



## MAKING THE WORLD A SAFER PLACE WITH ROBOTICS

Robot as a Service model for infrastructure inspection and maintenance

Michele Guarnieri - CEO  
[guarnieri@hibot.co.jp](mailto:guarnieri@hibot.co.jp)

[www.hibot.co.jp](http://www.hibot.co.jp)

Member of the Sprint Robotics  
and Deepstar





Spin-off company from the **Tokyo Institute of Technology**

**Global high-tech talent of 50 employees**



At hibot we are contributing to the realization of a **safer** and **sustainable world**, by providing advanced robotic solutions at a **global scale**



investors:



[to all press releases](#)

Multi awarded group



## AGEING INFRASTRUCTURES

**15T\$**  
the world  
infrastructure gap  
by 2040

World Economic Forum

**~5000**  
fatalities in average  
per year globally  
from confined  
space entry

US National Institute for Occupational  
Safety and Health

**DX**  
Need for more  
inspections and  
repeatable data sets

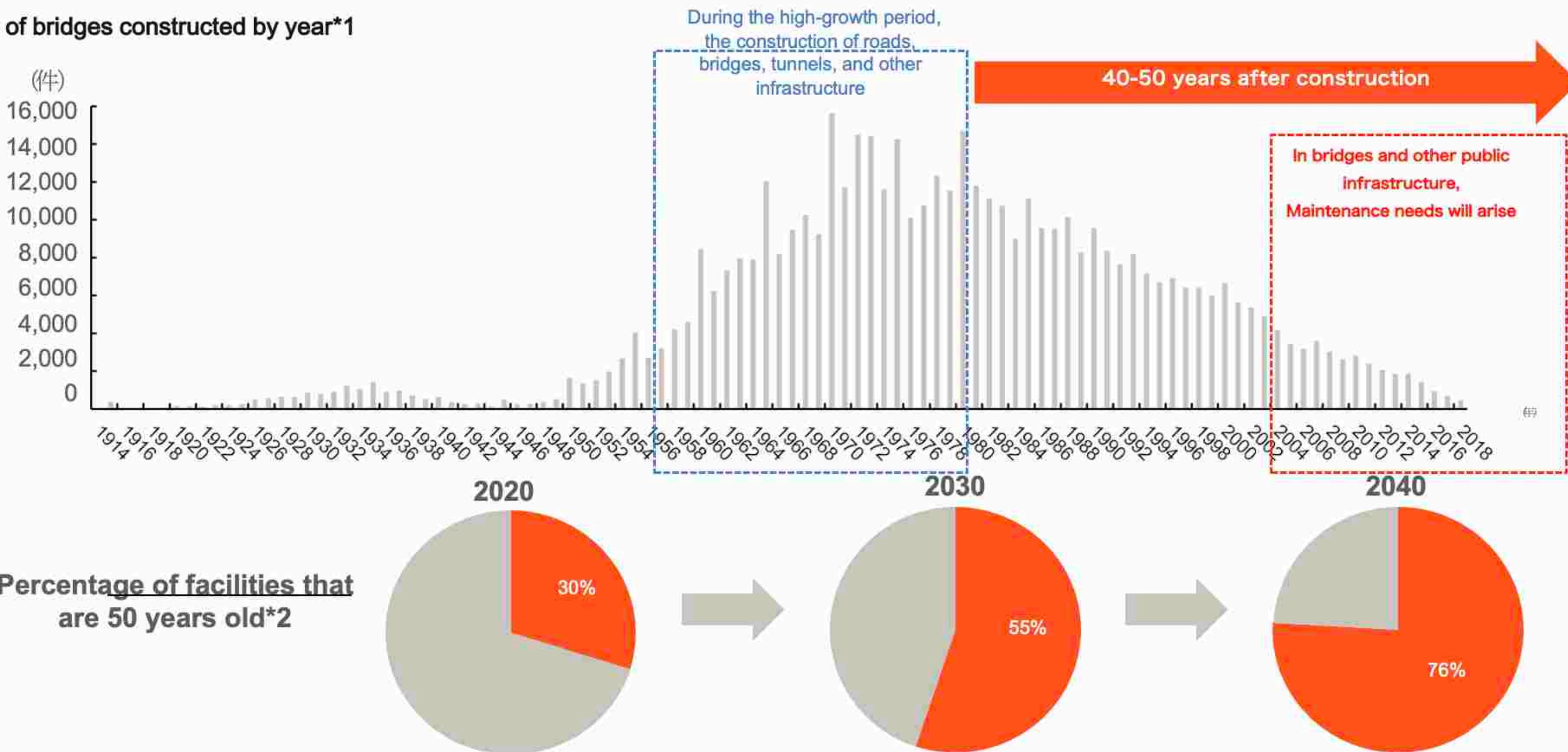
**2M\$**  
a DAY for  
unscheduled  
downtime

Customer feedback

# Japan's infrastructure as a model of the global situation

Domestic infrastructure built during the high-growth period is now 40 to 50 years old and is expected to incur ongoing maintenance costs for the next 50 years.

Number of bridges constructed by year\*1

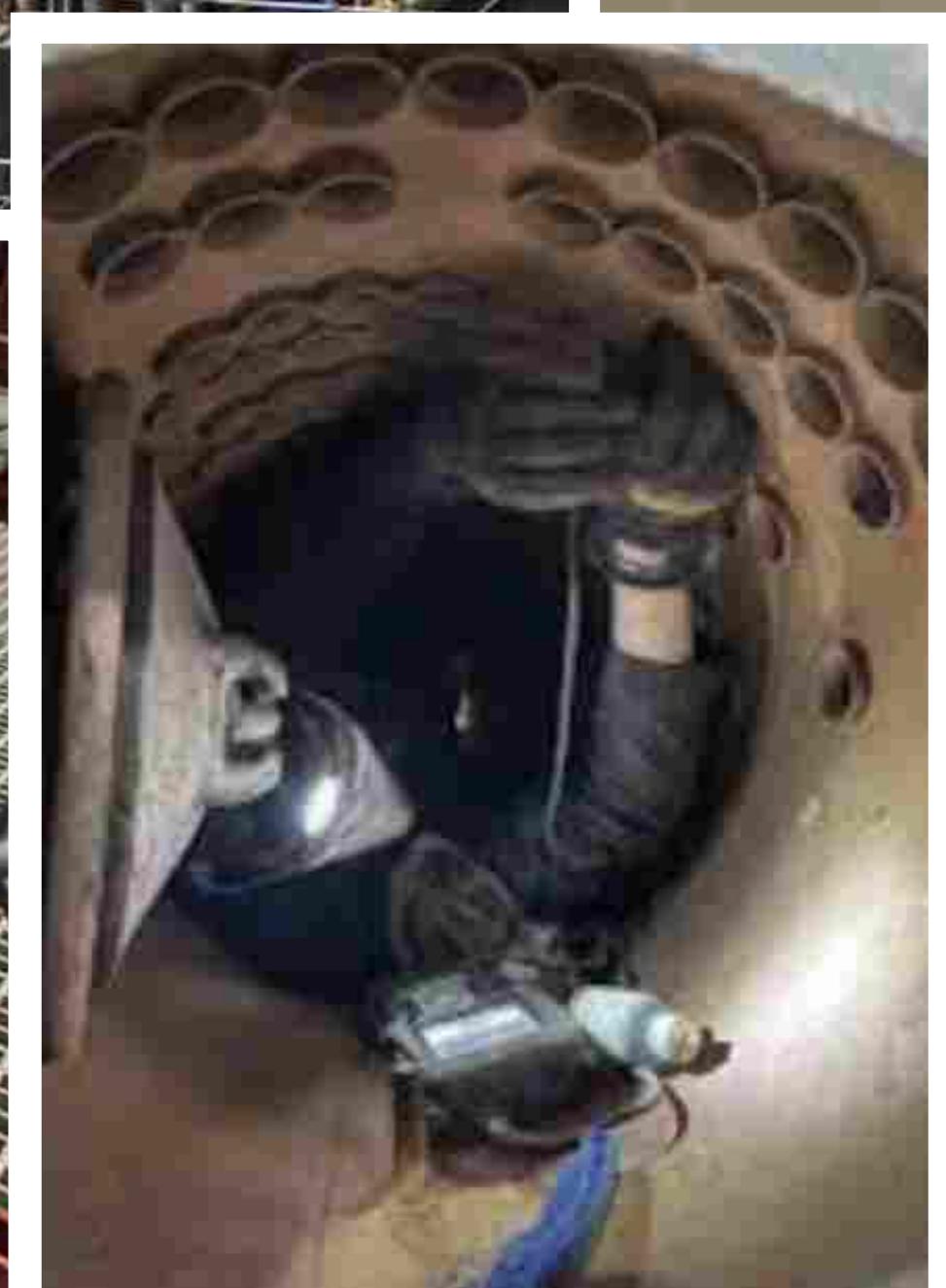
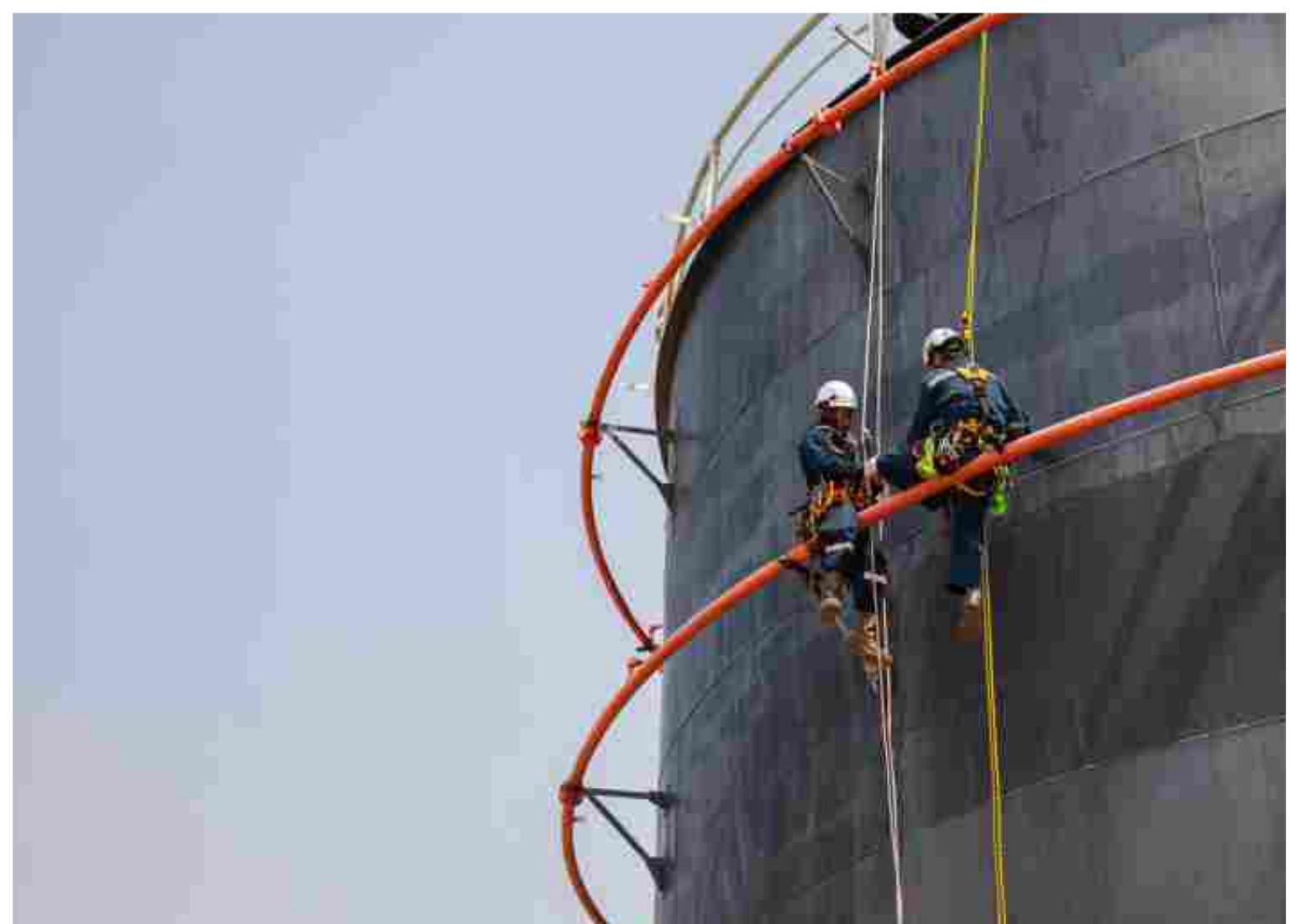


