

How Chesar can support the use of use maps?

ENES: Workshop on sector use maps

12 May 2016

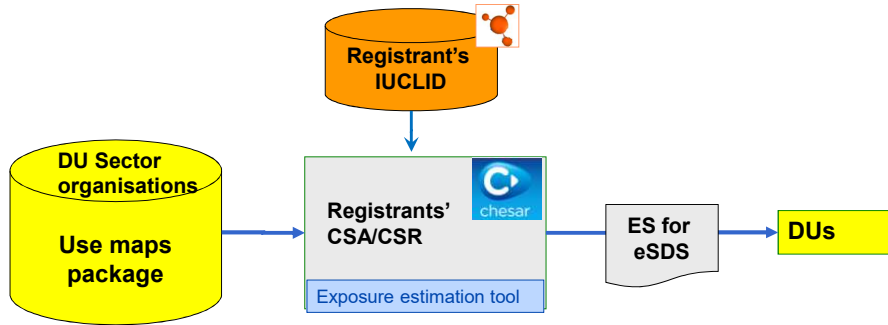
Andreas Ahrens, Roberta
Bernasconi, Stefano Frattini,
Zsolt Gabor, H el ene Magaud

CSA Programme/Chesar
European Chemicals Agency

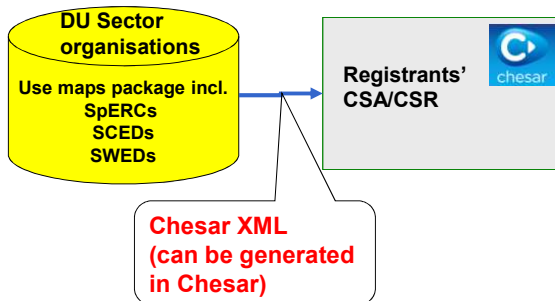
Background

- Chesar 2 and Chesar 3.0 support the use of SPERCs, and SCEDs and has a work around for use maps (called CSA block).
- Plans are that Chesar 3.1 (planned to be released in Q4 2016) will
 - support the use of Use maps and SWEDs
 - potentially improve current implementation for SPERCs and SCEDs

