ECHA
EUROPEAN CHEMICALS AGENCY

Using Chesar for the CSA

How does it work? What are the advantages?

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Webinar for registrants

CSA 1: Chemical Safety Assessment and Chesar

Overview

- The purpose of Chesar
- Assessment workflow and main functionalities
- Support to harmonisation, transparency, consistency and efficiency – selected key features
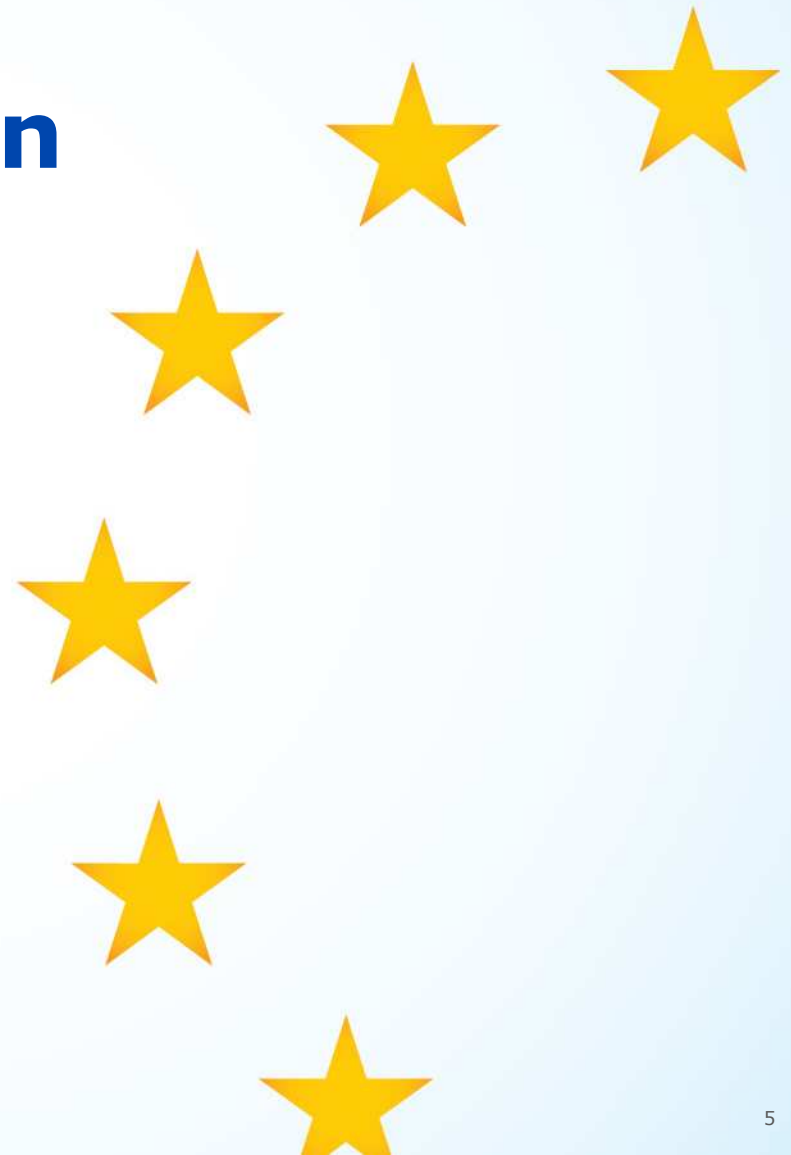- How to learn more about Chesar?

