

Overview on Chesar



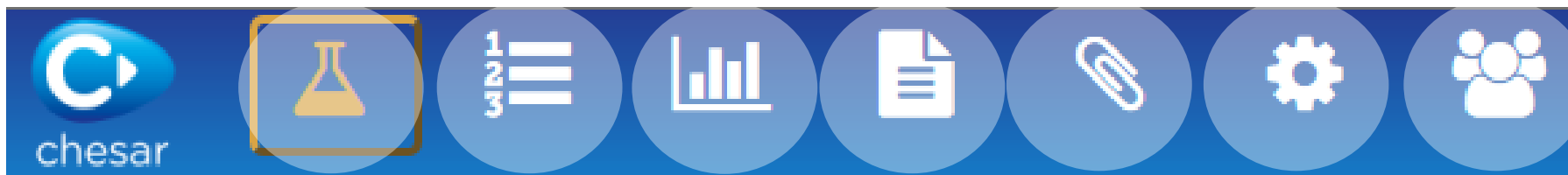
chesar

21 June 2016

Outline

- Chesar workflow and related functionalities
- Terminology: “use” and “exposure scenarios”
- Flow of data between different actors in the chemical safety assessment
- Consistency and efficiency gains
- Main changes in Chesar 3

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

Physicochemical properties
Results of hazard assessment
Environment (CnL, PNECs)
Human health (CnL, DNELs)
PBT status



Import/export of full CSAs

Import substance data from IUCLID



Describe uses in life cycle structure
Assign tonnage



Import/export of CSA blocks (use maps)

Report conditions of use
Quantitative exposure assessments
Quantitative and/or qualitative risk characterisation



CSA elements (library)
Conditions of use
SpERCs, SCEDs
Standard phrases

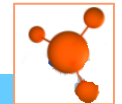


Import/export of library objects

Generate CSR Section 9 and 10
Generate full CSR



Export of uses and exposure data

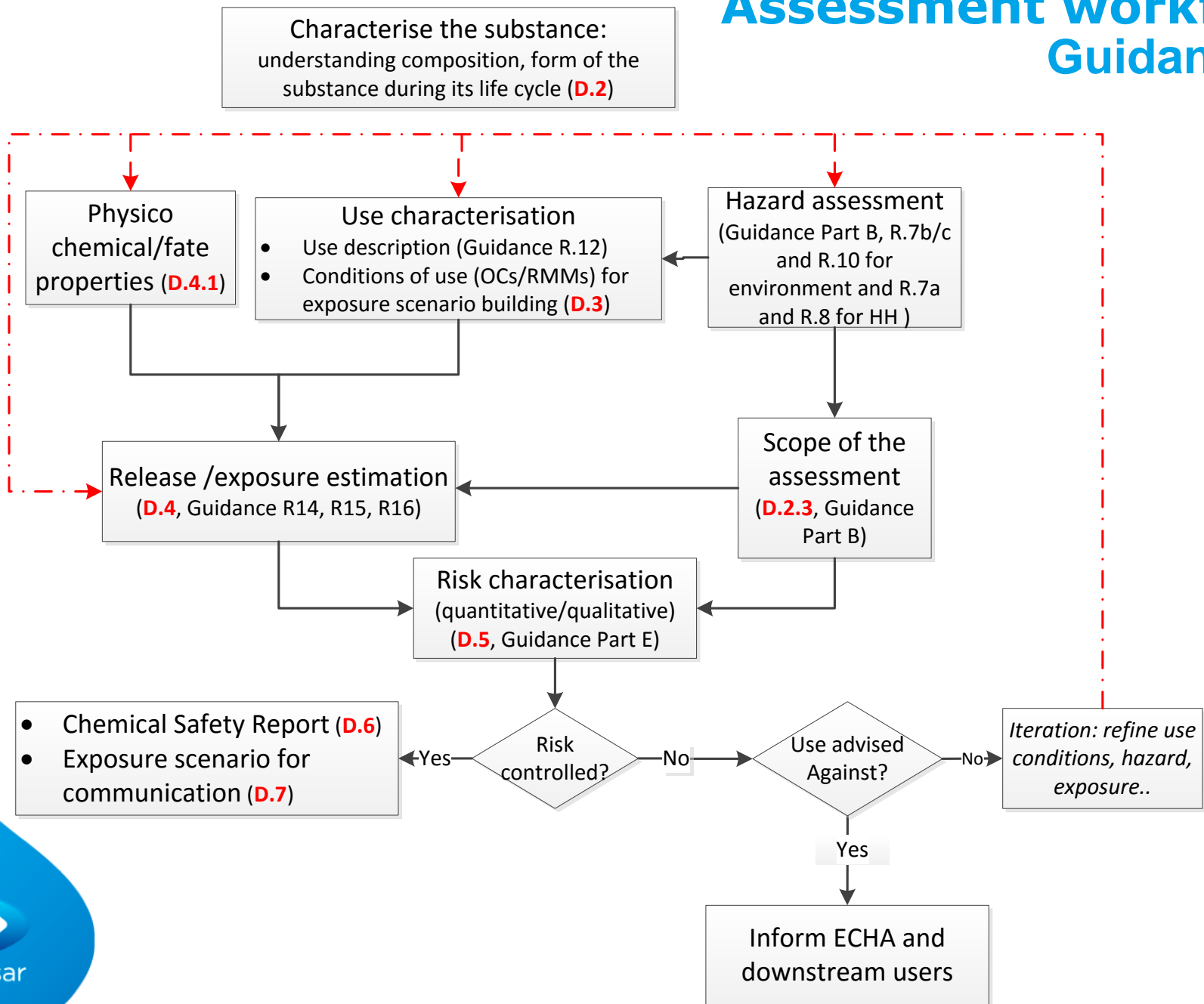


Extract ES for extended SDS



Export to companies EHS systems (ESComXML)

