



CIRCULAR
FOAM

Systemic expansion of regional CIRCULAR Ecosystems for End-of-Life FOAM

Introduction to the Project

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| 11.09. 2025 | Brussels, BE

CIRCULAR FOAM: context and key facts



After replication in the EU, the following reductions could be attained by 2040:

1 mt
per year
less waste

2.9 mt
per year less
CO₂ emissions

150 m€
less cost for
incineration

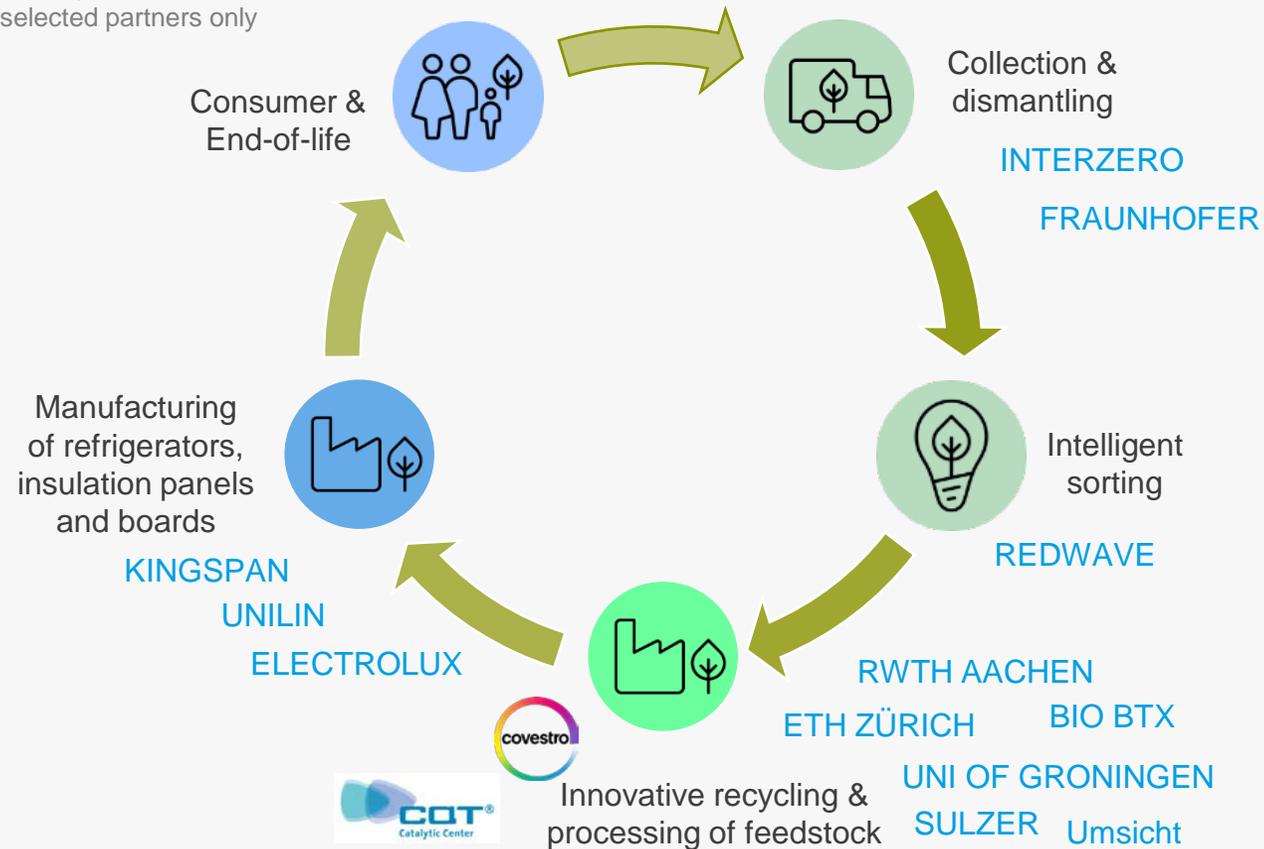
Innovation Action
Coordinated by 
24 partners from 9 countries
48 months: 10.2021-09.2025



Value chain form PU rigid foam

CONCEPT

Conceptual illustration,
selected partners only



HIGHLIGHTS

GOAL AND BENEFIT

- Establish coordinated waste management and suitable dismantling / sorting processes for a sustainable circular economy for rigid PU foam.
- Develop innovative chemical recycling processes for rigid PU foams (applications **appliance**, **metal panel** and **insulation board**).