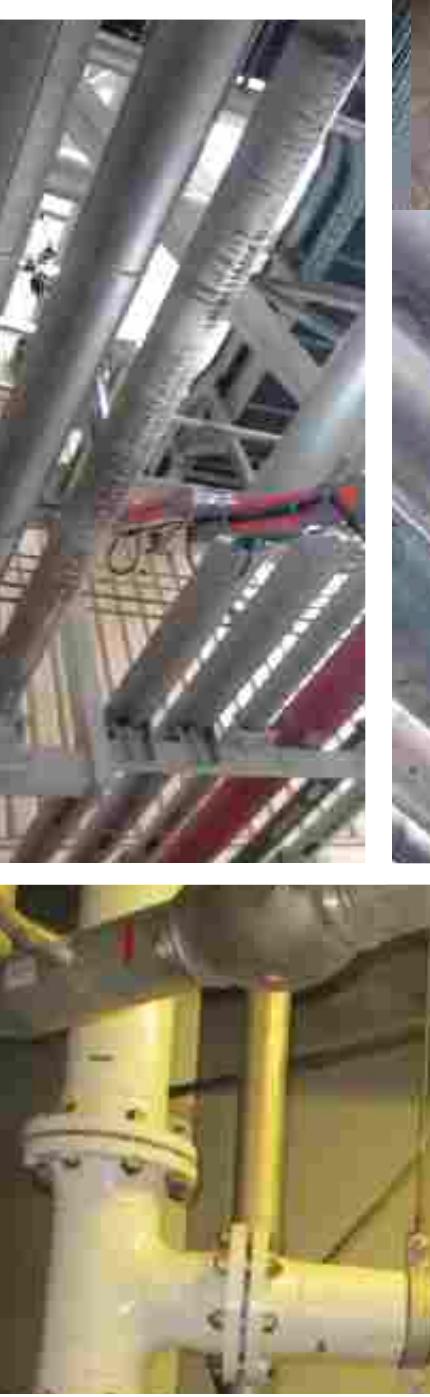
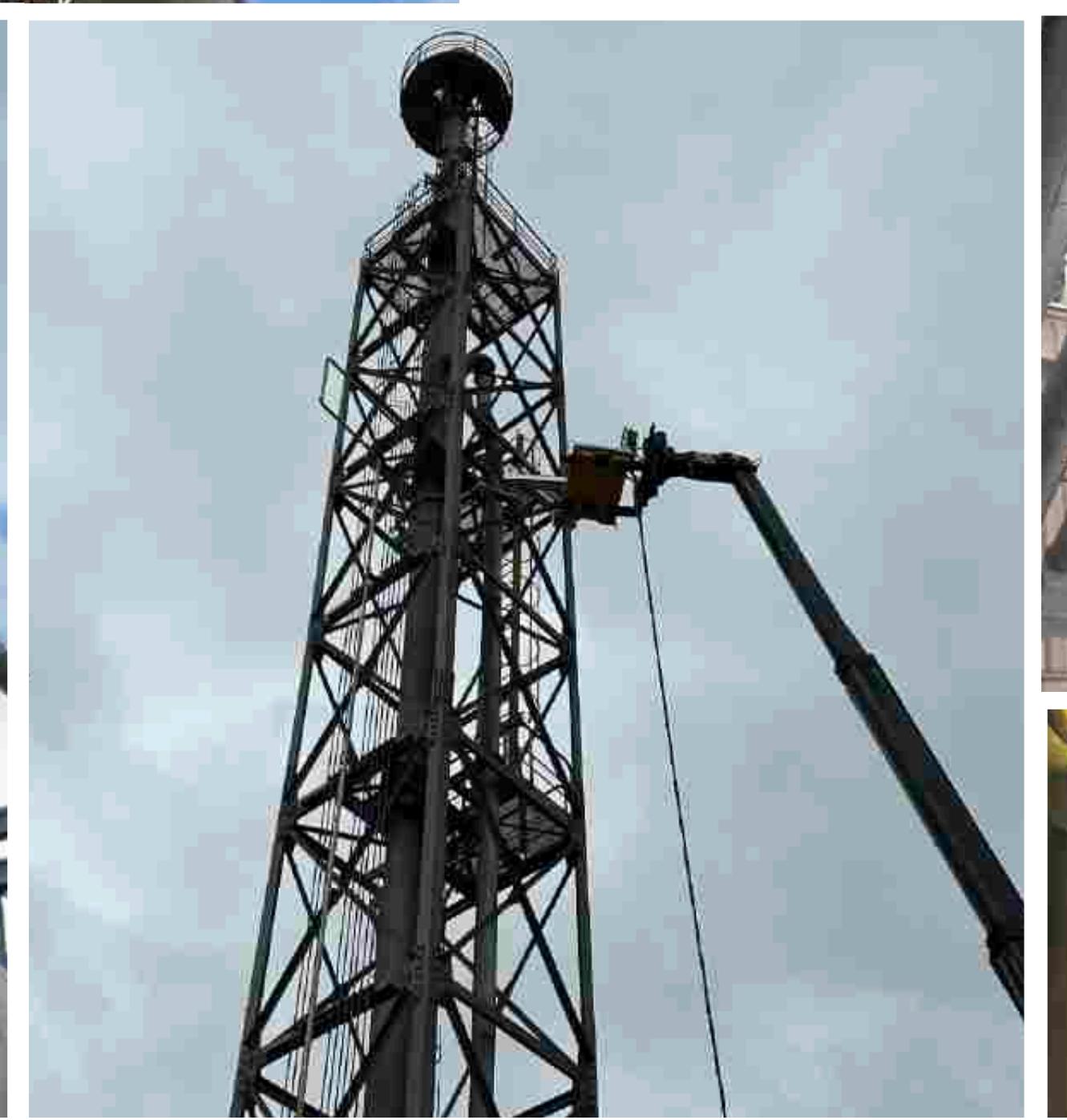
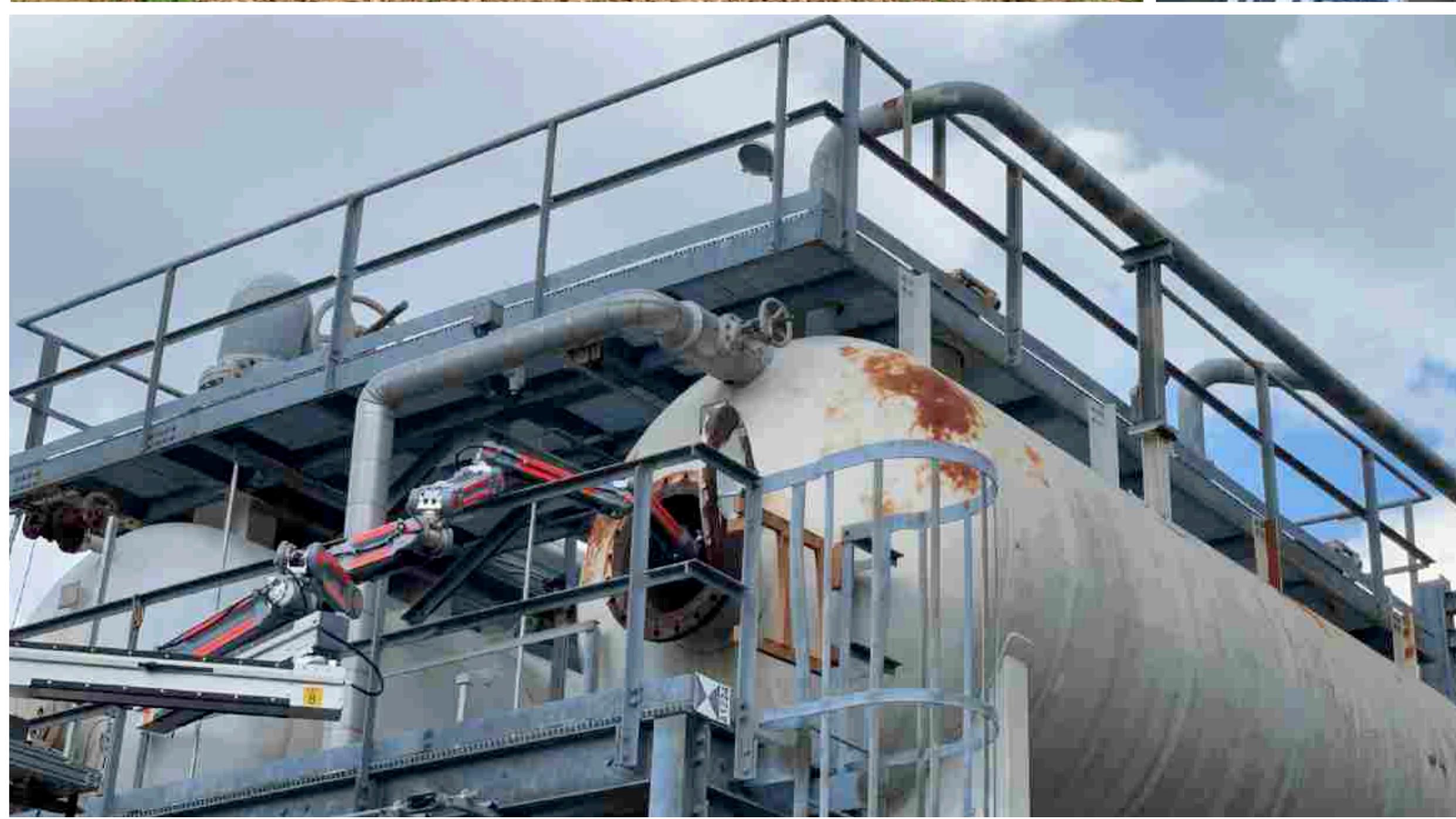
