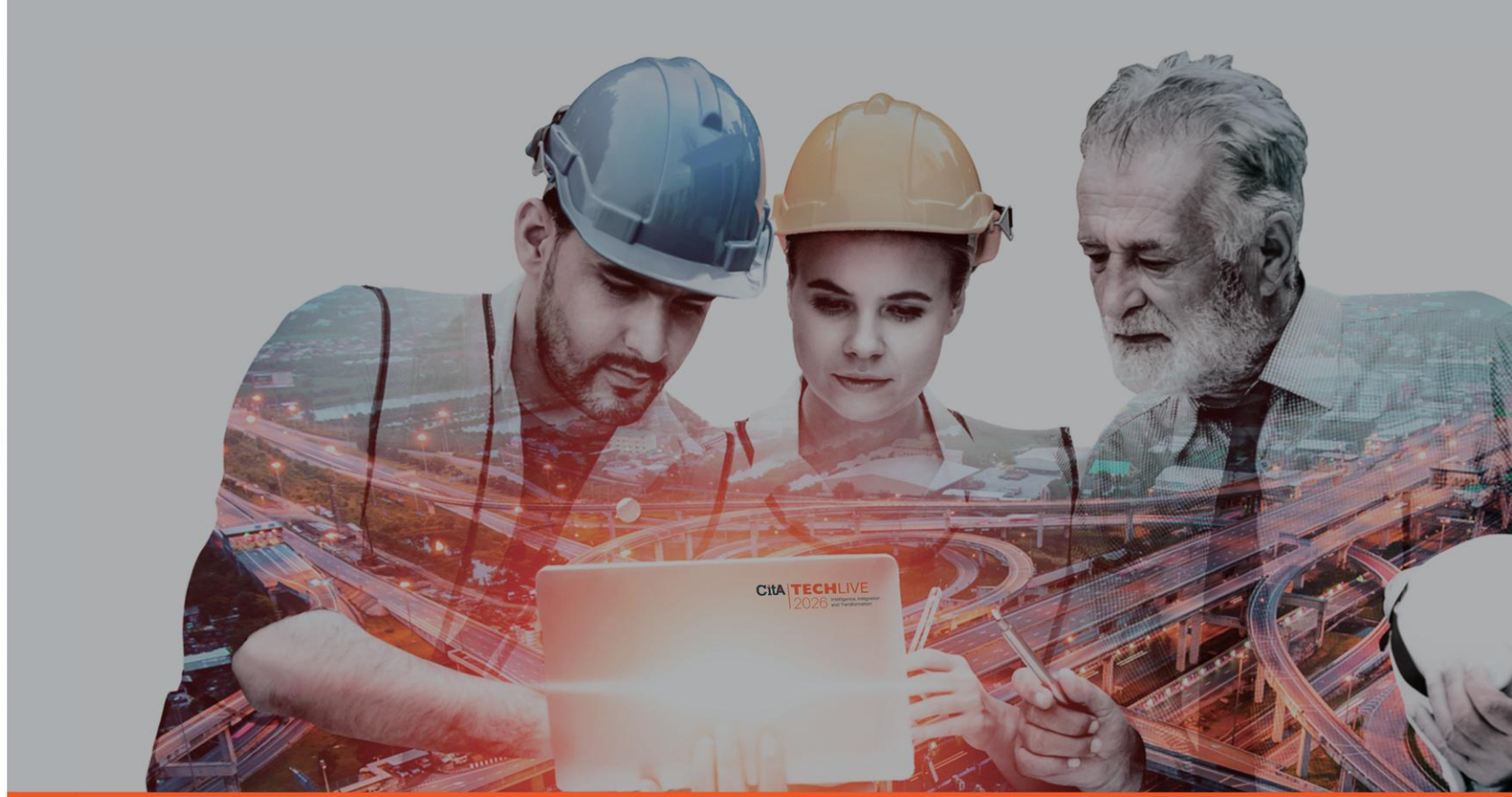
CitA | TECHLIVE 2026

Intelligence, Integration and Transformation



Dexcom Stadium, Galway,
12th November 2026



Shaping the Future of Construction

Zulkefly Abu Bakar

BIM Beyond Automation

Human–Machine Collaboration with AI and Web3



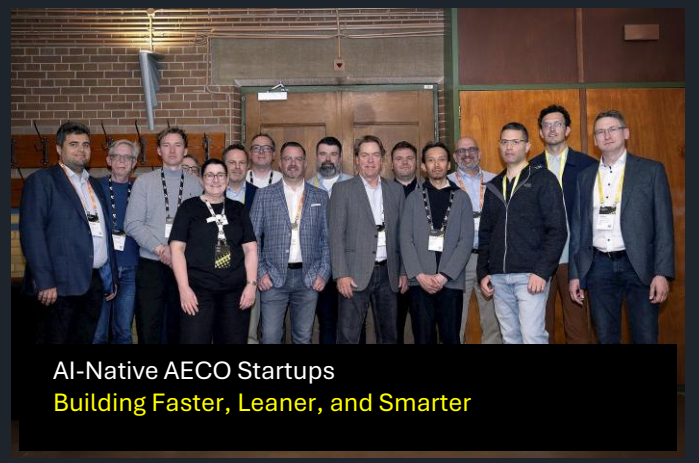
Motivation



https://www.cita.ie/wp-content/uploads/2021/09/CITA2021-ZulkeflyAbuBakar-A.pdf

https://www.cita.ie/wp-content/uploads/2022/06/1.-CitA-Tech-Live-Zulkefly-Abu-Bakar.pdf

