

RC FLASH

THE AI LAB FOR MACHINE FIRMWARE

We read, map and safely rewrite the software inside engine and machine controllers — and use it to make American agriculture, and the fleets around it, stronger.

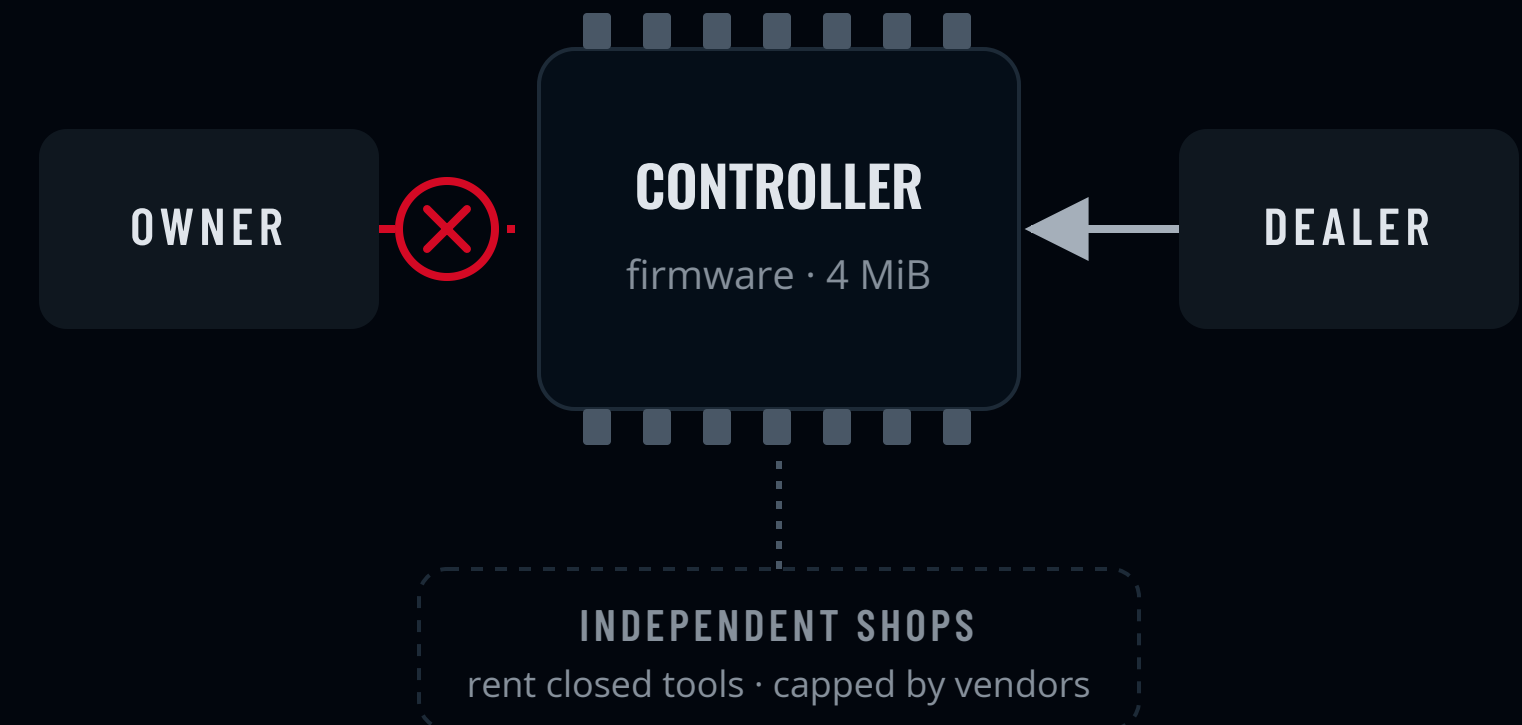
SEED ROUND · 2026

THE PROBLEM

THE MACHINE IS YOURS. ITS SOFTWARE ISN'T.