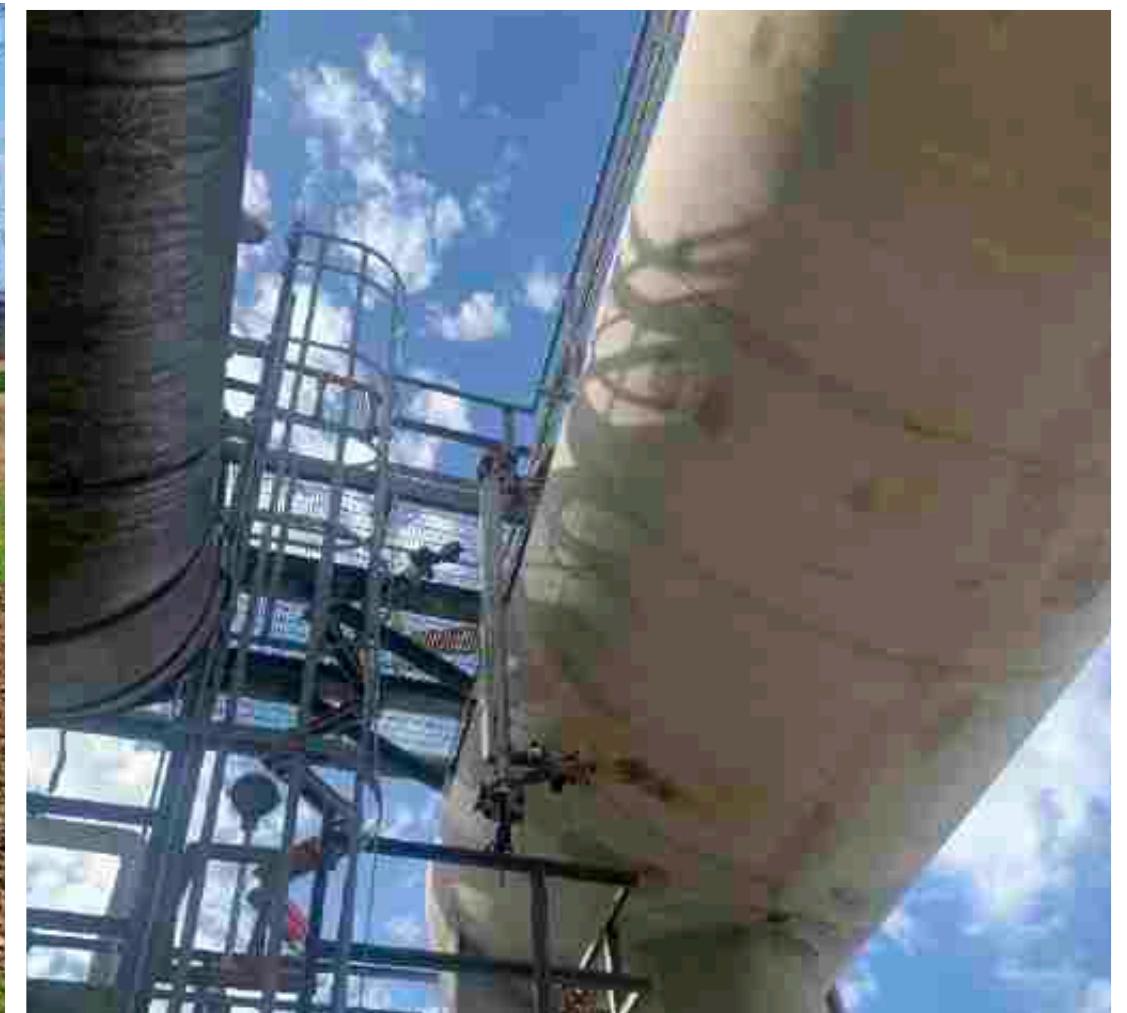
Percentage of facilities that are 50 years old\*2

