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Lubricant Expo Europe 2026, Düsseldorf

Regulatory preparedness as a design capability

Using the evolving policy landscape to design safer and more sustainable lubricant products

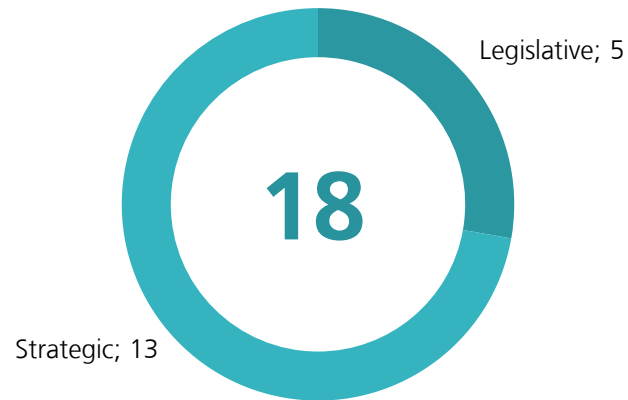
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17.09.2026

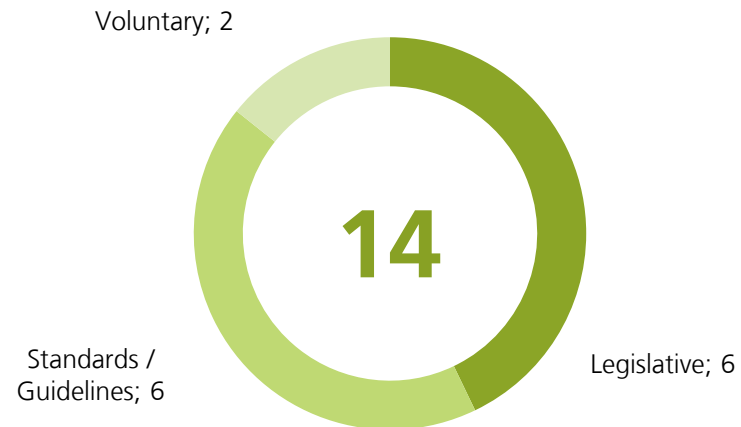
A sneak peek into the regulatory landscape

Preliminary Mapping

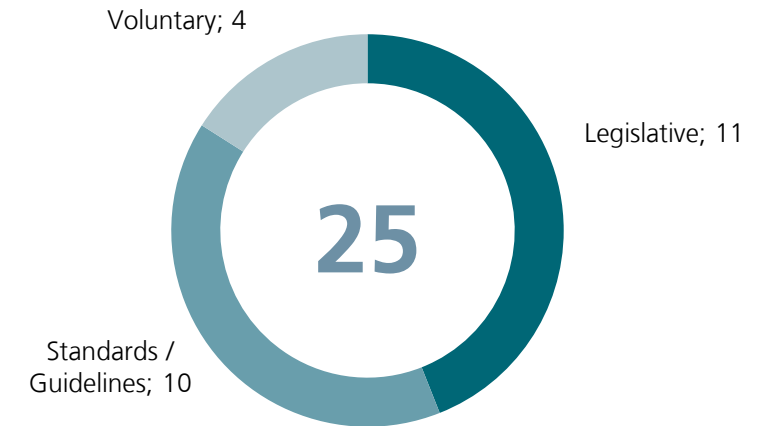
Overarching Policies



Corporate-oriented Policies



Product-oriented Policies



Not all instruments influence R&D in the same way

“which regulation applies?” VS “what design decision can a certain regulation support?”

Direct

Formulation, substance selection, product design, technical criteria, EoL pathways

REACH, CLP, ESPR, EU Ecolabel, POP, WFD

Indirect

Strategic, organisational and procurement context for R&D choices

IAA, Competitiveness Compass, CRMA, Seveso Directive, IED, GCD

Enabling

Methods, data structures, standards, reporting and assessment procedures

CSRD, CSDDD, GPP, EmpCo, PPWR, ISO norms

Four converging themes for formulation strategy

ESPR-derived hot spots

Substances of concern

Avoid, substitute or justify hazardous ingredients before they become late-stage blockers.

Life-cycle perspective

Move from product carbon footprint alone toward broader impact categories and use scenarios.

Circularity and end of life

Design for durability, re-refining, biodegradability or recoverability depending on application.

