

SCOTTISH GOVERNMENT FUNDED • 100% FREE FOR PARTICIPANTS

DATA HARD HATS

AEC Unlocked

A free, government-funded programme helping Scottish architecture, engineering and construction businesses unlock the value locked in their data — and build confidence with AI.



Free online info session Wed 29 July 2026 • 12:00–13:00 BST • Zoom

Adventurous Systems • with support from Pulse

In this hour

What we'll cover



What the programme is

And who it's for.



Your Data Readiness Report

What every business receives, in writing.



The four regional cohorts

Glasgow, Edinburgh, Inverness, Aberdeen.



What taking part involves

The three-session journey, start to finish.



Practical AI workflows

How AI-enabled tools support real AEC work.



How to apply — and live Q&A

The selection process, and your questions.



RESEARCH-LED DIGITAL TRANSFORMATION

We solve the AEC industry's data coordination problem

Adventurous Systems builds **Web3- and AI-enabled digital twins** that unify design, construction, and operations data. Backed by peer-reviewed research and open-source development, we help the AEC industry build with trust, transparency, and circularity.

[Explore Collaboration](#)

[What We Do](#)

Who it's for

Built for Scottish AEC SMEs ready to grow

You don't need a technology background. We start from where you are — your project records, emails, spreadsheets and BIM files.



Completely free

Fully funded by the Scottish Government's Ecosystem Fund. No cost, no subscription at the end.



Based in Scotland

Registered or operating in Scotland, in architecture, engineering, construction or a related discipline.



1-50 employees

SMEs and startups, turnover £50k-£5m. Smaller firms often have the most to gain.



Early or growth stage

Where data and AI adoption would make a meaningful difference — starting out or scaling.

40% of places reserved for businesses led by underrepresented founders, or operating in rural and remote communities.

The programme

Three sessions. One-to-one support. Real outcomes.

Each regional cohort follows a progressive arc: Find Your Data → Build Simple Workflows → Scale & Connect.

01



Find Your Data

Take one recent job and walk it across every stage — win, design, procure, build, handover. Map what data you make, where it lives, and where it gets re-keyed or lost.

OUTPUT Your Data Opportunity Map

02



Build Simple Workflows

Pick one workflow from a catalogue built for AEC firms, and build it into a practical recipe you can use — with an accessible AI tool, and a human check at every step.

OUTPUT A working AI workflow

03



Scale and Connect

Present your workflows to peers, identify what's ready to scale, and connect your data capabilities to broader market opportunities.

OUTPUT Peer network + scaling roadmap

You start with one real job and a canvas

No technology background needed. With a facilitator, you take one recent job and walk it across five stages — mapping the data you make, where it lives, and where it slips through the cracks.

