

Status of efforts of Naraha Center for Remote Control Technology Development

**Fukushima Research Institute,
Sector of Fukushima Research and Development,
Japan Atomic Energy Agency
Apr. 30, 2020**

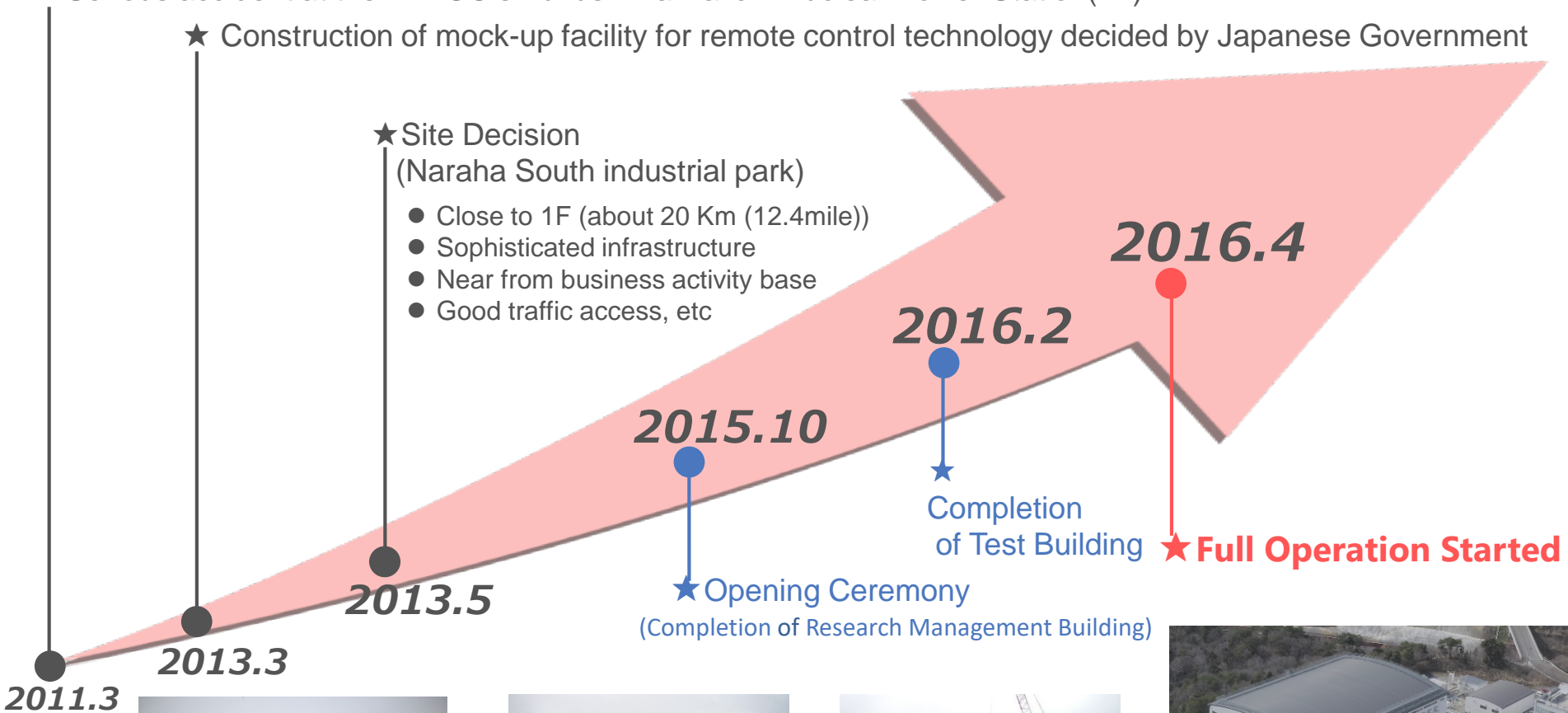
★ The Great East Japan Earthquake

★ Serious accident at the TEPCO's Fukushima Daiichi Nuclear Power Station(1F)

