

Introduction on the Chemical Management Policy in Japan

November 11, 2015

The 9th Tripartite Policy Dialogue on Chemicals
Management among CJK

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Basic Environment Plan

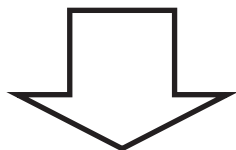
- Long-term comprehensive national plan for environmental conservation, based on the “Basic Environment Law”
- The latest 4th Basic Environment Plan started upon the Cabinet Decision on April 27, 2012
- 9 focal areas include ; “Efforts towards establishing comprehensive measures and promoting these measures for chemical substances”. Its policy goals are ;
 - ① Achieving WSSD 2020 Goal
 - ② Reducing risks throughout lifecycle, tackling with unexplained problems etc. Establishing and promoting “comprehensive measures”
 - ③ Understanding and confidence for all actors e.g. consumers, industries, NGOs, government agencies; and actions by all actors
 - ④ International coordination and cooperation
- Chemical management in line with SAICM

SAICM National Implementation Plan (NIP)

【Current progress and issues】

- Promoting chemical management policies in line with SAICM
 - Implementation is ongoing in related areas e.g. environment (Basic Plan, new/existing chemicals management), workers safety, consumer safety etc.
- Meanwhile, more coordination among the different policy areas is needed in responding to citizens' concerns, risk assessment/management.

Participation of different actors (policy discussions regarding chemicals and environment)



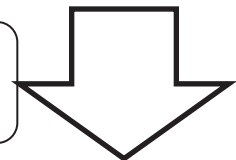
Reflecting different layers of citizens (public hearings)

Adopt SAICM NIP “Comprehensive Strategy for Future”

<Organization: Inter-Ministerial Meeting on SAICM>

- To promote scientific risk assessment
- To reduce risk throughout lifecycle
- To tackle with unexplained problems
- To increase safety and assurance
- To promote international cooperation & coordination
- To identify future issues

● Report the NIP evaluation prior to ICCM 4 in 2015



● Revise NIP if necessary, following ICCM and other discussions

Achieving WSSD 2020 Goal

SAICM National Implementation Plan (NIP)

- September 2012, compiled by Inter-Ministerial Meeting on SAICM.
- Future strategy for addressing the WSSD 2020 Goal
 - Environment area is based on the 4th Basic Environment Plan.
 - Other areas (e.g. workers safety) are based on the ongoing specific policy measures and future trends of each area.
- NIP was presented at ICCM3 (Sept 2012)
- Present the NIP evaluation in ICCM 4 (Sept-Oct, 2015), as well as disseminate other Japanese chemical management efforts

Chemical Regulations on chemical exposure via environment in Japan

Exposure Hazard		Via the environment	Discharge/stock	Waste
Effect on human health		Poisonous and Deleterious Substances Control Law		
		Pollutant Release and Transfer Register Law (PRTR Law) Agricultural Chemicals Regulation Law Chemical Substances Control Law (CSCL)	Air Pollution Control Law Water Pollution Control Law Soil Contamination Countermeasures Act	Waste Disposal and Public Cleansing Law
Effect on environment	Living Environment (w/effect on plants & animals)			
	Ozone layer destruction	Ozone Layer Protection Law		*

* Measures are undertaken to collect fluorocarbons from particular products under Law Concerning the Recovery and Destruction of Fluorocarbons.

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Chemical Substances Control Law (CSCL)

<Purpose>

- To prevent environmental pollution caused by chemical substances that are persistent and pose a risk of impairing human health or interfering with the inhabitation and/or growth of flora and fauna.

<Authority>

- Jointly authorized by three Ministries
 - Ministry of Health, Labour and Welfare (MHLW),
 - Ministry of Economy, Trade and Industry (METI), and
 - Ministry of the Environment (MOE)

<Primary Measures>

Persistence

Bioaccumulation

Toxicity

- Prohibits in principle manufacturing or use of substances of PBT
- Restricts manufacturing or use of substances of persistence and long-term toxicity and requires them to be labeled
- Notifies the production volume of substances that could meet any of above
- Evaluates persistence, bioaccumulation, long-term toxicity, etc. of new chemical substances

Enactment and Revision of CSCL

1973 enacted

Restriction on manufacture/import, etc. of persistent, bioaccumulative, and long-term toxic (human health) substances such as PCB-like substances.

1986 revised

Revised due to the necessity in restricting persistent and long-term toxic but are not bioaccumulative substances (such as trichloroethylene, etc.), depending on the residual status within environment.

1999 revised

Joint jurisdiction by three ministries including Ministry of the Environment to the joint jurisdiction by former Ministry of Welfare and Ministry of Ministry of International Trade and Industry, due to the reorganization of government and ministries in January, 2001.

2003 revised

Introduction of evaluation/verification system focusing on the effect on animals and plants (i.e., added ecological effect to toxicity), and evaluation system taking environmental emission into account.

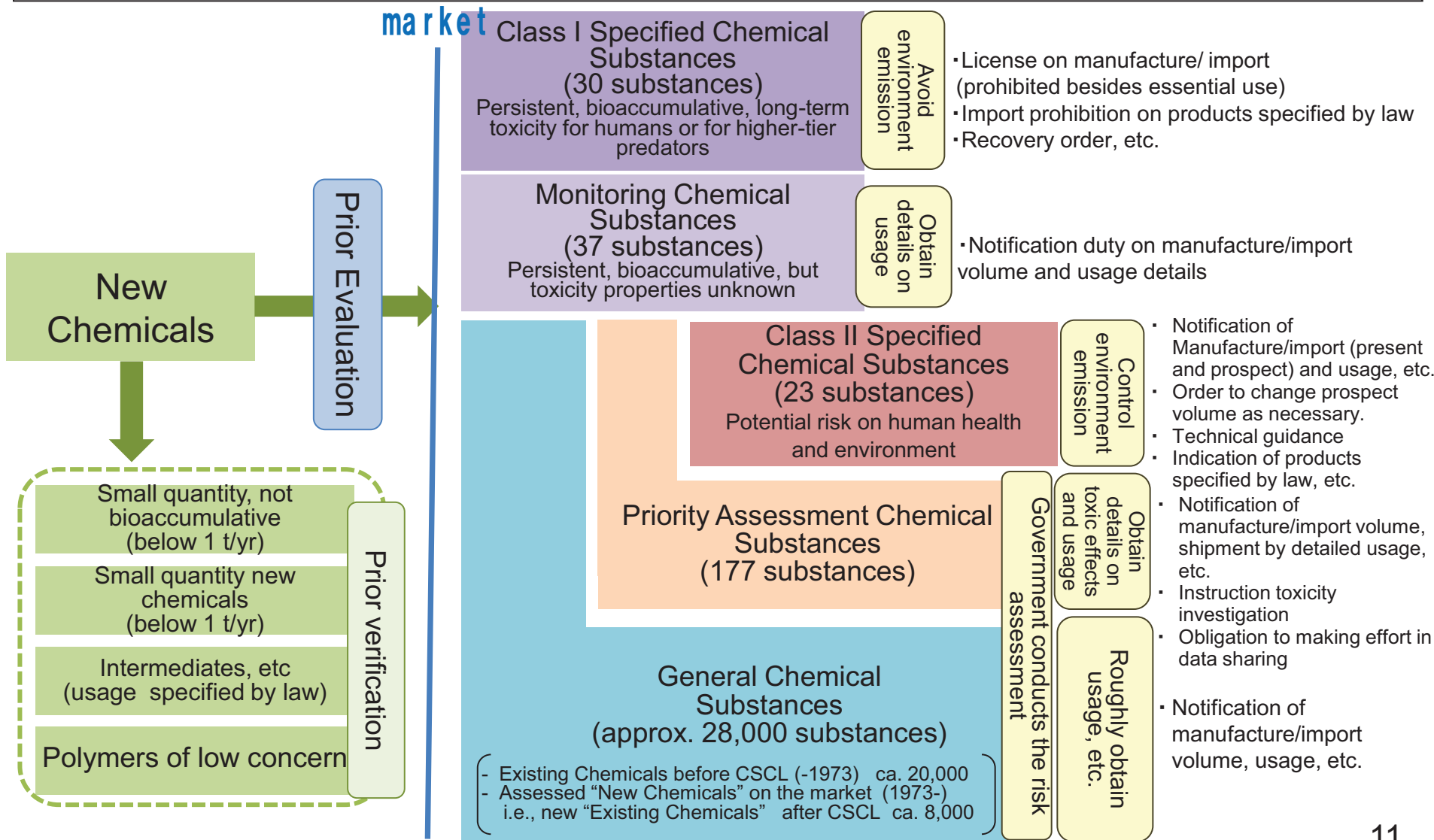
2009 revised

Fundamental revision on examination and verification system for thorough chemical substances (safety evaluation, etc. through notification obligation of manufacturing/importing entities for all chemicals including existing chemicals above certain volume, and narrowing down to Priority Assessment Chemical Substances).

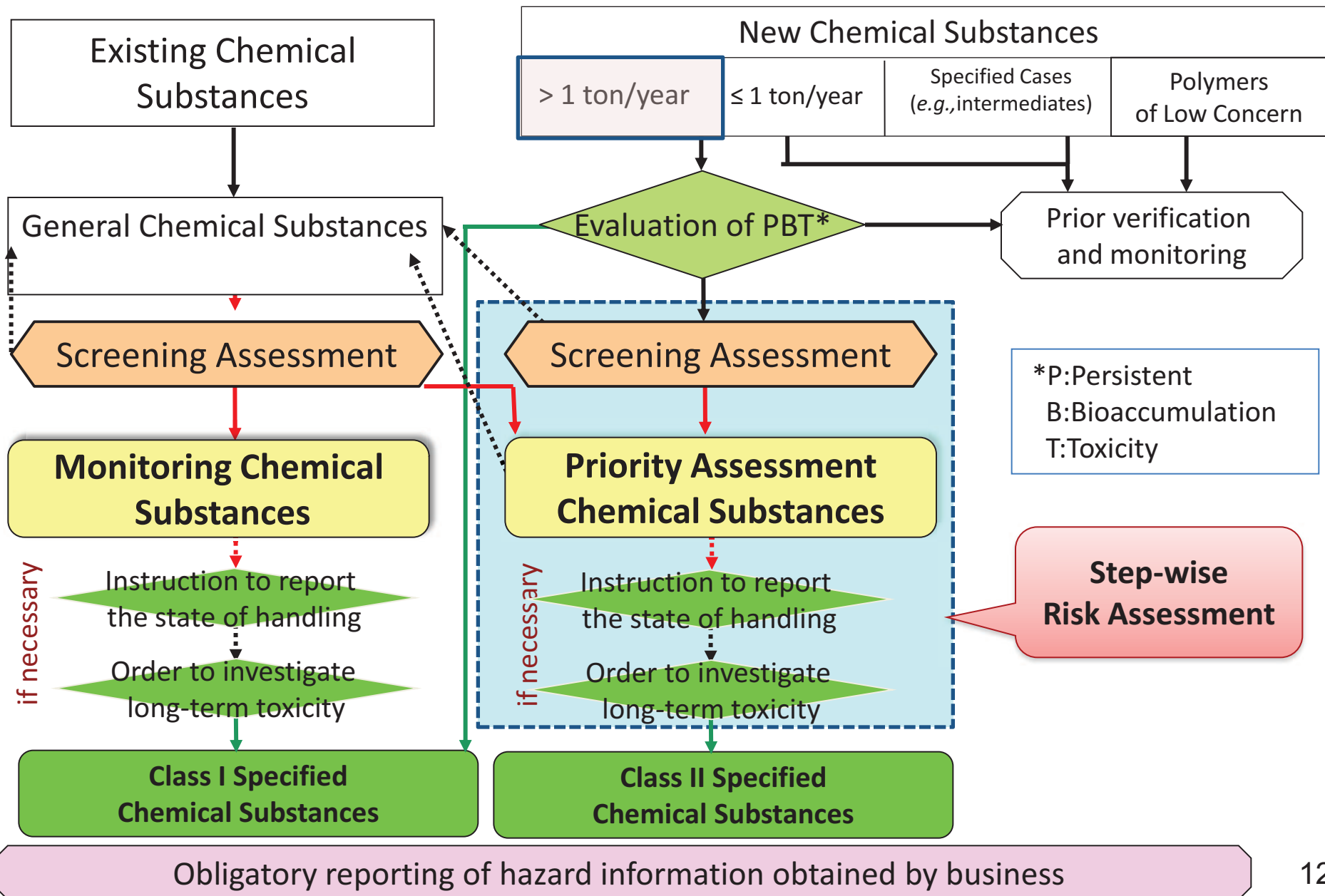
Overview of CSCL

Prevent environmental contamination by chemicals through continual management before and after placing on market.

*as of November 2015



Overview of CSCL



Types of Chemicals regulated under CSCL

(As of Nov. 2015)

NAME	Definition	Quantity
Class-I Specified Chemical Substances	Persistent, bioaccumulative, and toxicity (long-term toxicity for humans or predator animals at higher trophic level)	30
Class-II Specified Chemical Substances	Toxicity (long-term toxicity for humans or long-term toxicity for flora and fauna in the human living environment) with concern for a considerable amount of the chemical substance remaining in the environment over a substantially extensive area	23
Monitoring Chemical Substances	Persistent and bioaccumulative, but toxicity properties unknown (Candidates for the Class-I Specified Chemical Substances)	37
Priority Assessment Chemical Substances	• Not found that it is clear chemical substance does not pose long-term toxicity • Considerable amount of chemical substance remains in the environment • Not thought to pose a risk (Candidates for the Class-II Specified Chemical Substances)	177
General Chemical Substances	Industrial chemical substances other than those above	Approx. 28,000

<Public site for notice (English ver.)>

J-CHECK: Japan Chemicals Collaborative Knowledge Database

http://www.safe.nite.go.jp/jcheck/list7.action?category=230&request_locale=en

Restriction of Manufacture/import, etc. of Chemicals substances (1)

<Specified Chemical Substances: two types>

Class-I Specified Chemical Substances

- Persistence, bioaccumulative, long-term toxicity for humans or for high-order predators
- Restriction on license of manufacture/import and usage (virtually prohibited)
- Import restriction on products designated by law
- Recovery order in case substance is designated, etc.
- Usage besides essential use (Compliance to technical standards; labelling obligation)
- **30 substances:**
 - Polychlorinated biphenyl
 - Polychlorinated naphthalene (above three chlorines)
 - Hexachlorobenzene
 - Aldrin Endrin
 - Dieldrin DDT
 - Chlordanes etc.

