

ANNEX 2

Progress in the Implementation of SAICM National Implementation Plan of Japan (Industrial Associations and Trade Unions)

**Progress in the Implementation
of SAICM National Implementation Plan of Japan
(Industrial Associations and Trade Unions)**

Contents

I. Introduction.....	111
II. Selected Initiatives by Industrial Associations	112
1. Japan Chemical Industry Association (JCIA)	112
2. Japan Soap and Detergent Association (JSDA).....	121
3. Four Electrical and Electronic Industry Associations in Japan(Japan 4EE).....	127
4. Japan Automobile Manufacturers Association, Inc. (JAMA)	128
5. Joint Article Management Promotion-consortium (JAMP)	131
6. Domestic VT62474 (Former Japan Green Procurement Survey Standardization Initiative or JGPSSI).....	134
III. Selected Initiatives by Trade Unions	135
7. Japanese Trade Union Confederation (JTUC-RENGO)	135

I. Introduction

Strategic Approach to International Chemicals Management (SAICM) National Implementation Plan of Japan, compiled in September 2012, states, “the progress of SAICM National Implementation Plan will be reviewed in the Inter-Ministerial Meeting on SAICM prior to ICCM4 to be held in 2015, and the results will be announced.” This report describes progress in various initiatives by industrial associations and trade unions among other stakeholders in SAICM National Implementation Plan of Japan.

SAICM National Implementation Plan of Japan identifies not only citizens, government agencies, and academic experts but also workers and businesses as participants in the development of the Plan. It introduces various cases of chemical management initiatives by these stakeholders.

In this respect, the report has compiled various initiatives on chemical management implemented by the industrial associations and trade unions through interviews and other surveys and the obtained progress data.

The results of the Review show that progress has been generally made in the initiatives by industrial associations and trade unions, including those reported in SAICM National Implementation Plan of Japan, as well as other initiatives. Further steps for the industrial associations and trade unions in response to this Review, which includes but not limited to the revision of the National Implementation Plan, will be considered after the ICCM4 meeting.

II. Selected Initiatives by Industrial Associations

1. Japan Chemical Industry Association (JCIA)

1.1 Responsible Care

[Overview of the Initiative]

In the chemical industry, each member company handling chemical substances engages in voluntary activities aimed at preserving the environment, safety, and health, publishing the results of activities, and engaging in dialogue and communication with society in all processes of such substances, ranging from the development, manufacture, distribution, and use of chemical substances to disposal and recycling after final consumption. These activities are collectively called “Responsible Care,” or RC for short.

The International Council of Chemical Associations (ICCA) established the RC Global Charter in 2006 as the guiding principles for the development of the RC initiative. Based on this charter, member companies conduct RC activities on a global scale. Reflecting changes in priority measures thereafter, the ICCA revised the Charter in 2014 as a simpler and more specific action strategy. The revised charter calls for re-signing by the CEOs/presidents of member companies to enhance their awareness of RC and further promote it worldwide. The JCIA’s RC Committee works with member companies to achieve five goals of Responsible Care. It also promotes communication with society by publishing the results of activities.

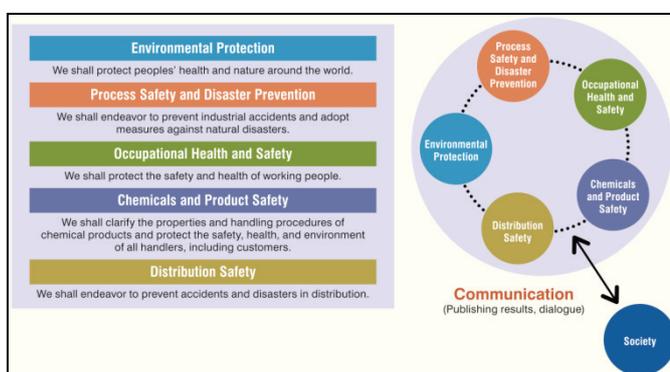


Figure 28 Goals of Responsible Care

Gist of Responsible Care Global Charter as revised in 2014

- ☆ Responsible Care is the chemical industry’s unifying commitment to safely managing chemicals and contributing to sustainable development.
- ☆ The signatories will strengthen the RC initiative and commit themselves to:
 1. A corporate leadership culture committed to strengthening the RC initiative
 2. Safeguarding health, safety, and the environment through the RC initiative
 3. Strengthening scientific and risk-based safe management of chemical products
 4. Actively influencing business partners
 5. Engaging stakeholders through open communication
 6. Contributing to sustainable development of society

[Major Amendments]

- 1) The revised Charter sets out a specific "action strategy," rather than “theory and concept” as in the former Charter.
- 2) Reflecting progress in chemicals management
→ Safely managing chemical products through science-based methods and risk assessment; promoting GPS (see p. 114) as a specific method; and also defining GHS and LRI (see p. 119) as means of ensuring safety of chemical products and communicating information on them
- 3) Further contributing to security and safety and strengthening security measures against terrorism and cyber-attacks
- 4) Clearly stating the chemical industry’s contribution to sustainable development with a view to achieving the WSSD 2020 goal
- 5) Making descriptions simple and easy to understand for external stakeholders (international organizations, international and domestic NGOs, etc.)

Figure 29 RC Global Charter: Gist and Major Amendments

[Initiative's Outcomes or Progress]

Figure 30 shows changes in emissions of PRTR substances as an outcome of the RC initiative. The progress has the following features:

- ✧ In FY2013, emissions of PRTR substances stood at 12,018 tons, down 74% from FY2000.
- ✧ Because the number of designated substances increased following the revision of the PRTR Act, emissions increased temporarily in FY2010. Since then, however, emissions have been on the decline.
- ✧ A breakdown shows 92.8% of emissions are into the atmosphere, 7.2% into water, and less than 0.1% into soil.

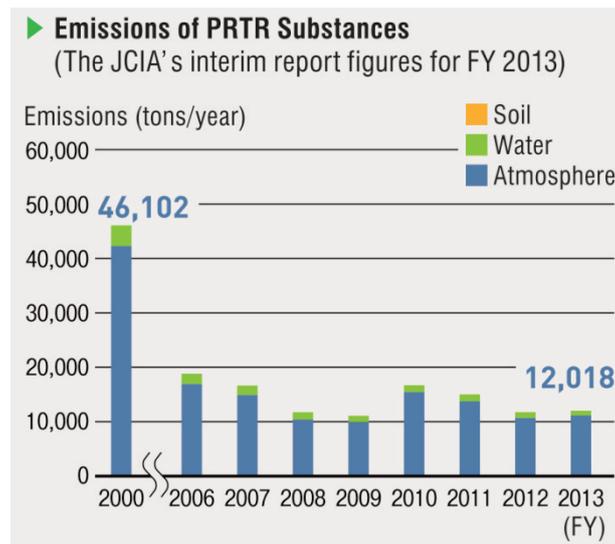


Figure 30 Changes in emissions of PRTR Substances from JCIA member companies

1.2 New Chemicals Management Initiative (GPS/JIPS)

[Overview of the Initiative]

The Global Product Strategy (GPS) is an international chemicals management strategy to which the ICCA committed itself after the First International Conference on Chemicals Management (ICCM1) adopted the SAICM in 2006. The GPS is designed for each member company to voluntarily conduct risk assessment of its chemical products and proper risk-based management of them accordingly as well as to minimize their risks in the whole supply chain through the disclosure of information on their safety, risks, and management methods to the public at large. Japan Initiative of Product Stewardship (JIPS) is the Japanese version of the GPS. Under JIPS, members upload their “GPS/JIPS safety summaries” to “the GPS Chemicals Portal” on the ICCA's website to disclose information to their customers and the public at large.

