

INSIGHT and CHIASMA

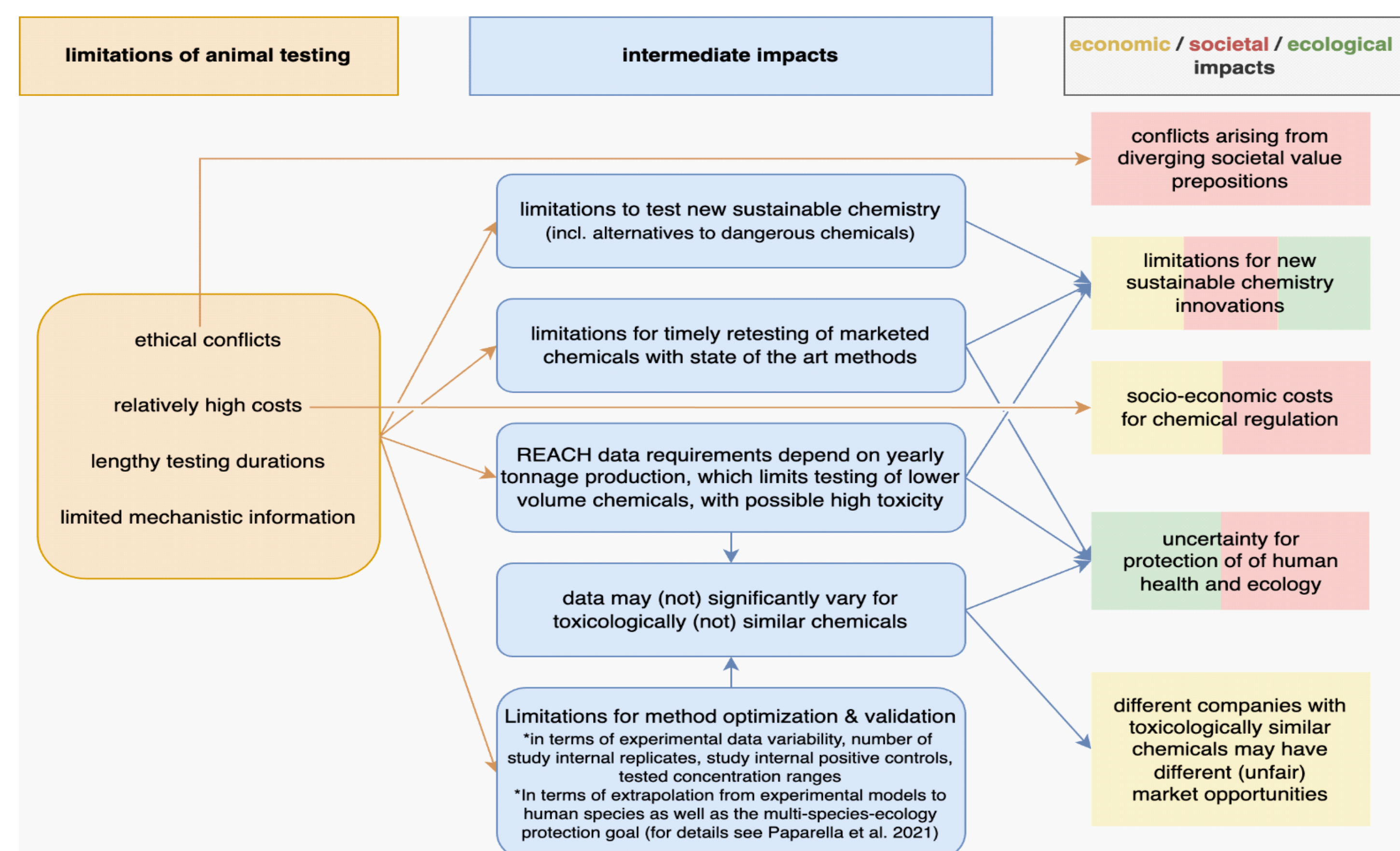
New paving stones for the road towards an animal free regulatory system

