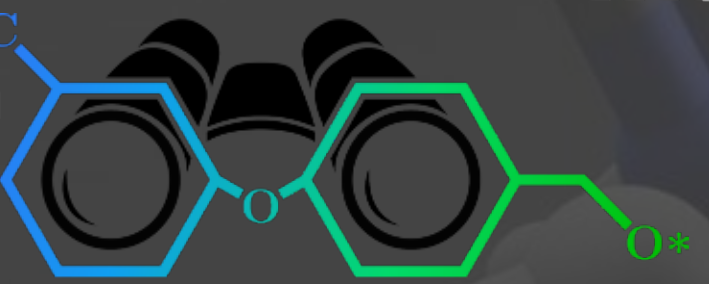
TNO innovation for life

polyscout



AI powered, purpose driven polymer development

polySCOUT

Rethinking material development

1

Polymer demand keeps growing

2

Sustainability is a structural challenge

3

Regulation moves upstream

4

Circularity must be designed in

5

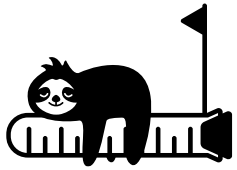
Performance requirements keep rising

We need better, safe & sustainable materials, faster

polySCOUT

Current polymer development is...

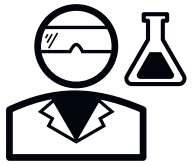
taking years



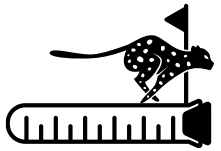
costly

technology push

trial-and-error



Polymer development should be...



in couple of months

cheaper

demand-driven

effective, purpose driven

Accelerating the transition to sustainable, advanced polymeric materials for an impactful future

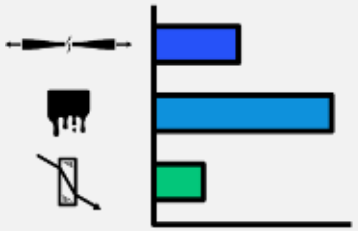
polySCOUT

AI powered polymer development

Spin out from TNO with proven tech transfer approach

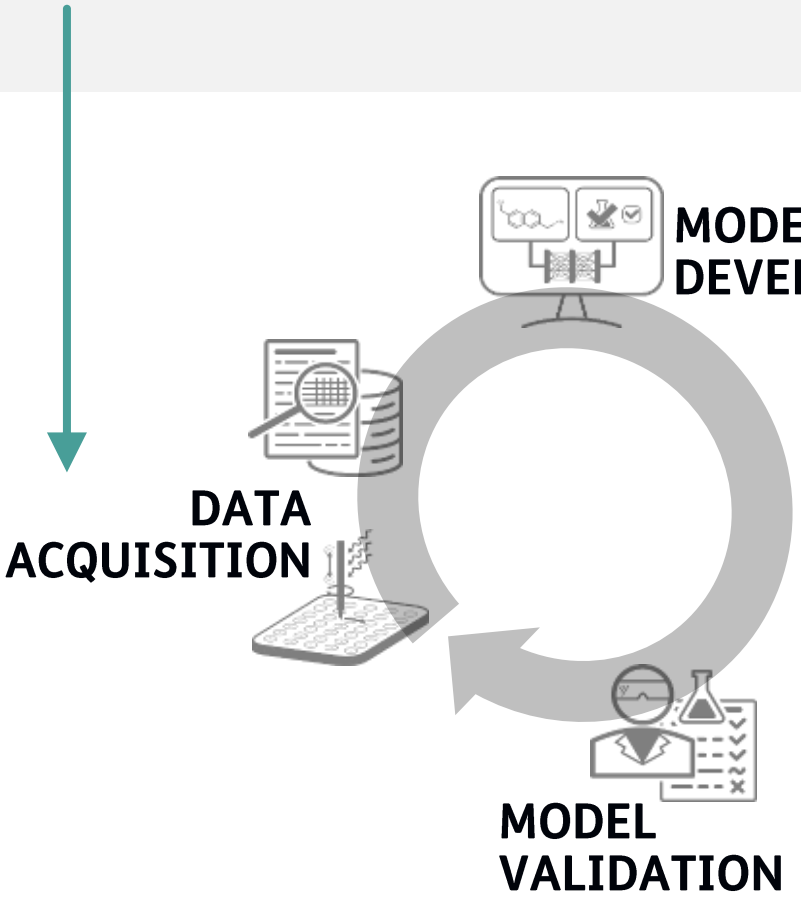
TNO innovation for life

polySCOUT blends AI and polymer science to design and experimentally validate sustainable materials