\*1: 古い橋梁など記録が確認できない建設年度不明橋梁、約23万橋は含まれない  
\*2: 円グラフについては、2019年以降建設予定の橋梁は考慮していない

Annual maintenance costs in the order of 9 trillion yen for the next 50 years

# NEED FOR INNOVATION TO SUPPORT OPERATORS





We create chemistry

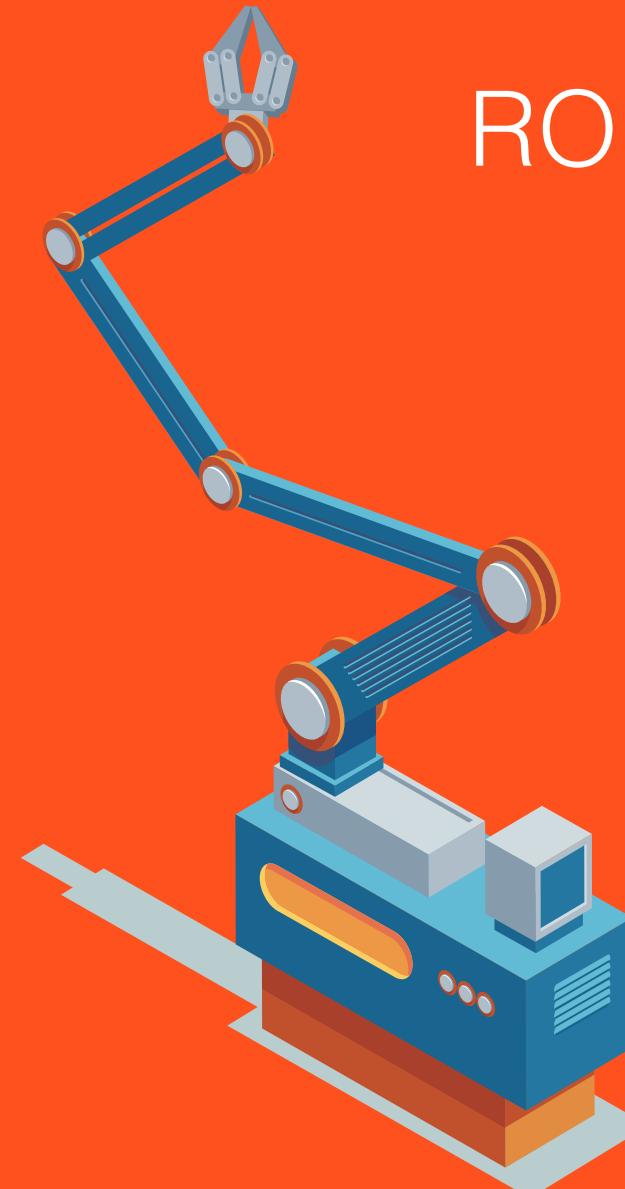


# SMART TIC

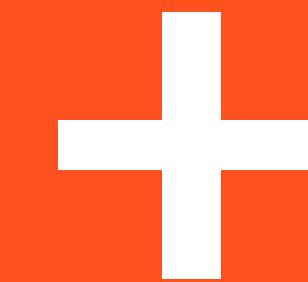
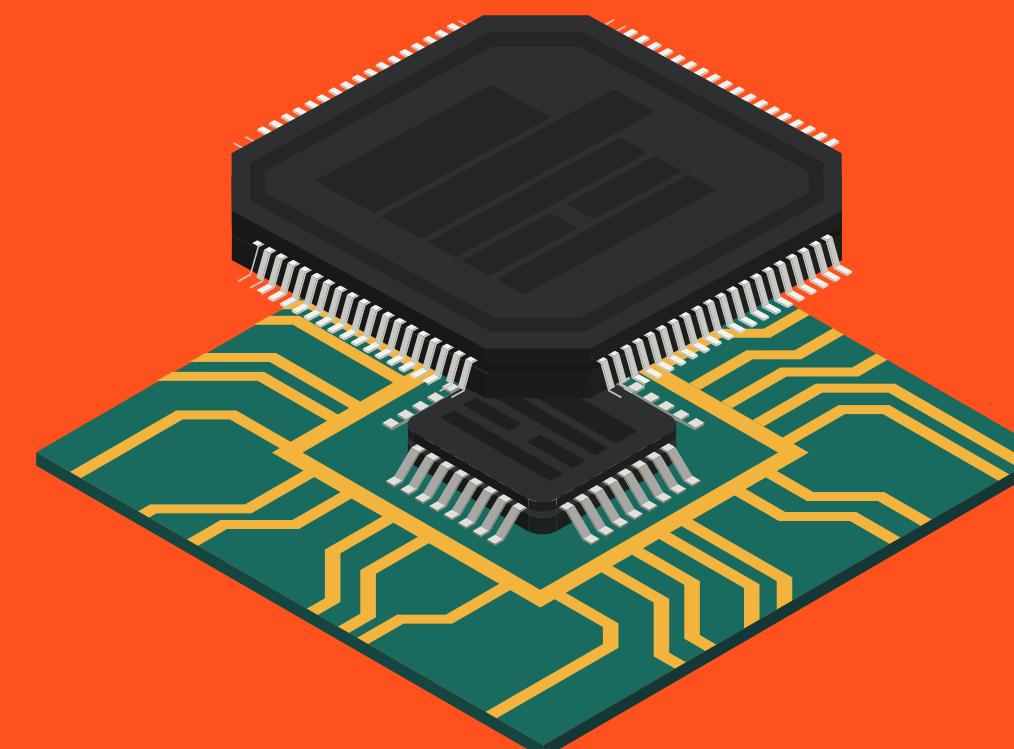
**Failure prediction** is the key, to efficiently assure the reliability of our ageing and failing **infrastructures** and avoid accidents

## SMART TOOLS

ROBOTICS + SENSING



&



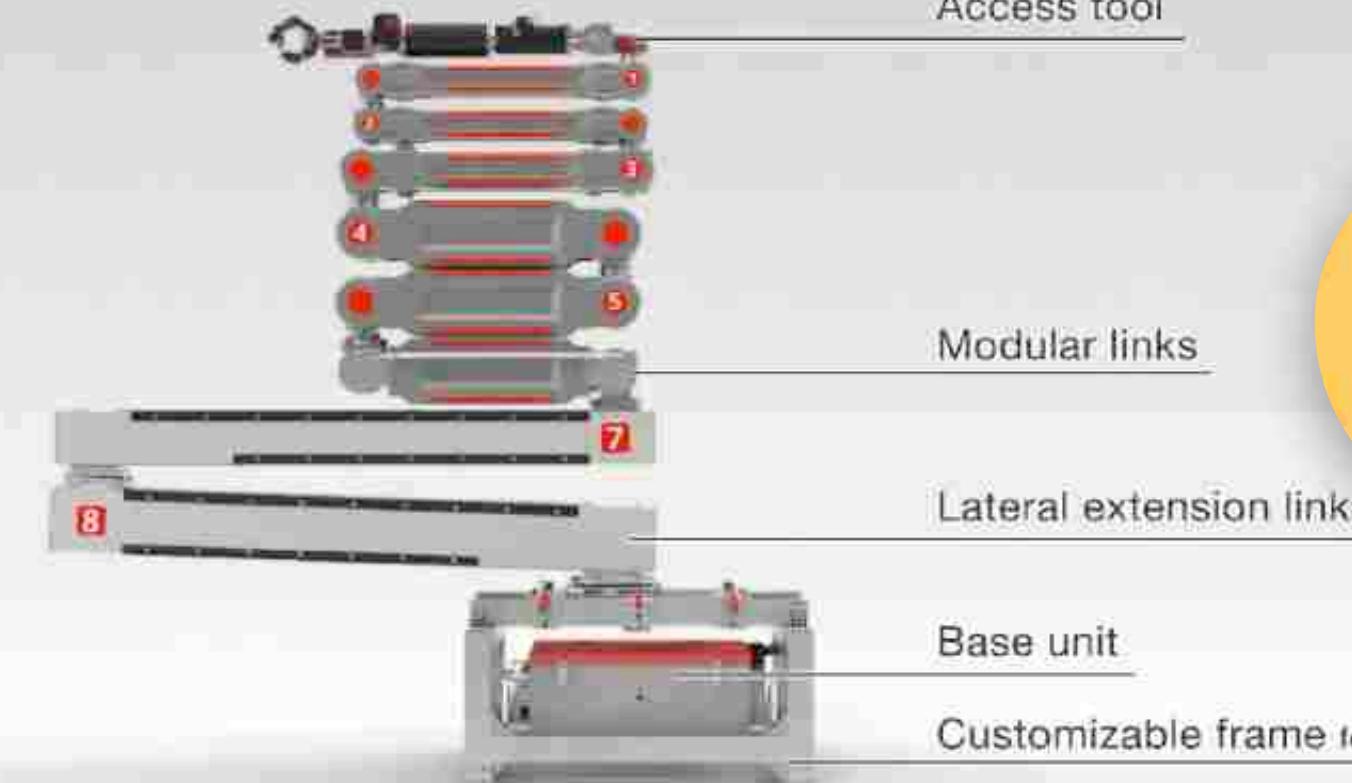
## SMART SERVICES

AI and DATA management



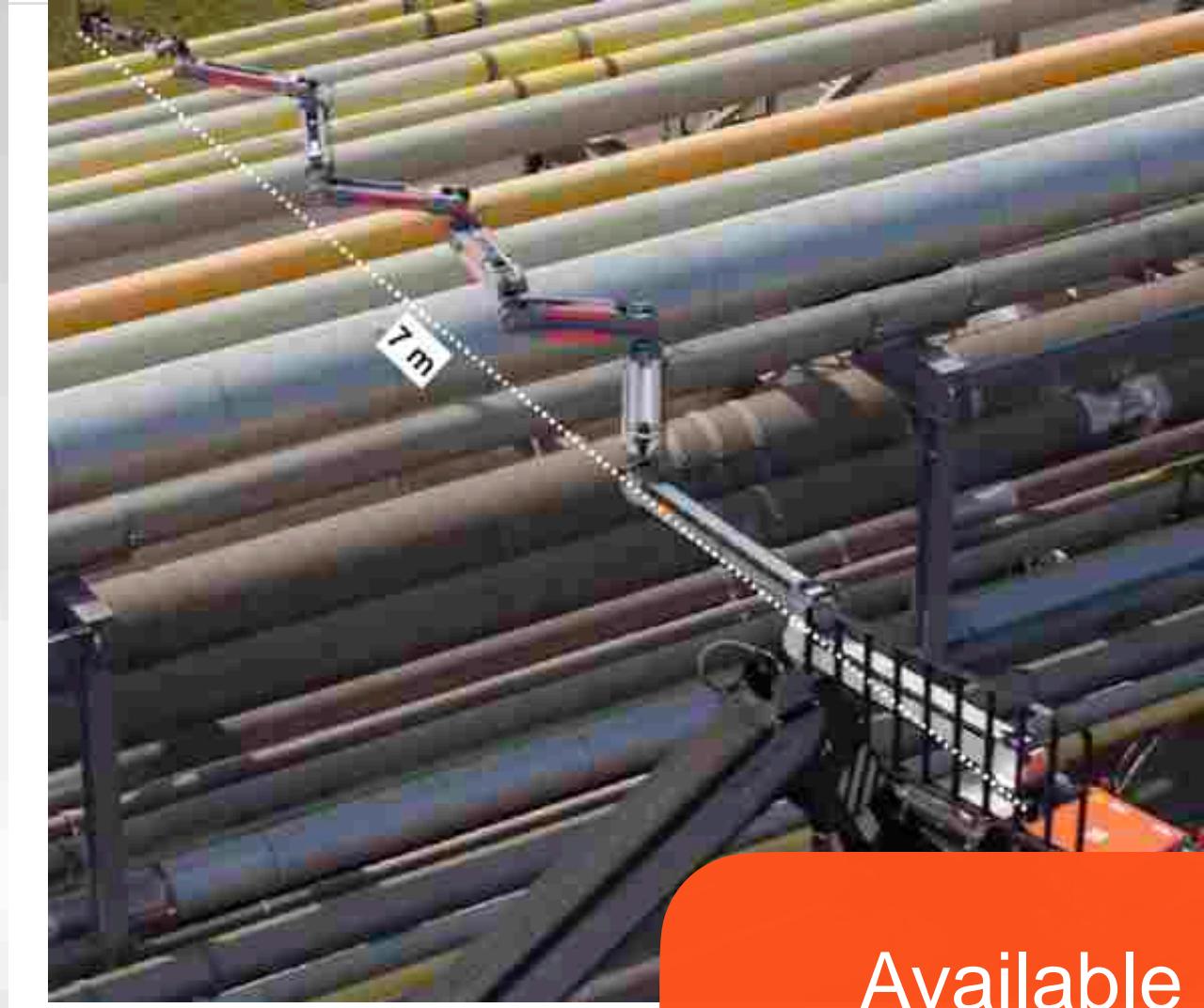
# FLOAT ARM

Float Arm main components



hibot

VIDEO



Float arm is a long reach arm utilized as an access tool to inspect and maintain infrastructures such as pipe racks, vessel tanks and confined or difficult to reach spaces. The system can be assembled quickly in the field, link by link with the desired configuration.