- 🔒 **Every machine is run by firmware its owner can't read.** It sets the power, the shifts, the derates, and whether a replacement part is accepted.
- 🔧 **The dealer is the only door.** A derate in harvest means days of downtime on a machine that earns its keep in weeks.
- 🔑 **The independents don't own their tools.** They rent closed suites and can only sell what those vendors support. In ag, what's on offer is mostly emissions deletes – illegal, and not engineering.

WHO CAN CHANGE IT



THE SOLUTION

ONE STACK. OWNED END TO END.

rcflash runs from the USB cable to the checksum – one Rust codebase, ours.

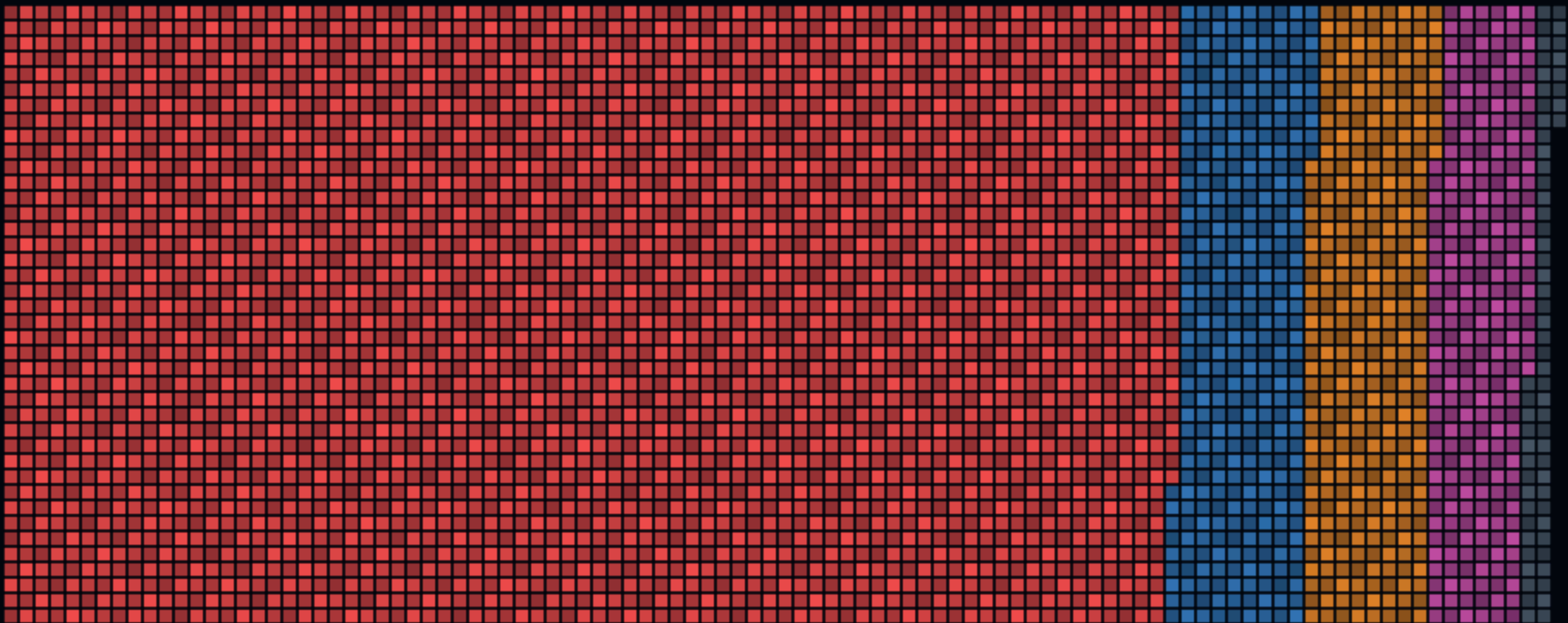
- Every common cable, plus our own dongle
- UDS, KWP2000, J1939, GMLAN
- Maps *and code*, checksums repaired
- Remote: our tuner on your cable