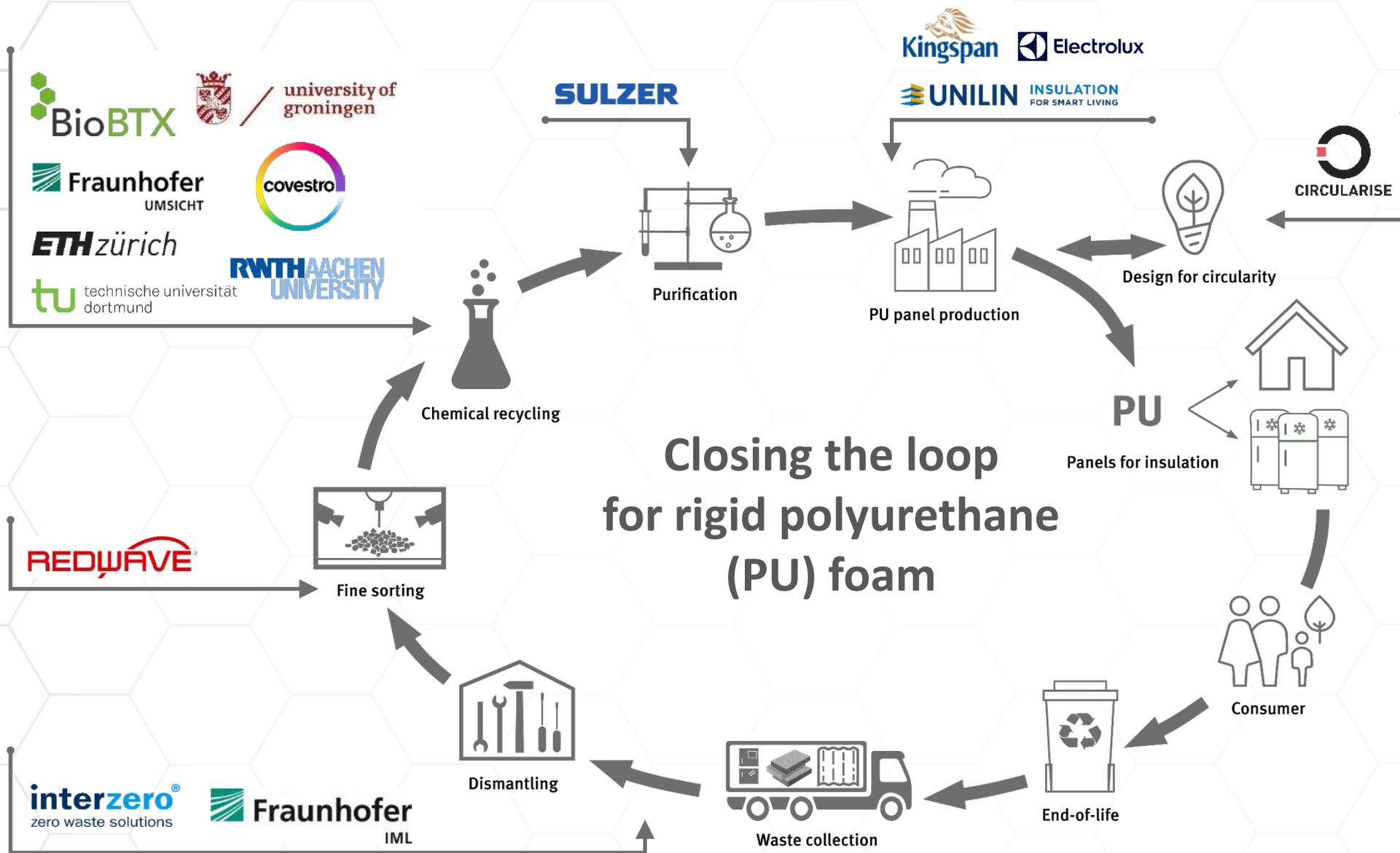
INNOVATIVE RECYCLING

- Target: obtaining high quality recycled feedstock (**polyols** and/or **amines** as precursors for MDI) for use in the original applications.

