

AI Agents for Smart Testing

Closing the loop between simulation,
driver-in-the-loop, and reality

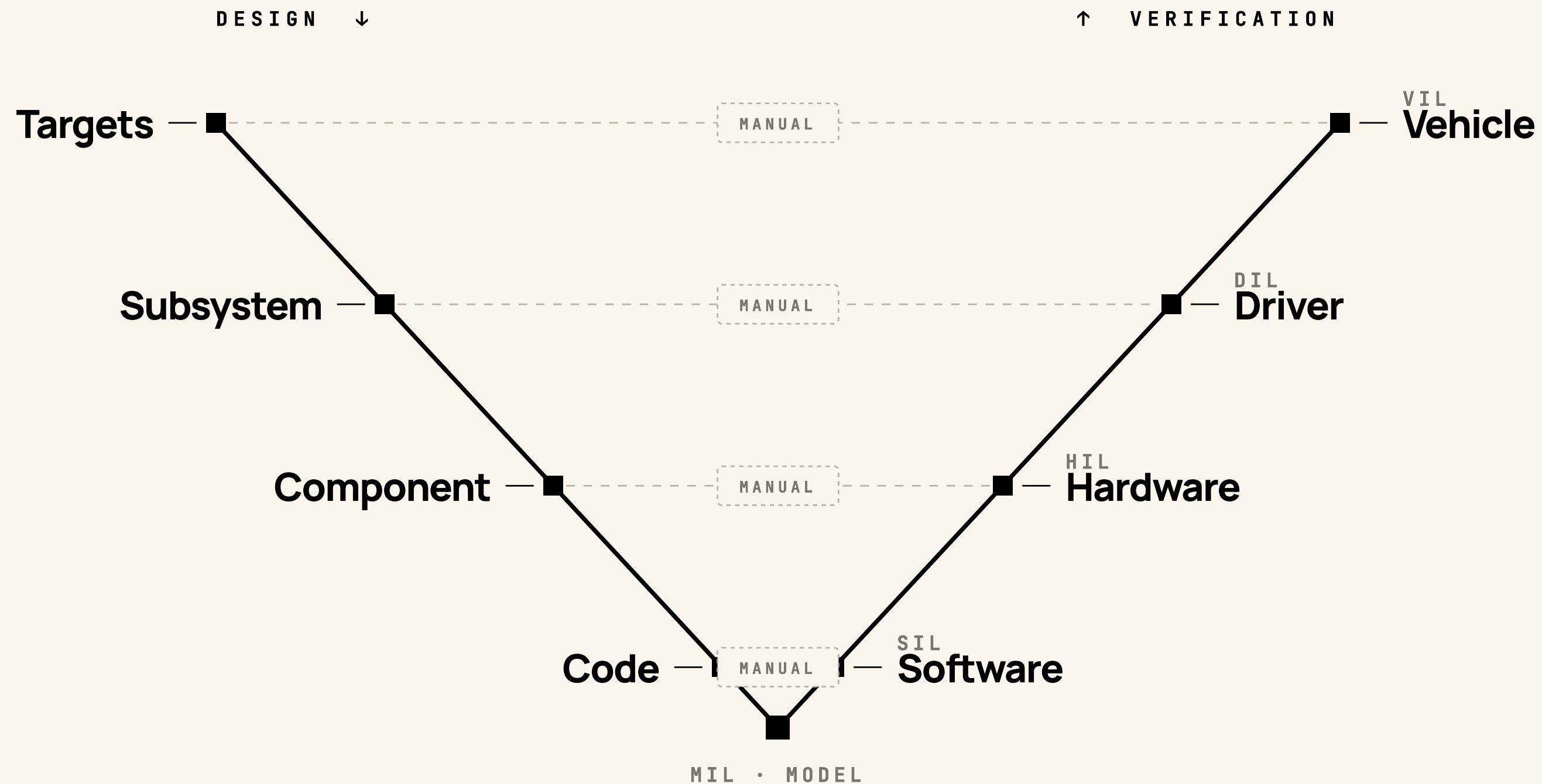
MOVEdot

Bruno Finco Co-founder & CTO

bruno.finco@movedot.com

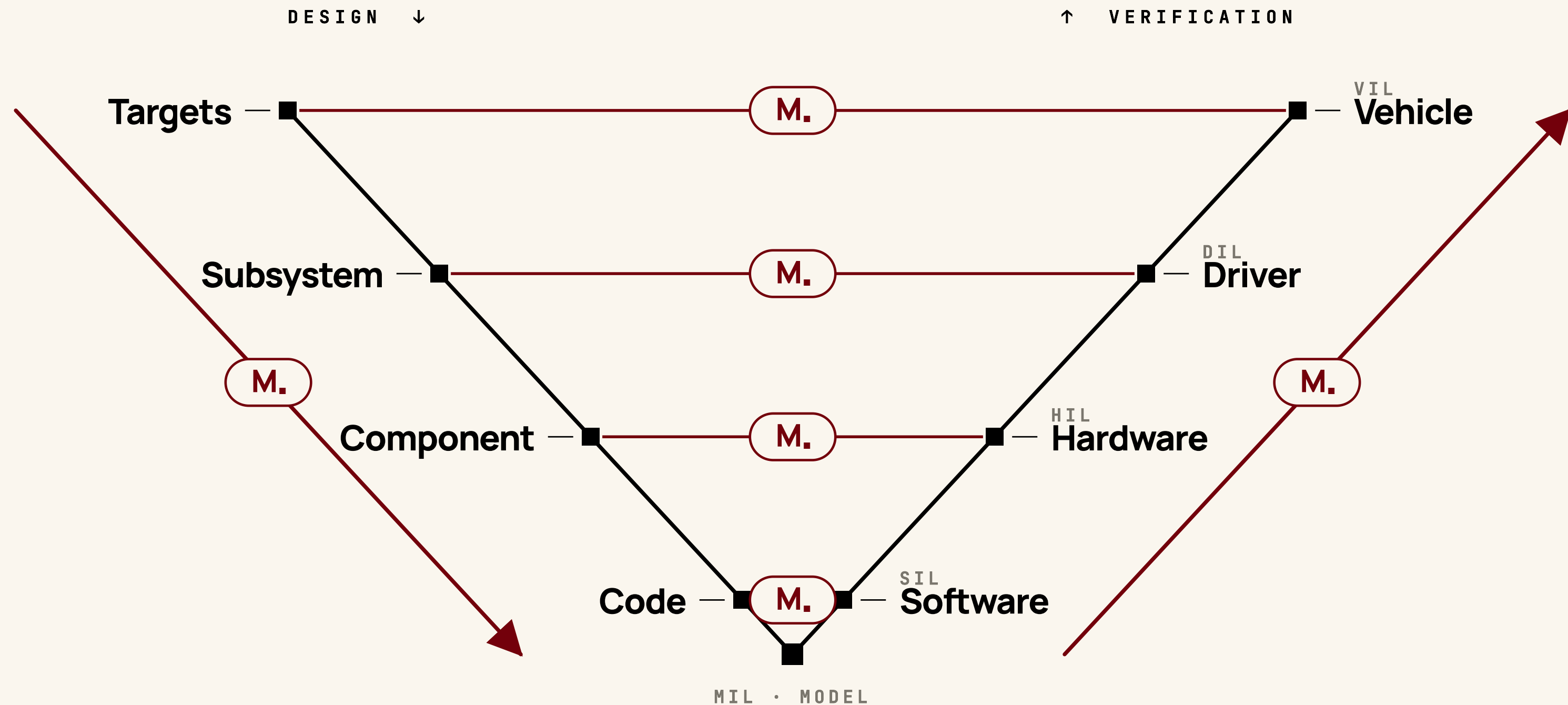
Where engineer time goes

