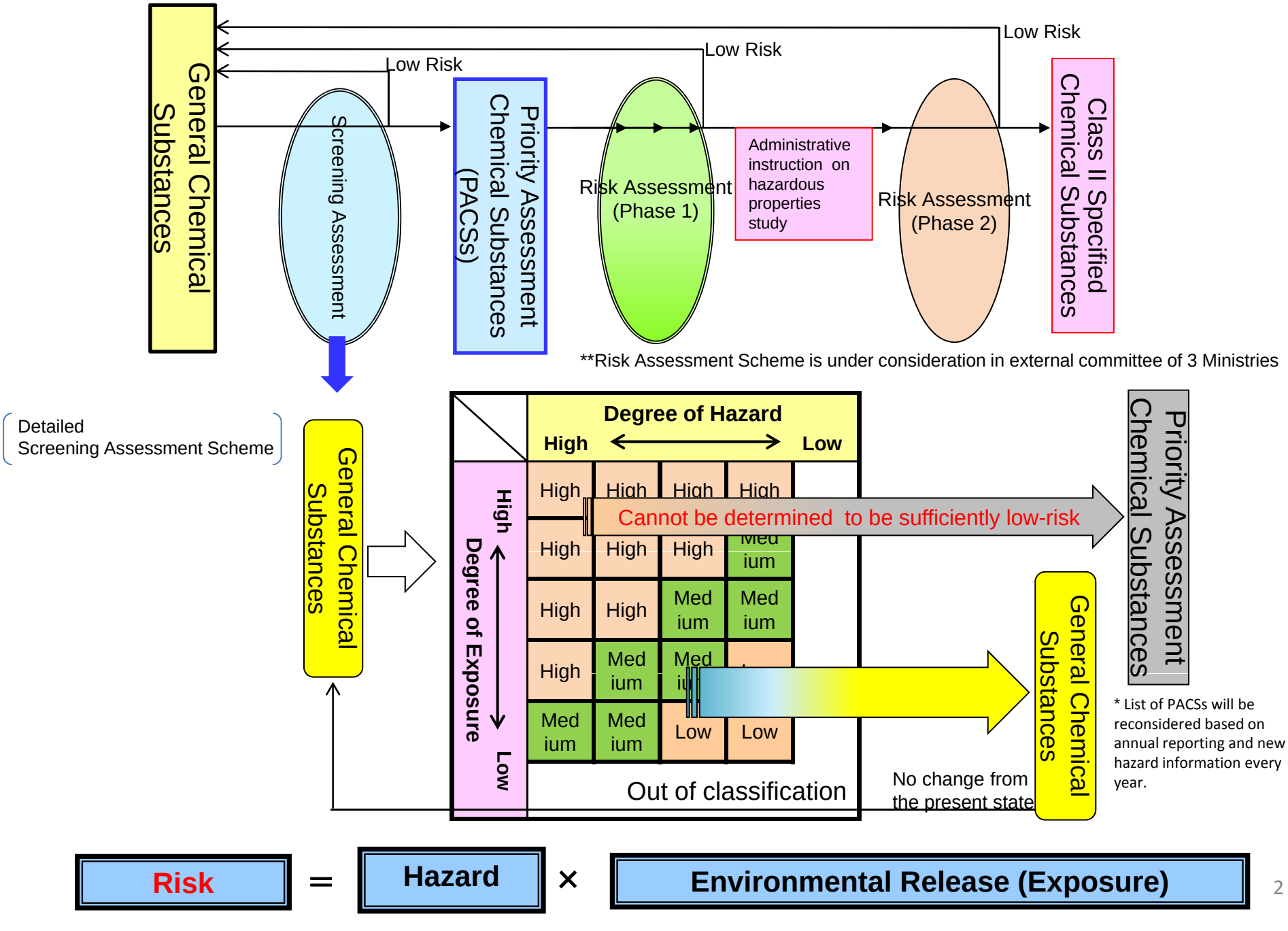
# Screening Assessment
# under amended Chemical Substances Control Law

