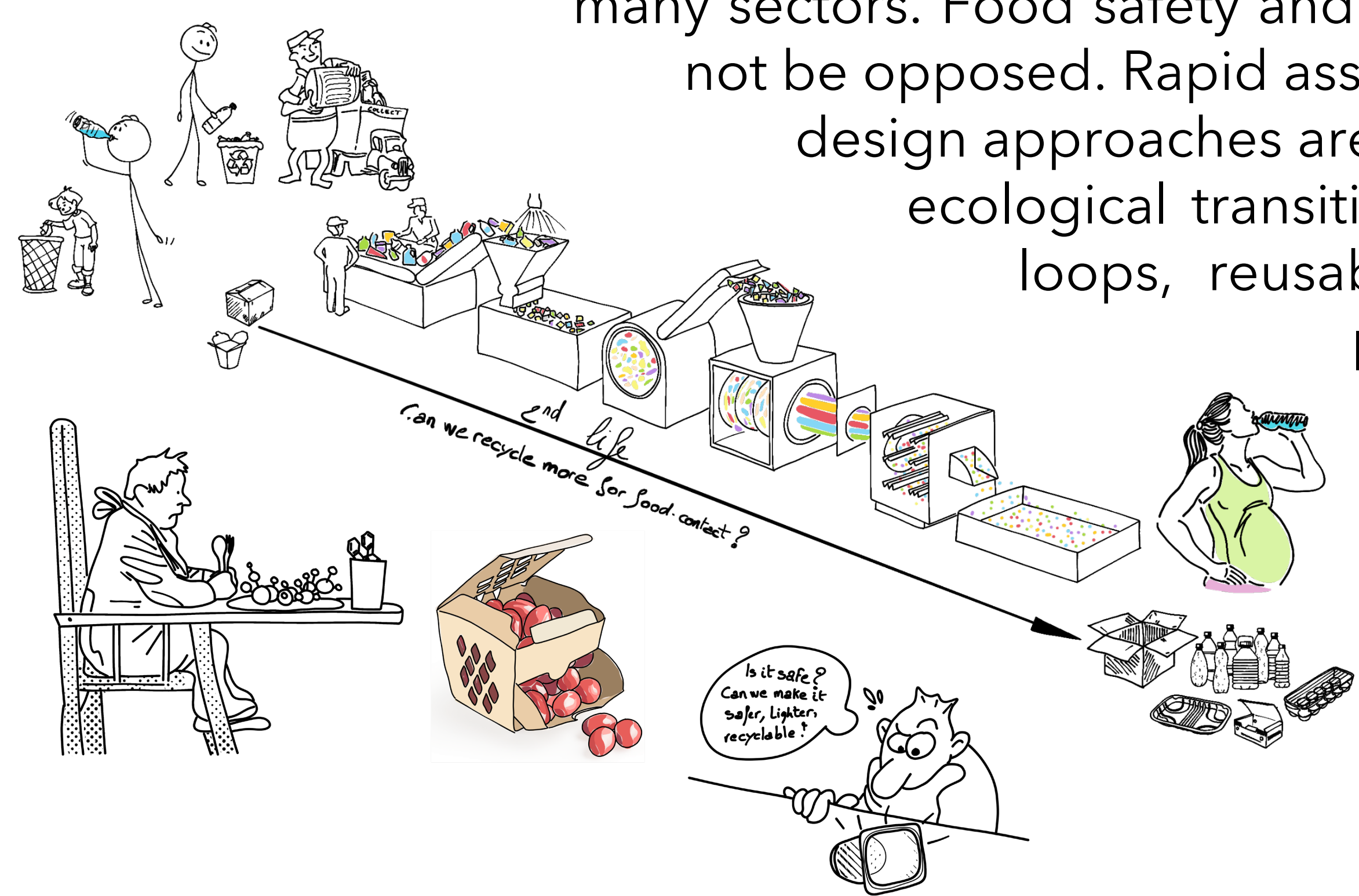


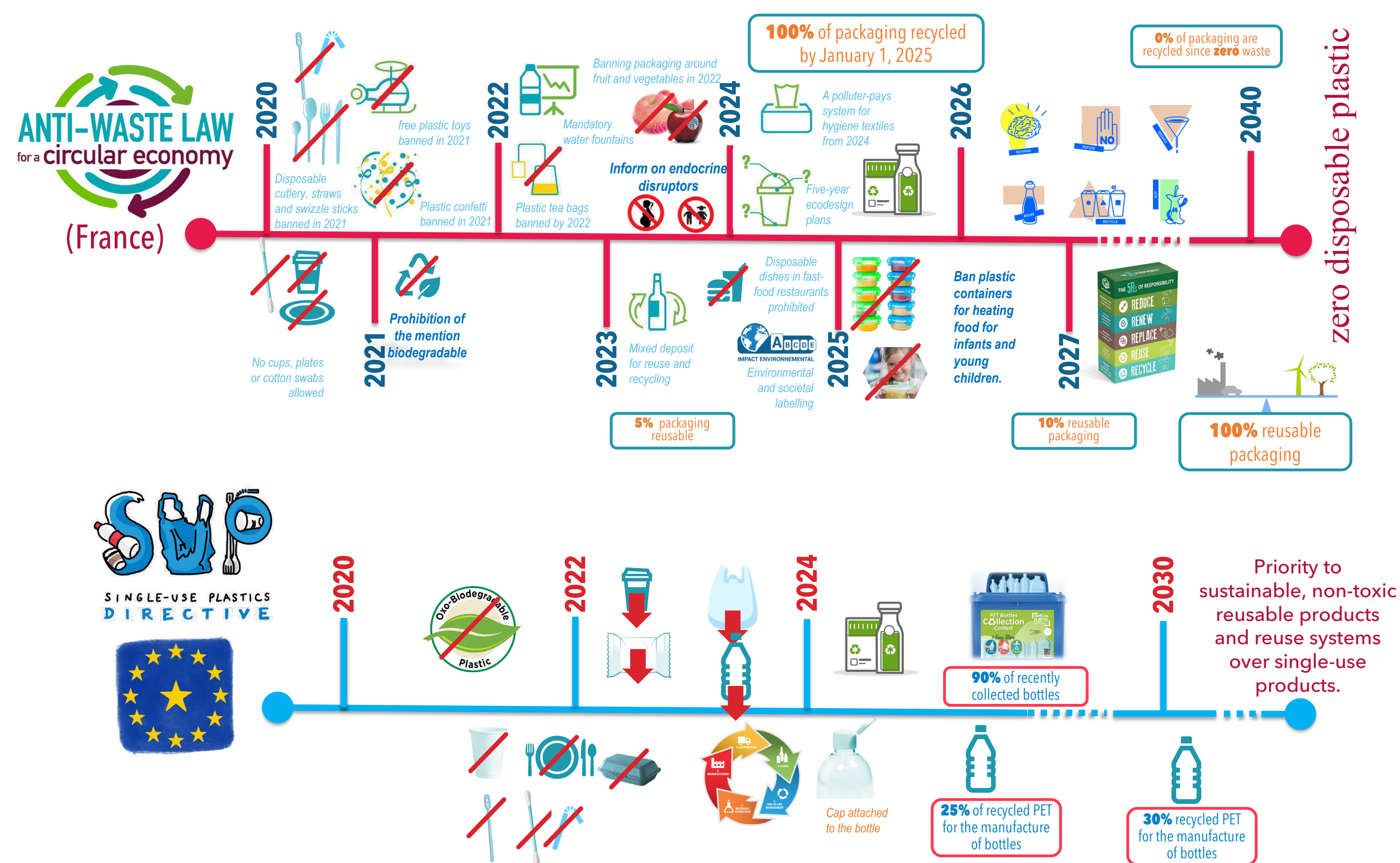


Context

The new laws and environmental pacts impose new food packaging practices, which are currently reshaping many sectors. Food safety and environment stakes must not be opposed. Rapid assessment and safe-by-design approaches are essential to the ecological transition: food-grade recycling loops, reusable and returnable food packaging.



The unit SAFEMAT is committed to the support of the entire chain of value.



Who we are



Multiscale modeling
Integrated engineering
Holistic risk assessment



Key figures

Created in 2017 (collaborations since 2006)

