

**“chemSHERPA,”** a scheme that facilitates sharing information on chemicals in products

[Overview Description]

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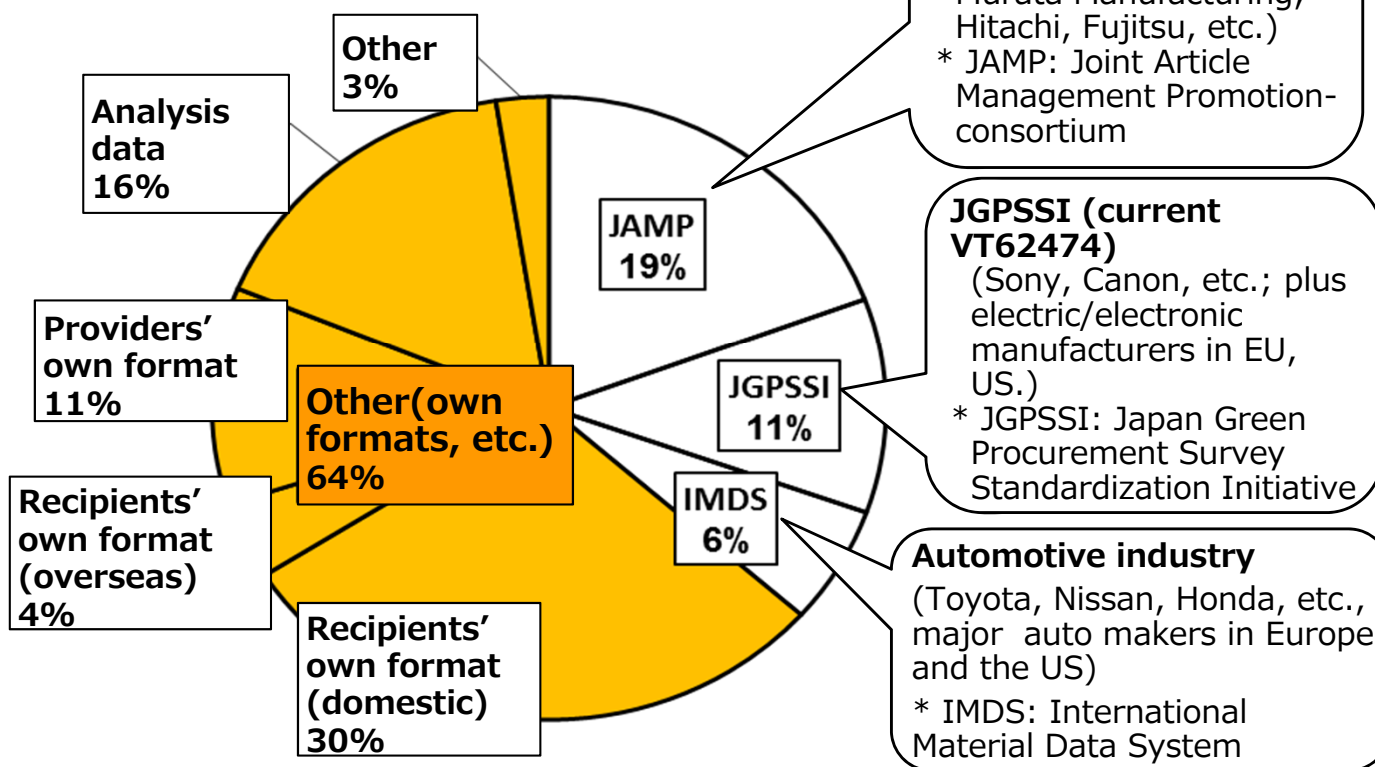
# Background on Information Transfer Scheme

Cited from final report of the Study group under METI (2013)

Currently, two schemes of JAMP and former JGPSSI serve as Japan's standard CiP guidelines for electric/electronic field. (IMDS for auto industry) Nevertheless, such "standard schemes" account for 36% of overall data-handling practices: another 64% is comprised with company's own reporting format, which causes substantial burden to midstream operators.

## [Uses of information transfer scheme]

Proportion of data format required by customers (164 SMEs; multiple answers)



## [Cost for chemical management]

Chemical management cost per company (Averages of 65 large companies and 74 SMEs)  
(1,000 yen/year)

Large companies	Average	(breakdown) analysis cost
Upstream	25,230	7,740
Midstream	26,850	13,890
Downstream	28,710	19,090
Other	16,350	500
Large co. total	25,790	11,770

SMEs	Average	(breakdown) analysis cost
Upstream	3,000	1,680
Midstream	1,530	870
Downstream	1,560	540
Other	4,180	3,810
SME total	2,230	1,280

[Source] Research on actual situation of CiP information transfer (research commissioned by METI, FY2013)

# What's chemSHERPA?

## A scheme that facilitates sharing information on chemicals in products

- Information transfer between supply-chain partners is essential for appropriate management of chemicals in products (CiP), in order to continuously respond to expanding regulations. The chemSHERPA can be used as a common scheme for information transfer across a supply chain.