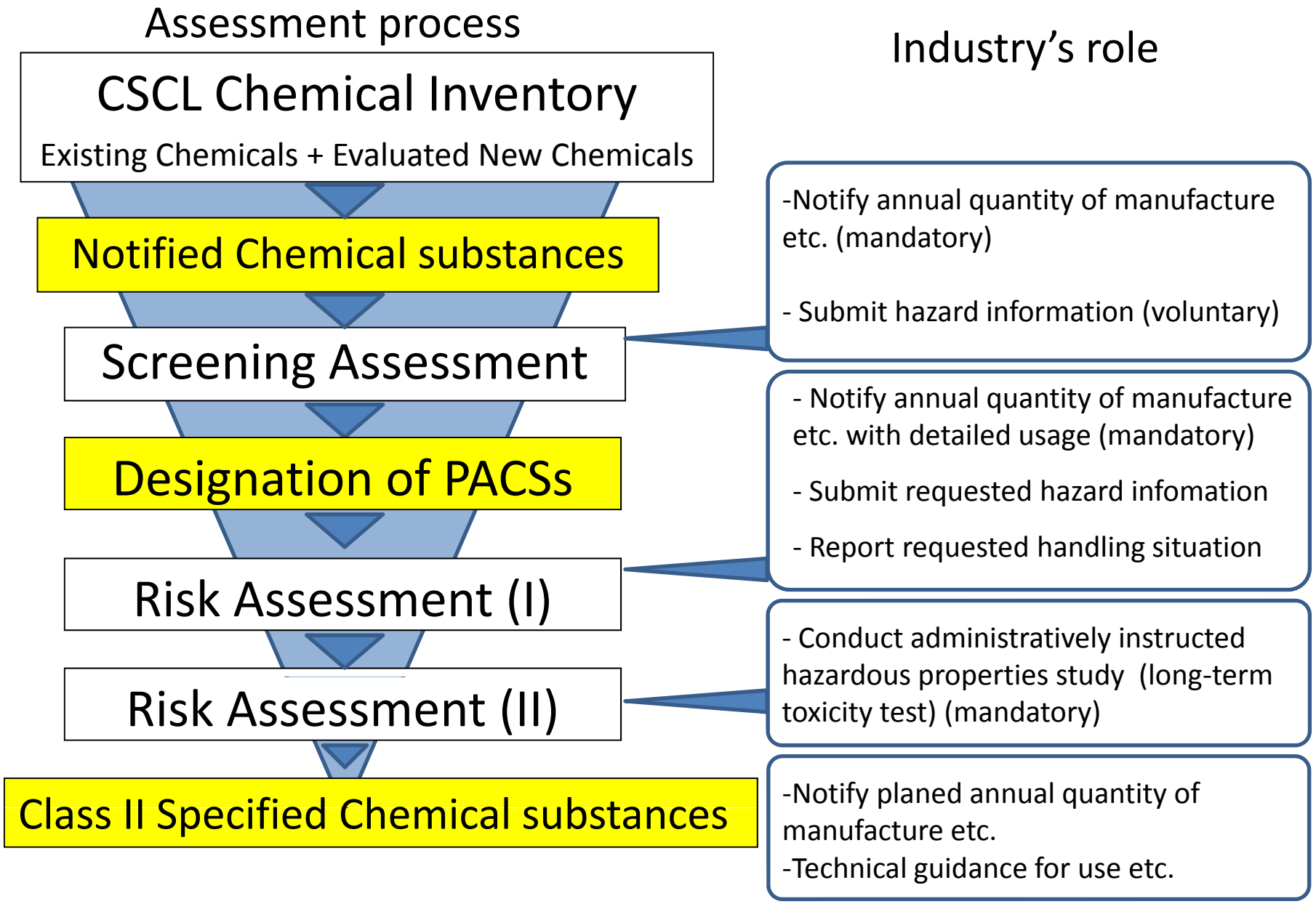
April 2011

Chemical Safety Office, Chemical Management Policy Division,
Manufacturing Industries Bureau
Ministry of Economy, Trade and Industry

