

PROGRAM OVERVIEW – FOR GRANT COMMITTEES, PILOT PARTNERS, AND INVESTORS

AUTONOMOUS ROBOTS FOR REAL CONSTRUCTION

#Material-transport

#Fleet-coordination

#Safety-first

#Plain-language-tasking

CONSTRUCTION IS RUNNING OUT OF HANDS

- › Skilled construction labor is aging out faster than it is replaced, across Europe and beyond – and the gap widens every year.
- › A large share of paid site hours goes to carrying materials from where they are dropped to where they are used – heavy, repetitive, injury-prone work that skilled people shouldn't be spending their day on.
- › Material logistics is also where schedules slip: crews wait on blocks, mortar, and tools far more often than on decisions.

The most expensive person on a construction site should never be pushing a wheelbarrow.

Sites don't need a humanoid. They need a tireless, safe mule that moves material exactly where it is needed – and says what it did.

ROBOTS THAT MOVE MATERIALS, SO PEOPLE CAN BUILD

TASK IN, WORK OUT

A site lead types the job in their own words – "Move 40 blocks from the pallet to the wall section" – and the fleet handles the rest. Available today in multiple languages; 50+ planned.

SAFE AMONG PEOPLE

A multi-layer safety system with an independent, hardware-level emergency stop. People always have right of way – the stop decision never depends on AI.

ACCOUNTABLE

Owners see every assignment live, and get a plain-language report every evening: trips, material moved, safety events.

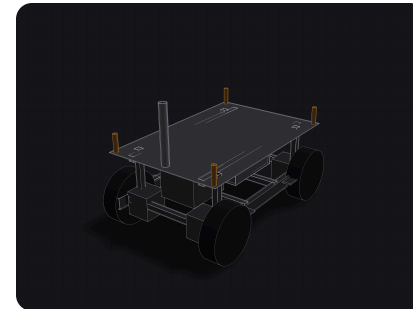
Two tracks: the M200 Construction Mule – the first commercial product – and ACR-1, a legged research program for terrain wheels cannot serve.

M200 CONSTRUCTION MULE

- › **Autonomous material transport** – ~200 kg payload, all-weather, all-terrain duty.
- › **Waypoint navigation** today; **follow-me mode** in the next phase.
- › **Plain-language tasking** – every task checked against site safety rules before a robot moves.
- › **Offline-capable** – robots keep working through connectivity gaps.
- › **Fleet coordination + daily reporting** – every assignment visible; an evening summary to the site owner.
- › **Modular platform** – standard interface for future tools: dumper bed, tool carrier, inspection payloads.



PRODUCT CONCEPT RENDERING



CURRENT ENGINEERING STATE – CAD

SAFETY IS ARCHITECTURE, NOT A FEATURE

[01]

INDEPENDENT STOP

The emergency-stop decision lives in dedicated safety hardware, separate from the navigation computer. No AI output is ever an input to a stop decision.

[02]

PEOPLE FIRST

A person in the robot's path always stops the robot – instantly, at hardware level. Work resumes only when the path is clear.

[03]

HONEST CERTIFICATION PATH

Designed from day one against the applicable European machinery-safety standards, with an external safety consultancy planned for the CE path. Simulation never substitutes for physical safety testing.

Semi-autonomous by design in version one: the robot handles the hauling; people keep authority at load and unload points.

ONE TASK, MANY ROBOTS, ZERO SPREADSHEETS

- › Tasks split into trips; each trip goes to the best-placed robot, automatically and deterministically.
- › A robot that needs help asks for it – visibly. Nothing fails silently.
- › The monitoring panel shows live robot positions, task queues, and the reasoning behind every assignment.
- › Every evening, the site owner receives a plain-language report: trips completed, material moved, safety events, and what needs attention tomorrow.
- › Reports arrive in the owner's language – the same multilingual engine that takes tasks in 50+ planned languages.

ACR-1 — LEGS FOR WHERE WHEELS STOP

Construction has terrain no wheeled robot can serve: stairwells, debris fields, unfinished floors. ACR-1 is our quadruped research program aimed at exactly that ground.