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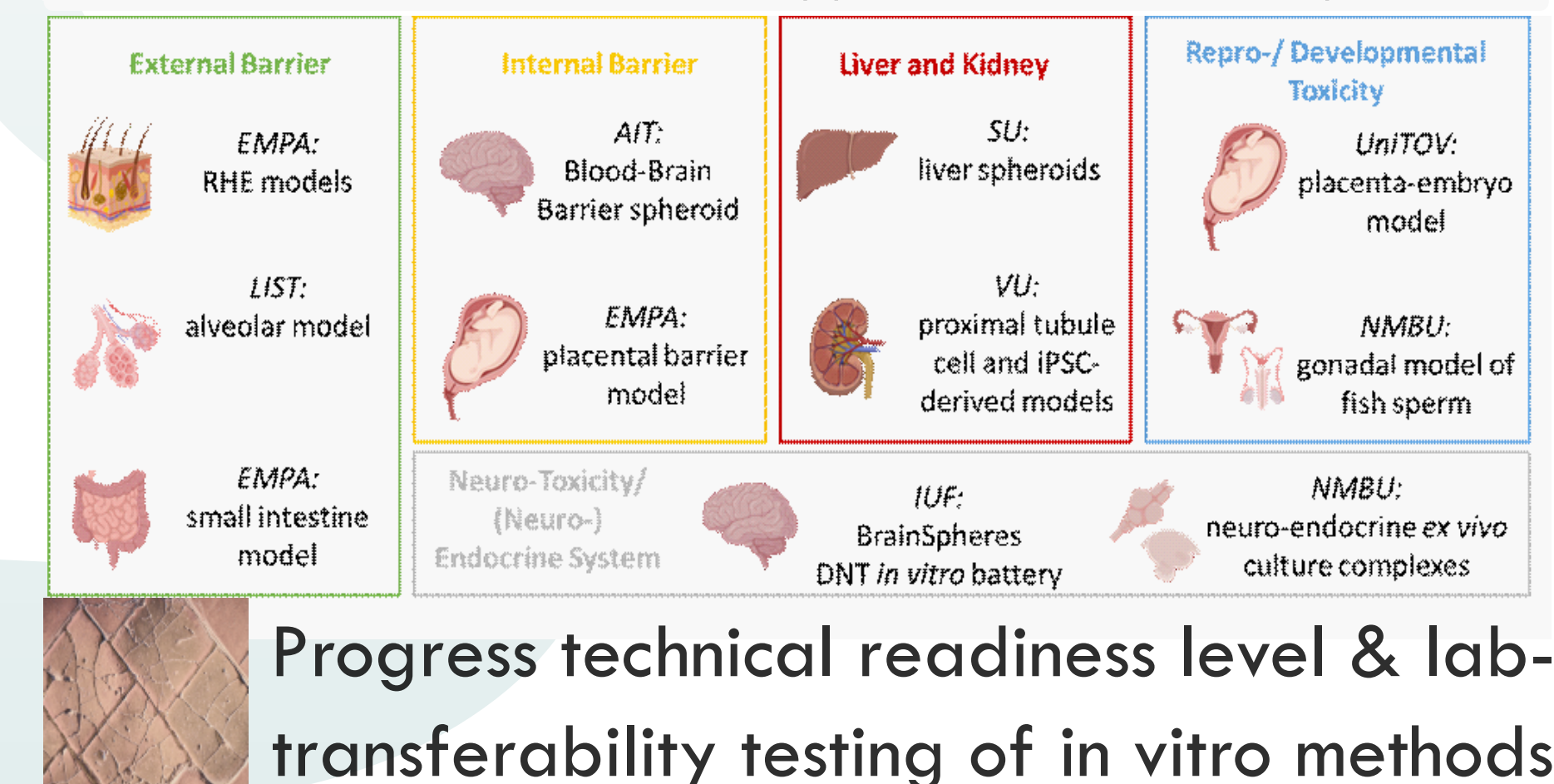
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The Limitations of Animal Testing Negatively Impact the Sustainability Goals