# Screening Assessment and Risk Assessment Scheme



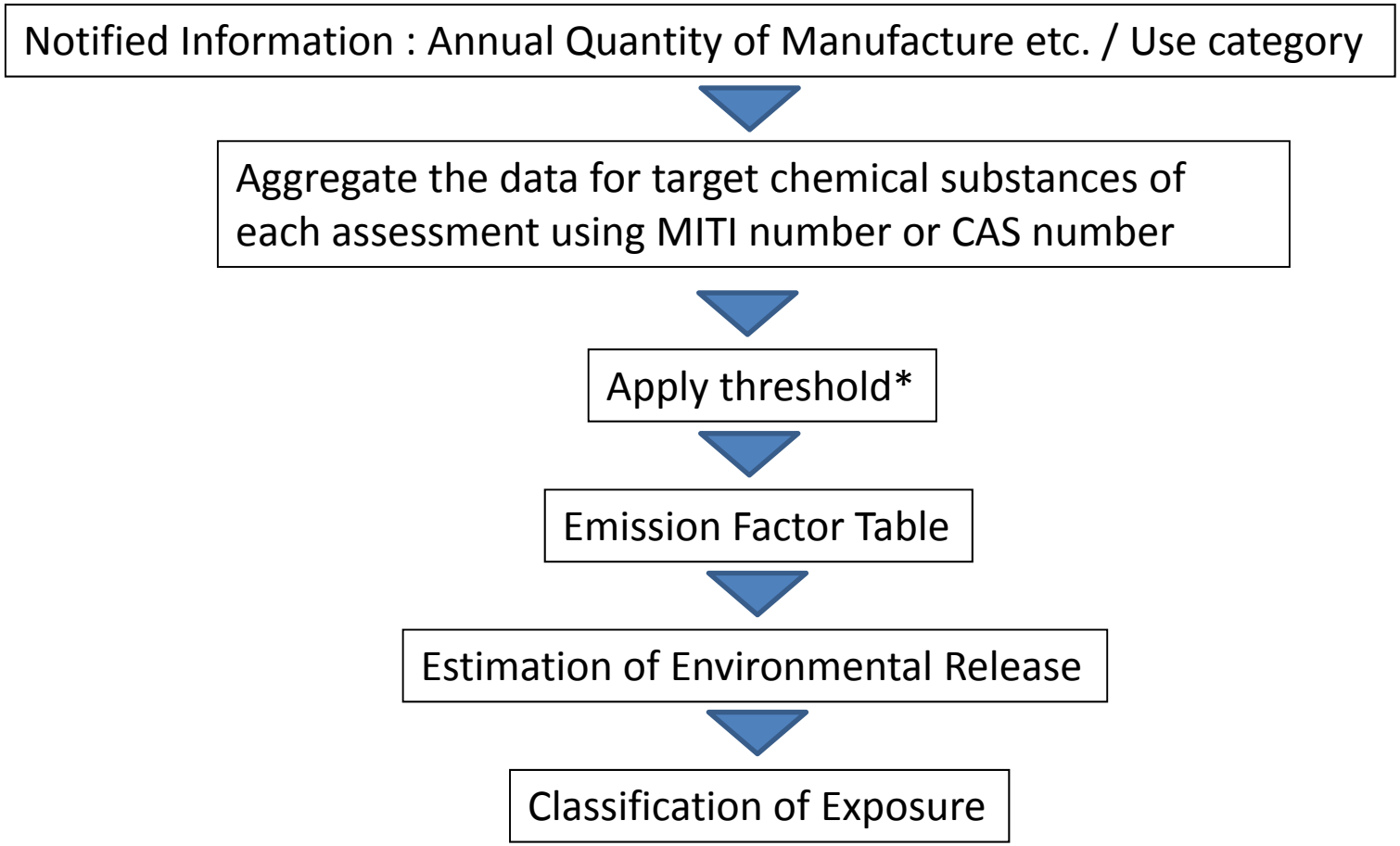
# Step-wise Risk Assessment




**Risk Assessment Scheme is under consideration in external committee of 3 Ministries

# Screening Assessment

**STEP1** : Classification of Exposure




*Threshold for risk assessment:
Total annual quantity of manufacture etc. is less than 10t/year

**STEP2** : Classification of Hazard

Hazard information collected by the government

Hazard information submitted from the industries

Classification of Hazard

| | Class1 | Class2 | Class3 | Class4 |
|---|---|---|---|---|
| Repeated Dose Toxicity | | ● | | |
| Carcinogenicity | No data available | | | |
| Mutagenicity | | No data available | | |
| Reproduction Toxicity | | | ● | |

CSCL screening Scale
(based on GHS, previous CSCL rule etc.)