https://arrow.tudublin.ie/schmuldistcon/37/



AI-Native AECO Startups
Building Faster, Leaner, and Smarter



AI-assisted ACC voice recorder

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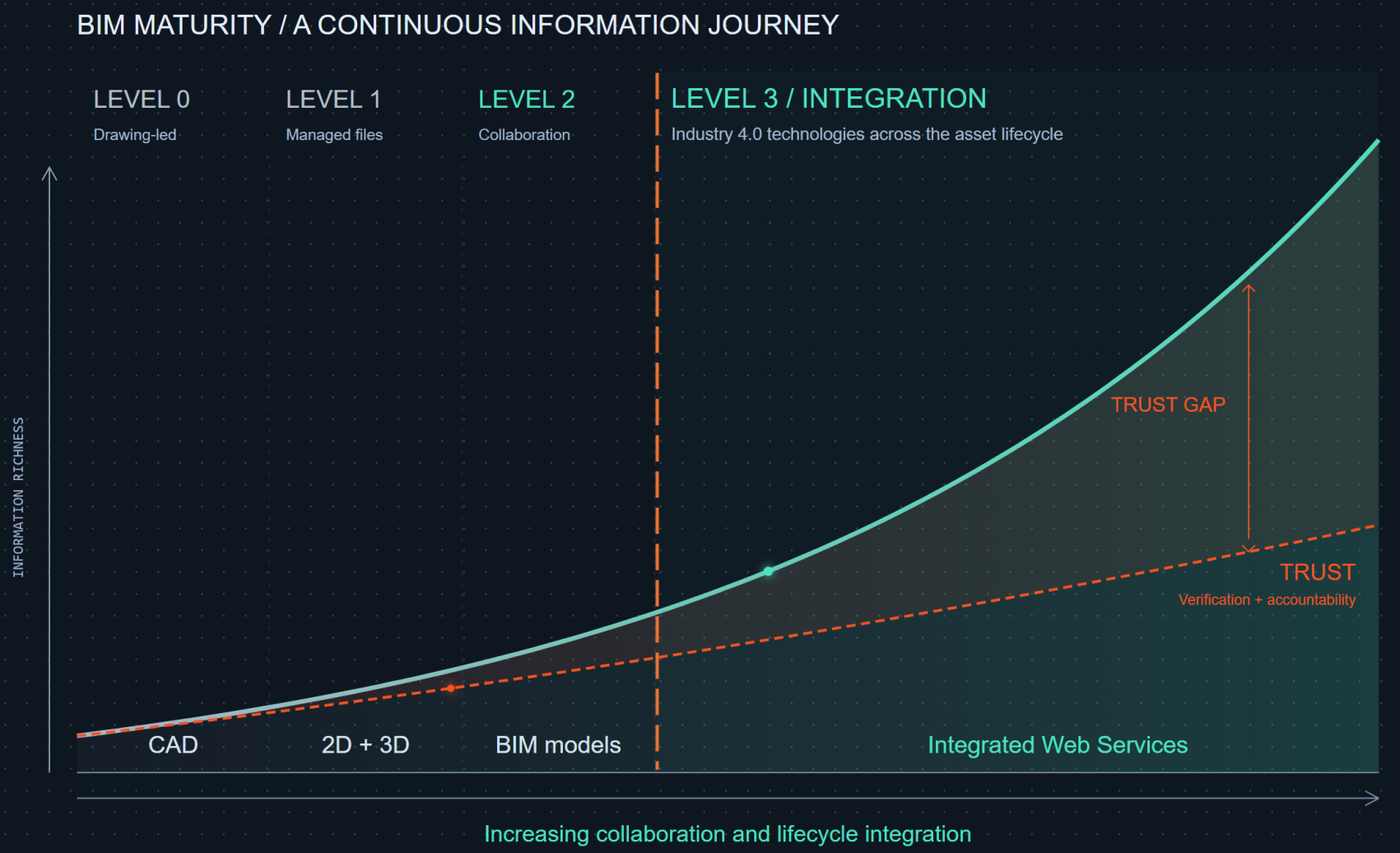
Opportunity