DEMONSTRATION in year 4

- Of collection, dismantling and sorting as well as chemical recycling technology (TRL7).
- New refrigerator produced with re-raw materials.





**Closing the loop
for rigid polyurethane
(PU) foam**

LCA
ETH zürich

**Overall system
optimisation**

tu technische universität dortmund

ZEDO

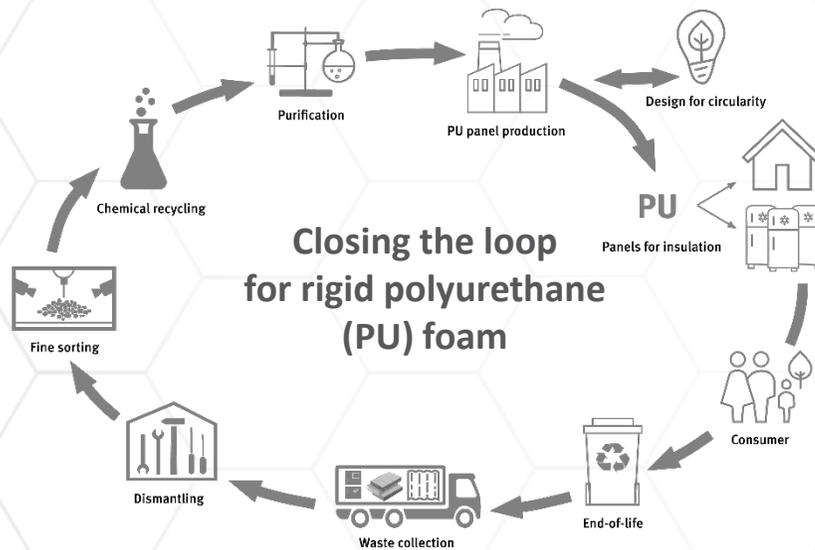


System development for regional application

Value chain

Model regions