Purpose of Chesar
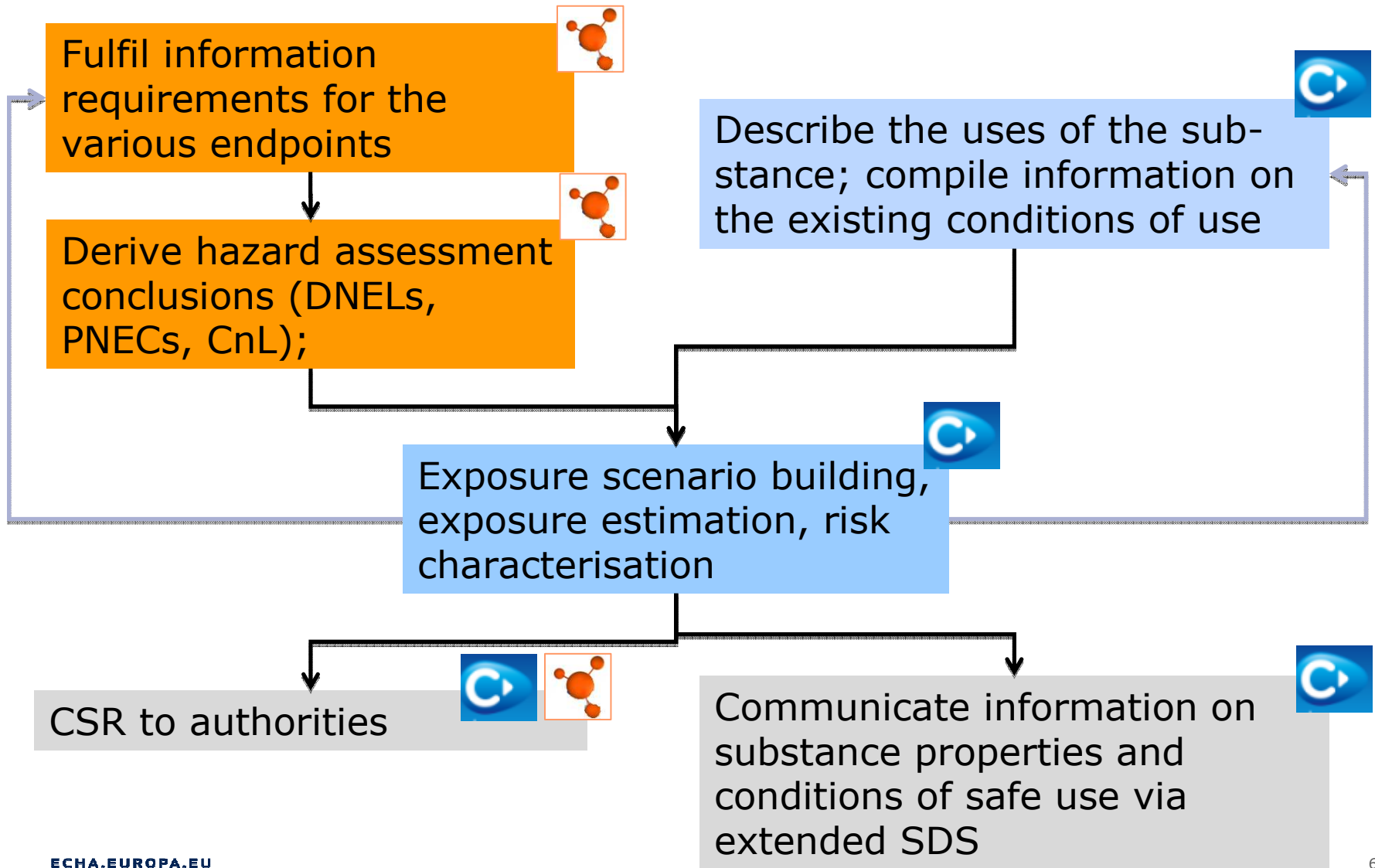
What is Chesar?

- IT tool developed by ECHA

- supports registrants to prepare, store (in a database) and update the Chemical Safety Assessment (CSA)

- facilitates the re-use of CSA elements generated in the single Chesar instance or imported from external sources (e.g. websites of industry organisations).

- enables automated generation of the Chemical Safety Report (CSR) and the Exposure Scenario (ES) for communication directly from the assessment.
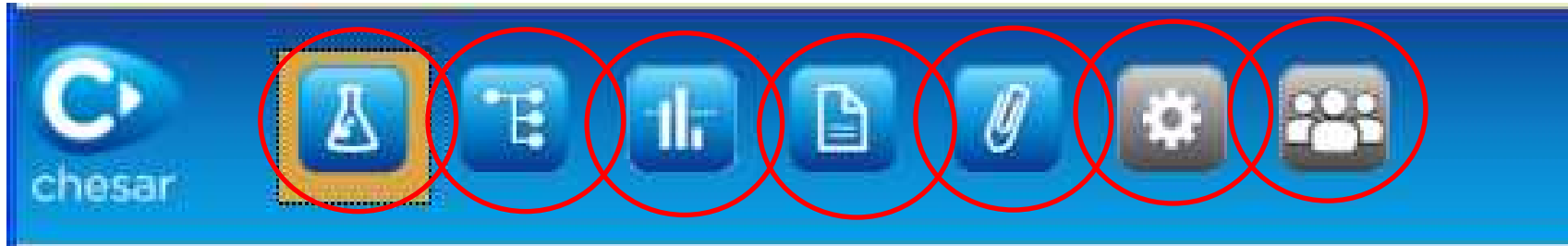
=> **Efficiency, harmonisation, consistency**

