MACRAMÉ

Advanced Characterisation Methodologies to assess and predict the Health and Environmental Risks of Advanced Materials

Patchwork Project Family & Sibling Projects

CEN/TC 352 Plenary, 21st March 2024

The MACRAMÉ project has received funding from the European Union's Horizon Europe Research and Innovation programme under grant agreement No. 101092686.

Associated Partners (i.e. (a) Swiss Partners and (b) UK Partners) have received national funding from (a) the Swiss State Secretariat for Education, Research and Innovation (SERI), and (b) Innovate UK.

HORIZON-CL4-2023-RESILIENCE-01-21: Innovative methods for safety and sustainability assessments of chemicals and materials (RIA)

+

HORIZON-CL4-2023-RESILIENCE-01-22: Integrated approach for impact assessment of safe and sustainable chemicals and materials (RIA)

+

HORIZON-CL4-2023-RESILIENCE-01-23: Computational models for the development of safe and sustainable by design chemicals and materials (RIA)

Sharing of Case-Studies of specific Chemicals & Materials

Integration of shared computational Methods

total budget: € 23.2 Mio. (ca. ¾ from EU, ¼ non-EU) ♦ 37 individual Research Institutions; ♦ Jan. 2024 – Dec. 2027

ACCESSIBLE INNOVATIVE METHODS FOR THE SAFETY & SUSTAINABILITY ASSESSMENT OF CHEMICALS & MATERIALS

CEN/TC 352 Plenary, 21st March 2024, Brussels

The CHIASMA Project has received funding from:

The European Union's Horizon Europe Research and Innovation programme under grant agreement No. 101137613.

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The CHIASMA R&I Approach

Combining an iterative approach of:

(1) chemocentric,

(2) biocentric, and

(3) new experimental models

into a conceptual framework for data-integration and -processing.