Available for rental (from daily basis to above) and sales

-30%

reduced operation costs: no scaffolds, less lean operations and preparation

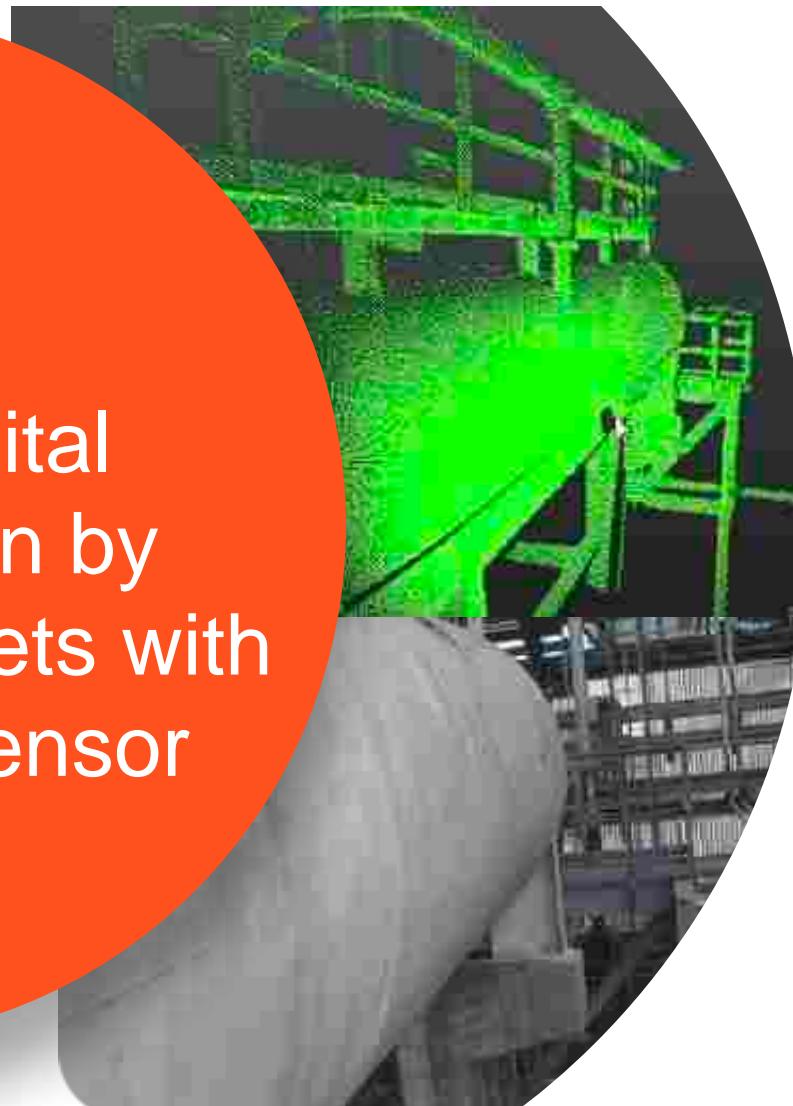


No more confined space entry and increase of safety



DX

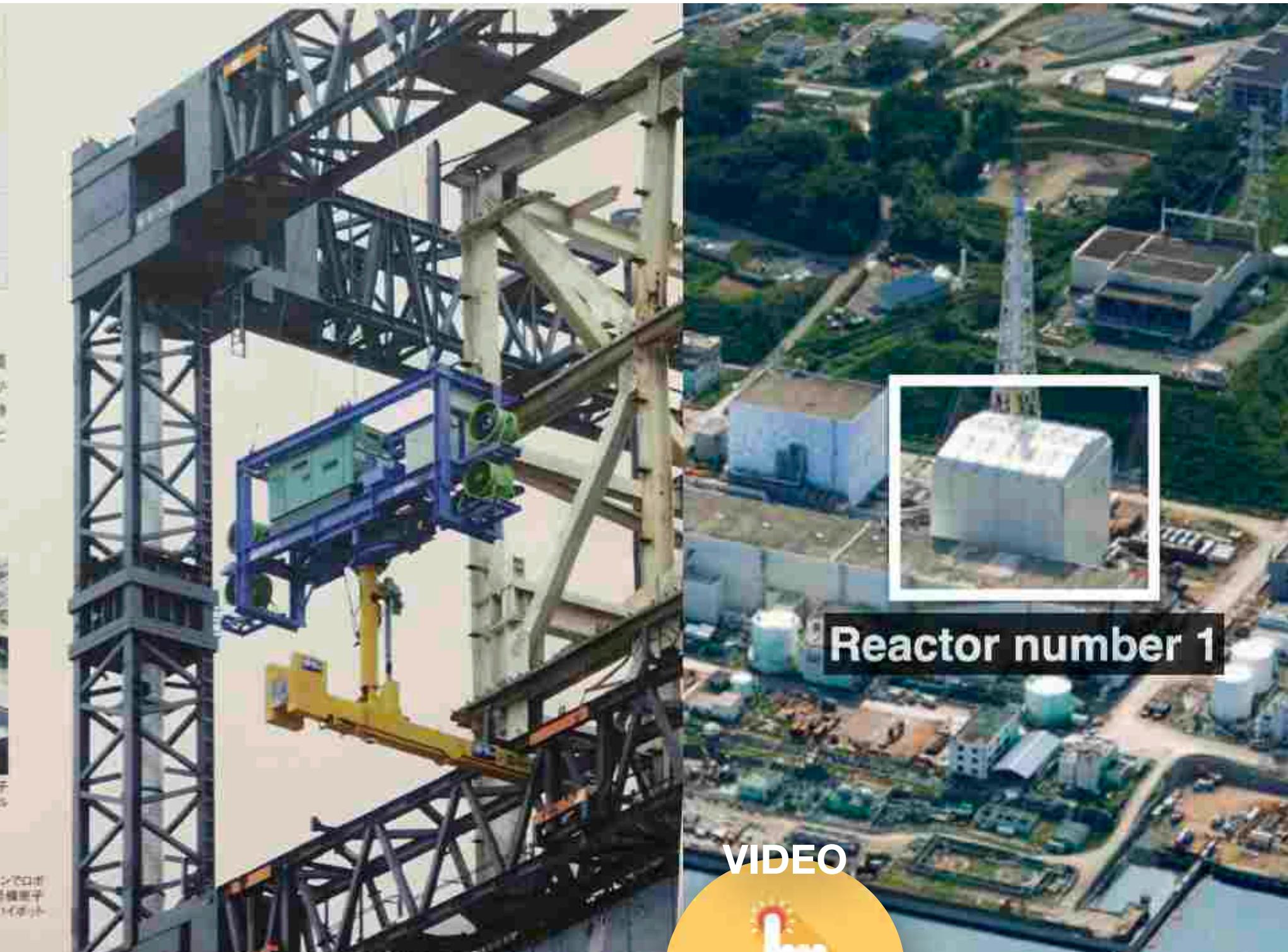
Push for digital transformation by digitalize all assets with images and sensor data



# Uniqueness of float arm



Unmanned Aerial Systems fly high and into open spaces, limited or concerned in tight spaces

