



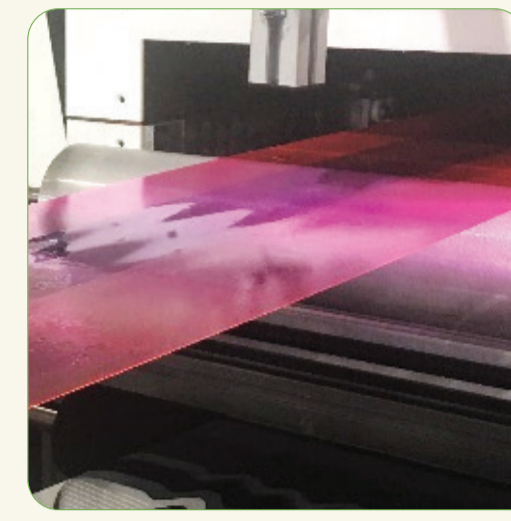
EASY ACCESS TO SUPPORT YOUR SUSTAINABLE PRODUCT DEVELOPMENT FOR PLASTIC AND PAPER SURFACES

The ecosystem facilities cover all major nano-functionalisation techniques available for plastic and paper surfaces

Nanofunctionalisation of surfaces



VACUUM ROLL-TO-ROLL COATING AND SURFACE TREATMENT



ATMOSPHERIC PRESSURE COATING, PRINTING AND SURFACE TREATMENT



ROLL-TO-ROLL MICRO AND NANO STRUCTURING



PRINTED ELECTRONICS PILOT LINE

Characterisation, Quality Control, Verification

Functional Performance Evaluation

- Barrier properties
- Defect inspection
- Microstructure analysis

Functional integration and verification

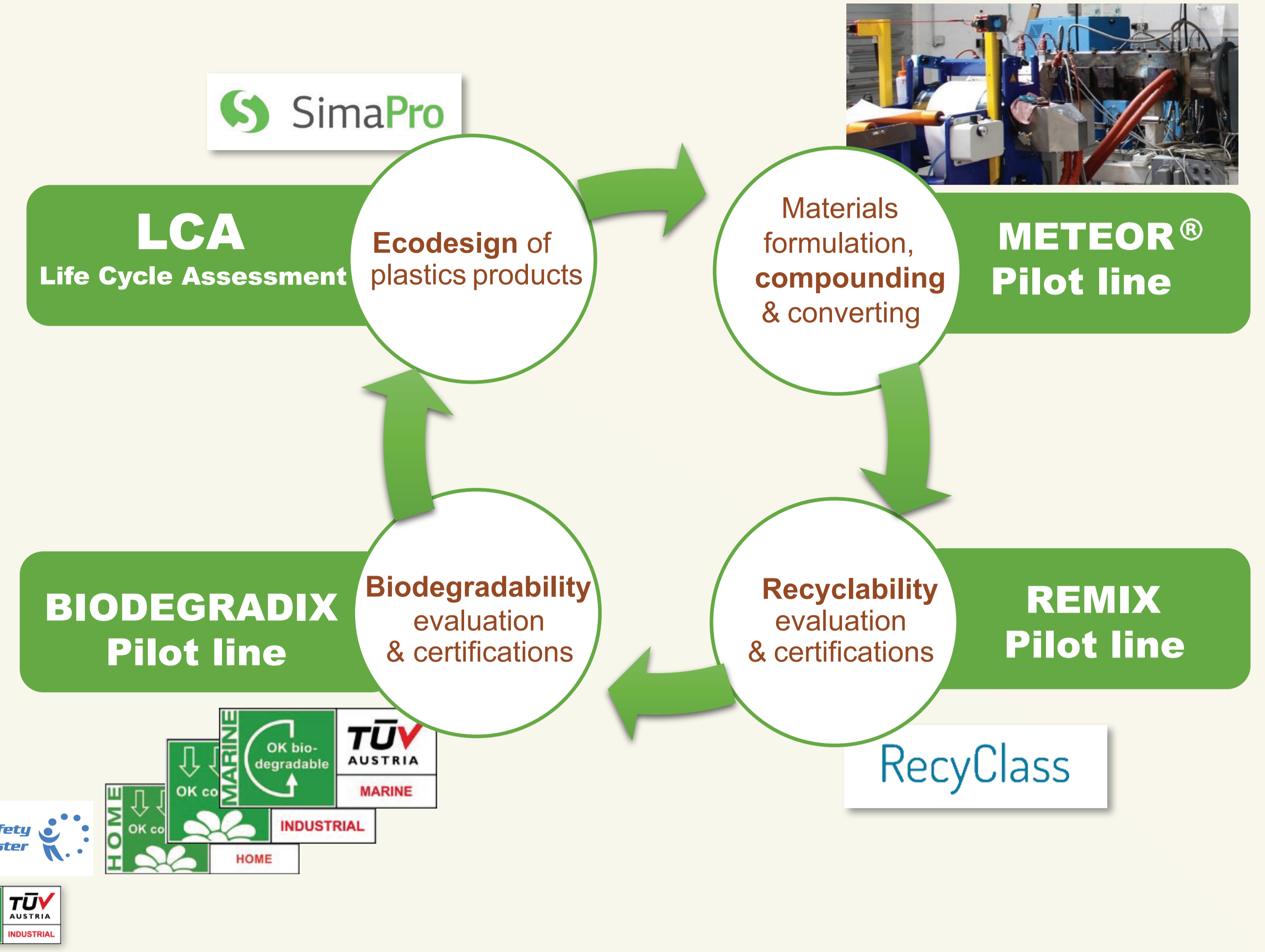
- Product prototyping
- Integrity and duration tests
- Functionality in application