(as of Nov, 2015)

Dichlorinated naphthalene and Pentachlorophenol(PCP) etc. will be added according to the revision of POPs Convention in May 2015.

Restriction of Manufacture/import, etc. of Chemicals substances (2)

Class-II Specified Chemical Substances

- Long-term toxicity for humans or animals / plants in living environment
- Considerable amount remaining in the environment over a substantially extensive area
- Notification of volume of manufacture/import of present and prospect
- Order to change prospect volume when restriction on manufacture/import is necessary
- Publication of technical guidance to prevent environmental contamination, and recommendation as necessary
- Labelling obligation and compliance to technical guidance

- **23 substances:**

Trichloroethylene

Tetrachloroethylene

Carbon tetrachloride

Organic tin (20 compounds)

(as of Nov, 2015)

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Evaluation/ verification of new chemicals

Prior evaluation and judgment is conducted to confirm whether the new chemical substances have following properties, based on report submitted by a manufacturer or importer at the time of manufacturing or importing. New chemical substances is defined as substances which have not been manufactured or imported in Japan.

- I. Degradable: Whether or not it is easily affected chemically in natural process
- II. Accumulative: Whether or not it is easily accumulated within organisms
- III. Long-term toxicity to humans: Whether or not it may affect human health through continuous intake
- IV. Eco-toxicity: Whether or not it will affect the habitats or growth of animals and/or plants

CSCL Test Items

	1 ~ 10t	Over 10t
Degradation test	○	○
Condensation test	○ ¹⁾	○ ¹⁾
Repeated Dose 28-day Oral Toxicity Study on mammals		○ ¹⁾
Bacterial reverse mutation assay		○ ¹⁾
In vitro mammalian chromosome aberration test		○ ¹⁾
Mammalian chronic toxicity, fertility/post-generation toxicity, teratogenicity, mutagenicity, carcinogenicity, toxicokinetics, pharmacology tests		△ ²⁾
Algae growth inhibition test (equiv. OECD TG201)		○ ¹⁾
Daphnia acute immobilization test (equiv. OECD TG202)		○ ¹⁾
Fish acute toxicity test (equiv. OECD TG203)		○ ¹⁾
Avian reproductive test (equiv. OECD TG206)		△ ²⁾

- 1) Other tests than degradation test are not required for not persistent substances.
- 2) These tests are usually not required, as they are designed to identify the Class 1 Specified Chemical Substances in order to determine chronic toxicity for human or predators.

Exception of Evaluation for New Chemical Substances

	Content
Small Quantity New Chemical Substances	Confirmed by the three ministers that the prospect national yearly manufacturing and importing volumes are below 1 ton , and are not considered to contaminate the environment and harm human health or animals and/or plants in living environment.
Intermediates, etc.*	Confirmed by the three ministers that the substances falls under such designated by the law (intermediates, closed usage, exclusively for exports) that environmental contamination by the new chemical substances is not likely to occur from the planned usage.
Polymers of Low Concern	Substances confirmed by the three ministers that the substances are polymers and do not contaminate the environment and harm human health or animals and/or plants in living environment
Low Production Volume of New Chemical Substances	Substances that may be manufactured/ imported on a condition of follow-up supervision (hearing of report and/or on-site inspection), through prior confirmation by the three ministers that the volume is below 10 tons; in a case when the new chemical substances below national yearly manufacturing and/or import volume below 10 tons are judged/notified that they are persistent but are not bioaccumulative , after specified as subject to pre-evaluation.

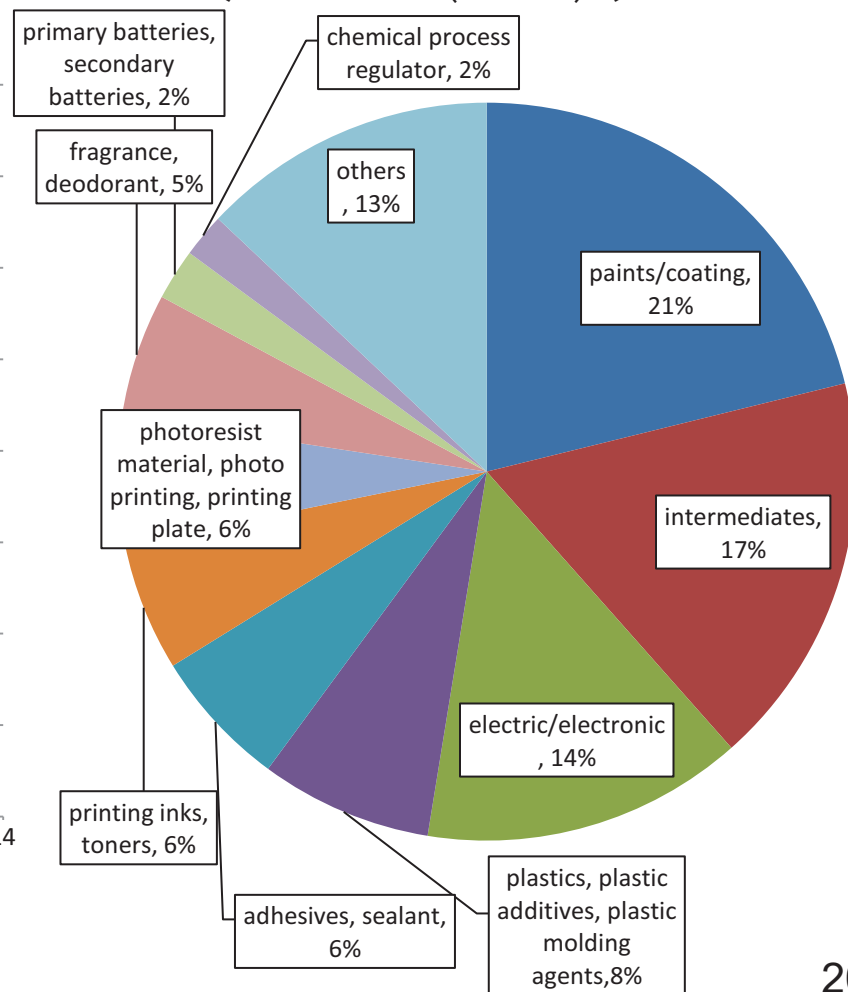
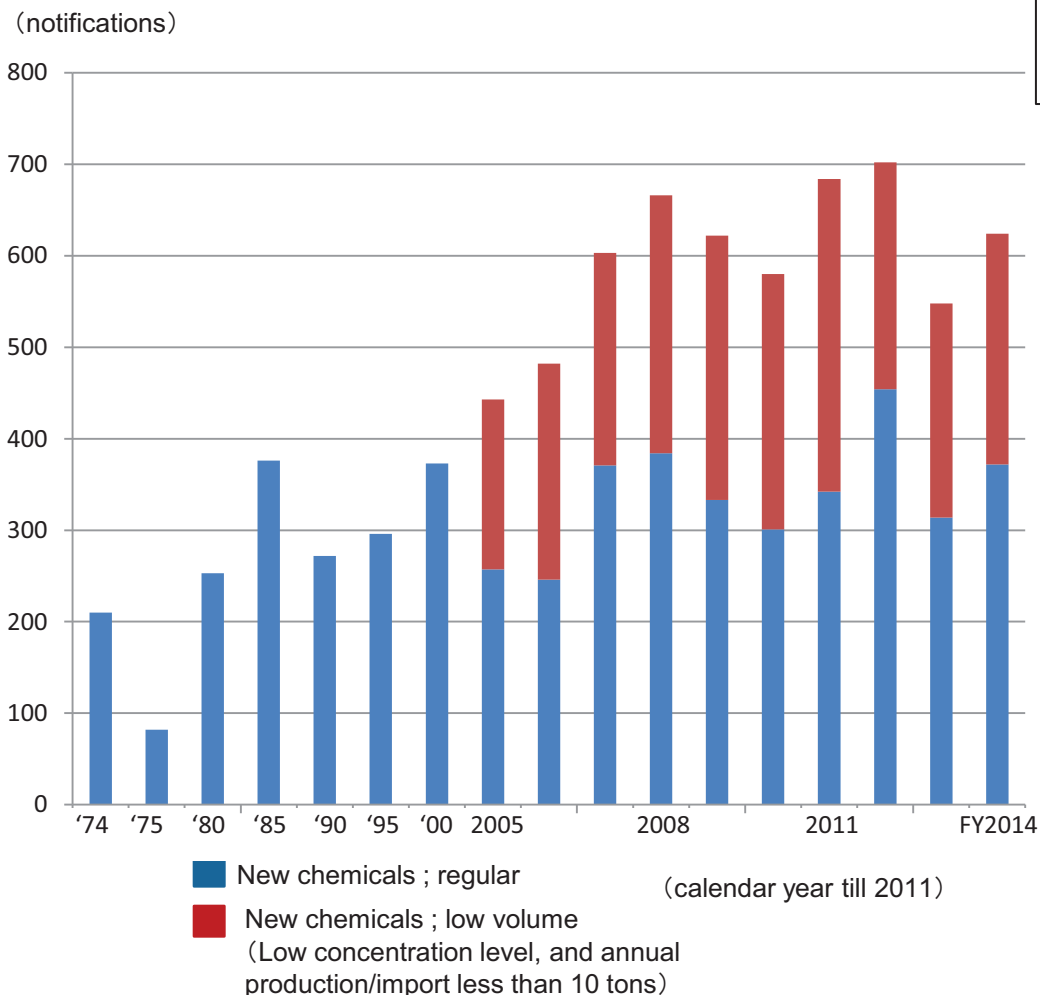
*Implementation of "Confirmation system of small quantity intermediates, etc. of new chemical substances" from Oct, 2014 (to p.24)

Notification Trends of New Chemicals

○ Recently, approx. 600 new notifications each year. Regular new chemicals are approx. 400/year, while low volume new chemicals are approx. 200/year. Main uses are ①paints/coating, ②intermediates, ③electric/electronic material. These main uses do not change over the years.

<Notification Trends of New Chemicals>

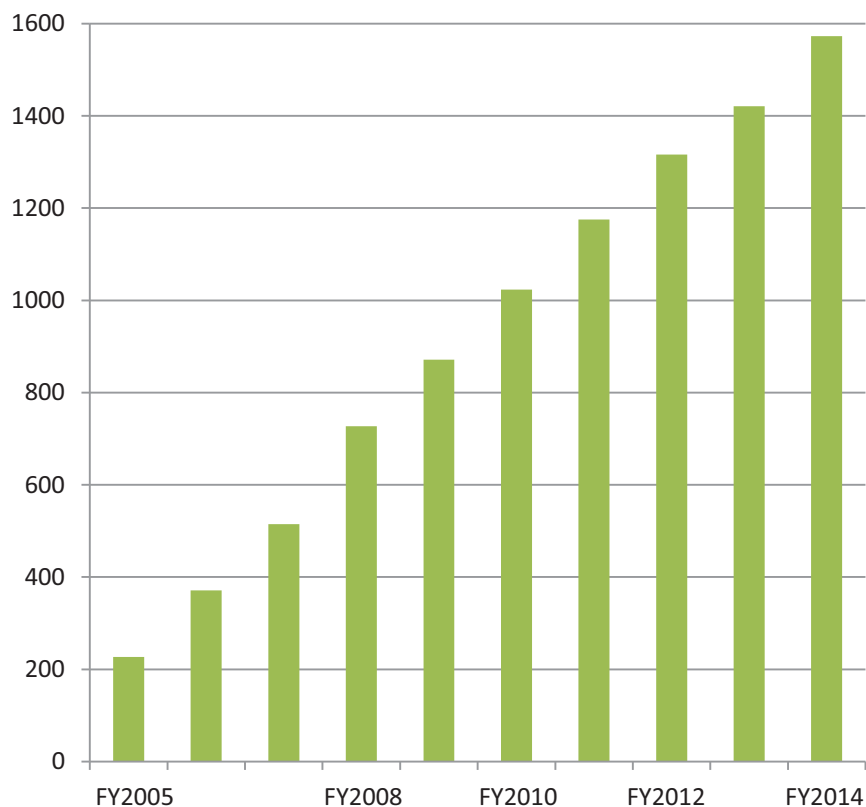
< Main uses (FY2014) >



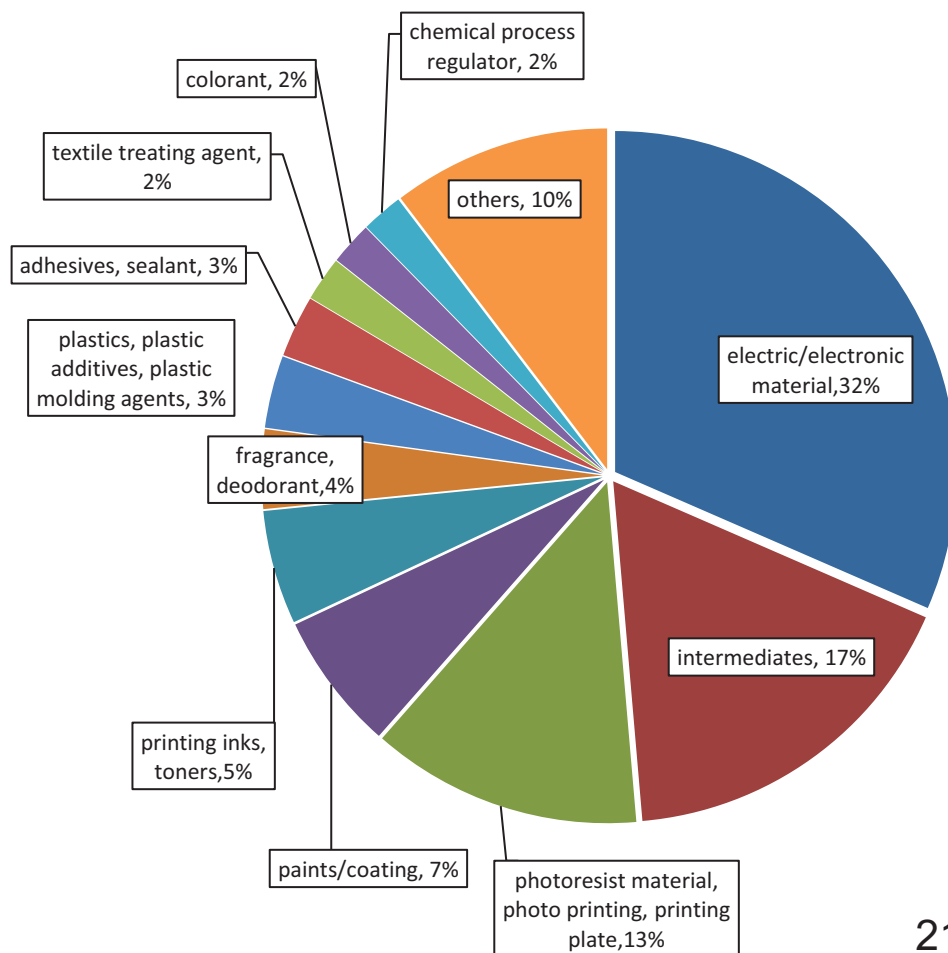
Verification Trends of Low Production Volume of New Chemicals (= <10t/year)

- Verifications of Low Production Volume of New Chemicals are increasing every year. Almost 1,600 verifications in FY2014. Main uses are ①electric/electronic material, ②intermediates, ③photoresist material, photo printing, printing plate. These main uses do not change over the years.