Product and supply-chain data

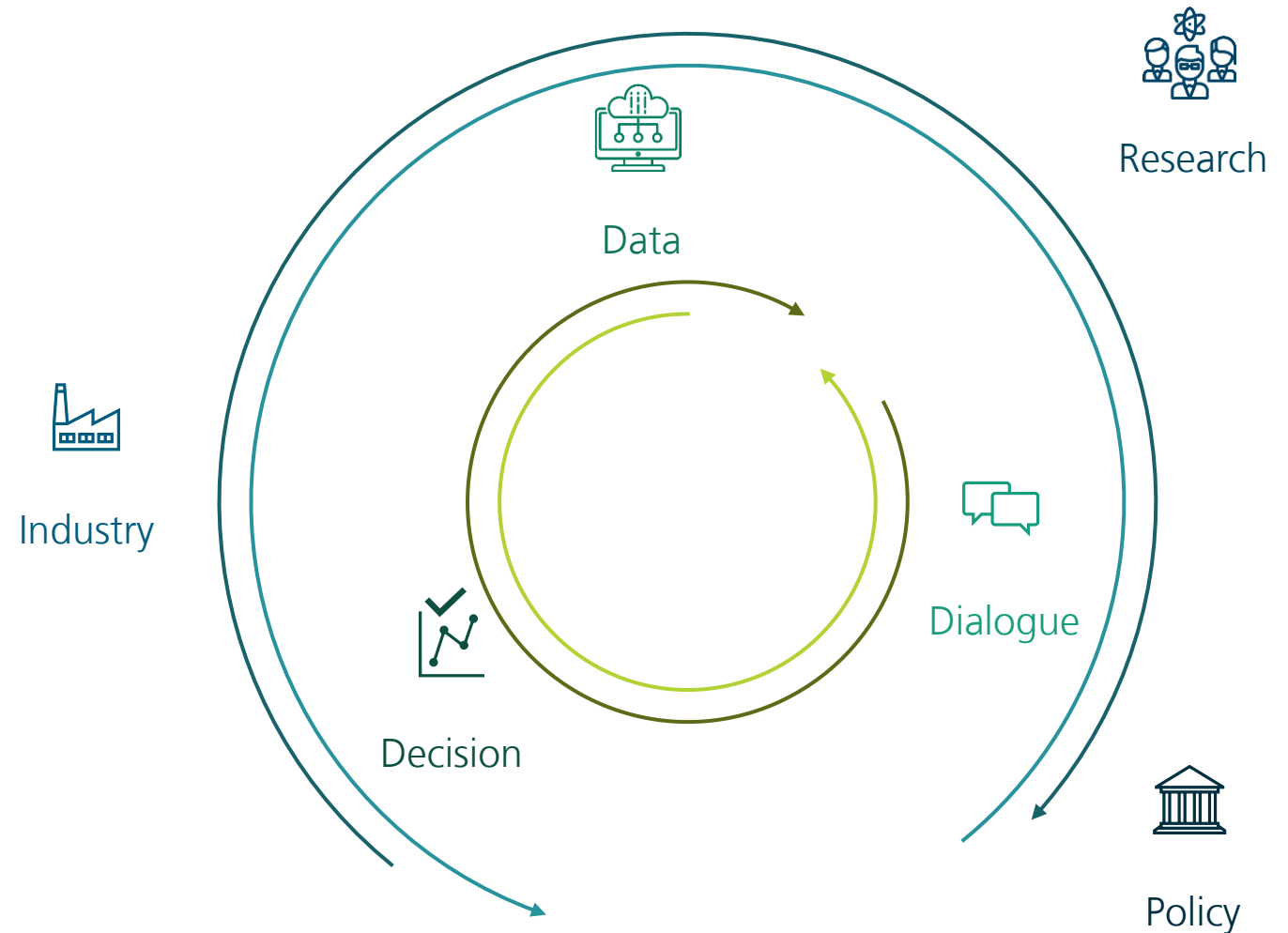
Generate traceable data for SDS, reporting, customer requests and the future Digital Product Passport.

What is SSbD?

Definition and key idea

Safe and Sustainable by Design

- A structured design and decision framework
- A method to guide innovation under increasing regulatory and market constraints.
- Fostering **data exchange**, shared decisions, and **continuous dialogue** among the key stakeholders



SSbD can organize the evidence

Integration framework



⁽¹⁾ Innovations can be triggered for example by the need of improving existing portfolios, new market/consumer requests, new ambitions and priorities and/or policy priorities
⁽²⁾ Key moment where the tailored safety and sustainability assessment is defined according to the outcomes of the scoping analysis
⁽³⁾ The safety and sustainability assessment are tailored based on the selected SSbD scenario

Scoping

define system boundaries, redesign intent, and stakeholder roles, according to the maturity of the innovation

Scenario definition

specific conditions of the SSbD assessment, intended function, realistic use context, and the object of the innovation process

Safety

Hazard, exposure and risk assessment across the life cycle

Environmental sustainability

LCA/PEF logic and hotspot identification

Socio-economic sustainability

Cost, supply resilience and social aspects

Why this matters for competitiveness

Business value

Lower reformulation risk

Anticipate restrictions and classification changes before product launch

Faster market access

Prepare evidence for ecolabel, procurement and customer requirements

Better portfolio resilience

Link substance choices to supply security, circularity and future data demands

Clearer innovation focus

Turn complex requirements into prioritised design targets



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Thank you for your attention!

Contact

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