SERVICE	app.rcflash.io	API	agents work the queue	
INTELLIGENCE	Ghidra pipeline	A2L corpus index	map inference	
MODIFICATION	calpatch · data	shims · code	checksum repair	
FLASH	module recipes	seed-key	bootloaders	
PROTOCOL	UDS	KWP2000	J1939	GMLAN
TRANSPORT	every cable	own dongle	remote relay	

OWNED END TO END

WHY WE'RE A LAB

WE UNDERSTAND BINARIES OTHERS TREAT AS OPAQUE



- EDC17 3,031 diesel · ag, truck, commercial
- MED9.X 320 petrol GDI · PowerPC
- OTHER 64
- ME7.X 339 petrol · C167
- MED17 / MEV17 254 petrol · TriCore

5,665

ECU VARIANTS, LABELLED

901,201

DISTINCT MAP & SIGNAL NAMES

99.4%

OF 12,943 REAL FILES PARSED

Ground truth for map inference. Analysis on Ghidra — the NSA's open-source RE suite — plus our own tooling.

WE SOLVE THE HARD ONES

A CHECKSUM THE COMMUNITY WORKED AROUND FOR YEARS

Bosch ME7's sector checksum had been patched around, never solved. We solved it — every sector, every sample.

216/216

SECTORS VERIFIED

16

CHECKSUM FAMILIES REPAIRED

“Every null result needs a positive control.”

The method — and why the remaining families are a queue, not a wall.



