843㎡
Floor area	1,627㎡
Number of floors	Floor count 2
Structure	Built with steel frame
Completion	October 1,2018

Nearest station:Osaka Metro "Cosmosquare"Station

Get from cosmosquare, please take a bus or taxi to our Headquarters.

By bus: 7-to-8 minutes
·Hitachi Zosen Shuttle Bus
·Circle Bus: Take the bus to the "LIXIL Mae" stop.
 1-minute waik from the bus stop to our office.

Bus timetable
http://hokkohbus.co.jp/route/circlebus

By taxi: 2-to-5 minutes

Hitachi Zosen Corporation
Information and Communication Technology Promotion Headquarters
Hitz Advanced Information Technology Center

7-89, Nankokita 1-chome, Suminoe-ku, Osaka 559-8559, Japan   TEL. 06-6569-0301   URL. www.hitachizosen.co.jp/AITEC