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FROM STATIC TO DYNAMIC

BUILT ENVIRONMENT
EDUCATION
**in the age of
agentic AI**

VIRTUAL SEMINAR

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OUR INSTITUTIONS WERE BUILT FOR A WORLD THAT HELD STILL. IT NO LONGER DOES.

Curricula, assessment, partnerships and publications all assume time to plan. The sector we serve now changes in months. What follows is one argument about why that gap is structural, what closes it, and what it asks of those who lead.

PROBLEM

ANSWER

PEOPLE

PART ONE

THE WORLD MOVED

How fast the ecosystem now changes, and why that makes timing a factor of impact

PART TWO

THE DIAGNOSIS

Why we are structurally late: one assumption, stability, built into everything

PART THREE

WHAT HAS TO CHANGE

Five shifts, each with the mechanism that makes it real and the cost that makes it honest

PART FOUR

THE OPERATING MODEL

How the shifts become one way of running a school, and what that asks of the graduate

PART FIVE

LEADING THROUGH IT

Uncertainty, staff who did not choose this pace, and an ask of the CIB community

THE THREAD

The built environment already knows how to run a system that senses, decides and acts continuously. It calls it a digital twin. This talk asks why we run our schools any other way.

PART ONE

THE WORLD MOVED

THE SECTOR WE EDUCATE FOR NO LONGER WAITS FOR OUR REVIEW CYCLE

WHERE WE
START

What changed, how fast, and why it is now a question of impact rather than taste

THE SECTOR CHANGED ITS CLOCK SPEED. WE DID NOT.