Hopping across the V is still manual work



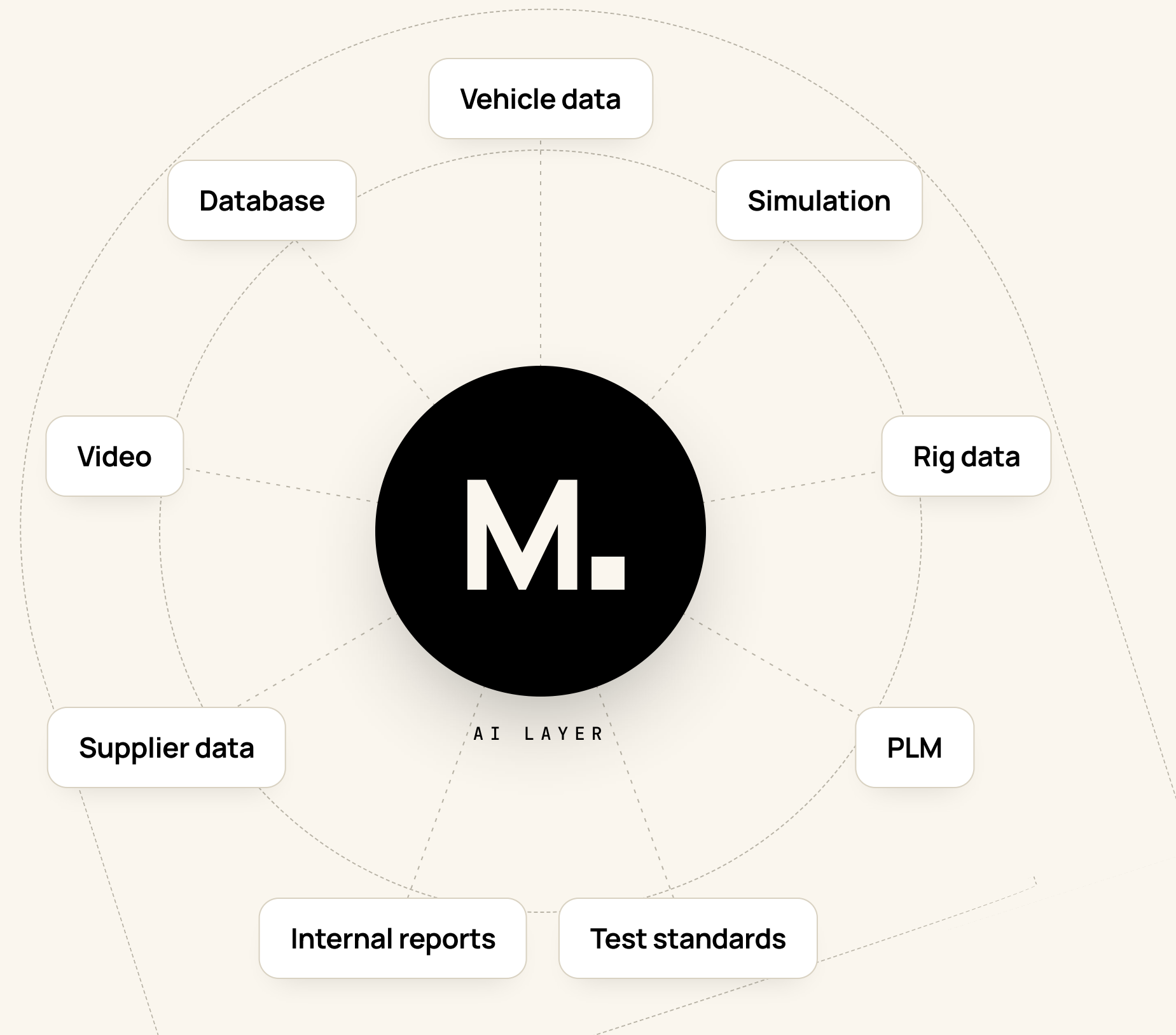
AI agents close the loop

Cascading design, verifying back up, and connecting every pair



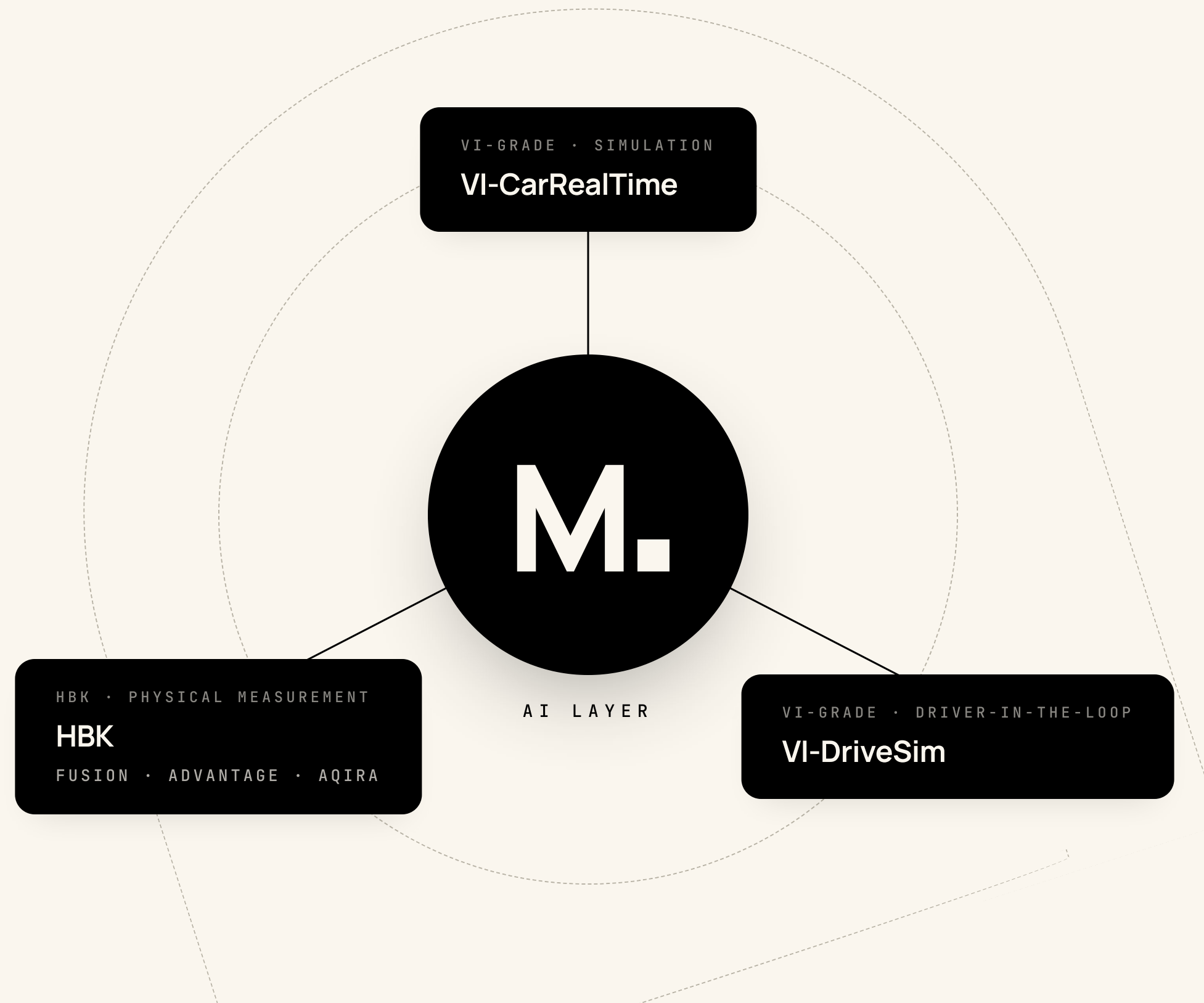
The AI Layer

An AI layer over every data source you have



