



PLANETS



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Horizon Europe research and innovation programme
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RESILIENCE- 21/22/23/24 Networking



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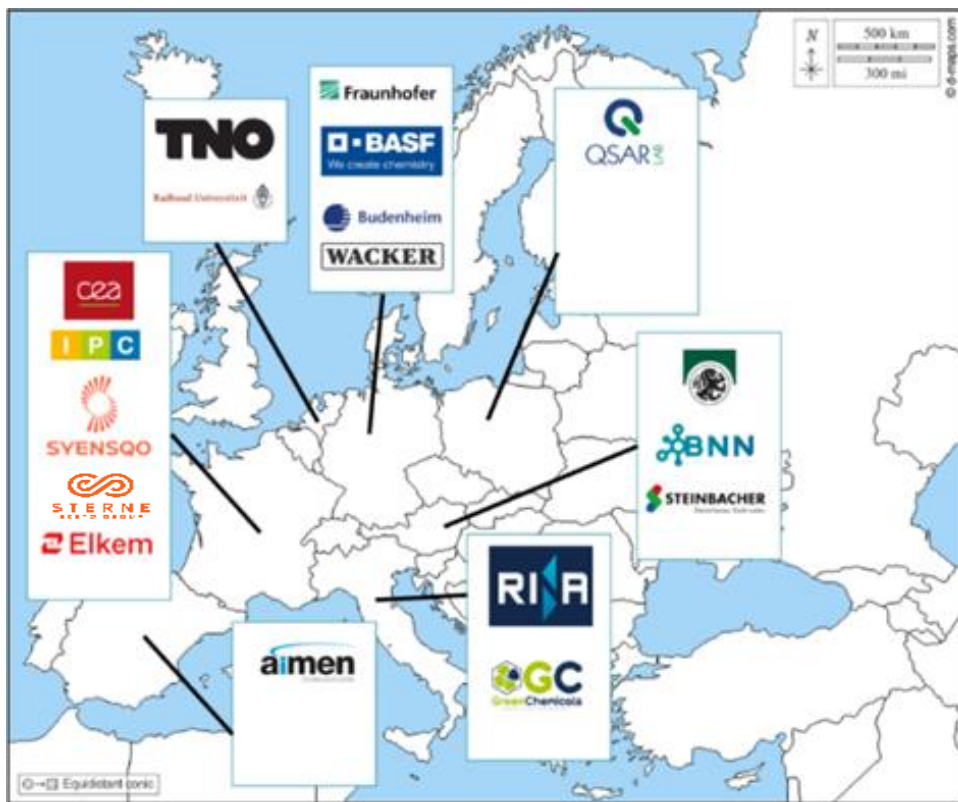
Joséphine STECK – CEA.

29/11/2024



Plasticizers, flame-retardants and surfactants: new alternatives validating the safe and sustainable by design approach

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Call: CL4-2024-RESILIENCE-01-24 “Development of safe and sustainable by design (SSbD) alternatives (IA)”

Coordination: CEA

Beneficiaries: 18 partners from 7 countries

- 7 **IND** (SQO, WCK, ELKEM, GC, BASF, BDH, SBCH),
- 3 **SMEs and large companies** (STERNE, RINA, QL),
- 5 **RTO** (CEA, TNO, IPC, ICT, AIMEN),
- 3 **non-profit organizations** (PLUS, BNN, RU)