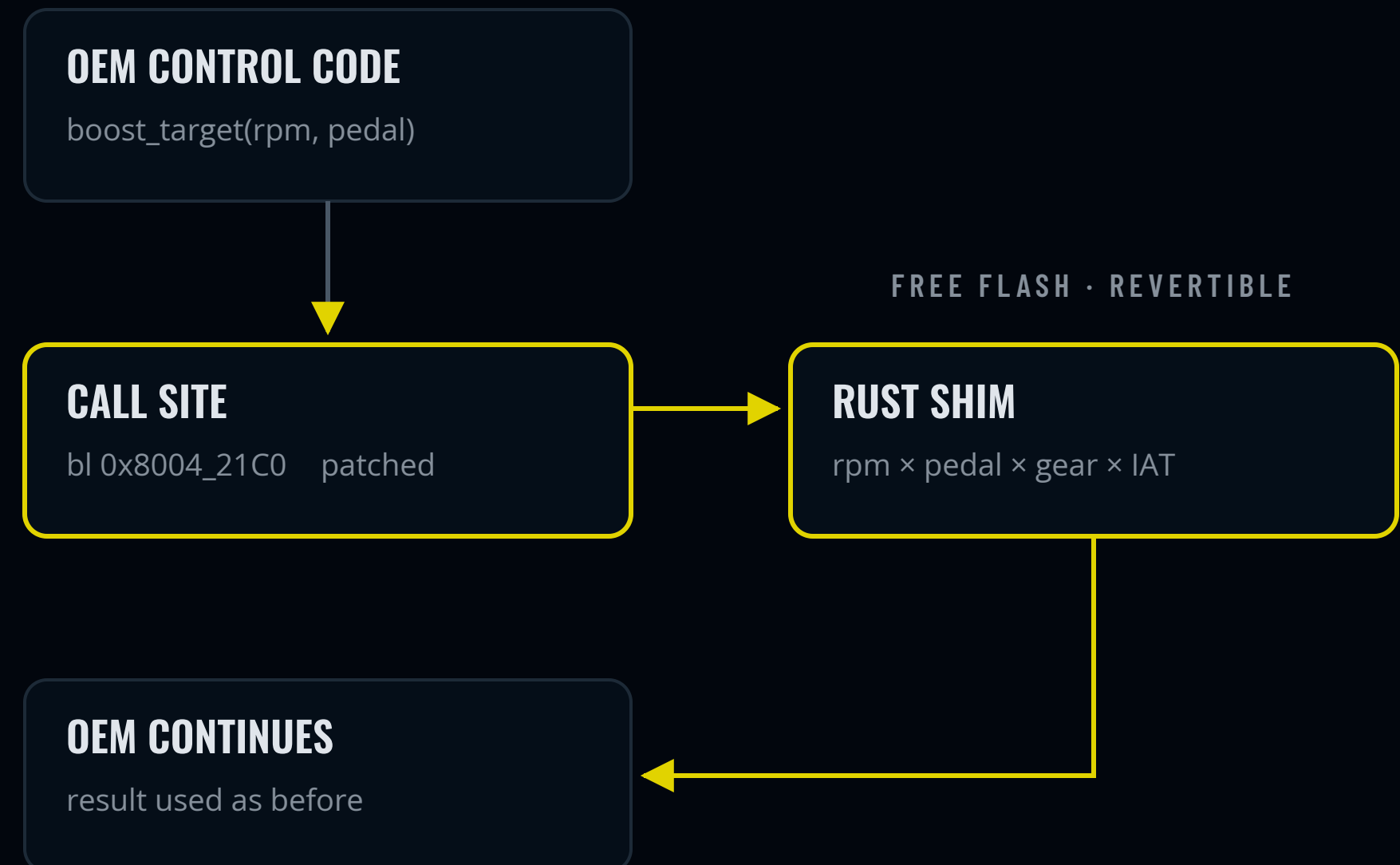
CODE, NOT JUST MAPS

WE CHANGE THE LOGIC

Every tool on the market edits tables. Our shim framework compiles a Rust function per controller family, places it in free flash and redirects the OEM call — reversibly.

- New governors and limits for fleets
- Maps on more axes than the OEM shipped
- New logged parameters for external loggers

SOLD AS ENGINEERING, NOT AS A FILE



WHY THIS COMPOUNDS



WE OWN THE STACK

No vendor gate, no per-unit tool tax,
cross-platform, remote.



WE CHANGE CODE

Custom controller behaviour, sold as
engineering.



WE UNDERSTAND BINARIES

5,665 variants and 901,201 labels —
training data for map inference.



WE SOLVE THE HARD ONES

Problems the industry routes around
become our queue.



COMPLIANCE-FIRST

Versioned, auditable changes. Emissions
systems stay in.



AGENTS RUN THE SHOP

Queue to reviewed calibration; every file
feeds the lab.

WHY NOW

FOUR CURVES CROSSING

01 RIGHT TO REPAIR IS LAW

State ag right-to-repair statutes and federal enforcement against repair restrictions. Agriculture leads it.

03 AI ON BINARIES IS PRACTICAL

With a labelled corpus, map and label inference is a modelling problem — not years of manual work.

02 OPEN TOOLING MATURED

Ghidra open-sourced, Rust on embedded and desktop, cheap CAN hardware.

04 MACHINES ARE SOFTWARE

Every model year widens the gap between what the hardware can do and what the owner may do.

THE FOCUS

AMERICAN AGRICULTURE FIRST

Expensive machines, brutal downtime. A flagship combine lists above half a million dollars and earns its keep in a few weeks of harvest.

A mixed fleet on one bus. Bosch EDC17 and EDC7, Cummins, Denso and OEM controllers — all on SAE J1939, which we already speak.

Owners want out of lock-in. Farmers have led right-to-repair and won the most ground.

Served worst. The market offers delete kits. We offer engineering: calibration within compliance, module programming, derate diagnosis, fleet programs.