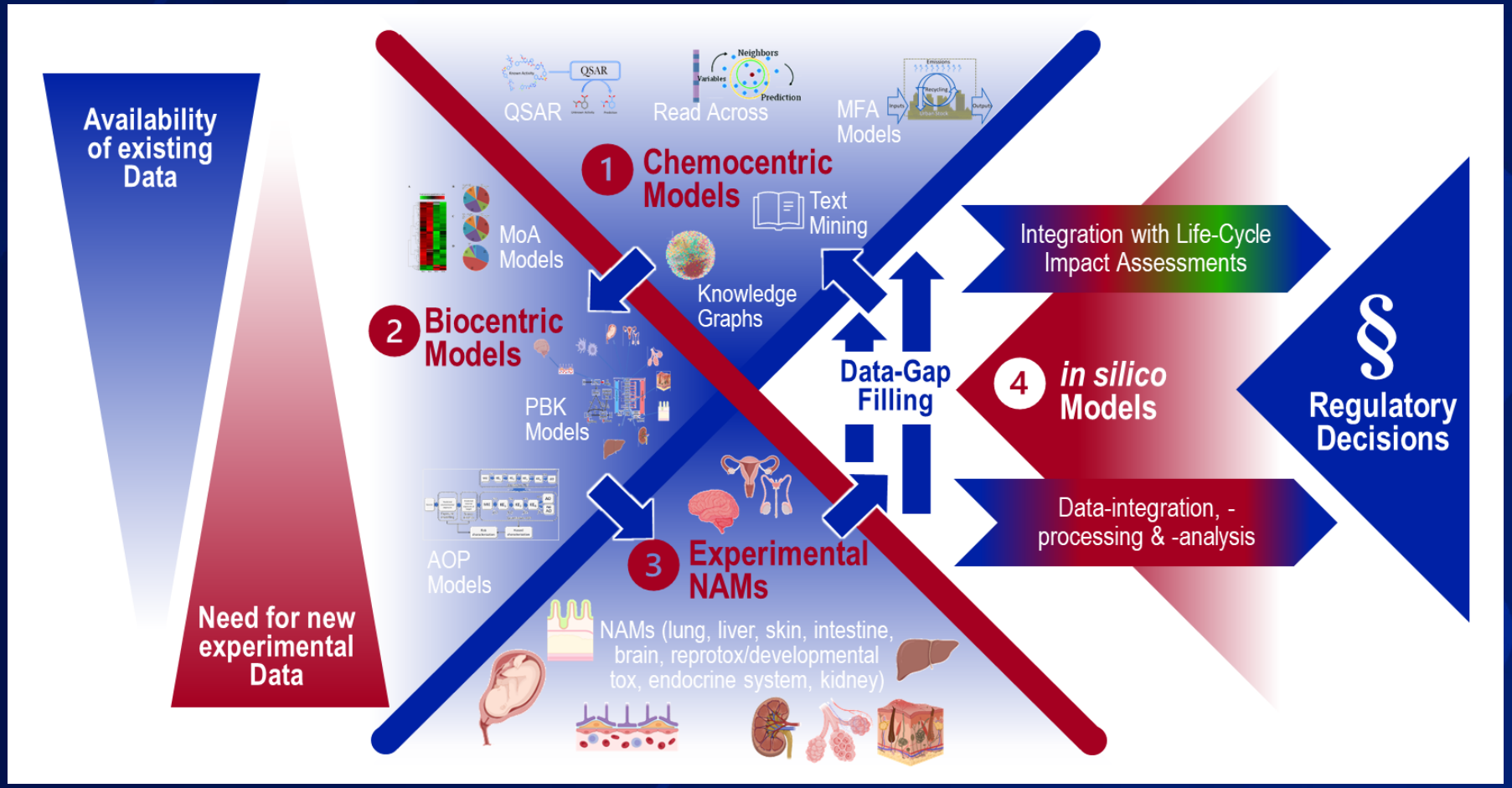


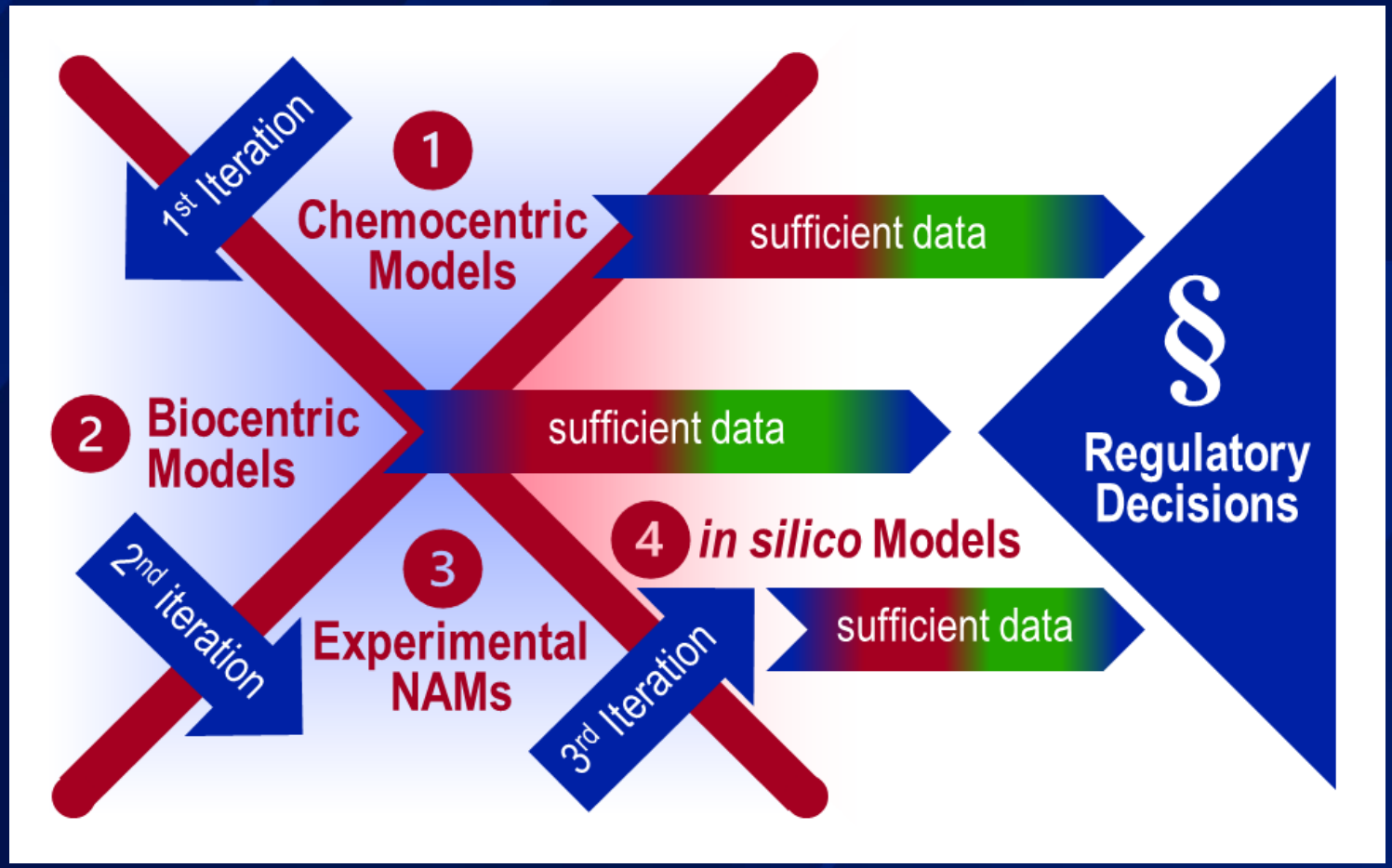
Illustration of the CHIASMA R&I approach to testing and assessment of materials.