Native to VI-grade and HBK

Agents connect to the tools you already use



Project objectives

Targets shaped by the market


Sportier next-gen
Don't lose ride
Sensible on cost




Constant radius
HANDLING



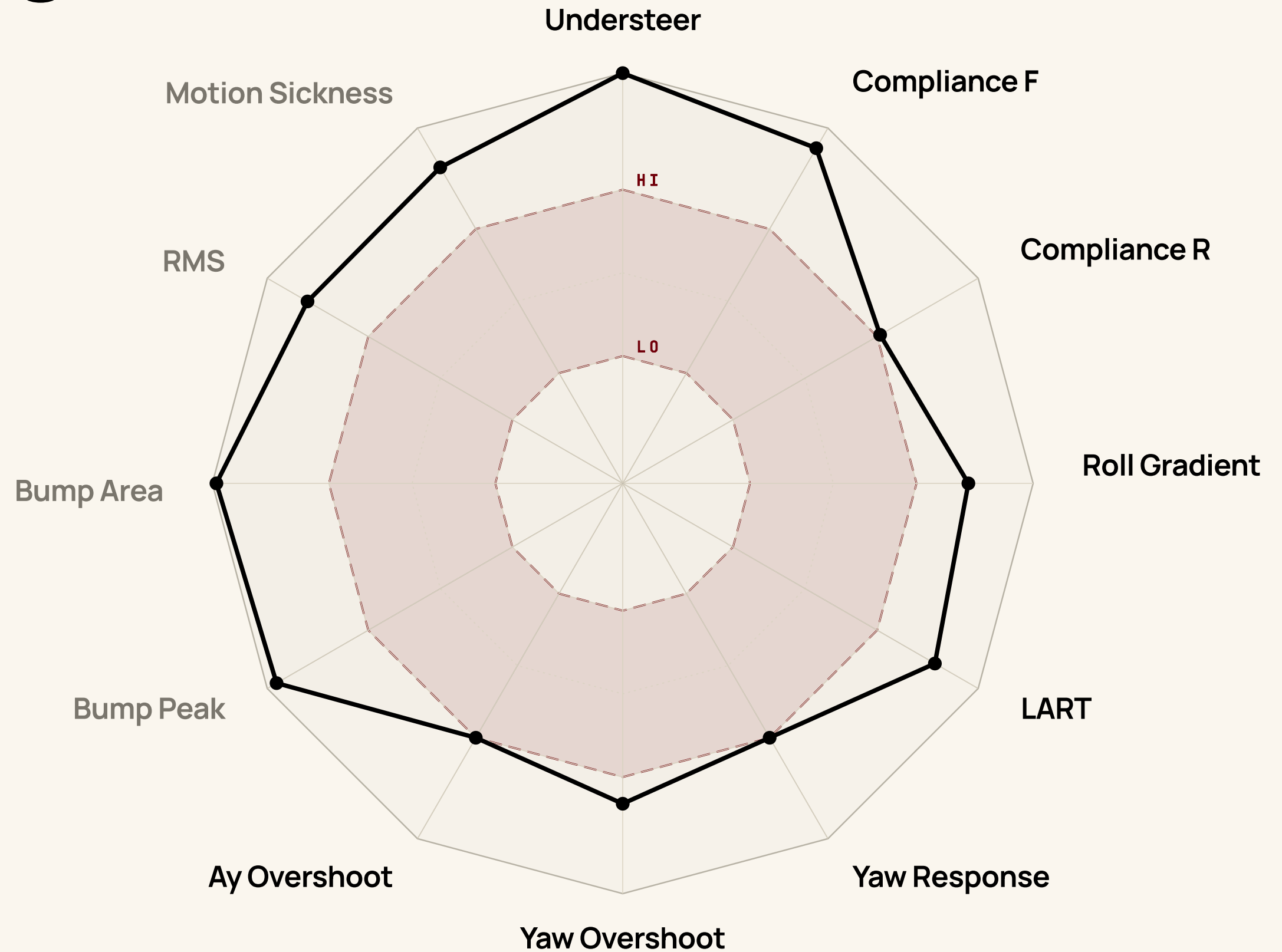
Step steer