## Designed for steady & efficient information transfer

- Applicable to various products and industries. Throughout a supply chain, from up- to down-stream, This scheme allows organizations to transfer the CiP information under a shared policy.

## Toward a better information transfer and chemical management in a supply chain

- The chemSHERPA ensures "responsible information handling" that transfers composition information based on a common substance list, as well as compliance information for articles, striving for a better CiP management in the future.

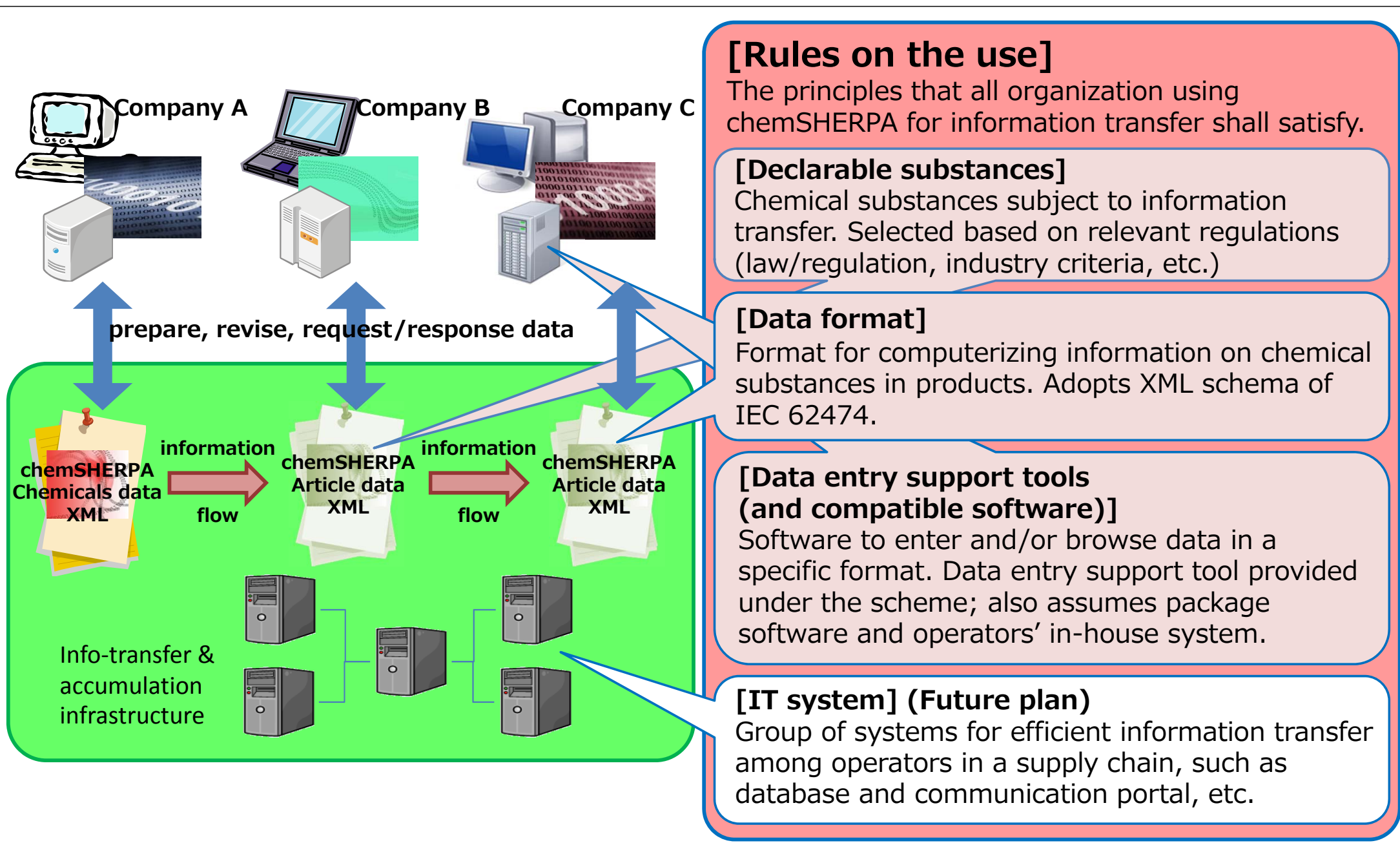
## Starts operation in October 2015

- Based on the second phase verification results, the data entry support tools were finalized and formally released in October 2015.

**chemSHERPA [kémʃéərpə] :**

Chemical information Sharing and Exchange under Reporting Partnership in supply chain

# Major Elements for Information Transfer Scheme



# Declarable substances (1)

## ■ Basic idea to select relevant management standards

- The new scheme seeks to establish a chemical management standard that is a need of and is agreeable in entire supply chain, which ensures and facilitates information transfer for chemical substances in products in the supply chain.

## ■ Selection of relevant management standards

### 1. General

- Relevant standards are selected from laws/regulations and/or industry criteria related to chemical substances in products.
- Prescriptions of regulations (condition, language, criteria, etc.) are adopted without modification.