Assessment workflow and main functionalities

Assessment workflow

Fulfil information requirements for the various endpoints

Derive hazard assessment conclusions (DNELs, PNECs, CnL);

Describe the uses of the substance; compile information on the existing conditions of use

Exposure scenario building, exposure estimation, risk characterisation

CSR to authorities

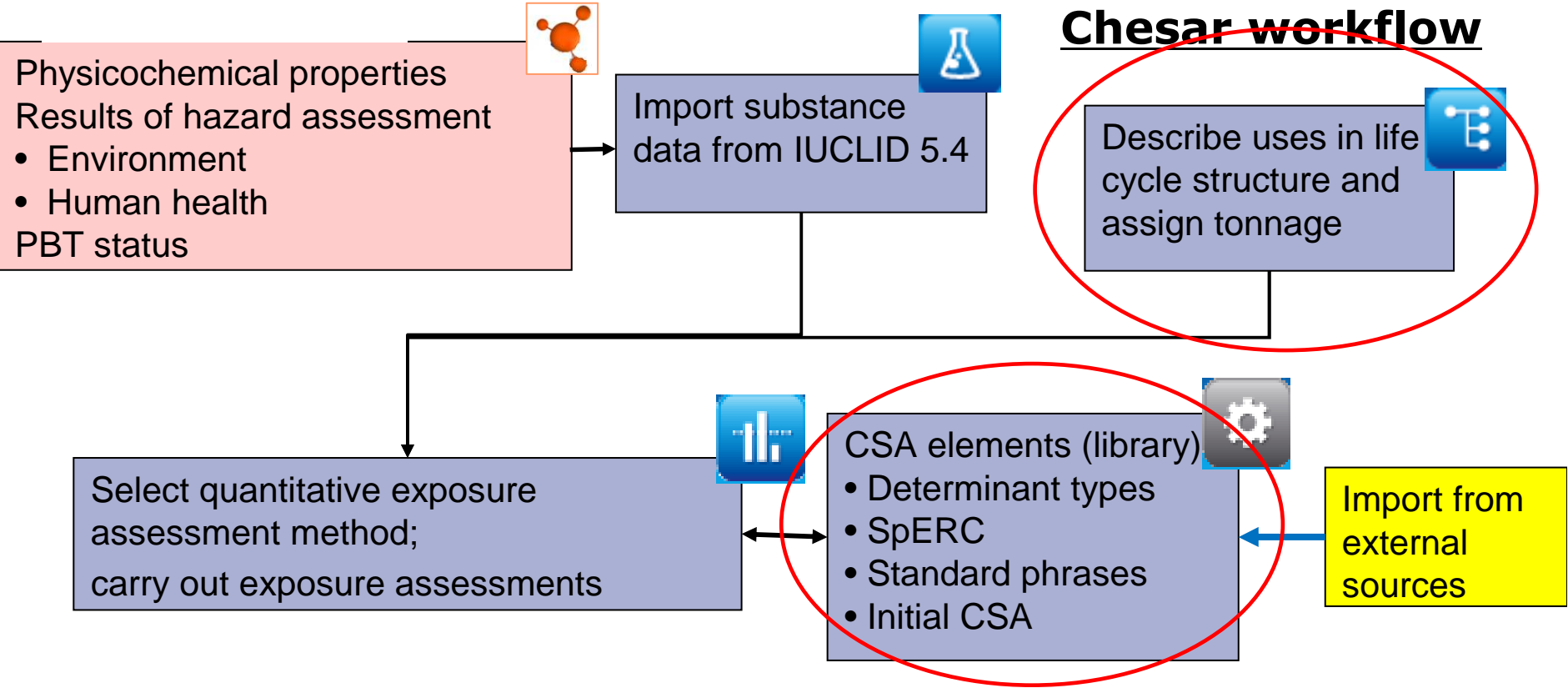Communicate information on substance properties and conditions of safe use via extended SDS