MARKET & MODEL

THREE SEGMENTS, ONE STACK



AGRICULTURE

focus · design partners next



COMMERCIAL FLEETS

pickups, vocational, Class 8



PERSONAL AUTOMOTIVE

live today at app.rcflash.io

US tractors & combines in service

cited figure

Independent ag-equipment repair shops

cited figure

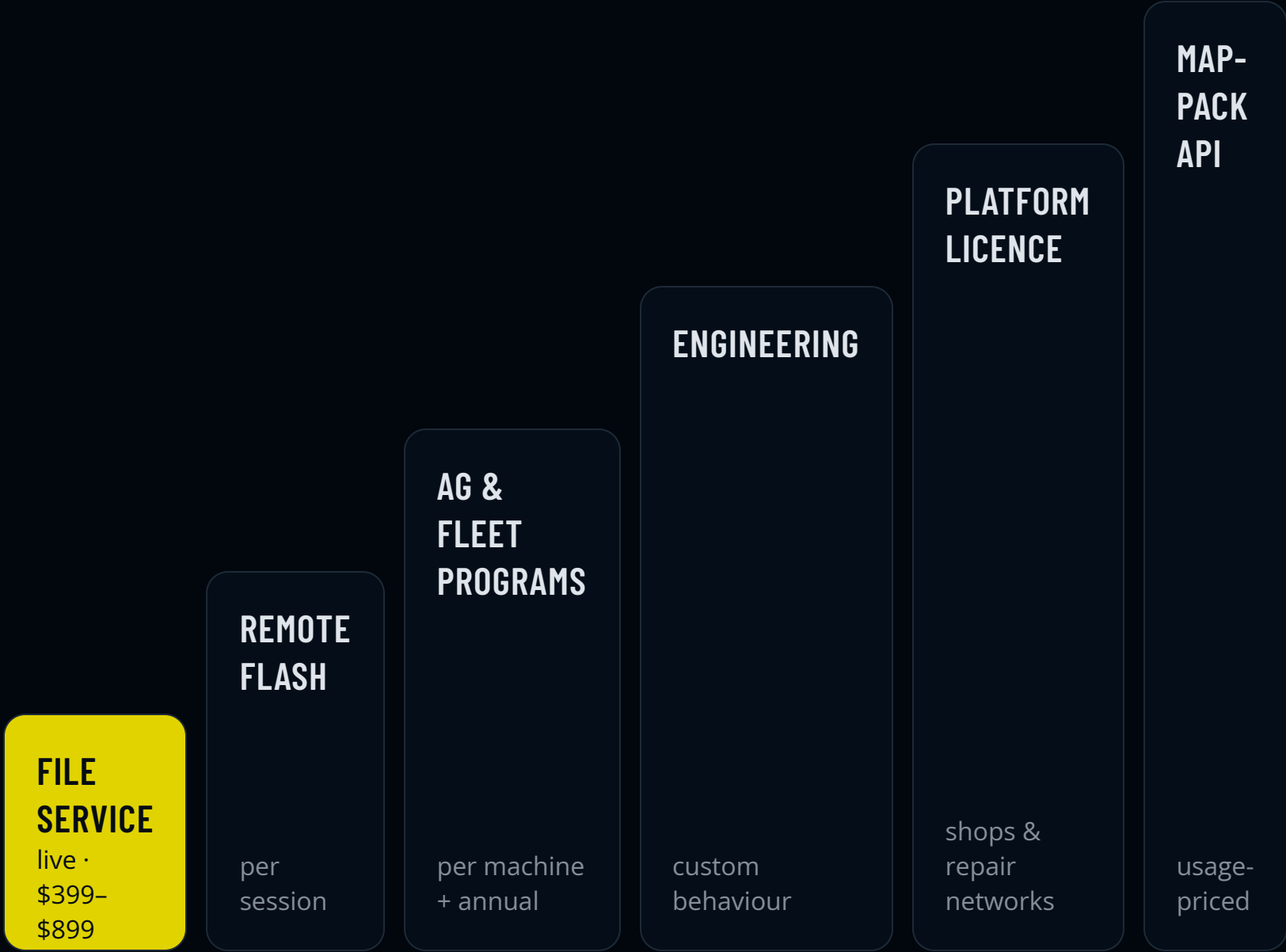
US aftermarket tuning spend

cited figure

Class 6–8 fleet vehicles