[Initiative's Outcomes or Progress]

- ✧ As part of its effort to promote GPS/JIPS activities, the JCIA prepares and releases publications, including the “Risk Assessment Guidance” and brochures.
- ✧ The JCIA conducted the GPS/JIPS Promotion Campaign from November 2013 to April 2014. As a result, the number of “safety summaries” disclosed by Japanese companies stood at some 360 as of June 2014 and is expected to increase further.
- ✧ In Japan, the JCIA encourages the preparation and disclosure of safety summaries and offers relevant support. In 2011, the Chairman of the JCIA requested member companies for their commitment in writing. Thereafter, the JCIA organized three types of seminars in Tokyo, Osaka, Yokkaichi, Hiroshima, and Fukuoka. The first type, a seminar on how to prepare a safety summary, was held three times in FY2012. The second type, an introductory seminar for Association members, was held twice in each of FY2012 and FY2013 and once in FY2014. The third type, an advanced and practical seminar, was held three times in FY2012 and twice in FY2013. All these activities have contributed to a significant increase in the number of safety summaries uploaded to the ICCA website (see Figure 31).
- ✧ The JCIA also works with the ICCA's Responsible Care Leadership Group (RCLG) to organize GPS workshops in Indonesia, Malaysia, Singapore, and Taiwan and supports GPS promotion activities by ICCA member associations in ASEAN countries.
- ✧ The JICA offers a list of consultants on GPS/JIPS activities and guides on risk assessment tools (<http://www.nikkakyo.org/gps-jips/materials>).
- ✧ In August 2013, the JCIA released and put in operation JCIA BIGDr, a user-friendly portal site designed to support members in collecting safety information, conducting risk assessment, and preparing and disclosing safety summaries.

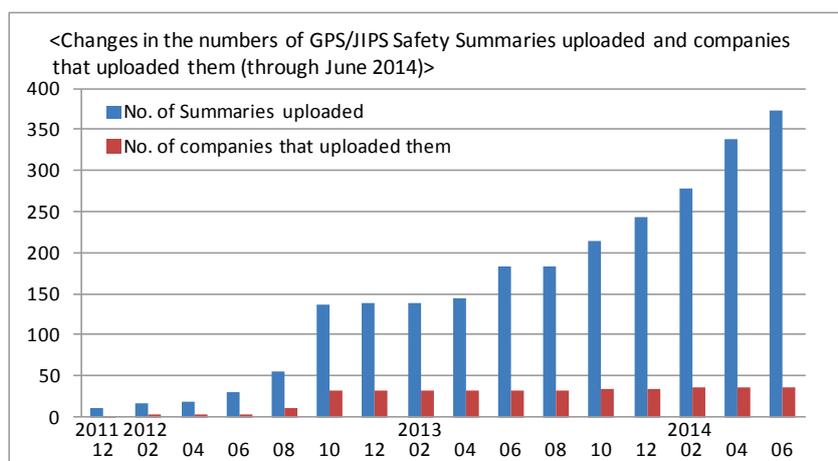


Figure 31 Changes in the number of GPS/JIPS safety summaries uploaded

1.3 JCIA BIGDr

[Overview of the Initiative]

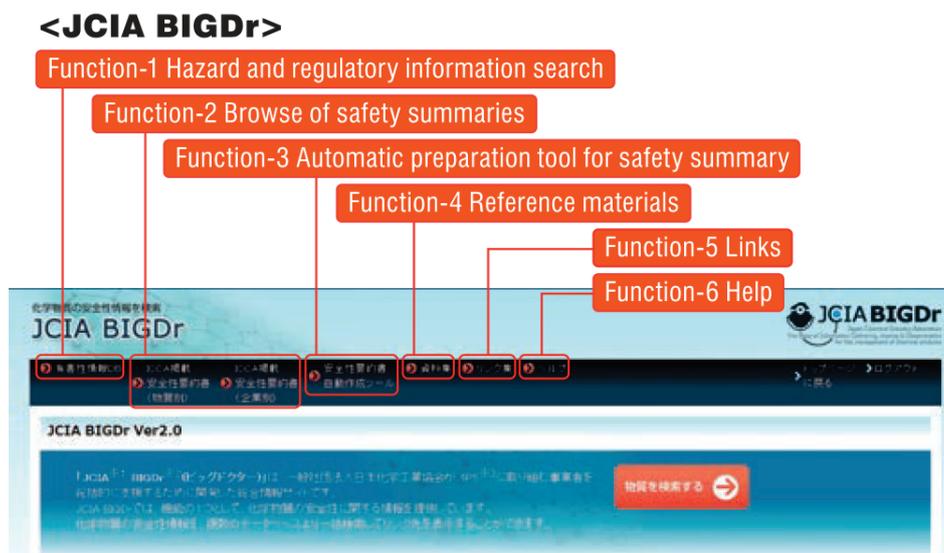
To support its members in their GPS/JIPS activities, the JCIA has developed "JCIA BIGDr," a support web portal for collecting various information for risk assessment and learning how to prepare a safety summary. This is part of its efforts to promote GPS/JIPS activities even more strongly. An initial version of the portal was opened to the members in August 2013. As shown below, this portal has six functions:

1. Supporting global search through hazard information databases across Japan that government offices make available to the public
2. Supporting search for safety summaries prepared by Japanese companies
3. Offering "GSS Maker", a tool designed to support the preparation of GPS/JIPS safety summaries
4. Offering various kinds of reference materials to support everything from risk assessment to the preparation and registration of safety summaries
5. Offering a links page of valuable sources of information on hazard and exposure assessment within and outside Japan with short descriptions
6. Offering answers to questions regarding risk assessment and the preparation of a safety summary

The JCIA has added improvements to these functions and upgraded the system as appropriate by reflecting requests it has received. It is now considering opening JCIA BIGDr to the public by the end of FY2014.

[Initiative's Outcomes or Progress]

- ◇ JCIA BIGDr was put into operation in August 2013. The portal has been upgraded as appropriate. Some of its functions were opened to the public in January 2015. An image of the top page of JCIA BIGDr is shown in Figure 32 below. The buttons on the top page (the encircled functional menus) and their short descriptions are given in Table 9 on the next page.



BIGDr: The Base of Information Gathering, sharing & Dissemination for risk management of chemical products

BIGDr: an infrastructure system which collects, shares and transmits information for comprehensive support of company's chemicals management

Figure 32 An image of the top page of JCIA BIGDr

Table 9 Functional menus and short descriptions of the functions on JCIA BIGDr

Functional menu	Short description of the function
(i) Hazard information DB portal	Links to selected hazard information databases across Japan those government offices make available to the public allow for global search across the board.
(ii) Japanese and foreign regulatory information	Links to regulatory information databases of Japan and other countries allow for global search of regulatory information on substances across the board.
(iii) Link page	This page provides links to the sources of information on hazards as well as exposure and risk assessment.
(iv) Reference materials	Materials used in JCIA seminars on risk assessment and safety summary preparation and registration are available.
(v) Risk assessment in practice	This page describes the whole process from risk assessment to the preparation of GPS safety summaries (GSS) using BIGDr functions.
(vi) Risk assessment tool	GSSMaker, an intuitive risk assessment tool available in both Japanese and English, is downloadable from here. The ECETOC TRA for this purpose is difficult to handle for beginners. GSSMaker allows the user to automatically conduct risk assessment using the TRA tool by entering the physiochemical property and hazard information (default values are available for some substances) and setting exposure conditions. It also makes it possible to produce a template for a subsequent safety summary semi-automatically.
(vii) Safety summaries posted on the ICCA website	This page provides a list of links to GSS prepared by Japanese companies that are posed on the website of the International Council of Chemical Associations (ICCA).
(viii) "Chemimaga" archives	These archives offer information on chemicals management that is contained in "Chemimaga," a mail magazine issued by Mizuho Information & Research Institute that covers new arrivals and news releases on selected websites of Japan and other countries, as well as latest information on the website of the Japan Chemical Industry Ecology-Toxicology & Information Center (JETOC). Such information is available by country/institution and category.
(ix) Help (Contact)	This page accepts questions and requests from users regarding risk assessment and the preparation and registration of a safety summaries.

1.4 SCRUM Project and Activities for Chemicals Management in the Supply Chain

[Overview of the Initiative]

The SCRUM Project (Project of Supply chain Chemical Risk management and Useful Mechanism discussion) has been launched through collaborative work with the Joint Article Management Promotion-consortium (JAMP) from the viewpoint of "management of chemicals in products" for the purpose of sharing the chemical risk information with cross-sectional industries.