★ Construction of mock-up facility for remote control technology decided by Japanese Government

★ Site Decision
(Naraha South industrial park)

- Close to 1F (about 20 Km (12.4mile))
- Sophisticated infrastructure
- Near from business activity base
- Good traffic access, etc



2011.3

2013.3

2013.5

2015.10

2016.2

2016.4



Jul. 23, 2014
Land acquisition



Aug. 25, 2015
Research Management Building



Aug. 25, 2015
Test Building



Bird-eye view of NARREC

R & D base for remote control technology
 Operation started in **FY2015**

Full-scale Mock-up Test Area
The world's first test of fuel debris retrieval by side access aerial methods planned

Component Test Area
 Used for decommissioning, decontamination, disaster response etc.
 Place of **“Creative Robot Contest for Decommissioning”**



Bird-eye view of NARREC

Virtual Reality System
 Limited Reactor Building of 1F

Full-scale Mock-up Test Area

IRID

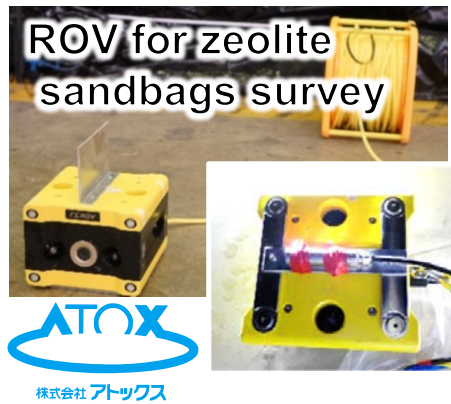
Component Test Area
 Used for training of decommissioning work

Usage Record
230 cases
 85 cases were used by
 companies, schools
 in Fukushima



Coast region is a place for mock-up tests and training of decommissioning.

Decommissioning R & D conducted at NARREC
101 cases



Leading demonstration tests and training for 1F decommissioning

New entry of companies and universities to "Hama-dori area"
15 cases



Fukushima from disaster area to challenge area

*) above figures based on NARREC survey

Visitors to NARREC
19,165 cases



Realize the effects of the base

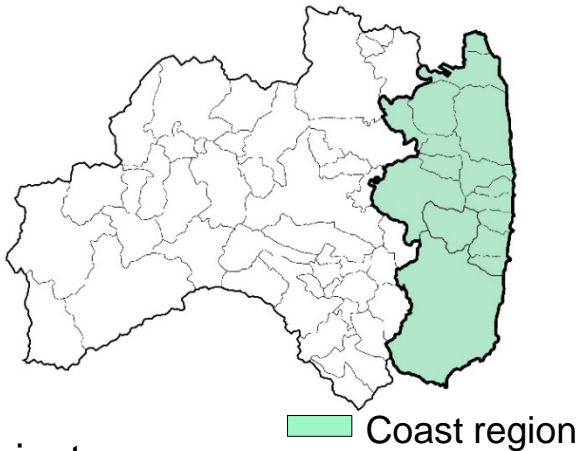


Cooperation with peripheral facilities, local companies and universities

Fukushima Innovation Coast Framework aims to build a new industrial base in coast region, in order to restore industries that have been lost due to the Great East Japan Earthquake and nuclear disasters.

Purpose

- Industrial cluster formation
- Human resource development
- Expansion of exchange population



R&D for Decommissioning (JAEA Fukushima)



CLADS



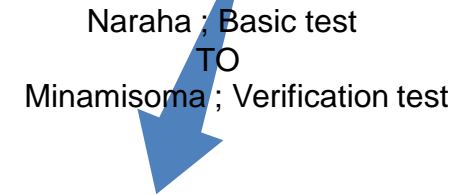
NARREC



Transportation of disaster relief supplies (IHI, Kyoeiseiki)