Organisation of Chesar

1. Manage substances
2. Reporting of uses
3. Manage assessment
4. ES building and CSR generation
5. Generation of ES for extended SDS
6. Administration tools
7. Users management

Chesar workflow

Physicochemical properties
Results of hazard assessment
- Environment
- Human health
PBT status

Import substance data from IUCLID 5.4

Describe uses in life cycle structure and assign tonnage

Select quantitative exposure assessment method;
carry out exposure assessments

CSA elements (library)
- Determinant types
- SpERC
- Standard phrases
- Initial CSA

Import from external sources

Chesar enables ... (1)

- **Export/import** of assessment elements from one substance to another
  - Re-use of a **life cycle tree**, when uses and markets are similar
  - Start from an **already existing assessment** when uses and conditions of use are similar (called "initial CSA" in Chesar terms)
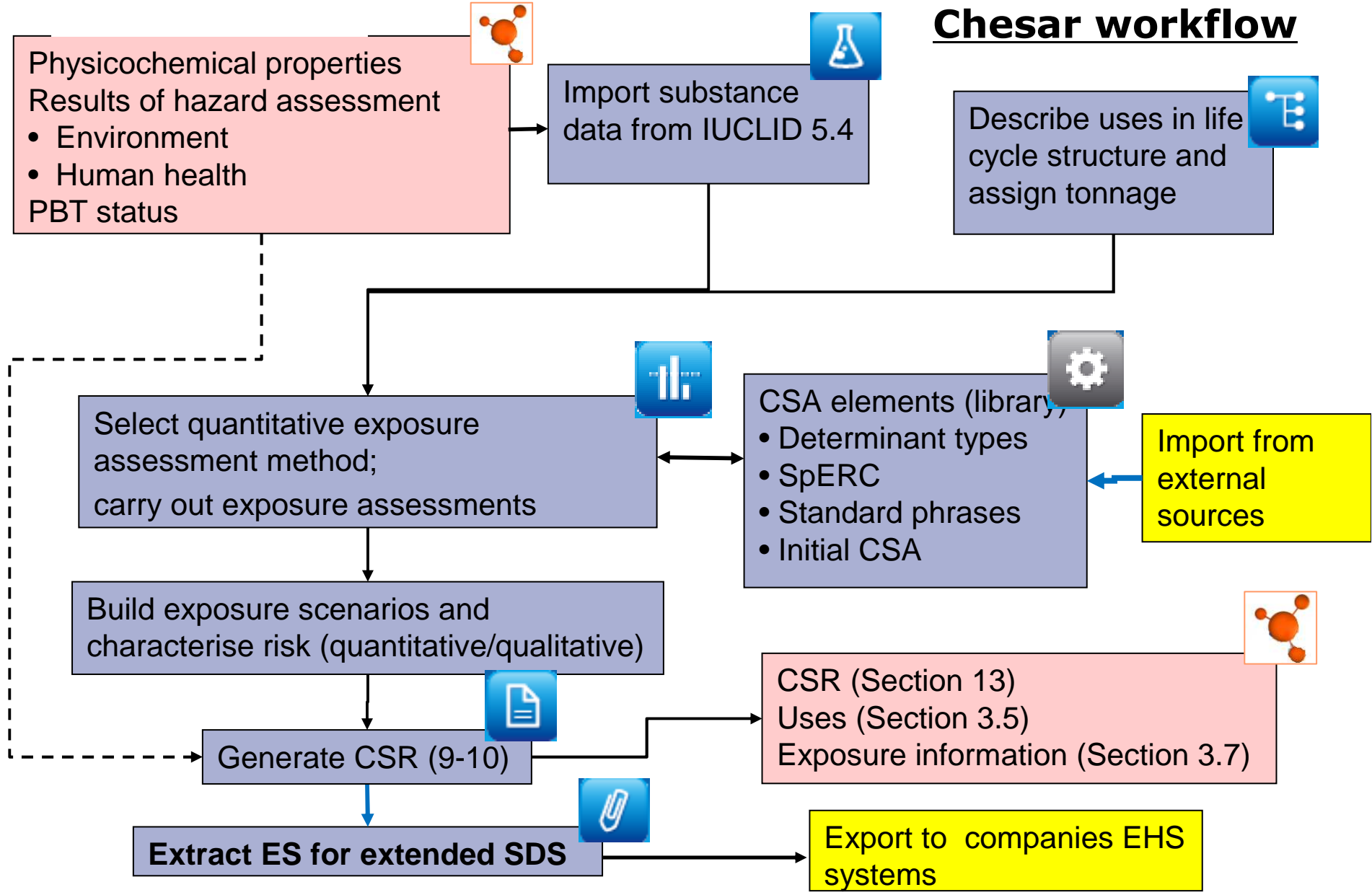
Chesar enables … (2)

