

Embedding SSbD in the EU Regulatory Landscape

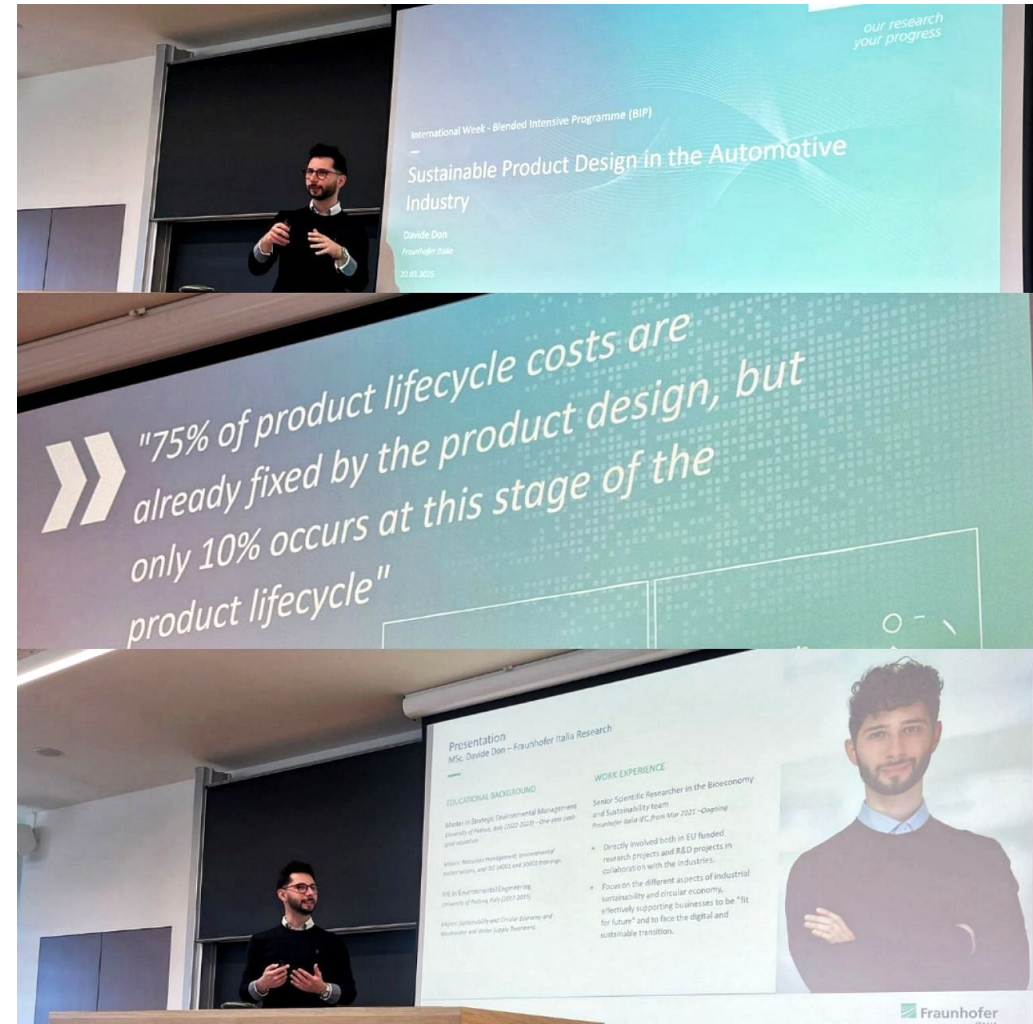
– Making Compliance Work for Innovation

Davide Don,

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Who am I

- Post Grad degree in Strategic Environmental Management at the University of Padua
- MSc in Environmental Engineering at the University of Padua
- Senior researcher on industrial sustainability at Fraunhofer Italia IEC – Innovation Engineering Center
- Project manager of public funded R&D projects (Horizon, Interreg, ERDF) and industrial ones



How does SSbD fit into the broader EU regulatory landscape?

What Is SSbD and What It Covers

Safe and Sustainable by Design (SSbD) is emerging as a key strategy within the EU's push for green and digital transformation.

Far from being a stand-alone concept, SSbD is embedded within a broad and evolving regulatory framework.



