

The international ecosystem for accelerating the transition to Safe-and-Sustainable-by-design materials, products and processes

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Funded by the
European Union

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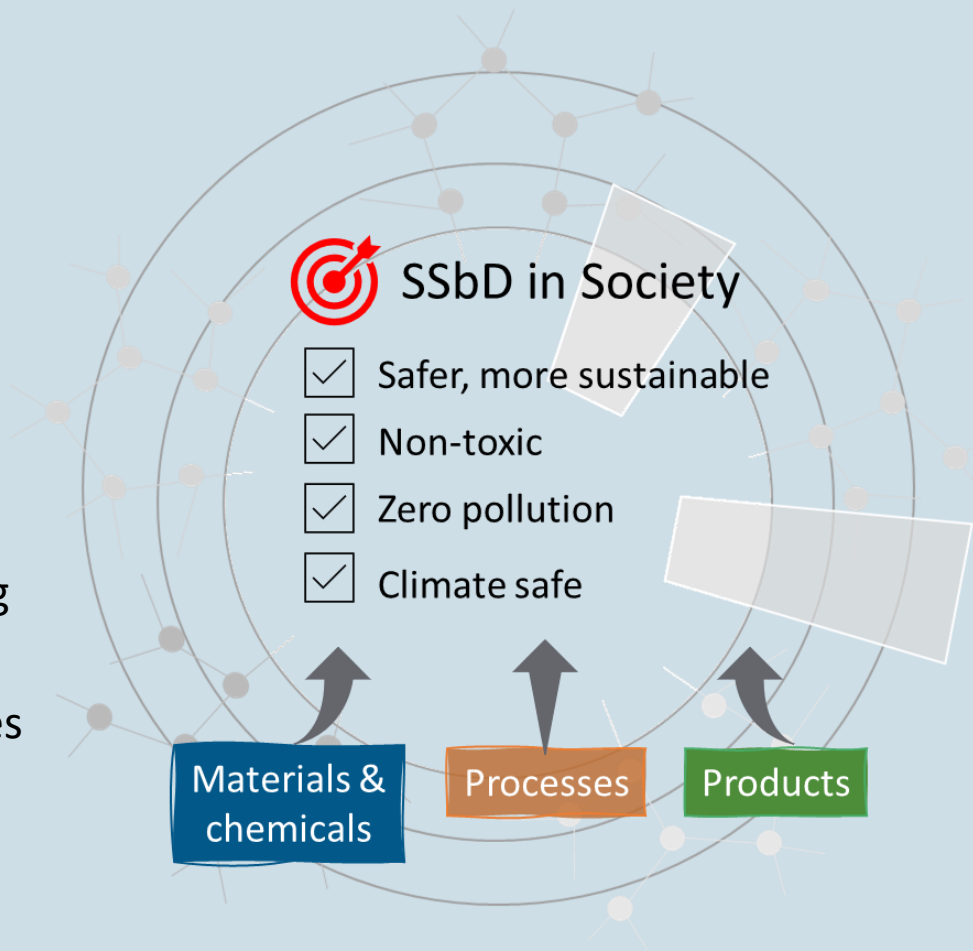
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Scope of the project

The IRISS project aims to connect, synergize and transform the SSbD community in Europe and globally towards a life cycle thinking

- Develop a **global permanent network** for long term cooperation between the networking members, engaging partners beyond the consortium, throughout and beyond the duration of the project
- Strongly support the **SSbD implementation** in industry **along value chains** to achieve more safe and sustainable products for society
- Focus on **materials including both products and processes**, considering the extensive progress to-date in chemicals and nanotechnology fields
- Establish cooperation mechanisms with relevant international initiatives to **align** and leverage the extensive international community
- Establish **synergy** with industry, EC and the projects that are working with SSbD concepts
- Building, sharing and transferring the **skills and knowledge** on SSbD



Our partners and network



National Institute for Public Health
and the Environment
Ministry of Health, Welfare and Sport



Materials Science and Technology



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Activities

- Raising general **awareness** on SSbD concept and contributing to **common understanding** of the SSbD concept
- Supporting implementation of the SSbD concept in various **value chains**
- Supporting implementation of the **EU SSbD Framework**
- Facilitating dialogues with **experts**
- Participating in **project and policy collaborations**
- Contributing to and organising **events and trainings** with diverse audiences
- Building the **international** SSbD community



Reports

Take part of the reports pro

- Sustainable-by-Design meth
[Executive summary](#)
- Analysis of the value chains,
☞
- Analysis of lifecycle steps, th
[report on Cordis](#)
- Mapping of Safe-by-Design
[Executive summary](#)



News and events

News and event from the IRISS project.