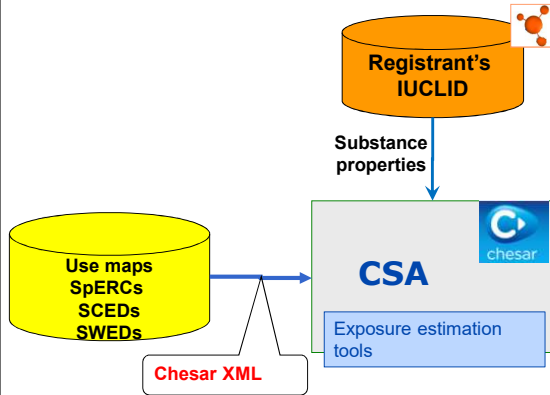
Use maps in REACH machinery



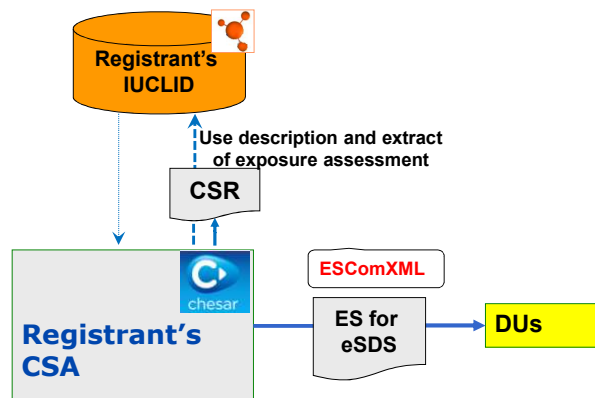
From sectors to registrants



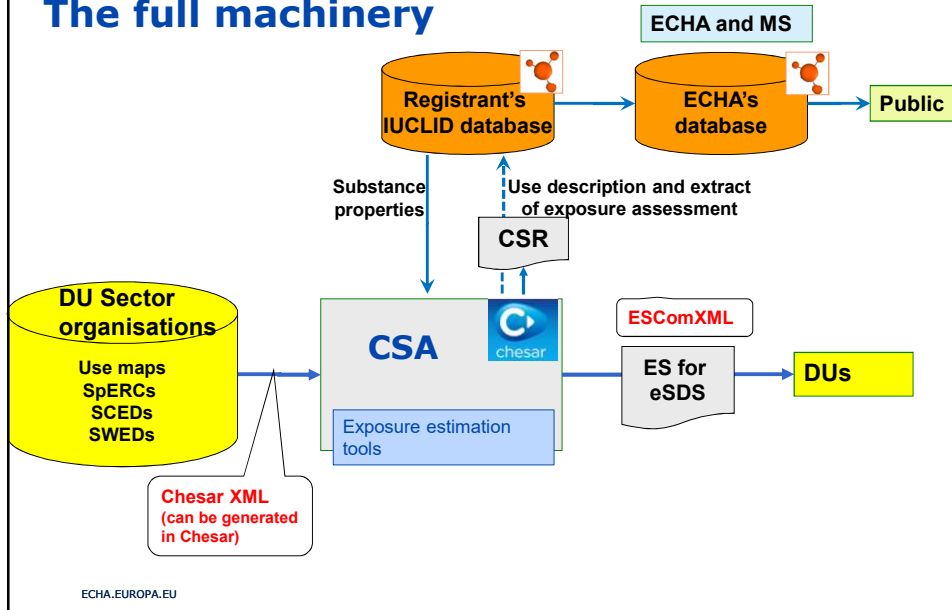
Registrants' perspective: carrying out his CSA



Registrants' perspective: generating CSR and ES for communication



The full machinery

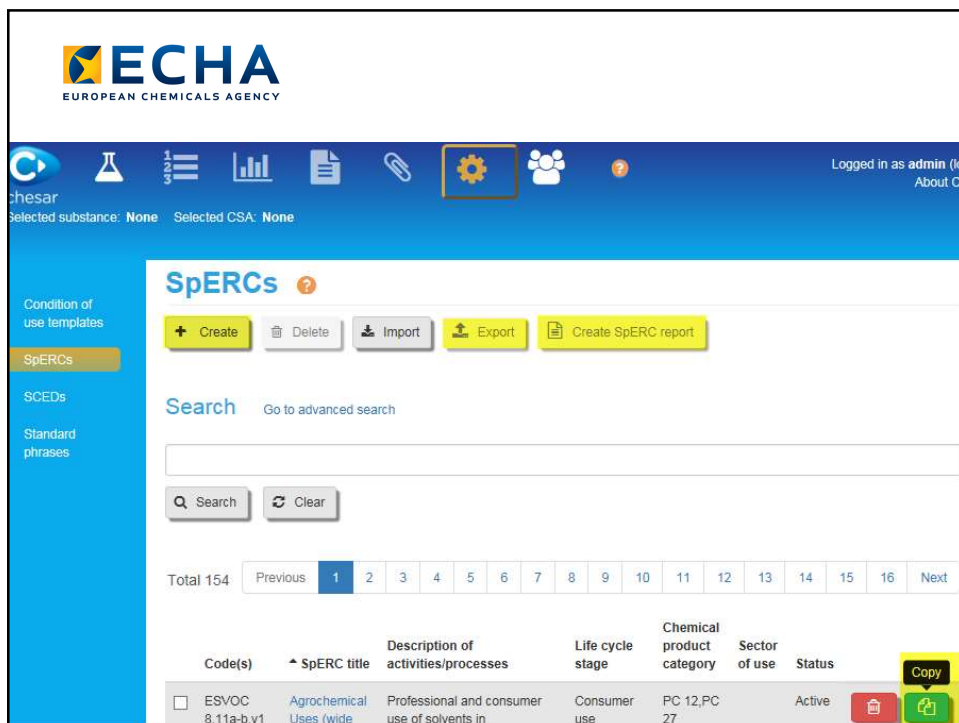


Chesar support to industry associations developing use maps packages in Chesar format

Generating SPERCs, SCEDs, SWEDs in XML format

Chesar supports the generation of SPERC/SCED/SWED in an **XML format** that can be imported into Chesar by registrants for efficient use, e.g. :


- Create SPERC: Specific entry screen in Chesar (Library) to report the information (SPERC factsheet) once by the sector association
- Export SPERC: generate an XML which can be imported by any assessor as "ready to use"
- Generate report: human readable version of the "Chesar SPERC"