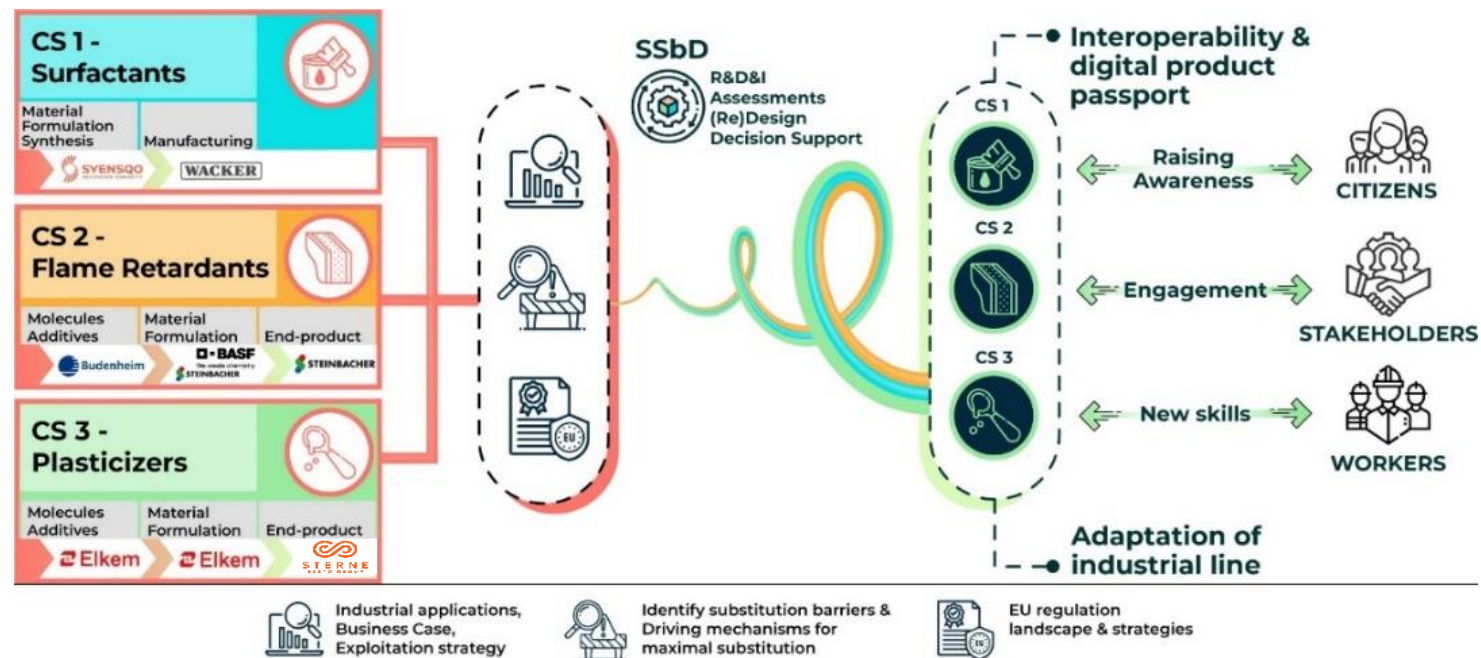


Objective

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PLANETS will demonstrate the **applicability of the Framework** on the **technical development of alternatives** to 3 of most important classes of molecules in chemical industries (**plasticizers, flame-retardants and surfactants**) at **TRL 6** and their incorporation into broadly available **consumer goods at TRL 7**. The new molecules and products will be **significantly safer to workers and consumers**; will have considerably **lower environmental impact**, while ensuring **economic viability** and **social awareness** throughout the **3 value chains**.

The main principle will be to **eliminate SoCs** by selecting **safer alternatives** and/or by **redesigning production** processes to **minimize** the formation of **hazardous substances**. **Material efficiency** and **energy efficiency** will also be among the key design principles to be explored through the PLANETS project.





Specific objectives

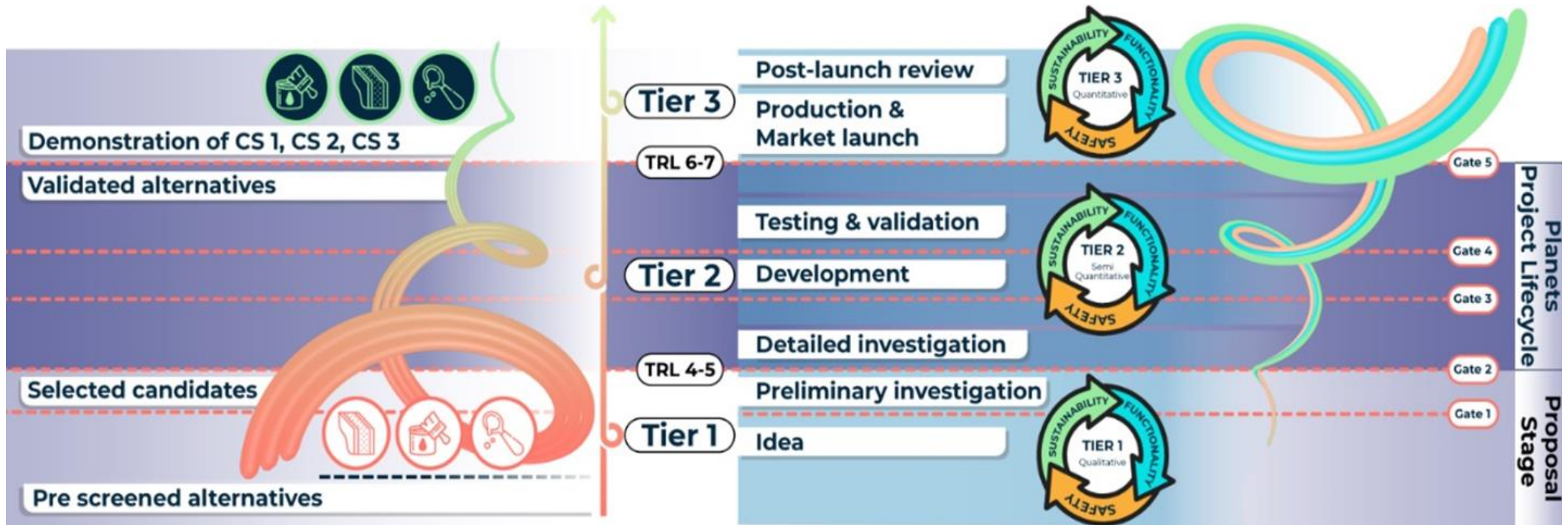
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Overall methodology and concept