### 2. Laws & regulations

- For the 1st edition, major chemical regulations in Japan, US and EU are selected.
- Regulations in Asian countries may be selected in future as necessary, based on full discussions. Addition to relevant standards will be determined in line with a specific procedure under the scheme.

### 3. Industry criteria

- For the 1st edition, those of electric/electronics and auto industries are selected.
- Regulations of other industries may be selected in future as necessary, based on full discussions. Addition to relevant standards will be determined in line with a specific procedure under the scheme.

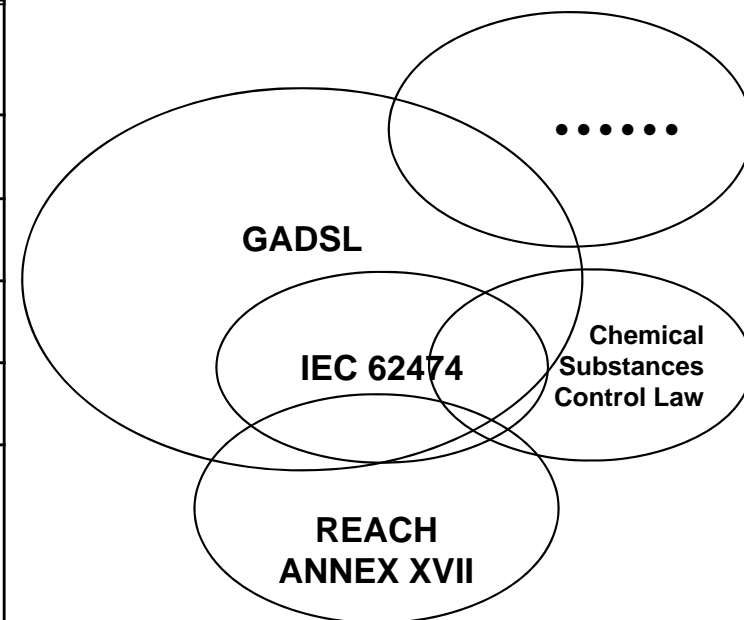
## ■ Maintenance and management of declarable substance list

- Substance list is to be revised twice a year (in January and July).
- For revision in relevant substances, rules will be developed while accepting proposals from the public.

# Declarable Substances (2)

## Relevant standards

Relevant standard ID	Laws/regulations and industrial standards
LR01	Chemical Substances Control Law (Japan): Class I Specified Chemical Substances
LR02	Toxic Substances Control Act (TSCA) (US): Section 6
LR03	Directive 2011/37/EU Targeted substances list
LR04	2011/65/EU Targeted substances list
LR05	EU POPs REGULATION (EC) No 850/2004 Annex I
LR06	EU REACH REGULATION (EC) No 1907/2006 Candidate List of Substances of Very High Concern for Authorisation (SVHC), Authorisation List
LR07	EU REACH REGULATION (EC) No 1907/2006 Annex XVII Restriction substances
IC01	Global Automotive Declarable Substance List (GADSL)
IC02	IEC 62474 DB Declarable substance groups and declarable substances



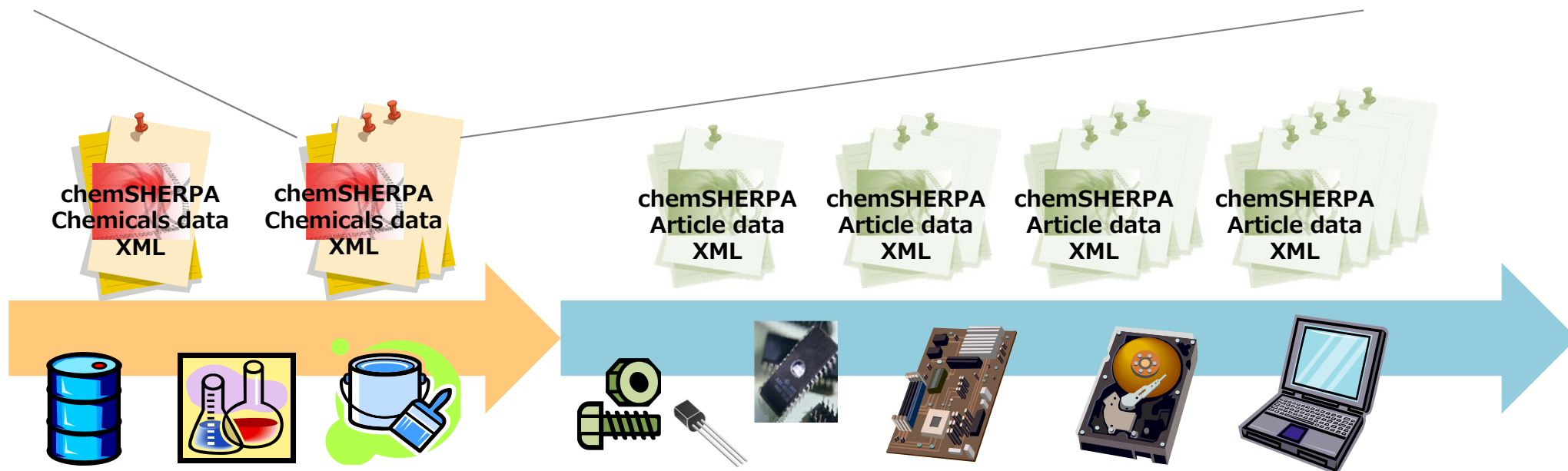
Declarable substances: defined by the sumset of chemical substances falling under laws/regulations and industrial standards that constitute relevant standards.