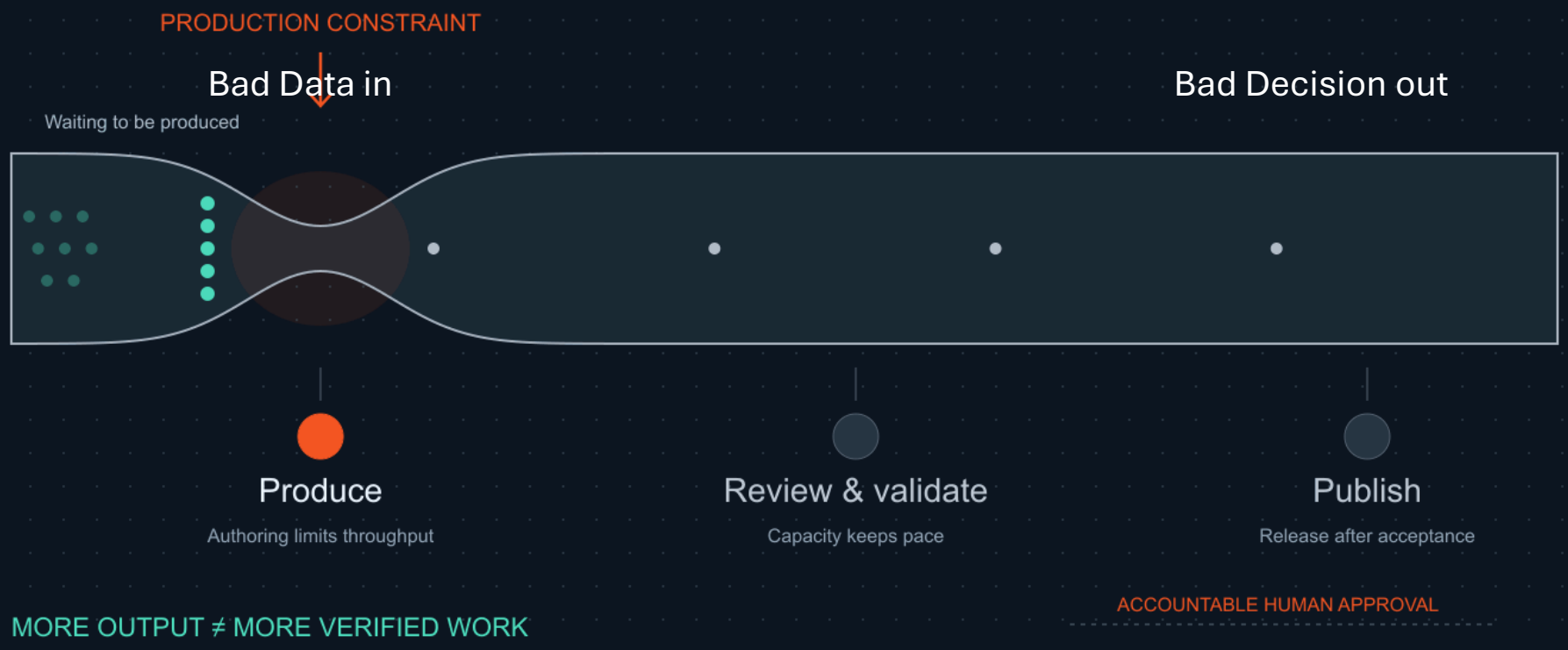


BIM Maturity and Integration Challenges



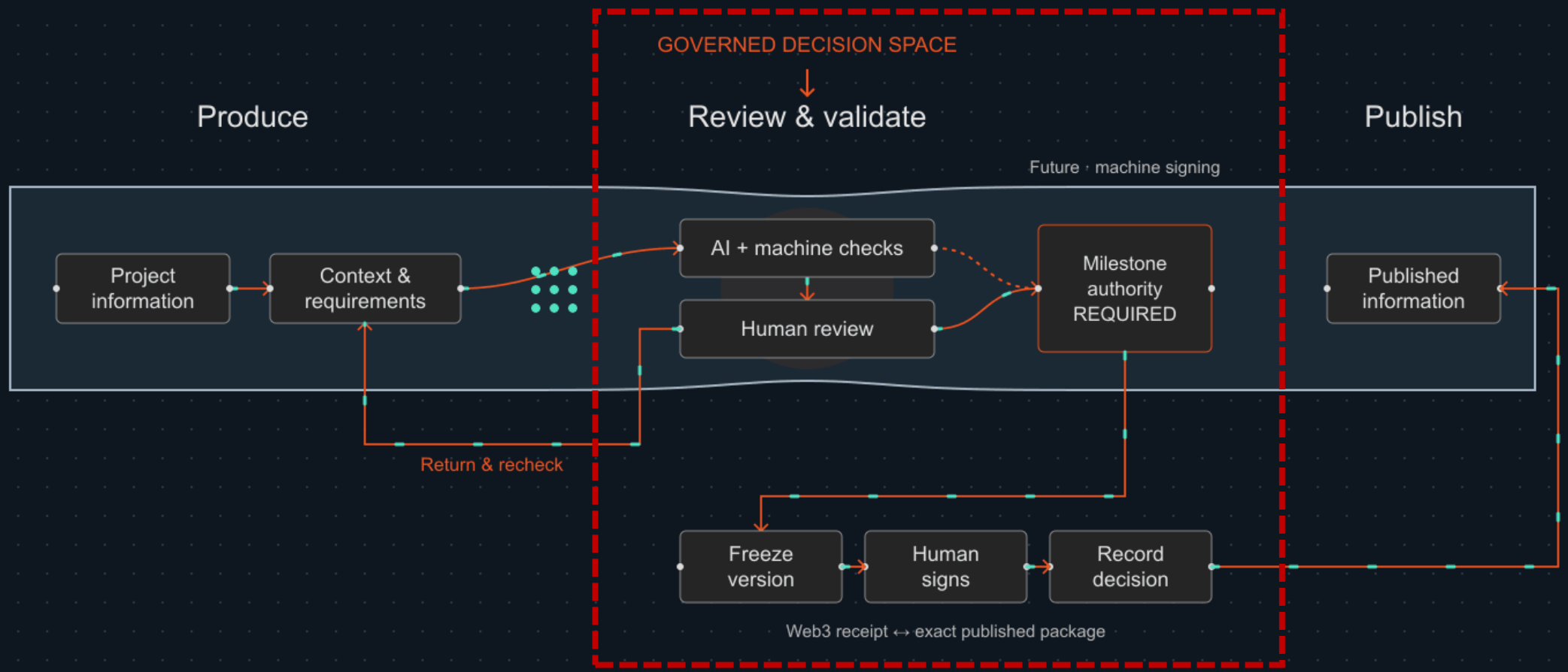


Information Bottleneck



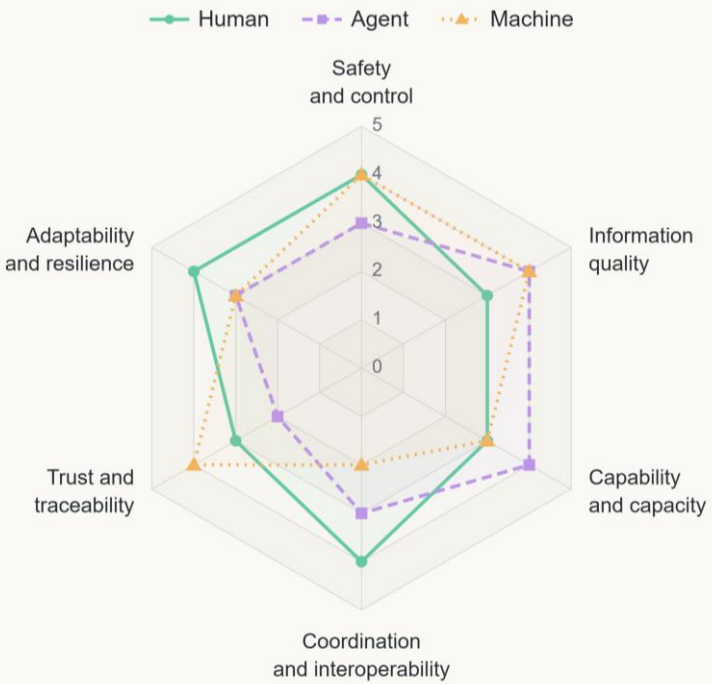