- Read [news from IRISS-project here](#)
- Read about the [events we organise or participate in here](#)
- Read our [newsletters](#)
- Read about [our previous events](#)

Towards an efficient science-policy-industry interface

Building structural and efficient knowledge and information sharing process and network



Science:

- Initial steps on operationalization of SSbD
- IRISS-NSC collaboration
 - IRISS-PARC collaboration
 - IRISS- H2020 and HE projects
- Bringing science to harmonization and standardization
- IRISS-OECD synergies



Policy:

IRISS structural dialogue with:

- EC RTD
- EC JRC



Industry:

Cefic coordinates SusChem NTPs and 7 value chains representatives

- **Packaging** (IPC; Industrial Technical Centre for Plastics and Composites)
- **Textiles** (ETP; EU Technology Platform for the Future of Textiles & Clothing)
- **Construction chemicals** (EFCC; European Federation for Construction Chemicals)
- **Automotive** (CLEPA; European Association of Automotive Suppliers)
- **Energy materials** (EMIRI; Energy Materials Industrial Research Initiative)
- **Electronics** (INL; International Iberian Nanotechnology Laboratory)
- **Fragrances** (IFRA; The International Fragrance Association)



Roadmaps: commonalities for value chains

- **Minimize the use of critical raw materials** can be achieved in research and development of advanced materials with similar or enhanced functionalities.
- **Renewable** raw materials
- **Alternatives** for chemicals of concern/hazardous chemicals as precursors or reactants, catalysts or solvents
- Safety and sustainability should be embedded in any search for **better performance, for advanced properties** or any **substitution of chemicals**
- **Production processes**/Design for reduced GHG emissions (On site waste reduction/recovery, Scale-up investment requirements including demonstration plants, Process control/**Digitalization**)
- **Microplastics elimination**
- Design for **durability/extension** of lifetime
- Design for **dismantling** (multicomponents)



Barriers and lessons learned

- **Lack of SSbD awareness** within small company, especially outside the Chemical Industry value chain (far from substitutions of chemicals of concern)
- Current SSbD framework is **more suitable for chemical substitution** and not so much for articles developments with several components at the end of the value chains
- **Complex** and resource-intensive, **lack of resources** for safety and sustainability evaluations
- Potential **confidentiality issues** arise when downstream stakeholders rely on suppliers without full information
- **Difficult to assess** circularity, durability and sustainability in SSbD assessments
- Need for a **trade-off guidance**: crucial for balancing functionality and sustainability aspects in the innovation process

Skills and knowledge

- **Strong skills on safety** – different focuses per value chain – in-house/suppliers
- **Innovation/technical skills**: functionality/cost + sustainability
- **Skills on sustainability are less mature**, need for more internal knowledge, heavily depending on strategy/market demand/Investment capacity
- **Sustainability** in the industrial research is attractive to Young Professionals
- SSbD requires a **general understanding** of chemistry and material science
- All interviewees call for a **common tool** adjusted to the sector





IRISS

Accelerating the Industrial Transition with Safe-and-Sustainable-by-Design



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The IRISS SSbD Community



Welcome to the IRISS Community space!

Everything you need to know when using this forum.

[Member](#)



Automotive

The space for the automotive value chain



CLEPA
European Association of Automotive Suppliers



Construction

The space for the construction value chain



EFCC
European Federation for Construction Chemicals



Electronics

The space for the electronics value chain



INL INTERNATIONAL IBERIAN NANOTECHNOLOGY LABORATORY



Textile

The space for the textile value chain



ETP
Fibres Textiles Clothing
EUROPEAN TECHNOLOGY PLATFORM



Energy materials

The space for the energy materials value chain



EMIRi
ENERGY MATERIALS INDUSTRIAL RESEARCH INITIATIVE



Fragrance

The space for the fragrance value chain



ifra The International Fragrance Association



Packaging

The space for the packaging value chain



IPC
Industrial Technical Centre for Plastics and Composites



Safe-and-Sustainable-by-Design (SSbD)

Everything you need to know about SSbD.