(Artist's rendition of inclusion relationship)

# Info. on Chemicals (chemSHERPA-CI) and Data Format

- For chemical products, composition information shall be provided as information on chemicals in products.
- XML schema of IEC 62474 is used as the data format, ensuring consistency with data format for articles.

	Type of information	Content	Data format
0	Business information	Name of company, person in charge, etc.	IEC62474 XML schema
1	Composition information	Declarable substance	

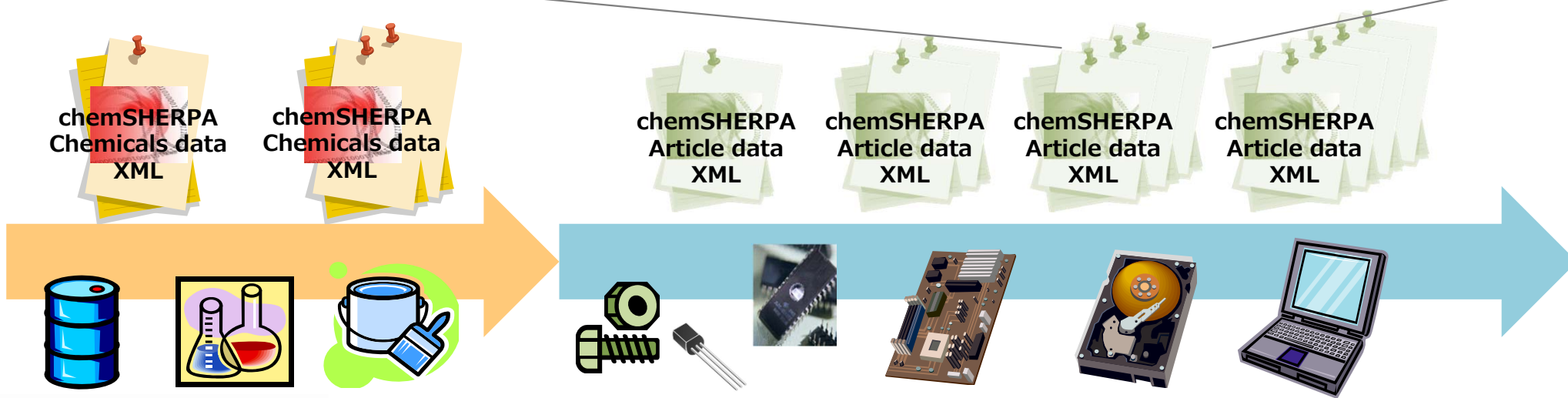




# Info. on Articles (chemSHERPA-AI) and Data Format

- For articles, composition information and/or compliance information shall be provided as information on chemical substances in products.
- XML schema of IEC 62474 is adopted as the data format, facilitating promotion in overseas countries.

Type of information		Content	Data format
0	Business information	Name of company, person in charge, etc.	IEC 62474 XML schema
1	Composition information (Level) – component - material - substance	Declarable substances	
2	Compliance information	Specified by "Area"	



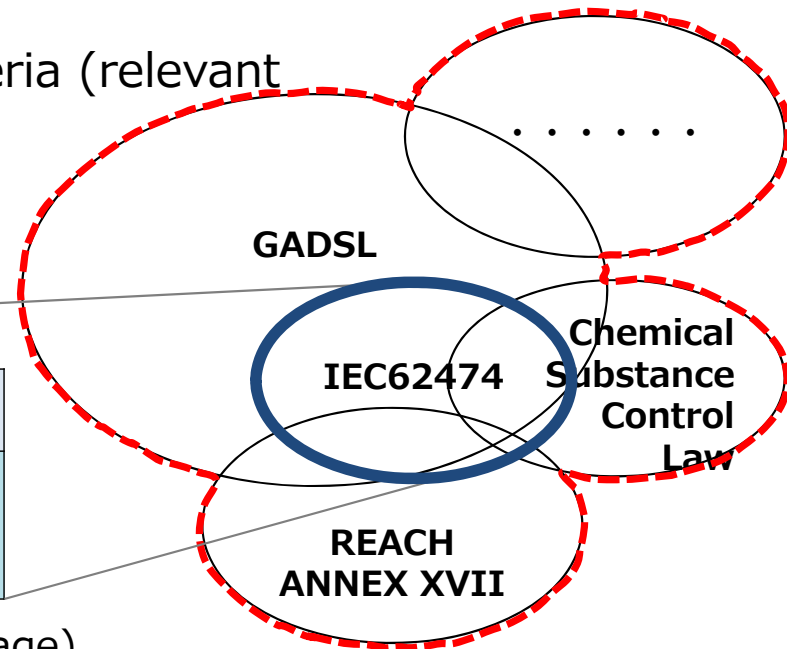
# “Area” to enter Compliance Information

- Items to be entered for compliance information (substance, reportable application, reporting threshold, etc.) can be selected with “Area”.