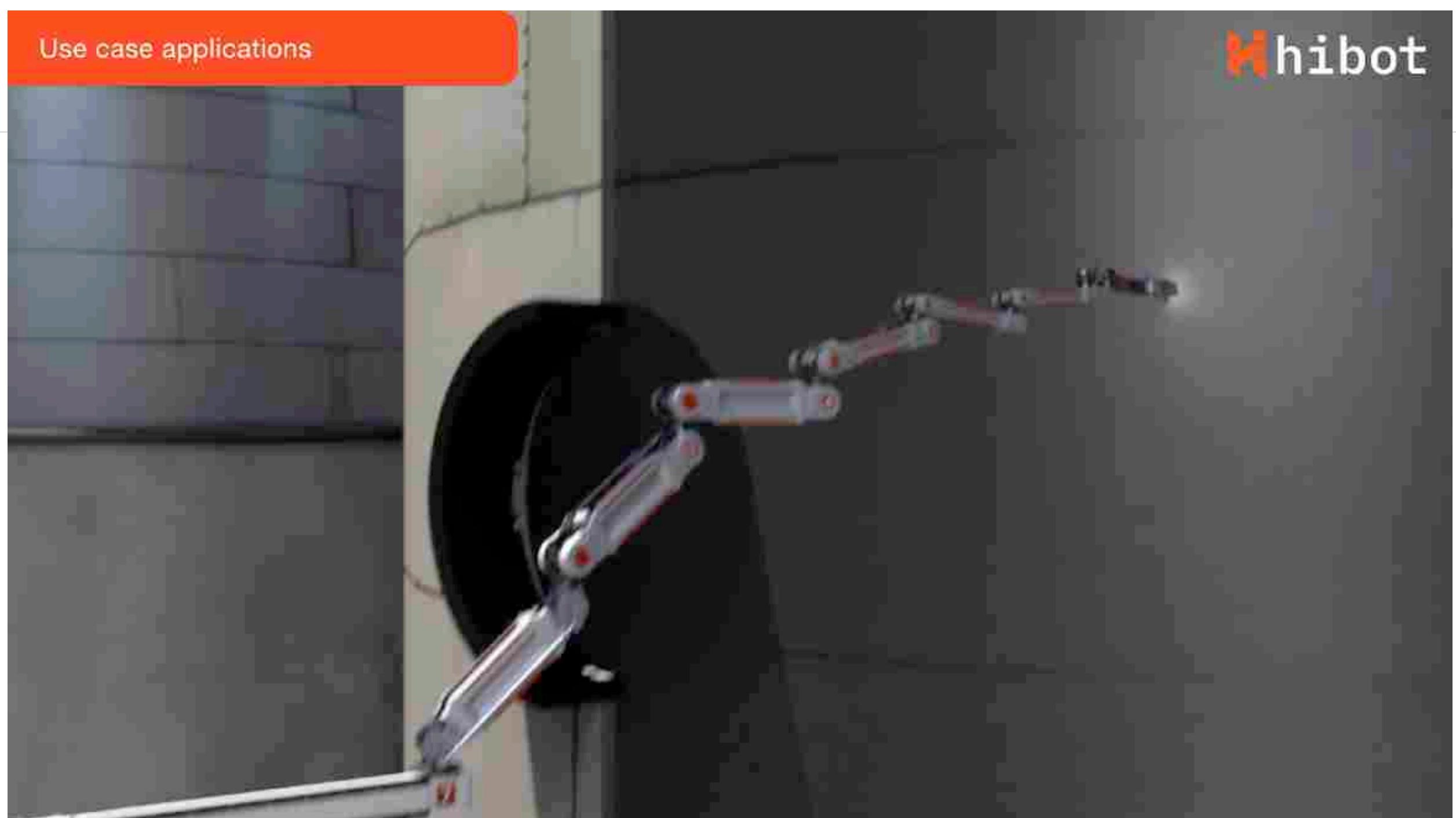


## Covering the gap

“Float ARM operating envelope bridges the gap – covers a greater range of opportunities”

[Deepstar members]

Ground robots are mobile but can be restricted on access operate in the 0-to-+1-meter height range



-30%

reduced operation costs: no scaffolds, less lean operations and preparation



No more confined space entry and increase of safety



## SMART TOOLS: BOILER INSPECTION SYSTEM



### Boiler Inspection System

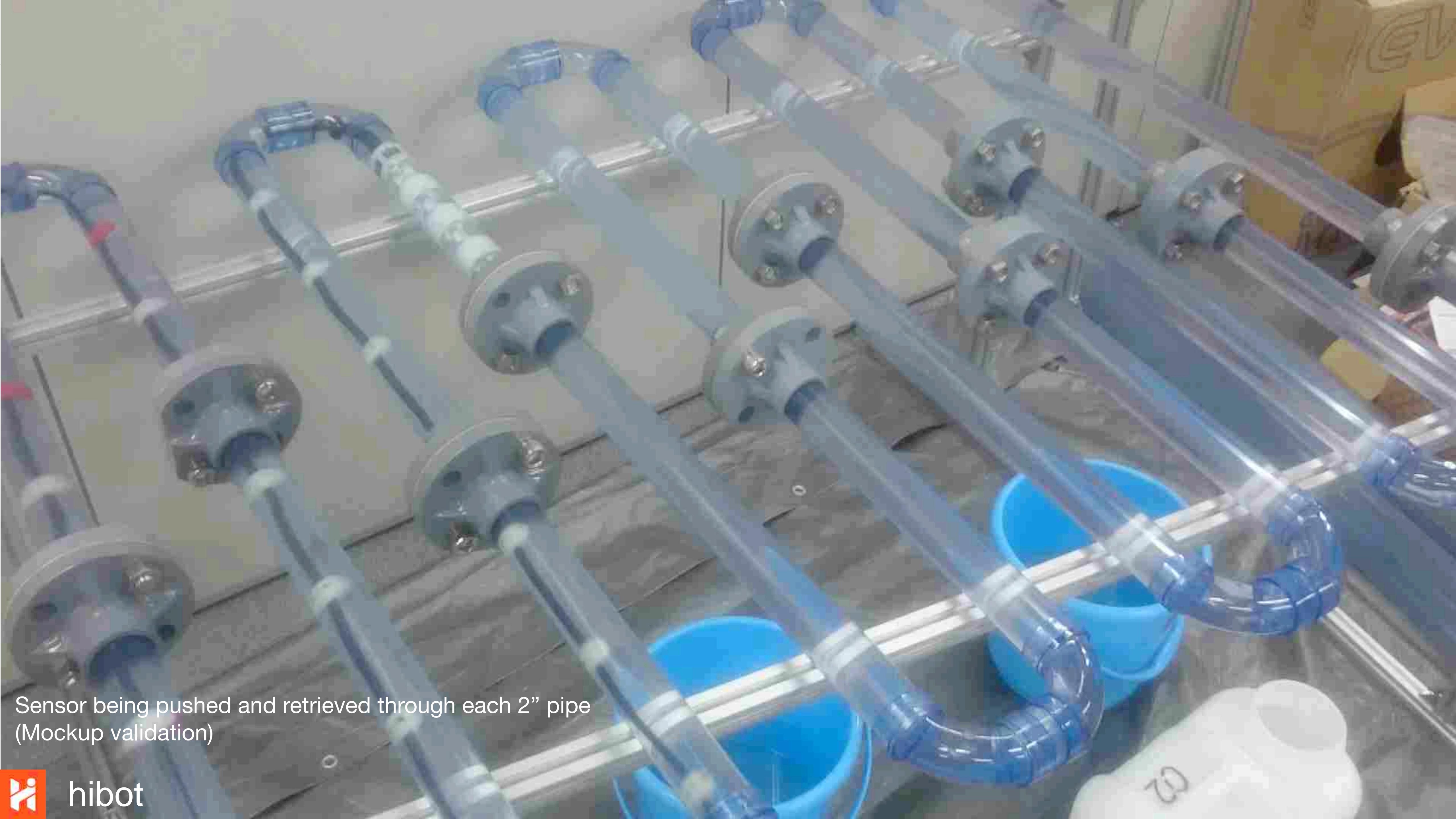
Industrial boilers full  
Inspection

RAAS Service started with:



EBARA  
ENVIRONMENTAL  
PLANT





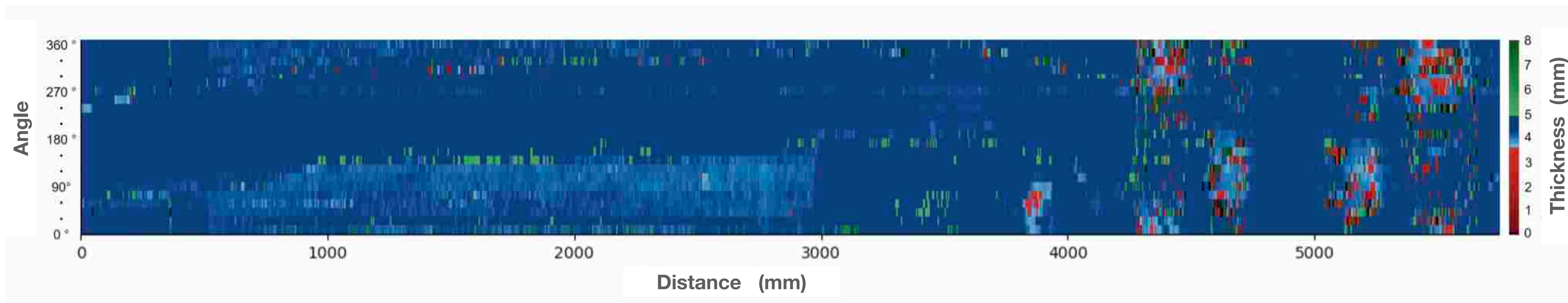
Sensor being pushed and retrieved through each 2" pipe  
(Mockup validation)