<Verification Trends of Low Production Volume of New Chemicals>
(verifications)



< Main uses (FY2014) >

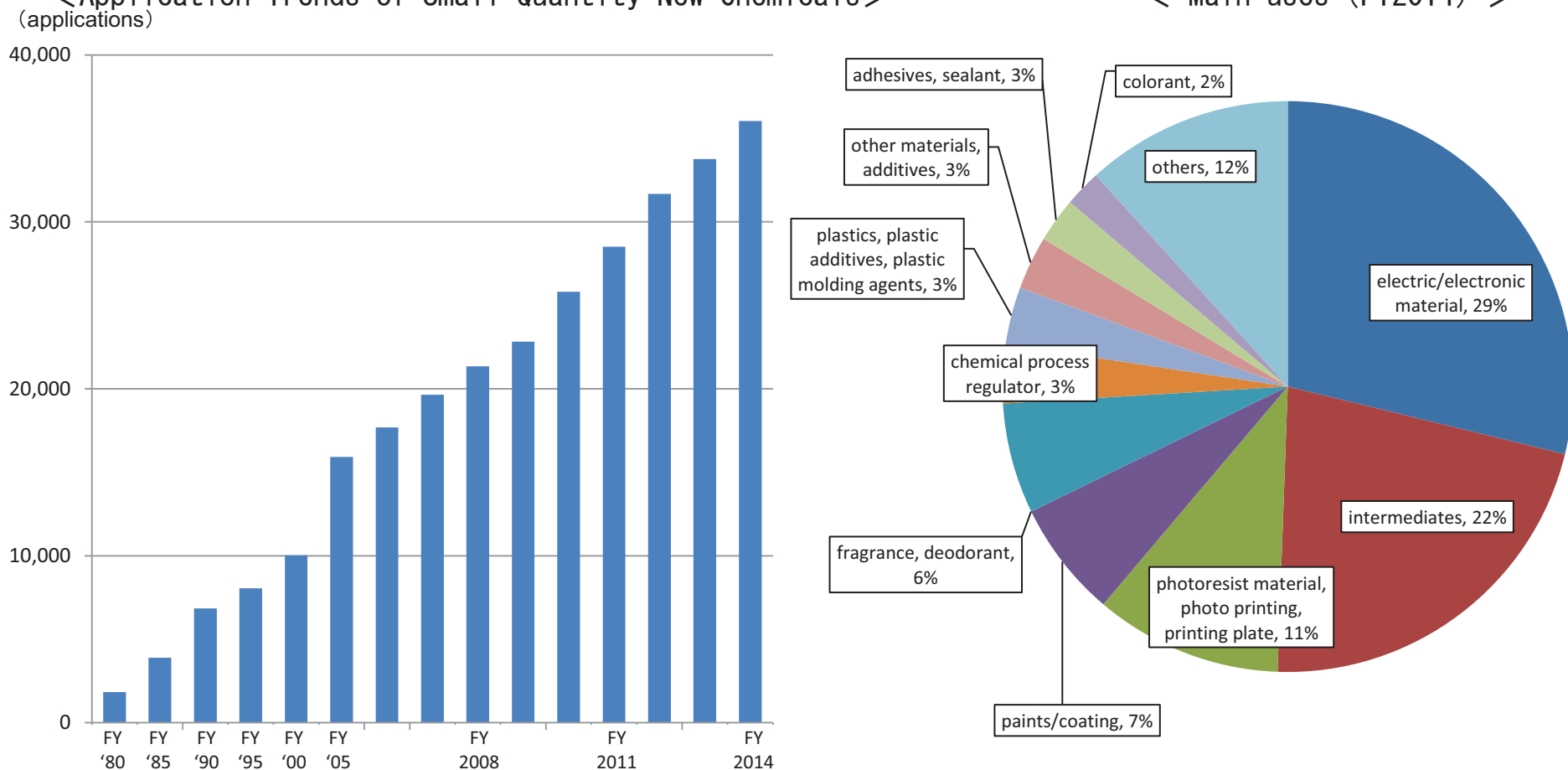


Application Trends of Small Quantity New Chemicals(=<1t/year)

○ Applications of Small Quantity New Chemicals are increasing every year. Approx. 36,600 applications in FY2014. Main uses are ①electric/electronic material, ②intermediates, ③photoresist material, photo printing, printing plate. These main uses do not change over the years.

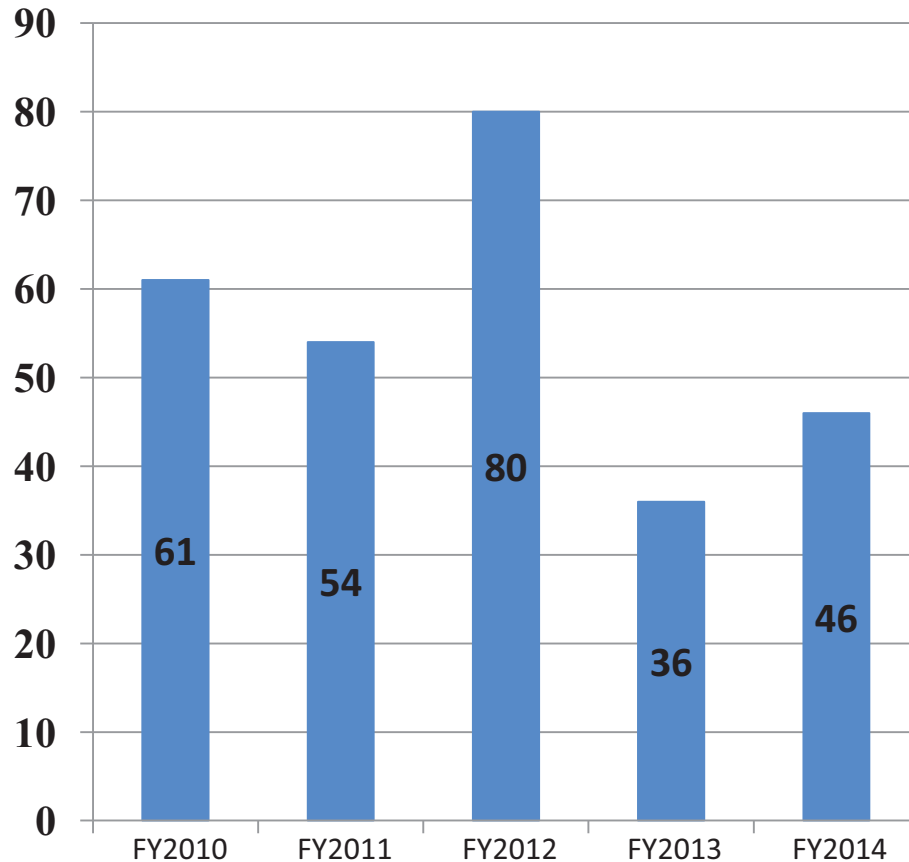
<Application Trends of Small Quantity New Chemicals>

< Main uses (FY2014) >



Application Trends for Polymer of Low Concern (PLC)

○ Applications for Polymer of Low Concern (PLC) maintain at a certain level (introduced from the CSCL 2009 revision).



※ Implemented from FY2010

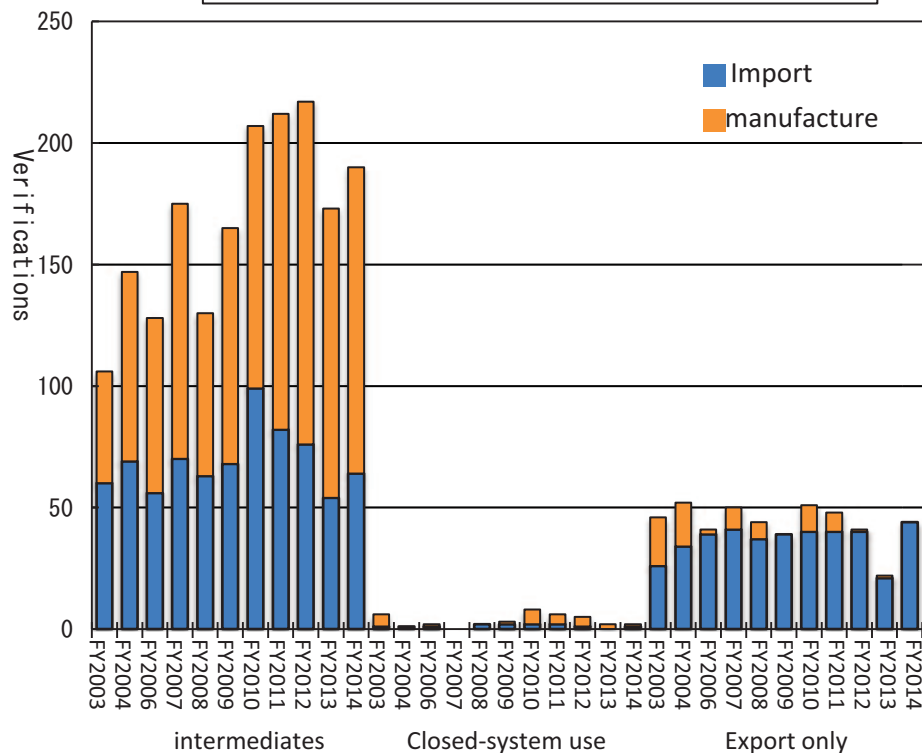
Exemption for Polymer of Low Concern (PLC)

Polymers, that are confirmed by the 3 Ministries to pose no risk of causing damage to human health or the habitat and other matters of plants and animals, are exempted from mandatory notification of its manufacture/import.

Verification Trends for intermediates, for export only, or used in a closed system

- Verifications of special exemptions for intermediates etc. were 236 in FY2014. The great majority are intermediates (approx. 80%). The most of remaining 20% are export-only. Only small numbers are closed-system use.
- The operators, which are verified for special exemption, are inspected on a regular basis by the 3 Ministries and NITE (National Institute of Technology and Evaluation).

Verifications of intermediates etc.



Inspections for intermediates etc.

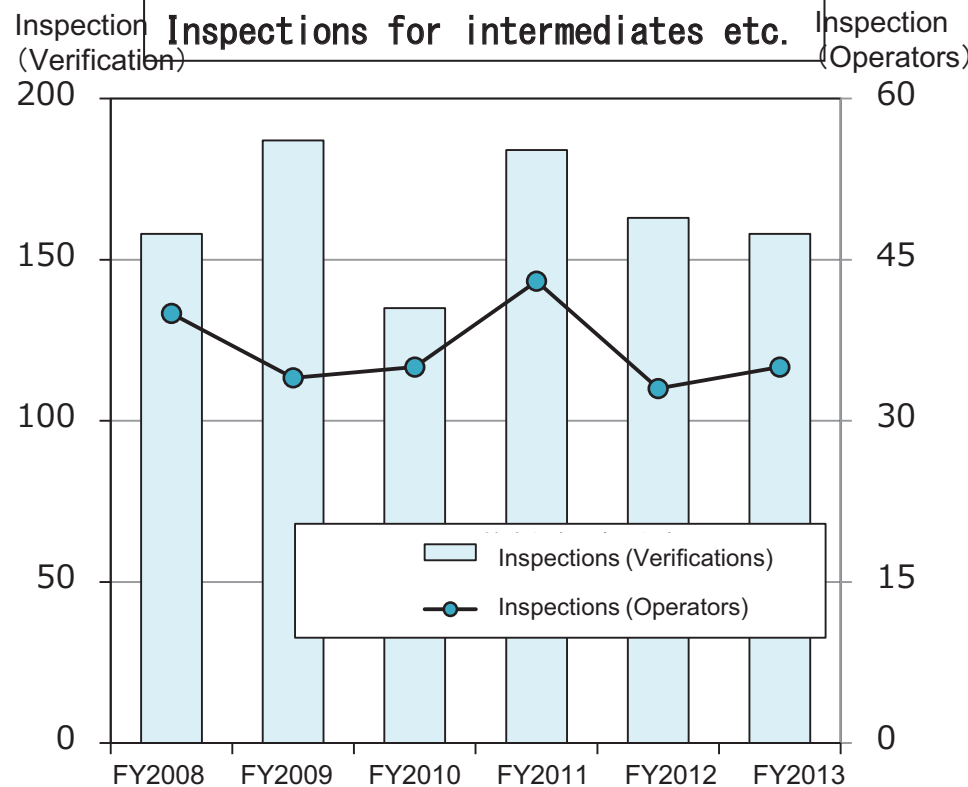


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Risk Assessment under CSCL

Aim

To prevent environmental contamination by chemicals that may be harmful for human health and/or to the inhabitant or growth of animals and plants.