cited figure

REVENUE, IN THE ORDER WE EARN IT



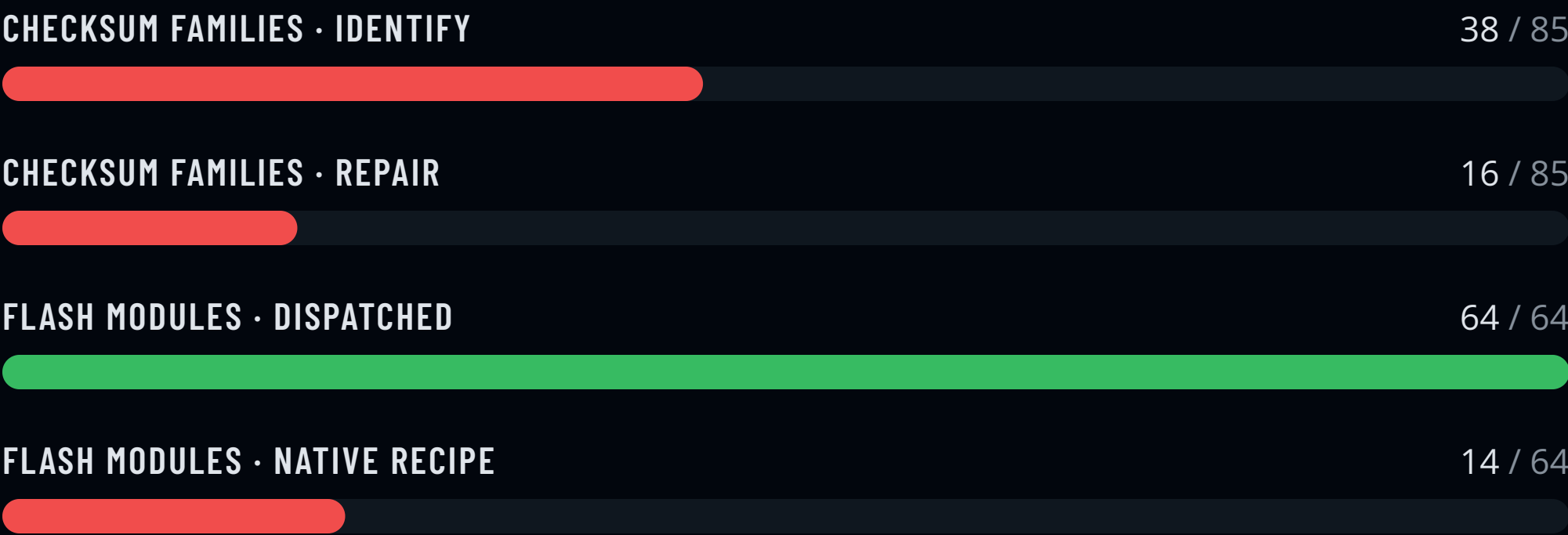
WHERE WE ARE

MEASURED IN THE REPO, NOT PROMISED

Target is the full catalogue. These bars are today's numbers — the ones a diligence call will reproduce.

Any J2534 PassThru	Tactrix OpenPort 2.0 (native)
Scanmatik Pro 3	SocketCAN
PEAK PCAN	Macchina M2
ELM327 · USB / BLE / Wi-Fi	RC Flash ESP32 dongle

