



“PFAS-Free Solutions for the Textile and Packaging Industry”

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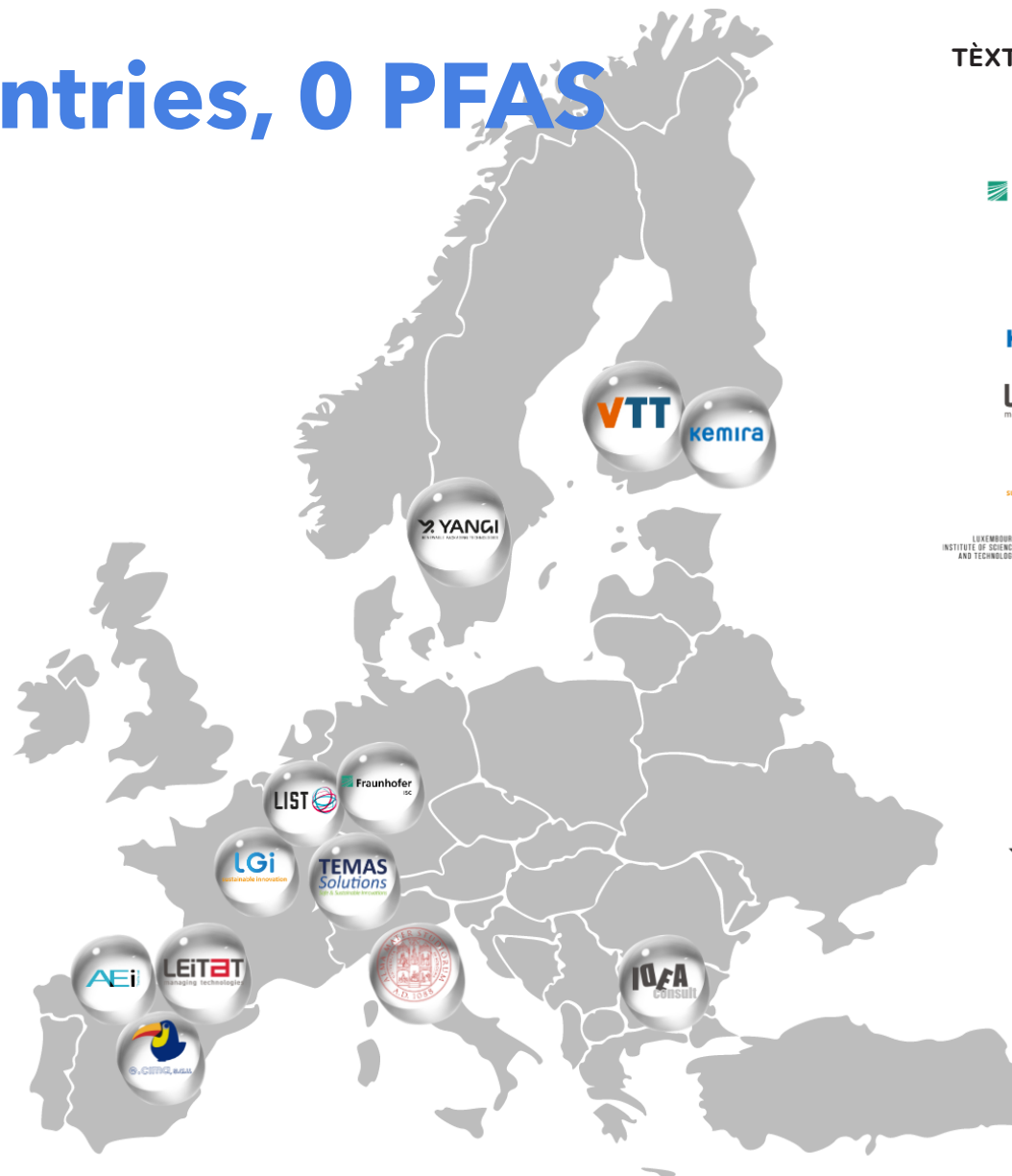
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ZeroF - 12 Partners, 9 Countries, 0 PFAS

About ZeroF

- EU Consortium of 12 partners from 9 countries
- Coordinated by VTT, Finland's leading research centre