Its project is to establish a common assessment method and information communication mechanism that are needed for appropriate and efficient risk-based management of chemical substances throughout the supply chain with a view to reducing and even minimizing the risks posed by chemical substances. Efforts are being made to develop a mechanism for sharing risk information on chemical substances throughout the supply chain--ranging from manufacture to use and disposal--as well as to promote such a mechanism.

<Sound risk management throughout the supply chain (information communication)>

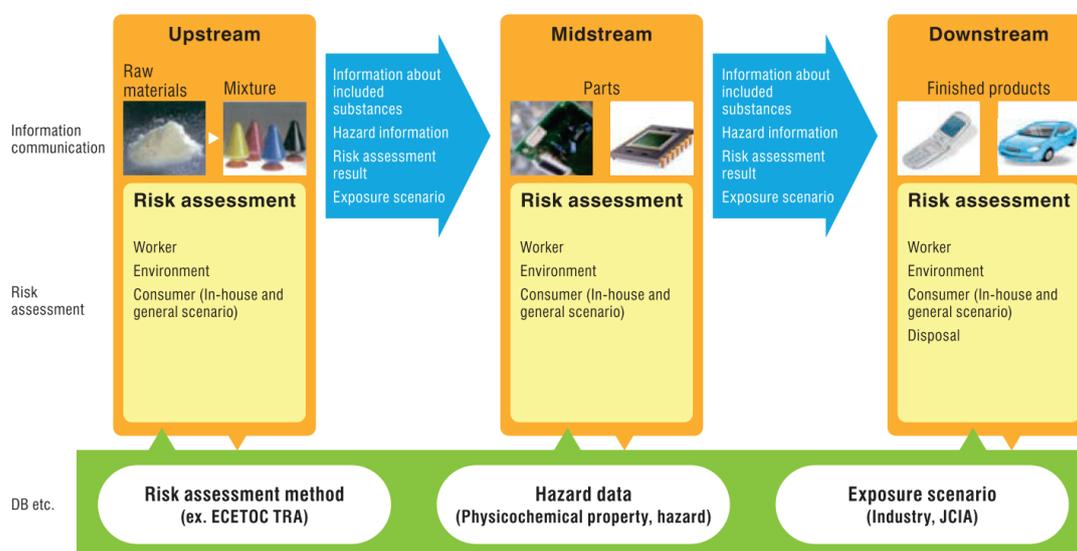


Figure 33 Sound risk management throughout the supply chain (information communication)

The JCIA is also a member of the "study group on chemical regulations and Japan's business activities in Asian countries" which was launched in May 2013 by the Ministry of Economy, Trade and Industry (METI) to address the question as to how best to communicate information on chemicals in products--the kind of information that is essential for risk assessment and management. This study group explores ways to develop an optimal scheme for communicating information on chemical substances in products in the supply chain.

[Initiative's Outcomes or Progress]

Major developments in this project are summarized below:

1. A study group on JIPS was launched (with guidance coming from the JCIA), which led to the establishment of the planning and strategy WG.
2. The SCRUM project conducted find-finding surveys on risk assessment and management of chemicals at each phase of the supply chain and came up with a concrete idea of how best to implement such assessment and management.
3. This project studied specific ways to put this idea into practice.
4. This project drew up and executed an implemented plan.
 - The development of guidelines (including cases of risk assessment of chemical substances throughout the supply chain)
 - Education and information campaign (guidelines + risk management methods)
 - Studying the specifications of the SCRUM-IT tool (a requirement for infrastructure development)

1.5 Long-range Research Initiative

[Overview of the Initiative]

The Long-range Research Initiative (LRI) is one of the voluntary initiatives of the ICCA. This long-term initiative is being undertaken with the cooperation of the Japanese, American, and European chemical industries (JCIA, the American Chemistry Council (ACC), and the European Chemical Industry Council (Cefic). The LRI has three major objectives as shown below:

- ◇ To expand scientific knowledge on chemical substances in relation to the health and environment
- ◇ To further improve the capacity to safely manage chemical substances and products through the development of new testing and screening methods
- ◇ To support public policy decision-making with scientific evidence

The ICCA launched the LRI in 1999 as a global voluntary initiative in response to the issues of endocrine disrupting chemicals. In Japan, it has been undertaken by the JCIA since 2000. In 2012, the JCIA relaunched it as a new LRI after exploring ways to establish the research policy and research themes that better reflect the needs of member companies and reviewing the operational structure in response to significant changes in the environment surrounding the chemical industry. Fourteen contract projects in five research fields were launched in November 2012 (1st period). By March 2014 (2nd period), a total of 20 projects have been adopted.

[Initiative's Outcomes or Progress]

● Specified projects				
Fields	1st period Nov. 2012–Aug. 2013	Continued projects	Newly- adopted projects	2nd period Nov. 2013–Aug. 2014
1. Development of new risk assessment methods and assessment	3	3	1	4
2. Research of chemical safety for new chemical substances, including nanomaterials	1	1	1	2
3. Research concerning the impact of chemicals on children, elderly people, genetic disorders, etc.			1	1
4. Assessment of impact on the ecosystem and environment	1	1		1
5. Other issues requiring an urgent response				
Total	5	5	3	8

● Solicited projects				
Fields	1st period Nov. 2012–Aug. 2013	Continued projects	No. of applications for 2nd period Adopted/total applications	2nd period Nov. 2013–Aug. 2014
1. Development of new risk assessment methods and assessment	6	4	3/22	7
2. Research of chemical safety for new chemical substances, including nanomaterials			0/7	0
3. Research concerning the impact of chemicals on children, elderly people, genetic disorders, etc.	1	1	1/5	2
4. Assessment of impact on the ecosystem and environment	2	2	0/1	2
5. Other issues requiring an urgent response			1/4	1
Total	9	7	5/39	12