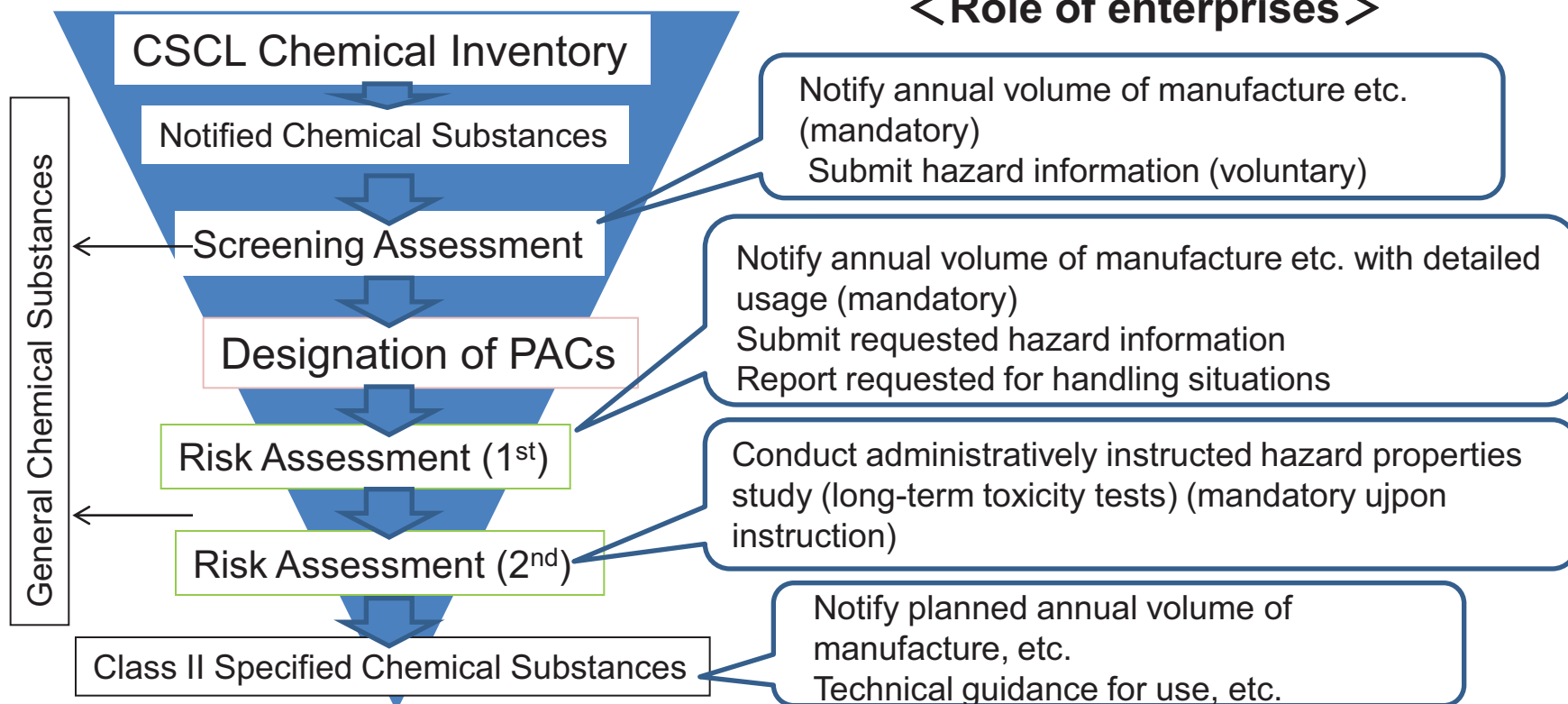
Prior evaluation and regulation of new chemical substances

Continuous management of existing substances

Regulation by properties
Persistence,
Bioaccumulation, Long term
toxicity

Step-wise risk assessment

<Role of enterprises>



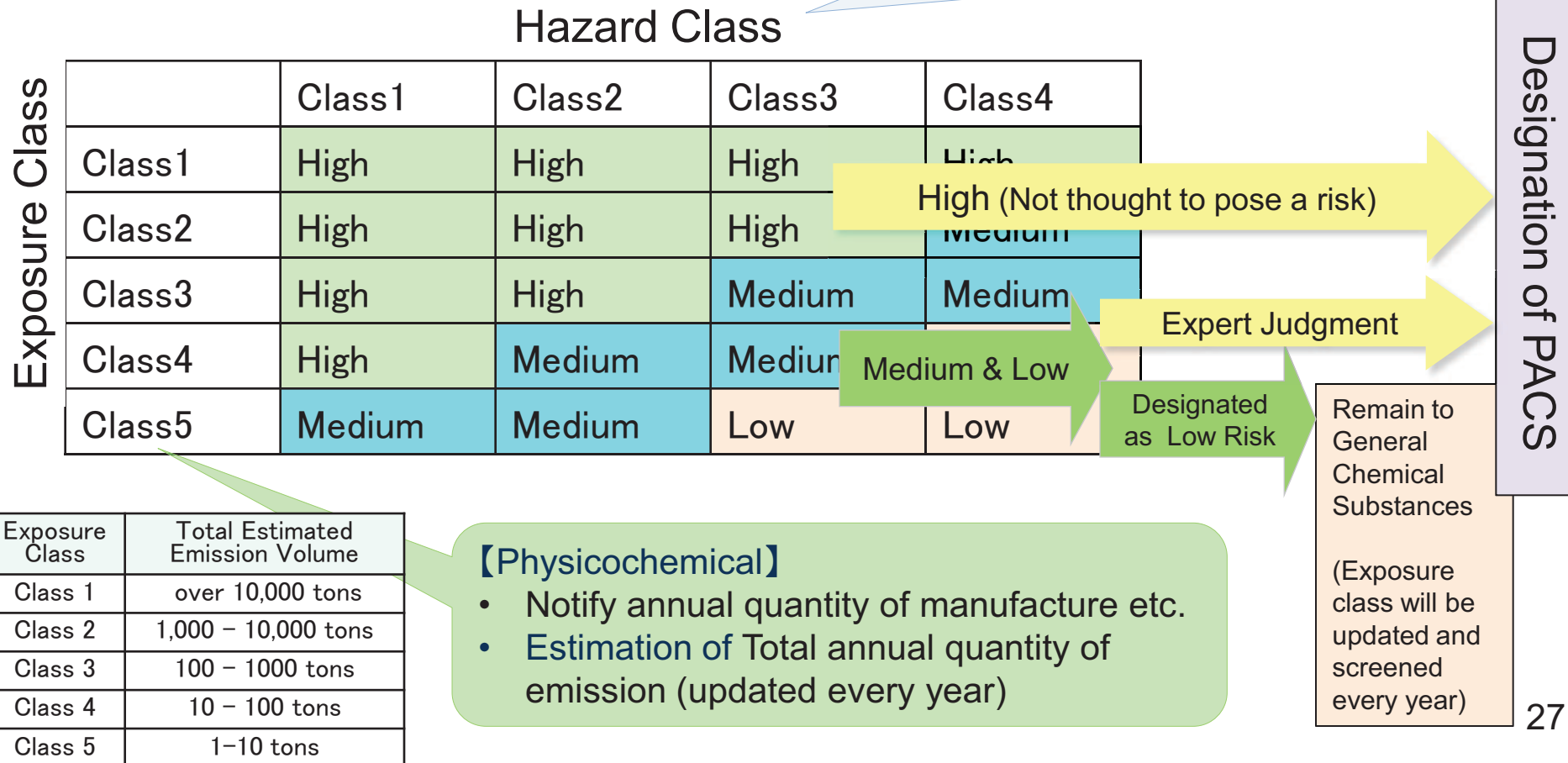
Screening Assessment

【Human Health effect】

- Classified into hazard class by general toxicity, reproductive and developmental toxicity, mutagenicity, and carcinogenicity.

【Ecological effect】

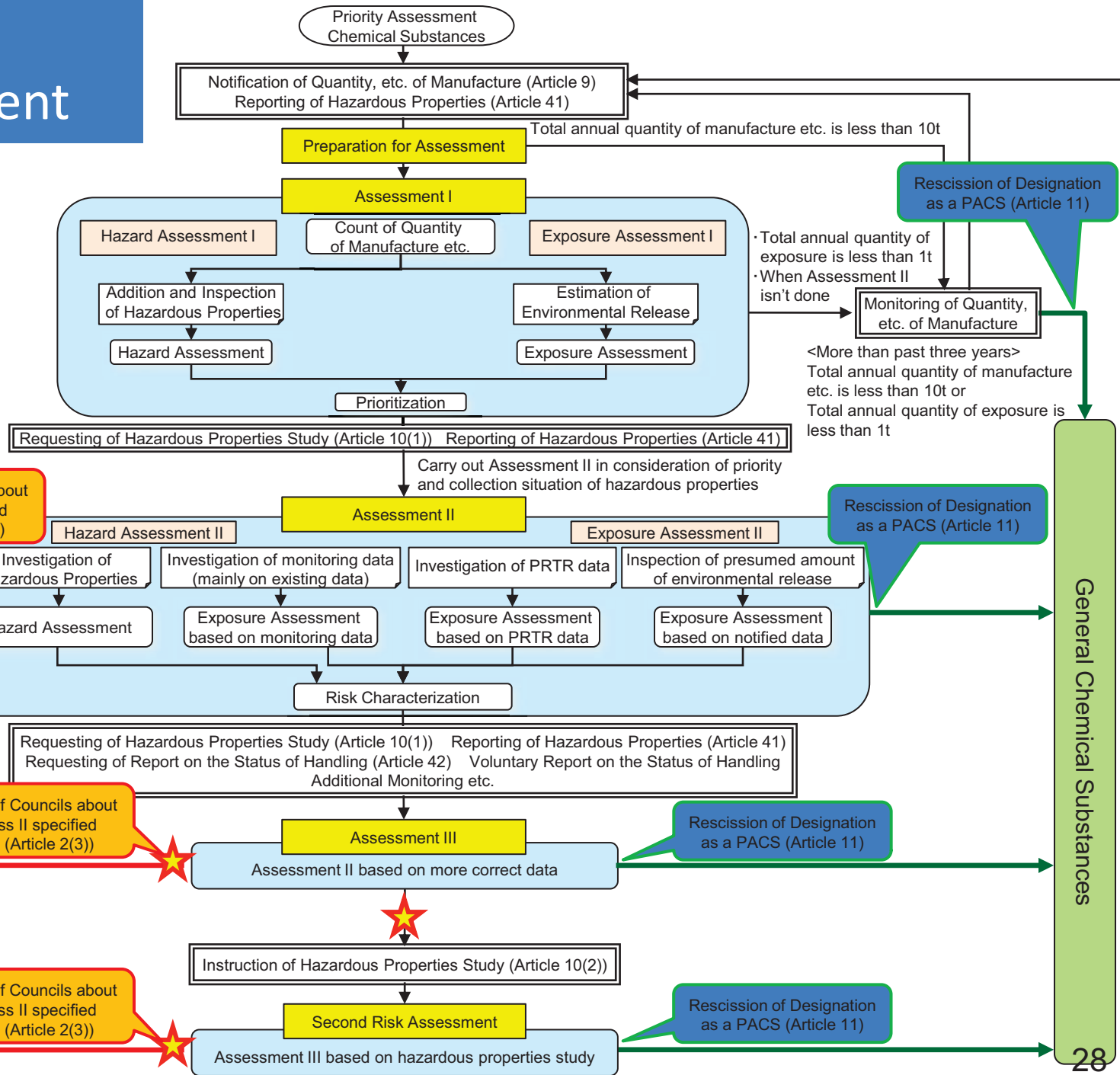
- Classified into hazard class by eco-toxicological test data (algae, crustacean, fish).



Procedure of Risk Assessment

★ : Hearing of Opinion of Councils (Article 56)

Class II Specified Chemical Substances



Risk Assessment (1st)

Risk Assessment (1st) is composed of three stages referred as the Assessment I, II, or III.

<Assessment I >

Hazard assessment uses the same information as the screening assessment. Exposure assessment uses only the notified information of production and import volume, etc.. From these results, the priorities for implementing the Assessment II are determined.

<Assessment II >

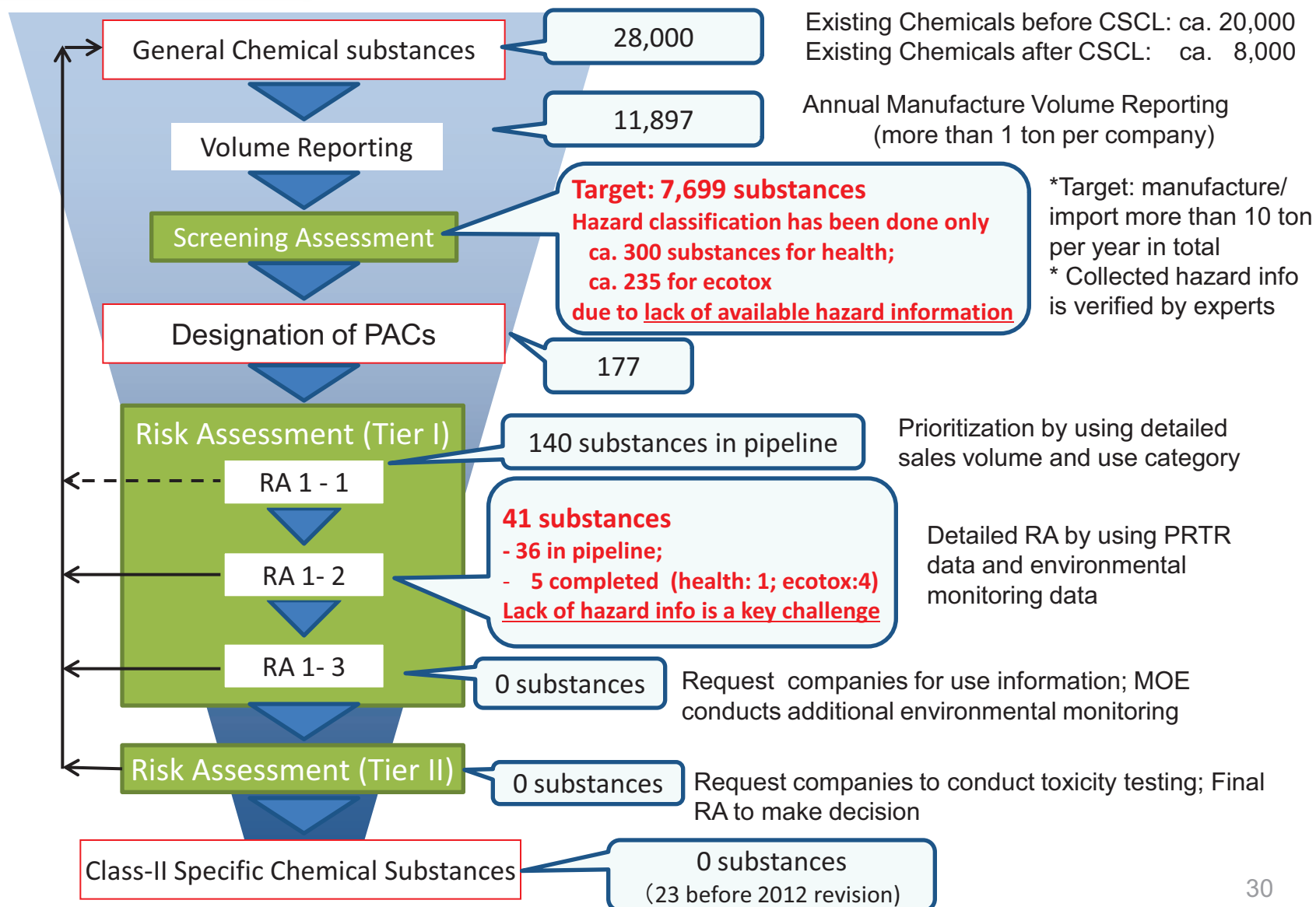
The hazard assessment is performed by collecting additional toxicological information. The risk assessment of Exposure Assessment is performed by increasing the coverage. The recorded monitoring data and PRTR data in past is also utilized. From these data, risk assessment is carried out, and the direction of hazard investigation or the appointment to Class II Specified Chemical Substance is determined immediately. If there is no optimal decision, Assessment III is applied.