How the SSbD Framework Works

SCOPING PHASE

The Scoping Phase helps innovators define system boundaries, redesign intent, and stakeholder roles, according to the maturity of the innovation.

The Assessment Phase builds on this by evaluating intrinsic hazards, occupational and user exposure, environmental lifecycle impact, and (optionally) socio-economic performance.

ASSESSMENT PHASE

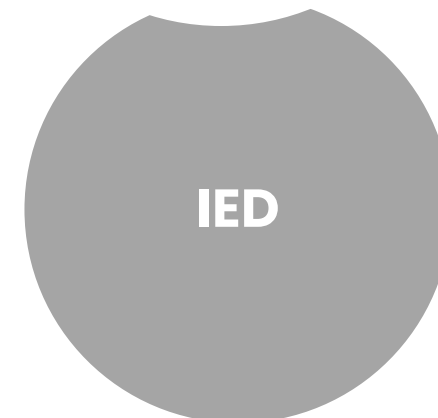
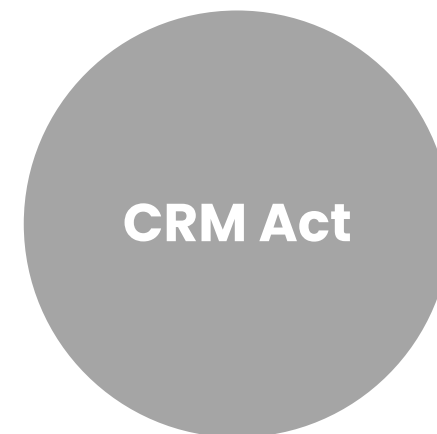
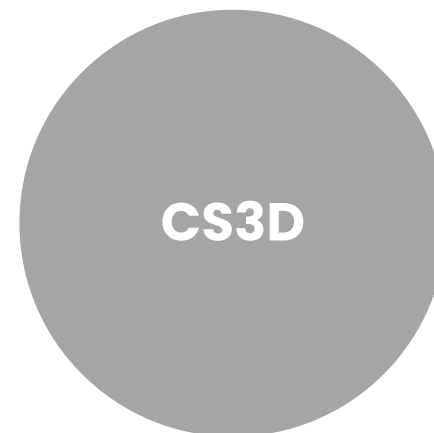
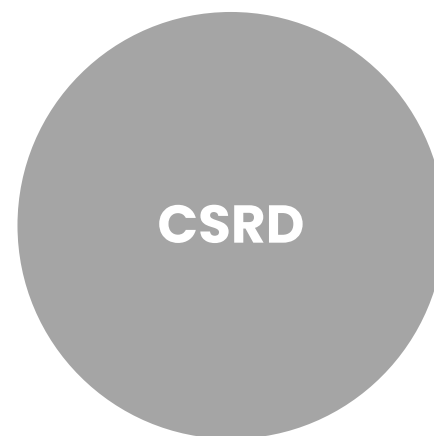
Policy Anchors for SSbD

These policies define broad ambitions—climate neutrality, pollution reduction, resource efficiency—and SSbD translates them into concrete product and process requirements.