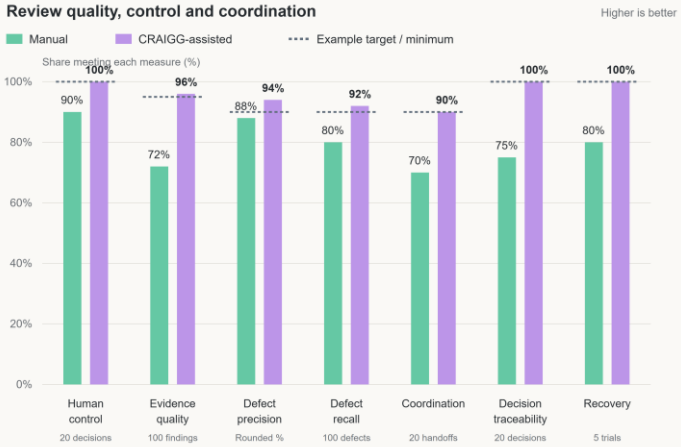
Decision Space



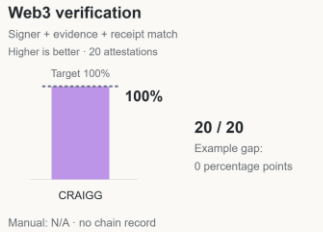


Collaboration Readiness







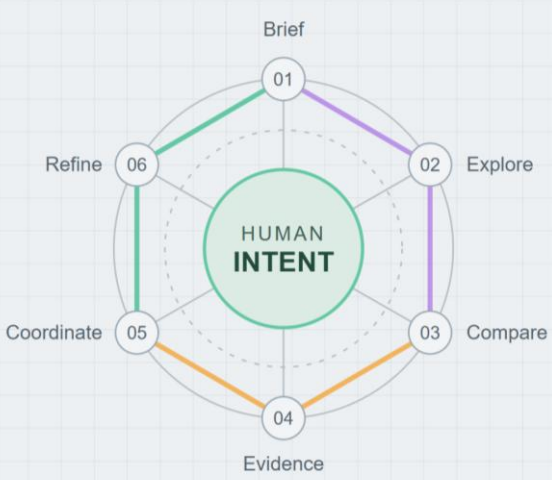




