

Model-based planning - The future of integrated construction delivery

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Agile Business Technology (Pty) Ltd
buildingSMART South Africa NPC (under application)

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Cloud-based BIM collaboration platform for project teams

- ✓ BIM Collaboration
- ✓ Cloud Platform
- ✓ Team Coordination

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Accelerating digital transformation of the built asset sector

Status: Applying for recognition as Chapter in Formation by buildingSMART International (interview scheduled for Q4 2026)

Launching soon

buildingSMART South Africa (NPC) is in **early formation** and has applied for official recognition as a **Chapter-in-Formation** by buildingSMART International.

Once approved, the Chapter 'in-formation' will seek to drive the adoption of openBIM standards and accelerate the digital transformation of South Africa's built asset industry through interoperable workflows (IFC, IDS and more).

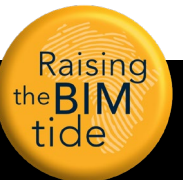
In the meantime, keep up to date via our official Substack newsletter. Professionals who wish to contribute during the formation phase are welcome to reach out.

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MODEL-BASED PLANNING

From passive 4D to active delivery intelligence

A quick introduction introduction for construction
planners and schedulers

Asta Powerproject • Asta 4D • Eleco

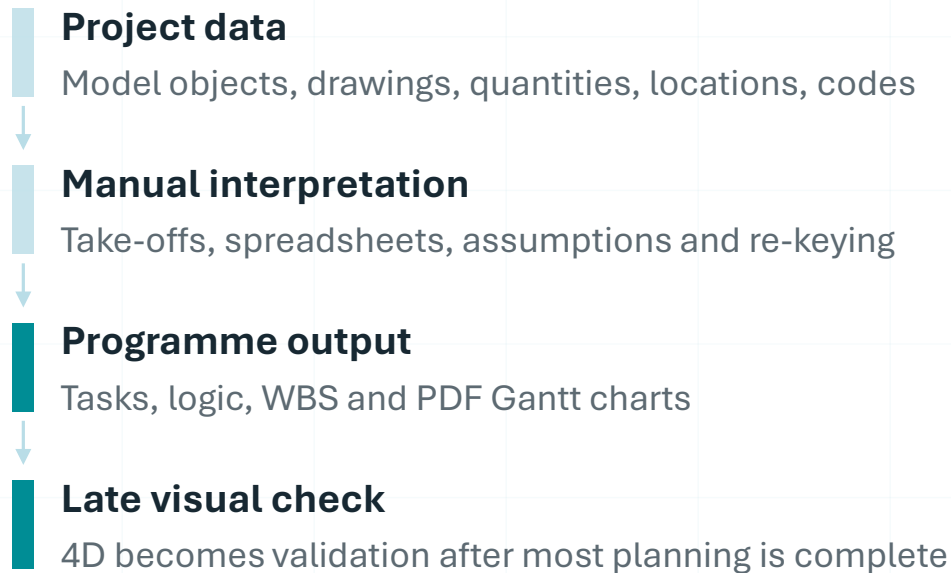
Conference / exhibition session



WHY CHANGE?

The planning problem is no longer just sequencing

Modern projects create more geometry, quantities, locations, codes and revisions than a manual planning process can comfortably absorb.



The hidden cost

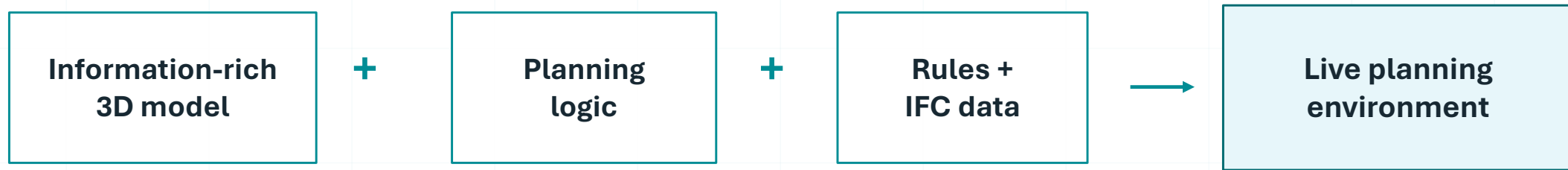
Every time data is simplified, copied or translated, the plan loses connection to the source of truth.

Model-based planning keeps that connection alive.

THE CORE IDEA

Model-based planning uses the model as planning information — not just a picture

At its core, model-based planning links an information-rich 3D model to schedule logic early and continuously.



Location

—— Tasks inherit where work happens — visually and structurally.

Quantity

—— Model properties can inform durations, resources and productivity.