Figure 34 Contract projects adopted under the LRI

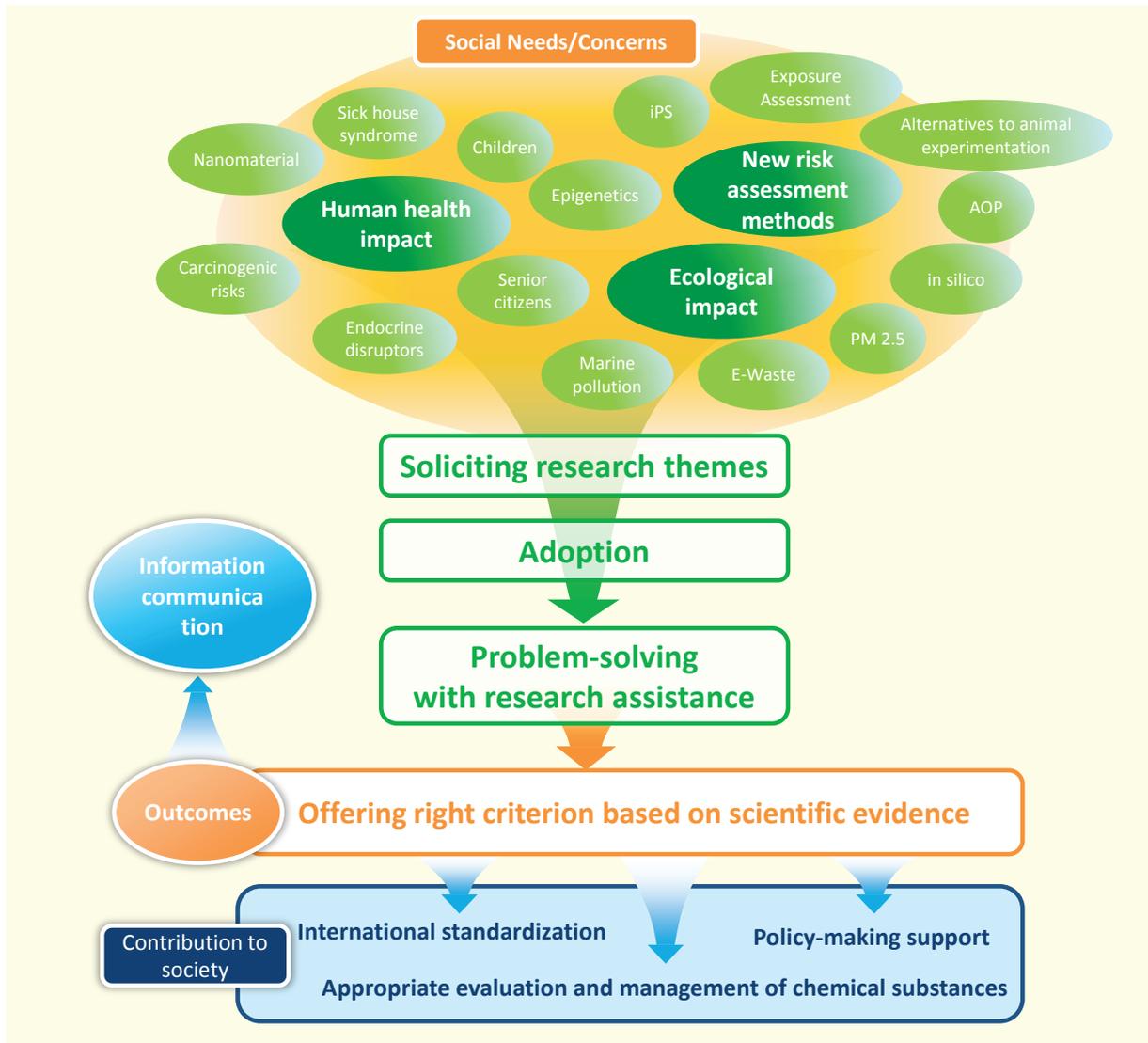


Figure 35 Overview of the LRI

Interview Date, October 10, 2014

2. Japan Soap and Detergent Association (JSDA)

2.1 Voluntary Environmental Monitoring

[Overview of the Initiative]

JSDA conducts environmental monitoring of four typical types of surfactants (LAS, AE, AO, and DADMAC)*1 and Esterquats.

[Initiative's Outcomes or Progress]

Since 1998, JSDA has been working on exposure assessment of detergent ingredients. It has been conducting environmental monitoring at four rivers in the Kanto and Kansai regions*2 by measuring concentrations of these four types of surfactants in the water. Based on the measurements for a period of 16 years from FY1998 to FY2013, JSDA has evaluated the human health and ecological risks and concluded that they are below the levels that pose risks to the environment (to be discussed in 2.2).

JSDA has also developed an ultrasensitive analytical method for Esterquats (cationic surfactant), which is typically used in fabric softeners. This method has been used in the risk assessment report of Esterquats published in March 2014 (to be discussed in 2.2).

*1 LAS: linear alkylbenzene sulfonate
AE: polyoxyethylene alkyl ether
AO: alkyl dimethylamine oxide
DADMAC: dialkyldimethyl ammonium chloride

*2 Seven sampling sites along the Tama, Ara, Edo, and Yodo rivers
These are typical urban/suburban rivers that are susceptible to the inflow of domestic wastewater.

2.2 Risk Assessment

[Overview of the Initiative]

JSDA conducts risk assessment based on the monitoring data of surfactants in river waters. Based on its findings, JSDA concludes that they do not pose risks to the ecosystem.

[Initiative's Outcomes or Progress]

JSDA conducts risk assessment of some substances formulated in detergents and opens our findings on the website. Risk assessment reports we conducted recently are shown in Figure 36. JSDA also presents our studies at academic conferences and publishes them on academic journals such as the publication of environmental risk assessment of LAS.

- ◇ "Risk assessment of fluorescent brightening agents on human health and aquatic environment," October 2007
- ◇ "Risk assessment of amine oxides on human health and aquatic environment," May 2010
- ◇ "Risk assessment of polyoxyethylene alkyl ether sulfate (AES) on human health and aquatic environment," December 2011
- ◇ "Risk assessment of Esterquats on human health and aquatic environment," March 2014
- ◇ "Aquatic Environmental Risk Assessment of Linear Alkylbenzene Sulfonate (LAS)," *Journal of Japan Society on Water Environment*, Vol. 33, No. 1 p.1-10, 2010
https://www.jstage.jst.go.jp/article/jswe/33/1/33_1_1/_article/-char/en/



Figure 36 Report on risk assessments published by JSDA

2.3 Disclosure of Risk Assessment Findings on the GPS Chemicals Portal

[Overview of the Initiative]

In the chemical industry, the ICCA plays a leading role in moving ahead with two initiatives: RC and GPS. GPS is a voluntary initiative to minimize the risk of chemicals throughout the supply chain. Under GPS, each company conducts risk assessment of their chemicals and their proper risk-based management accordingly and discloses information on their safety, risks, and management methods to the public.

JCIA promotes the JIPS, the Japanese version of GPS. As part of this initiative, JCIA compiles risk assessment findings into "GPS/JIPS safety summaries" and uploads them to the GPS Chemicals Portal on the ICCA website for information disclosure to the general public.

JSDA discloses 11 sets of risk assessment reports in terms of CAS No. to the public.

[Initiative's Outcomes or Progress]

JSDA has already uploaded risk assessment reports on the substances shown in Table 10 below to the GPS Chemicals Portal.

Table 10 Substances for which JSDA has uploaded risk assessment reports to the GPS Chemicals Portal

	CAS No.	Name of substance
Fluorescent brightening agent	16090-02-1	Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-(4-morpholinyl)-6-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt
	27344-41-8	Benzenesulfonic acid, 2,2'-([1,1'-biphenyl]-4,4'-diyldi-2,1-ethenediyl)bis-, disodium salt
Amine oxides	2605-79-0	1-Decanamine, N,N-dimethyl-, N-oxide
	1643-20-5	1-Dodecanamine, N,N-dimethyl-, N-oxide
	3332-27-2	1-Tetradecanamine, N,N-dimethyl-, N-oxide
	7128-91-8	1-Hexadecanamine, N,N-dimethyl-, N-oxide
	70592-80-2	Amines, C10-16-alkyldimethyl, N-oxides
	61788-90-7	Amines, coco alkyldimethyl, N-oxides
Polyoxyethylene alkyl ether sulfate	3088-31-1	Ethanol, 2-[2-(dodecyloxy)ethoxy]-, hydrogen sulfate, sodium salt
	91648-56-5	Ethanol, 2-(2-ethoxyethoxy)-, 2"-[(C12-15-branched and linear alkyl)oxy] derivs., hydrogen sulfates, sodium salts

2.4 International Information Communication

[Overview of the Initiative]

In addition to the preparation and disclosure of GPS/JIPS safety summaries in 2.3, JSDA's efforts that transcend national borders include communicating and exchanging information in the academic field. JSDA organized a session at the 2012 meeting of SETAC Asia/Pacific Academic Society (Society of Environmental Toxicology and Chemistry Asia/Pacific), where experts exchanged views.

[Initiative's Outcomes or Progress]

At the SETAC Asia/Pacific meeting, JSDA and American Cleaning Institute (ACI) co-organized a session that focused on surfactants, a key ingredient of detergents. At this session, entitled "An Exploration of the Safety of Major Surfactant Classes in the Environment" JSDA made presentations and lecturers from other countries reported latest studies and data, followed by lively discussions.



Figure 37 Joint session with the ACI

2.5 Introduction of International Standards and Formulation of Voluntary Standards

[Overview of the Initiative]

JSDA has been engaging in the development of a technical guidance and its promotion in the industry with a view to voluntarily applying GHS to household consumer products such as soaps and detergents on a trial basis. It has also collaborated with Japan Soap and Detergent Co-operative Association and Japan Food Cleaners and Hygienic Association to develop "voluntary standards for Dish-washing detergents" for a certain type of kitchen detergents. The indications of such standards on products are being tried.

[Initiative's Outcomes or Progress]

In 2011, JSDA, together with the industrial associations concerned, began to phase in GHS labeling on human health hazards for product labels with regard to the following categories of products. JSDA is also considering introducing GHS labeling on physiochemical hazardousness such as hazardousness to the aquatic environment and combustibility.

- ◇ Kitchen detergents (excluding detergents for dish washers)
- ◇ Chlorine bleach
- ◇ Chlorine detergents and acidic detergents (those with a "Danger -- Do not mix" label)

Separately, JSDA publishes easy-to-understand leaflets on GHS for general consumers as part of its information campaign.