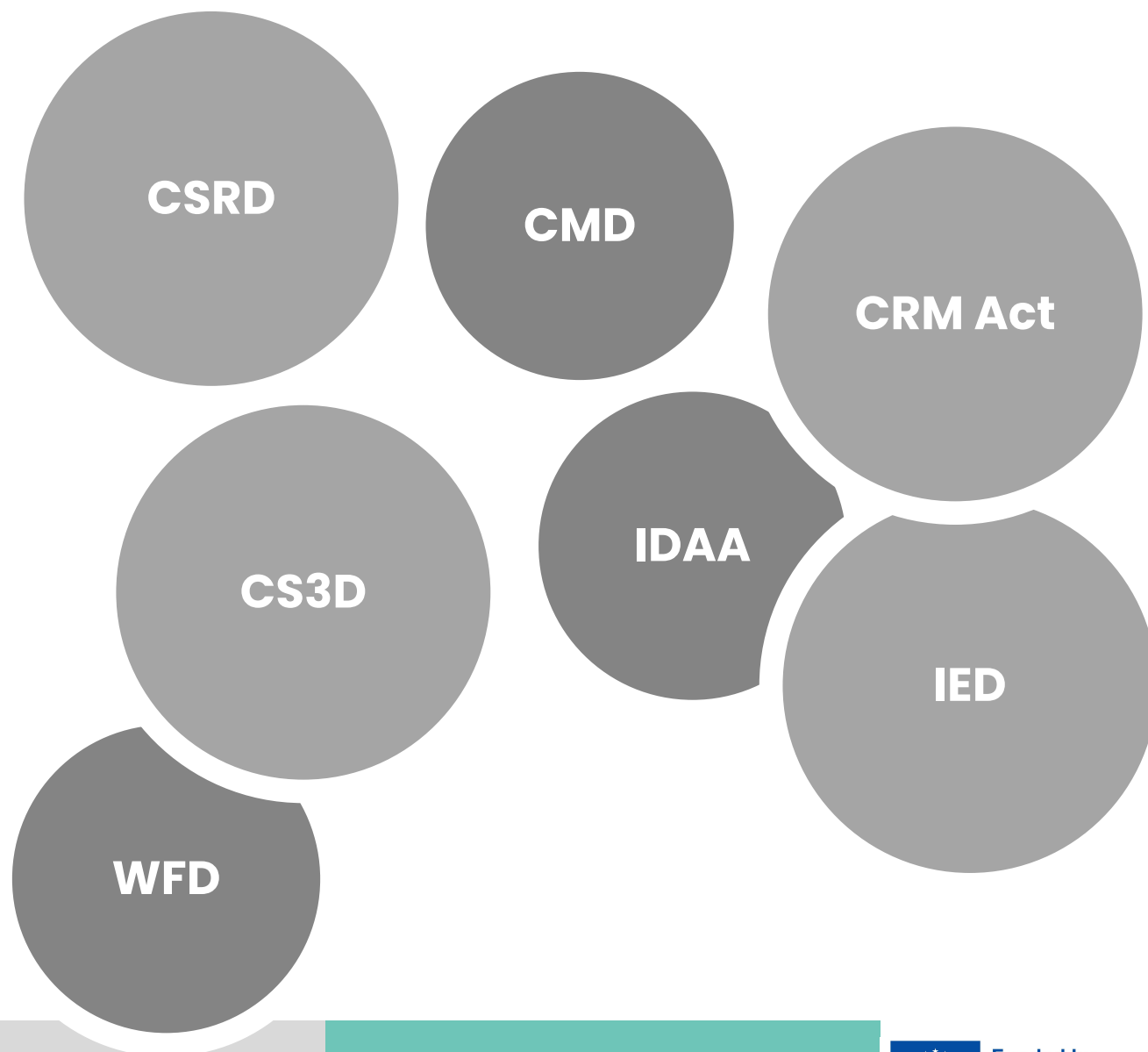
Corporate-Level Regulatory Alignment

In a more direct or indirect way, SSbD also aligns with regulatory instruments that shape corporate behaviour and supply chain governance.



