

# IT tool training

## REACH 2018 Stakeholders' Day

29-30 January 2018

European Chemicals Agency



# Welcome!

Stakeholders' day  
Chesar Basic Training  
29 January 2018  
Helsinki



chesar

# Objectives of today's Chesar training

- Provide overview of some of the basic functionalities of Chesar
- Complete process from import of data from IUCLID to generation of CSR and ES for communication
- Know where to find more detailed information
- Learning by doing – set of exercises

# Agenda – Monday 29 January

## Morning:

**10.00 – 13.00**  
(including coffee break)

- Welcome and introduction
- Chesar general principles and workflow – *presentation*
- Getting started, interaction with IUCLID (Box 1) – *exercises*
- Use description and use maps (Box 2) – *exercises*
- Introduction to assessment (Box 3) – *live demo*

## Afternoon:

**14.00 – 16.00**

- Environmental assessment – *exercises*
- Worker assessment – *exercises*
- Consumers assessment – *exercises*
- Export to IUCLID and CSR generation – *exercises*
- ES for communication – *exercises*

# Illustrative CSR example-Data source for exercises (1)

- Published in 2012, together with a detailed explanatory note
- Purpose: Complement ECHA Guidance with a concrete example how a REACH CSR could look like
  - Support to registrants
  - Increase common understanding within ECHA and between ECHA and external stakeholders
  - Data set to test various Chesar elements during specification and programming
- Starting point: Real registration dossier, however various modifications made during development
- Updated version published July 2017, incorporating lessons learned and further development of good safety practice – Chesar 3.2 and IUCLID 6.1  
<https://echa.europa.eu/support/practical-examples-of-chemical-safety-reports>

# Illustrative CSR – Data source for exercises (2)

- The CSR example (2016 version) served as inspiration and data source for developing the training package
- Adaptations were made to better fit the needs within a training session
- The substance is now called “ECHA Training substance”
- Be aware:
  - The training set is not fully consistent in itself
  - It is also not complete (i.e. does not represent the full assessment of a substance)

# Introduction to Chesar

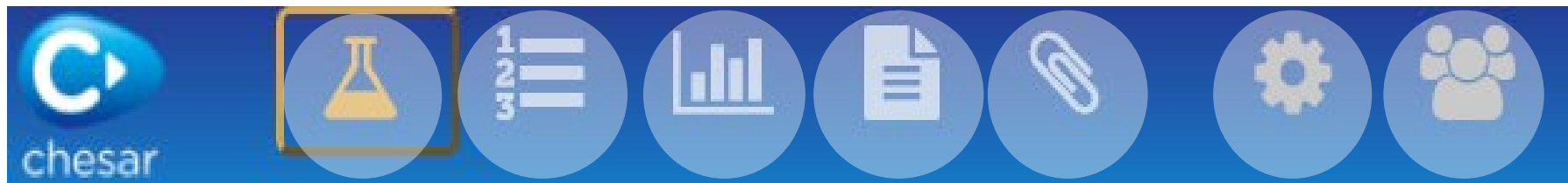
# Chesar 3.3

- Chesar (Chemical Safety Assessment and Reporting tool) is a web application developed by ECHA to support registrants
  - carrying out their Chemical safety assessment and generating their Chemical Safety Report (CSR) and
  - generating their Exposure Scenario for communication (annex to extended Safety Data Sheet)
- It is released as a Desktop and Server version
- It is free-of-charge and easy to install
- Chesar also supports the creation, export and import of use maps