The screenshot shows the Chesar web application interface. At the top, the ECHA logo is displayed. Below it, a navigation bar contains various icons, including a gear icon for settings. The main content area is titled "SpERCs" and features a sidebar on the left with options like "Condition of use templates", "SpERCs", "SCEDs", and "Standard phrases". The main area includes a toolbar with buttons for "Create", "Delete", "Import", "Export", and "Create SpERC report". A search bar is present with a "Search" button and a "Clear" button. Below the search bar, a pagination control shows "Total 154" and a series of numbered links from 1 to 16. A table of SpERCs is displayed at the bottom, with columns for Code(s), SpERC title, Description of activities/processes, Life cycle stage, Chemical product category, Sector of use, and Status. The first row shows an entry with Code(s) "ESVOC 8.11a-b v1", SpERC title "Agrochemical Uses (wide)", Description "Professional and consumer use of solvents in", Life cycle stage "Consumer use", Chemical product category "PC 12,PC 27", and Status "Active". A "Copy" button is visible next to the first row.

“Create” SPERC in Chesar 3.0

Create SpERC (Draft)

SpERC code:  SpERC title:

SpERC Identifiers Conditions of use Releases Administrative information

SpERC scope:




Description of activities/processes:

Process steps where main emissions occur:

Life cycle stage:

Chemical product category:

Sector of use:

Chesar SPERC/SCED/SWEDs files (1)

Should contain all the necessary information:

- to select the relevant file: activities(products) covered, limitations in applicability domain regarding substance properties, if relevant
- for carrying out exposure estimation (input to exposure estimation tools)
- to be reported in the CSR (explanations)
- to be included in the ES for communication (preferably as standard phrase; freetext, if no standard phrase available)

Chesar SPERC/SCED/SWEDs files (2)

- Have an author and a unique identifier
- Can be stored on ECHA website (later presentation)
- Can be included by sectors into their use map package
- Registrants can then import SPERC/SCED/SWEDs in their Chesar library and select them for their assessment
- The content cannot be modified in the registrant's assessments with few exceptions (more harmonisation of approach needed between SPERCs/SCED/SWEDs?)
- Specific procedure to manage updates by sectors

SPERCs/SCEDs/SWEDs in Chesar 3.1

- Which level of alignment (fields definition) is expected between SPERC factsheet /SCED /SWED and Chesar format?
 - SPERC: a few differences remain
 - Notion of subSPERC
 - Way of reporting the conditions of use
 - SCED:
 - to be reviewed to expand scope to Consexpo (see previous presentation)?
 - Harmonise better with Chesar 3 implementation for the conditions of use
 - SWED: to be developed (and tried out): few open questions
- Aiming at some harmonisation between SPERC/SCED/SWED ?
 - Identifiers (supporting selection)
 - What can registrant modify when using a SPERC/SCED/SWED?

Use maps package in Chesar 3.0 and Chesar 3.1 (1/2)

In Chesar 3.0 there is a work around to create use maps (including SPERC/SCED/SWEDs) called "CSA block"

- Most content can be reported in Chesar and exported as an XML file for import by registrants
- There is no "author" or unique identifier, therefore such information is to be captured by file name. Use description can be modified by assessor
- File cannot be stored in Chesar library: to be stored in assessor's hard drive and imported in specific assessments.

Use maps package in Chesar 3.0 and Chesar 3.1 (2/2)

In Chesar 3.1

- the support for creating use maps could be improved (similar approach as for SPERC/SCED/SWEDs), depending on request from industry.
- Before investing in the further development, ECHA would prefer that registrants and DU sectors try out the current solution to provide concrete feedback.

Chesar support to registrants

Generation of the chemical safety report (CSR) and exposure scenario (ES) based on use maps in Chesar



Workflow (1/3)

- Import use map ("CSA block" in Chesar 3.0) for use description
 - Use map can contain all related SPERC/SCED/SWEDs, i.e. relevant conditions of use. Adapt when necessary (e.g. percentage of substance in mixture)
 - Select relevant uses/contributing activities (no clear support identified up to now)
- When no use map available
 - Describe uses
 - Import SPERCs/SCED/SWEDs in own library and assign them to relevant uses/contributing activities
 - Identifiers support selection

Market (200 t) : Coatings and Inks

- Formul. (320 t) : Formulation of liquid mixtures**
 - ERC 2: Formulation of mixture in closed and open systems
 - PROC 8b: Receiving and charging of the substance
 - PROC 3: Mixing, dispersing, completion in closed batch proc...
 - PROC 5: Mixing, dispersing and completion in open multista...
 - PROC 8a: Transfer in non-dedicated facilities
 - PROC 8b: Transfer at dedicated facilities
 - PROC 9: Filling small containers in dedicated lines
 - PROC 8a: Maintenance and cleaning operations
- Site (100 t) : General Industrial use of coatings and inks**
 - ERC 5: Industrial use of coatings and inks involving water
 - ERC 5: Industrial use of coatings and inks water-free
 - PROC 2: Application of coating and inks in closed systems...
 - PROC 8b: Raw material receipt and transfer
 - PROC 5: Preparation of coatings and inks for application
 - PROC 8a: Batch loading of equipment (manual, non dedicat...