## Setting “Area”

- Select an Area from laws/regulations and/or industry criteria (relevant standards).
- IEC 62474 is adopted as Area by default for compliance information for electric & electronic appliances.
- Addition of Area is subject to future consideration for other industries, as necessary.

Area	Relevant law/regulation, industry criteria
IEC 62474	IEC 62474 DB: Declarable substance groups and declarable substances



■ Data entry window for the Area “IEC 62474” (partial image)

対象物質		判定対象	ID	参照法規制	種別	報告用途	報告閾値	含有判定	含有率 (ppm)
CAS番号/ 物質群ID	物質/物質群	<input checked="" type="checkbox"/> ONのみ表示 クリア						<input type="checkbox"/> Yのみ表示 一括N	
SG004	臭素系難燃剤 (PBB類…)	<input checked="" type="checkbox"/>	00008	Industry Standards IEC 61249-2-21 and IPC-4101		積層プリント配線…	基板中の臭素の含有合計で0.09重量% (900pp…	*	*
			00009	Joint JEDEC/ECA JS-709A Standard Defining “Low Halogen” …		積層プリント配線…	プラスチック材料中の臭素として0.1重量% (10…		
SG006	カドミウム/カドミウム…	<input checked="" type="checkbox"/>	00010	ANNEX XVII of REACH Regulation (EC) No 1907/2006; 2002…		電池を除く全製品	均質材料中のカドミウムの0.01重量% (100pp…		
			00011	2006/66/EC EU Battery Directive and Korean Quality Manag…		電池	電池中のカドミウムの0.001重量% (10ppm)		
SG008	六価クロム化合物	<input checked="" type="checkbox"/>	00012	2002/95/EC (EU RoHS Directive and its amendments), and 2…		全製品	均質材料中の六価クロムの0.1重量% (1000pp…		
SG014	鉛/鉛化合物	<input checked="" type="checkbox"/>	00021	2002/95/EC (EU/RoHS Directive and its amendments), Chin…		電池、ケーブル、…	均質材料中の鉛の0.1重量% (1000ppm)		
			00022	U.S. Consumer Product Safety Improvement Act as modified …		主として12歳以下…	製品中の鉛の0.01重量% (100ppm)		
			00023	U.S. Consumer Product Safety Improvement Act		玩具及び子供向け…	表面被覆材中の鉛の0.009重量% (90ppm)		
			00024	US/CA Proposition 65 Case law		熱硬化性/熱可塑…	表面塗装中の鉛の0.03重量% (300ppm)		
			00025	2006/66/EC EU Battery Directive; Chinese Standard GB 2442…		電池	電池中の鉛の0.004重量% (40ppm)		
SG019	水銀/水銀化合物	<input checked="" type="checkbox"/>	00029	ANNEX XVII of REACH Regulation (EC) No 1907/2006; 2002…		電池を除く全製品	意図的添加または均質材料の水銀の0.1重量% (…		
			00030	Taiwan Restrictions on the Manufacture, Import, and Sale of …		電池	意図的添加または電池中の水銀の0.0001重量%…		
7440-43-9	カドミウム	<input checked="" type="checkbox"/>	00093	Candidate list for European REACH Regulation No. 1907/200…		全製品	0.1重量% (1000ppm)		

# Criteria to provide Composition Information

Threshold under Regulation		Concentration of declarable substance	Whether to handle composition information
Clarified as reportable application, or application unknown	Prescribed threshold > 0.1wt%	equal to or greater than allowable concentration under Regulations	Required to provide composition information, incl. declarable substance.
		equal to or greater than 0.1wt% of chemSHERPA's voluntary criteria and below allowable concentration under Regulations	Provide composition information incl. declarable substance, in line with voluntary criteria under chemSHERPA.
		below 0.1wt% of chemSHERPA's voluntary criteria	Not required to provide composition information on declarable substance. Optional reporting.
	Prescribed threshold ≤ 0.1wt%	equal to or greater than allowable concentration under Regulations	Required to provide composition information of declarable substance in products.
		below allowable concentration under Regulations	Not required to provide composition information of declarable substance in products. Optional reporting.
Clarified as other than reportable application		equal to or greater than 0.1wt% of chemSHERPA's voluntary criteria	Provide composition information incl. declarable substance, in line with voluntary criteria under chemSHERPA.
		below 0.1wt% of chemSHERPA's voluntary criteria	Not required to provide composition information of declarable substance in products. Optional reporting.

- Declarable substances are controlled under Regulations and therefore are not subject to protection of confidential business information (CBI) in principle.

# Responsible Information Handling

- All information handled between supply chain operators under the chemSHRPA is deemed as “responsible information handling”.

## [Chemical products]

- For “responsible information handling” for chemical products, organizations shall take every effort to prepare composition information by using information from suppliers or based on its own knowledge. Such information to be handled needs authorization before delivery, as being in accordance with “responsible information handling”.