Figure 38 Leaflets for general consumers

Voluntary standards for tableware detergents have been introduced for products that were manufactured on April 1, 2012 onward.

Tableware detergents, which are subject to voluntary standards, are kitchen detergents that are solely used for washing tableware, including those for dish washers. They do not include those that are used also for washing vegetables and fruits. As far as kitchen detergents applicable to vegetables and fruits are concerned, the Food Sanitation Law stipulates ingredient standards safety use guidelines. However, in the past, standards safety use guidelines for tableware detergents were largely limited to those on rinsing. Manufacturers used to work independently to ensure the safety of their products. Now, with unified standards for ingredients, they aim to produce and provide detergent products more suitable for tableware.

2.6 Disclosure of Information on Detergent Ingredients

[Overview of the Initiative]

Household detergents sold in Japan are required by law to indicate ingredients on their packaging if their compounding ratio exceeds a certain level. In recent years, however, more and more consumers call for more detailed information in Japan, and progress has been made in voluntary information disclosure regarding the ingredients of household products in other countries. Accordingly, JSDA has established voluntary standards for detergent ingredient information. These standards have been applied since November 2011.

[Initiative's Outcomes or Progress]

JSDA's voluntary standards are outlined below:

◇ Scope of applicable products

Of the products included in the "list of household products" (available on JSDA's website), the following categories of products are subject to the voluntary standards:

- Laundry detergents
- Kitchen detergents
- Detergents for housing, furniture, and other similar uses
- Bleach
- Fabric softeners
- Laundry conditioners
- Acidic/alkaline detergents
- Cleansers

Note: Products for institutional use are excluded.

◇ How to disclose

Manufacturers may choose one or more of the following media in disclosing such information according to the relevant nomenclature. Figure 39 shows an example on the website of a detergent manufacturer.

- Product container
- The website of the manufacturer or the website jointly operated by the manufacturer and two or more manufacturers including the one in question
- Telephone consultations by the manufacturer
- Other: electronic or non-electronic medium

用途・液性・成分・使用量・使用上の注意など		成分名称	機能名称
品名	洗濯用合成洗剤	炭酸塩	アルカリ剤
用途	綿・麻・合成繊維用	アルミノけい酸塩	水軟化剤
液性	弱アルカリ性	硫酸塩	工程剤
成分	界面活性剤（22%、直鎖アルキルベンゼンスルホン酸ナトリウム、ポリオキシエチレンアルキルエーテル）、アルカリ剤（炭酸塩）、水軟化剤（アルミノけい酸塩）、工程剤（硫酸塩）、分散剤、蛍光増白剤、酵素 >成分情報	直鎖アルキルベンゼンスルホン酸ナトリウム	界面活性剤
		ポリオキシエチレンアルキルエーテル	界面活性剤
		ポリアクリル酸ナトリウム	分散剤
		塩化ナトリウム	工程剤
		ペントナイト	工程剤
		けい酸塩	アルカリ剤
		水	工程剤
		アルキル硫酸エステルナトリウム	界面活性剤
		純石けん分（脂肪酸ナトリウム）	界面活性剤
		ポリエチレングリコール	分散剤
		亜硫酸ナトリウム	安定化剤
		香料	香料
		蛍光増白剤	蛍光増白剤
		酵素	酵素
		着色剤	着色剤

Figure 39 An example of ingredient information disclosure on the website of a detergent manufacturer

Interview Date, October 23, 2014

3. Four Electrical and Electronic Industry Associations in Japan(Japan 4EE)

3.1 Promotion of Training of Key Persons in Site-based Chemicals Management

[Overview of the Initiative]

Japan 4EE--the Japan Electronics and Information Technology Industries Association (JEITA), the Japan Electrical Manufacturers' Association (JEMA), the Japan Business Machine and Information System Industries Association (JBMIA), and the Communications and Information network Association of Japan (CIAJ)--promotes the training of "key persons in site-based chemicals management," who are capable of managing site risks associated with chemical substances. The idea behind this initiative is that in order to use chemical substances under applicable regulations that are complex and global in scale, it is urgently necessary both to maintain and improve the management levels required for managing business risks and to train human resources capable of such operations.

[Initiative's Outcomes or Progress]

After studying an optimal management and training framework for three years that better meets the needs of the electrical and electronic industry, Japan 4EE released a program for training "key persons in site-based chemicals management" in 2013. The training program defines environmental skills required for different job categories to further reduce environmental risks in business activity. Sharing this program, Japan 4EE promotes the training of such chemicals managers.

3.2 Site Risk Analysis and Research and Analysis of Laws and Regulations Concerning Chemical Substances in Selected Countries

[Overview of the Initiative]

In the face of increasingly strict control of chemical substances at the global level, Japan 4EE is conducting research and analysis of laws and regulations on them in countries where member companies manufacture their products. Based on the achievements of this activity, Japan 4EE worked on the development of a compliance management tool in Japan during FY2014.

[Initiative's Outcomes or Progress]

Japan 4EE is developing a compliance management tool that supports member companies in managing their business risks. To this end, Japan 4EE is collecting and analyzing information on risks they face in meeting legal requirements as well as on accident cases at their sites (plants and offices) in Japan to develop a check list for risk management that does not depend solely on empirical decision-making.

Interview Date, November 17, 2014

4. Japan Automobile Manufacturers Association, Inc. (JAMA)

4.1 Use of the International Material Data System (IMDS)

[Overview of the Initiative]

The JAMA)conduct quantitative assessment of chemical substances contained in automobiles for their management using the IMDS, a common tool for the global automobile industry.

[Initiative's Outcomes or Progress]

The IMDS is designed to communicate environmental information throughout the supply chain. This system has been developed with a view to complying with the ELV Directive. Its outline is described below:

◇ Operation

The IMDS is funded and operated by member automobile manufacturers in Japan, the US, and Europe. (System operations are entrusted to HP.)

◇ System features (see Figure 40 and 41)

The IMDS:

- communicates information based on a unified format like Chinese whispers;
- manages data on chemicals in auto parts, which is huge in the number of items;
- allows auto manufacturers to integrated provided supplier data into their own data and submit it to their purchasers;
- allows the user to see registered standard material data and official standards (ISO, JIS, DIN, etc.)
- Has two kinds of information--"part/item number (and other recipient-specific information)" and "tree structure information" and allows the user to send the same data to different recipients by adding the former type of information only; and
- Has a robust security system to protect confidential information