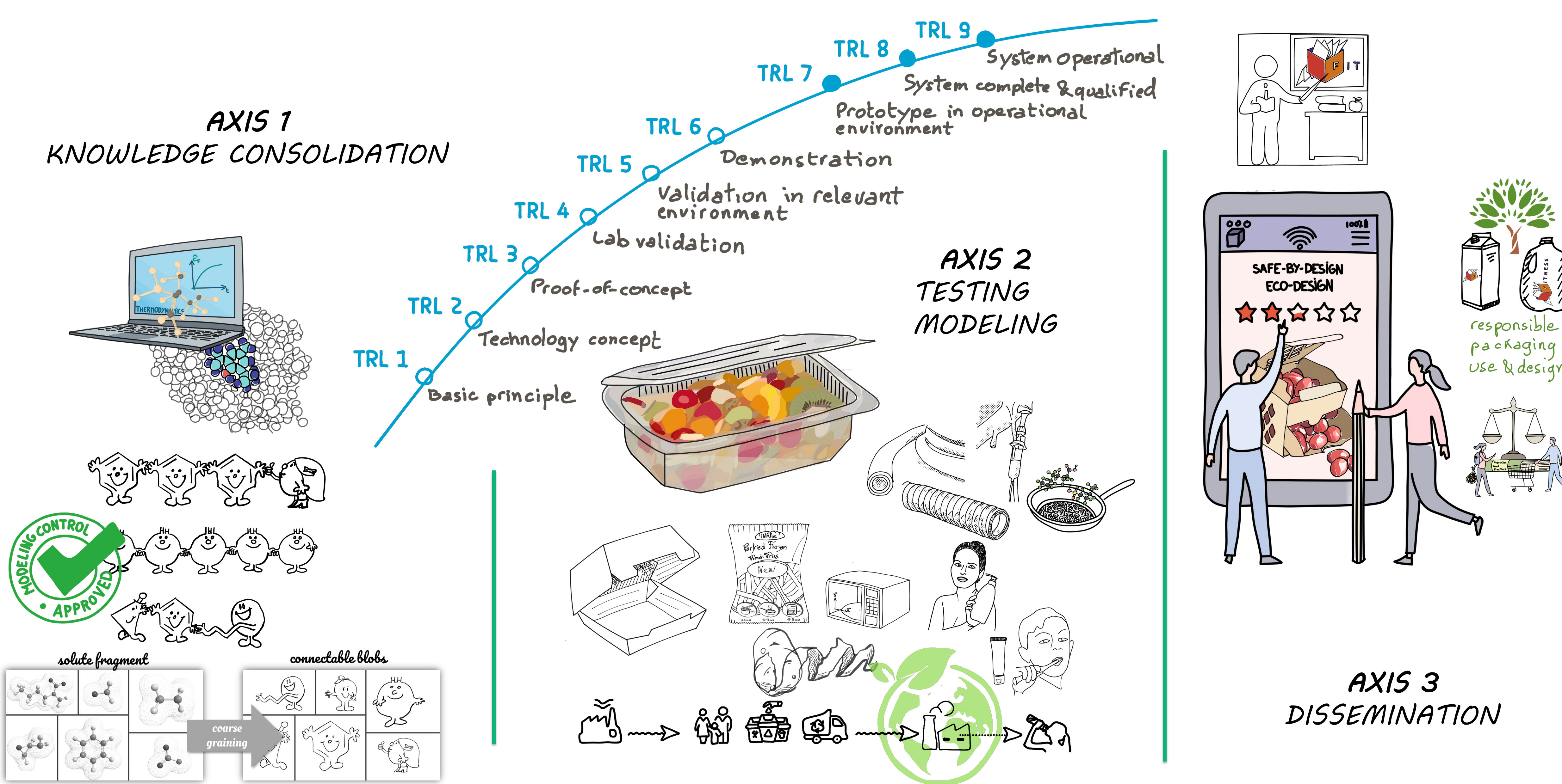
- 16 engineers, associated researchers and professors
- 4 PhD students
- 3 postdoctoral fellows
- 3 contractual engineers

R&D budget > 1.3M€ (40:60 private:public)

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Modeling	Data	Design	Public	Education
<ul style="list-style-type: none"> modeling mass transfer within materials and at their interfaces Prediction of properties from chemical structures Multiscale modeling 	<ul style="list-style-type: none"> Testing Open-data (transport, spectroscopic) ¹H NMR, FTIR, Raman GC-MS, HPLC-MS Microbalances, permeameters 	<ul style="list-style-type: none"> Computer-aided design approaches Substances Materials Packaging system Supply chain 	<ul style="list-style-type: none"> Support to EU regulation Sanitary surveys Open-source developments Open-science Open-standards 	<ul style="list-style-type: none"> Initial training Life-long training Online training Blended and non-linear learning Guidance

R&D priorities



Our approaches secure supply chains, prevent crises, support innovation and competitiveness by developing concepts for responsible packaging designed with the food product in mind. Rapid design, prototyping and assessment is obtained by an extensive use of simulations and modeling.

Our Partners