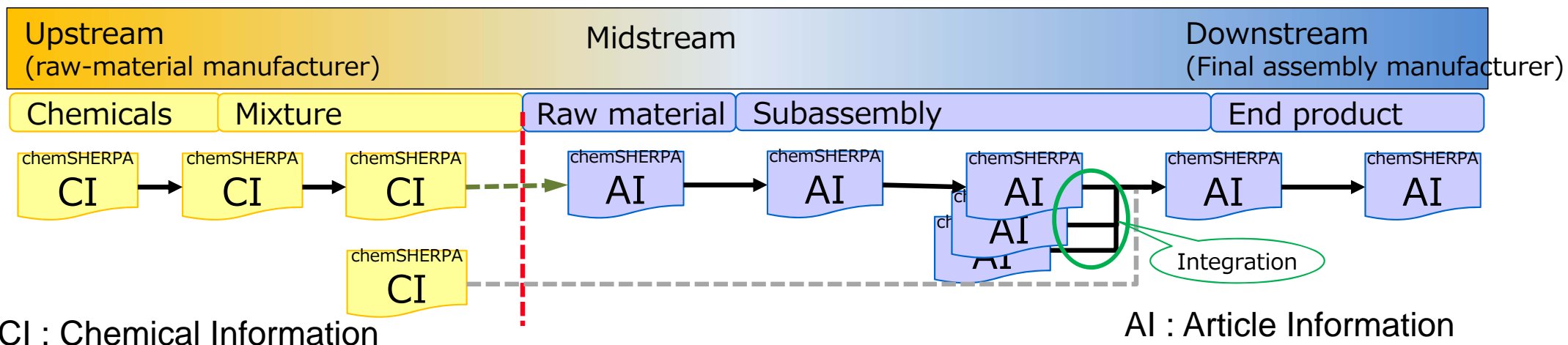
## [Articles]

- For “responsible information handling” for articles, organizations shall take every effort to prepare composition information by using information from suppliers or based on its own knowledge. Such information to be handled needs authorization before delivery, as being in accordance with “responsible information handling”. For declarable substances subject to regulations in a selected Area, operators provide such information of all substance contained by above reporting threshold of composition information.
- For “responsible information handling” for articles in terms of compliance information, organizations as article providers shall conduct material declaration based on specific criteria in “Area” to its customer. Level of compliance information based on Area corresponds to the level of requirement in relevant regulations in the Area.

## [for both]

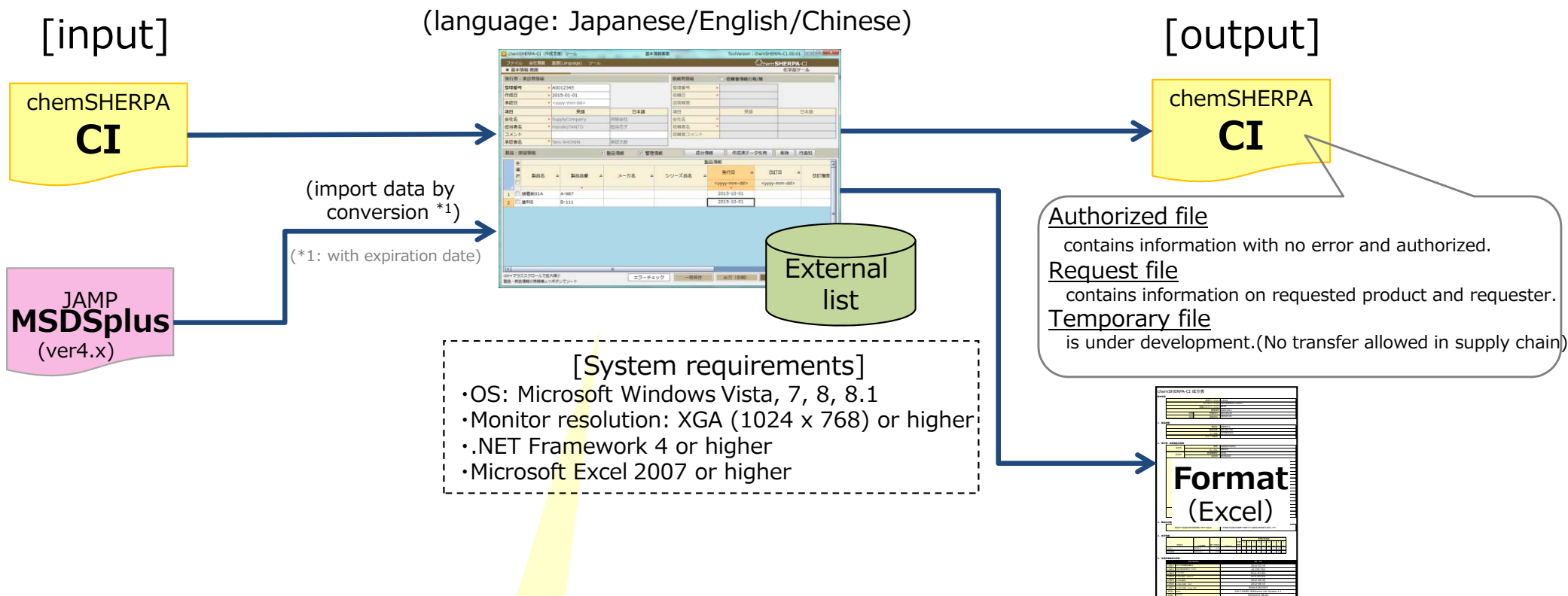
- Information obtained from upstream organizations needs be transferred to downstream ones without giving any omission or deletion of the information.
- Information on purchased products is not necessarily available from suppliers. Therefore, organizations shall make a reasonable effort to supplement information by adding its own knowledge and scientific findings to it, as necessary, in order to prepare own data for subsequent information handling.