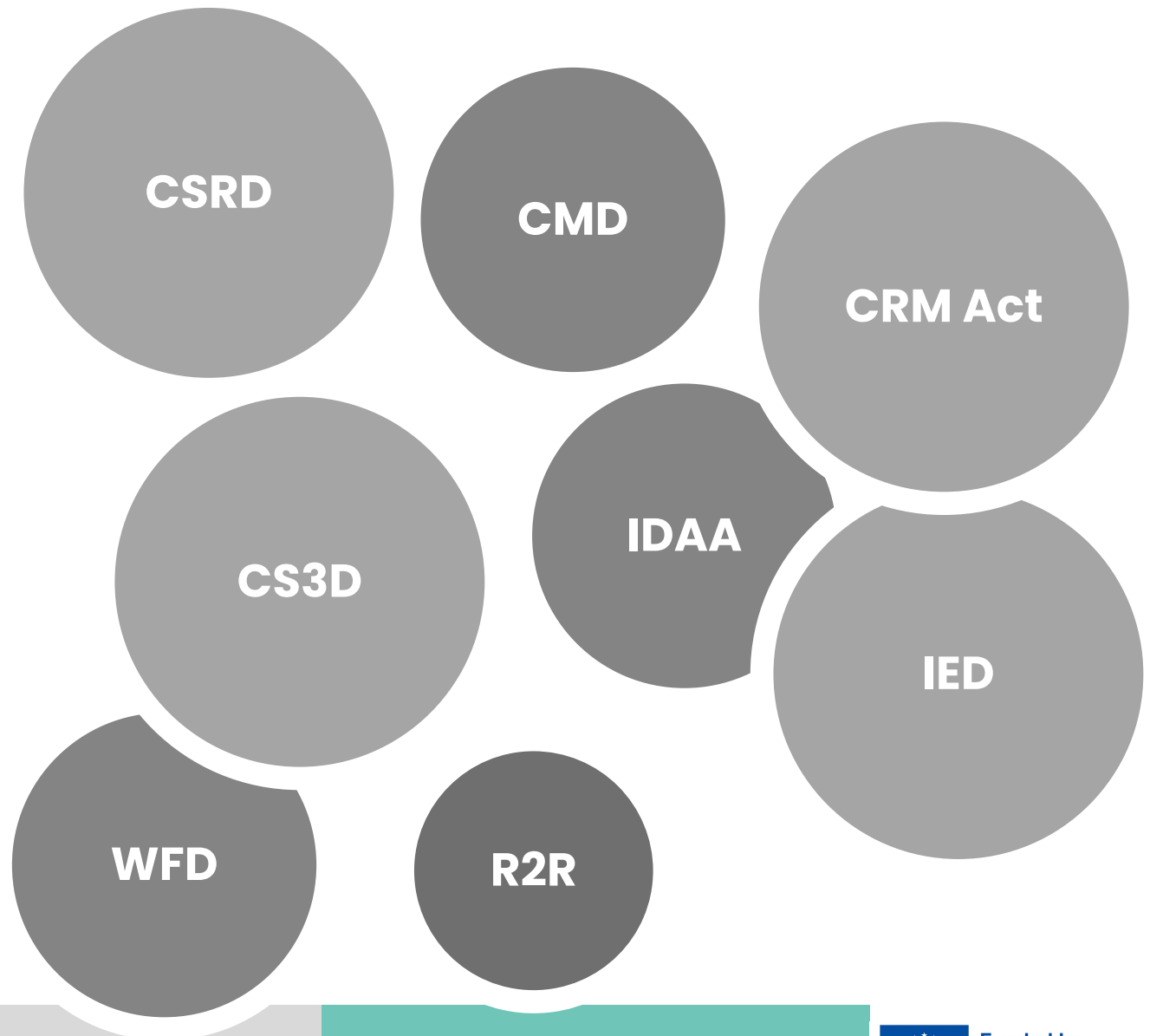
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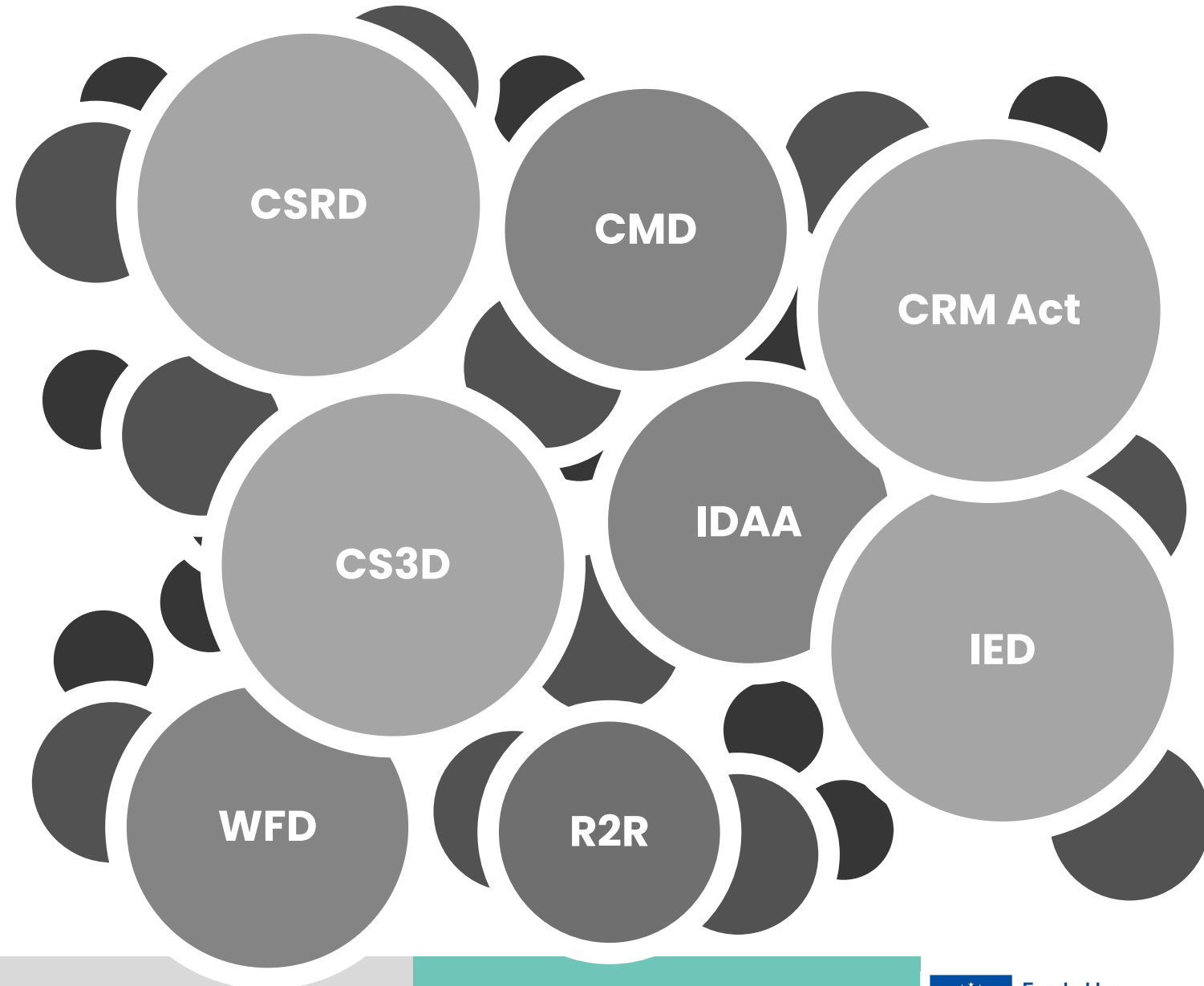
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Product-Level Regulations Supporting SSbD