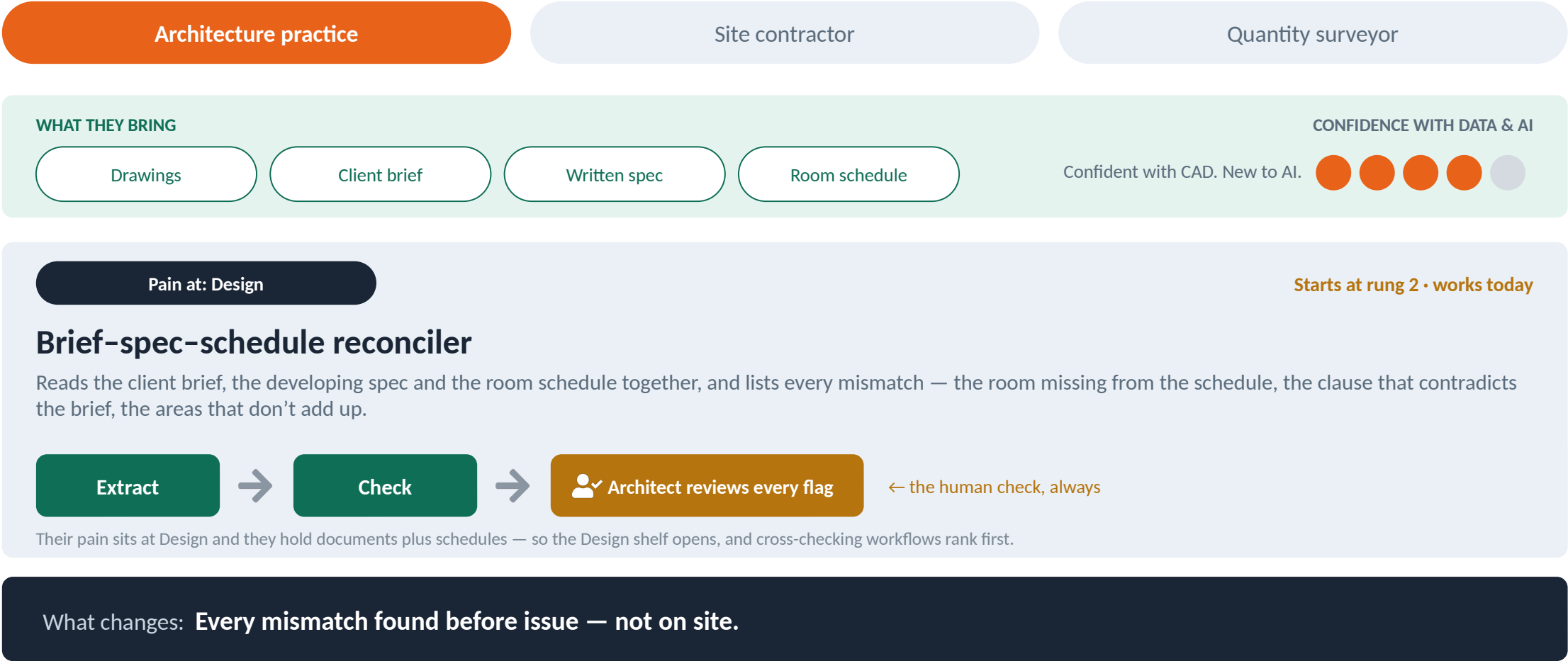
FIVE GUIDED PASSES

Win work	Design	Procure	Build on site	Handover & use
Data & where it lives	What data you make or receive — and the app or file it sits in.			
Hand-offs	How data moves to the next stage. Mark the seam, and any leaks.			
Value & pains	Which steps are slow, repeated, error-prone or stuck with one person.			

You leave with **your Data Opportunity Map** — and the one job you'll fix first.