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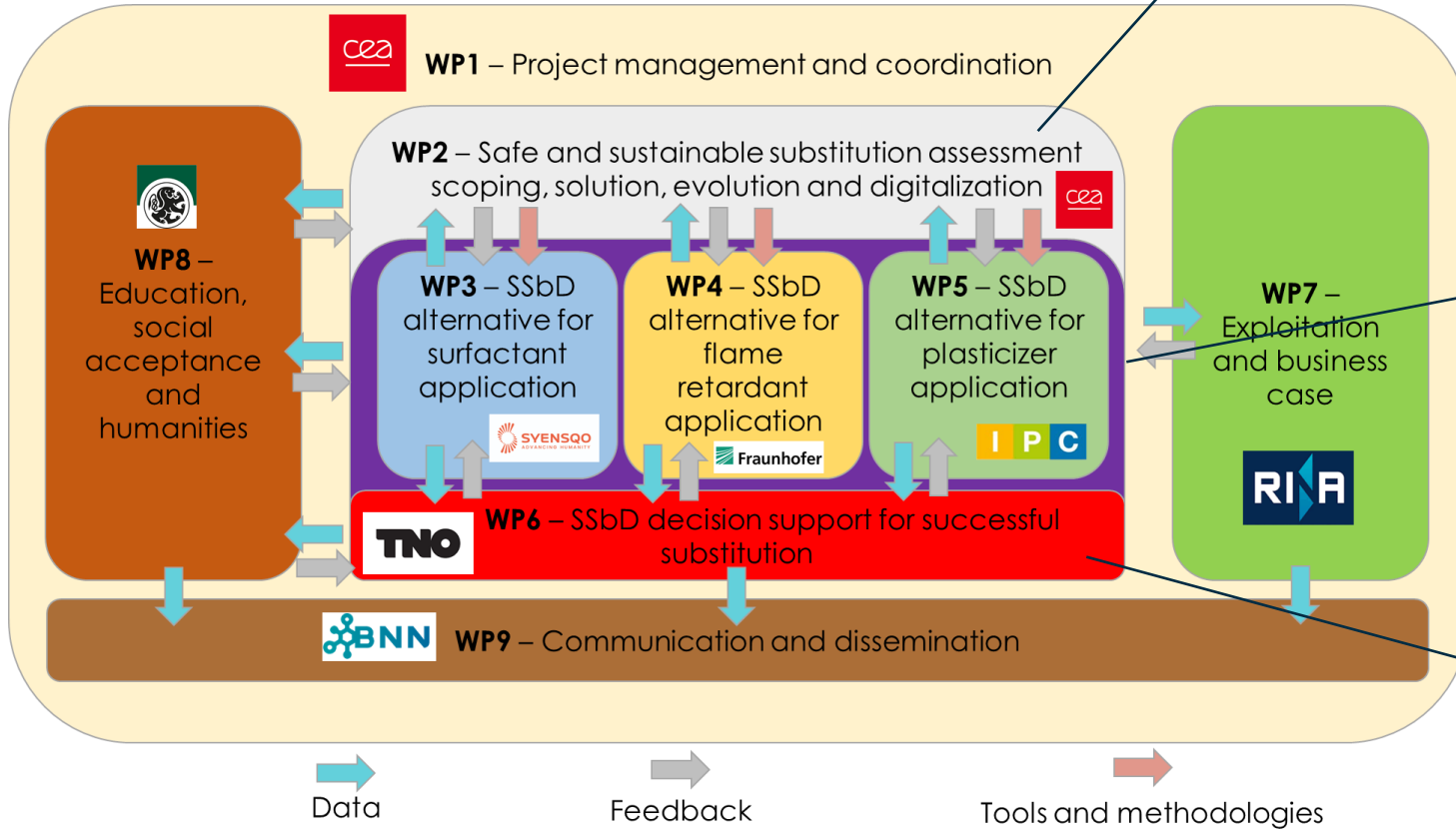




SSbD Organisation

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Inventory of **existing methods/tools** and elaboration of the **SSbD strategy** to be implemented with regard to the challenges of each CSs
 Incorporation of **industrial design principles**
 FAIR data



Development of **alternatives**
SSbD assessment
 Digital product passport **DPP**

Consolidation of methodology
Support for industry for future substitution
Feedbacks within the project and to stakeholders, legislators...



THANK YOU



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