Compliance and safety

- Migrating testing
- Compliance assesment
- Nano safety

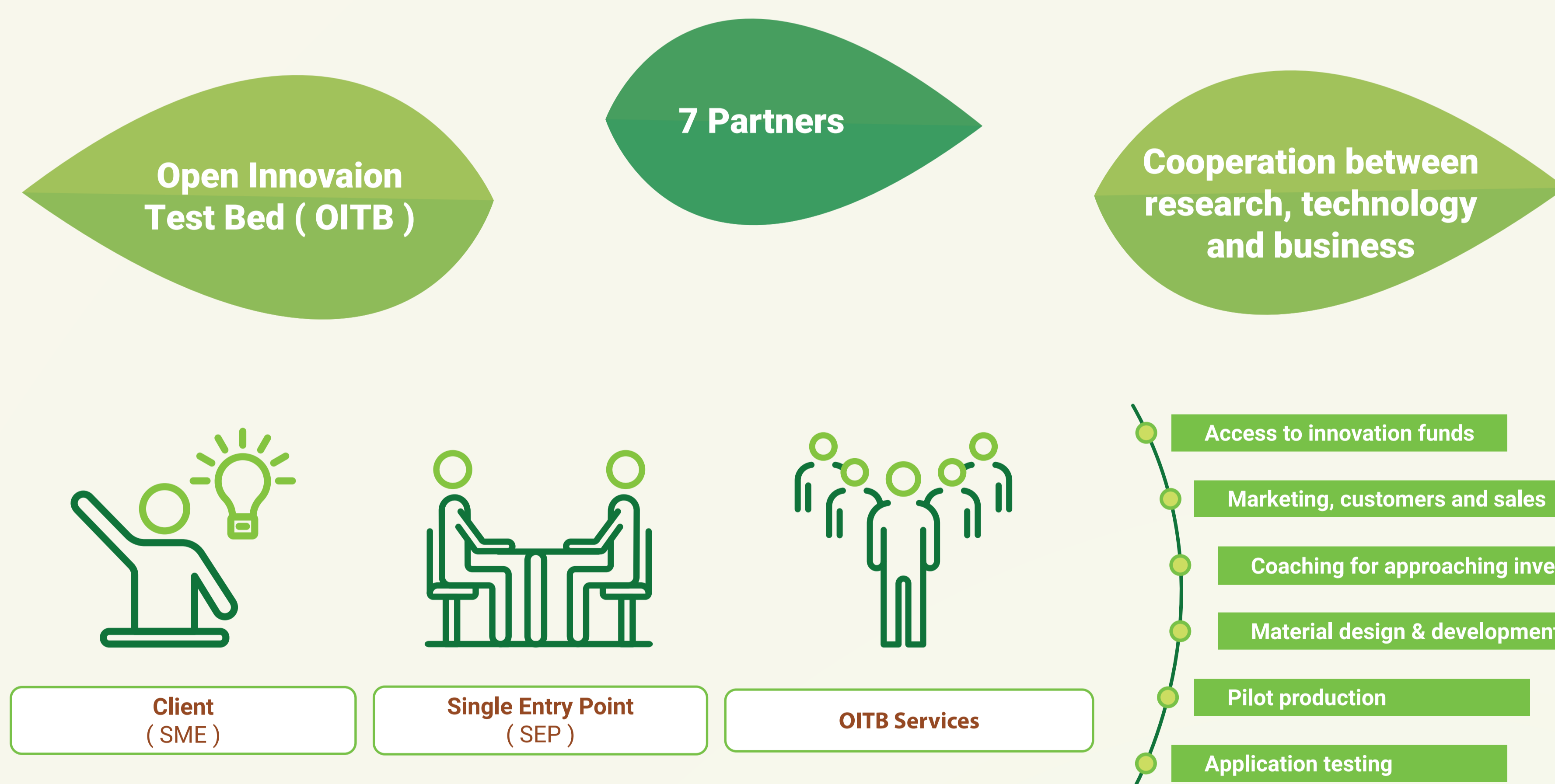


Circularity by design



Who we are

ESNA is an ecosystem with a set of entities providing common access to physical facilities, capabilities and services. The main objective of the Open Innovation Test Bed (OITB) is to provide users an easy access to holistic innovation boosting services through a Single Entry Point – the industry's access point to OITB services.



Application examples

Industrial cases in industrial environments validated and demonstrated the performance of novel nano-functionalised plastic and paper membrane surfaces and processes and proved competitiveness of ESNA technical facilities:

HUECK FOLIEN
Biobased optical films

P&G
Marine degradable flexible packaging

i3
Your Companion
Life Science Filtration
Selective and switchable membranes

CRF
Multifunctional plastic surfaces in automotive

Capri-Sun
Recyclable drink pouches

MC Sonae
Paper-based food packaging

Pre-commercial business cases used the OITB and tested the services and procedures. The ecosystem supported innovative small and medium enterprises (SMEs) and industries by drastically reducing the time-to-market for novel concepts, ideas and products. The customer feedback was used to tune the offering and to create success stories.

Contact and further information:
www.esna-assoc.eu

ESNA is an outcome of FlexFunction2Sustain project: Open Innovation Ecosystem for Sustainable Nano-functionalized Flexible Plastic and Paper Surfaces and Membranes



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