<Assessment III >

The risk assessment is conducted in detail using handling information and additional monitoring data. The necessity of direction of hazard investigation is determined.

Progress of Risk Assessment by CSCL 2009 Revision

Tiered Approach



Review of CSCL

CSCL 2009 Revision

- has fully come into effect in April 2011
 - requests “5-year review” and to take necessary measures, as needed (“Where five years has elapsed after the enforcement of this law, when the government finds it necessary in consideration of the state of implementation of CSCL after the revision, it shall review the provisions and take necessary measures based on the results.”)
- August 2015: METI/MOE’s joint committee has started a preliminary review (MHLW join as an observer)
 - March 2016 (tbd): Initial report by the joint committee

(METI: Ministry of Economy, Trade and Industry
MHLW: Ministry of Health, Labour and Welfare
MOE: Ministry of the Environment)

Review of CSCL

METI, MHLW and MOE agrees with 3 discussion points;
consensus to be developed;

Japanese industries seems to request further
international harmonization and further uses of alternative
methods such as QSARs and Category Approach

3 discussion points

- Speed-up of Risk Assessment of Existing Chemicals toward WSSD 2020 Goal
- Assessment methods of New Chemicals
- Risk Management measures

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About PRTR System

○ PRTR System

PRTR, or Pollutant Release and Transfer Register, is a system used to register and provide public notifications about the amounts of hazardous chemical substances being released (emitted) into the environment as well as the amount of such substances contained in waste materials that are to be transferred from one location to another.

○ Background

- It was necessary to effectively curtail emissions of “grey matter” because setting thresholds (standard values) and evaluating risks take time.
- Self-management by business operators, availability of information to the public and activities undertaken by administrations

○ Introduction to Japan and Other Countries

- Countries like USA and Netherland took the lead (approach and primary objectives differ depending on the country)
- Legislation took place in Japan in 1999

Title: Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Thereof (Chemical Substances Control Law)

Jurisdiction: Joint jurisdiction by Ministry of Environment and Ministry of Economy, Trade and Industry

About PRTR System (Continued)

○ Outline of Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Thereof

Objectives: Promote improvements in self-management by business operators
 Proactively prevent impediments to environmental conservation
 System for delivering PRTR system and SDS (Safety Data Sheet)

Targeted chemical substances:

- 462 Class I Designated Chemical Substances
- 100 Class II Designated Chemical Substances
- 15 Class I Specified Chemical Substances

Targeted Business Premises:

- 24 business types, Business Premises with 21 or more full-time employees
- Business Premises that annually handle 1 ton or more of said chemicals (Class I Specified Chemical Substances is 0.5 ton or more) or Business Premises holding said chemicals in facilities that fulfill special parameters

Totaling items: State makes grand totals and data estimated by business operators and out-of report data estimated by the State

Selection Standards for Targeted Substances

Hazard

1. Carcinogenic
2. Mutagenicity
3. Oral chronic toxicity
4. Inhalation chronic toxicity
5. Inhalation chronic toxicity acquired from permissible concentration in work environment
6. Reproductive/developmental toxicity
7. Sensitizing potential
8. Ecotoxicity
9. Ozone depleting substances

Exposure

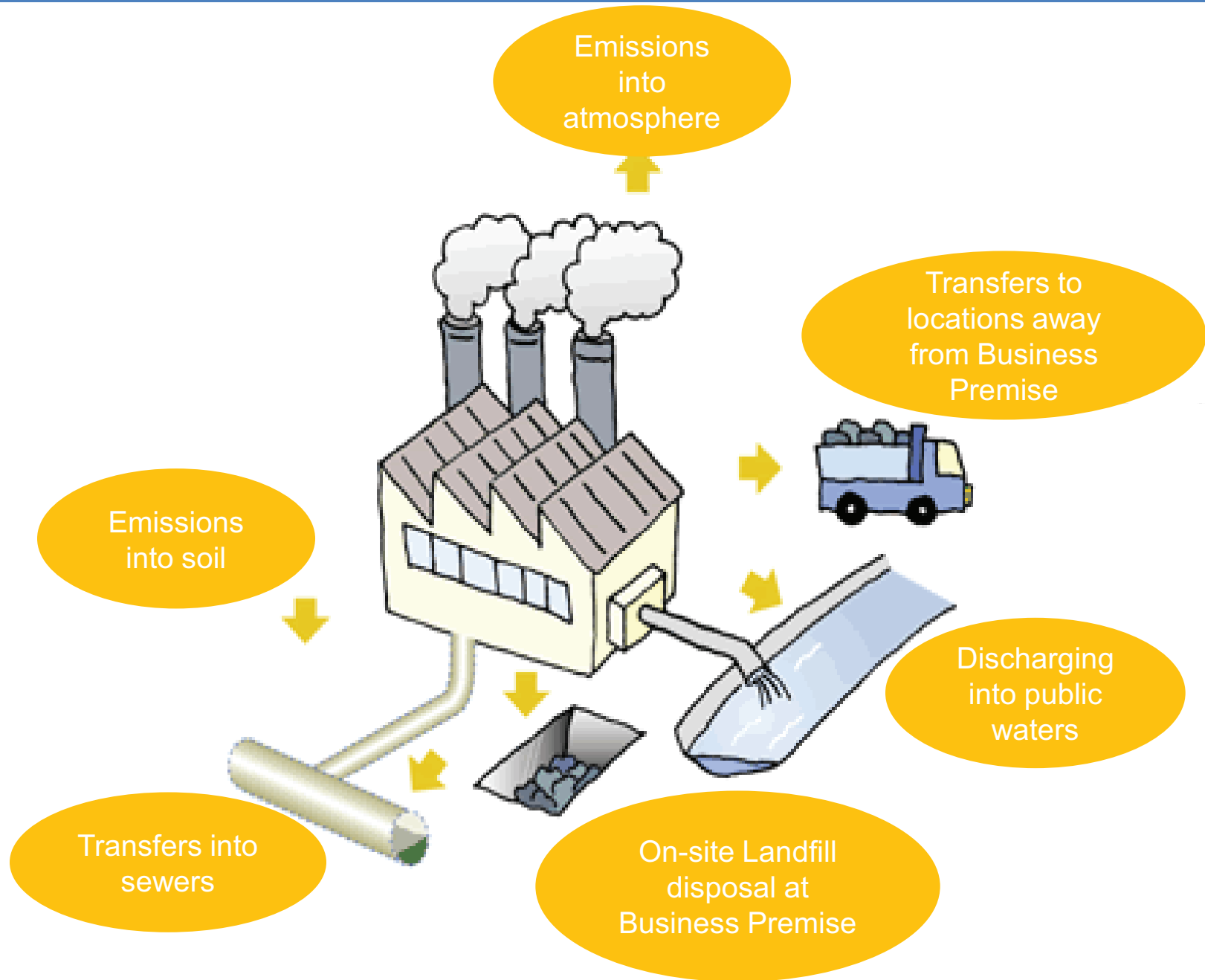
○ Class I Designated Chemical Substances

- Pollution detected from multiple areas based on monitoring results in chemical substances related environmental pollution investigations held over the last ten years (commonly known as “Kurohon studies”)
- Amount of annual manufacture and/or import is 100 tons or more
- Amount of annual manufacture and/or import of substances and agrochemicals with a hazard ranking of Class I in carcinogenic terms that is 10 tons or more
- For ozone depleting substances, past accumulation of manufacture and/or import amount is 10 tons or more

○ Class II Designated Chemical Substances

- Pollution detected from one point based on monitoring results in chemical substances related environmental pollution investigations held over the last ten years (commonly known as “Kurohon studies”)
- Amount of annual manufacture and/or import is 1 ton or more