CHIASMA's High Level Objectives

1. Interface Communities and ensure regulatory relevance of NAMs to assess the safety of chemicals/materials.
2. Demonstrate the usefulness of NAMs for the implementation of REACH and CLP regulations.
3. Develop NAMs and validate them for the regulatory assessment of long-term safety.
4. Develop and user-stress-test software interface and insurance of proper handling by authorities, regulators and end users.
5. Demonstrate the transferability of the CHIASMA's NAMs.
6. Demonstrate the trans-domains applicability of the CHIASMA's safety and environmental framework.
7. Improve the Life Cycle Impact Assessment model for human toxicity and ecotoxicity.
8. FAIR-ification and GLP-ification of protocol and methods.

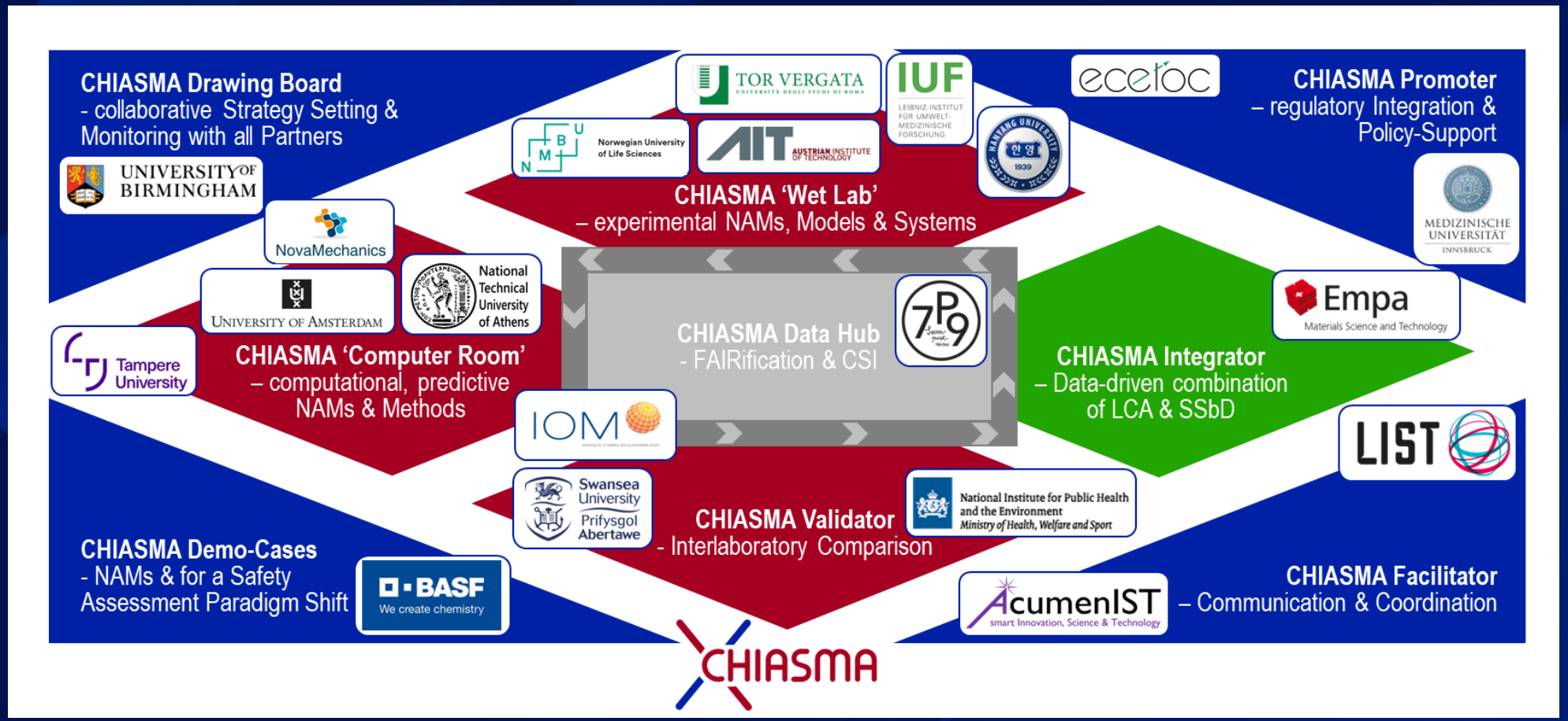
The CHIASMA SSbD Framework

Iterative processes within the CHIASMA Framework, integrating data- and LCAs.



The CHIASMA Consortium

Annotated overview of the Project workflow and the main Partner Roles.



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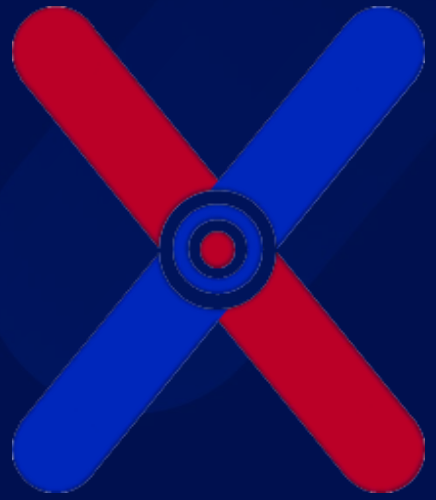

Thank You

www.CHIASMA-Project.eu

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Integrated Models for the Development and Assessment of High Impact Chemicals and Materials

CEN/TC 352 Plenary

21st March 2024, Brussels

The INSIGHT Project has received funding from:

The European Union's Horizon Europe Research and Innovation programme under grant agreement No. 101137742.