THE SECTOR

Tools, data, automation



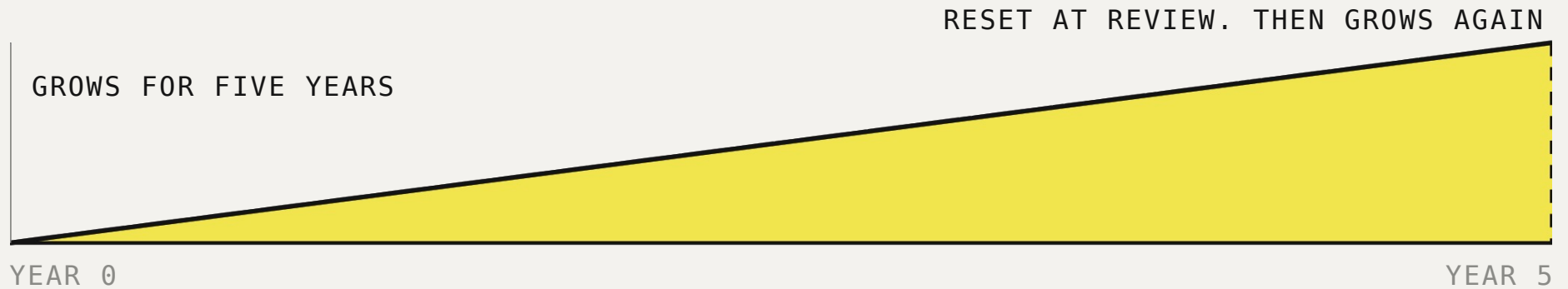
THE CURRICULUM

Design once, review later

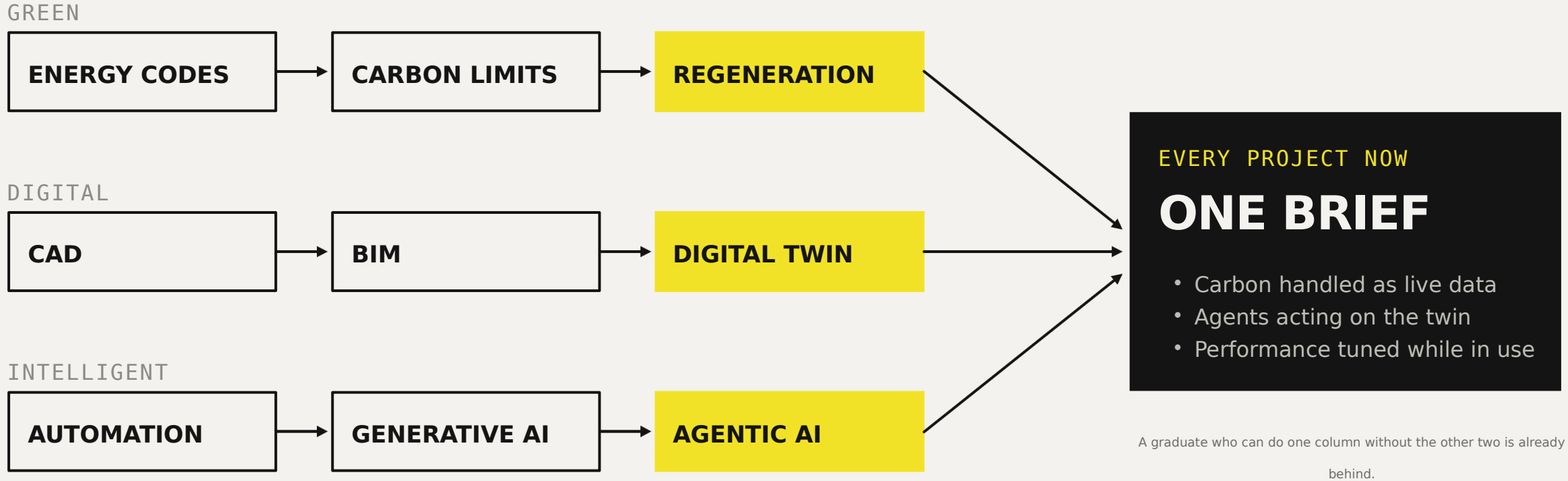


THE GAP

Taught against practised



THREE STREAMS IN THE TIMETABLE. ONE PROJECT IN PRACTICE.



EACH STREAM ARRIVED IN SEQUENCE. THE CURRENT STAGE OF ALL THREE ARRIVES TOGETHER.

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**NO ONE CAN SEE THE
NEXT DECADE
CLEARLY. INCLUDING
ME.**

And.....this is not a forecast!

IMPACT MULTIPLIES QUALITY, TRANSLATION AND TIMING

This series is about the impact of research. We usually count the first two factors. The third is the one a slow institution loses.



A graduate or a paper that arrives one review cycle late carries little impact however good it is.

PART TWO

THE DIAGNOSIS

IF TIMING DECIDES IMPACT, WHY ARE WE ALWAYS LATE?

