

HEALANT

SELF-HEALING TYRE TECHNOLOGY

A TYRE THAT HEALS FROM THE INSIDE.

Self-healing material intelligence for puncture
puncture protection.

Cycling first. Automotive next.

TRILATERAL INNOVATION SUMMIT 2026 | 5-MINUTE PITCH

THE PROBLEM

A puncture: a small event that leads to frustration and danger

01

The ride stops

A race, a commute or a weekend ride becomes a roadside repair.

02

Protection needs upkeep

Liquid sealant adds recurring checks, refills and clean-up.

03

Performance is a trade-off

Riders balance protection, weight, rolling resistance and ride feel.



Breakthrough research in self-healing materials.

15 years of polymer research, now translated into a repeatable product.



Tech

Dynamic/reversible bonds reconnect after damage.

IP

5 patent filings + proprietary process knowledge

A solid healing layer.
Applied inside the tyre.

One continuous response: puncture, heal, continue.







01 PUNCTURE

The object passes through the tyre and the solid HEALANT layer.

02 HEAL

The dynamic polymer network reconnects around the puncture channel.

03 CONTINUE

Retained pressure is the objective within validated conditions.

Four approaches. Different mechanisms.

Added protection. Built-in protection. Liquid sealing. Solid healing.

FOAM INSERT



Protect the inner tube

Fitted between tyre
and inner tube.

BUILT-IN INSERT



Block penetration

Protection built into
the tyre beneath its tread.

LIQUID SEALANT



Seal with liquid

Poured into the tyre.
Needs checks and refills.

HEALANT TAPE



Heal with a solid layer

Applied inside the tyre.
Final qualification underway.

The mechanism works. Now scaling the product.

Pressure retention, sealing outcome and rolling resistance answer different questions.

0.0 bar

PRESSURE LOST

4.8 bar before and after.

Sealant comparator: -2.9 bar in under 7 seconds.

97%

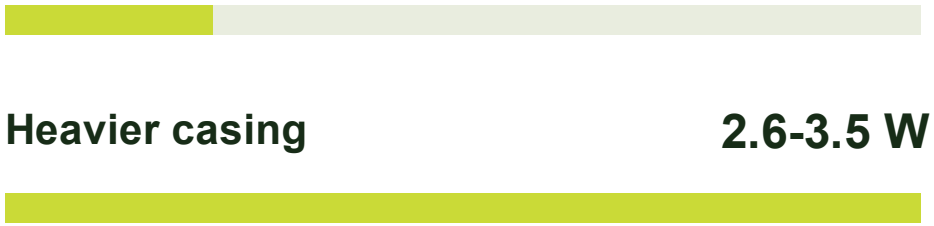
SEALED

n = 60.

1-3mm punctures, 5mm cuts

ADDED ROLLING RESISTANCE

At 40 km/h | extruded route



Casing-specific results. Final tape RR to validate.

Cycling is the wedge.
Automotive is the scale.

CYCLING	AUTOMOTIVE
$3B TAM	**$46B TAM**
$1B SAM	**$16.5B SAM**
Tubeless / target segments	Top 15 PCLT players



SOM / EXECUTION WEDGE	Cycling: road + gravel pilots → DTC , shops / distribution	Automotive: partner qualification → industrial integration

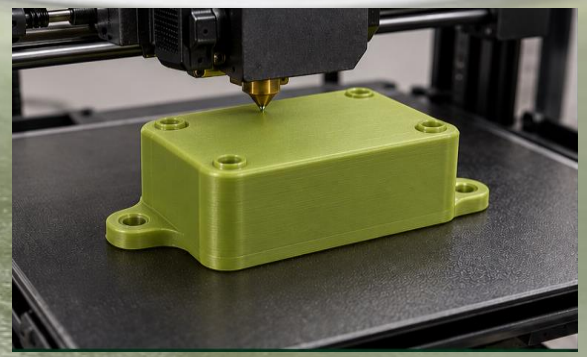
Tyres are the first market.
The platform extends beyond them.

CYCLING

Product validation, rider evidence and first commercial learning.

AUTOMOTIVE

Larger industrial opportunity, with a longer qualification path.



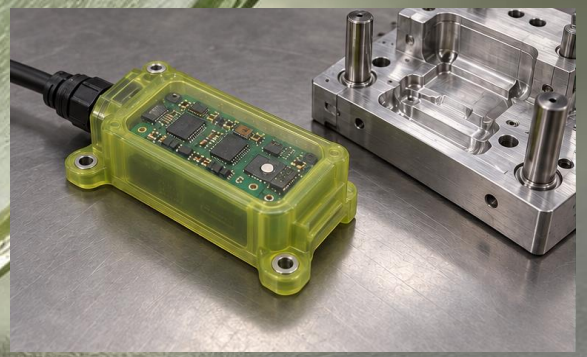
FDM PRINTING

Healed layer interfaces



LONG-FLOW MOLDING

Low-viscosity processing



ELECTRONICS

Gentle encapsulation



ROOFING

Thin healing membrane

Research depth. Capital. Industry engagement.