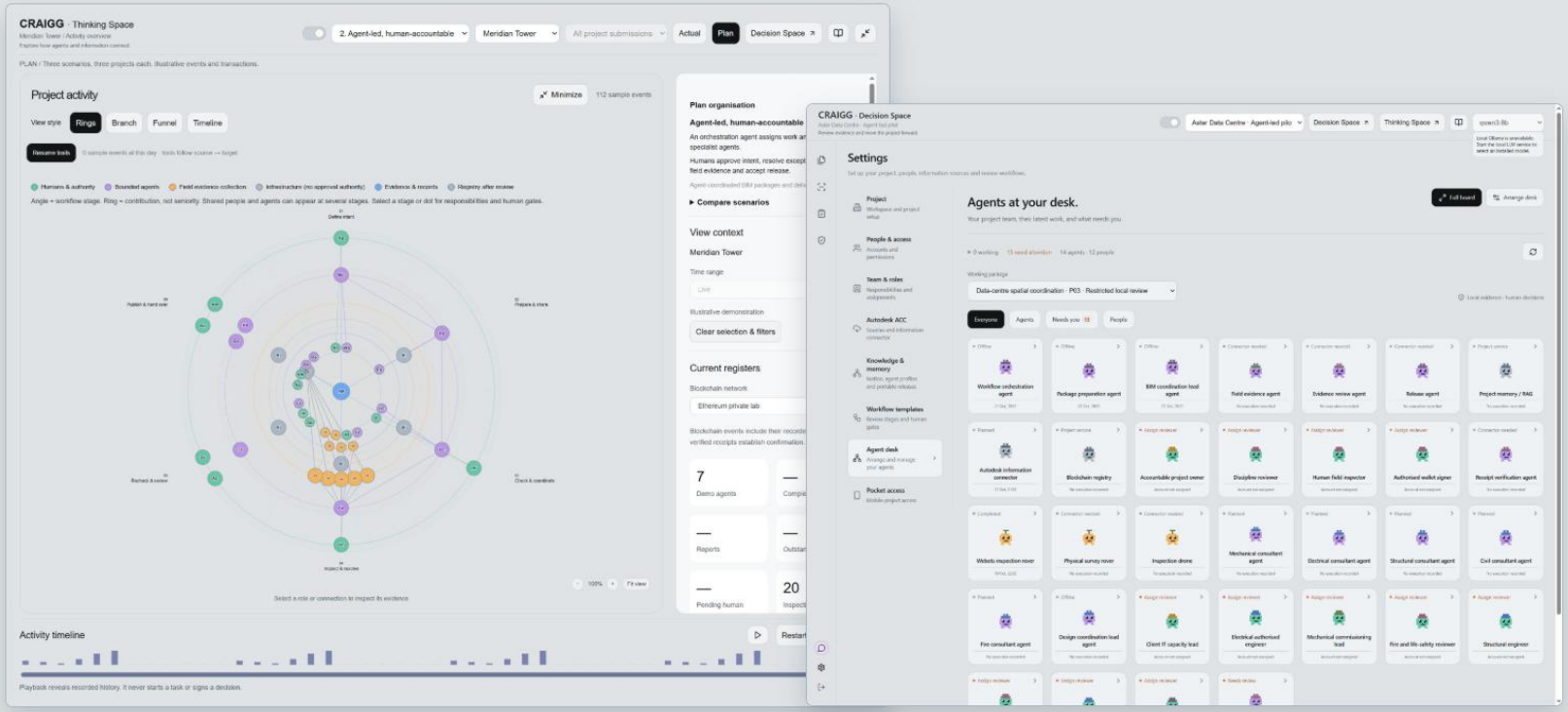
Proof of Concept

01

Thinking Space



Human intent and constraints guide specialist agents as they explore options and coordinate work across stages.





