

PU Recycling

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WERKAGENDA
Chemie/Kunststoffen

SAMEN MAKEN WE
MORGEN MOOIER
OVAM

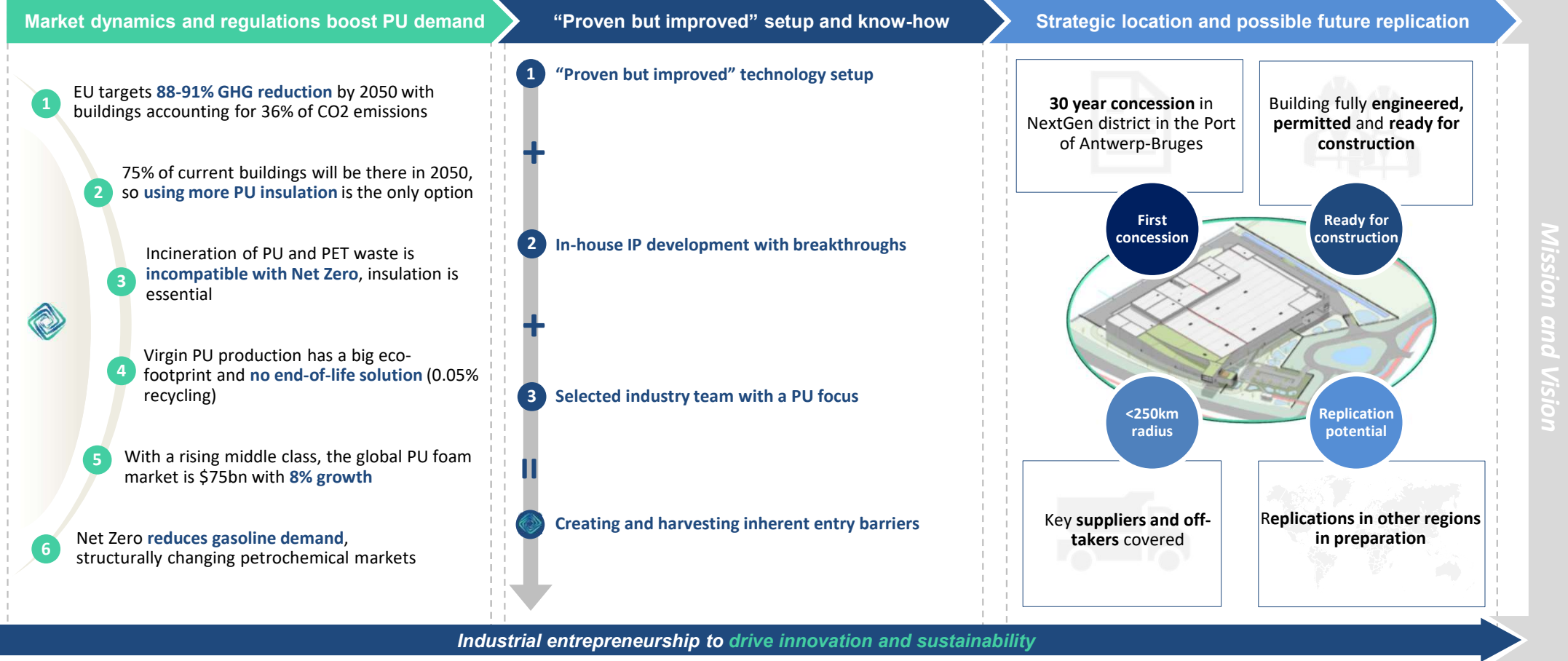


essenscia
Chemistry meets life sciences

vlaanderen-circulair.be



Short reminder of the project



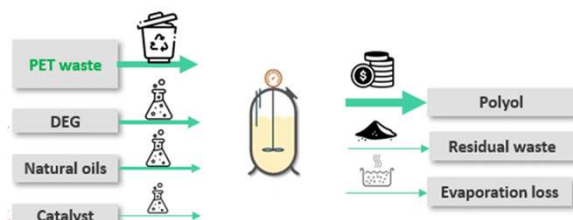
Configuration of THX SurePUre Antwerp

From launch to scaling in the 50-100kT range

Phase 1

0. Flex & rigid PU and PET polyol pilot line for industrial testing at 400kg – 1000kg batches

- PU based polyol and amine testing for customer TA, reference and demonstration of split-phase reactor design
- PET polyol production to minimize idle time and generate first cash