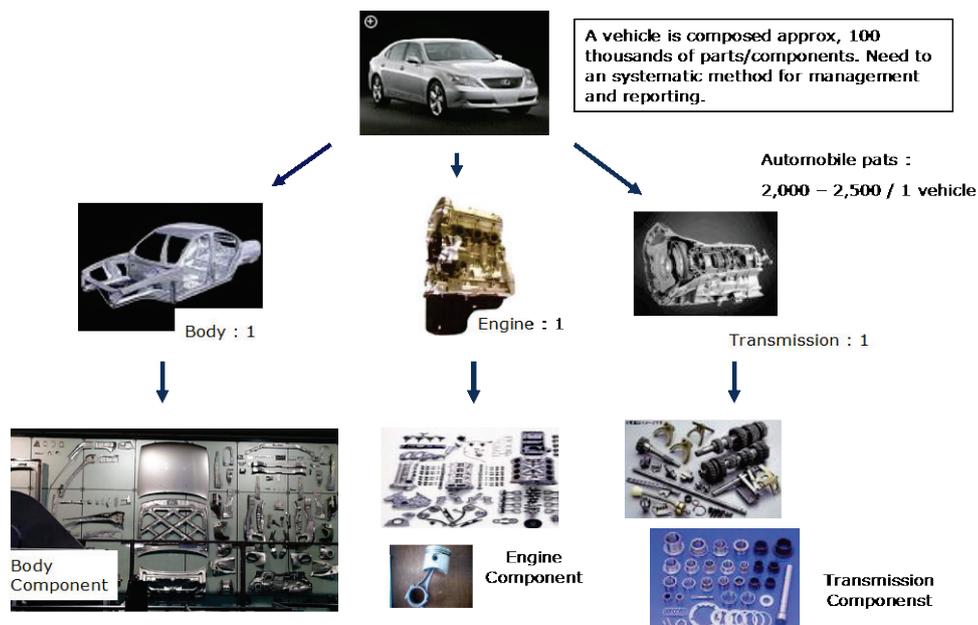


Figure 40 A huge number of parts constitute an automobile

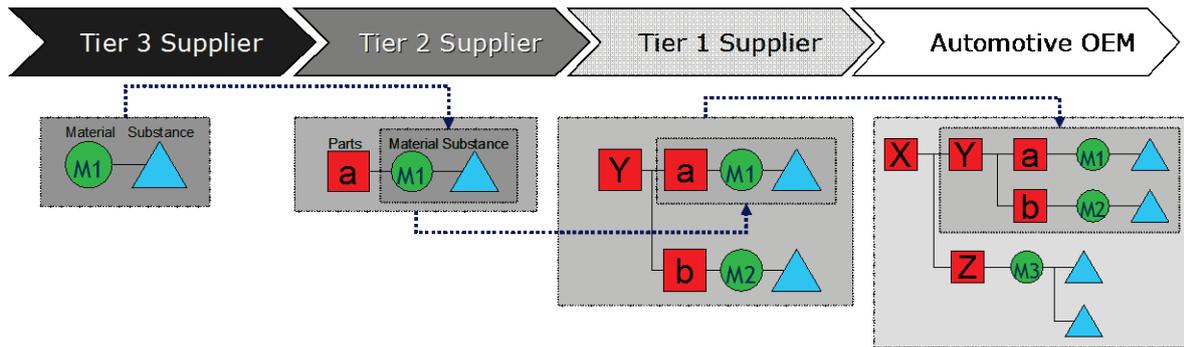


Figure 41 A conceptual rendering of information communication in the IMDS

- ✧ Actual performance (as of the end of September 2013; see Figure 42)
 - Number of registered suppliers: 121,360
 - Number of registered users: 313,265
 - Total number of Material Data Sheets (MDSs): 47,232,838 (of which the Japanese manufacturers represents about one-third)

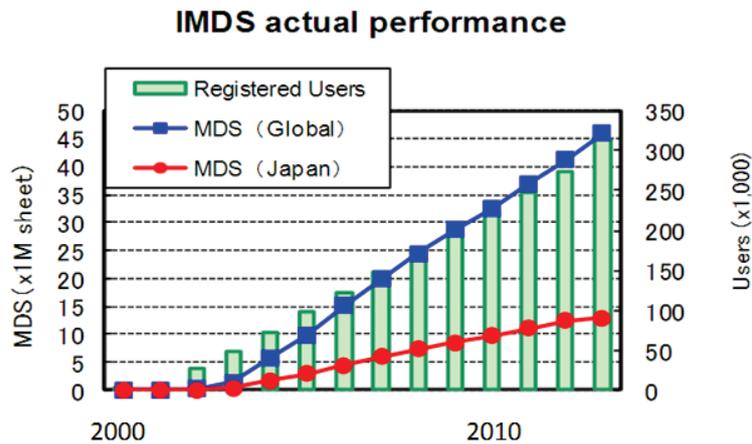


Figure 42 Changes in the numbers of IMDS users and MDSs

- ◇ Harmonized chemical substance list (GADSL: Global Automotive Declarable Substance List)
 GADSL has been developed and updated by the Global Automotive Stakeholder Group (GASG), which is made up of manufacturers of automobiles, auto parts, and chemicals in Europe and the US. The common chemical substance list for the automobile industry was released in 2005 and most recently updated in 2014 (ver. 10). The list of chemical substance subject to laws and regulations of relevant countries was also released (2,727 compounds in 132 substance categories). GASG also promotes the harmonization of in-house standards of auto manufacturers.

4.2 Development of the Policy to Cope with the REACH Regulation

[Overview of the Initiative]

The JAMA has worked with other industrial associations in the world to develop a unified guideline on the REACH Regulation. It encourages its members, including suppliers, to follow the guideline.

	ACEA 欧州自動車工業会
	KAMA 韓国自動車工業会
	JAMA 日本自動車工業会
	CLEPA 欧州自動車部品工業会
	VDA ドイツ自動車工業会
	BIL スウェーデン自動車工業会
	AIAG 米国自動車工業会
	CCFA フランス自動車工業会
	SMMT 英国自動車工業会

Figure 43 Automotive Industry Guideline on REACH

Interview Date, October 22, 2014

5. Joint Article Management Promotion-consortium (JAMP)

5.1 Initiative to Facilitate Information Communication Regarding Chemical Substances in Products

[Overview of the Initiative]

With the belief that creating and disseminating a detailed system for appropriately managing information related to articles (aliases for components and moldings) containing chemical substances in products, and disclosing and transmitting such information within supply chains is critical for improving industrial competitiveness, the JAMP was established in September 2009 as a group of 17 founding corporations that agree with the above premise. It is one of the major groups voluntarily working on cross-industrial products management.

The goal of the JAMP is to support companies complying with legal requirements regarding chemical substances in products, such as Europe's REACH regulations through information providing programs. In addition to providing data sheet formats (JAMP MSDSplus, AIS) that describe information that should be communicated regarding chemical substances in products, IT systems and management guidelines for exchanging those data sheets, and industry-specific guidance, the group provides training for personnel development and opportunities for training. It operates not only within Japan but also cooperates with major Asian associations in Thailand, Malaysia, South Korea, Taiwan, and China, promoting the enrichment and strengthening of human resource development and seminars so as to utilize the common system.

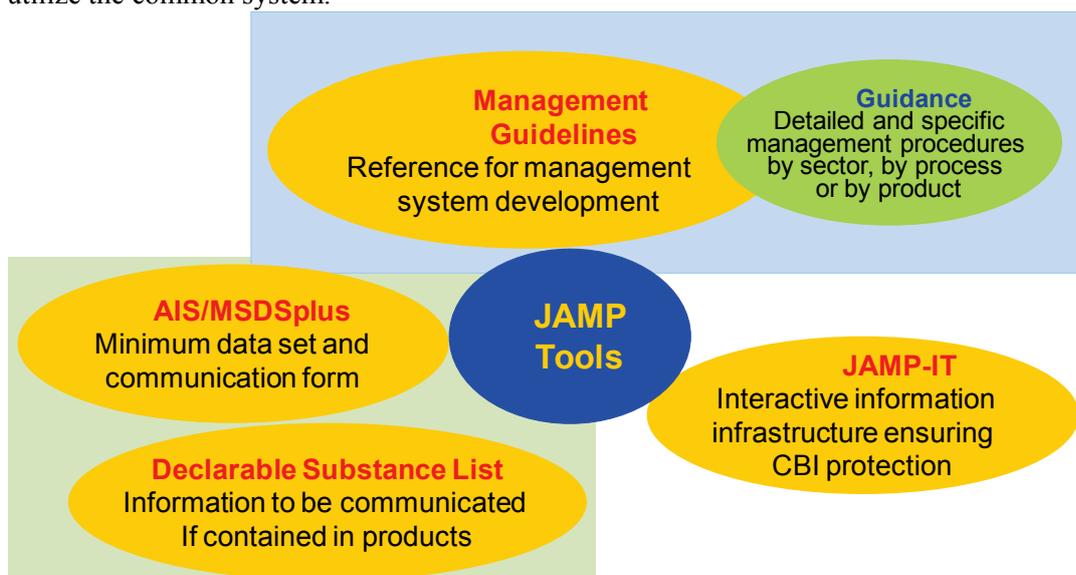


Figure 44 JAMP framework and key concepts of tools

The JAMP defines common information to be communicated from upstream to downstream in a supply chain as follows: Information will be limited to substances contained in a certain declarable substance list, where only the substance name (identified by the CAS number), amount, and location will be transmitted; information such as legal regulations relating to the substance will be automatically identified and displayed via an input support tool if the CAS number is entered into the system (see Figure 45).