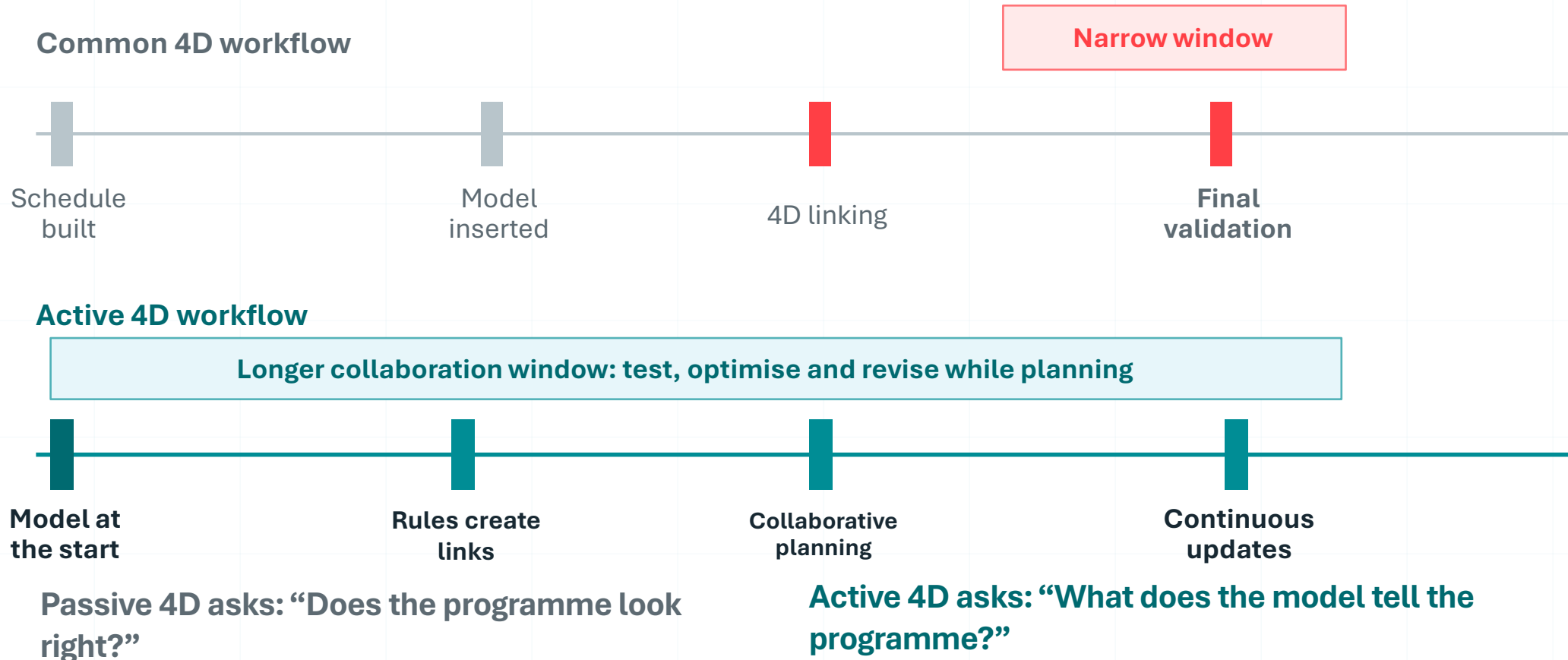
Coding

—— IFC / WBS / business codes help align planning, estimating and reporting.

Key shift: 4D stops being a late visualisation deliverable and becomes part of the planning process.

From passive 4D review to active 4D planning

The difference is not whether you can see a sequence. It is when the model enters the planning workflow — and whether it stays connected.



WHY IFC MATTERS

A model object can carry the planning clues a task needs

IFC does more than exchange geometry. It can carry properties, location, relationships and classification that planning rules can use.