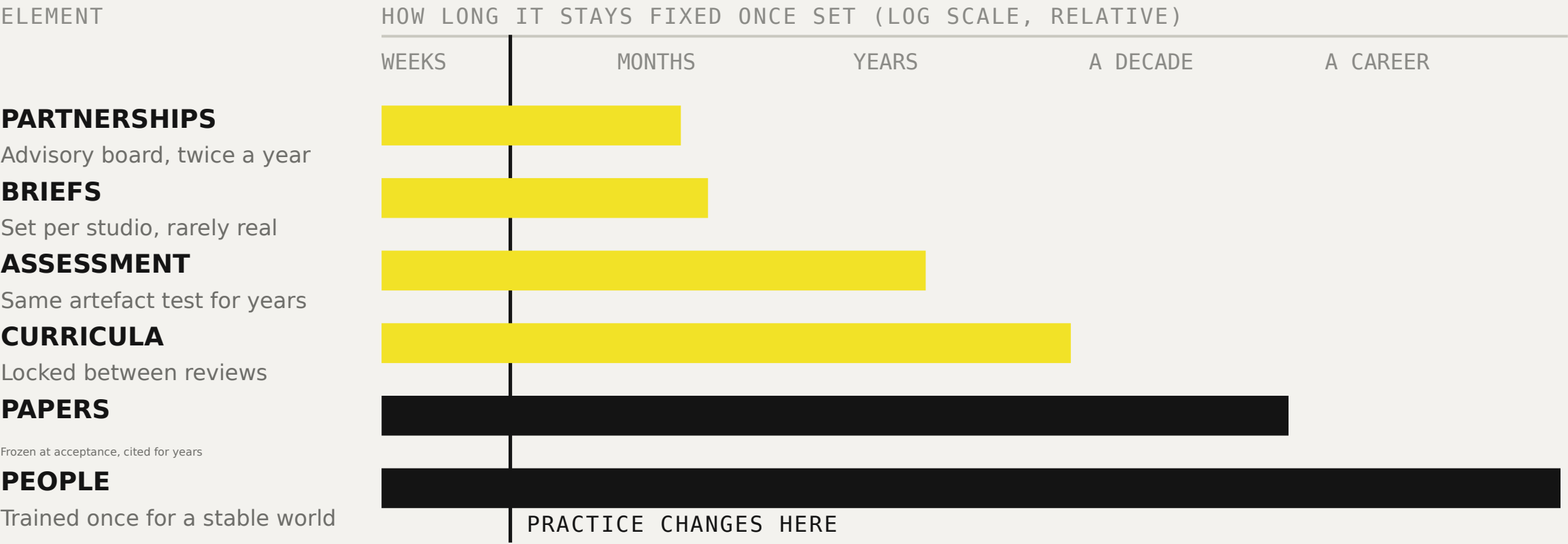
SO FAR

The sector moves in months. We move in years. Impact depends on timing.

NOW

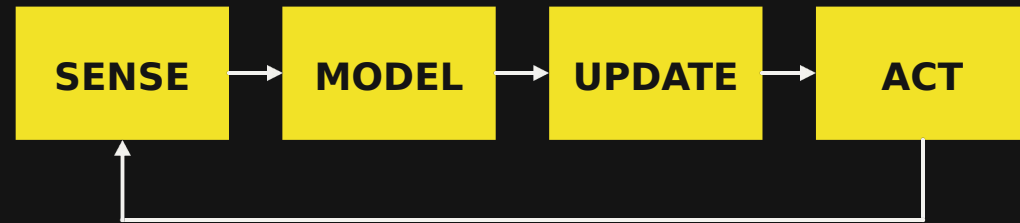
The lateness is not six separate problems. It is one assumption, stability, built into everything.

EVERYTHING WE BUILT OUTLASTS THE SECTOR IT SERVES



WE ALREADY RUN BUILDINGS THIS WAY. WE CALL IT A TWIN.

A BUILDING



Sensors feed the model, the model updates, the building acts, and the loop closes.

CLOSED LOOP

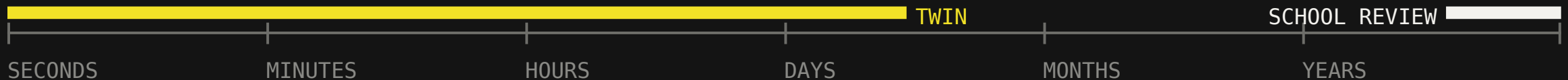
A SCHOOL



Same four steps, run once at review, then left open until the next one.

OPEN LOOP

LOOP TIME // LOGARITHMIC



PART THREE

WHAT HAS TO CHANGE

IF A SCHOOL IS A LOOP, WHAT DO WE CHANGE INSIDE IT?

SO FAR

One assumption, stability, runs through curricula, assessment, partners, briefs, papers and people. A building run that way would be a liability.

NOW

The shifts, each with the mechanism that makes it real and the cost that makes it honest.