LEUPHANA
UNIVERSITÄT LÜNEBURG



National Institute for Public Health and the Environment
Ministry of Health, Welfare and Sport



ivl
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Community



Information



Value chain engagement

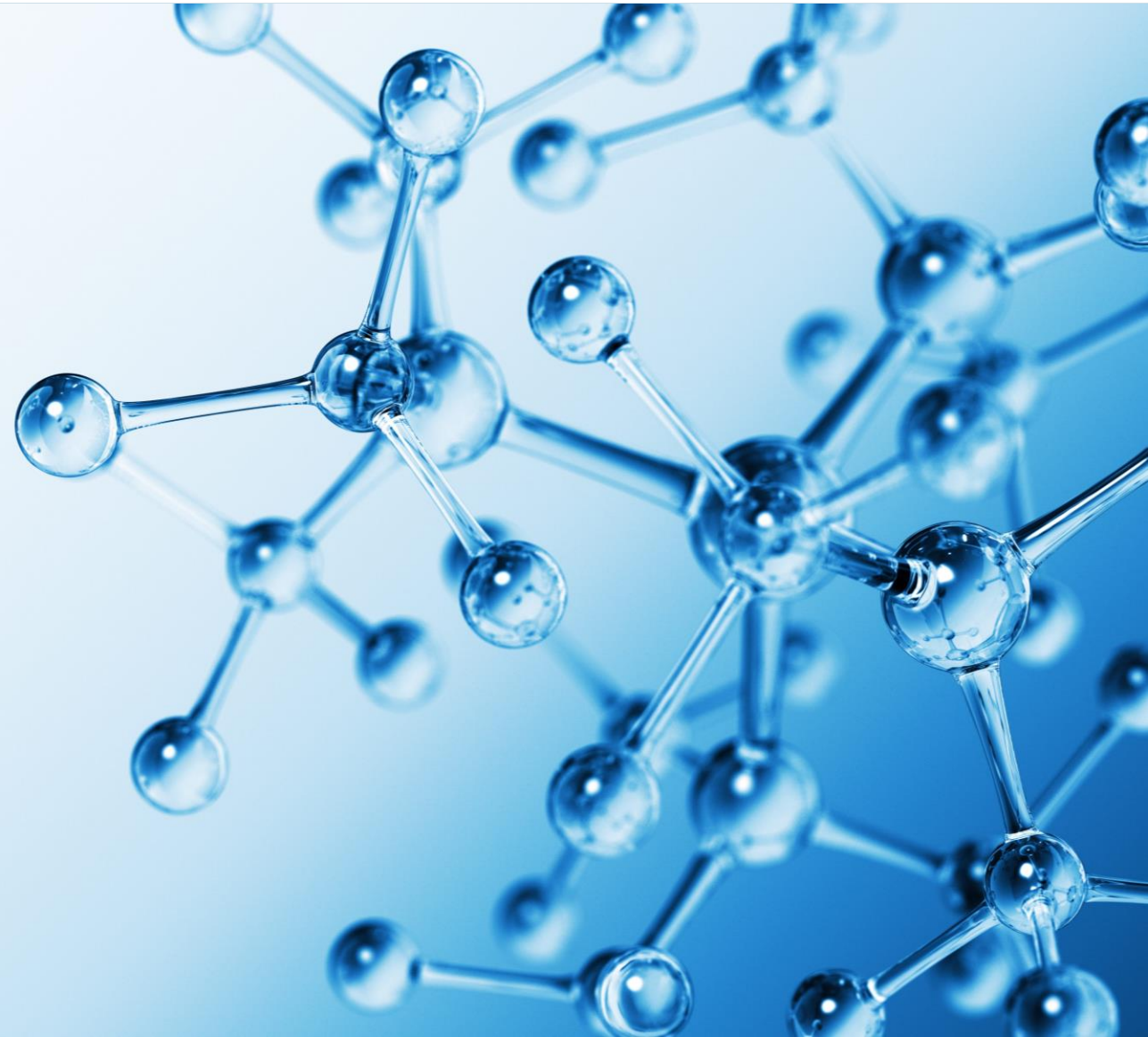
Ongoing activities

- Further development of the **IRISS SSbD community platform** (collaboration and knowledge sharing) and services
- Development of **roadmaps**
- Reaching out to Innovative **SMEs** through national networks (e.g. SusChem)
- Collaboration with newly started/starting **HE projects**
- Engagement with different **stakeholders**
- Expanding the **SSbD community**
- Contribution to the **EU SSbD framework**



Join the community

- Free membership until November 2024 (limited)
- Scan the QR code
- Read more at iriss-ssbd.eu



Contact and more information

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www.iriss-ssbd.eu



#IRISS_SSbD

IRISS – International SSbD network



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