📄 app.rcflash.io taking paid work



TRACTION

WHAT WE'VE BUILT

12,943

DAMOS PACKS PARSED &
MAPPED

5,665

UNIQUE ECU VARIANTS
INDEXED

153K

LINES OF RUST, OUR OWN

2,500

AUTOMATED TESTS

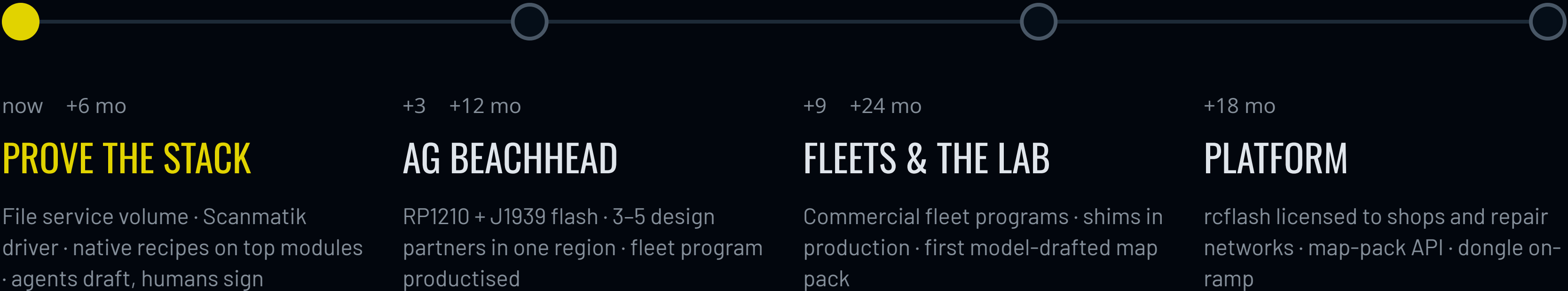
53

CRATES IN ONE
WORKSPACE

- / ME7 sector checksum solved, 216/216
- / 132,891 DAMOS 800 files (530 GiB) catalogued
- / 8 cable backends + our own ESP32 dongle firmware
- / 11 OEM seed-key families · UDS, KWP2000, J1939
- / 16 checksum families validated + repaired
- / 901,201 distinct map & signal labels indexed
- / 47 ECU simulator personalities for bench-free testing
- / Remote-flash QUIC relay · customer platform live · agents drafting calibrations

GO TO MARKET

SERVICE FIRST, PLATFORM LAST



COMPLIANCE

EMISSIONS SYSTEMS STAY IN

Tampering law covers farm equipment as well as road vehicles. Delete shops live with that risk; we built the company so it isn't ours.

It is also the position delete shops can't move into.



NO DELETES, NO DEFEAT DEVICES

DPF, EGR, SCR, catalysts, sensors and monitors are untouched — on road vehicles and nonroad engines alike.



ENFORCED IN THE TOOL

Emissions tables are flagged in our atlases; patches that touch them are refused.



EVERY CHANGE IS VERSIONED

A full diff per machine: what changed, what didn't, and a byte-exact revert.



INSIDE THE REPAIR EXEMPTION

DMCA §1201 covers vehicle and farm-equipment software for repair and lawful modification.