Proof of Concept

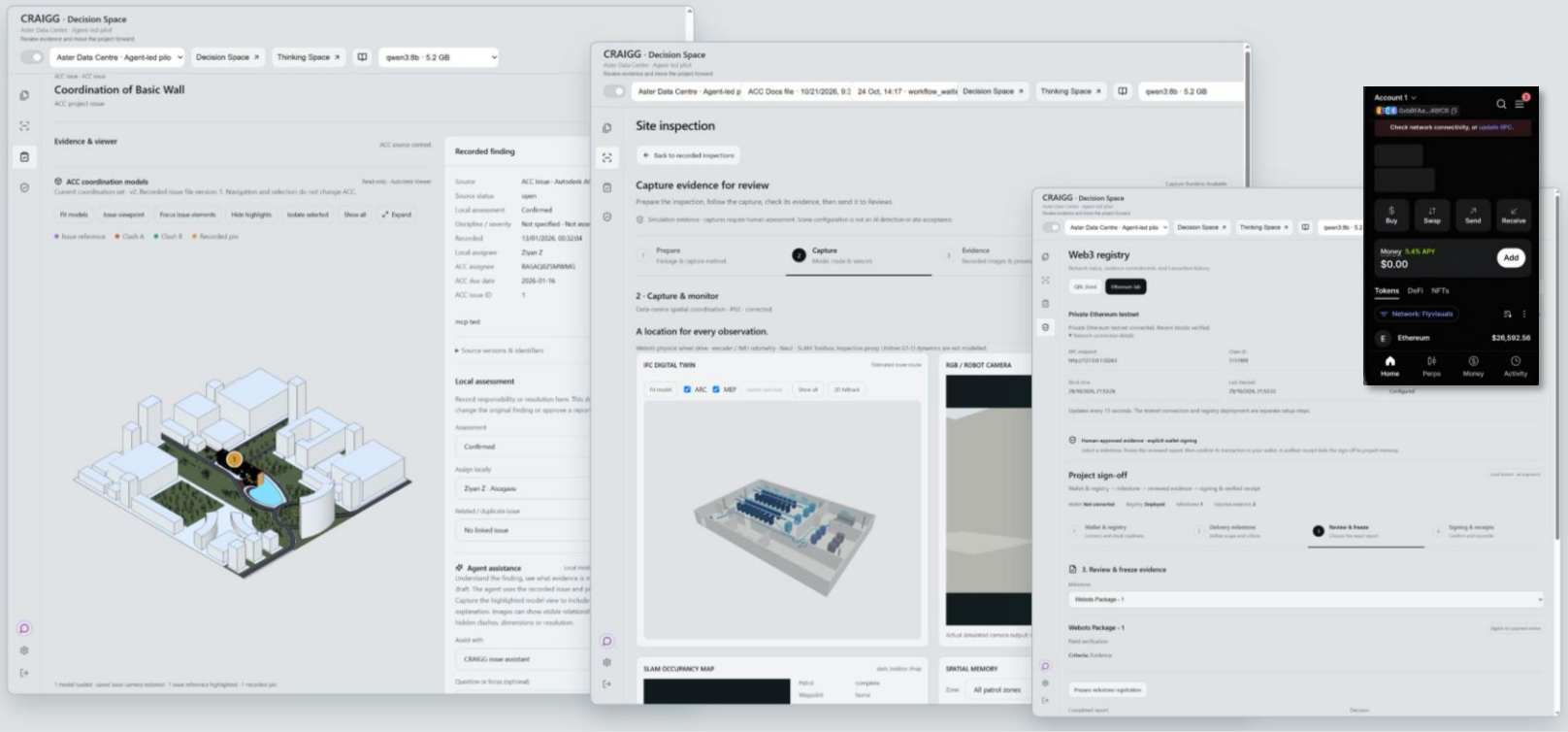
02

Decision Space

	Prepare	Check	Authorise
Human	Scope	Review	Approve
Agent	Propose	Analyse	—
Machine	Capture	Test	—

Human review gate ——— Signed record

A named reviewer assesses model and machine evidence before authorising sign-off through the wallet workflow.