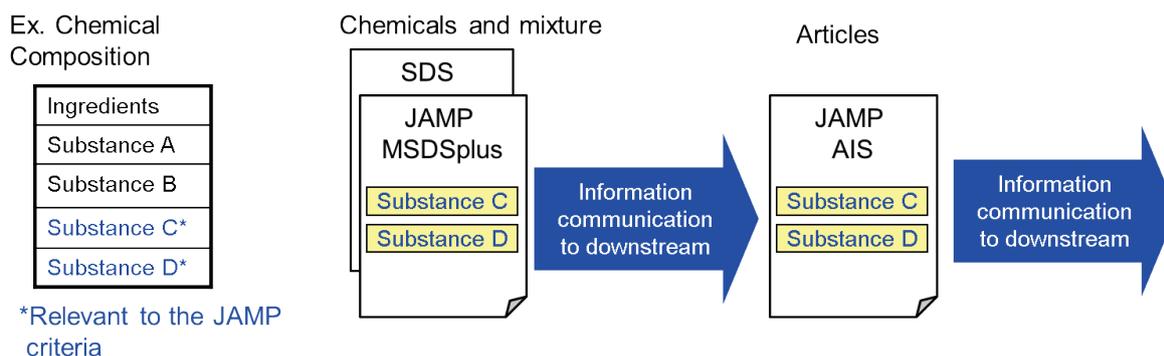


Figure 45 Information to be communicated and data sheet formats

Note: Of the total chemical substances that make up a product, only information listed on JAMP's declarable substance list is communicated. This figure shows the flow of information for chemical substances C and D, which are on the managed substance list.

The declarable substance list is reviewed twice a year, in conjunction with revisions to REACH' SVHC (Substances of Very High Concern). As can be seen in Figure 46, the list selects legal regulations and industry standards to encompass the future SVHC of REACH, each content stated as it is.

Restricted / prohibited substances in Japan		REACH compliance (Mother list of SVHC candidates)	
JP01 CSCL		EU03 CLP Annex VI	OT01 ESIS PBT [Fulfilled]
JP02 ISHL		EU04 REACH Annex XVII	
JP03 PDSCL		EU05 REACH SVHC	
Restricted substances for specific products		International convention	Industry's declarable substances
EU01 RoHS		EU06 POPs Annex I	IA01 GADSL
EU02 ELV			IA02 IEC62474

Figure 46 Regulations and industry criteria

[Initiative's Outcomes or Progress]

- ✧ The available data input support tool (JAMP MSDSplus/JAMP AIS ver4.1b) is free of charge and has been downloaded by users inside and outside Japan more than 33,000 times.
- ✧ As of July 2015, JAMP membership comprises 429 companies from six countries and regions. The membership by sales channels is distributed into 70 upstream companies, 180 midstream companies, 110 downstream companies, and 69 other (trading companies, etc.) companies. Half the number comprises small- and medium-sized businesses (Figure 48).
- ✧ JAMP continues to periodically revise the declarable substances list and the JAMP AIS/MSDSplus input support tool, and to enhance its guidance related to the management, information communication, and disclosure of chemical substances in products.
- ✧ In addition to holding lectures on implementation, fundamentals, and operation of the system, JAMP continues to develop human resources by holding symposia at general shareholder meetings and exhibitions, as well as ones relating to the management of chemical substances in products.
- ✧ Globally, JAMP, with the support of METI, has conducted operational and leadership training in Thailand, Malaysia, and Indonesia. In addition, it is promoting the adoption by attending international forums of the IEC, APEC, and industrial associations, and holding lectures in China.

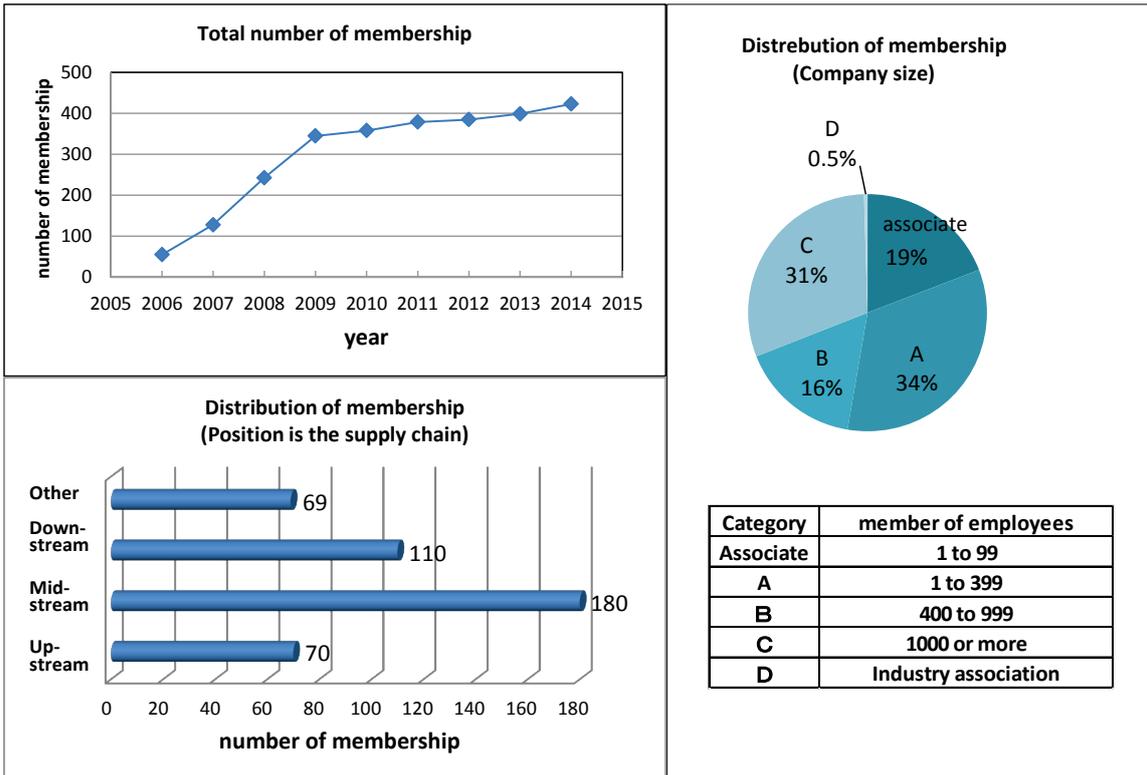


Figure 48 Progress of number of JAMP membership

6. Domestic VT62474 (Former Japan Green Procurement Survey Standardization Initiative or JGPSSI)

6.1 Initiative to Facilitate Information Communication Regarding Chemical Substances in Products [Domestic VT62474]

[Overview of the Initiative]

Domestic VT62474 is one of the subcommittees of the Japanese national committee for IEC TC111 (environmental standardization for electrical and electronic products and systems). Made up of 31 companies (as of May 2014), this committee serves as a national deliberation body for VT62474 (international)--which is charged with updating the list of declarable substances in the database of IEC62474¹--providing it with the opinions of Japanese stakeholders and other information. Figure 49 below shows the relationship between Domestic VT62474 and the former JGPSSI.

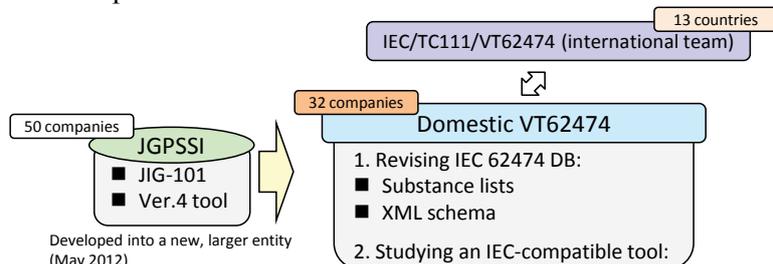


Figure 49 Relationship between Domestic VT62474 and JGPSSI

[Initiative's Outcomes or Progress]

Domestic VT62474 used to study an IEC62474-compatible survey response tool for XML. This particular activity will be integrated into the activity for a new information communication scheme advocated in FY2013 by a study group at the METI.

Figure 50 below shows a roadmap of the activity of Domestic VT62474.