TEAM

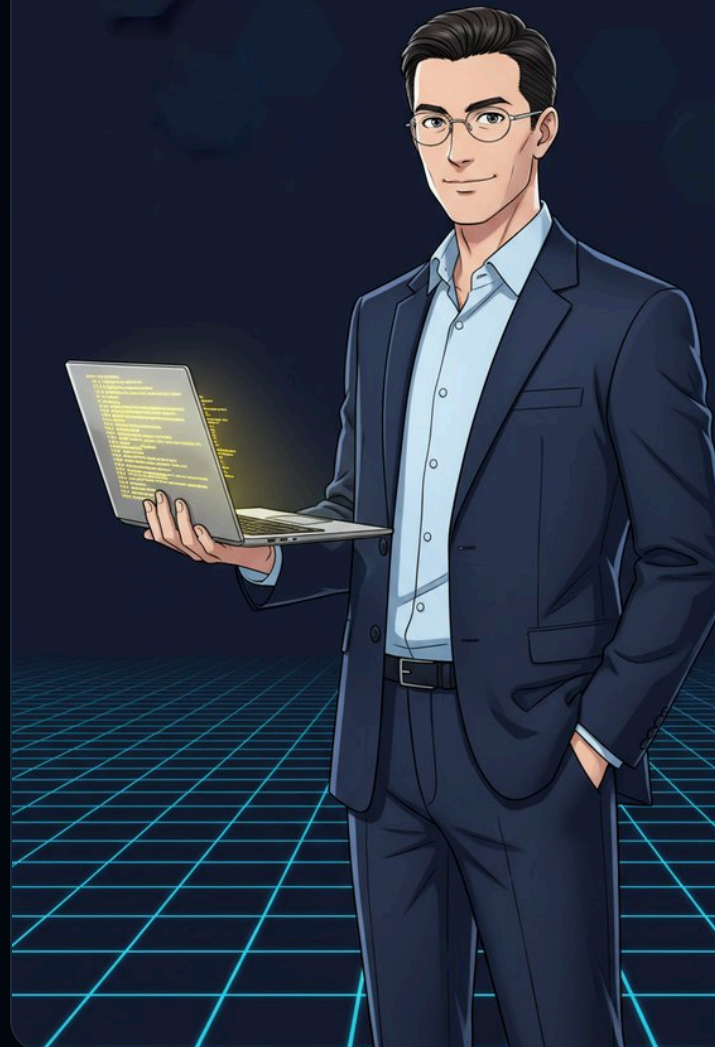
THE PEOPLE DOING THE WORK



CEO

CRAIG YOUNG

Runs the company:
customers, ag and fleet
partners, and the raise.



CTO

**RAYMOND
PULVER**

Built the rcflash stack:
transport, protocols,
checksums, the corpus and
the platform.

THE ASK

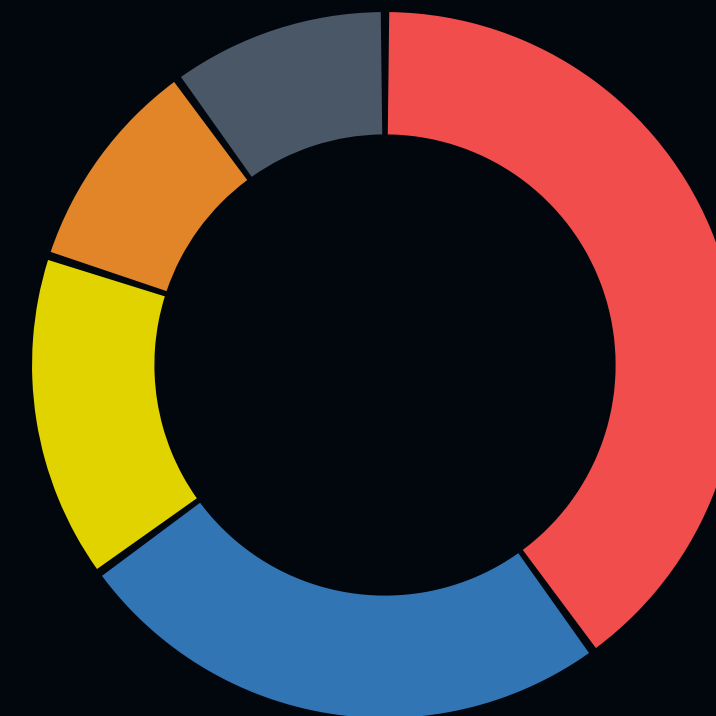
RAISING \$3M

Seed SAFEs · \$20M valuation cap

WHAT IT BUYS

- / Ag design partners live through one full season
- / Native recipes + checksum repair on the top ag/HD controllers
- / A model-drafted map pack accepted on an unseen binary

\$1M ARR PROJECTED
18 MONTHS AFTER CLOSE



- 40% · ENGINEERING**
ag/HD transport + recipes,
checksum + module coverage,
shim encoders
- 25% · THE LAB**
inference models on the corpus,
compute, data partnerships
- 15% · AG GO-TO-MARKET**
design partners, field tuner, demo
equipment
- 10% · COMPLIANCE &
LEGAL**
counsel, insurance, IP clean-up
- 10% · RUNWAY BUFFER**

GIVE OWNERS BACK CONTROL OF THE MACHINES **THEY PAID FOR**

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rcflash.io/seed