Assessment workflow Guidance D



Terminology

Life cycle: use

Use name

Contributing activity (CA) name for environment + ERC

Contributing activity 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

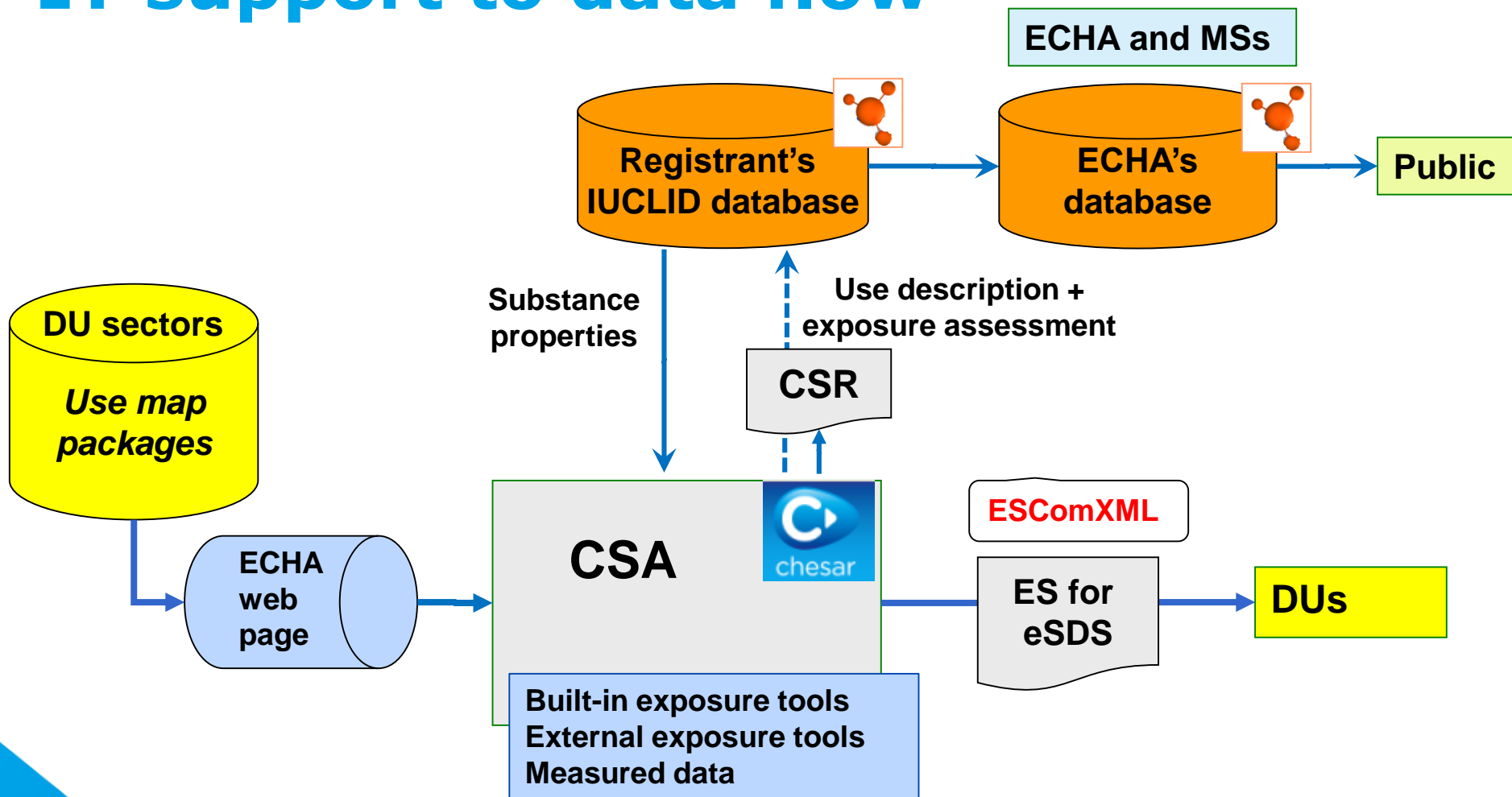
Exposure to environment (all compartm.)

Release to environment

Exposure of humans via environment

Exposure of workers for each CS

IT support to data flow



Chesar benefits (1)

- **Consistency**
 - Between 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

What is new in Chesar 3?

- Supports assessments where more than one set of (intrinsic) substance properties plays a role in the chemical safety assessment:
 - Compositions having different hazard profiles (e.g. impurity)
 - Substance transforming on use or in the environment
 - Substances where constituents behave differently
- Facilitated communication with IUCLID
- Contextual help text
- More efficient chemical safety assessment process:
 - Bulk actions
 - Risk characterisation for local effects, based on concentration
- More flexible environmental assessment:
 - Possibility to provide specific settings for the biological STP
 - Possibility to report data from other exposure tools than EUSES