PART THREE

WHAT HAS TO CHANGE

EACH CHANGE NAMED WITH ITS MECHANISM AND ITS COST

STATIC CURRICULUM

**DYNAMIC CURRICULUM**

ASSESS THE ARTEFACT

**ASSESS THE JUDGEMENT**

REACTIVE PARTNERS

**CO PRODUCERS**

POLICING AI

**ENABLING AI**

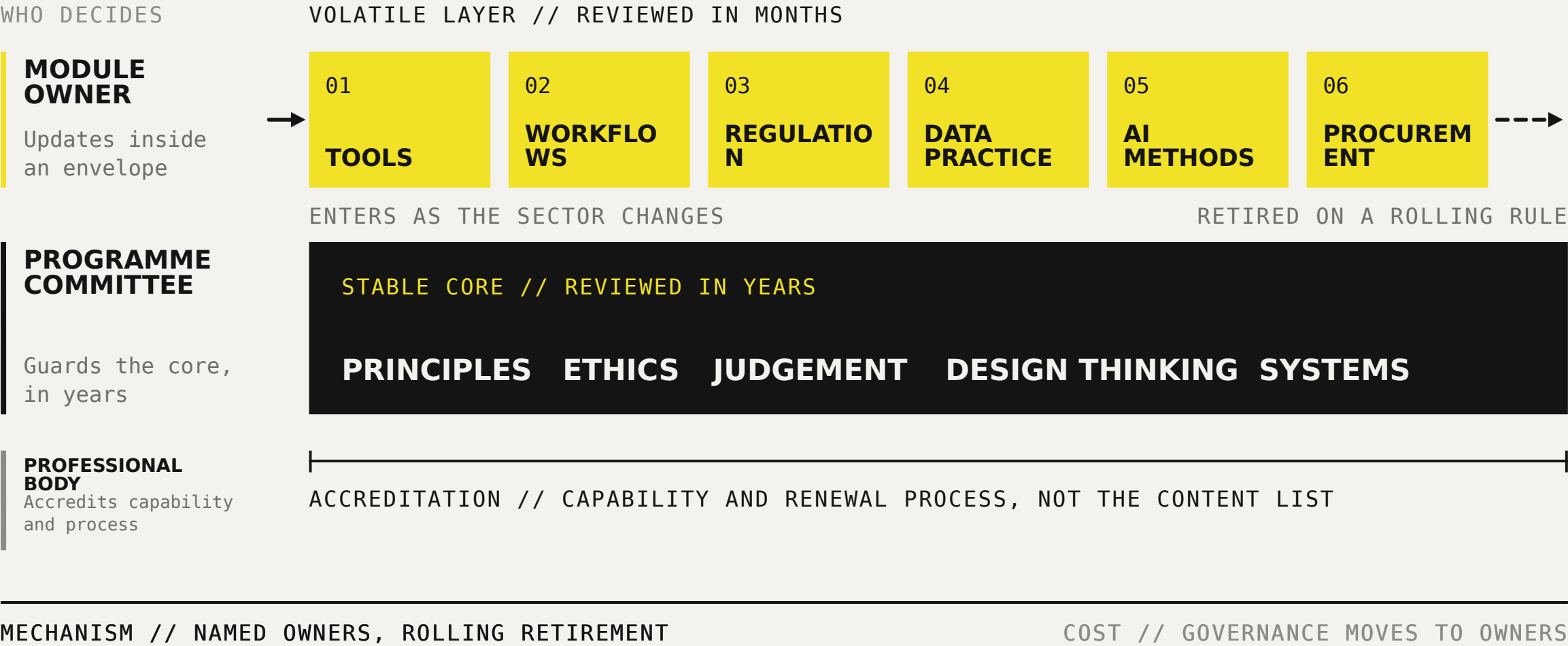
FROZEN PAPERS

**LIVING KNOWLEDGE**

Exhortation without mechanism is what this audience has heard before.

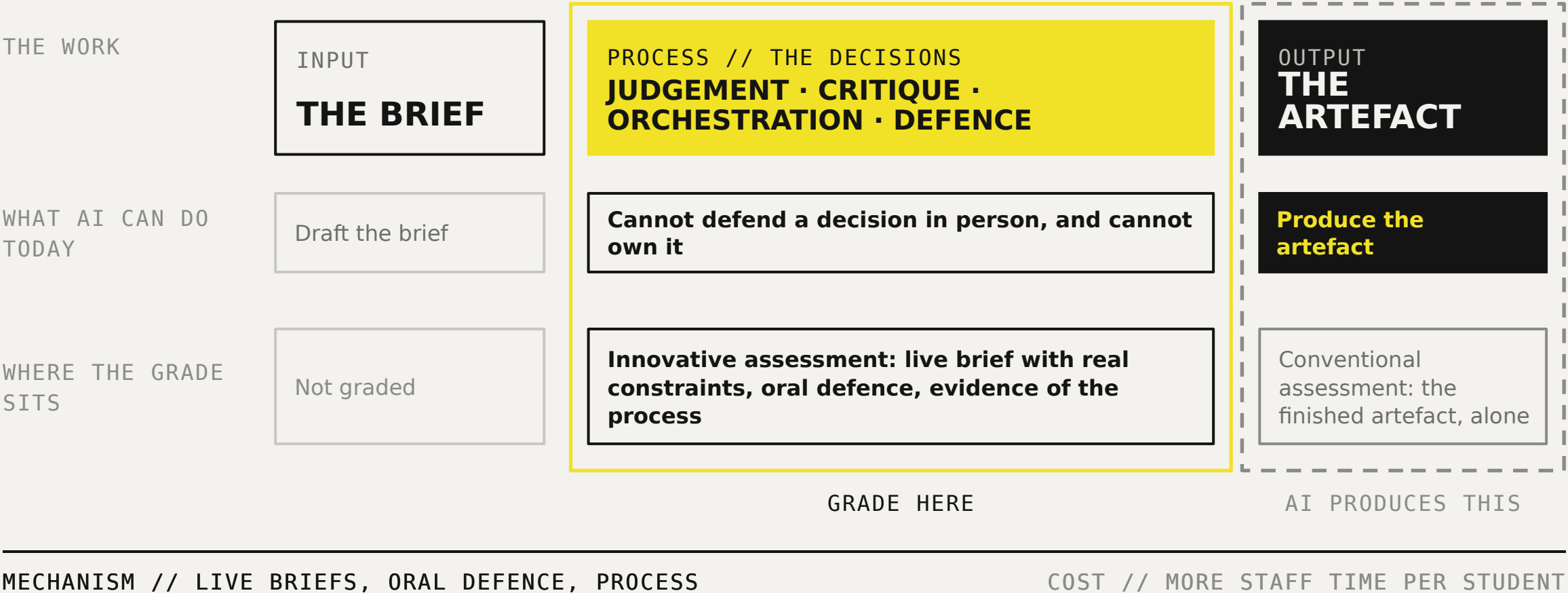
STABILISE THE CORE, KEEP THE REST MOVING