PRODUCT SPECIFICATIONS

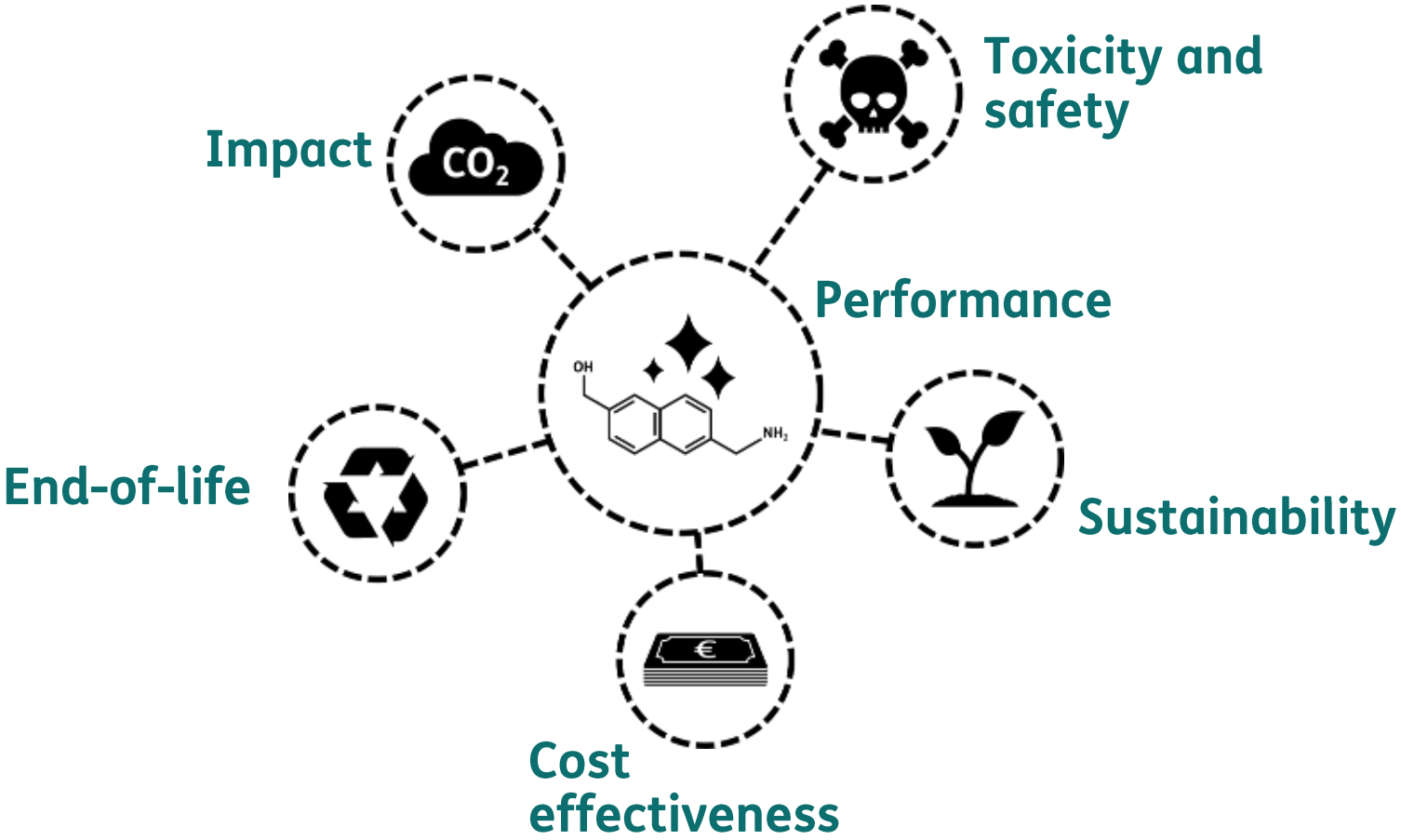
POLYMERIC MATERIALS



POLYMER DESIGN

POLYMER SYNTHESIS & SCALE-UP

polySCOUT designs beyond performance



polySCOUT

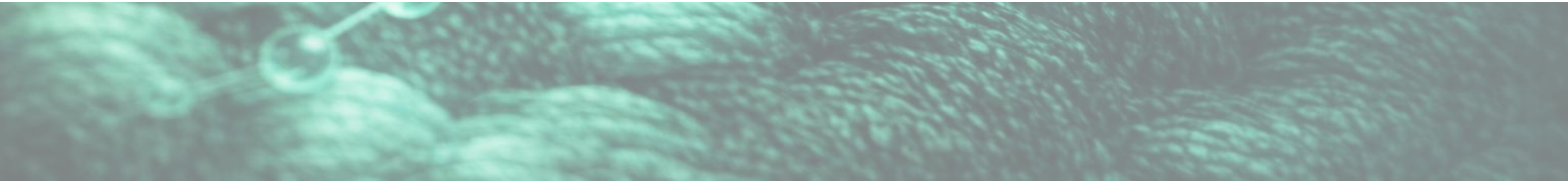
What makes our solution unique

- Own **expert curated database:** monomers, polymers, properties, and applications
- State-of-the-art **fingerprinting method** (BigSMILES transformer) that can capture complex polymers
- Proprietary **physics-informed polymerization algorithm**
- Integrated experimental **validation, synthesis and characterization**

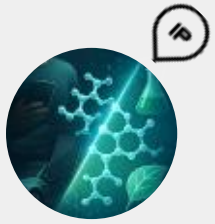
Why it matters

Polymers are hard to model

- Behavior depends on distributions (Mw, branching, polydispersity) and interacts non-linearly
- Processing changes the material



Our business model for AI-powered polymer development



Novel material development for end users

Joint development & Licensing

Customized R&D projects for polymer producers

Contract Research

TEXTILE

ELECTRONICS

AUTOMOTIVE

Unlocking value together

Biomass refining | Monomer design/selection | Polymer design | Synthesis | Scaling (lab > industrial) | Industrial production | Product application

Accelerate innovation: years faster

Reduce impact: biobased & CO_2 reduction

Reduce risk: better selection, prevent fails

Speed up market entry: years earlier revenue

Ensure product performance: higher market share

Expand your reach: new market access

Validated need and market traction

3
Substantiated, subsidized pilot programs

10+
Commercial pilot projects in advanced discussion

“polySCOUT’s AI model incorporating polymer topology clearly stands out.”

“We need a polymer development powerhouse to meet market needs”

BIOTTEK
Joint knowledge development on high-performance biodegradable polymers for textiles

Let’s Build the Future of Materials Together!

Partners

Co-develop novel polymer materials or customized R&D solutions, from early design to validation and scale-up

Collaborations

Work with us on data, experimentation, or polymer scaling to accelerate safe and sustainable material innovation

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PolySCOUT - TNO Ventures