Okuma Analysis and Research Center

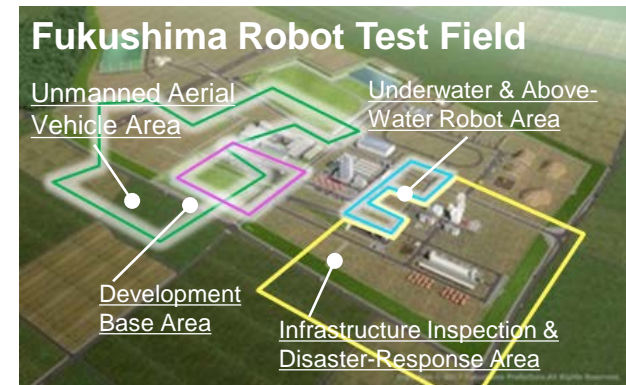


Projects

Decommissioning	Robot/Drone
Energy/Recycle/Environment/	Agriculture, Forestry and Fisheries
Aerospace	Medical

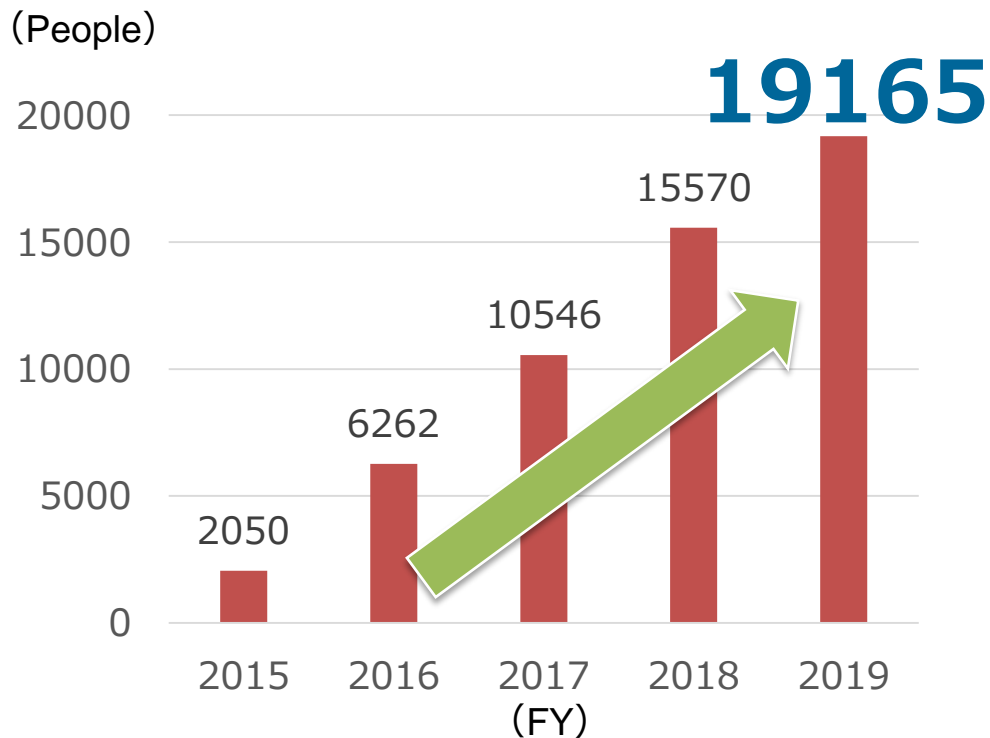
Robot (Fukushima Robot Test Field)

- Large test field to sea, sky and field robots.
- Full opening from FY2019.