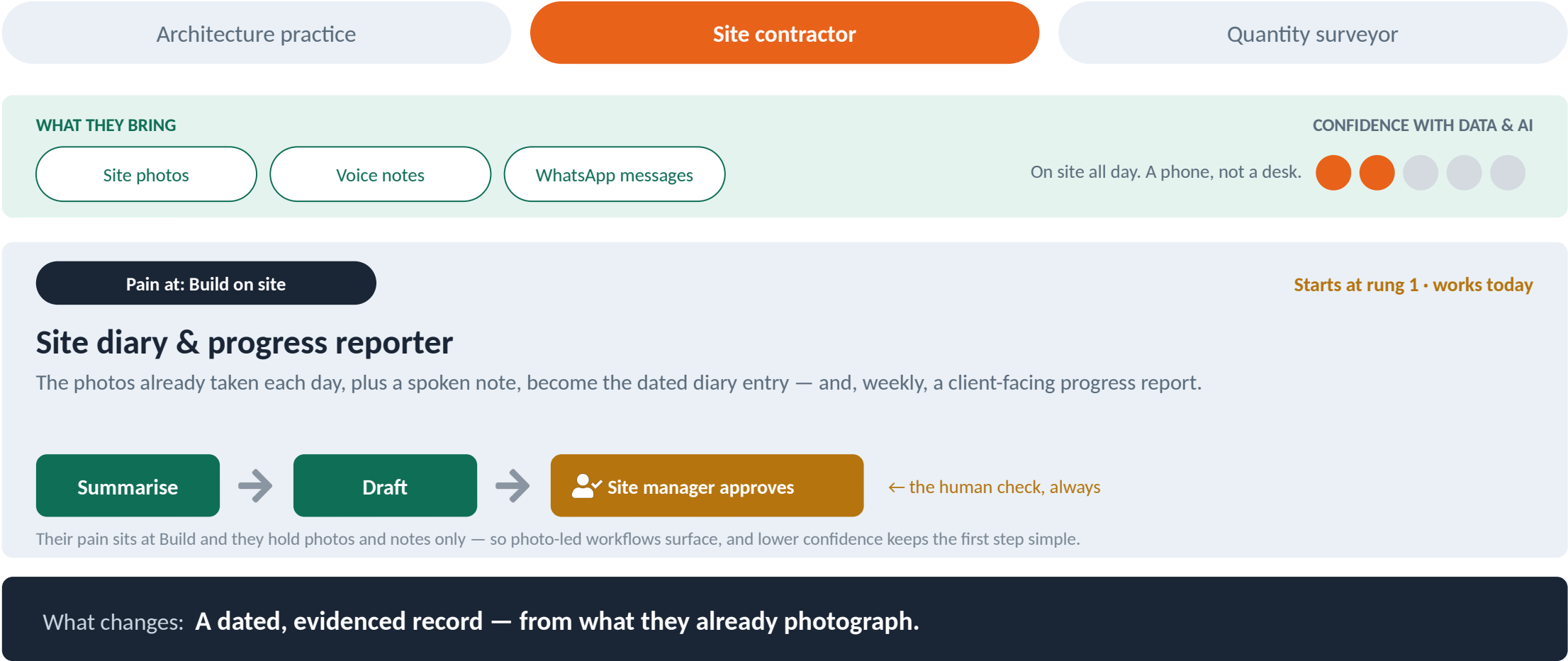
A six-person architecture practice

“The brief, the spec and the room schedule drift apart. We find the mismatch on site — when it costs money.”



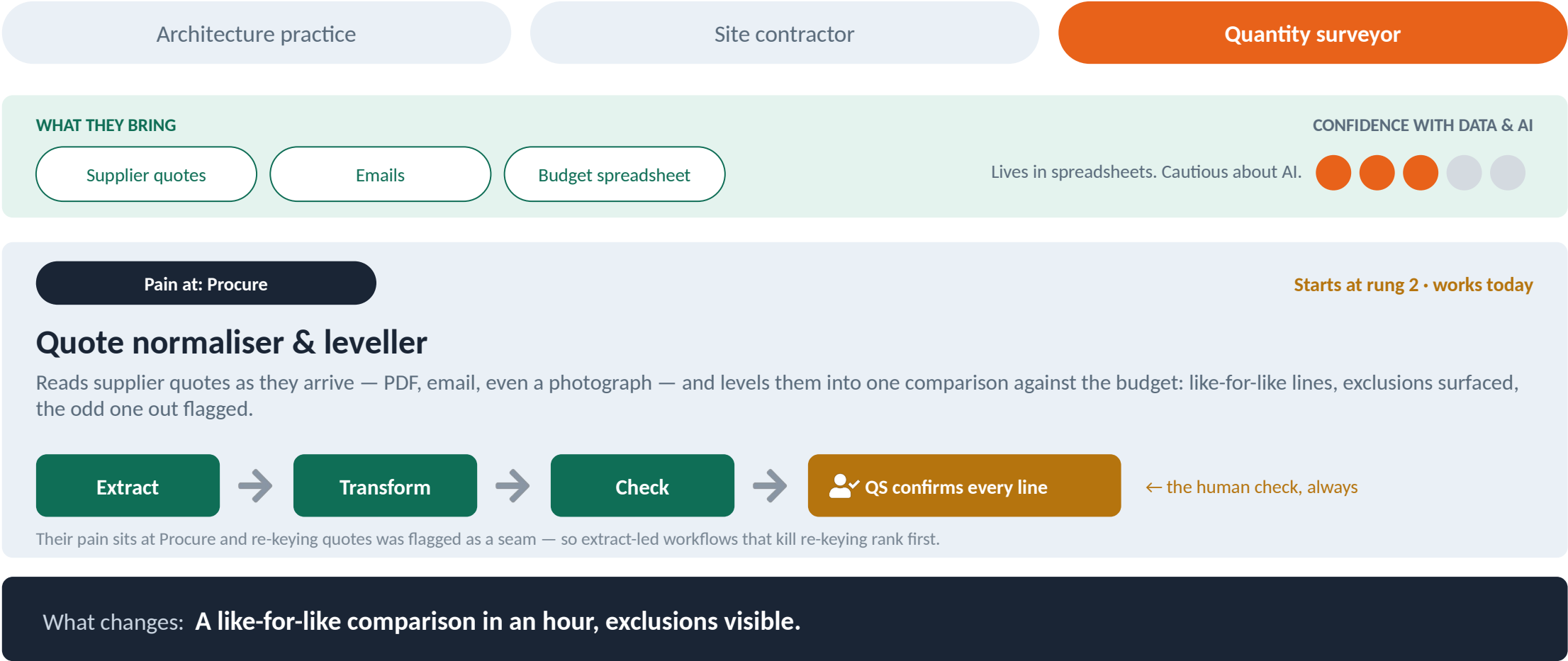
A twelve-person groundworks contractor

“The site diary never gets written. When the client asks what happened last week, nobody can say.”



A commercial lead in a twenty-person contractor

“Six quotes arrive in six formats. Levelling them by hand takes a day — and the exclusions are where we get caught.”



Session 3, in practice

You scale what worked, and connect to what's next

The same three firms, one session on. Their workflow has proven itself — so it earns more trust, or reaches further into the business.

Architecture practice

NOW Earns more trust as it proves out.



NEXT The same check, run on tender documents next.