Separate what must stay stable from what must keep moving, then give each its own governance.



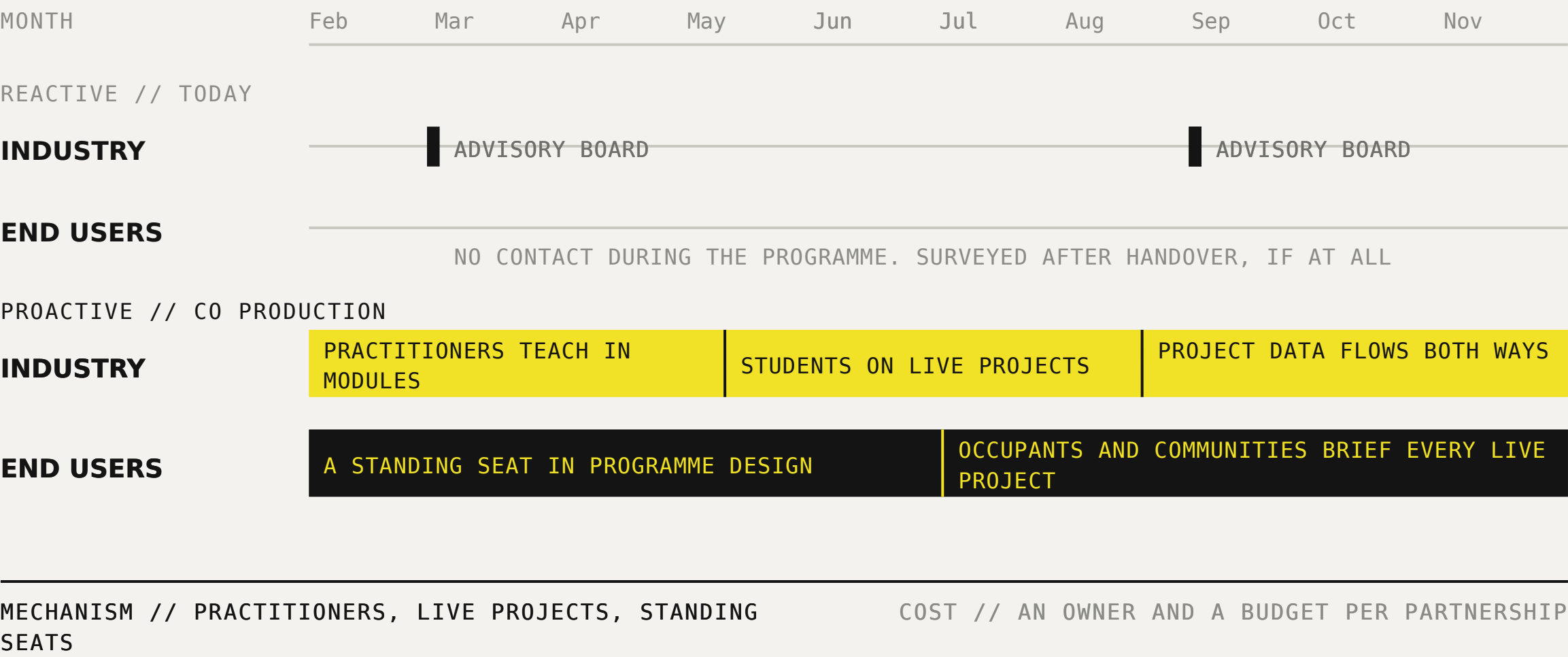
ASSESSMENT IS WHERE INNOVATION DIES

Whatever we grade is what students optimise for. Move the grade and the behaviour follows.