SSbD draws practical guidance and boundary conditions from a range of product-oriented policies.



REACH

CLP

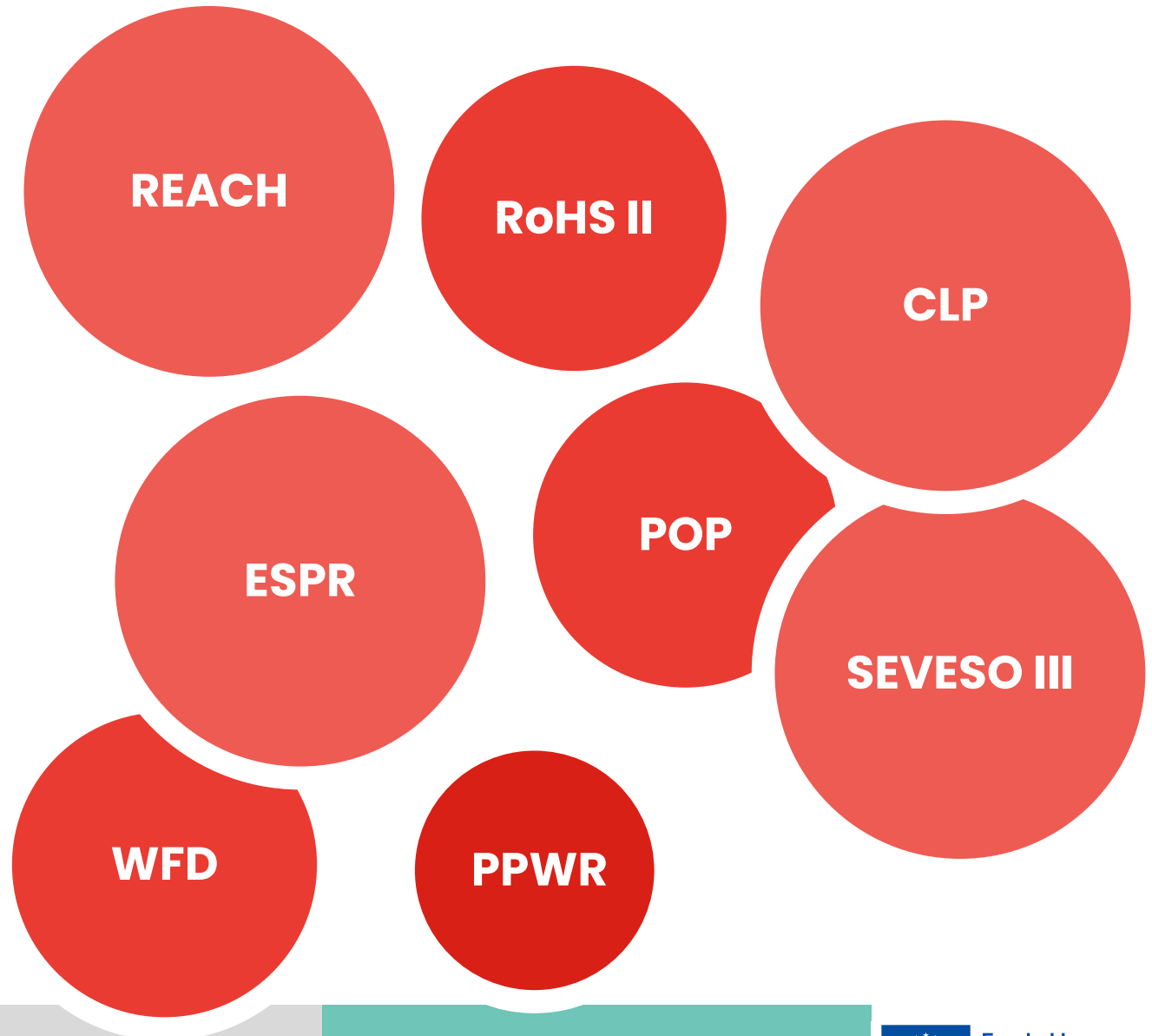
ESPR

SEVESO III



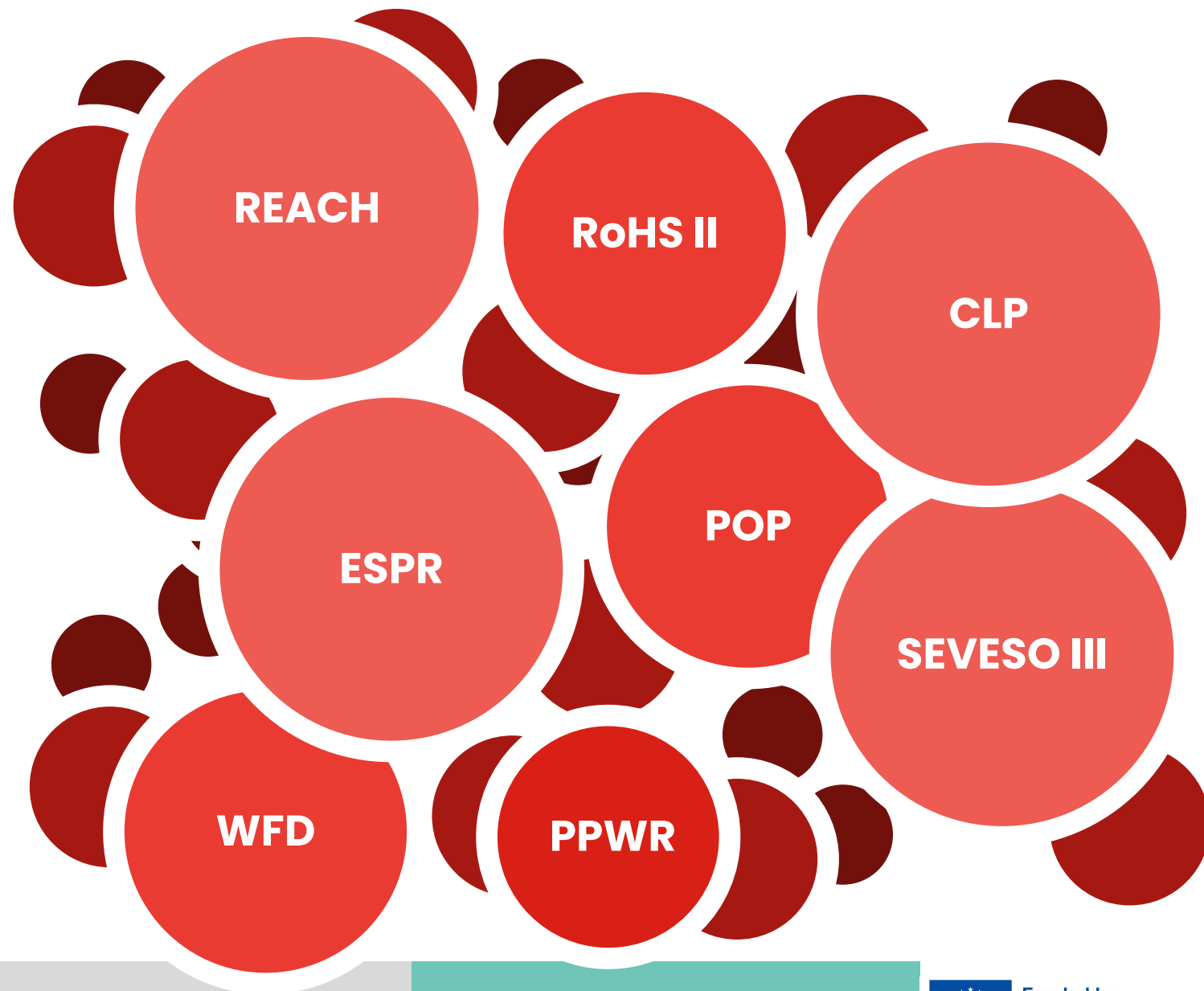
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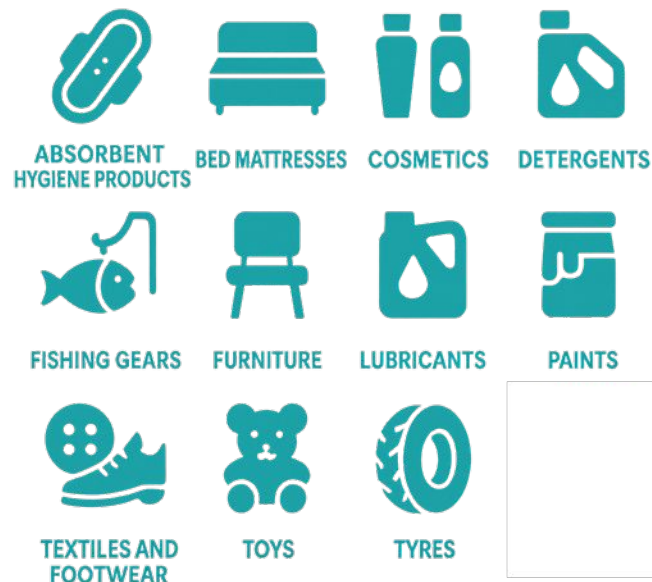
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ESPR Final and Intermediate Product Groups

ESPR (Ecodesign for Sustainable Products Regulation) is a 2024 EU regulation that aims to make products sold in the EU more sustainable by setting ecodesign requirements across their lifecycle, including durability, reparability, recyclability, presence of Substances of Concern, and environmental footprint.

FINAL PRODUCT GROUP



INTERMEDIATE PRODUCT GROUP



ESPR Working Plan shortlisted Product Priorities

FINAL PRODUCT GROUP



INTERMEDIATE PRODUCT GROUP



ESPR Delegated Acts and Digital Product Passport

Delegated acts will provide detailed sustainability requirements for these product categories.

These delegated acts serve as a roadmap for product innovation, helping companies apply SSbD principles in a way that anticipates compliance and aligns with evolving legal expectations.



- Digital record with key product information
- Covers materials, origin, impact, repair, recycling
- Aims to support sustainability and circular economy
- Used by manufacturers, consumers, recyclers, regulators
- Boosts transparency and traceability

Key Takeaways

- The EU regulatory landscape forms a **coherent and supportive ecosystem** within which SSbD can thrive.
- It draws from broad strategies and detailed regulations to provide:
 - innovators with **direction, criteria, and actionable standards**,
 - companies with the **tools to innovate while future-proofing their design process, production and ultimately credibility**.

Key Takeaways

***SSbD does not run parallel to compliance
—it is strengthened by it, and it has the
power to transform compliance into a driver
of smarter design.***

Thank you for your attention!

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