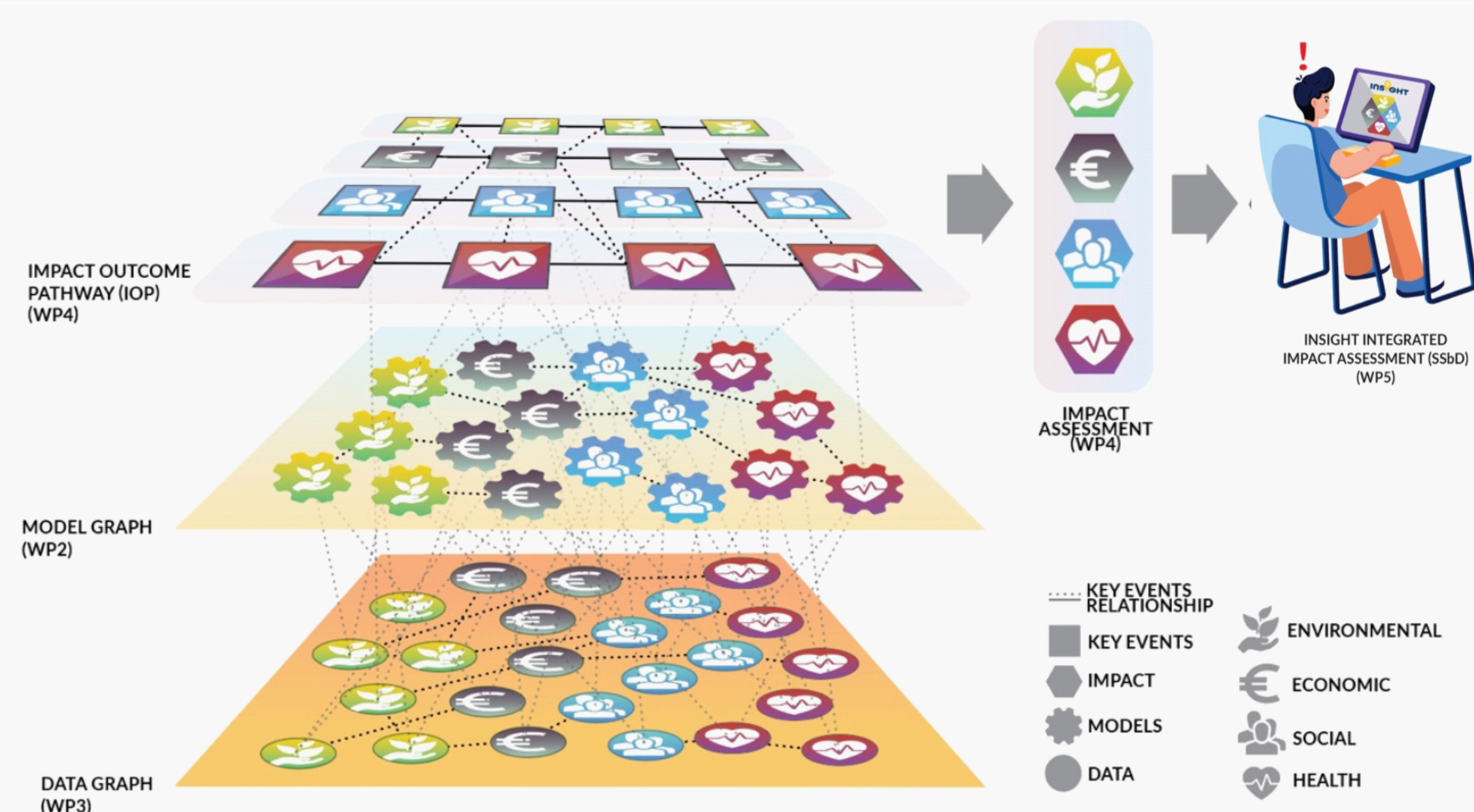
Lead: Tommaso Serchi, LIST + 20 partners
+ € 6.8 m; Jan 2024 – Dec 2027
<https://chiasma-project.eu/>



Progress technical readiness level & lab-transferability testing of in vitro methods



Lead: Dario Greco, Tampere University Finland + 18 partners + € 4 m; Jan 2024 – Dec 2027; <https://insight-project.org>