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Conditions of use ?

Conditions based on

Selected SCED

SCED name: Universal Glues Hobby Use
 SCED code: FEICA_SCED_1_1_a_v1

C-1 : Product (article) characteristics

Percentage (w/w) of substance in mixture/article <= %

Physical form of the used product

Exposure via inhalation route

Exposure via dermal route

Exposure via oral route

Spray

C-2 : Amount used (or contained in articles), frequency and duration of use/exposure

Amount of product used per application = g/event

0: Exposure time per event = hr

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Workflow (2/3)

- Decide on exposure estimation method
 - SPERCs provide releases -> fit to EUSES input
 - SCED -> ECETOC TRA consumers, Consexpo?
 - SWED -> various exposure tool, measured data?
- Complete risk characterisation and provide explanations for CSR
 - If registrant cannot demonstrate RCR <1 with conditions of use provided and the hazard profile of his substance, then
 - link to SPERC/SCED/SWED to be removed
 - and registrant "continues" with an own "manual" assessment

Exposure estimates

[Add new exposure dataset](#)
[Delete dataset](#)
[Import external tool dataset](#)

Route, type of effect	Method	Status	Exposure	RCR
Inhalation routes				
Inhalation, systemic, long term	TRA Consumers 3.1	Main	6.618 mg/m ³	1.088
Inhalation, systemic, short term				
Inhalation, local, long term	TRA Consumers 3.1	Main	6.618 mg/m ³	
Inhalation, local, short term				
Dermal routes				
Dermal, systemic, long term	TRA Consumers 3.1	Main	0.125 mg/kg bw/day	0.035

Workflow (3/3)

Once the assessment is carried out

- Generation of CSR (section 9/10 from Chesar and 1-8 from IUCLID)
- Generation of ES for communication
 - Rtf format
 - ESComXML format (but only standard phrases taken into account)
- Export to IUCLID
 - section 3.5: use description+ exposure estimation
 - Section 13: CSR

Next steps



What can be done ?

- Trying out Chesar 3 with available use maps packages
 - For sectors to generate the Chesar files
 - For registrant to check whether appropriate support is provided by Chesar (e.g. for selection of relevant uses within use map, for managing updates)
- ECHA Chesar team available for dedicated support to sectors:
 - Webex?
 - Dedicated workshop?
 - Specific guidance?
- Clear requirements for future Chesar development

Thank you!