15 yrs RESEARCH BASE

VUB polymer science

€4M ROUND CLOSED

3 June 2026

Global top 5 bike tire makers



Major distributors



UCI World Tour teams (Tour de France teams)

UCI

Independent evidence and partner programmes guide the next development gates.

The people behind the platform.

Materials, process engineering, testing and commercial execution.

COMPANY



Simon Beckers

Founder & CEO

GROWTH



Anastasia Klimenko

Head of Growth & Strategic Partnerships

DEVELOPMENT



Michael Elwell

CTO

RESEARCH



Hamed Abdolmaleki

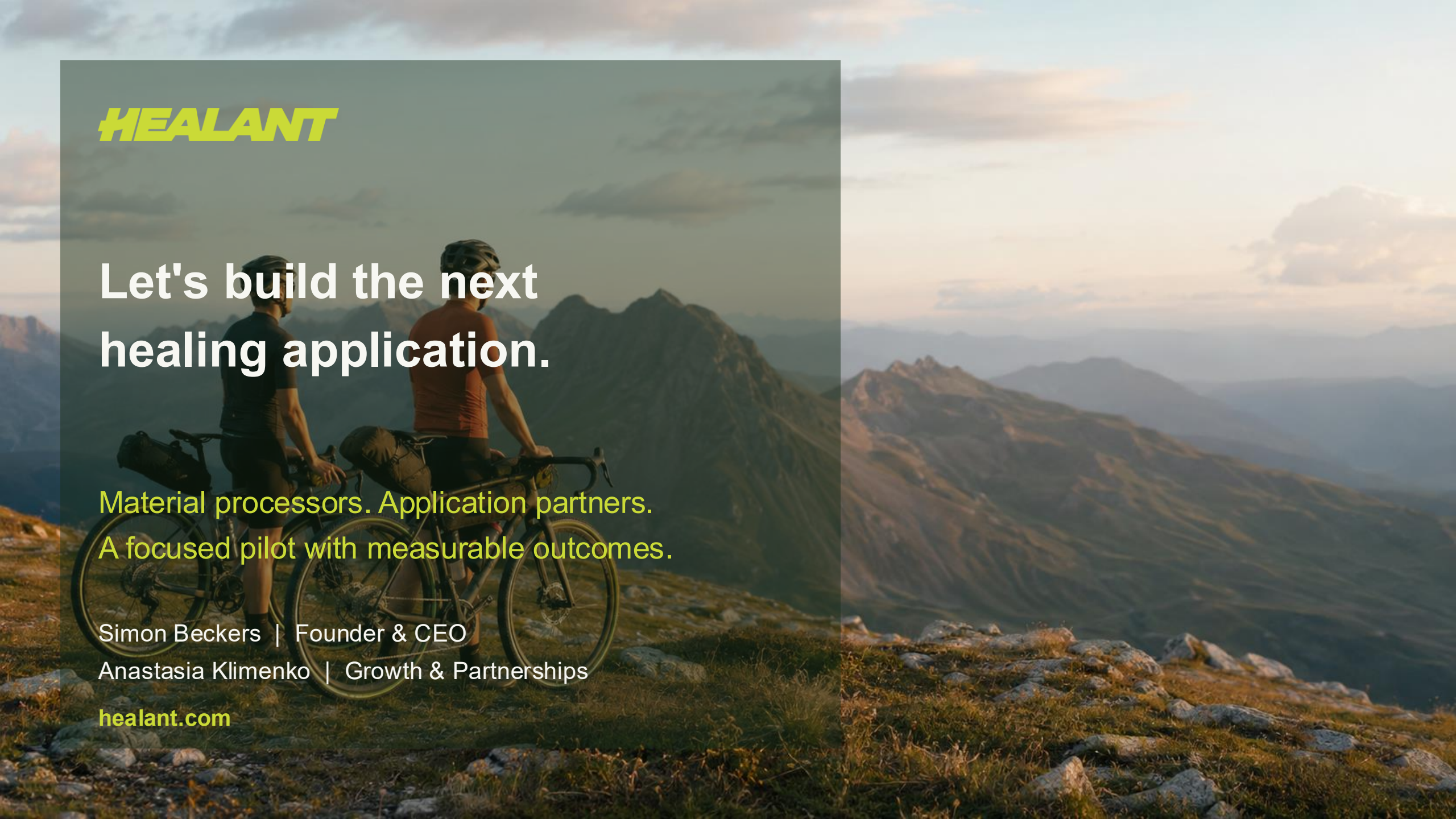
Head Materials Scientist

TESTING



Iwan De Valckenaere

Testing Team Lead


HEALANT
Let's build the next healing application.
Material processors. Application partners.
A focused pilot with measurable outcomes.
Simon Beckers | Founder & CEO
Anastasia Klimenko | Growth & Partnerships
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