HANDLING



Speed bump
RIDE



Rough road
RIDE



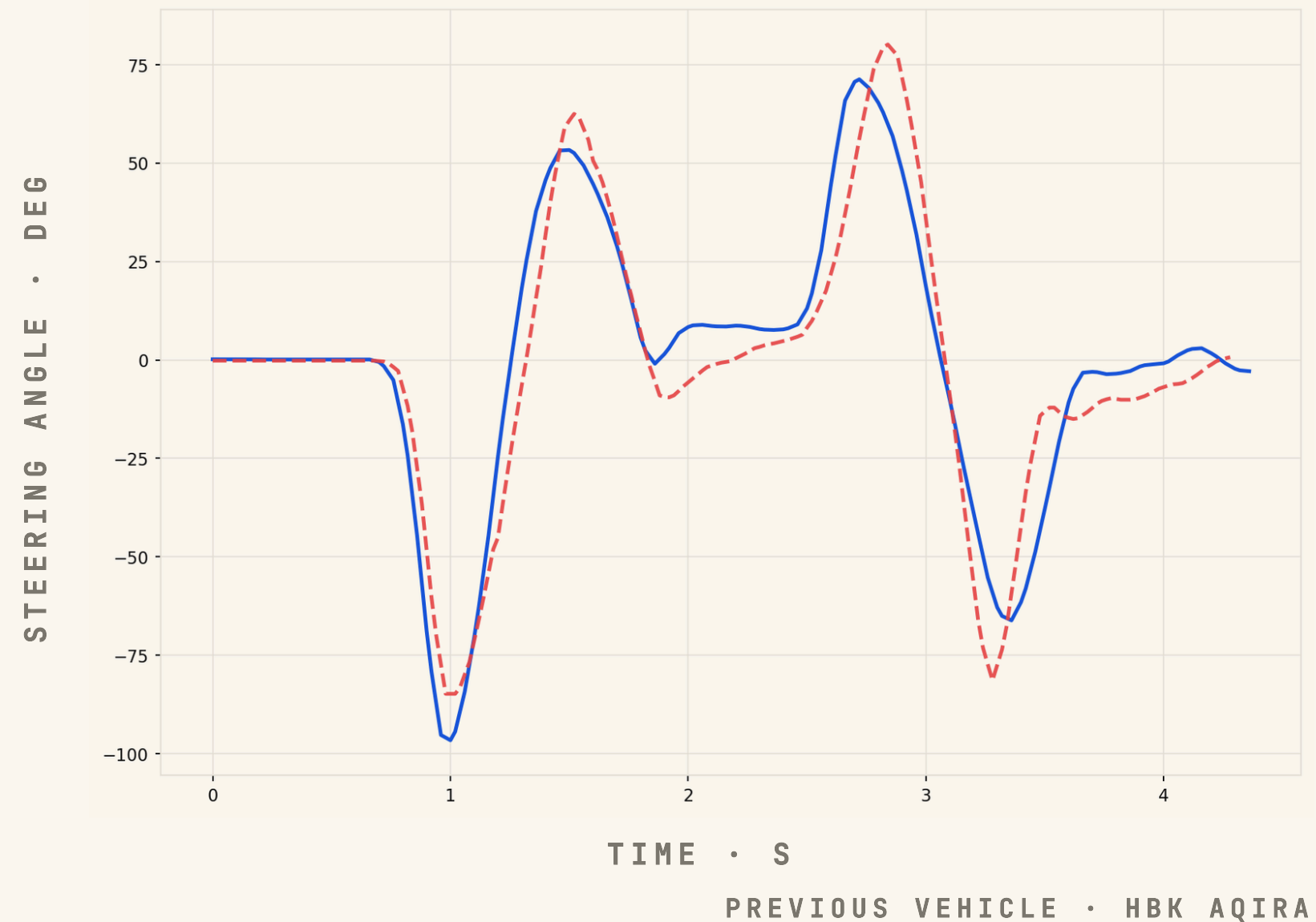
Validating the model

Agent compares simulation with measured data

DOUBLE LANE CHANGE

— MEASURED - - - SIMULATED

Steering trace



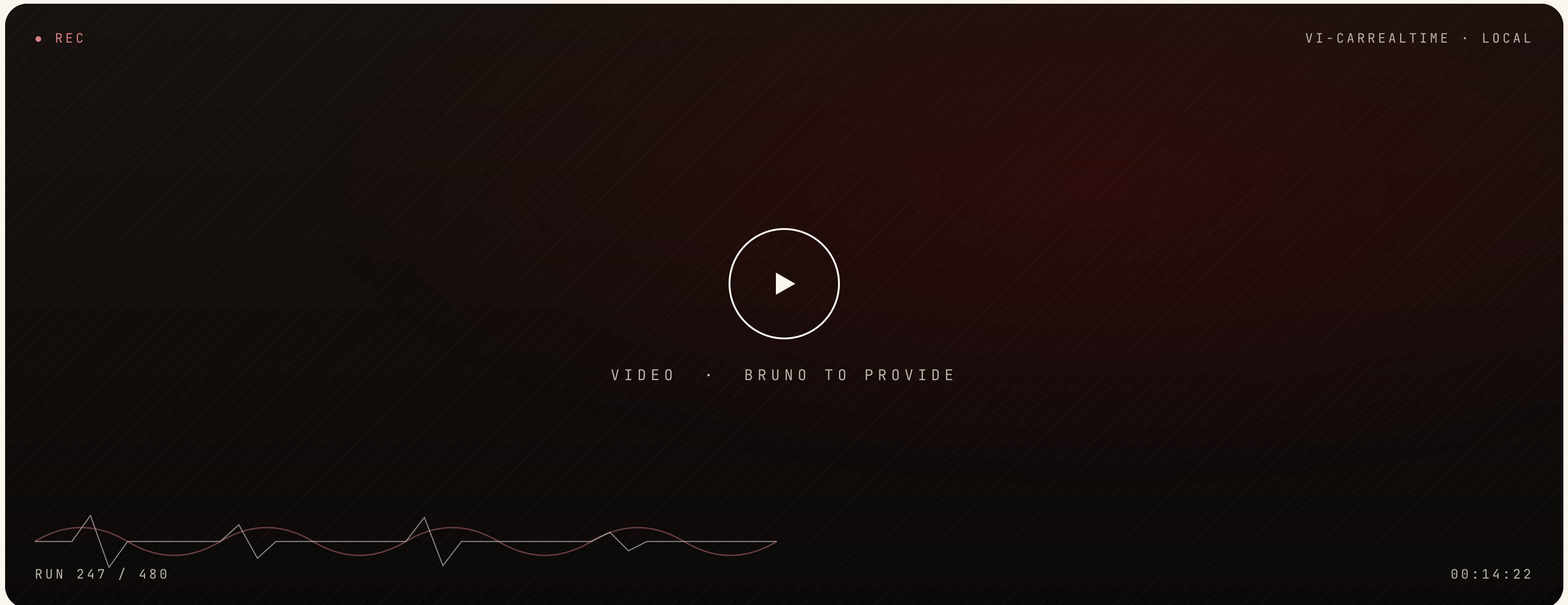
M.

