



## Active promotion of international standardization activities

In industrial fields where new technological developments such as ICT and collaborative robots are advancing in addition to market globalization, realizing a safe working environment that leaves no one left behind has become a pressing societal concern. We make positive impacts toward the realization of a safety, ANSHIN, well-being, and sustainable society by solving societal challenges through the formation of social rules, including the development of human resources to support safety and international standardization activities.

### Related materialities

Safety, ANSHIN, and well-being

- Realize the optimum environment for both humans and machines to resolve various societal challenges and make it possible to achieve healthy, happy, and vigorous lives.
- Improve safety, productivity, and well-being through technology development, human resource development, management, and rulemaking.

### Major sustainability KPIs (FY2025)

- Cumulative attendees of safety & explosion protection seminars **5% increase from the previous year**
- Number of cumulative employees holding safety qualification **3% increase from the previous year**

## Activities to ensure well-being beyond safety

Since our founding, IDEC has supplied society with a variety of products and services with control technology at its core as a company that develops and provides products that protect human life. In order to realize a society in which everyone can live healthy, happy, and full of life, it is important not only on the technical aspects to supply products with high performance, ease of use, and stable quality, but also on the management

level to commit to human resource training, to formulate and implement rules such as standards and norms, and to realize well-being.

For this reason, IDEC is reinforcing its intellectual capital by promoting various initiatives from the four aspects of Technology, People, Rulemaking, and Management.



## Developing safety personnel

To ensure safety of manufacturing and safety promotions based on international safety standards, IDEC encourages employees to obtain safety qualifications and pays for the cost of taking examinations and renewing the certification.

As a result, we have the highest number of qualified person of Safety Lead Assessors in Japan, which is the highest level of personnel certification for machinery safety. We also encourage employees to obtain the Robot Safety Assessor certification, which certifies that they are qualified to possess basic robot safety knowledge, and the Safety Officer certification, which certifies management personnel for their knowledge of occupational safety management and their ability to perform it.

We provide safety consulting services that aim to achieve both safety and productivity, such as supporting risk assessments and proposing and developing risk reduction measures at industrial workplaces, utilizing our extensive experience in manufacturing and our advanced knowledge of safety.

### Qualification attesting to the level of safety knowledge and designing competency for technical staff

Number of employees qualified as Safety Assessors, Safety Basic Assessors and Robot Safety Assessors

**560**  
people

(As of April 2023)

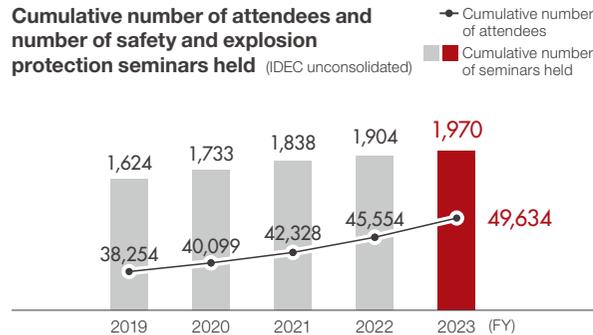
### Qualifications of knowledge and competence in occupational safety management for administrative staff

Number of employees qualified as Safety Officers

**113**  
people

In addition, various free safety seminars (online) from basic to advanced and practical are provided to help customers use safety-related products and explosion protection products properly.

**Cumulative number of attendees and number of safety and explosion protection seminars held** (IDEC unconsolidated)



In order to become a company that pursues and realizes the highest level of safety, ANSHIN, and well-being in the world, we provide safety training to all employees.

In FY2021, safety training was expanded to our group companies in Japan, and in FY2022, safety training was provided to executives at our Suzhou factory in China, one of our major overseas production sites. From FY2023 onward, we are expanding the scope of safety training to include executive employees at our factories in Thailand and Taiwan.

In the safety training, participants learn about IDEC's safety history (DNA), safety concepts, safety products, and the latest information such as Vision Zero and Collaborative Safety / Safety2.0", and also take a comprehension test after the training to consolidate their knowledge.

**The IDEC Group's safety training plan**



**Resolving societal challenges through social rulemaking**

IDEC has been involved in the formation of social rules through active participation in international standardization activities.