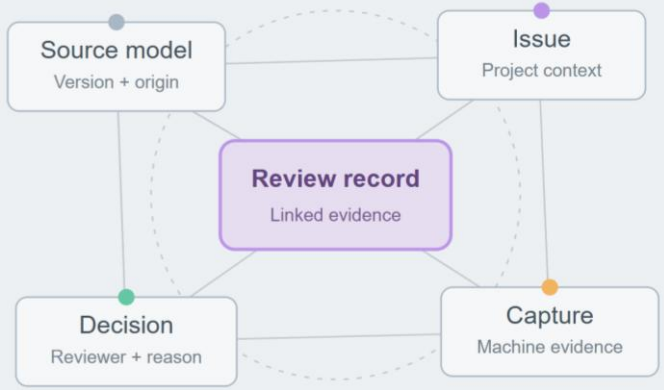




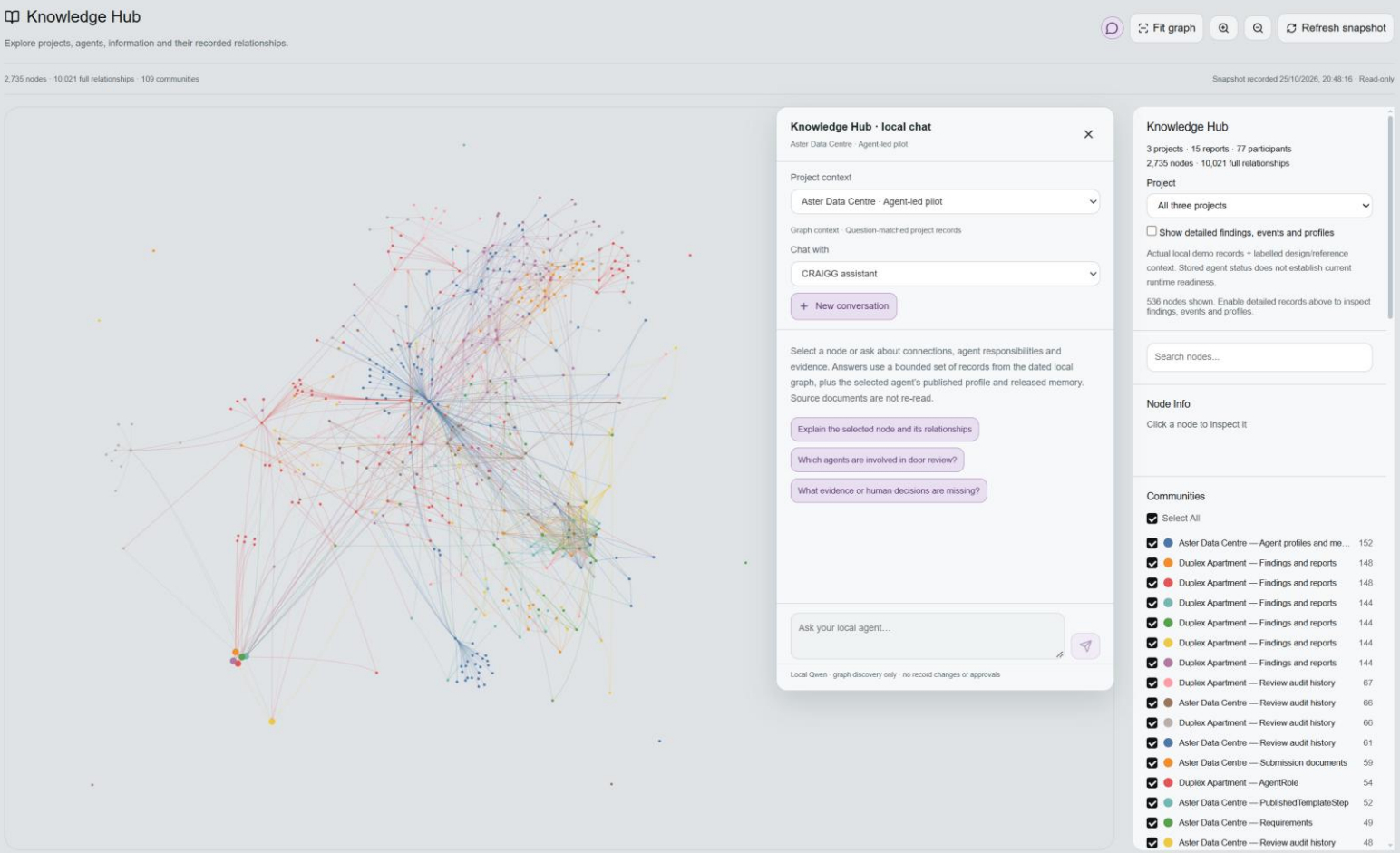
Proof of Concepts

03

Knowledge Hub



Linked source versions and review records keep decisions traceable to evidence and provide context for future reviews.