- The creation or import and storage of **CSA elements** in the Chesar user's own library

    1. "**Determinant types**" define conditions of use (operational conditions or risk management measures) driving the exposure.

        - reported in the exposure scenario

        - input to exposure estimation tools when relevant

        - using the same determinant across several assessments facilitates harmonisation

Chesar enables ... (3)

2. "**SpERC**: typical conditions of use from an environmental perspective and related release estimates. SpERCs are developed by sector organisations.

3. **Standard phrases**: used to communicate conditions of safe use. A CEFIC led industry group works on a harmonised phrase catalogue and a corresponding electronic exchange standard (EScom XML).

Chesar workflow

Physicochemical properties
Results of hazard assessment
- Environment
- Human health
PBT status

Import substance data from IUCLID 5.4

Describe uses in life cycle structure and assign tonnage

Select quantitative exposure assessment method;
carry out exposure assessments

CSA elements (library)
- Determinant types
- SpERC
- Standard phrases
- Initial CSA

Import from external sources

Build exposure scenarios and characterise risk (quantitative/qualitative)

Generate CSR (9-10)

CSR (Section 13)
Uses (Section 3.5)
Exposure information (Section 3.7)

Extract ES for extended SDS

Export to companies EHS systems

Chesar supports

Harmonisation
Transparency
Consistency
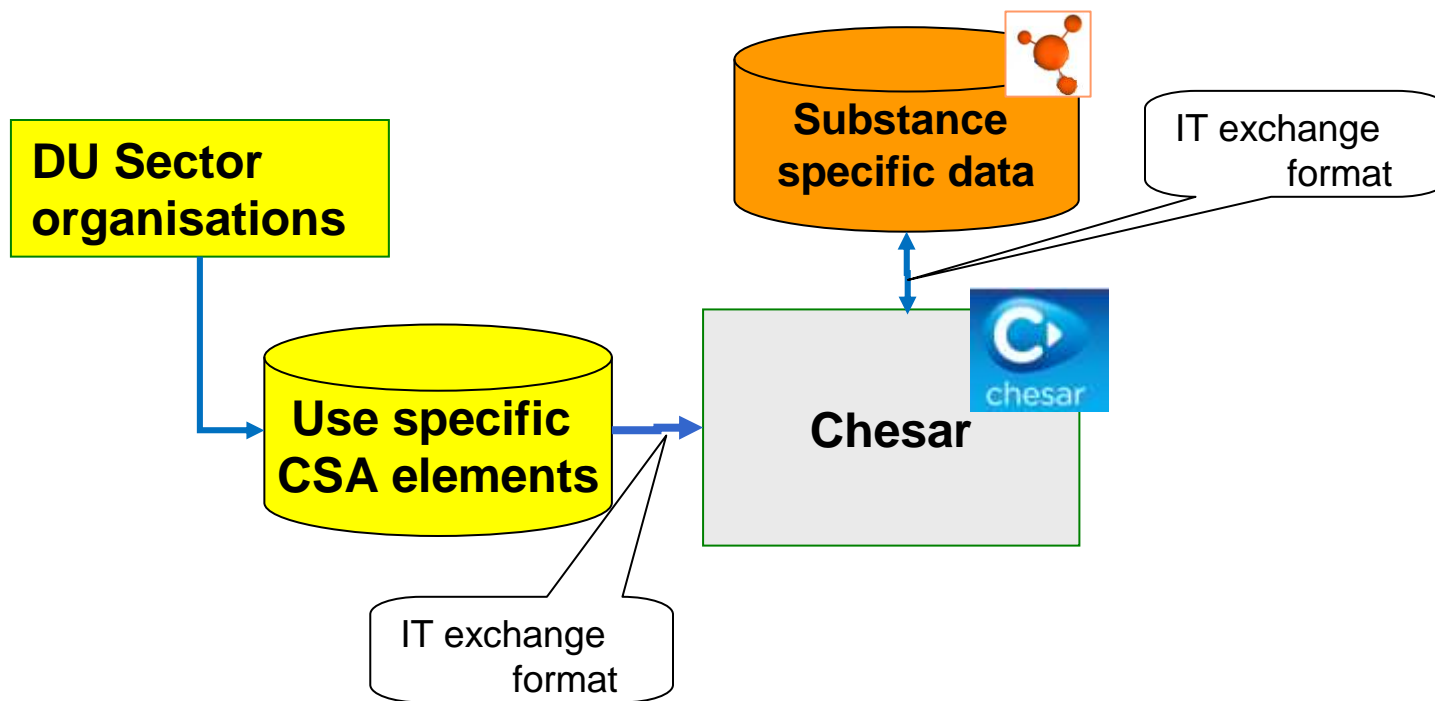## Efficiency