From the 1960s to the 1990s, IDEC expanded its market mainly by utilizing existing rules, but since the 1990s, IDEC has actively participated in technical committees of IEC (International Electrotechnical Commission) and ISO (International Organization for Standardization), proposing and promoting international safety standards in response to new technological developments in the global society. IDEC itself has been active in shaping the rules by proposing and promoting the development of international safety standards in response to new technological developments in the global community. And since 2017, by focusing on activities to create rules based on new ideas such as Vision Zero and well-being, we aim to achieve our Purpose: "to create the optimal environment for humans and machines, and to achieve safety, ANSHIN, and well-being for people around the world."

International standardization activities are defined in the following three categories, and we have established a dedicated unit, the International Standardization and Collaborative Safety Department, within our headquarters to promote a variety of activities.

Among the three categories, we are particularly focusing on "creative" and "proactive" international standardization activities, which we advocate to the world with Japanese leadership. We are also aiming for further growth of our business through continuous human resource development through on-the-job training.

**Types of international standardization activities in IDEC**

<b>Strategic creation approach</b>	Activities to create new rules and mechanisms such as international standards and certifications for people, products, and services.
<b>Strategic proactivity approach</b>	Activities to take the initiative in changing or revising existing international standards in order to gain an advantage in certification, or to utilize revised information on international standards obtained proactively and ahead of other companies for business purposes.
<b>Passive reaction approach</b>	Activities conducted when necessary, such as checking conformity with laws and regulations and published international standards and certification-related work, in order to conduct market research and determine specifications for new development, renewal development, and design modification of existing product groups.

**Examples of specific activities**

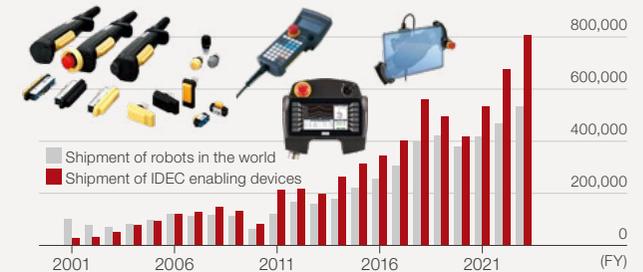
**IEC standardization activities**

At the Advisory Committee on Safety (IEC ACOS), one of the six technical advisory committees of the IEC, a Japanese representative expert from IDEC introduced "Collaborative Safety / Safety2.0" and proposed the need to develop an IEC Guide on Collaborative Safety. As a result, the development of the IEC Guide was approved in 2022, and it is expected to be officially published in the near future after voting by each national committee of IEC member body.

In addition to the above, IDEC has registered as an expert in various international standardization committees, including the control switch working group, and has participated in the development of international standards.

Through these activities, IDEC has made significant contributions to the development of standards for 3-position enabling devices, which have a global market share of over 90%, and to the revision of standards for emergency-stop switches. Cumulative shipments of enabling devices exceeded 6.3 million units by FY2023, contributing to improved safety, ANSHIN, and well-being not only at manufacturing sites but also at a wide range of sites in the construction industry and other various industries.

**Global robot and enabling device shipments (FY2001 - 2023)**



**ISO standardization activities**

IDEC has been participating in the working group for the technical committee on robot safety to develop the ISO 10218 series of international standards relating to the safety of various industrial robots including collaborative robots, robot cells and their systems.

Due to the expansion of the automotive and semiconductor industries, the automation of manufacturing and the increase in processes requiring the substitution of human labor because of the decrease in working population, the use of industrial robots is increasing worldwide. In line with this, there is a need for HMI and safety-related products to ensure the safety of operations that involve both humans and robots.

IDEC contributes to the development and revision of standards with the product and safety knowledge it has accumulated through the supply of various HMI and safety-related products that are effective in safety, ANSHIN, and well-being.



Senior Executive Officer  
Management of Technology

**Toshihiro Fujita**

# Column

IDEC had a bitter experience of losing market share because the international standard for switches, one of its main products, was created at the initiative of foreign countries, and the typical Japanese round hole for panel mounting of switches at that time was out of the standard. From this experience, Dr. Toshihiro Fujita, Senior Executive Officer, realized the importance of participating international standardization activities from Japan, and has been making efforts to lead international standardization activities in Japan by visiting and interacting with many European and US companies, standardization organizations, and certification bodies.