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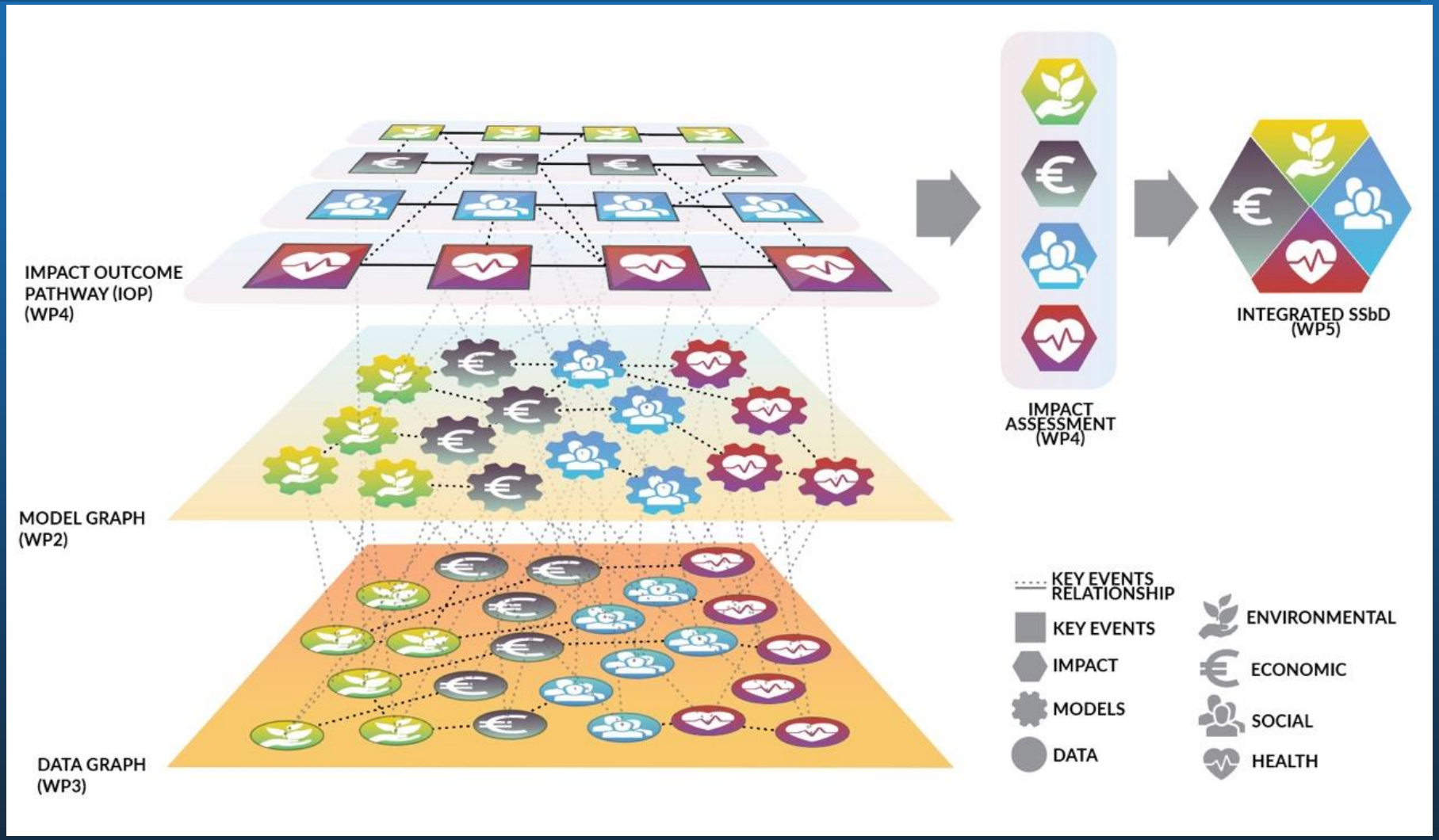
INSIGHT's R&I Approach