VALIDATION
AGENT

- 01 Pulled previous vehicle data
- 02 Reran maneuvers in VI-CarRealTime
- 03 Compared traces
- 04 Flagged drifts and adjustments

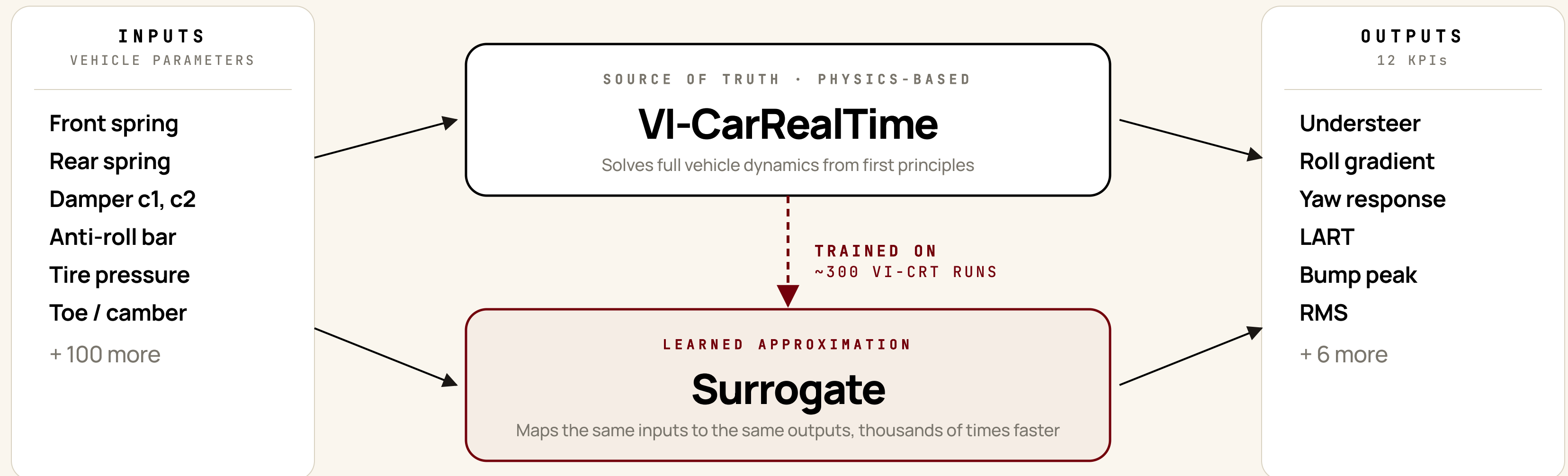
Hundreds of simulations

An agent runs VI-CarRealTime for you



Surrogate model

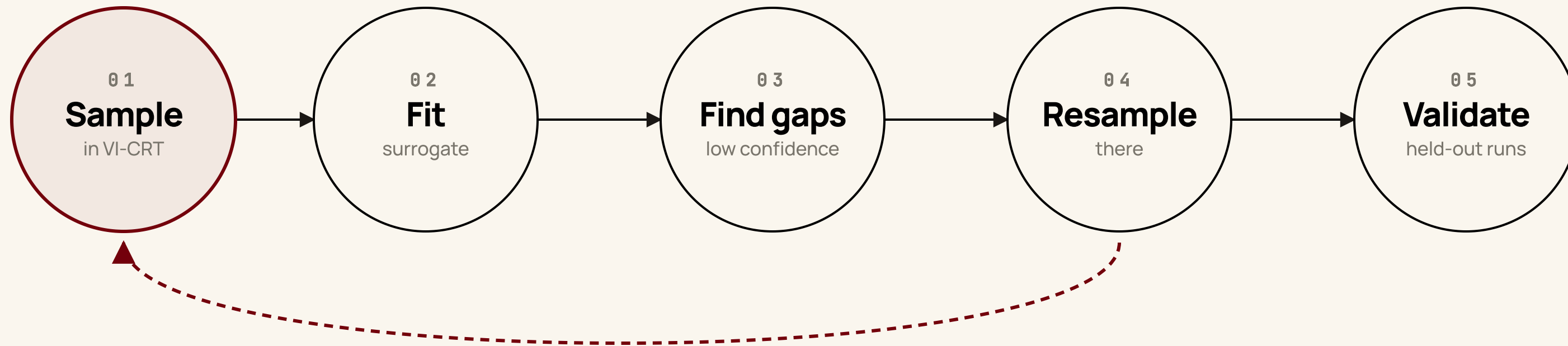
Same inputs in, same metrics out. Learned from VI-CarRealTime



VI-DataDrive Cloud runs multiple simulations in parallel

Adaptive loop

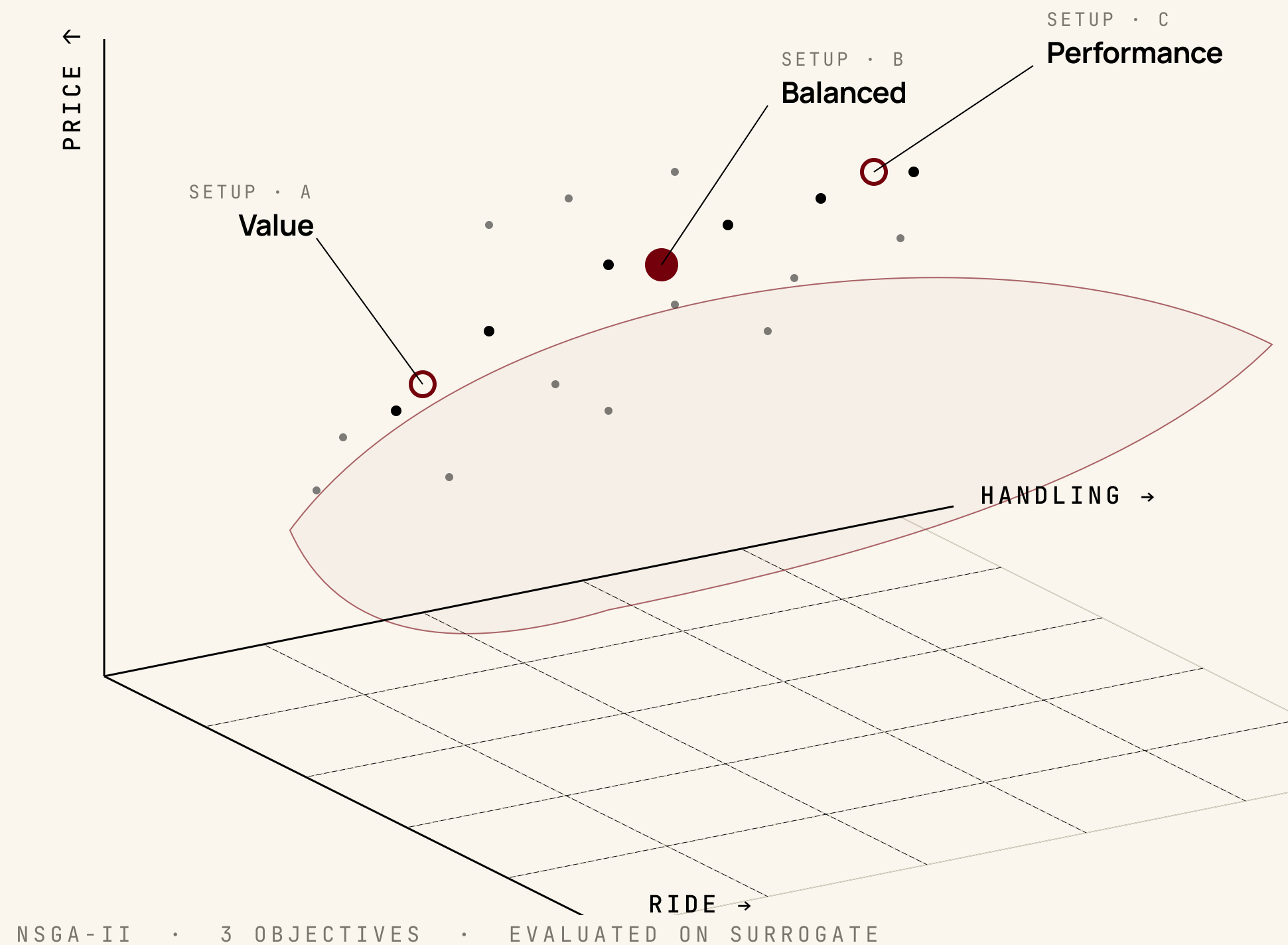
Sample where the surrogate is uncertain. Repeat until it isn't