01 · ASSIST

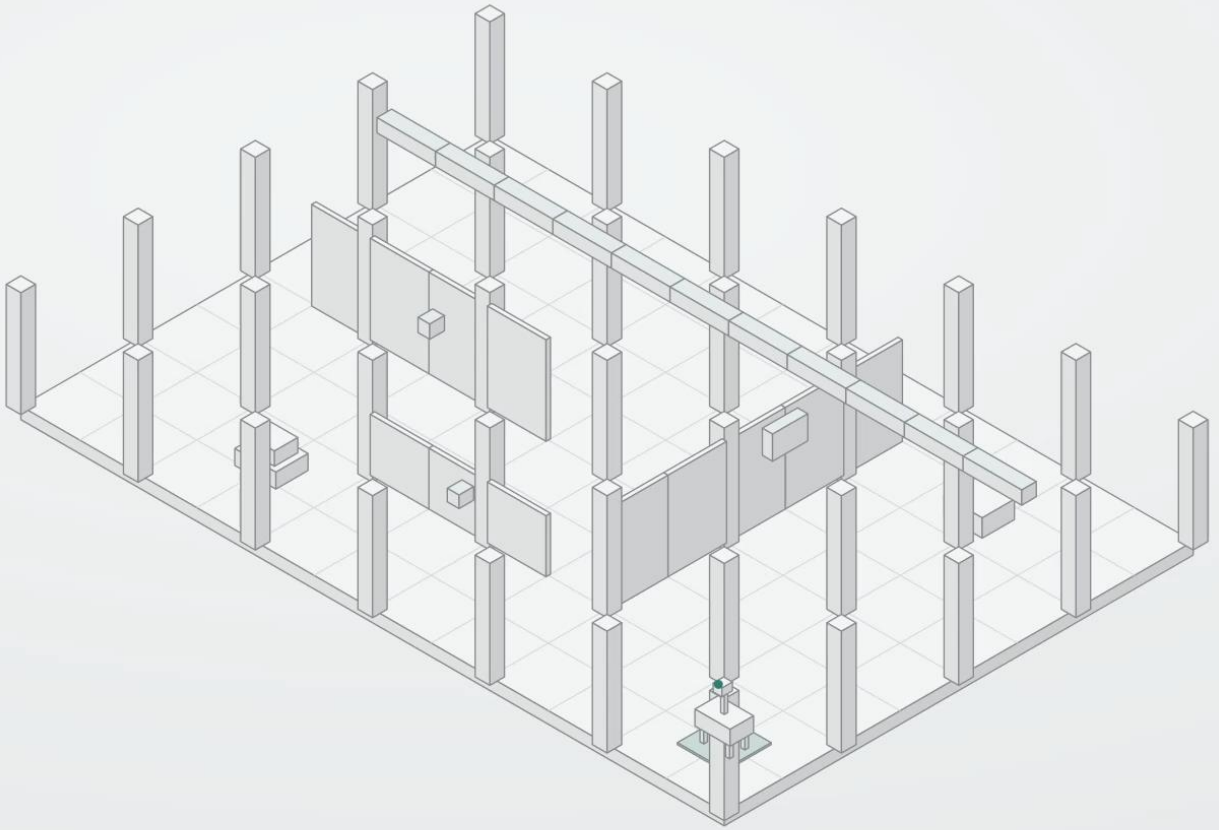
Human-led



Use cases: Assist, Augment & Automate

02 · AUGMENT

Agent-led

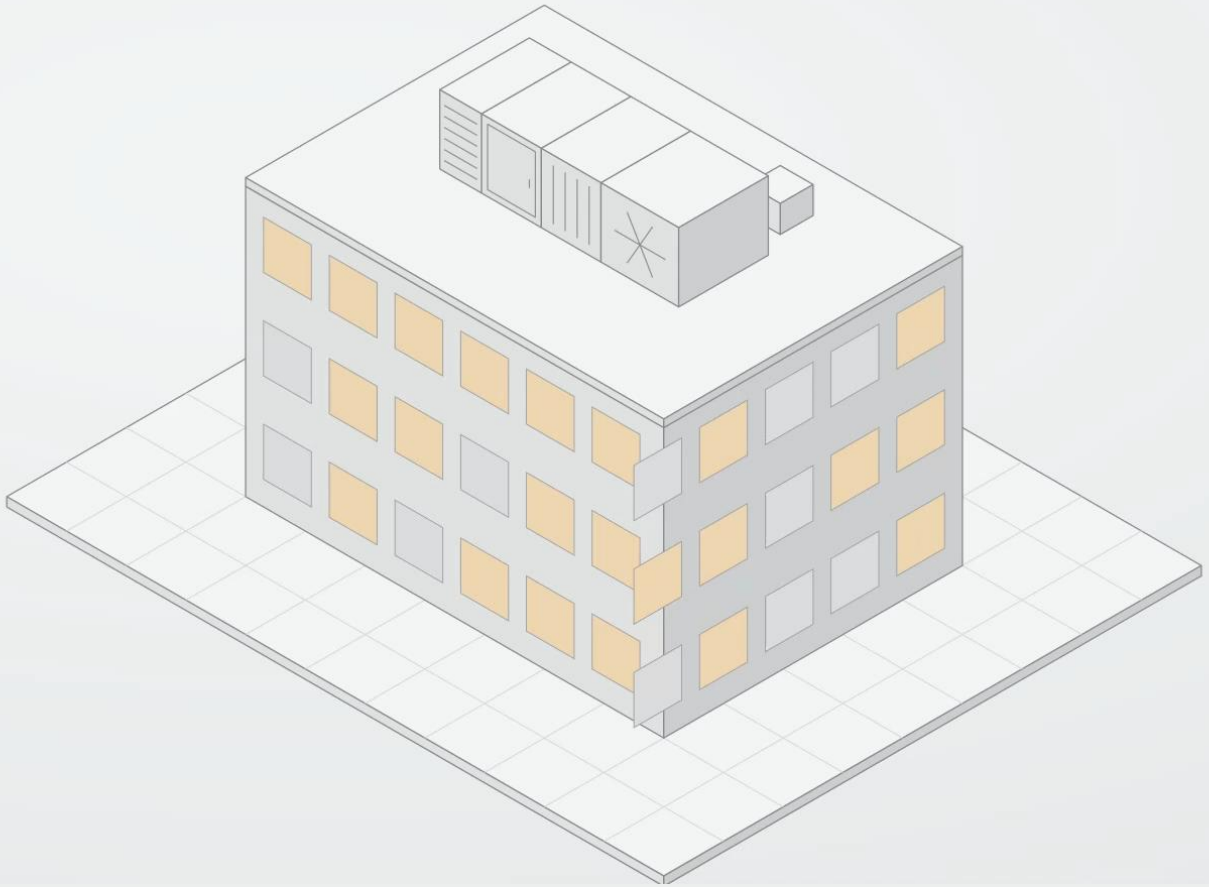




Use cases: Assist, Augment & Automate

03 · AUTOMATE

Autonomous





Future Development



Mobile app / Pocket device



Micro rover: Nvidia Omniverse / Webots platform


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Thank you for your time