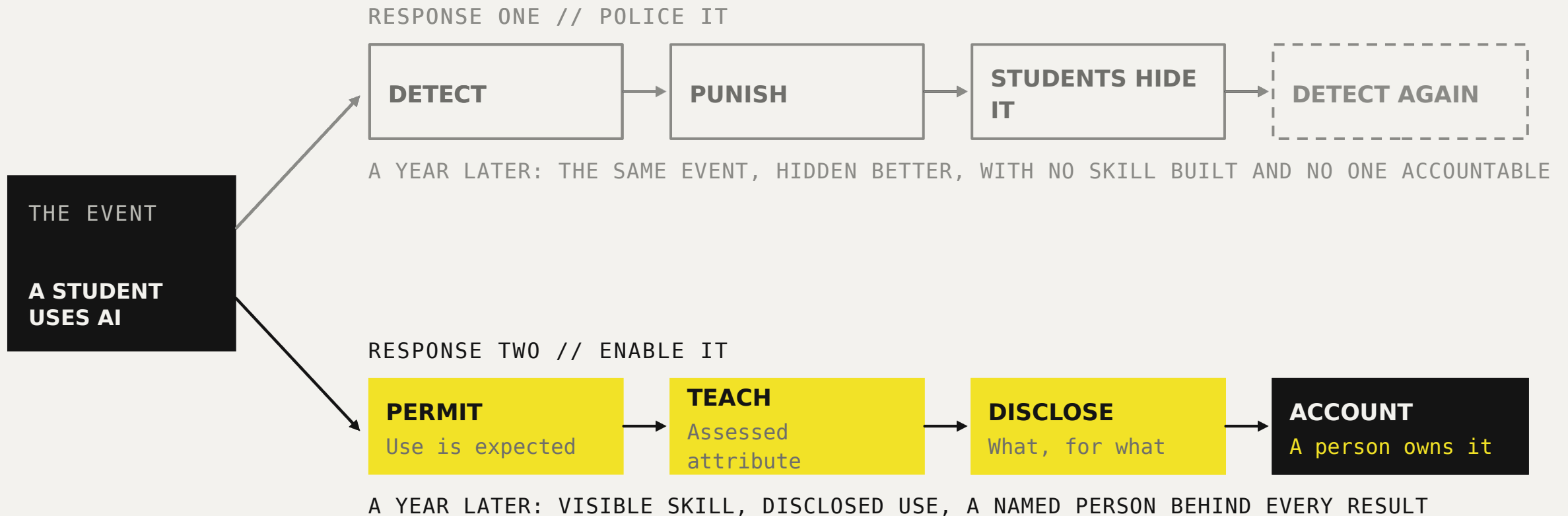
ONE ACADEMIC YEAR OF CONTACT WITH THE PEOPLE WE SERVE

Industry and end users as co producers of the programme, not customers of its graduates. The difference is how often they are in the room.



TWO RESPONSES TO THE SAME EVENT. ONLY ONE COMPOUNDS.

A student uses AI on an assignment. What the institution does next decides what it gets back a year later.



EACH GENERATION OF AI TAKES ANOTHER LAYER OF THE WORK

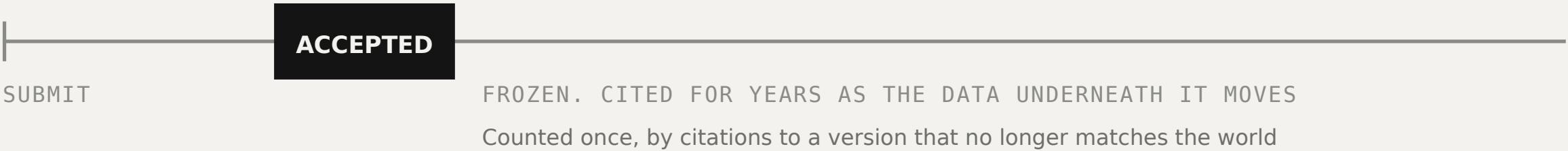
What is left for the person rises each time. That is what we have to teach and assess.