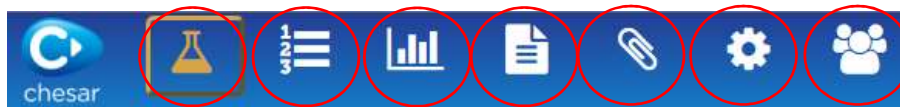
name.surname@echa.europa.eu



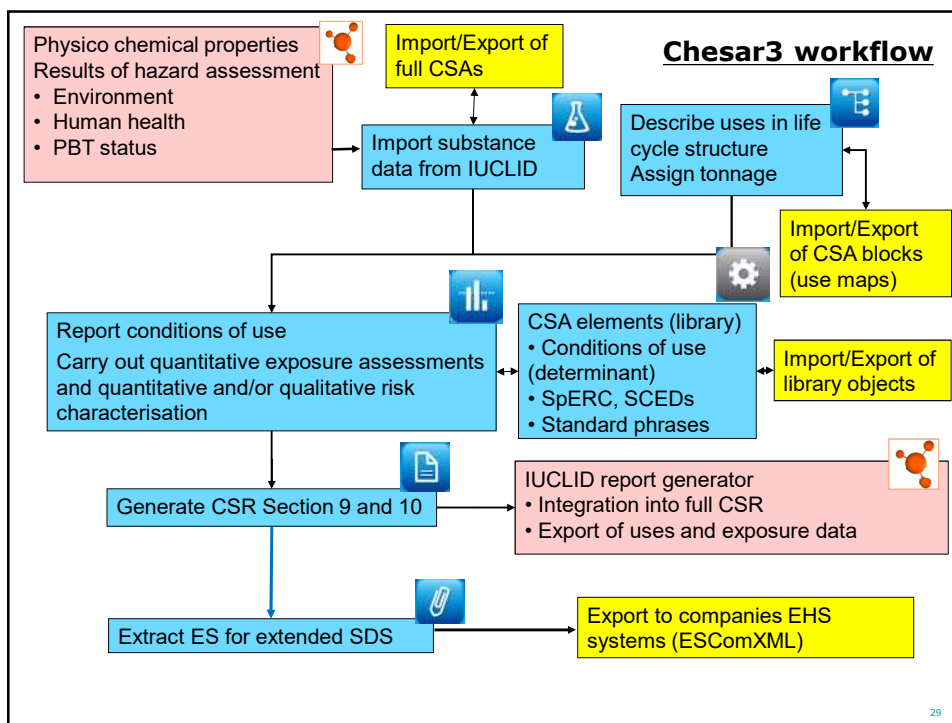
Back up slides



Organisation of Chesar: the Chesar "Boxes"




1. Substances
2. Uses
3. Exposure assessment
4. CSR
5. ES for extended SDS
6. Library
7. Users





Use maps in Chesar 3.0


Work around available to generate the information for registrants:

- Import a "fake" substance in Chesar
- Report all the uses of the use map with their contributing scenarios under a "market sector":
 - Fields from use map template can all be reported with the exception of the use code and the "additional information": can be reported in the "internal remark" field
 - It is possible to provide more information corresponding to IUCLID fields

Create Use at industrial site 

 Show additional fields relevant for the use description

Name: 

Further description of use: 

Registration/ Notification status for the use:

Tonnage (tonnes/year):

Product category used:

Sector of end use (SU):

Technical function of the substance during use:

Subsequent service life relevant to this use:

Internal remarks:

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Use maps in Chesar 3.0

- For environmental contributing scenarios:
 - Create relevant SPERCs in library
 - Assign SPERCs to contributing scenarios (may be not possible if none of the sub-SPERC corresponds to fake substance properties)
- For consumer contributing scenarios
 - Create relevant SCED in library
 - Assign SCED to contributing scenarios
- For workers contributing scenarios:
 - Report conditions of use
- Export a so-called CSA block in Box 2
- Any registrant can import the use map as a CSA block

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PROC 10: Roller and b...
 PROC 11: Professional...
 Consum (50 t) : Consumer...
 ERC 8f: Use leading to...
 PC 9a: Use in water...
 PC 9a: Use in rich solv...

Exposure → Risk characterisation → Validate assessment

Conditions of use ?

Conditions based on

Selected SCED

Select SCED

Manual selection
 SCED
 TRA Consumers product/article subcategory
 SCED code:

Select SCED

Selected SCED

Select SCED

SCED name:
 SCED code:

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SWEDs in Chesar: few questions

- How to handle effectiveness different than the ones provided by the ECETOC TRA?
- For use of other exposure estimation tools (Stoffenmanager, ART, MEASE ...)
 - How could we best support standardisation for describing the conditions of use (input to the tools)?
- How to support selection of contributing activities /SWEDs for various substances (various volatility requiring different level of controls)?
- How to flag "Use in contained system with strict control for manual intervention" for better supporting further regulatory actions
- Link to SUMI: how?
- Reference to measured data: indication for registrant to find information when relevant. Not directly used by the tool
- Good practice advice: in Chesar also has component for CSR and for communication

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Conditions of use in Chesar

“Condition of use template”:

- Created and stored in a “library”: to be used in assessments, in SPERCs, SCEDs, SWEDs
- Can be imported/exported
- Contains
 - Information relevant for the CSR and by default for the ES for communication
 - A number of metadata such as ES heading, tools for which they are relevant, route on which they impact...
- Can have several “values”

“Condition of use”: actual value used in the assessment

Conditions of use templates types

- Quantitative: qualifier and unit defined. Value to be entered in the condition of use
Duration of activity < ... hours/day
- Qualitative:
 - Qualitative: text (or standard phrase)
Washings from equipment cleaning with solvents are collected and disposed of as solvent waste.
 - Qualitative grouped: Defined by a label and several possible values.
Body part exposed: one hand/two hands/forearms/...
- RMM with effectiveness: qualitative with the possibility to report effectiveness (default, range and explanations) per value
 - RMM with effectiveness
 - RMM with effectiveness grouped