In order to promote international standardization activities originating in Japan, he has proposed and implemented the establishment of Japan Certification Corporation (JC), the Fine Bubble Industry Association (FBIA), and the Institute of Global Safety Promotion (IGSAP), and actively promoted new international standardization and rulemaking with the support of the Ministry of Economy, Trade and Industry (METI).

In 2022, he received the Prime Minister's Commendation for Industrial Standardization from the METI for his significant contribution to international standardization activities in Japan. The following is an overview of the main activities of the project to this point.



## Contributing to well-being that goes beyond safety, for workplaces in the age of human-machine collaboration

**Contributing to the improvement of safety at work in a wide variety of applications, including industrial robots**

IDEC has developed a 3-position enabling device that improves the safety of industrial robots, one of the key industries in which Japanese companies hold 60% of the global market share, and Dr. Fujita contributed to the development of the IEC standard for the 3-position enabling device in 2006. The devices have been widely used not only in Japan but also by overseas manufacturers for safety operations of the robot, and currently their global market share is more than 90%.

Under his leadership, we led the revision of the standard to include examples of application as safety devices not only for conventional robot teaching devices, but also for machine tools, construction machinery and others in 2020. This revision has shown the devices to be effective in many new fields, such as in many types of equipment and construction sites, and has contributed to ensuring worker safety in a variety of workplaces where people and machinery coexist.

**Advocating Collaborative Safety / Safety2.0, a next-generation safety concept originating in Japan, and announcing it globally**

Based on Dr. Fujita's vision, IGSAP was established to promote from Japan the concept of Collaborative Safety / Safety2.0, which aims to achieve both safety and productivity by sharing information between human, machines, and the environment using ICT, rather than isolating human and machines. IGSAP is actively promoting international standardization activities related to safety.

After 2020, Dr. Fujita has served as one of the six members of the Vision Zero Task Group of the Global Coalition for Safety and Health at Work, which is led by the International Labor Organization (ILO), a specialized agency of the United Nations. As the only representative from Asia, he is participating in the safety, health, and well-being rulemaking activities.

He was appointed as the person in charge of promoting the Vision Zero



Summit Japan 2022 and contributed to the compilation of the Tokyo Declaration on Vision Zero for All, the basis for the new manifesto, which includes collaborative safety, at the time of the summit in May.



**Promoting activities for the establishment of a personnel qualification certification system for machinery safety and its international standardization**

With the support and guidance of the METI at a project of the Nippon Electric Control Equipment Industries Association (NECA), Dr. Fujita proposed and developed the Safety Assessor (SA) program, which aims to train and certify personnel who can safely design and operate machinery, and contributed to establish this system.

In 2003, related industrial association standards (NECA standards) were established and the JC was founded with the aim of becoming a global certification body originating from Japan and began operating the SA program in 2004, while promoting it globally. As a result of adoption by the Official Development Assistance (ODA) program, etc., more than 25,000 persons have been qualified under the SA program in Japan and other countries, including in seven

countries in Asia, contributing to ensure safety at manufacturing sites both at home and abroad.

At IGSAP, in addition to the existing SA program for engineers, a new Safety Officer (SO) program for managers has been established. Adoption of this program in Japan and other countries has helped to further reduce accidents.

**Promoting the international standardization of 'fine bubbles\*' from Japan**

With the support of the METI, he established the FBIA as a standardization organization and proposed to ISO to establish ISO/TC 281 (fine bubble technology), in order to make fine bubble technology a Japanese industry and create new markets. He led the publication of 15 Japanese-proposed international standards on definitions, measurements and applications.

In Japan, he has also established a certification system that goes hand in hand with standardization, achieving 31 certifications at the end of FY2022, and has contributed significantly to the creation and growth of the fine bubble industry by improving social recognition of fine bubbles and creating an international standards scheme for fine bubbles at the initiative of Japan.

\* Fine bubbles are bubbles smaller than 100 μm (= 0.1 mm) in diameter and are expected to be used in a variety of industries.