## INSPECTION DATA VISUALIZATION

Color map delivered for each inspected pipeline

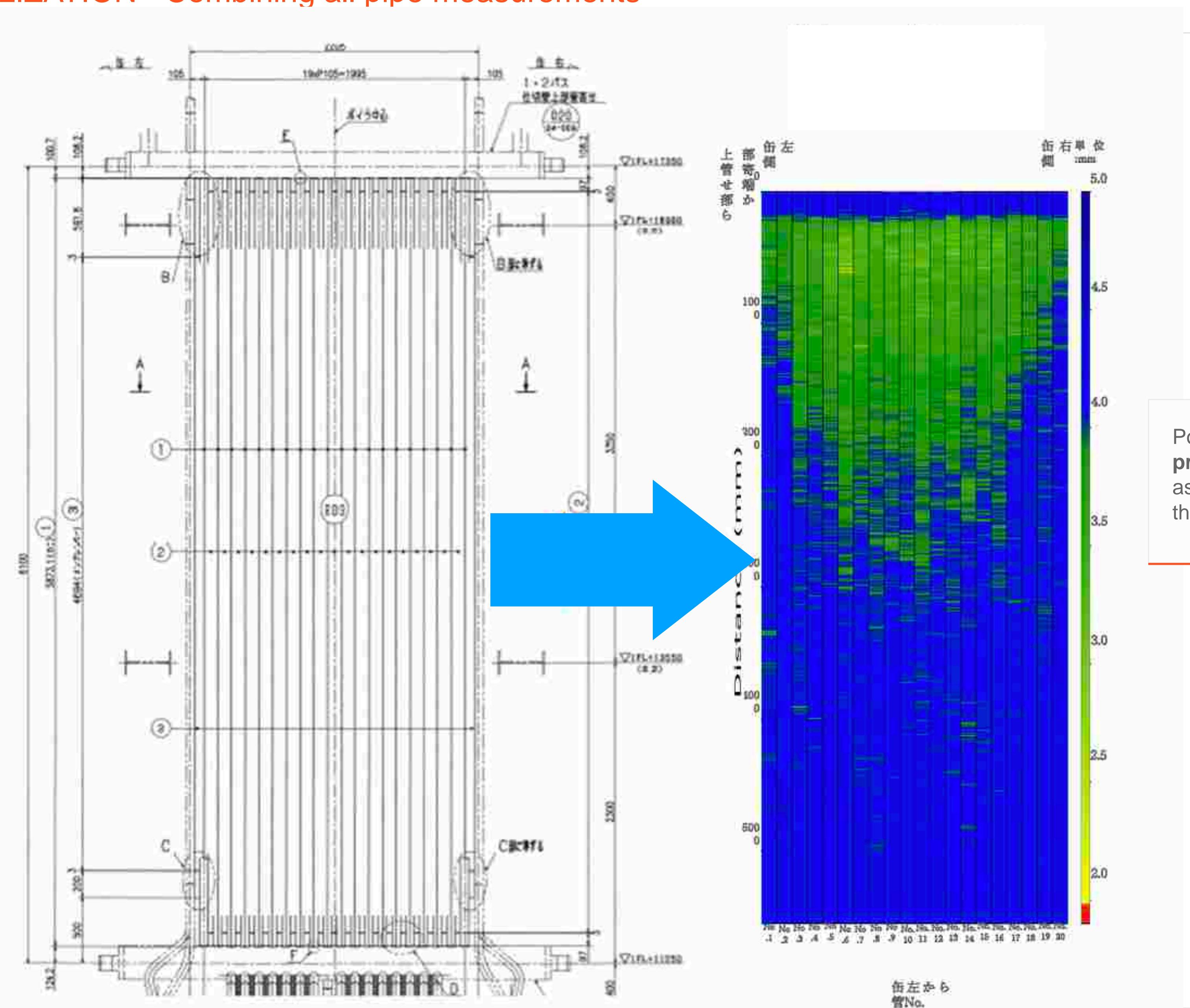


Vertically displaced pipes

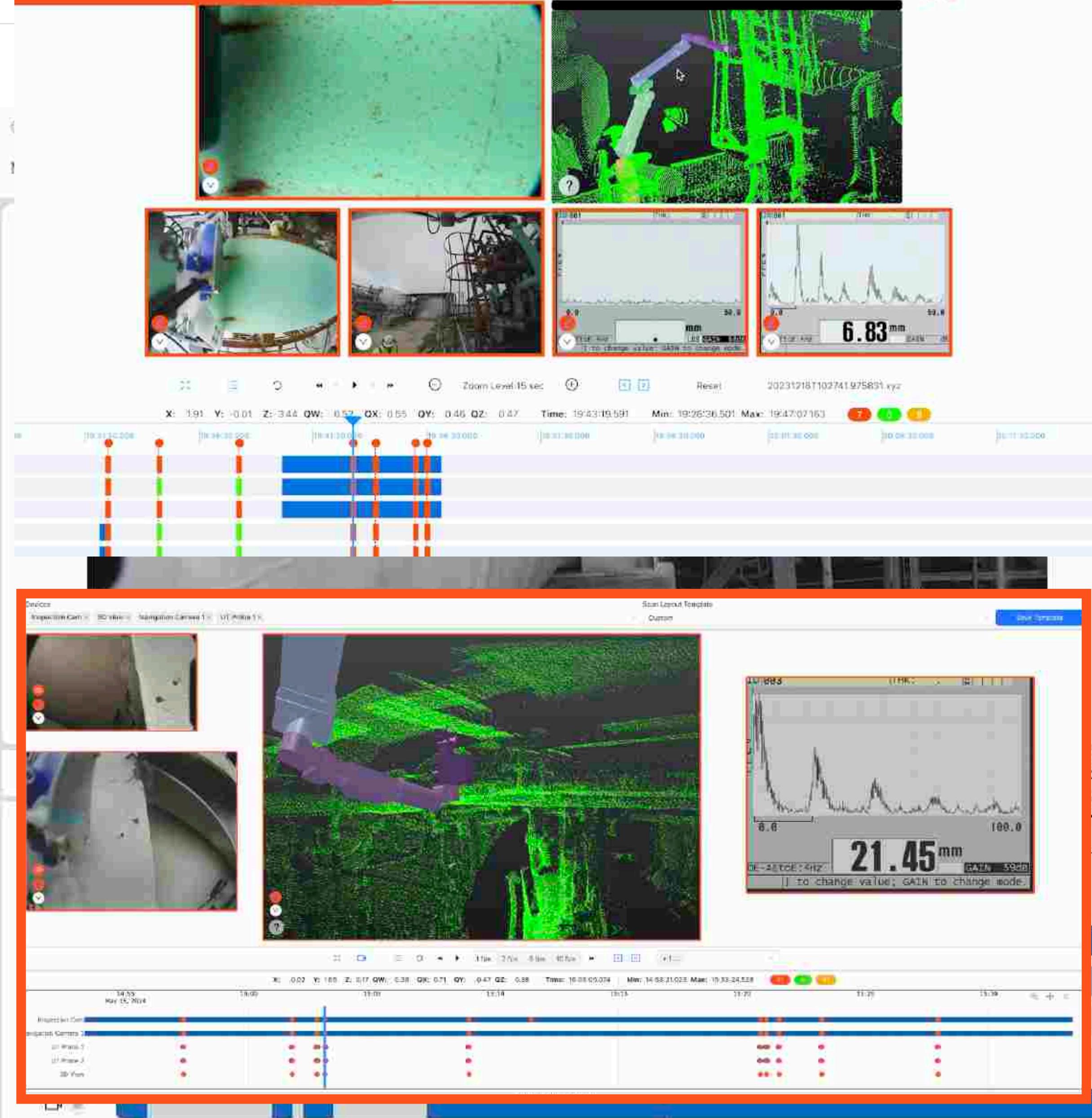


Increase data collection rate per pipe from 10% to **92%**

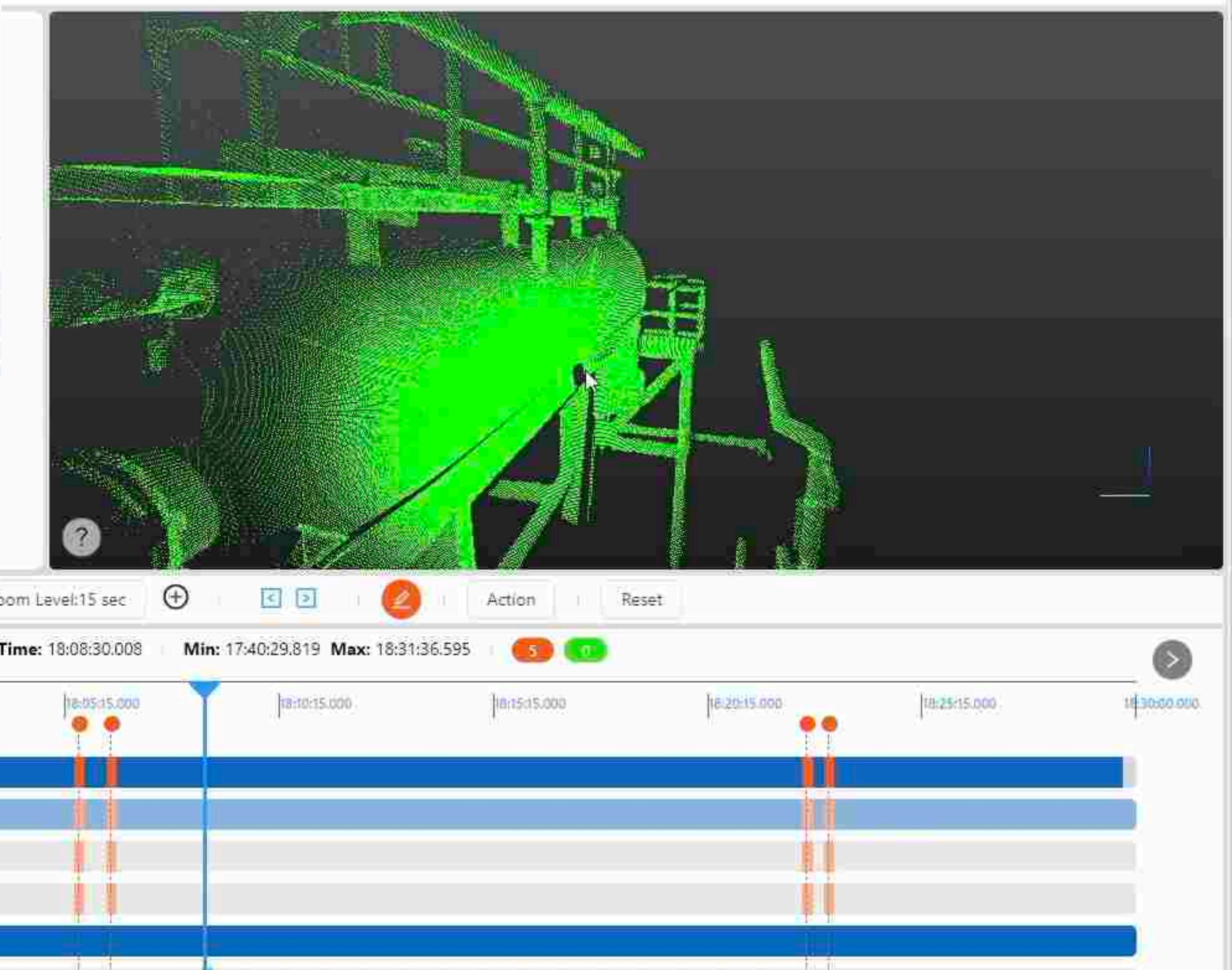
## TOTAL ASSET DATA VISUALIZATION - Combining all pipe measurements



Possibility to visualize and apply **predictive maintenance** the whole asset with over-imposed color maps, through HIBOX digital platform.