<https://chesar.echa.europa.eu/home>

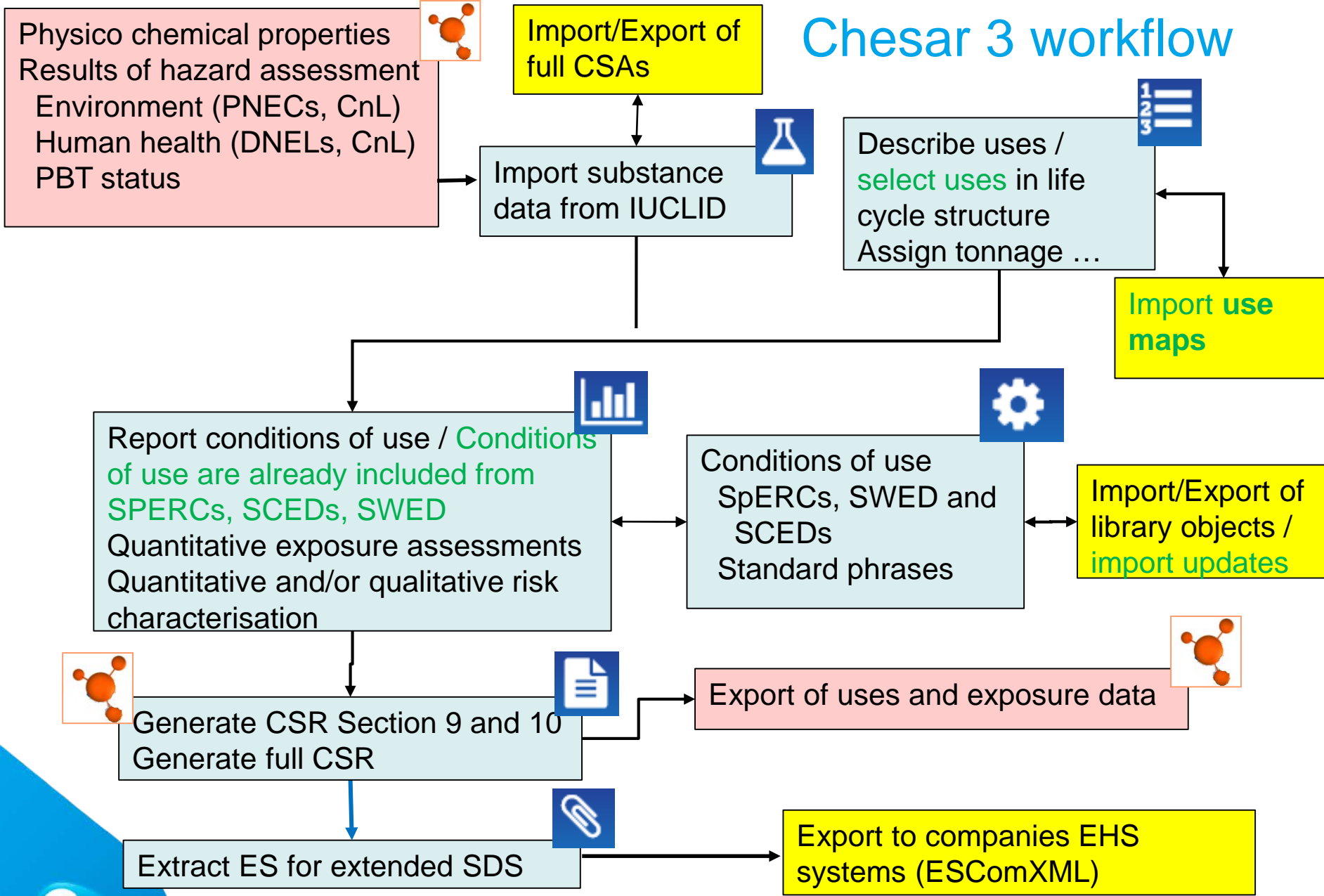


# Chesar 3 workflow: the Chesar “boxes”



1. Substances
2. Uses
3. Exposure assessment
4. Chemical Safety Report
5. Exposure scenario for extended safety data sheet
6. Library
7. Users