Items targeted for reporting



Configuration of Releases

Emissions amount total of 401,000 tons (100%) in FY2013

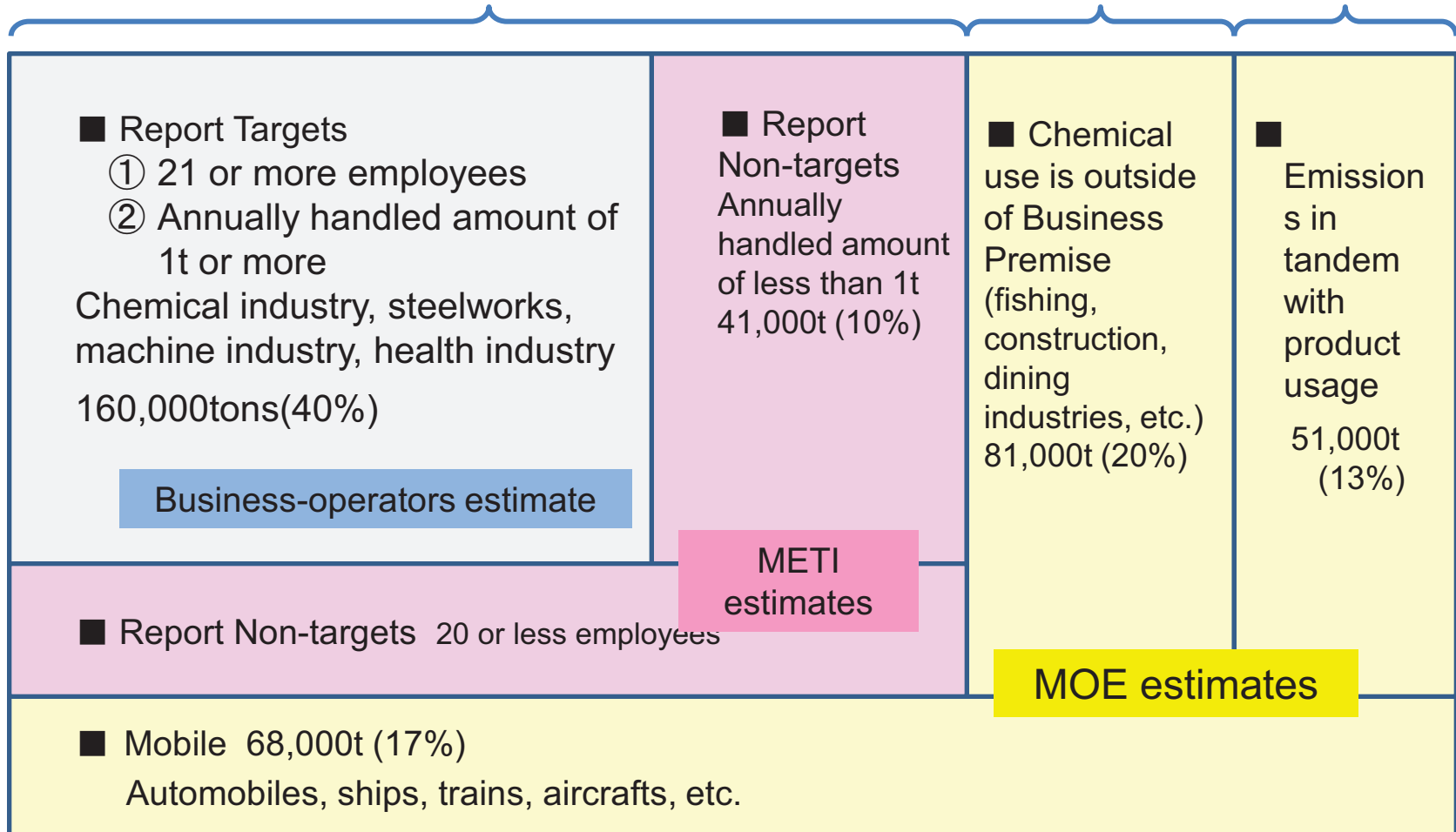
Point source

Non-point source

Targeted business types

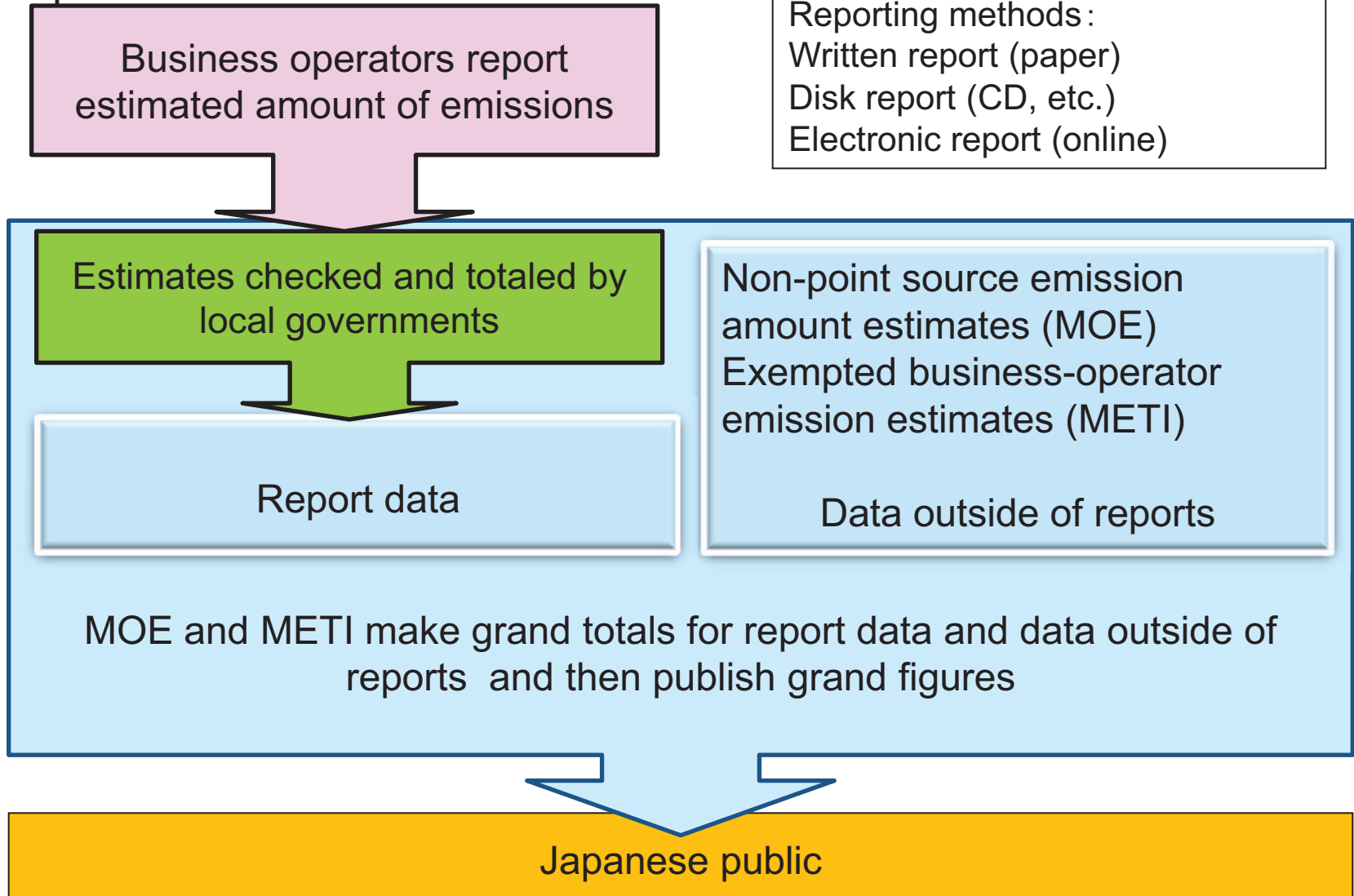
Non-targeted business types

Household

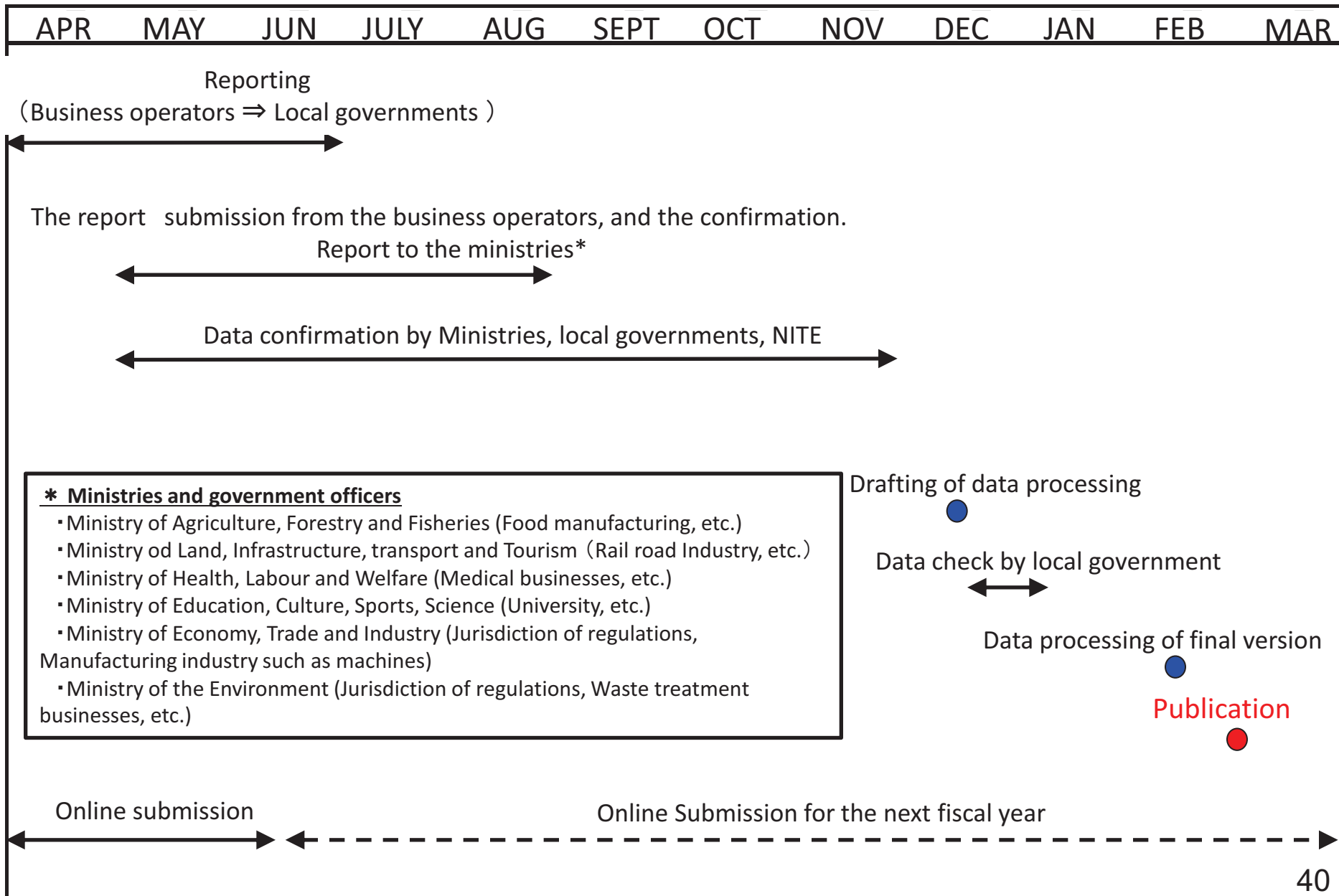


Program Implementation System

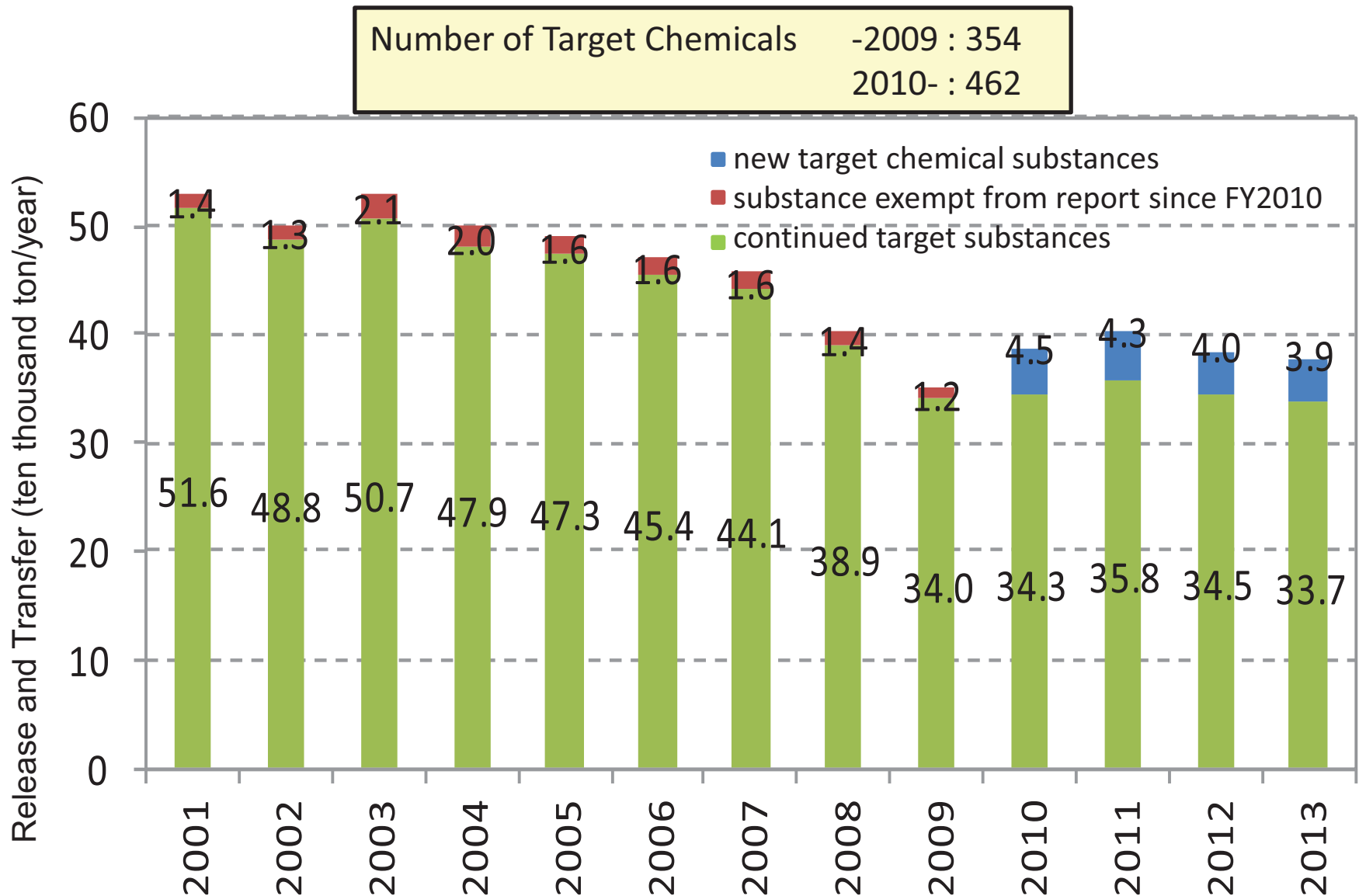
○ Concerned Parties and Their Roles in Program Implementation



Main schedule in a year



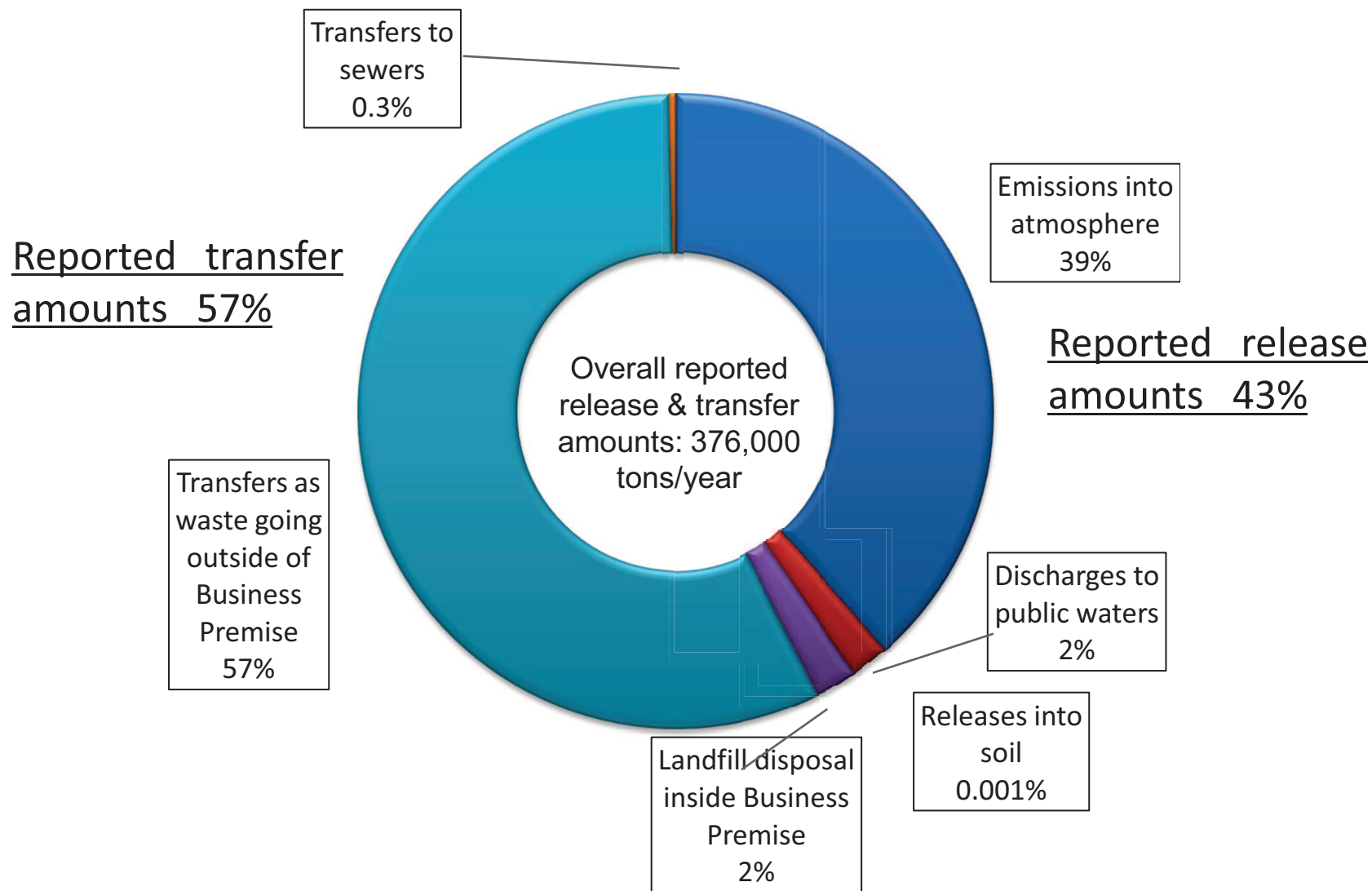
Transition of Reported Amount of Chemicals Released and Transferred for fiscal year 2001 to 2013