If no data available, default class (class 2) will likely be applied for Repeted Dose Toxicity and Mutagenicity.
(default class will not be not applied for carcinogenicity and reproductive toxicity)

*We will not consider that "No data" means "Not hazardous"

Hazard Class

Highest Class in the four categories will be chosen

**STEP3** : Prioritization Matrix

Hazard Class

| Exposure Class | Class1 | Class2 | Class3 | Class4 |
|---|---|---|---|---|
| Class1 | High | High | High | High |
| Class2 | High | High | High | Medium |
| Class3 | High | High | Medium | Medium |
| Class4 | High | Medium | Medium | |
| Class5 | Medium | Medium | | |

| Exposure Class | Total national emissions (tons) |
|---|---|
| Class1 | Over 10,000 |
| Class2 | 1,000 – 10,000 |
| Class3 | 100 – 1000 |
| Class4 | 10 – 100 |
| Class5 | 1-10 |

Further Review

Designated by Government as PACSs

Remain to General Chemical Substances

NOTE:

-Threshold value for risk assessment will be applied

-Opportunities for industry to submit hazard information are given before designation of PACSs

-Similar methodology is adopted to eco-toxicity.

-List of PACSs will be reconsidered based on annual reporting and new hazard information.

# Use Category Table

Use categories (50 categories) are used for general chemical substances

| Use Category code (#) | Use Category | Sub Use Category code | Sub Use Category |
|---|---|---|---|
| 01 | Intermediates | a | Synthetic raw materials, polymerization raw materials, prepolymers |
| | | b | Polymerization initiators |
| | | z | Others |
| | **Solvents** | | |
| 02 | Solvents for paints, varnishes, coatings, printing inks, copying and biocidal products | a | Solvents for paints, solvent diluents |
| | | b | Solvents for paint removers, |
| | | c | Solvents for varnishes |
| | | d | Solvents for coatings, solvents for resist inks |
| | | e | Solvents for printing inks, solvents for electronic devices, solvents for inks and ink detergents |
| | | f | Solvents for biocidal products |
| | | z | Others |
| 03 | Solvents for adhesives, pressure sensitive adhesives and sealants | a | Solvents for adhesives, solvents for pressure sensitive adhesives |
| | | b | Solvents for adhesive removers, solvents for paste removers |
| | | c | Solvents for adhesion |
| | | d | Solvents for sealants |
| | | z | Others |

Use categories and sub use categories (about 280 categories) are established for Priority Assessment Chemical Substances , Monitoring Chemical Substances and Class II Specified Chemical Substances.

# Estimation of Environmental Release

-Based on the notified annual quantity of manufacture etc., the government estimates the amount of environmental release.
- Emission factors for each use category are determined by the government.

**Total amount of environmental release =**
**emissions from production stage <A> + emissions from using stage <B>**

<A> = quantity of manufacture (notified) × emission factors of production stage
<B> = Σ {quantity of shipment for each use category (notified)
× emission factors for each use category}

Table of emission factor for each use category used in screening assessment

| Use Category code (#) | Use Category | general substances | | polymers | |
|---|---|---|---|---|---|
| | | Air | Water | Air | Water |
| 01 | Intermediates | 0.001 | 0.0003 | 0.0001 | 0.0001 |
| 02 | Solvents for paints, varnishes, coatings, printing inks and biocidal products | 0.3 | 0.00008 | – | – |
| 03 | Solvents for adhesives, pressure sensitive adhesives and sealants | 0.4 | 0.0002 | – | – |
| 04 | Solvents for cleaning and degreasing metals | 0.2 | 0.00008 | – | – |
| 05 | Solevents for cleaning fablics《laundry, dry cleaning industry》 | 0.02 | 0.0001 | – | – |
| 06 | Solvents for cleaning others | 0.06 | 0.0003 | – | – |
| 07 | Solvents for chemical manufacture and processing | 0.02 | 0.0007 | – | – |
| 08 | Solvents for aerosol | 1 | 0 | – | – |
| 09 | Other solvents | 1 | 0 | – | – |
| 10 | Chemical process regulators | 0.0004 | 0.0003 | 0.000005 | 0.0002 |

*We classify exposure based on emissions of “Air+Water” for Human Health, “Water” for Eco-system

# Chemical categories under amended CSCL