Circular
Bio-based
Europe
Joint Undertaking



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the European Union



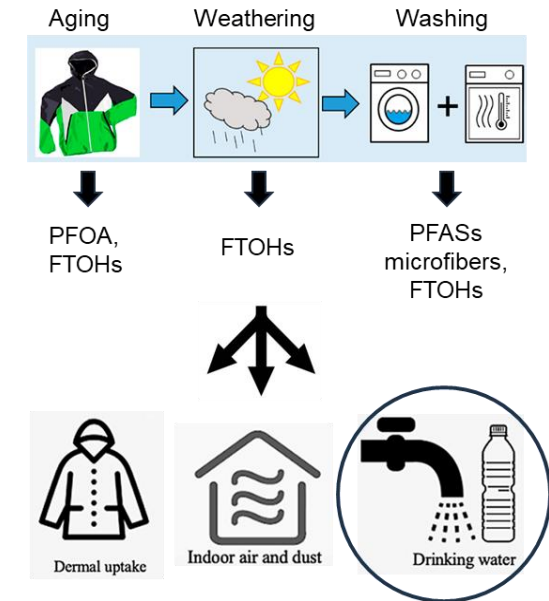
Bio-based Industries
Consortium

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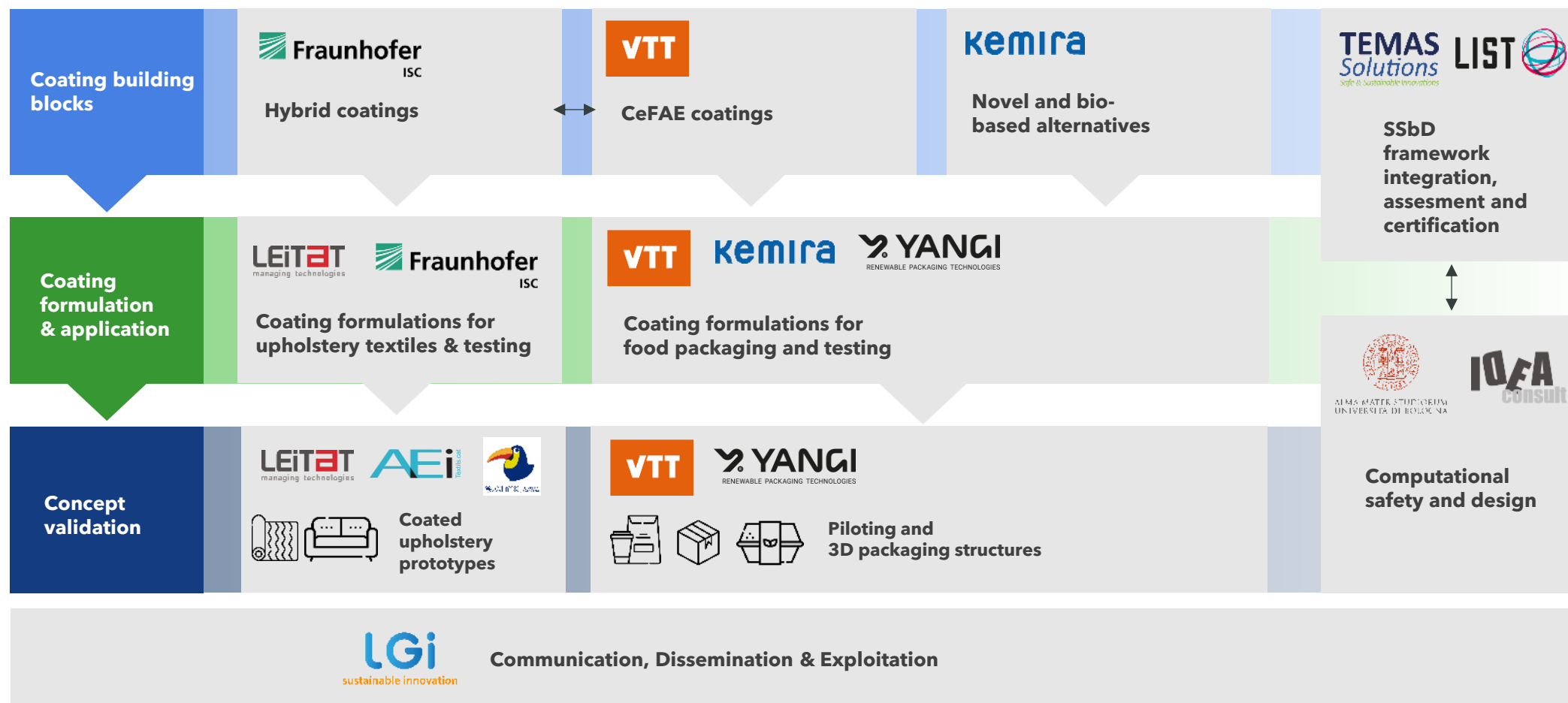


ZeroF scope and solution

- Development of a new PFAS-free barrier material and coating technology for **moulded packaging applications**
- Development of silicone-based organic-inorganic hybrid coatings (based on **Ormocer technology**) applicable to **upholstery textiles**.



Methodological Framework



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LCA computational challenges

Inventory data limitations at the chemical product level

- Challenges in retrieving synthesis laboratory data. Data collection is time consuming and tedious
- Data gaps at database level for several chemical precursors used. Several reactants missing and their production was estimated from literature data or from the generic stoichiometric reaction
- Difficulty in predicting the degradation/transformation products of the novel substance and the quantification of their impact assessment

Reference material

- PFAS composition and production is covered by trade secret, so the assessment of the reference scenario is based on very few generic literature based datasets. This lack of transparency introduced a bias towards the bio-based production process





THANK YOU

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