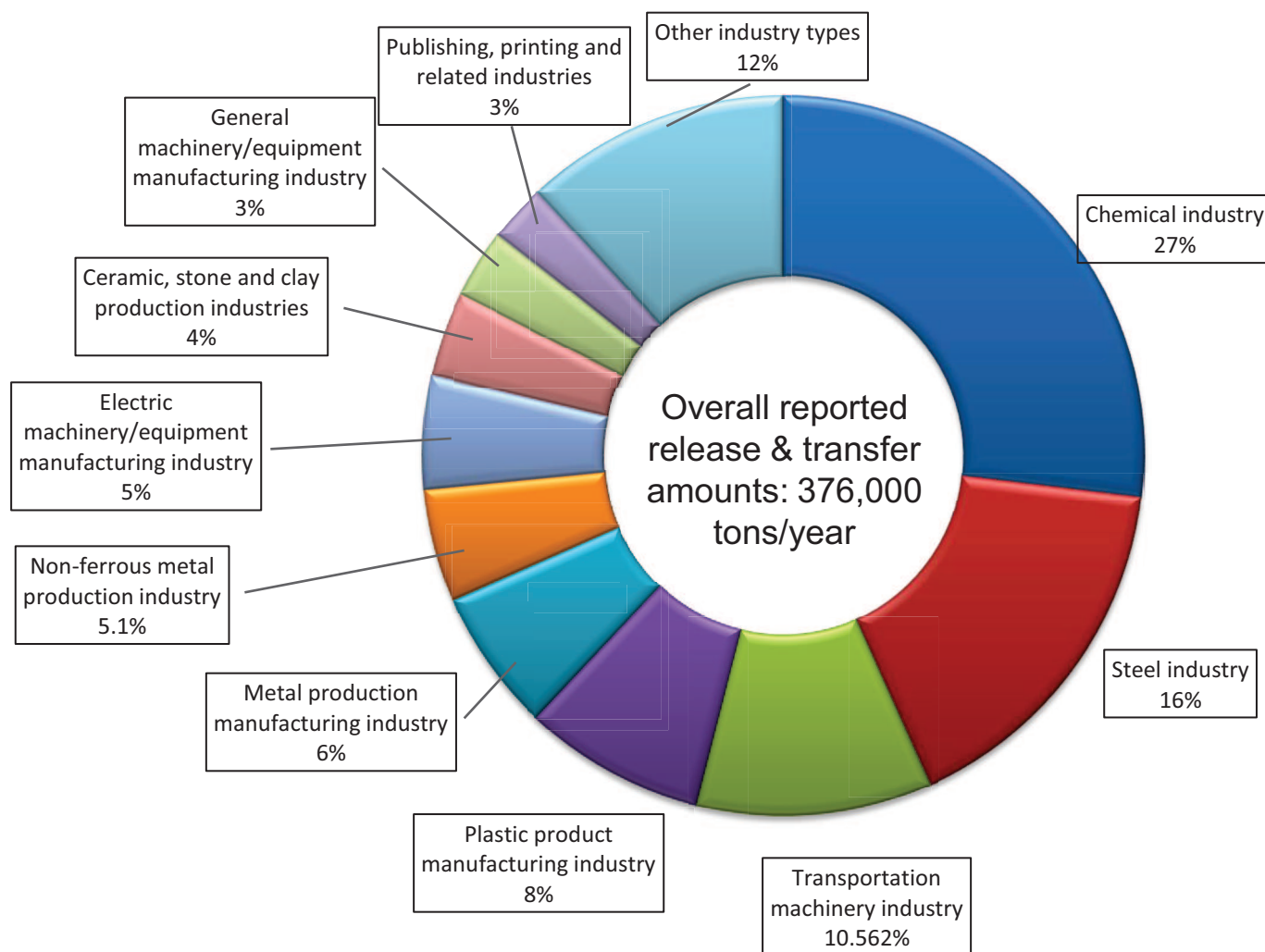
Report Circumstances:

- Total number of nationwide Business Premises which made reports: 35,974 Business Premises
 - Paper submission 15,403 (42.8%)
 - Disk submission 374 (1.0%)
 - Online submission 20,197 (56.1%)

Configuration of Overall Reported Releases and Transfers (FY2013)



Top Industry Types to Report Releases and Transfers (FY2013)



Top 10 Substances in terms of Amounts Reported as Released/Transferred (FY2013)

Targeted Chemical Substance Name	Total Reported (Tons/Year)	Percentage Reported
Toluene	89,393	23.8%
Manganese and its compounds	49,932	13.3%
Xylene	36,069	9.6%
Ethyl benzene	17,378	4.6%
Methyl chlorides	17,241	4.6%
Chromium and chromic compounds	16,797	4.5%
n-Hexane	14,031	3.7%
Hydrogen fluoride and its water soluble salt	12,161	3.2%
N, N-dimethylformamide	9,304	2.5%
Ferric chlorides	9,297	2.5%
Total of Top 10 Substances	271,604	72.3%
Total	375,668	100.0%

Publicly Available PRTR Data

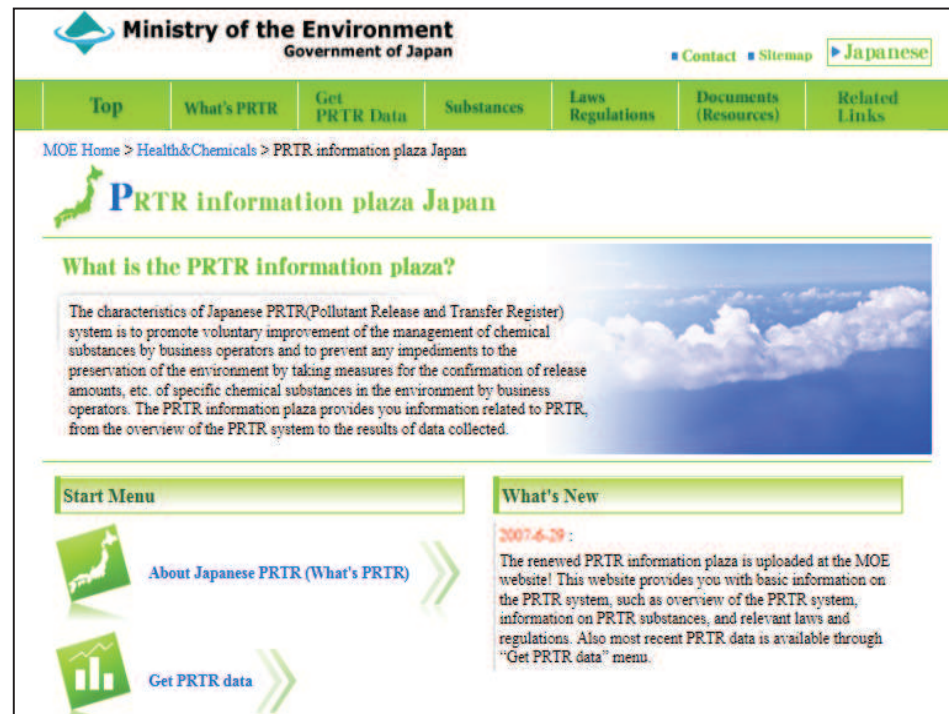
○ Business Premise Data (Original Reporting Data)

- Available from MOE homepage, downloadable in csv format (Japanese only)
- “PRTR map display system,” also available from MOE homepage (Japanese only), can search reporting Business Premises and show the reporting data.

○ Reporting Data Summary

Available from MOE homepage,
downloadable in PDF format
(Japanese only (Note))

(Note) Some summary data,
as well as the PRTR release
estimation manuals are also
available in English, down-
loadable from the English
PRTR homepage.



<http://www.env.go.jp/en/chemi/prtr/prtr.html>

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Purpose of PRTR and Data Utilization Examples (1/3)

Purpose of PRTR	Utilization Examples of PRTR Data
[1] Basic Data for Environmental Conservation	✓ Use the PRTR data as the benchmarks for promoting chemical management policies ✓ Use the PRTR data as basic data in reviewing various regulatory measures such as system for industrial waste subject to special control, etc.
[2] Priority Decision for Chemicals Countermeasure by Administration	✓ Use the PRTR data for environment risk assessment of chemicals (based on CSCL, etc.) ✓ Use the PRTR data in selecting the environmental monitoring substances and monitoring points

Purpose of PRTR and Data Utilization Examples (2/3)

Purpose of PRTR	Utilization Examples of PRTR Data
[3] Promotion of voluntary management by business operators	✓ Provide business operators with the tools to estimate the environmental concentration levels in their surroundings ✓ Use the PRTR data by local agencies as materials for business operator instructions
[4] Public information and promotion of understanding regarding chemicals	✓ Publish the PRTR data summary on the web. ✓ Prepare map information on release amount and estimated atmospheric concentration, and publish on the web. ✓ Prepare citizens' guidebooks and chemical fact sheets by using the PRTR data.

Purpose of PRTR and Data Utilization Examples (3/3)

Purpose of PRTR	Utilization Examples of PRTR Data
[5] Monitoring the effectiveness and progress of environmental policy measures	✓ Use the PRTR data, combined with environmental concentration data, in monitoring the policy impact to reduce the priority substances of Air Pollution Control Act.

Using PRTR Data in Chemicals Risk Assessment

PRTR Data → Release amount by grid/river basin → Concentration level

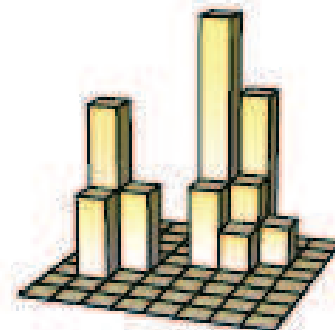
Reporting Data



Grid data are attributed according to the Business Premises' addresses

Air

Release amounts to Air are regrouped into 2.5-order mesh data (5km x 5km; about 40,000 grids in Japan)



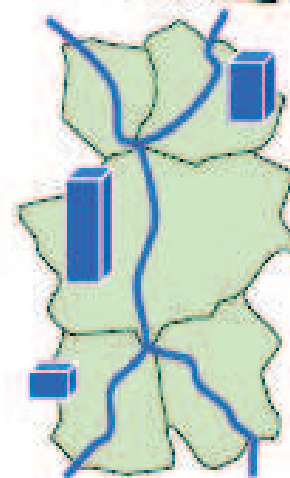
Data outside reporting
: Mobile source
: Household
: Construction sites



Grid data are computed (1km x 1 km; 3rd order mesh)

Water

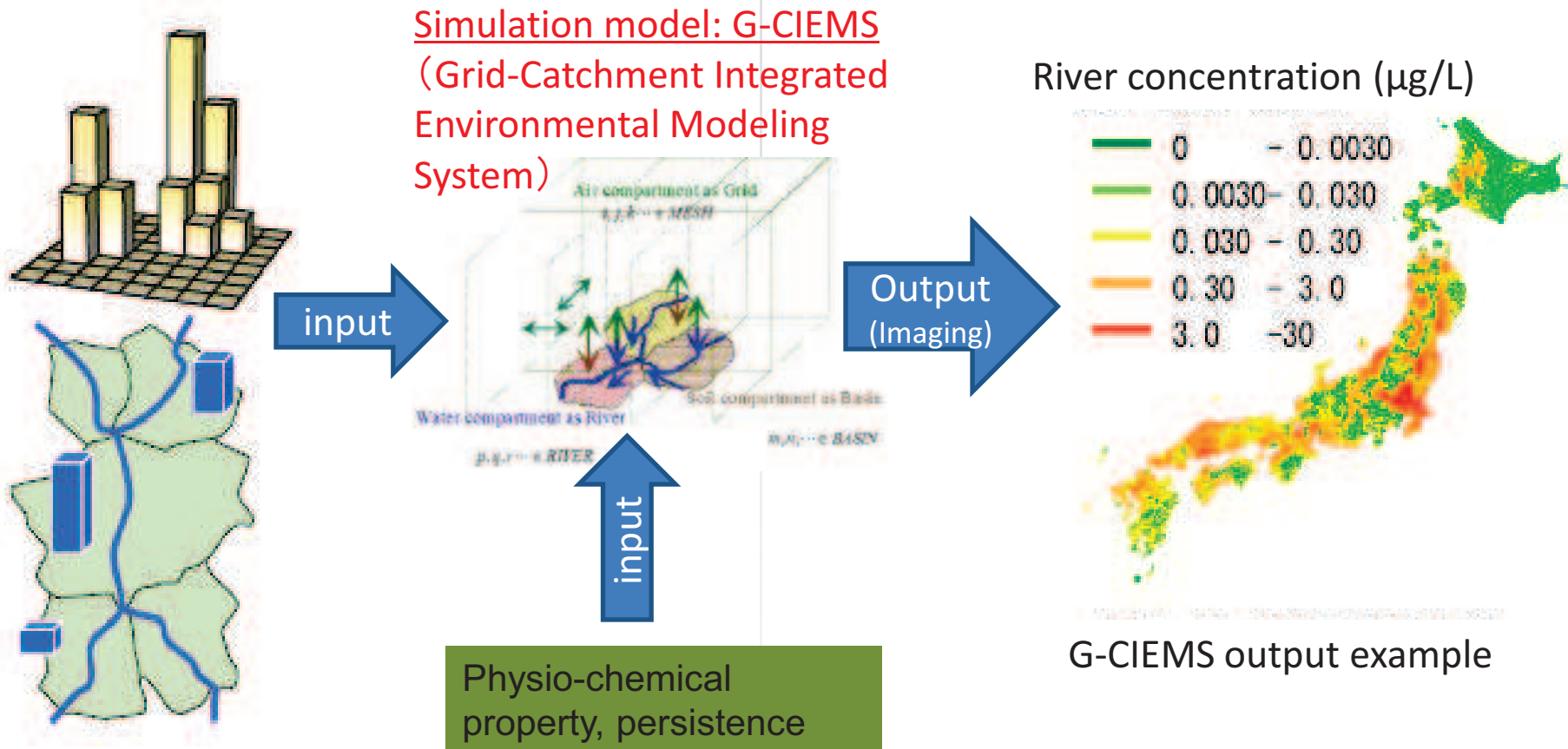
Release amounts to water and soil are regrouped according to the river basin model (about 38,000 grids in Japan)



Soil

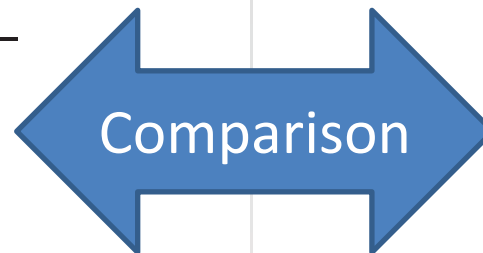
Using PRTR Data in Chemicals Risk Assessment (Continued)

PRTR Data → Release amount by grid/river basin → Concentration level



Using PRTR Data in Chemicals Risk Assessment (Continued)