# Chesar 3 workflow



## Life Cycle: Use

Use name

Contributing Activity (CA) name  
Environment + ERC

Contributing Activity (CA) name  
by workers + PROC

## Exposure Assessment per Use

Exposure Scenario (ES) name

Contributing scenario (CS):  
Conditions of use from  
environmental perspective

Contributing scenarios (CS)  
Conditions of use from  
worker perspective

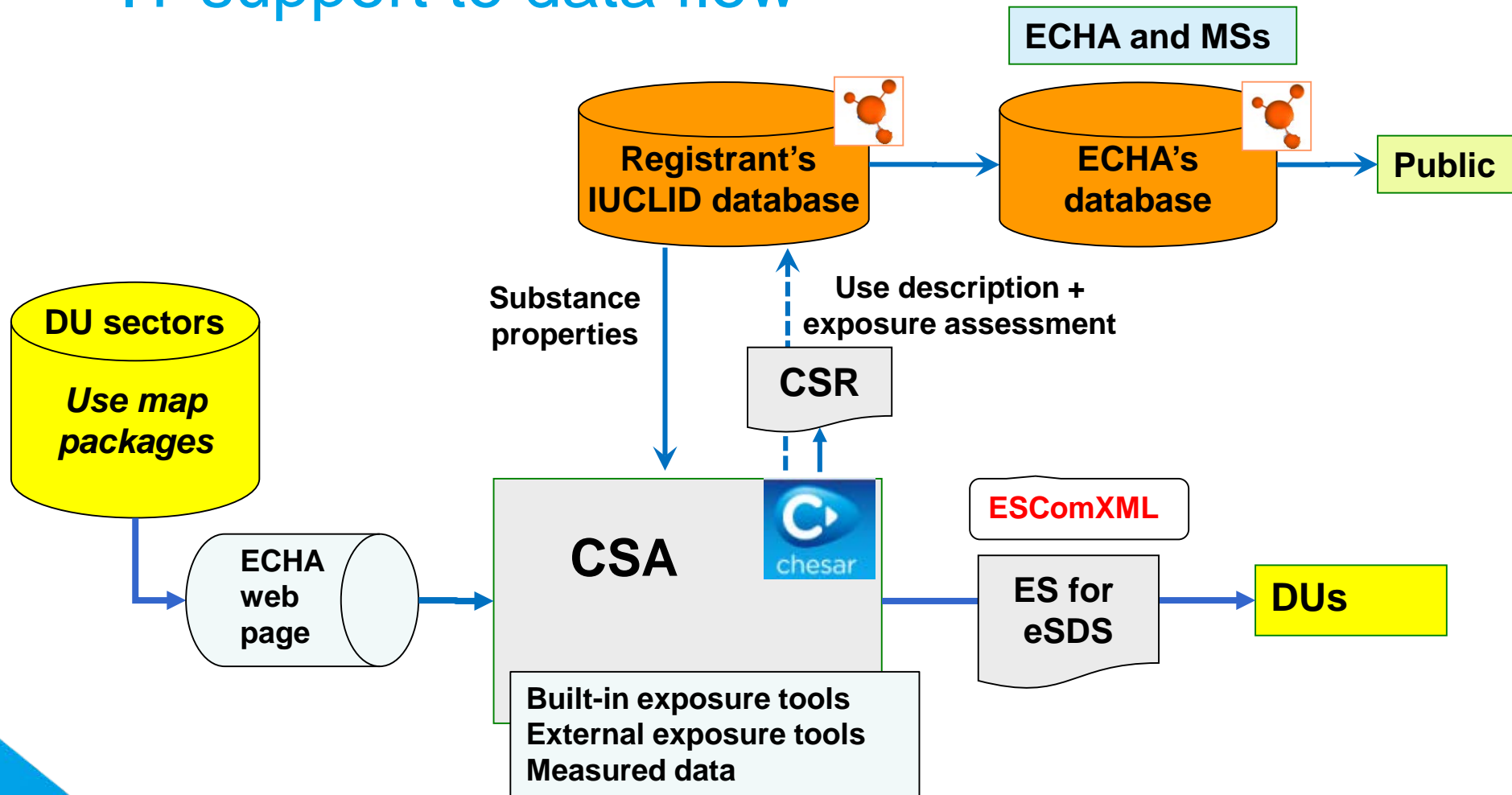
Exposure to Environment  
(all compartm.)