Framework for integrated impact assessment and SSbD



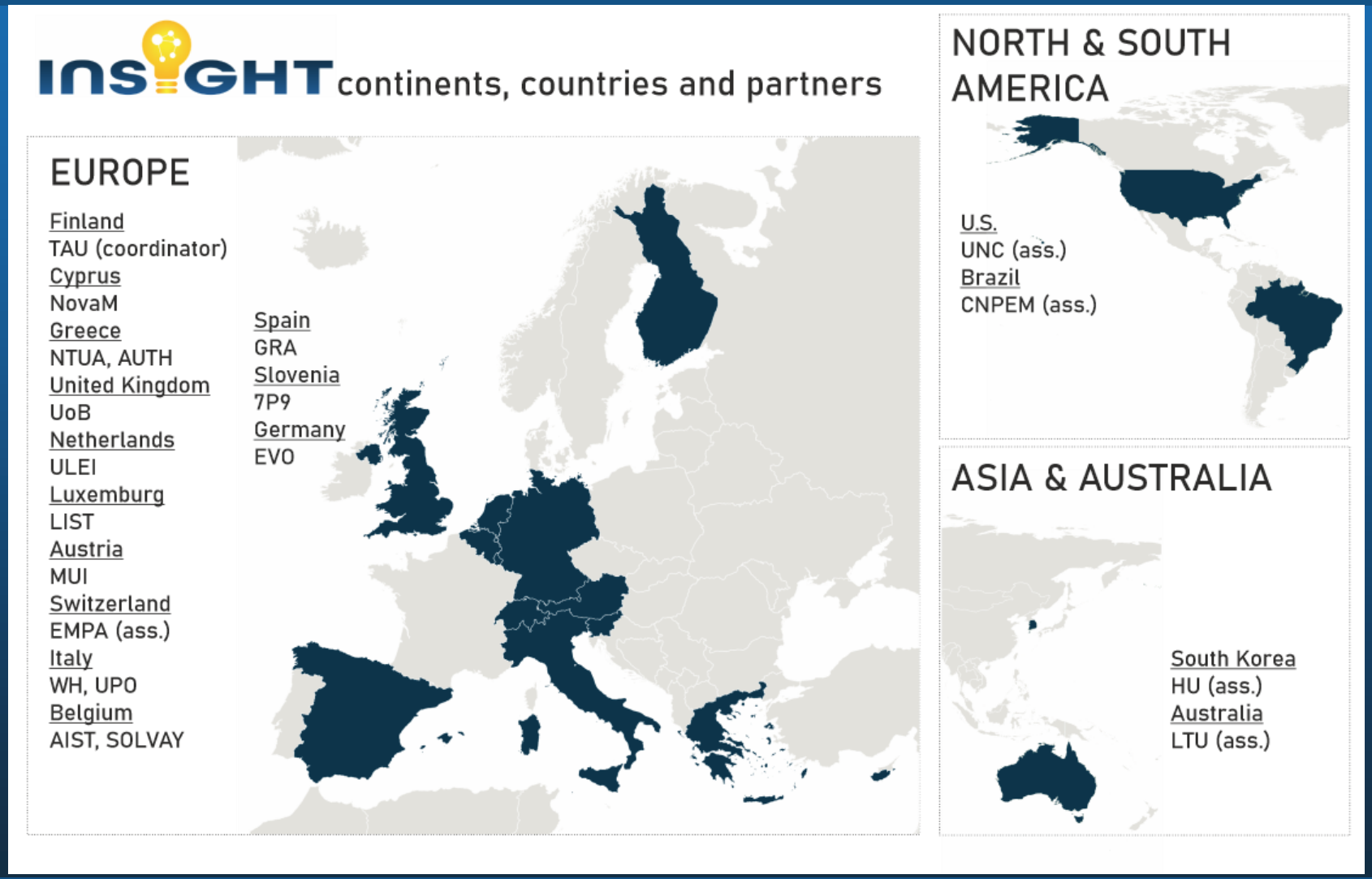
INSIGHT's R&I Approach

1. Life Cycle thinking approach, identification of relevant data and models
2. Development of the model graph
3. Development of the data graph
4. FAIRification of models / research software & Data
5. Definition of integrated mechanistic models of impact
6. Development of the Decision Support System & INSIGHT framework GUI

INSIGHT's High-Level Objectives

1. Develop an integrated computational platform for integrated impact assessment based on the novel concept of impact outcome pathway (IOP).
2. Provide curated, FAIR and user-friendly data and models organised in an integrated framework that promotes and supports SSbD.
3. Provide open, accessible and interactive guidelines in the form of conceptual decision maps.
4. Establish continuous crosstalk with other frameworks and actions and ensure regulatory relevance.
5. Benchmark the INSIGHT framework in the context of specific case studies.
6. *Develop an integrated framework for impact assessment based on the novel concept of impact outcome pathway (IOP).*
7. *Provide curated and user-friendly FAIR data and computational models for integrated SSbD analysis.*
8. *Provide open, accessible and interactive guidelines in the form of conceptual maps.*

The INSIGHT Consortium



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USA

INSIGHT

THANK YOU

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PINK

Provision of Integrated Computational Approaches for Addressing New Market Goals for the Introduction of Safe-and-Sustainable-by-Design Chemicals and Materials