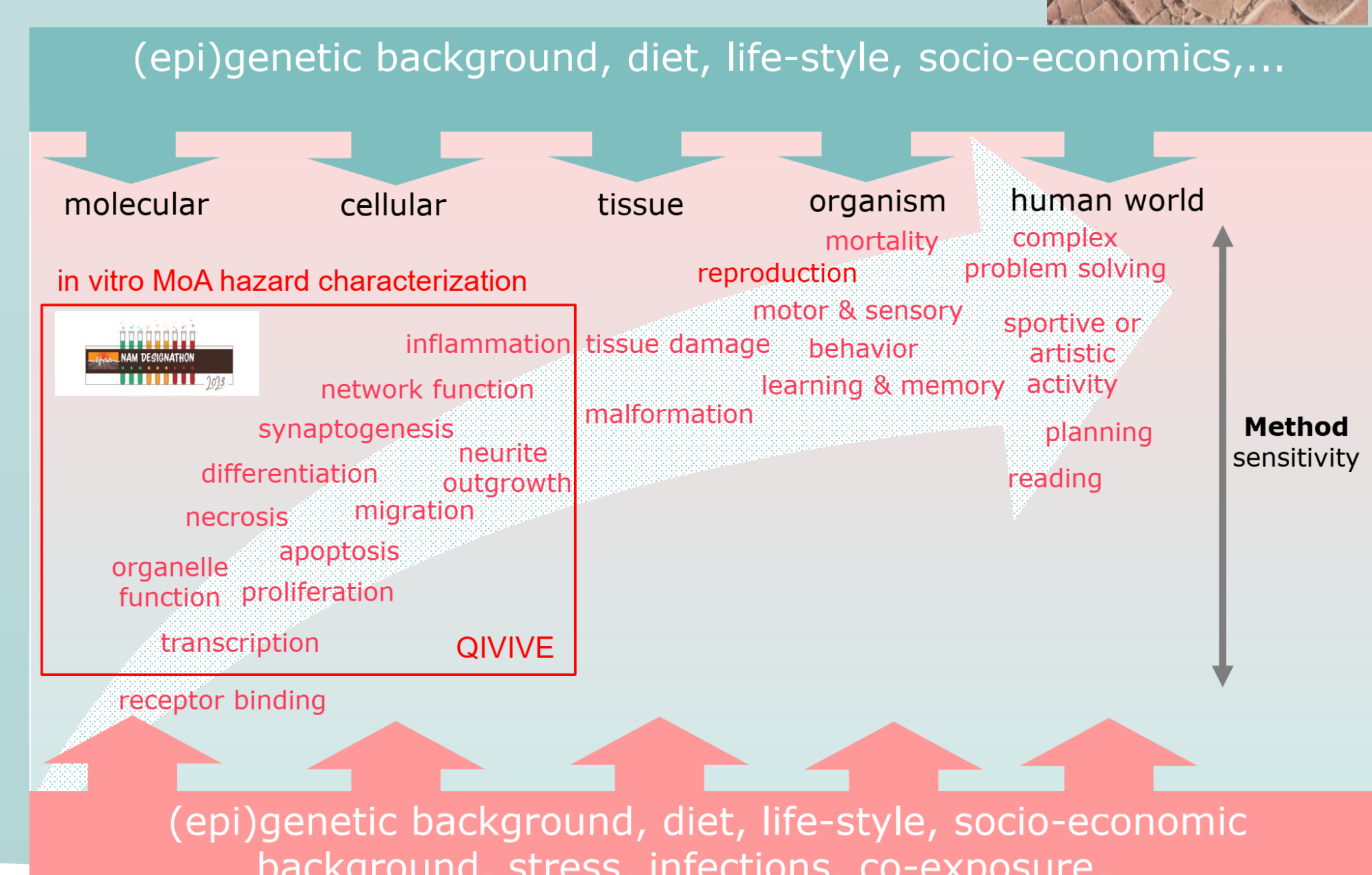
Integrate computational models + evolve AOPs to Impact Outcome Pathways (IOPs) + FAIRification + user friendly decision maps

Regulatory IATA Case Studies: Integrating NGRA with SSbD: PFAS, Pesticides, Advanced Materials



Next Generation Risk & Safe & Sustainable by Design Assessment + Software Interface

Enhanced Uncertainty Accounting + New Hazard Classification Concept



Replacement of animal testing finally receives strong policy support through the European Commission's roadmap towards an animal free regulatory system [1]. Many important paving stones have already been laid down through the development of various experimental and computational Non Animal Methods (NAMs) as well as Adverse Outcome Pathways (AOPs) explaining the NAMs specific mechanistic relevance [2] and finally case studies for the regulatory use of NAMs within Integrated Approaches to Testing and Assessment (IATAs) [3]. Next Generation Risk Assessment (NGRA) using exclusively NAMs [4] is currently the golden trophy for which many research projects are reaching out. Two new projects are broadening the road towards very different replacement options: INSIGHT [6] leverages the AOP concept to a Safe and Sustainable by Design (SSbD) framework [5] that consists of a data-graph, a model-graph and an impact outcome pathway (IOP) graph for health, ecology, societal and economy aspects. A decision map shall guide its regulatory use. CHIASMA [7] is co-designing this SSbD assessment framework by advancing the technical readiness level of a broad set of NAMs, including barrier models for skin, lung, intestine, placenta and brain and for the main toxicological targets liver, kidney, brain and reproductive system. Within an integrated SSbD evaluation, detailed (eco)toxicological assessments may sometimes become less important. Such European Green Deal founded assessment options may lead to a regulation, in which there is always an alternative to animal testing. Here we visualize the INSIGHT and CHIASMA project goals, concepts and paving stones for the European Commission roadmap.

[1] https://ec.europa.eu/commission/presscorner/detail/en/ip_23_3993 | [2] <https://aopwiki.org/> | [3] <https://www.oecd.org/chemicalsafety/risk-assessment/iata/> | [4] OECD Series of Testing and Assessment 275 | [5] Doi: 10.2760/487955 | [6] <https://insight-project.org/> | [7] <https://chiasma-project.eu/>



Want to know more?
Check & say tuned!