UNTIL THE SURROGATE IS ACCURATE ENOUGH TO TRUST

Multi-objective optimization

Handling · ride · price



Three optimized setups

Picked from the Pareto front

Value

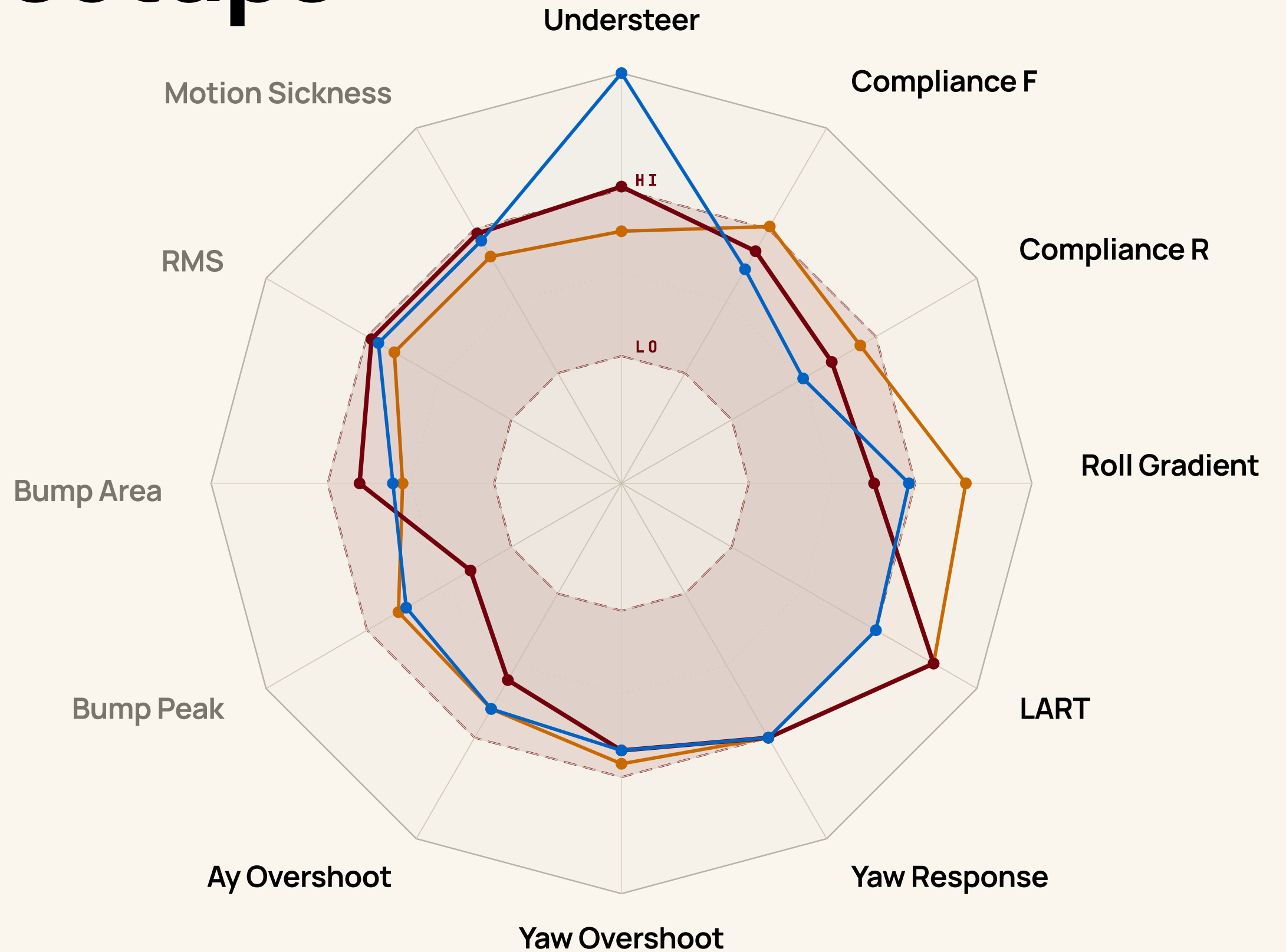
+ \$50

Balanced

+ \$550

Performance

+ \$950



Connected to the simulator

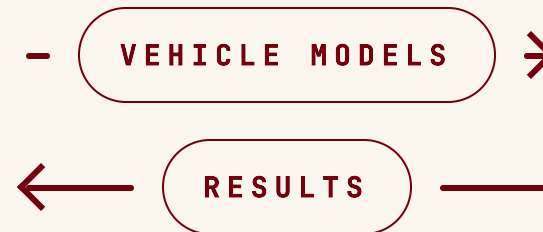
Vehicle models out, results back

MOVEDOT · AGENT PLATFORM

M.

Agents

Hold the project. Push the setups. Read the results back.