CEN/TC 352 Plenary

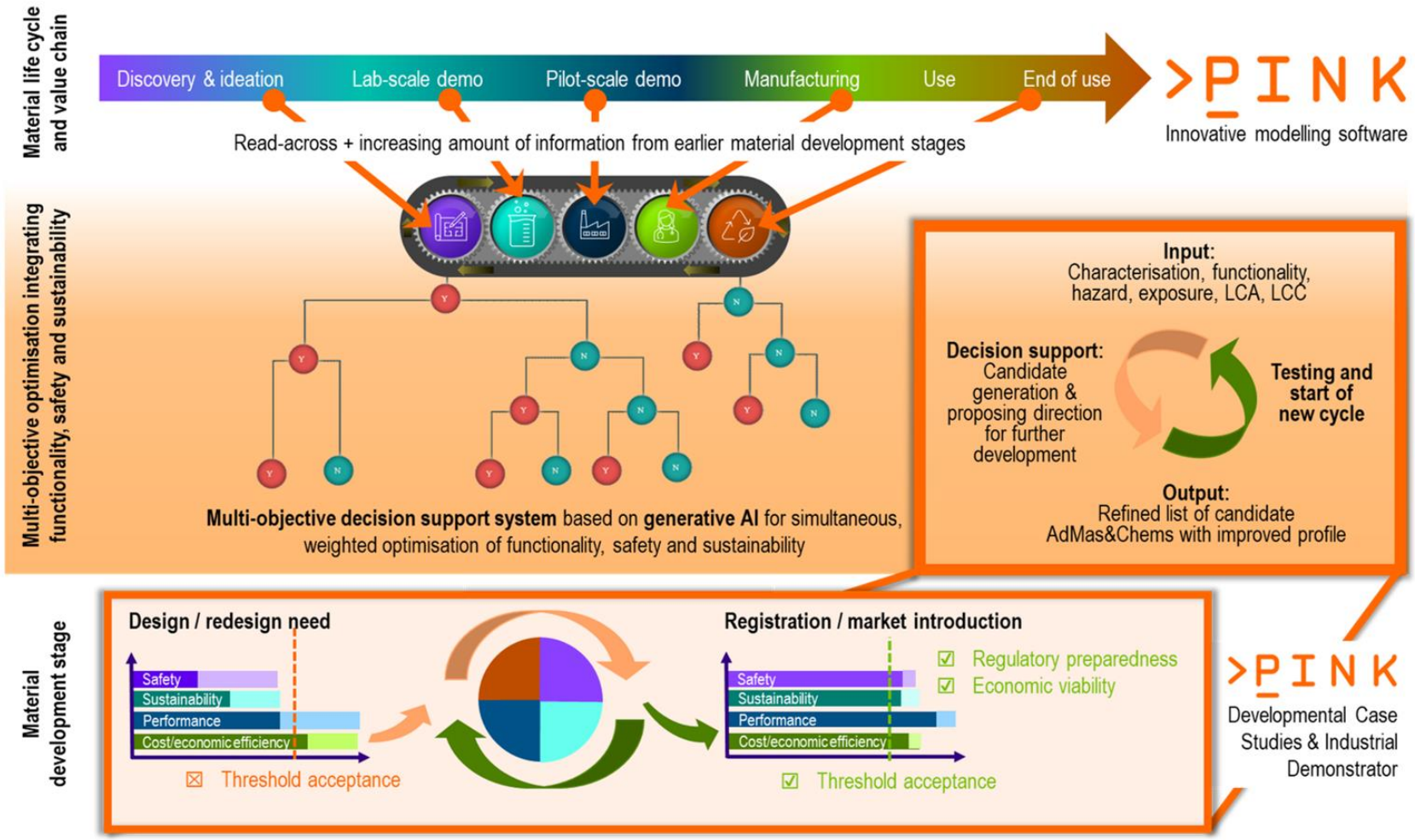
21st March 2024, Brussels

THE PINK PROJECT HAS RECEIVED FUNDING FROM THE EUROPEAN UNION'S HORIZON EUROPE RESEARCH AND INNOVATION PROGRAMME UNDER GRANT AGREEMENT NO. 101137809.

ASSOCIATED PARTNERS (I.E. (A) SWISS PARTNERS AND (B) UK PARTNERS) HAVE RECEIVED NATIONAL FUNDING FROM (A) THE SWISS STATE SECRETARIAT FOR EDUCATION, RESEARCH AND INNOVATION (SERI), AND (B) INNOVATE UK.