Selected key features

- From substance properties to CSA
- Re-use of CSA elements across substances
- IT exchange between Chesar, IUCLID and companies' EHS systems
- Consistency between CSR and the information communicated to the downstream users

From substance properties to CSA

- Import of IUCLID data set to Chesar ensures consistency of data used for CSA

- Chesar systematically converts the conclusions on hazards documented in IUCLID (environment, workers, general population) into the required scope of exposure assessment and type of risk characterisation.
     => Transparency and consistency of the assessment

Re-use of CSA elements across substances

- Chesar supports combining manufacturers' knowledge on substance properties with knowledge on condition of use available downstream in the supply chain
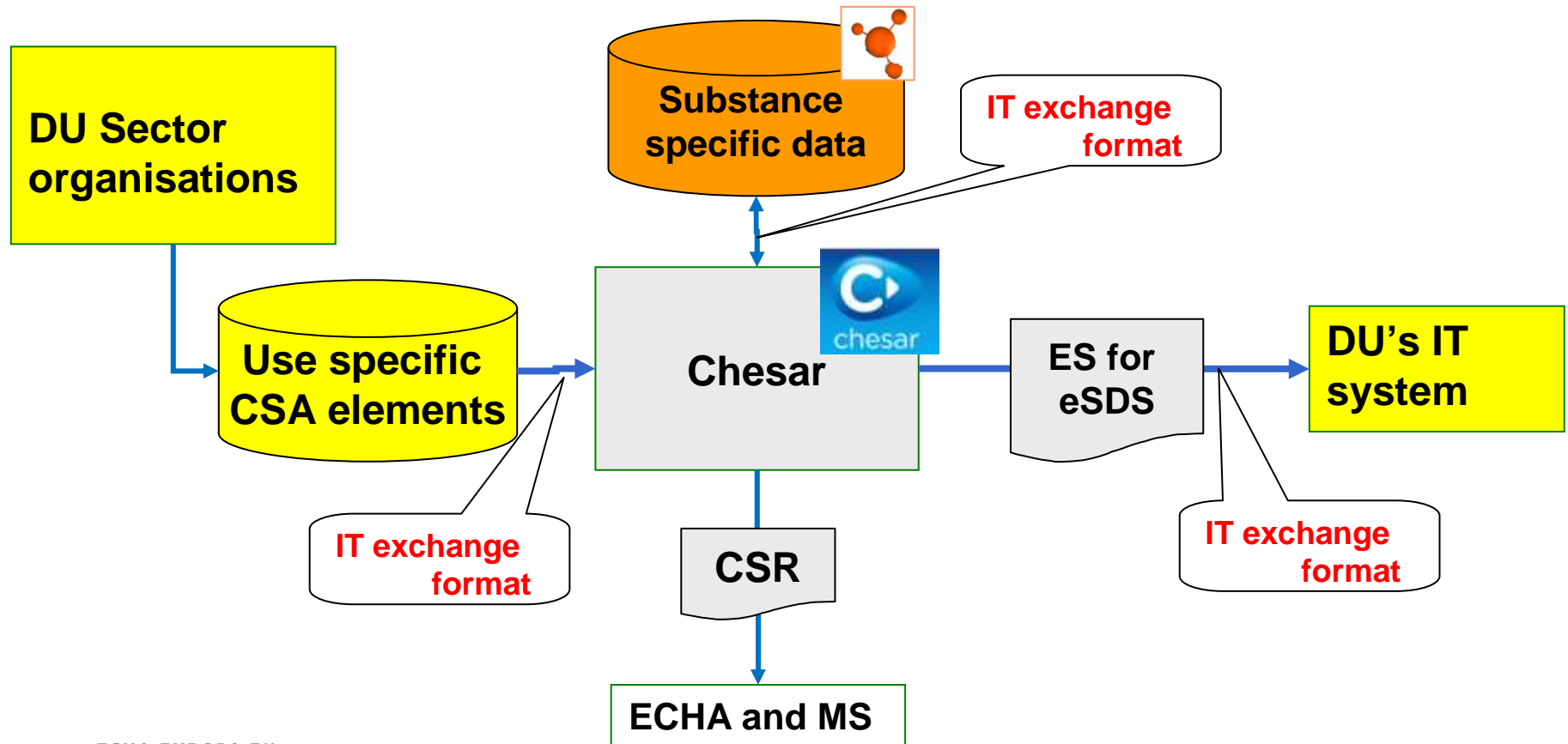
Use specific CSA elements