Assessment Result;
Exposure
Concentration
(mg/L)
Estimated from
Simulation Model



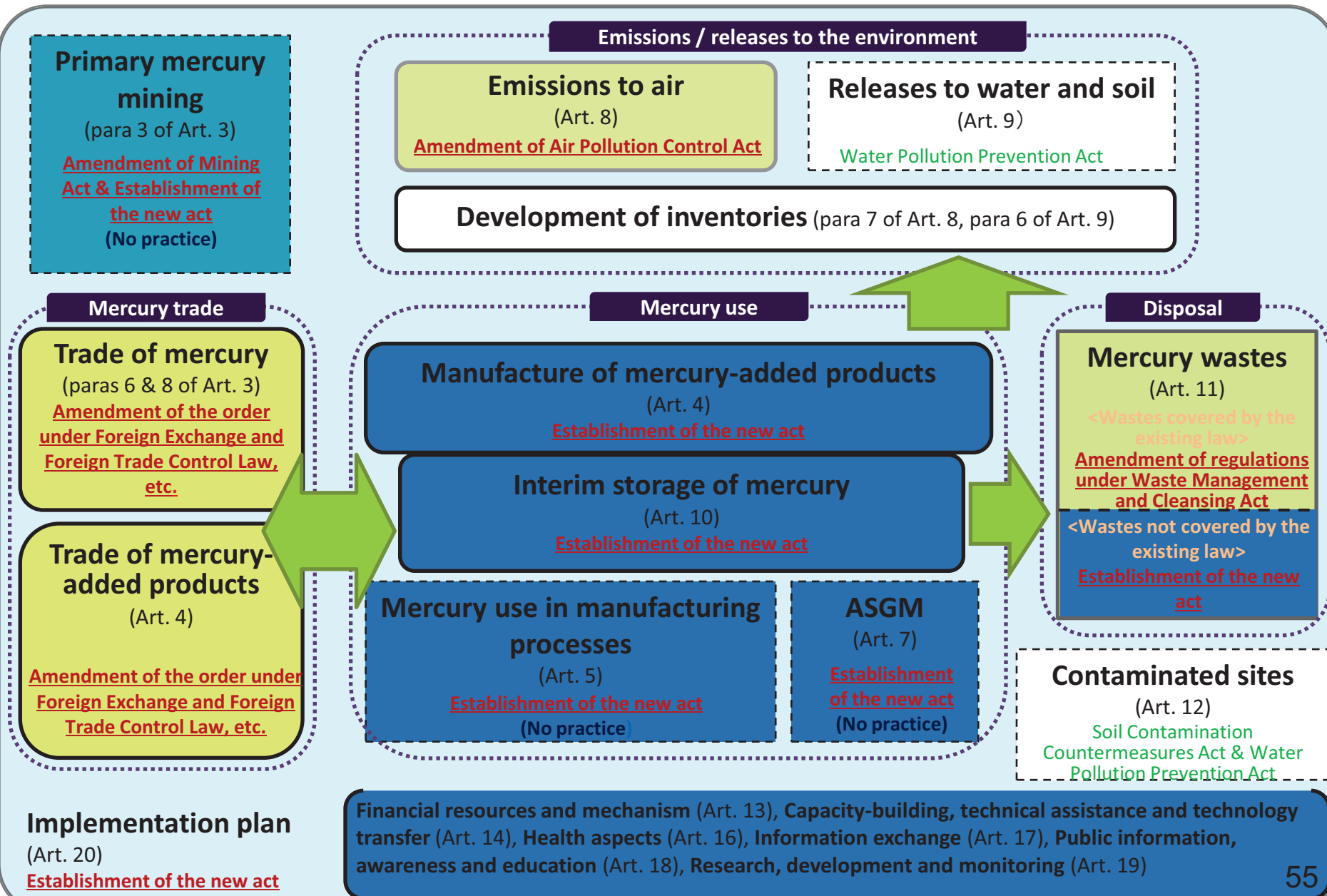
Assessment Result;
Hazard
PNEC (mg/L)
(Predicted No
Effect Concentration)



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5. Other Efforts

Laws and Regulations to Implement the Minamata Convention in Japan



Requirements under the Minamata Convention addressed by the new act (Act on Prevention of Environmental Pollution of Mercury)

Art.	Requirement	Former/Current Status	Additional Action
3	Not allow primary mercury mining	● No primary mercury mining ● No legal basis to prohibit primary mercury mining	Prohibition of primary mercury mining by the new act
4	Not allow the manufacture of mercury-added products listed in Annex A	● The manufacture of some products (e.g. cosmetics, agrochemicals) listed in Annex A has been banned. ● No legal basis not to allow the manufacture of the other products listed in Annex A	● Prohibition of the manufacture of specified mercury-added products by the new act ● Early phase out of some mercury-added products
4	Take measures to prevent the incorporation into assembled products of mercury-added products	● Some mercury-added products (e.g. switches and relays) are incorporated into assembled products ● No legal basis to prevent the incorporation	Prohibition of incorporation into assembled products of mercury-added products by the new act

Requirements under the Minamata Convention addressed by the new act (Act on Prevention of Environmental Pollution of Mercury)

Art.	Requirement	Former/Current Status	Additional Action
4	Discourage the manufacture and the distribution in commerce of new mercury-added products	No legal basis to discourage the manufacture and the distribution in commerce of new mercury-added products	Prohibition of the manufacture of new mercury-added products by the new act
5	Not allow the use of mercury or mercury compounds in the manufacturing processes listed in Annex B	● No practice of using mercury or mercury compounds in the processes listed in Annex B ● No legal basis to prohibit the use of mercury or mercury compounds in the processes	Prohibition of the use of mercury or mercury compounds in the specified manufacturing processes by the new act
7	Take steps to reduce the use of mercury and mercury compounds in ASGM	No practice of ASGM	Prohibition of gold mining using mercury or mercury compounds by the new act

Requirements under the Minamata Convention addressed by the new act (Act on Prevention of Environmental Pollution of Mercury)

Art.	Requirement	Former/Current Status	Additional Action
10	Ensure environmentally sound interim storage of mercury or mercury compounds	● Poisonous and Deleterious Substances Control Act regulates mercury and some mercury compounds as Poisonous or Deleterious Substances. ● The Act aims to ensure health hygiene by sound management of chemicals having acute toxicity but does not provide storage standards and procedures.	● Development of technical standards for storage of under the new act ● Introduction of a reporting system on storage by the new act

Requirements under the Minamata Convention addressed by the new act (Act on Prevention of Environmental Pollution of Mercury)

Art.	Requirement	Former/Current Status	Additional Action
11	Take appropriate measures that mercury waste is managed in an environmentally sound manner	Waste Management and Cleansing Act covers most of the mercury waste but not those traded with value for reuse or recycling (e.g. flue gas treatment sludge from non-ferrous metal production).	● Development of technical standards for the management of recyclable materials containing mercury under the new act ● Introduction of a reporting system on management by the new act

Requirements under the Minamata Convention addressed by the amendment of existing laws and regulations

Art.	Requirement	Former/Current Status	Additional Action
3	Not allow the export of mercury except in cases where certain conditions are met	● Japan exports mercury to other countries. ● Foreign Exchange and Foreign Trade Control Law regulates the export of goods, but its order does not provide procedures necessary to confirm the conditions provided by the Convention.	● New policy to prohibit export of mercury and mercury compounds for ASGM ● Introduction of a permit system for the export of mercury and mercury compounds by the amended Export Trade Control Order ● Introduction of a reporting system on the use of mercury or mercury compounds exported from Japan

Requirements under the Minamata Convention addressed by the amendment of existing laws and regulations

Art.	Requirement	Former/Current Status	Additional Action
4	Not allow the export/import of mercury-added products listed in Annex A	● Japan exports/imports mercury-added products ● Foreign Exchange and Foreign Trade Control Law regulates the export/import of goods but its orders allow the export/import of mercury-added products listed in Annex A	Introduction of a permit system for import/export specified mercury-added products by the amended Export Trade Control Order and Import Trade Control Order
8	Take measures to control emissions from sources listed in Annex D (require BAT/BEP for new sources, implement measures for existing sources)	Air Pollution Control Act designates mercury and mercury compounds as possible toxic air pollutants and requires emission monitoring and control but does not set emission standards.	Introduction of a registration system of facilities emitting mercury and mercury compounds and emission standards by the amendment of Air Pollution Control Act

Requirements under the Minamata Convention addressed by the amendment of existing laws and regulations

Art.	Requirement	Former/Current Status	Additional Action
11	Take appropriate measures that mercury waste is managed in an environmentally sound manner	● Waste Management and Cleansing Act and relevant order/ordinance: ● do not provide special standards for wastes consisting of mercury or mercury compounds ● do not provide special standards for wastes containing mercury compounds ● provide standards for transportation and treatment and disposal of wastes contaminated with mercury or mercury compounds	By amendment of order/ordinance ● Addition of a new category “wastes consisting of mercury or mercury compounds” to specially controlled wastes and establishment of standards for management of such waste category ● Addition of special requirements for wastes containing or contaminated with mercury or mercury compounds

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Overview of the Japan Environment & Children's Study (JECS)

@Core Hypothesis:

Exposure to environmental chemicals in utero and in the early childhood adversely effects children's health

@Method: Birth cohort study

@Sample Size: 100,000 participants nationwide

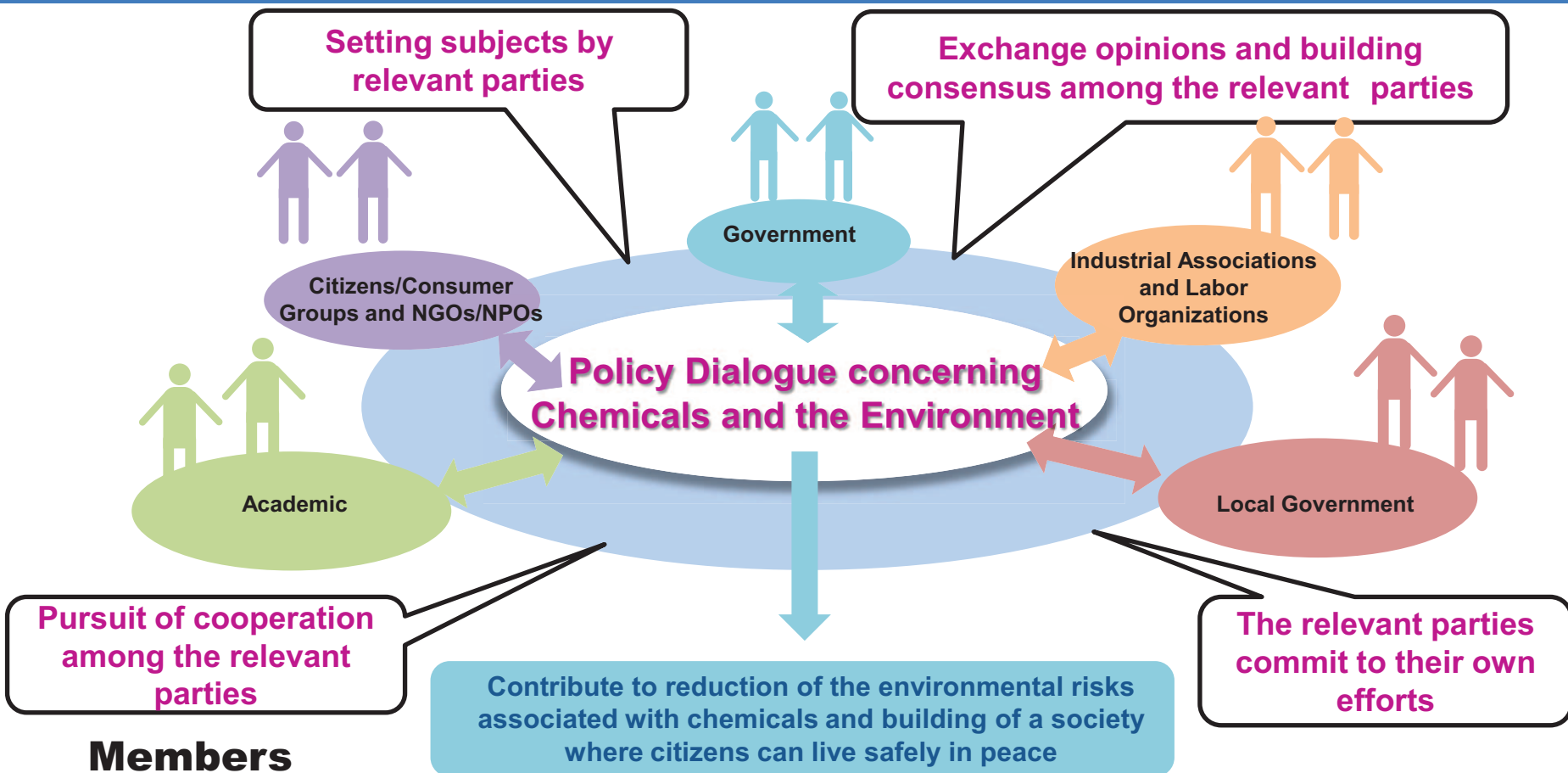
@Study Duration: Recruitment 3 years(2011-2014),
follow up for 13 years(2011-2028)



@Objectives:

- (1) Identification of environmental factors impacting on children's health
- (2) Development of risk management systems that reduce children's exposure to the harmful environment
- (3) Creation of a sound environment for future generations
- (4) Establishment of the foundation for children's study

Policy Dialogue concerning Chemicals and the Environment



Members

- Academia
- Ministries (Environment, Industry, Health, Labor , Agriculture)
- Local government (Osaka)
- Industry Associations (Chemical, Automobile, Electronics)
- Labor Unions
- NGO

Policy Dialog was held 8 times since 2012

Local Governments

Gifu Prefecture

The Agricultural Management Section of the Gifu Prefectural government has been working on R&D of a small weeding robot for paddy fields, nicknamed “Aigamo Robot”. The Aigamo Robot is a moving mechanism equipped with crawler belts. The crawler belts “stamp and pull weeds and muddy the water” to impede their growth.



Sapporo City

Sapporo City takes stock of the amounts of chemicals released by businesses and encourages them to properly manage chemicals and voluntarily reduce their releases with two systems: the PRTR system under the PRTR Law, and the system for proper management of chemicals under its ordinance on the protection of the living environment.

Local Governments

Kumamoto Prefecture

Kumamoto Prefecture has been taking the initiative in creating a “mercury-free society” that shuns the use of products containing mercury as much as possible and properly disposes of such products at the ends of their lives.



Osaka Prefecture

Osaka Prefecture works with Osaka City, Sakai City, and other municipalities to organize a seminar on chemicals management once a year. Good practices in risk communication by businesses are presented at the seminar, which is usually attended by about 400-500 people.

Industrial Associations and Labor Organizations

- Responsible Care
- GPS/JIPS: new chemical management initiative
- JCIA BIGDr: Web portal for collecting various information for risk assessment and learning
- SCRUM: Project of Supply chain Chemical Risk management and Useful Mechanism discussion
- Publishing easy-to-understand leaflets on GHS
- Use of the International Material Data System (IMDS): Designed to communicate environmental information throughout the supply chain.
- Initiative to Elucidate the Mechanism of the Sick-building Syndrome

Citizens/Consumer Groups and NGOs

- ❑ Serve as mediators for the activities by citizens, businesses, national and local governments, and other actors
- ❑ Undertaking their own missions, most notably providing objective and lucid information and advice, on the risks of chemical substances.
 - Brochures providing information on the risks of chemical substances
 - Workshops and seminars for citizens
 - Questionnaires surveys for citizens etc.

Thank you for your attention.