LAYERS OF WORK	YESTERDAY // A TOOL	NOW // AGENTS	NEXT // PHYSICAL AGENTS
GOVERNING	PERSON	PERSON	PERSON
VERIFYING	PERSON	PERSON	PERSON, WITH AGENTS
FRAMING	PERSON	PERSON	MACHINE PROPOSES
OPERATING	PERSON	MACHINE PLANS AND ACTS	MACHINE ACTS ON SITE
PRODUCING	MACHINE	MACHINE	MACHINE
	Assess: can they operate the tool	Assess: can they frame the task and verify the result	Assess: can they govern agents and answer for outcomes

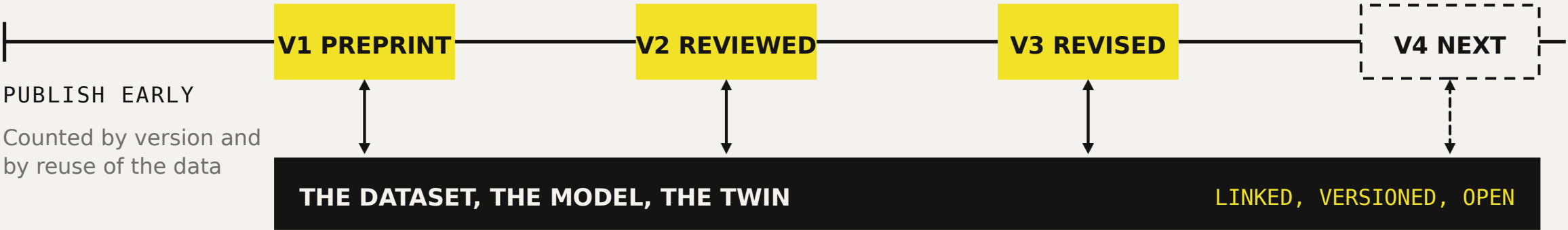
THE PAPER FREEZES AT ACCEPTANCE

Dynamic curricula need dynamic knowledge to draw on. They are the same shift.

STATIC PUBLICATION



DYNAMIC KNOWLEDGE



PART FOUR

THE OPERATING MODEL

SEPARATE SHIFTS, OR ONE WAY OF RUNNING A SCHOOL?

SO FAR

Dynamic curriculum, assessed judgement, co producers, enabled AI, living knowledge. Each with a mechanism and a cost.

NOW

How they map onto teaching, research and citizenship, converge on the digital twin, and close the loop the diagnosis opened.

ONE OPERATING MODEL ACROSS ALL THREE MISSIONS

SHIFT // MECHANISM	TEACHING	RESEARCH	CITIZENSHIP
01 DYNAMIC CURRICULUM	Volatile layer, named owners, rolling retirement		
02 ASSESS THE JUDGEMENT	Live briefs, oral defence, process evidence		
03 CO PRODUCERS	Practitioners teaching, students on live projects	Industry embedded projects, data both ways	End users as a standing voice, public forums
04 ENABLING AI	Use expected, literacy assessed, disclosed	Agents as collaborators, accountability human	Advice to government, national standards bodies
05 LIVING KNOWLEDGE		Versioned outputs linked to data and twins	Open resources, shared platforms, student networks

// YELLOW CELLS NAME THE MECHANISM. EMPTY CELLS ARE EMPTY ON PURPOSE.