AI based fast reporting, inspection and maintenance control, digital twin management



# DEEPSTAR PROJECT



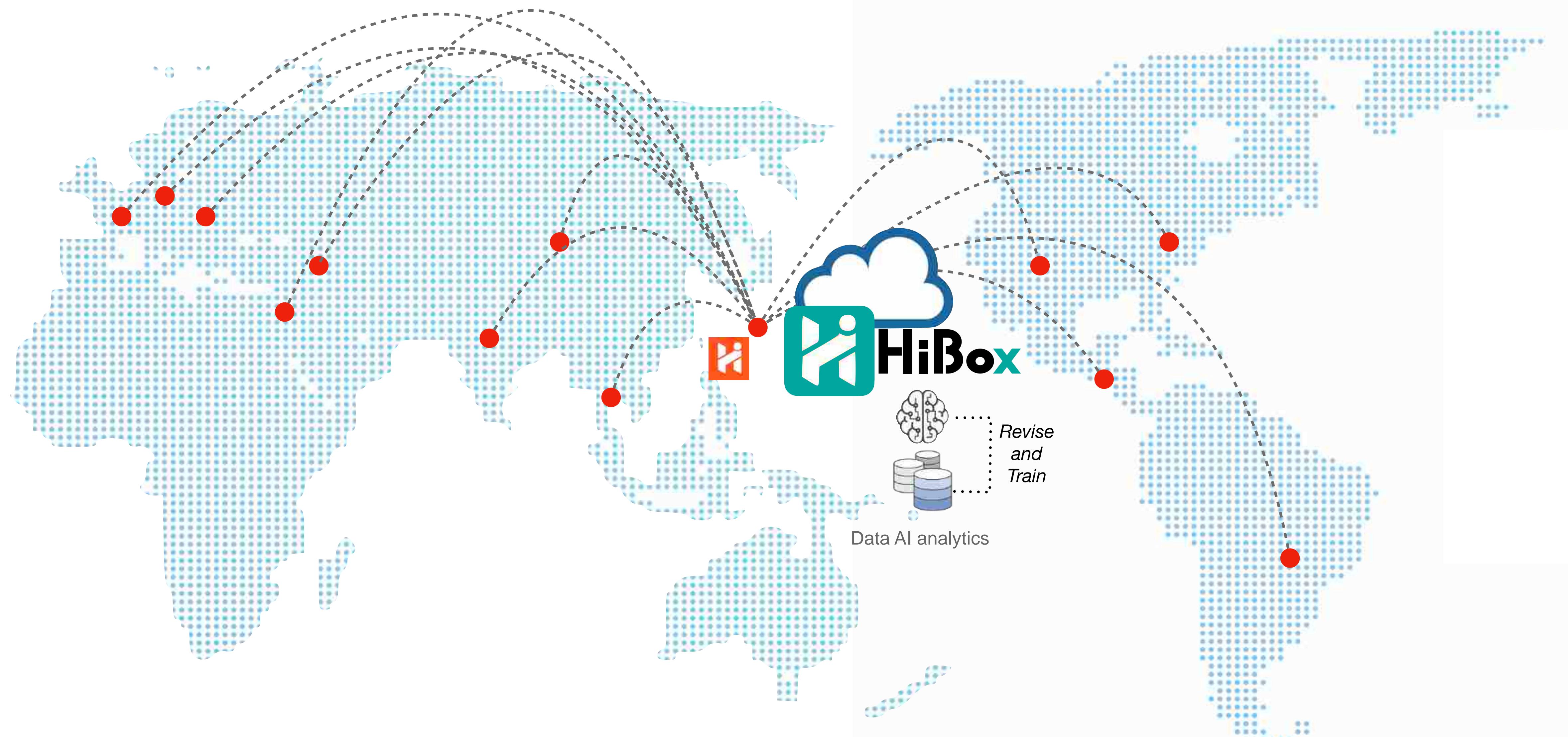
Supported by  
THE NIPPON FOUNDATION



We have started the project with DeepStar members for the application of float arm as a next generation tool for inspection and maintenance on offshore applications

Working toward unmanned offshore platforms

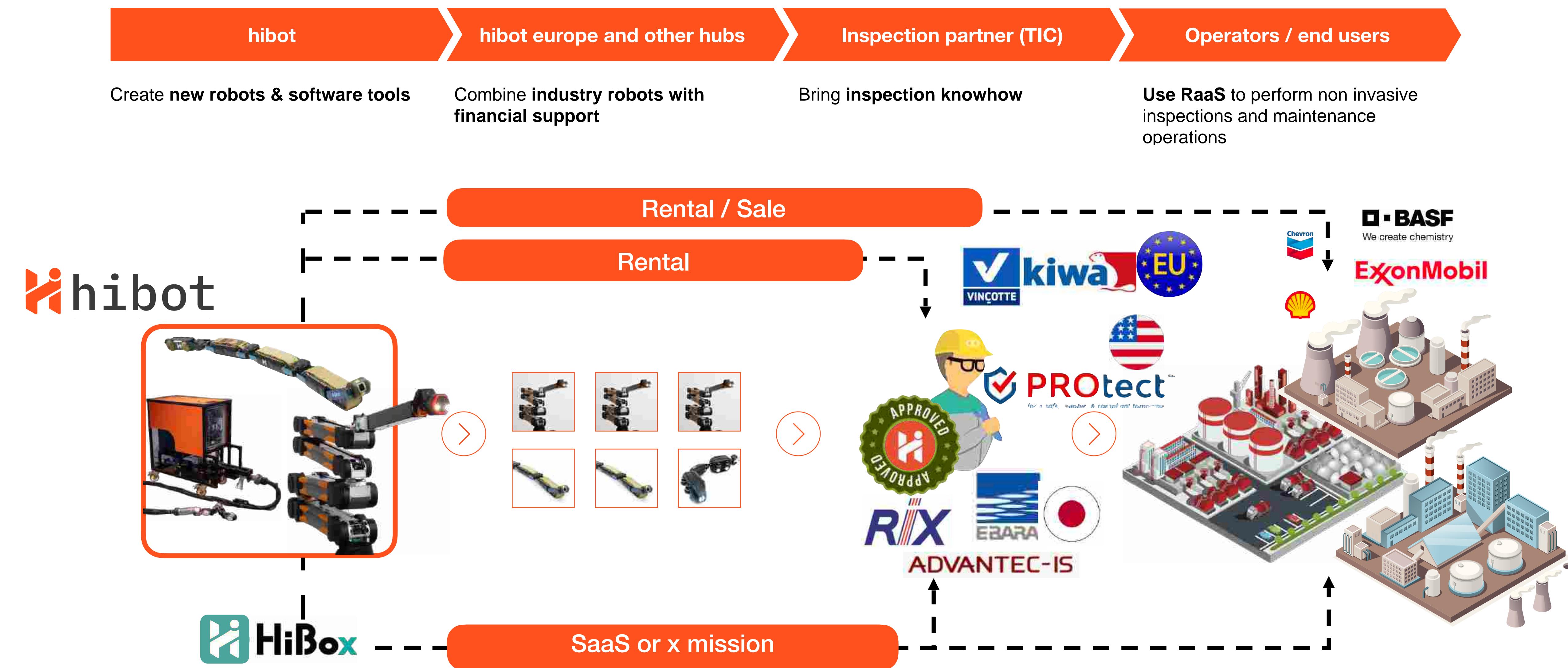




With the continuous deployment of our smart tools for infrastructure inspection and maintenance, more data will be available. The availability of data allows the training and improvements of our analytics service toward always better failure prediction capabilities

# Robot as a Service

Delivering a single bundled value proposition to the end customer through strategic partnerships along the value chain

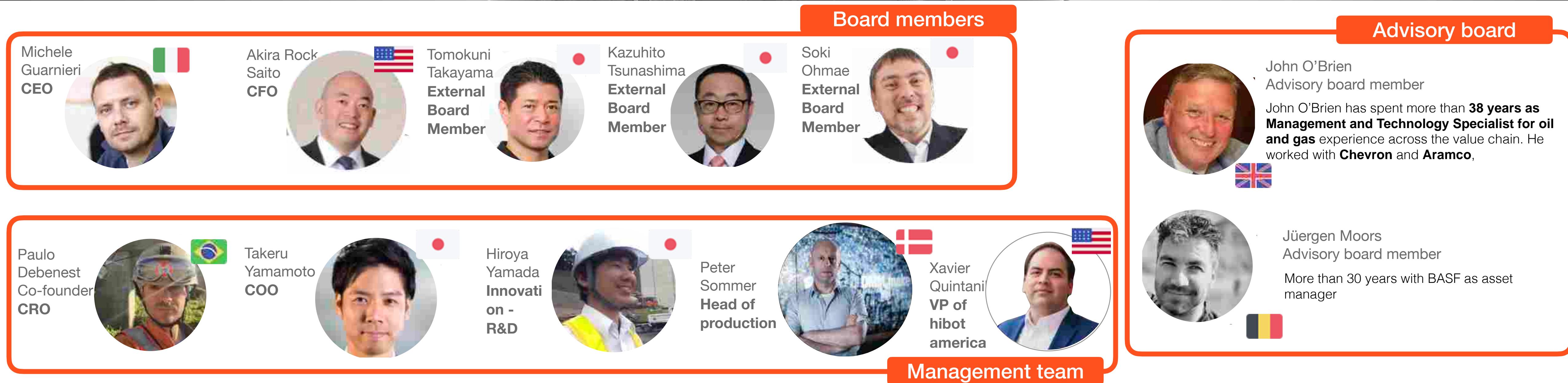


A global team for the execution



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On our way to be the next unicorn from Japan!



Our main hub locations:

