

GISHW Tokyo Meeting

Safety, Health & Well-being Technology Case Studies in Japan

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A stylized globe graphic composed of a grid of small dots, showing the continents of Asia and Australia. It is positioned on the right side of the slide, partially overlapping the text 'Enhancing planetary health'.

Enhancing planetary health

- Overview of Safety Performance in Japan
- JGC's technological initiatives in enhancing safety health and well-being performance.
 - Recognition program "Azas"
 - Respect and Care Program
 - AI Surveillance System

Company Profile



JGC CORPORATION


Established

1928
October 25


**Total Group
Manpower**

Approx. **8,865**
(As of March 31, 2024)



EPC Business

EPC business(engineering, procurement, construction) and maintenance business for various plants and facilities.

**Our
Business**

Functional Materials Manufacturing

Production and sales of various catalysts, Fine Chemical products and Fine Ceramic products.

EPC Business



Energy Transition



Healthcare/Life Science



Industrial/Urban Infrastructure



Resource Recycling

Functional Materials Manufacturing



Catalysts



Fine Chemicals



Fine Ceramics

Energy and Environmental Consulting



1. Overview of Safety Performance in Japan

A stylized globe composed of a grid of small dots, with a blue glow at the bottom. The globe is positioned on the right side of the slide, partially behind the title and the tagline.

Enhancing planetary health

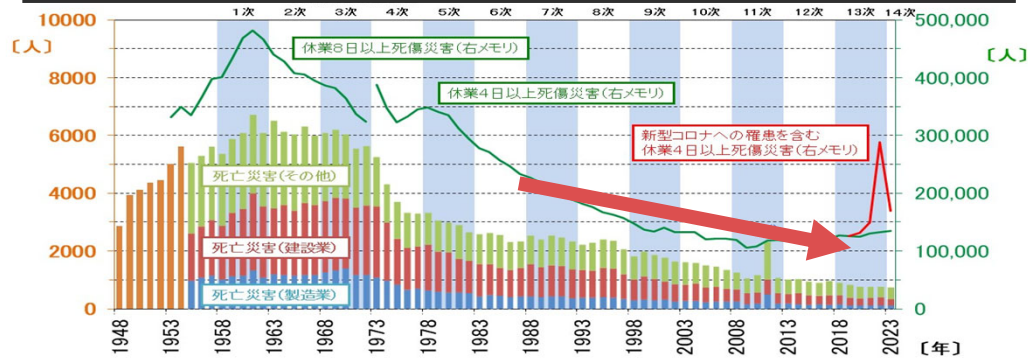
Overview of safety performance in Japan

- Safety statistics

The **rate of decline** in fatal accidents **has slowed recently**.
(Not reached to Zero fatality)

Safety

(Number of OHS-related fatal accidents trend in Japan)



※ 東日本大震災を直接の原因とするものを含んでいる。
厚生労働省WEBサイトの災害データ各年版より作成

Major reasons affecting overall safety performance

- Shortage of skilled workers

Due to the retirement of skilled workers who reached over 65 years old.

- Decreasing interest in working in the construction industry

The younger generation preferred to choose more relaxed and less stressful jobs.

- Work style that compromises mental and well-being
Lack of provision for mental and well-being programs.

Opportunities for improving safety health and well-being performance:

- **Reward and Recognition** - fostering positive human-to-human interaction and promoting workers' well-being.
- **Investing in technologies** that can proactively support safety monitoring and preventing incidents and accidents.



2. JGC's technological initiatives in enhancing safety health and well-being performance.

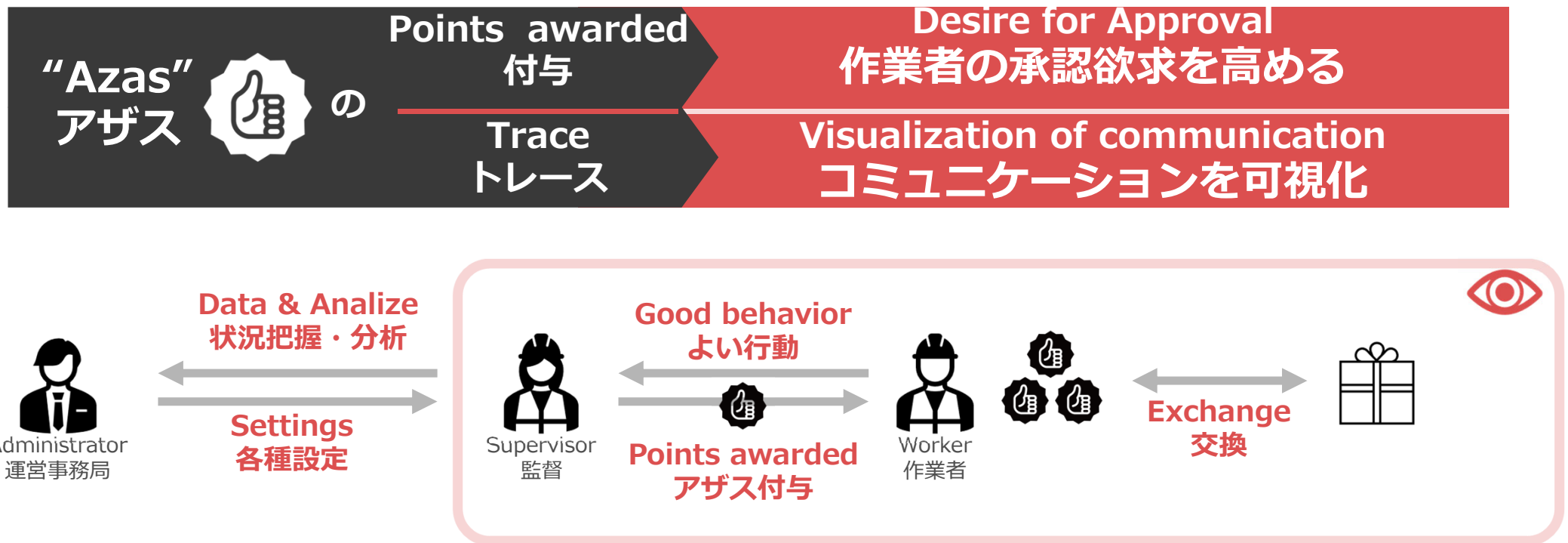
A stylized globe composed of a grid of small dots, rendered in light blue and white, positioned on the right side of the slide.

Enhancing planetary health

2-1. "Azas" Recognition Program

Methodology of the Azas system:

When good practice is observed by supervisors or work colleagues, giving positive recognition becomes easier using the Azas Application recognition platform. It positively influences safety consciousness and behavior transformation in the workplace.



2-1. Recognition program “Azas”



Feedback from the PJ applied for the Azas program:

- The most significant change felt after the introduction of Azas is the **increase in communication and daily conversations** between supervisors and workers.
- Another benefit was that the **workplace became more tidy and organized**. It has **created a safer workplace with worker's positive motivation**.

アザス 建設現場の安全文化をコミュニケーションから作る

2.2 Respect and Care Program



What is Respect and Care...

Respect and care are **foundational values** that define **how we interact with others** in the workplace and in our daily lives. These values **foster a culture of understanding, support, and mutual appreciation**, creating a **positive environment** where everyone feels valued and heard.



Conventional HSE audit methodology



HSE audit + Respect and Care Health check

Worker's Survey Questionnaire			
Respondent Number:	Have 25 workers complete a survey form.?		
#	Review Questions	Yes	No
1	Was the Project's Respect and Care program clearly explained during your site orientation?	<input type="checkbox"/>	<input type="checkbox"/>
2	Have you seen and understood the project's Respect and Care activities on-site?	<input type="checkbox"/>	<input type="checkbox"/>
3	Did a project manager open and close your site HSE orientation?	<input type="checkbox"/>	<input type="checkbox"/>
4	Are you required to participate in daily pre-start warm-up exercises?	<input type="checkbox"/>	<input type="checkbox"/>
5	Do managers attend and present at toolbox talks?	<input type="checkbox"/>	<input type="checkbox"/>
6	Does the information discussed during toolbox talks assist you in working more safely?	<input type="checkbox"/>	<input type="checkbox"/>
7	Does your supervisor conduct a daily STARR meeting before you commence work?	<input type="checkbox"/>	<input type="checkbox"/>
8	During the STARR meeting, does your supervisor ask questions and engage with the team?	<input type="checkbox"/>	<input type="checkbox"/>
9	Are you aware of the project's Respect and Care initiatives?	<input type="checkbox"/>	<input type="checkbox"/>
10	Have you been involved in any of the project's Respect and Care initiatives?	<input type="checkbox"/>	<input type="checkbox"/>
11	Have you found these Respect and Care initiatives beneficial to your well-being?	<input type="checkbox"/>	<input type="checkbox"/>
12	Have you been appropriately engaged by one of the project's Respect and Care champions?	<input type="checkbox"/>	<input type="checkbox"/>
13	Do you feel respected and cared for on this Project?	<input type="checkbox"/>	<input type="checkbox"/>
14	Have any members of the management team had a discussion with you about your living and working conditions?	<input type="checkbox"/>	<input type="checkbox"/>
15	Do you consider that your fellow workers show respect and care for each other?	<input type="checkbox"/>	<input type="checkbox"/>
16	Have you been engaged in any after-work games or fun activities by managers?	<input type="checkbox"/>	<input type="checkbox"/>

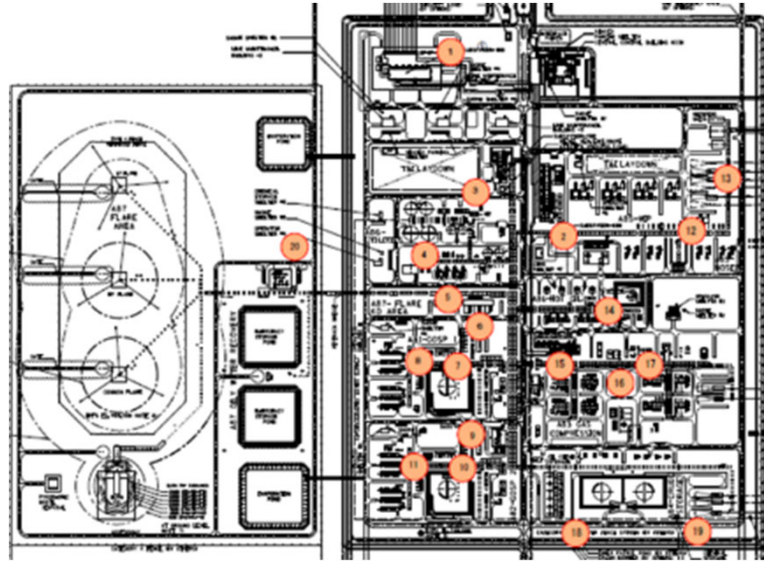


2.2 Respect and Care Program

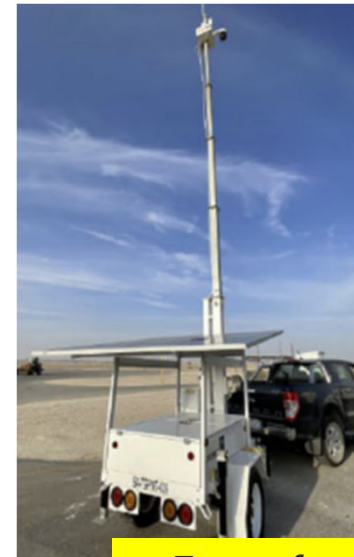


3. AI Surveillance System

- 1. Monitoring of CCTV Surveillance Systems on site
 - 20 cameras installed strategically and Monitors
 - Artificial Intelligence (AI) used for surveillance



Distribution of cameras on site



(PTZ type camera)



Types of cameras used for surveillance

3. AI Surveillance System

Surveillance System using Artificial Intelligence covered monitoring of the following:

- **Construction Equipment** (human-machine interface)
- **PPE**
- **Trip hazards** (projecting on ground)
- **Scaffolding** (tie-off)

Screenshot examples of AI surveillance