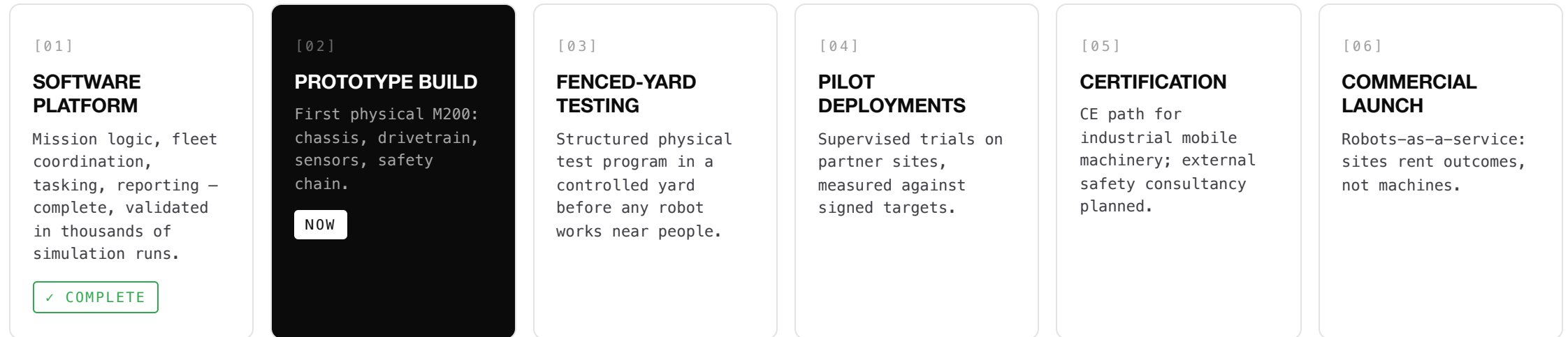
- › Deliberately **simulation-first**: locomotion is trained and tested in physics simulation against measured milestones.
- › No physical unit is built until those milestones are passed.
- › Runs the same fleet, tasking, and safety software stack as the M200.



CONCEPT RENDERING — RESEARCH PROGRAM

Research, labeled as research — ACR-1 is not a product and carries no availability claims.

WHERE THE PROGRAM STANDS



ALL PERFORMANCE FIGURES TO DATE ARE FROM SIMULATION AND LABELED AS SUCH – NO PHYSICAL ROBOT EXISTS YET; THAT BUILD IS THIS PHASE.

THREE CURVES CROSSING

[01]

LABOR

The construction workforce is aging across developed markets, and young workers are not replacing it. The cost and scarcity of site labor only moves one way.

[02]

TECHNOLOGY

Sensing, compute, and battery platforms matured in adjacent industries and are now robust enough for outdoor, all-weather site duty at viable cost.

[03]

SITE READINESS

Sites are digitizing – plans, schedules, and logistics increasingly live in software, giving robots something to plug into.

We deliberately make no headline market-size claim here: construction-robotics forecasts vary widely by source. The grounded version: material transport is a measurable share of every site's labor hours, on every site, everywhere.

ROBOTS AS A SERVICE

- › **Sites rent outcomes, not machines** – a monthly rate per robot with maintenance, software, and support included. No capital expenditure hurdle for the customer.
- › **Pilot-first** – supervised paid pilots with signed, measurable targets precede every commercial rollout; the pilot scoreboard is agreed before the robots arrive.
- › **Fleet economics** – one operator oversees multiple robots; utilization, not headcount, drives the margin.
- › **The platform compounds** – the same robot gains new paid capabilities as modules and skills ship.

BUILT BY PEOPLE WHO SHIP HARDWARE AND SOFTWARE TOGETHER

- › **AtaForge Inc.** (Delaware C-Corp, US) and **AtaForge Europe Ltd.** (Malta) – one robotics engineering organization, working worldwide.
- › Founded on **17 years of software engineering** across production systems – now applied to machines that carry weight around people.
- › Engineering-led and evidence-driven: capabilities are demonstrated in simulation, then proven physically, then claimed – in that order.
- › **A robotics company, one vertical:** a single platform – autonomy, safety and fleet software – under every machine we build. Construction material transport is the first application; marine, agricultural, disaster-response and manipulation concepts are **exploration**, not products and not an announced roadmap.

PARTNER WITH US

GRANTS

Robotics, automation, and workforce-innovation programs: we bring a complete, validated software platform and a rigorous, safety-first physical roadmap.

PILOT PARTNERS

Construction companies with real sites and real material-flow pain – pilots are supervised, measured, and scoped together.

INVESTMENT

Investors who want construction robotics built the careful way – evidence first, claims second.

hello@ataforge.com

ataforge.com/robotics – includes an interactive demo of the mission logic.