1a. Polyester waste to substitute virgin petrochemical feedstock for PU polyols

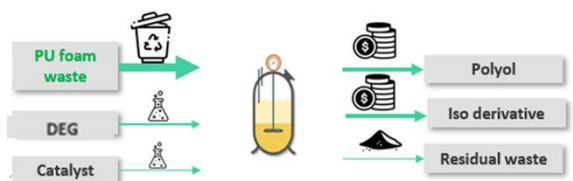
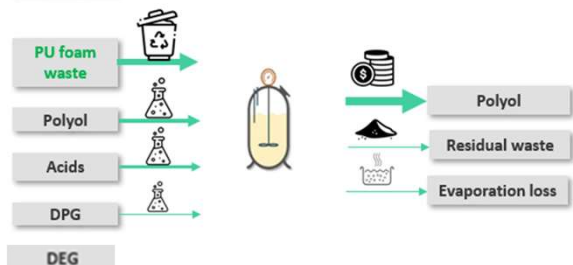
- Non-'PMD' PET waste becomes polyester polyol for PUR/PIR insulation with good fire properties

1b. Rigid PU foam waste recycling for circular PU polyols in insulation

- PU waste from appliances (fridges) becomes polyether polyol for PU insulation

1c. Flex PU foam waste recycling for circular PU polyols in flex foam

- PU waste from mattresses and car seats becomes flex polyol for new flexible PU foams and more...

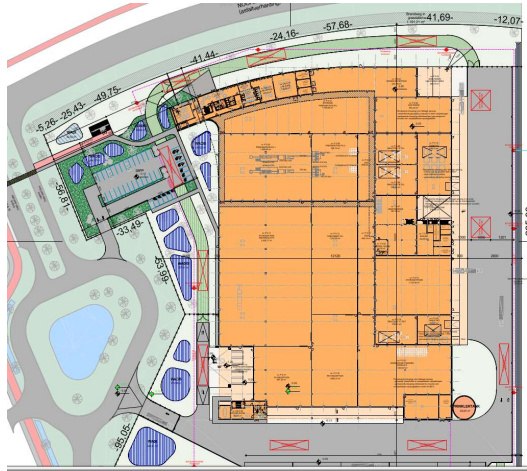
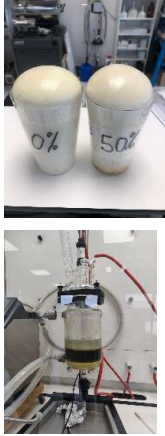


2-3. Flex and rigid PU foam waste to substitute virgin polyol while recovering isocyanate derivatives

- 98% recovery of circular flex polyol and reuse of amines in a variety of applications (i.e. no waste)

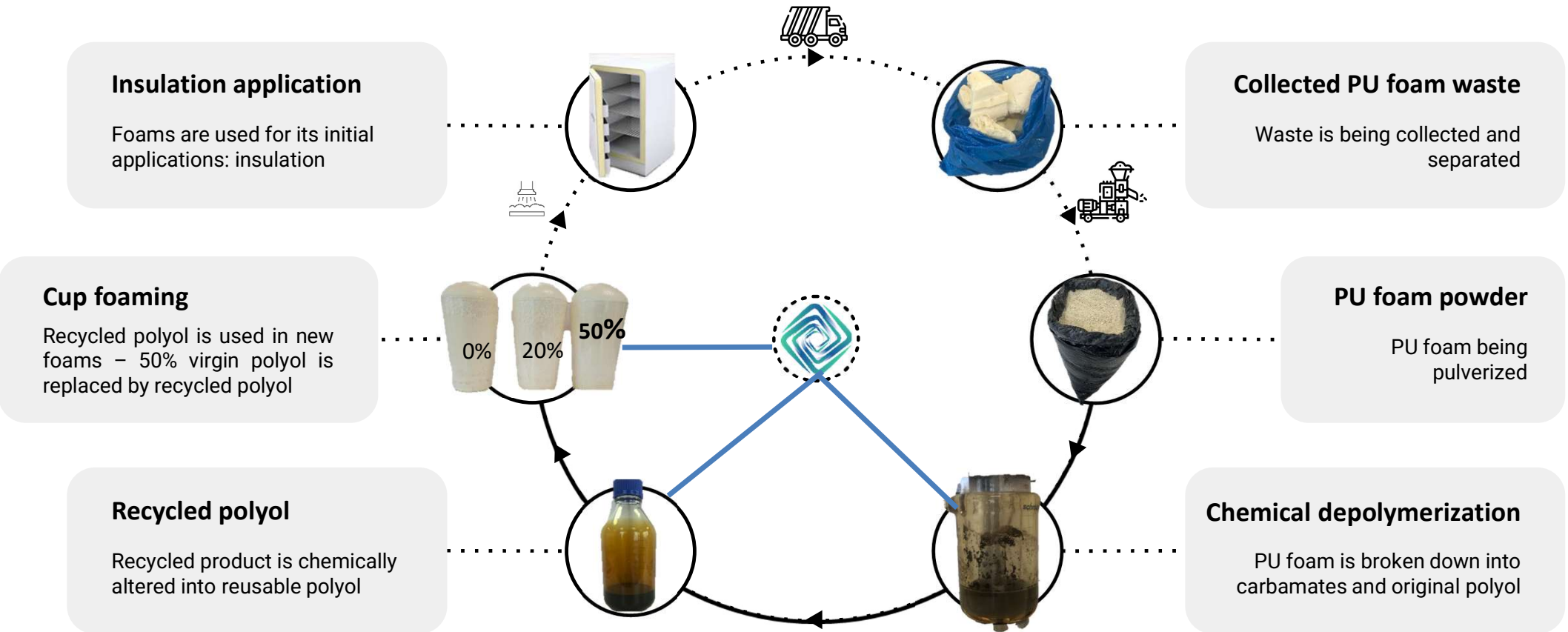
Consequent Logic in Value Chain Innovation