Activity Roadmap 6/3/2014 updated

Activity	2013		2014	
	1st half	2nd half	1st half	2nd half
Revising IEC Substance Lists (By international VT62474)	D 3.00	D 4.00, D 5.00	D 6.00	D 7.00 [scheduled]
Former JGPSSI's tool	Ver. 4.20	Ver. 4.31 release (in the JGP file format as before) <Upper version of the former JGPSSI's tool ver. 4.20 (addition of new substances only)>		
Preparing guidance (manual) on IEC 62474; improving the XML schema (By TC111/WG1)	Preparing guidance; improving the schema			
METI study group/WG (Studying a scheme for sharing chemical substance information)	Launch	Study by WG	Conclusion	
Studying an IEC 62474-compatible tool (By Domestic VT62474)	Domestic VT62474 put this activity on hold because it considered it necessary to accurately assess progress in preparing IEC 62474 guidance and domestic activities to study it before designing and developing an IEC-compatible tool. Going forward, however, this activity will be conducted as part of the activity for the new information communication scheme that has been developed by the METI study group.			

Figure 50 A roadmap of the activity of Domestic VT62474

¹ IEC62474 is an international standard for information communication throughout the supply chain for chemical substances and components in products in the electrotechnical industry. It defines various requirements (basic and optional) for material declaration (information communication regarding components and substances in products) with respect to such materials conveyed among companies in the supply chain. IEC62474 also specifies criteria for selecting declarable chemical substances and methods for exchanging data.

III. Selected Initiatives by Trade Unions

7. Japanese Trade Union Confederation (JTUC-RENGO)

7.1 Initiative to Elucidate the Mechanism of the Sick-building Syndrome

[Overview of the Initiative]

The Japanese Federation of Energy and Chemistry Workers' Unions (JEC-RENGO) is the chemistry and energy affiliate of the JTUC-RENGO. JEC RENG0 has been working with healthcare providers to elucidate the mechanism of the sick-building syndrome as a founding member of *Kenko Shoene Jutaku wo Suishin Suru Kokumin Kaigi* (meaning "Japan congress for promoting health and energy-efficient housing"). In recent years, JEC-RENGO has been working to raise the awareness of the importance of housing features. For example, it asked experts to conduct epidemiological research in relation to the health benefits of insulation. In addition, JEC-RENGO organizes symposia to share information it has gained with industrial associations and government offices.

[Initiative's Outcomes or Progress]

JEC-RENGO plays a key role in holding "health and energy-efficiency symposia," which are primarily organized by *Kenko Shoene Jutaku wo Suishin Suru Kokumin Kaigi* to provide a forum for exchanging information and opinions about the sick-building syndrome with industrial associations and government offices among others. (In recent years, such symposia have often placed more emphasis on energy efficiency.)

Every year, *Kenko Shoene Jutaku wo Suishin Suru Kokumin Kaigi* holds regular symposia where participants report studies on the sick-building syndrome itself as well as housing materials and window sashes, which influences temperature effects from outside, which in turn may help cause the syndrome. It has been holding such symposia every year since 2000 if those given by its predecessor are counted. Table 11 below shows such symposia that were held most recently.

Table 11 Most recent symposia on health and energy-efficiency

Date	Venue	Date	Venue
October 18, 2014	Gunma	November 24, 2014	Fukushima
October 19, 2014	Osaka	November 29, 2014	Ehime
October 24, 2014	Hokkaido	December 4, 2014	Shizuoka
October 25, 2014	Fukui	December 6, 2014	Miyagi
October 29, 2014	Fukuoka	December 10, 2014	Tokushima
November 1, 2014	Yamaguchi	December 12, 2014	Mie
November 2, 2014	Kagawa	December 14, 2014	Gifu
November 3, 2014	Kumamoto	December 17, 2014	Tokyo
November 5, 2014	Tochigi	December 27, 2014	Toyama
November 8, 2014	Ishikawa	January 14, 2015	Nara
November 9, 2014	Kansai Science City	January 29, 2015	Nagano
November 12, 2014	Chiba	January 31, 2015	Aichi
November 15, 2014	Ibaraki	February 1, 2015	Saga
November 16, 2014	Niigata	February 7, 2015	Hyogo
November 19, 2014	Saitama	February 14, 2015	Nagasaki

7.2 Initiative to Make Coastal Industrial Complexes More Resilient to Earthquakes and Tsunamis

[Overview of the Initiative]

JTUC-RENGO sent a representative of JEC-RENGO to sit on the review the meeting on measures for earthquakes and tsunamis in the coastal industrial complexes, which was set up by the Ministry of Land, Infrastructure, Transport and Tourism and the METI.

[Initiative's Outcomes or Progress]

At “the second review meeting on measures for coastal industrial complexes against earthquakes and tsunamis” in 26 June 2012, JEC-RENGO put forward six recommendations as shown in Table 12 below. JEC-RENGO maintained that developing robust disaster management bases for rescue and emergency operations in Tokyo and other metropolitan areas, most preferably along the coast, holds the key to minimizing disasters at industrial complexes. It argued that significantly scaling up both aerial and aquatic activities is vital for initial disaster management in metropolitan areas.

Table 12 Six recommendations on measures for coastal industrial complexes against earthquakes and tsunamis

(i) JEC-RENGO calls on those concerned to take necessary measures based on the idea that workers in coastal industrial complexes must be protected from earthquakes, tsunamis, and other disasters. In addition to strengthening the shore and ground, securing evaluation roads and bridges in an emergency is an urgent issue to be tackled.
(ii) As the nuclear accident clearly showed, once a serious incident occurs at an industrial complex, it is extremely difficult to continue operations, which has serious implications for relevant employment across the country. Taking measures to prevent such a situation is a matter of urgency.
(iii) Industrial complexes are regional "connective tissues" that go beyond the borders between companies and products. Unless they prepare for disasters as a community, measures by individual businesses may not be effective enough. This in turn may undermine the integrity of the efforts to secure safety.
(iv) Following the Great East Japan Earthquake in March, 2011, measures against disasters are prepared from a short-term perspective. Yet such measures should be prepared from a medium- to long-term perspective as well in light of the true nature of the challenge. They should not be stop-gap measures. To strengthen disaster management arrangements is to further solidify the foundations of the industries concerned.
(v) At the same time, prioritizing measures is essential if disaster hazards are to be minimized. Measures to be prioritized at the moment may be emergency responses such as firefighting and relief activities, the securing of physical distribution and infrastructure nodes, and other measures that are highly public in nature.
(vi) JEC-RENGO calls on the central and local governments and businesses to clarify their own roles for smooth implementation of their measures. "Sharing a sense of crisis" is a precondition. It is essential for these entities to grapple squarely with the concerns of the public and residents and clarify and steadily implement their measures and future plans as concerned parties. For their part, labor organizations will strengthen such efforts in factories, businesses, and local communities.

7.3 Responses to International Regulations and International Interactions

[Overview of the Initiative]

JEC-RENGO, the chemical and energy affiliate of the JTUC-RENGO, actively participates in international interactions with trade unions in Europe and North America. It most notably visits them to learn about their chemicals management responses to international regulations. The reason for this is that institutions and regulations at EU and other international levels now dictate industrial activity in Japan as de facto standards, and that trade unions sense their implications for the employment and working conditions of their members.

[Initiative's Outcomes or Progress]

Long before REACH Regulation was applied, JEC-RENGO studied the regulation, collecting relevant information, considering ways to cope with it, and identifying issues to be addressed. In the process of coping with REACH in 2006, the chemical committee and JEC research institute of JEC-RENGO worked with the industrial response committee of the Japanese Federation of Chemical Workers' Unions (KAGAKU-SOREN) to set up "the chemical and industrial policy committee" to visit other countries (especially European countries, most notably Germany) for inspectional purposes.

Such inspectional tours are diverse in components, ranging from information exchanges not only with local trade unions but also with trade unions at European major chemical manufacturers and Japanese manufacturers' production bases in Europe to inspections there. JEC-RENGO implements an annual exchange program with the Mining, Chemical and Energy Industrial Union of Germany (Industriegewerkschaft Bergbau, Chemie, Energie; IG BCE) through IndustriALL Global Union. The two organizations exchange views and coordinate policies in a wide range of areas, including global warming, industrial safety, and health and chemicals management. This is a typical successful case in which Japanese and German trade unions work together in the area of risk-based chemicals management.

Interview Date, October 23, 2014