# Data entry support tool for two types of info.



	Data entry support tool for chemicals	Data entry support tool for articles
Display	<p>Color code: yellowish tone</p>	<p>Color code: bluish tone</p>
Assumed user	Operators that provide chemical substances and mixtures.	Operators that provide articles.
Information contained (output)	CI: Chemical Information <ul style="list-style-type: none"> <li>• Business information</li> <li>• Composition information</li> </ul>	AI: Article Information <ul style="list-style-type: none"> <li>• Business information</li> <li>• Composition information</li> <li>• Compliance information (when Area is selected)</li> </ul>

# Data entry support tool for chemicals



## [Main windows and items for data entry]

Window	Info item	Item for data entry
Business info. view	Issuer and Authorizer info.	Company name, address, person in charge, contact info, authorizer info, date of authorization, date of preparation, etc.
	Info on product and components	Product name, number, manufacturer, date of issuance, etc.
	Requester info.	Company name, address, person in charge, contact info, date of request, reply deadline, etc.
Composition info.view	Info. on chemical substances in products	Substance name, content rate, content status of declarable substance, etc.

## [Input support]

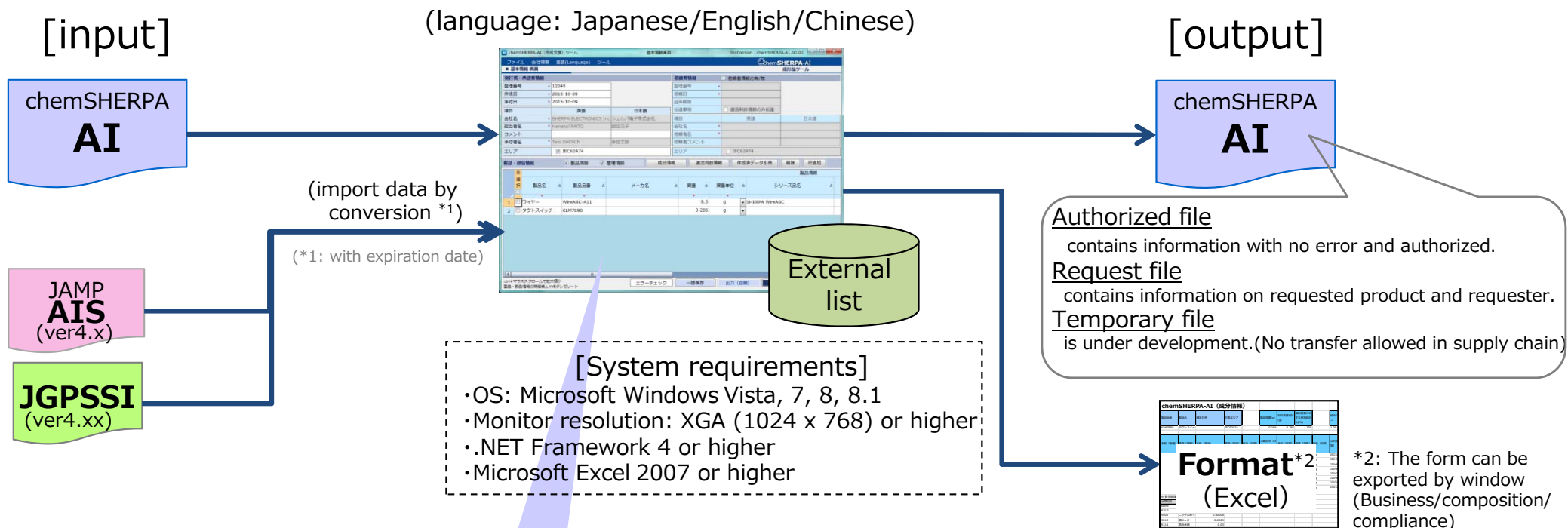
- Select & enter info on substance that is mastered in external list.
- Substance search by partial match of CAS No., substance name (Jpn/Eng/Chn) and filter by relevant standards, etc.
- Citing CI already prepared for data entry; additional importing.