Quantity

m², m³, count

Location

level, zone, grid

**IFC model
object**

Properties

material, type, rating

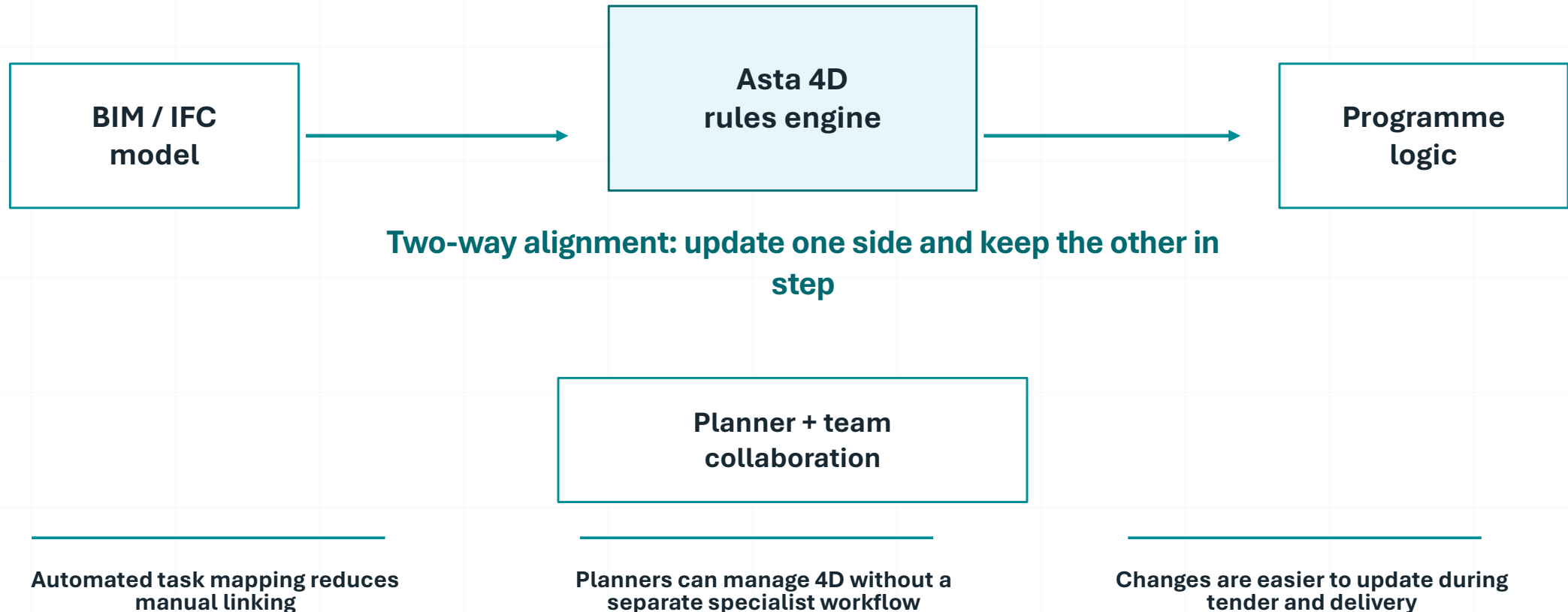
Codes

WBS, cost, business rules

For planners, the value is not the 3D model itself — it is the reliable, queryable data attached to the work.

Active 4D turns the link into a working planning engine

Active 4D is described as a rules-based approach that creates and maintains connections between model objects and programme tasks.



Better data changes the planning conversation

Model-based planning helps teams move earlier from “collect and translate” to “test and optimise”.

- 1 Earlier decisions** See sequences while options are still open
- 2 Fewer rework loops** Model and schedule stay aligned as they change
- 3 Clearer communication** Stakeholders discuss the work visually and spatially
- 4 Connected 5D path** Planning and estimating can reference the same model data
- 5 Reusable history** Future project data becomes richer for analysis and AI

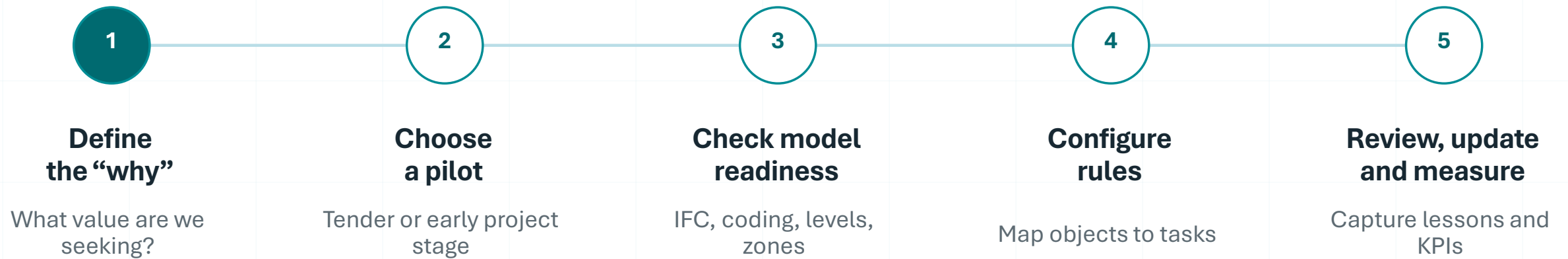
**The planner's
role moves up
the value chain.**

Less time spent rebuilding information. More time spent improving sequence, risk and opportunity.

HOW TO START

A first pilot should prove the workflow, not boil the ocean

Start small enough to learn quickly, but real enough to expose the model, planning and collaboration behaviours that matter.



Most important rule: agree the value before specifying the technology.

CLOSING THOUGHT

Start with the why. Let the model carry the data.

Model-based planning is not about replacing planners with a model. It is about giving planners a richer, live source of information so better decisions can happen earlier.

Source material adapted from Elecosoft whitepaper: **Model-based planning — The future of integrated construction delivery.**