Zero emission footprint, no use of drinking water, no combustion processes, electrical heating, wind & solar energy driven



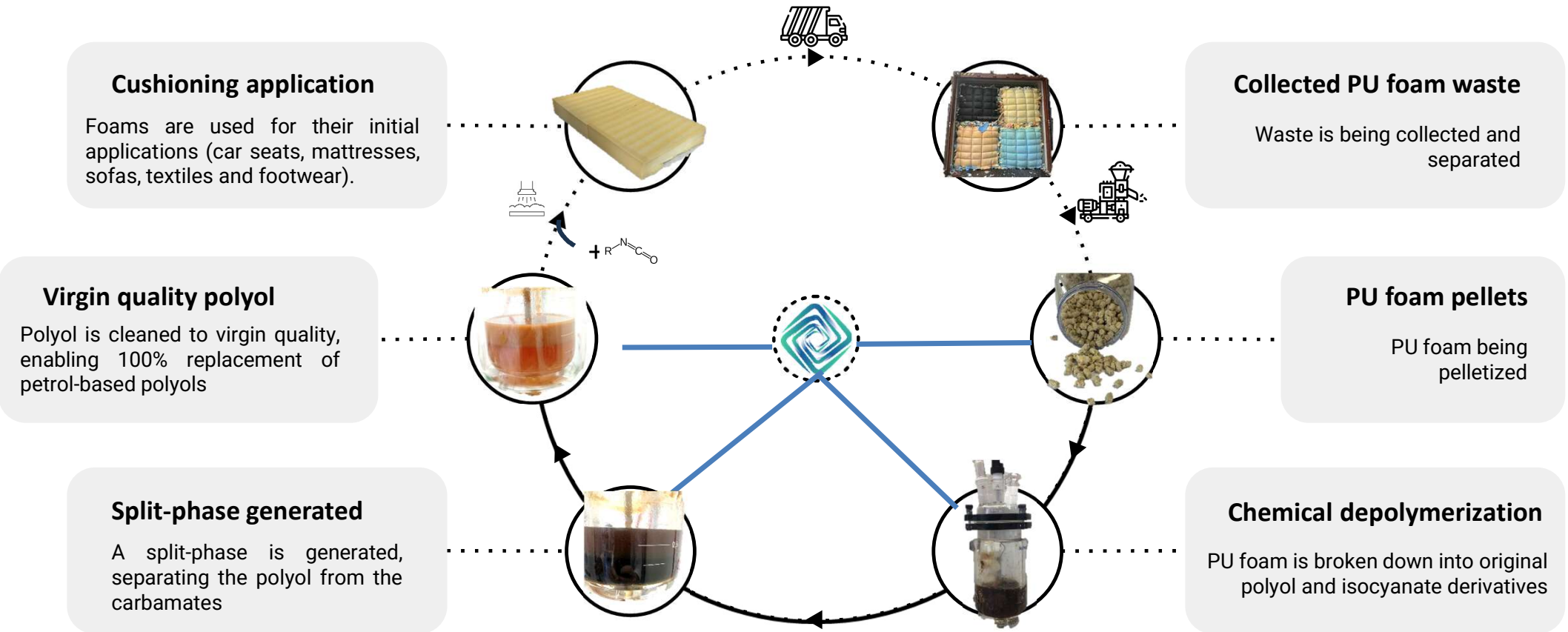
Closing a Circular Rigid PU Foam Value Chain

From appliance foam to spray foam to sandwich panels, reefers and shipping containers and building insulation



Closing a Circular Flexible PU Foam Value Chain

From mattresses to car seats, furniture, textiles and footwear – SurePUre can do all of this today



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