- About **4,000 to 5,000 people** visited the NARREC per year
- NARREC is cooperating with Naraha Town to promote the use of accommodation, transportation and eating & drinking facilities for contributing town's reconstruction

Visitors (total)



Examples of use



**NARAFUKU,
V-Chain NEMOTO
(foods & drinks)**

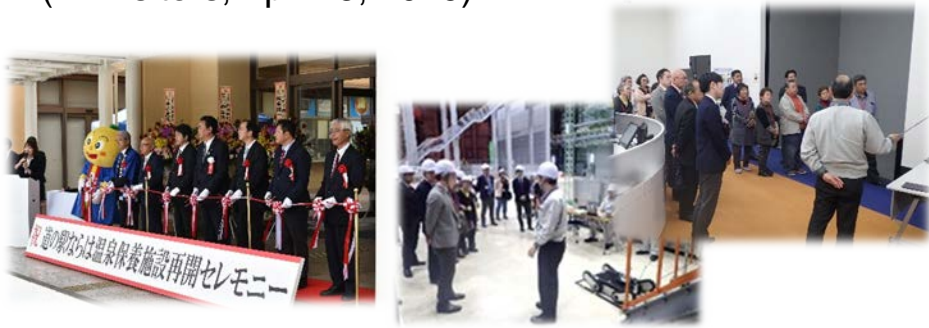


Naraha Taxi



“Michi-no-Eki Naraha” reopen

Along with the reopening ceremony of "Michi-no-Eki Naraha (rest stop)" NARREC facility tour was held. (22 visitors, Apr. 25, 2019)



Tour of NAREEC

Along with the “FUTABA-World 2019 in J-Village” of regional events, NAREEC facility tour was held. (about 200 visitors, Oct. 5, 2019)

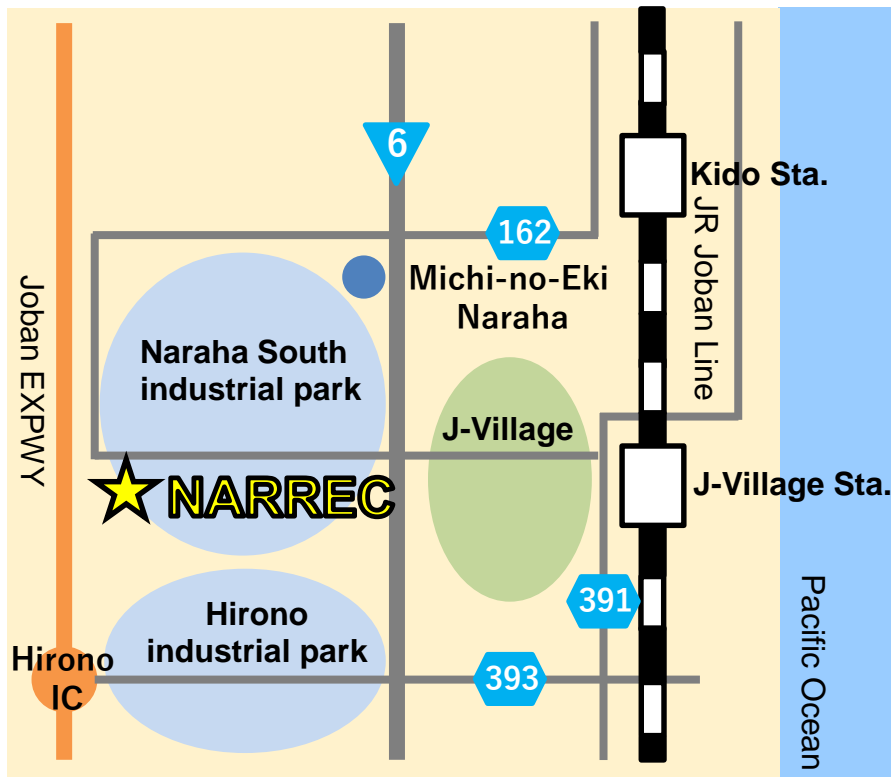


Naraha town Public Relations Magazine



Article of NAREEC tour was published

○ Access



By Car

Misato JCT(Joban EXPWY)130min. → Hirono IC(R6)10min. → NAREEC

By Train

Tokyo Sta.(JR Joban Line, Limited Express)140min. → Iwaki Sta.

Iwaki Sta.(JR Joban Line)30min. → Kido Sta.

Kido Sta.(Taxi*)10min. → NAREEC

*Reservation required

○ Contact us

Japan Atomic Energy Agency

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