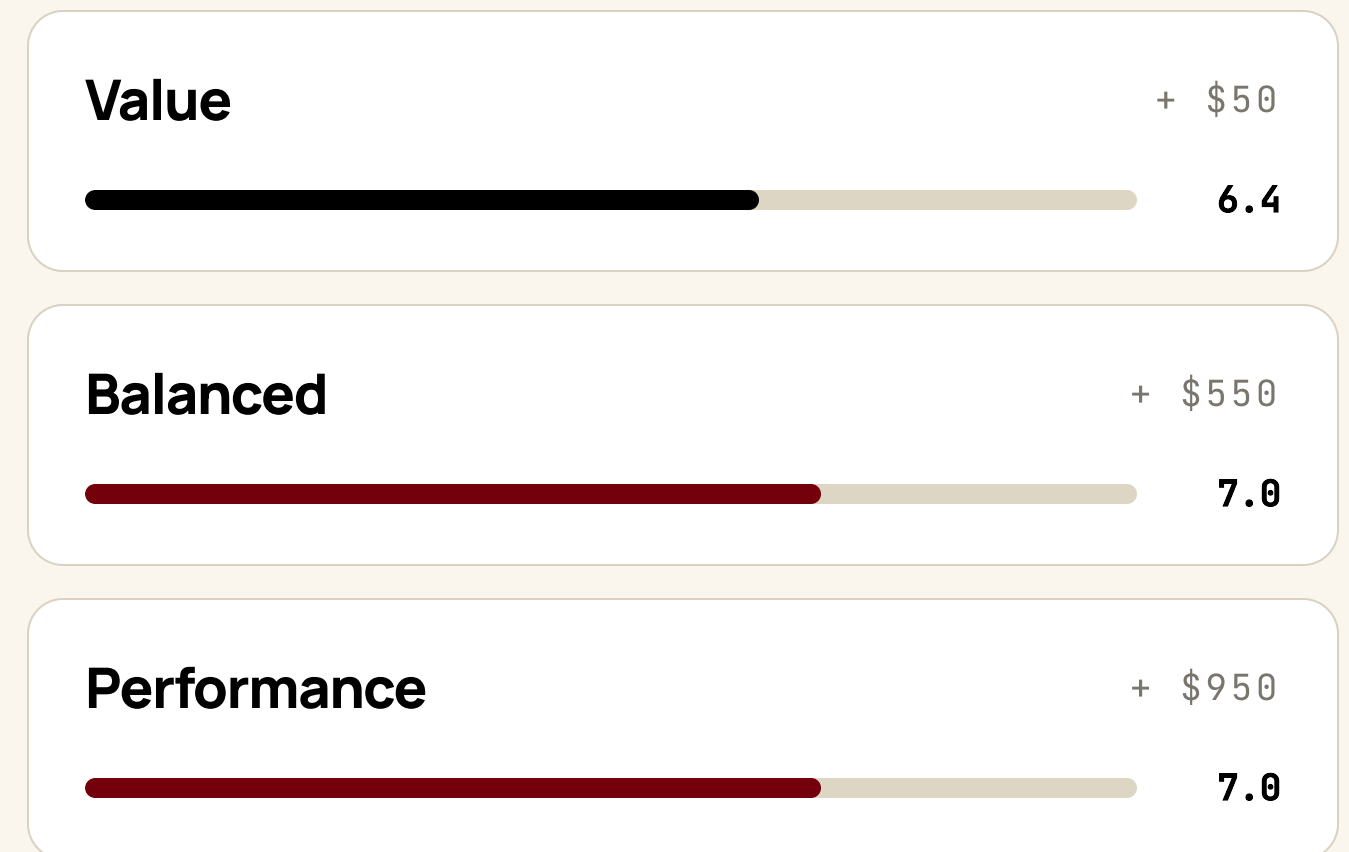
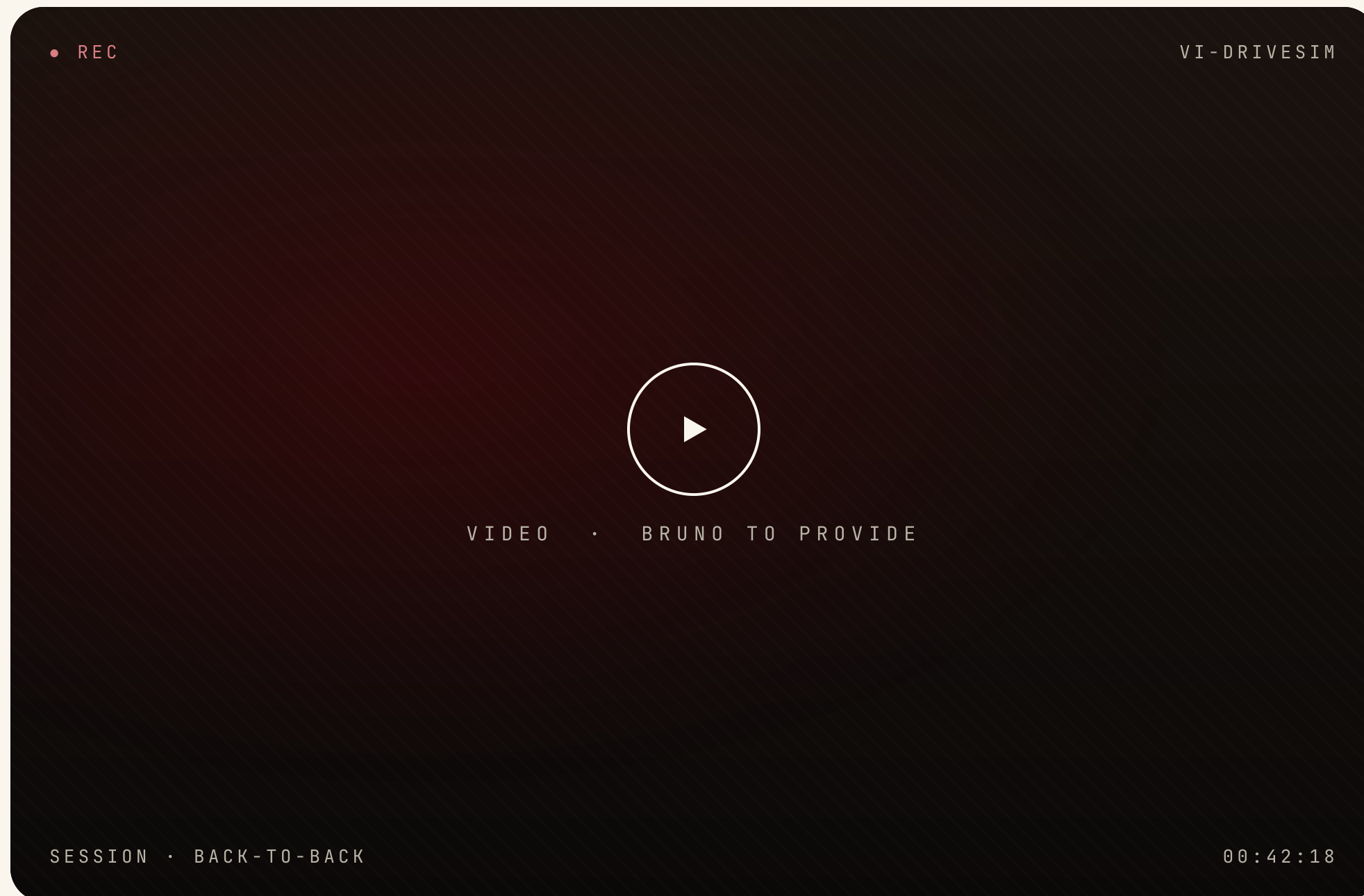
Drop a VI-DriveSim render or photo

VI-DriveSim

DRIVER-IN-THE-LOOP RIG

Driver-in-the-Loop

Real driver, real feedback, three setups back-to-back



Driver feedback

Four areas the project actually cares about

AREA	BASELINE	VALUE	BALANCED	PERFORMANCE
Handling response	<u>6.3</u>	<u>6.1</u>	<u>6.9</u>	<u>6.9</u>
Steering feel	<u>6.5</u>	<u>6.5</u>	<u>6.5</u>	<u>6.5</u>
Ride comfort	<u>6.5</u>	<u>6.5</u>	<u>7.0</u>	<u>7.0</u>
Advanced handling	<u>6.8</u>	<u>6.3</u>	<u>7.5</u>	<u>7.5</u>
OVERALL	6.5	6.4	7.0	7.0

DRIVER · ON VALUE

“Still understeery and demanding of precise driving. Wouldn't consider it fun yet.”