Site contractor

NOW Now client-facing, every week.



NEXT The same approach, next for subcontractor RAMS.

Quantity surveyor

NOW Runs on every job now, not just the big ones.



NEXT Shared next with the wider estimating team.

EVERY FIRM, THIS SESSION

Present what you've built to your cohort, get outside eyes on it, and identify what's ready to scale — in your business and beyond it.

OUTPUT Peer network + scaling roadmap

Beyond the workshops

Every participant also receives



A customised Data Readiness Report

A written assessment of your business's data assets and AI readiness — yours to keep and act on.

YOURS TO KEEP



One-to-one surgeries, before & after

Customised sessions to set goals before, and measure real adoption after. We track business change, not attendance.

PRE & POST PROGRAMME



Open-access AEC Data Intelligence Toolkit

Practical guides, templates, AI tool comparisons and case studies — published under a Creative Commons licence.

FREE FOREVER

Regional cohorts

Four themes. Four cities.

The themes run throughout every cohort — choose the city that works for you. Sessions run September–December 2026, hybrid.



Digital Architecture & Construction

BIM workflows, commercial data products, investor readiness, AI tool selection.



Compliance, Heritage & Public Sector

Compliance data workflows, building-regs intelligence, public-contract competitiveness.



Rural Infrastructure & Net-Zero

Remote project data and net-zero retrofit workflows, full hybrid access for islands.



Energy Transition & Industrial Construction

Multi-contractor data, supply-chain integration, AI for asset management.

Glasgow

Sep–Nov 2026

Edinburgh

Sep–Nov 2026

Inverness

Oct–Dec 2026

Aberdeen

Oct–Dec 2026

Behind the programme

We research it, publish it, and build it

Adventurous Systems is a research-led AEC technology company. Everything in this programme comes out of work we've done, evidence we've published, and tools we've actually shipped.

30+

peer-reviewed publications

£375k+

research funding won

20+

years in practice

3

continents delivered



LIVE PLATFORM

AFlow

Our AI design studio for architects — node-based, open-core, and the showcase tool in the BIM-themed cohort.

aflow.adventurous.systems



LIVE PLATFORM

TRACE

Tracks construction materials through their life, so components can be verified and reused rather than scrapped.

trace.construction



RECOGNISED

Vice-Chair, Board of Directors — European Council on Computing in Construction (EC3). Registered architect, UK and Greece.



PUBLISHED

Peer-reviewed work with Heriot-Watt, Robert Gordon, Delft and ETH Zürich — and co-editors of "Blockchain for Construction" (Springer).



BACKED BY

EPSRC · Scottish Enterprise · Scottish Government · Robert Gordon University · BE-ST · Scotland Beyond Net Zero.

Who delivers it

Practitioners who build what we teach

Delivered by Adventurous Systems — a Scotland-based AEC data and AI consultancy — with support from Pulse.



Dr Theo Dounas

Co-founder • Programme Lead

Architect, engineer and researcher. Twenty years in design and build across Europe and Asia.



Hico Mc Donald

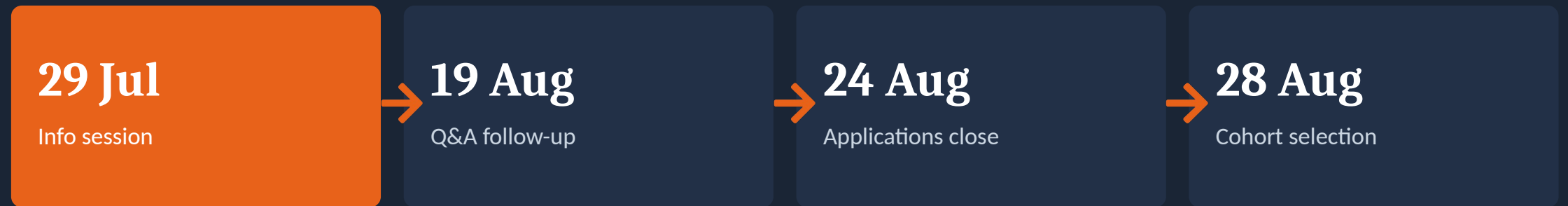
Co-founder • Technical Lead

Civil engineer, project manager and technologist. A decade in construction delivery across South Africa and Thailand.

How to apply

Register your interest — it's free

Places are limited to 10–15 businesses per cohort. Register and we'll be in touch to confirm eligibility and next steps.



Apply at

<https://datahardhats.adventurous.systems>

Can't make a session? Register your interest and we'll send you the recording.

Fully funded by the Ecosystem Fund (Scottish Government / Inspirent) · Delivered by Adventurous Systems with support from Pulse