Release to Environment

Exposure of Man via Environment

Exposure of workers for each CS

# IT support to data flow



# Chesar benefits (1)

- **Consistency**
  - IUCLID (substance properties, uses) and the chemical safety report (CSR)
  - Information for the authorities (CSR) and for the supply chain (exposure scenario for communication)
- **Standardisation (efficiency gains for all actors)**
  - Systematic workflow
  - Use maps
    - Assessor uses suitable use descriptions, SPERCs, SCEDs, SWEDs collected from various downstream user websites
    - Assessor uploads integrated use map packages from single point of access
  - Standard phrases (ESCom catalogue) and ESComXML
  - Chemical Safety Report format
  - Exposure scenario for communication format

# Chesar benefits (2)

- **Efficiency in single assessment**
  - Re-use of information across substances
  - Integrated exposure estimation tools
  - Bulk actions
    - At substance level (if valid for all uses) or at exposure scenario level (if use-specific)
    - For groups of contributing scenarios
  - Automated generation of documents (CSR, ES for extended SDS) + IT exchange of data (XML format)
  - Facilitated updates
    - New information on substance → recalculation of exposure for plugged-in exposure estimation tools
    - New (or change of) use → integrated with existing assessment

# And now...your turn!

# Exercise descriptions

Stakeholders' day  
Chesar Basic Training  
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Helsinki



chesar



# What you will be doing...

- The training package consists of:
    1. Communication with IUCLID and scope of assessment
    2. Use description
    3. Environmental exposure assessment
    4. Worker exposure assessment
    5. Consumer exposure assessment
    6. Export to IUCLID and CSR generation
    7. ES for communication
  - Each of you to work with the PC in front of you
  - Step-by-step instructions manual available
  - Few exercises are marked as *optional*
- We are available for any question during the exercises

# 1. Communication with IUCLID and scope of assessment

# Exercises

## 1. Set up Chesar

- a. Import a IUCLID 6 legal entity to enable the creation of Chesar library items (CSA elements) when necessary
- b. Assign the legal entity to default user
- c. Import the ESCom standard phrase catalogue

2. Import a substance from IUCLID via web service

3. Review the information imported from IUCLID

4. Review the scope of assessment

5. *Synchronisation between IUCLID and Chesar (optional)*

# Exercises

1. Set up Chesar
- 2. Import a substance from IUCLID via web service**
  - a. Import the substance in IUCLID
  - b. Import the substance in Chesar
3. Review the information imported from IUCLID
4. Review the scope of assessment
5. *Synchronisation between IUCLID and Chesar (optional)*

# Exercises

1. Set up Chesar
2. Import a substance from IUCLID via web service
- 3. Review the information imported from IUCLID**
- 4. Review the scope of assessment**
5. *Synchronisation between IUCLID and Chesar (optional)*

## 2. Use description

# Use description in Chesar

Life cycle tree structure:

- ***Manufacture/Import***

- **Manufacture**

- Environmental contributing activity
- Worker contributing activity
- ....

- **Formulation**

- ***Market sector***

- **Use at industrial sites**

- **Widespread use by professional workers**

- **Consumer use**

- Environmental contributing activity
- Consumer contributing activity

- **Service life (worker at industrial site, professional worker, consumers)**

# Key concepts (1)

- **Manufacture / Import** is the starting node and serves as the basis for calculation of the balance of the tonnage to be assessed in the CSA
- A **Use** covers similar activities or processes carried out by a defined group of actors in the market
- **Contributing activities** cover the description of the different activities contributing to one use
  - Environmental contributing activities
  - Worker/ consumer contributing activities
- **Assessed tonnage** = tonnage imported + tonnage manufactured - tonnage directly exported - tonnage used as intermediate