DRIVER · ON BALANCED

“Most refined so far. Multiple iterations of adjustment into and through the corner.”

40 VI-CRT simulation files

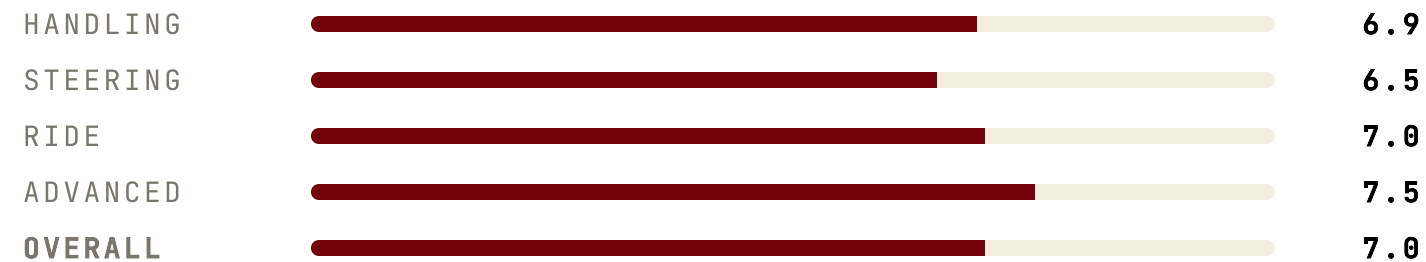
5.2_h DiL driving data

200 Driver ratings & notes

Performance not worth the cost

RECOMMENDED • WINNER

Balanced



“Closer to neutral, less scrub. Genuinely interesting to drive.”

DRIVER • ON BALANCED

+ \$550

CANDIDATE

Performance



“I couldn't differentiate this version from the Balanced one by feel alone.”

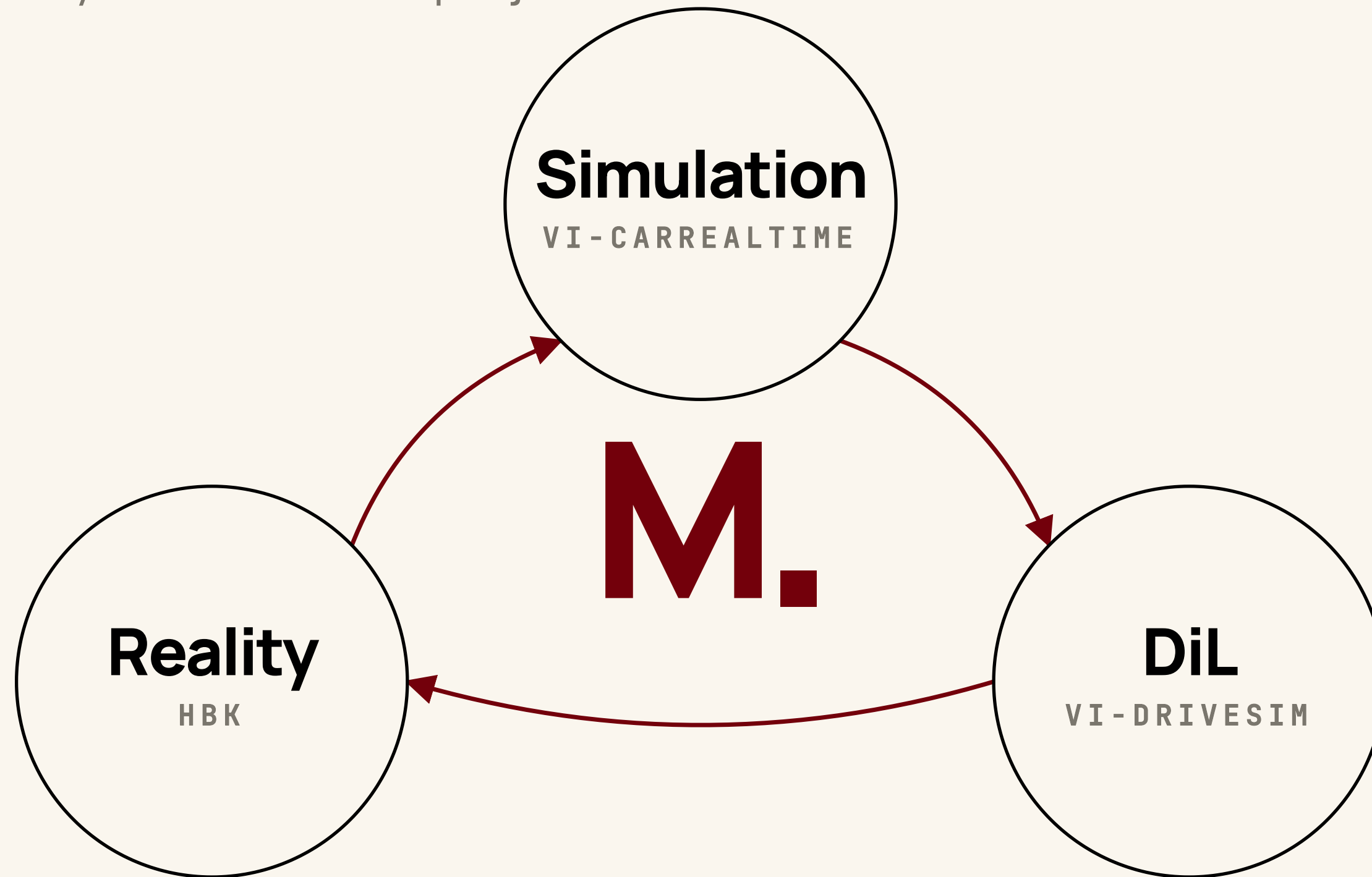
DRIVER • ON PERFORMANCE

+ \$950

Performance costs \$400 more for the same feel

Closing the loop

Sim, rig, and reality in one shared project



Design iterations **in hours**, not weeks

STAY IN TOUCH

Bruno Finco

Co-founder & CTO

movedot.ai

bruno.finco@movedot.com



LINKEDIN

SCAN TO CONNECT