System



Rheinisches Revier, NRW

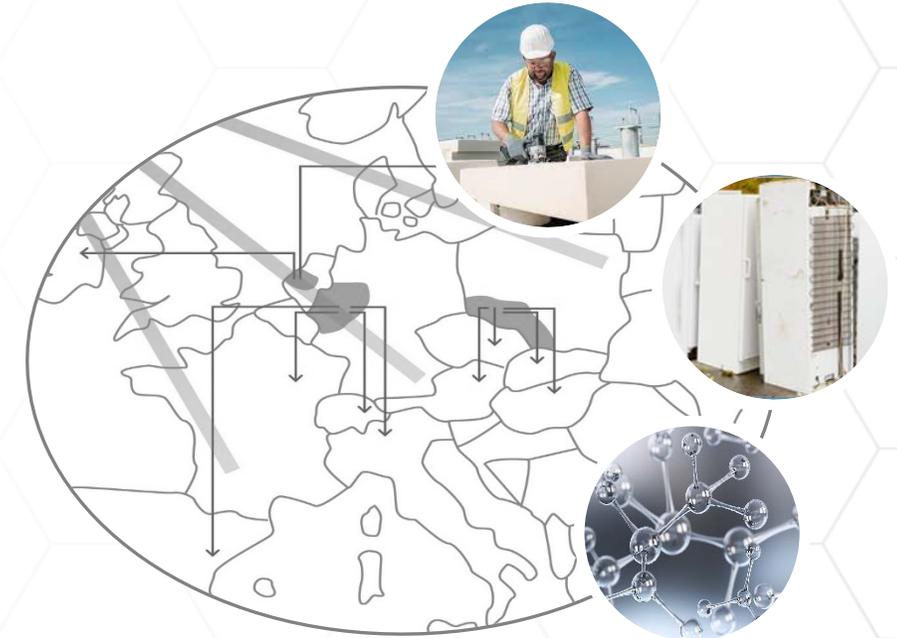
Germany

Upper Silesia Metropolis

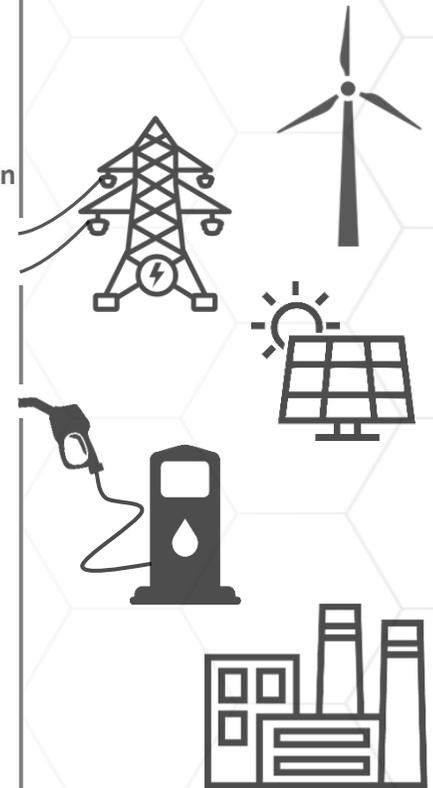
Poland

Greater Amsterdam

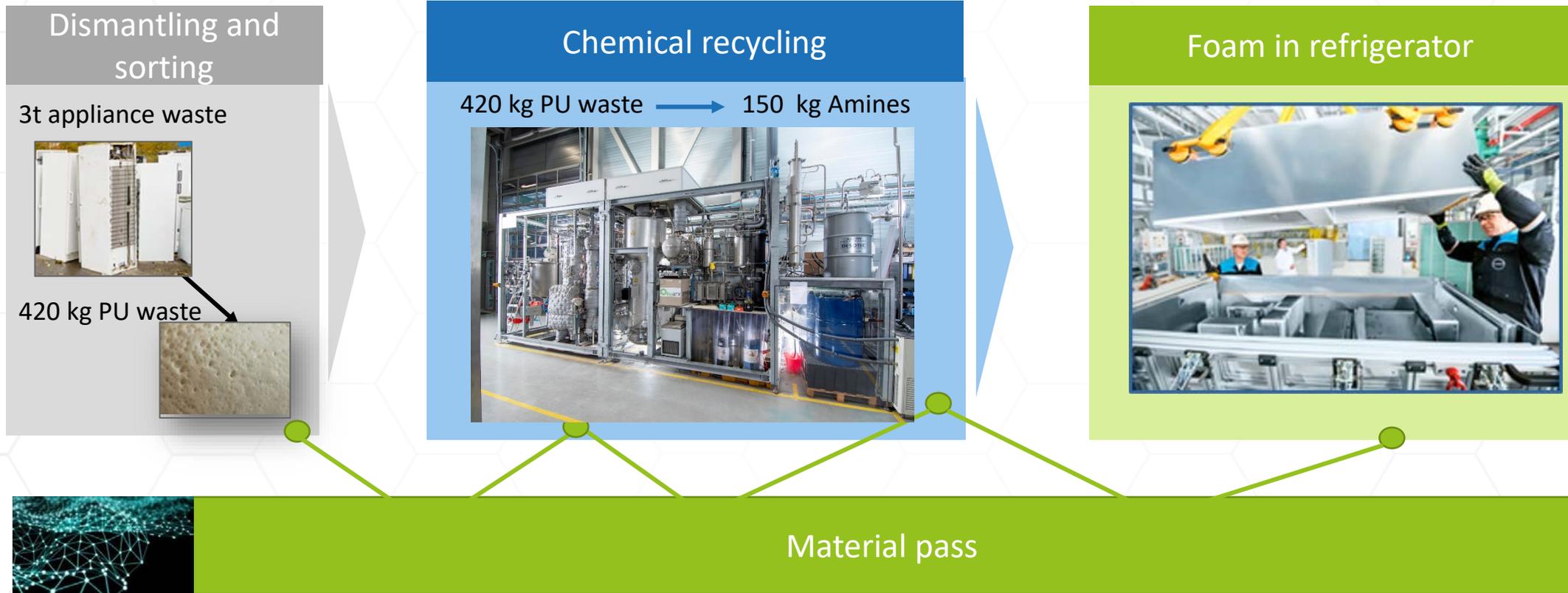
Netherlands



Systemic work at multiple levels



Demonstration of the whole value chain at TRL7 and holistic sustainability assessment





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Thank you!