# Key concepts (2): Use maps

## Use maps

Use identification and general description				Use identification and general description							Use identification and general description		
Use code	Life Cycle Stage	Use name	ES start date for construction use	ES start date for use process	Sector of use (SIC)	Product category (PC)	Article category (AC)	Contributing sector	Contributing activity	Contributing activity descriptor	Exposure assessment input code	Functional description for use	Functional description for use
SWED_01_01	Production												
SWED_02_01	Production												
SWED_03_01	Professional												
SWED_04_01	Consumer												
SWED_05_01	Article												

## Exposure assessment inputs

SWED	
Workers	
1	1
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9	9
10	10
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SCED	
Consumers	
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SPERC	
Environment	
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## SWED (Worker):

Sector-specific Worker Exposure Description

## SCED (Consumer):

Specific Consumer Exposure Determinant

## SPERC (Environment):

Specific Environmental Release Category

# Key concepts (3)

	<b>Life cycle tree</b> - full list of uses for a given substance	<b>Use map</b> - downstream user sector organisations inform registrants on the uses and the conditions of use of chemicals in their particular sector, in an harmonised and structured way
Use description (Box 2)	List of uses incl. CA. Replaces any previous uses	(One or) more uses incl. CAs added to already available uses
Conditions of use	<b>Not included</b>	Included (as part of SPERCs, SWEDs, SCEDs)
Exposure assessment and risk characterisation	<b>Not included</b>	<b>Not included</b>
Information for ES for communication	<b>Not included</b>	Included

# Exercises

1. Create a use
2. Provide general information on uses to be assessed in the CSA
3. Import a life cycle tree
4. Import a use map

# Exposure assessment – Live demo

# 3. Environmental exposure assessment

# Exercises

1. Default environmental exposure assessment
2. Own site assessment using site specific data:
  - Customise the built-in CoU “Biological STP” and “Application of STP...”,
  - Biological sludge from STP sent to an incinerator
  - Report the measured releases to water
3. Refinement based on SPERC
  - Review the SPERC information
  - Set the daily and annual use amount at site
4. Review and assessment for aggregated uses (contains information on releases and exposure related to the full life cycle)
  - Regional assessment (default calculated by EUSES)
  - Assessment for widespread uses (read only)
5. Reporting a summary of assessment approach for environment
  - Where to report the assessment approach in Chesar and where it goes in the CSR

# 4. Worker exposure assessment

# Exercises

1. Create default ECETOC TRA workers exposure datasets
2. Edit conditions of use in a given contributing scenario
3. Edit currently existing conditions of use for several contributing scenarios in one go using the “bulk mode” functionality
4. Summary of assessment approach for worker
5. *Perform the qualitative risk characterisation for Workers (optional)*



# 5. Consumer exposure assessment

# Exercises

1. Creation of ECETOC TRA exposure dataset based on ECETOC TRA subcategory
2. Assessment based on ConsExpo exposure dataset
  - Import external tool dataset
3. Reporting a summary of assessment approach
4. *Perform the qualitative risk characterisation for consumer (optional)*

## 6. Export to IUCLID and CSR generation

# Exercises

1. Generate CSR sections 9-10
2. Export of uses to IUCLID
  - To ensure consistency and transparency the uses available in IUCLID must be aligned with the ones defined in Chesar
3. Generate a full CSR

# 7. Exposure scenarios for communication

# Exercises

1. Generate a default ES for communication
  - The ES for communication is composed of four sections:
    - 1. Title section
    - 2. Conditions of use affecting exposure
    - 3. Exposure estimation and reference to its source
    - 4. Guidance to downstream users to evaluate whether they work inside the boundaries set by the exposure scenario
2. Review ES for communication at Exposure scenario level and contributing scenario level
3. *Generate ESCom XML (optional)*

# Thank you!

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