DU Sector organisations

Use specific CSA elements:
- life cycle descriptions
- SpERCs
- Initial CSA (e.g. GES)

IT exchange between Chesar, IUCLID, EHS systems

- Database and exchange files based on XML increase efficiency and facilitates updates

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Consistency between CSA and ES for communication

- Standard phrases can be "linked" to conditions of use (determinants in Chesar terminology) reported in the ESs in the CSR

- ES for communication can be automatically generated from the ES for the CSR

- Industry initiative to harmonise standard phrases and exchange format for communication: ESCom.

  Challenging tasks:

  - need to identify phrases to communicate ESs within the supply chain

  - serves as basis for specification of requirements for Chesar (both for standard phrases and XML)

How to learn more about Chesar 2?

From Chesar 1 to Chesar 2

Chesar 1.0 – May 2010

- **Chesar 1.1** (compatible with IUCLID 5.2.1) – 07/2010
- **Chesar 1.2** - ("Box 5" for ES-SDS added) – 08/2011

Chesar 2.0 – release planned for end of June 2012

Chesar 1 vs Chesar 2

- Chesar 2 is based on the same principles as Chesar 1 but offers some significant improvements:
  - Better support to the refinement of initial assessments
  - Increased efficiency of assessments (including copy and paste of assessments) and improved re-use of CSA elements across substances
  - Reduced manual assessment work and stepwise inclusion of more links to exposure estimation tools (ECETOC TRA consumers, Stoffenmanager in a first step)
  - Easier installation

Chesar 2 – release plan (1)

- **Chesar 2.0 ->** end of June 2012. Includes the functionalities:
  - for carrying out chemical safety assessments (CSAs) based on a IUCLID 5.4 dataset
  - for generating chapter 9 and 10 of the chemical safety report (CSR).

  -> Update of **CSR generator** (IUCLID plug in)-> Q3 of 2012 It will enable:
  - the export of information on uses from Chesar 2.0 to IUCLID 5.4
  - the generation of the full CSR by combining information from IUCLID 5.4 and Chesar 2.0.

Chesar 2 – release plan (2)

- **Chesar 2.1** -> early autumn 2012. Includes:
  - the exposure estimation tool for consumers developed by ECETOC (TRA consumer).
  - the standard phrases library (depending on the progress made in cooperation with CEFIC's EScom project)
- **Chesar 2.2** -> late 2012 or beginning of 2013. This will add:
  - generation of exposure scenarios for communication.

- The application will remain stable: each release of this release plan will only add new functionalities.

Where to find information on Chesar

- **Chesar website**
  http://chesar.echa.europa.eu/

- **Webinar (demo) on Chesar** on **21 May 2012**
  http://echa.europa.eu/web/guest/support/training-material/webinars

Thank you.

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