The PINK R&I Approach

… integrating the SSbD Framework into the development cycle of AdMas&Chems

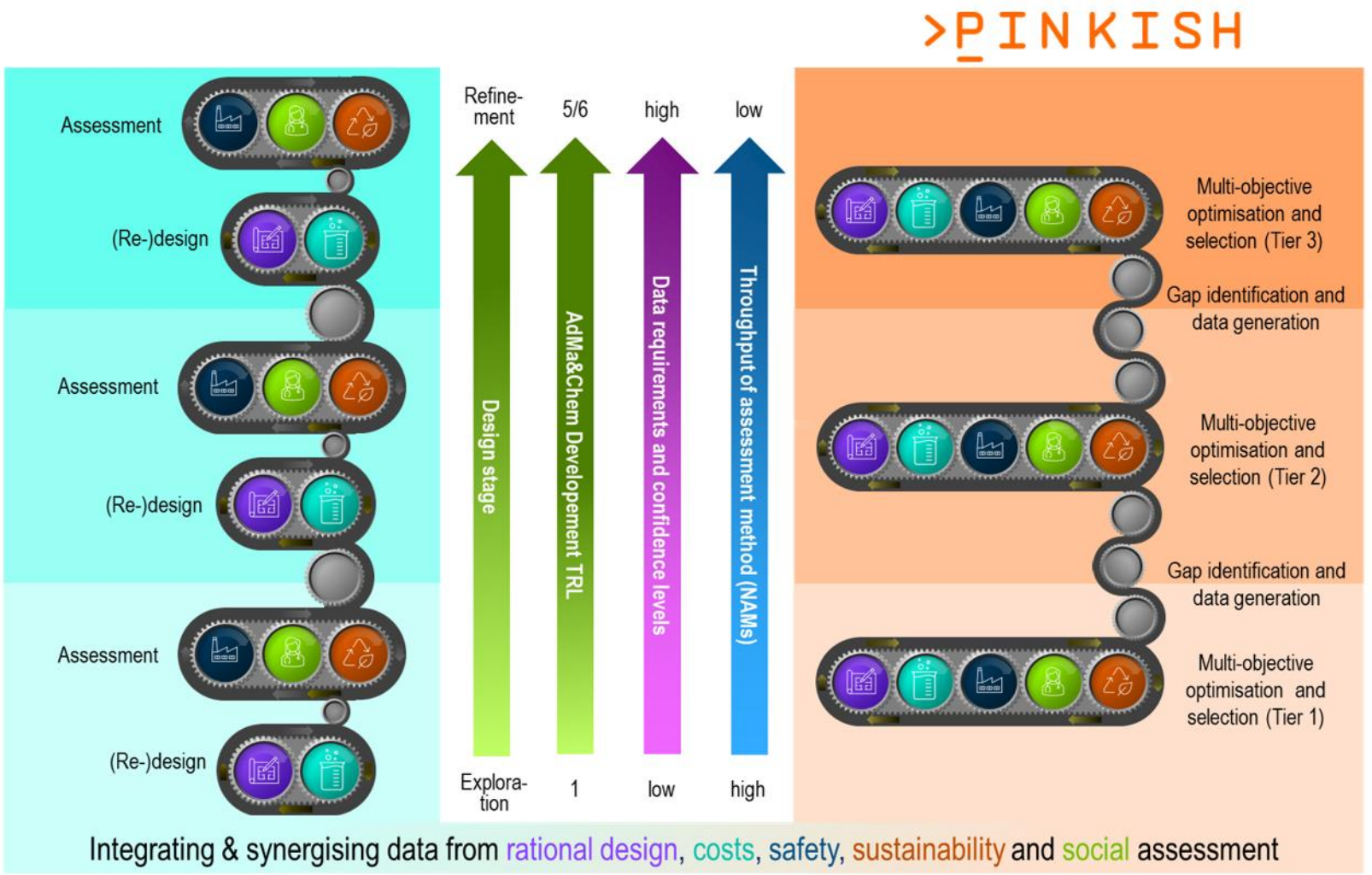


The PINK Objectives

1. Develop innovative modelling and simulation approaches addressing industrial SSbD needs.
2. Make the software accessible to SMEs and industry through an open innovation platform.
3. Validate the platform on PINK Developmental Case Studies and Industrial Demonstrators provided by SMEs and large industries.
4. Fully implement open science and FAIR principles contributing to establishing a European chemicals and materials data, modelling and software ecosystem.
5. Strengthen knowledge transfer through collaboration and exploiting synergies.
6. Boost the innovative capacity of SMEs and industry and make them more agile to respond to external and internal influences.

The PINK tiered Approach

… PINK Tiered Approach (i.e. PINK *In Silico* Hub (PINKISH)), (right) compared to the hierarchical approach described in the EU SSbD Framework (left).



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Meet us at

www.Materials-Week.org

17th – 21st June 2024 Limassol, Cyprus

*** abstract submission deadline open until 3rd April 2024 ***

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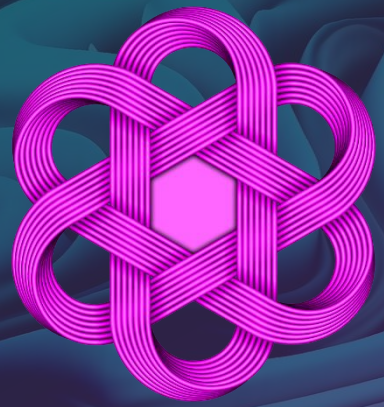

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