## [External list]

Lineup includes:

- Substance search list
- Material list
- Application list

# Data entry support tool for articles



## [Main windows and items for data entry]

Window	Info item	Item for data entry
Business info. view	Issuer and Authorizer info.	Company name, address, person in charge, contact info, authorizer info, date of authorization, date of preparation, etc.
	Product and component info.	Product name, number, manufacturer, quantity, unit, date of issuance, etc.
	Requester info.	Company name, address, person in charge, contact info, date of request, reply deadline, etc.
Composition info. view	Info with structure of level → component → material → substance.	Level and its quantity, component and its quantity, material, material mass, substance name, content rate per material, exemption code, etc.
Compliance view.	Compliance info for specific Area.	Content status (Y/N) for each reporting ID, content rate, quantity of content, usage code, application, portion used, etc.

## [Input support]

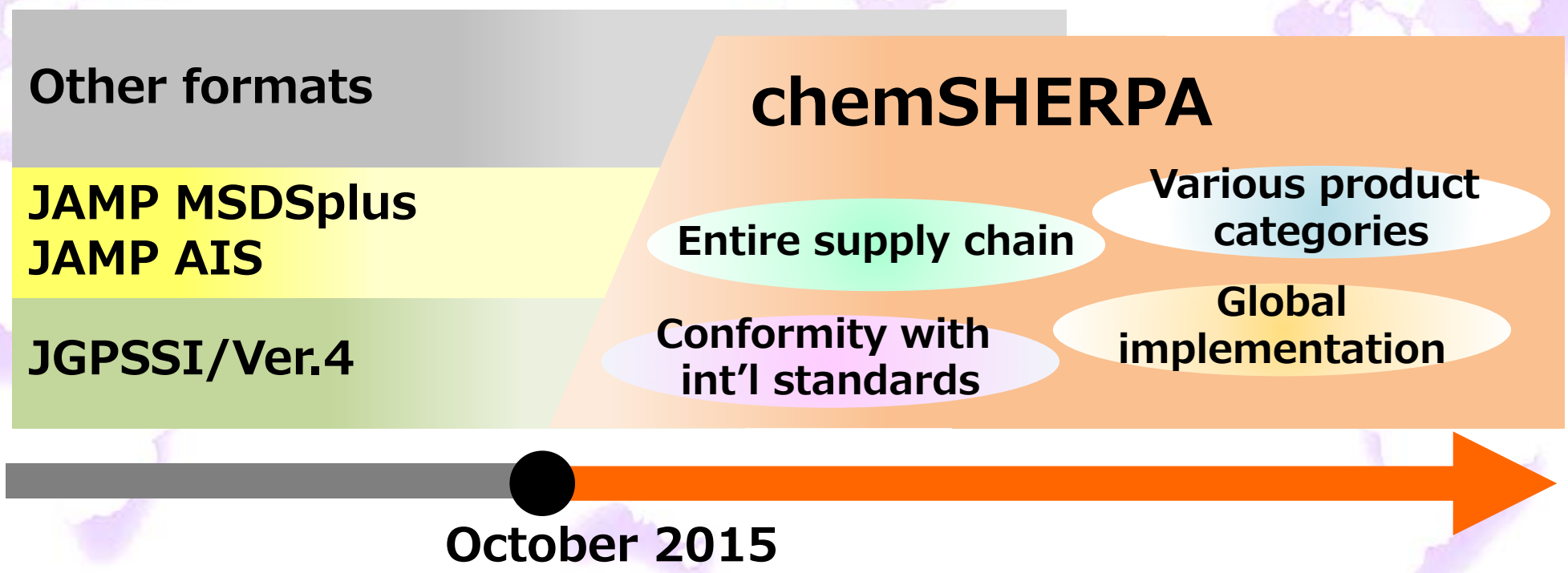
- Select & enter info that is mastered in external list, for substance, material, exempted application, etc.
- Substance search by partial match of CAS No., substance name (Jpn/Eng/Chn) and filter by relevant standards, etc.
- Integration of composition info., combining AI of purchased components.
- Citing AI already prepared for data entry; additional importing.
- Convert composition info to compliance info., in line with selected Area. (partly applied)

## [External list]

Lineup includes:

- Area info.
- Substance search list
- Material list
- Application list
- Conversion factor

# Promotion of Standardization of the new scheme





# Advisory note on the use of chemSHERPA

- “Rules on the use of information on chemical substances in products” provides the principle of information transfer for chemical substances in products. Organizations who use the chemSHERPA, a chemical information transfer scheme, need to ensure correct understanding of and conformity with this scheme.
- If you use the Data entry support tool, please make sure to read supportive materials before use, such as Operation manual, Data entry manual, FAQs, etc.
  - The tool can be downloaded from chemSHERPA website, free of charge.
  - Document materials (Rules on the use, Operation manual, Data entry manual, etc.) can also be downloaded from chemSHERPA website.
- Specification of Data entry support tool may be changed due to revisions of laws/regulations or industry criteria or for the purpose of addition or improvement of functions. Please note that such changes may cause gap in part with this material.
- Supplementary documentation may also revised as necessary.
- Please check chemSHERPA website for latest news and revisions of tools and documents.
- Disclaimer: chemSHERPA assumes no responsibility whatsoever for any direct or indirect damage or loss caused by use of information or data provided by or created with Data entry support tool. Users of this tool have full responsibility for all contents of information provided under the scheme.

**chemSHERPA website <https://chemsherpa.net/>**