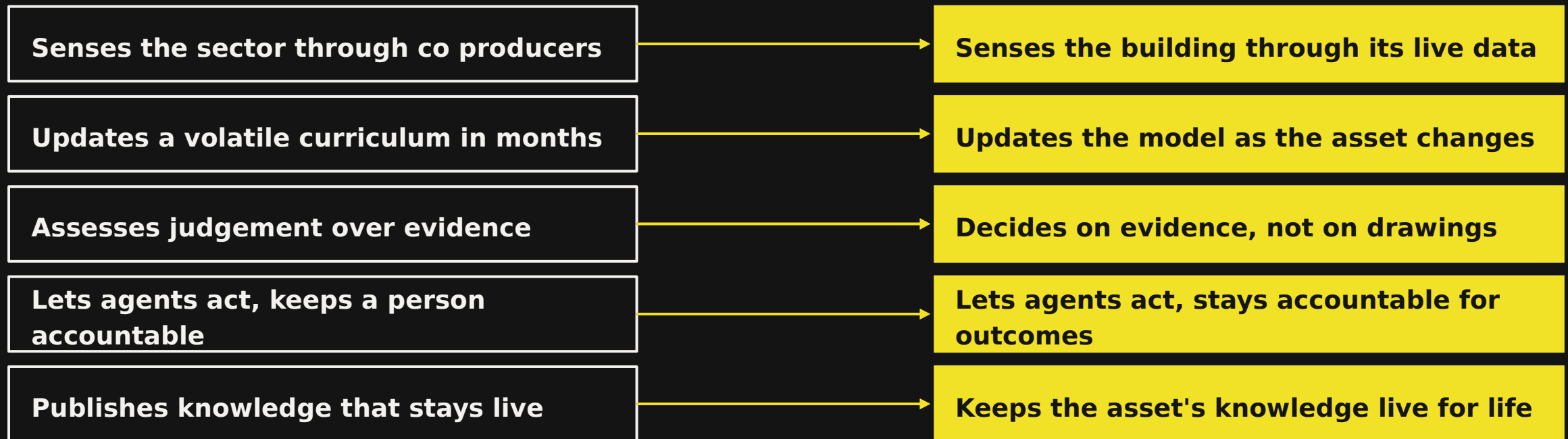
WE HAVE AN OPERATING MODEL. WHAT ABOUT THE GRADUATE?

The five moves we have just asked of the school are the same five moves a graduate makes on a building. Read each row across.

THE SCHOOL, ON ITS ECOSYSTEM

SAME MOVE

THE GRADUATE, ON AN ASSET

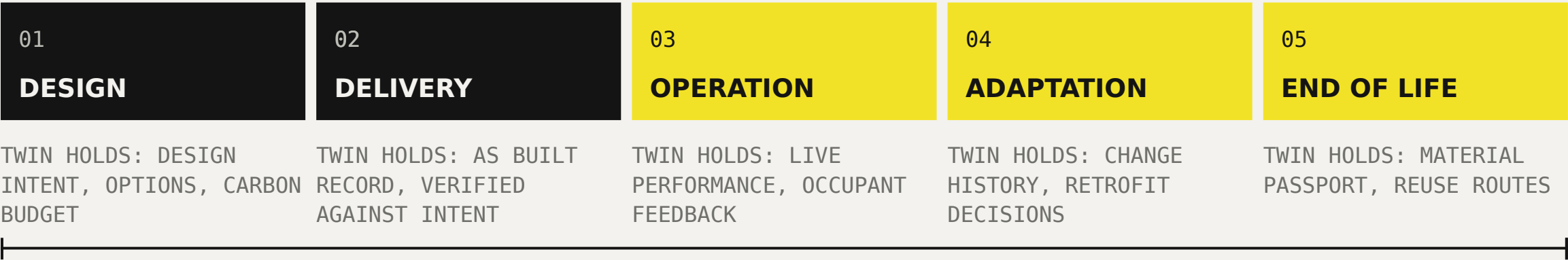


// THE SECTOR HAS A NAME FOR WORKING THIS WAY ON AN ASSET. NEXT: BEYOND BIM.

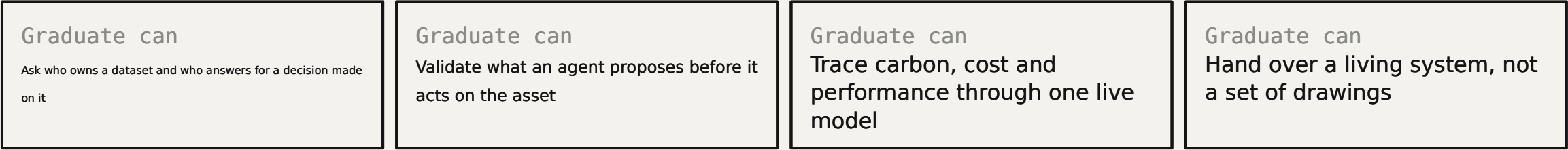
BIM MODELLED ONCE. THE TWIN GOVERNS FOR LIFE.

So education must teach governance and decisions over data, not modelling alone.

BIM // MODEL THE ASSET ONCE



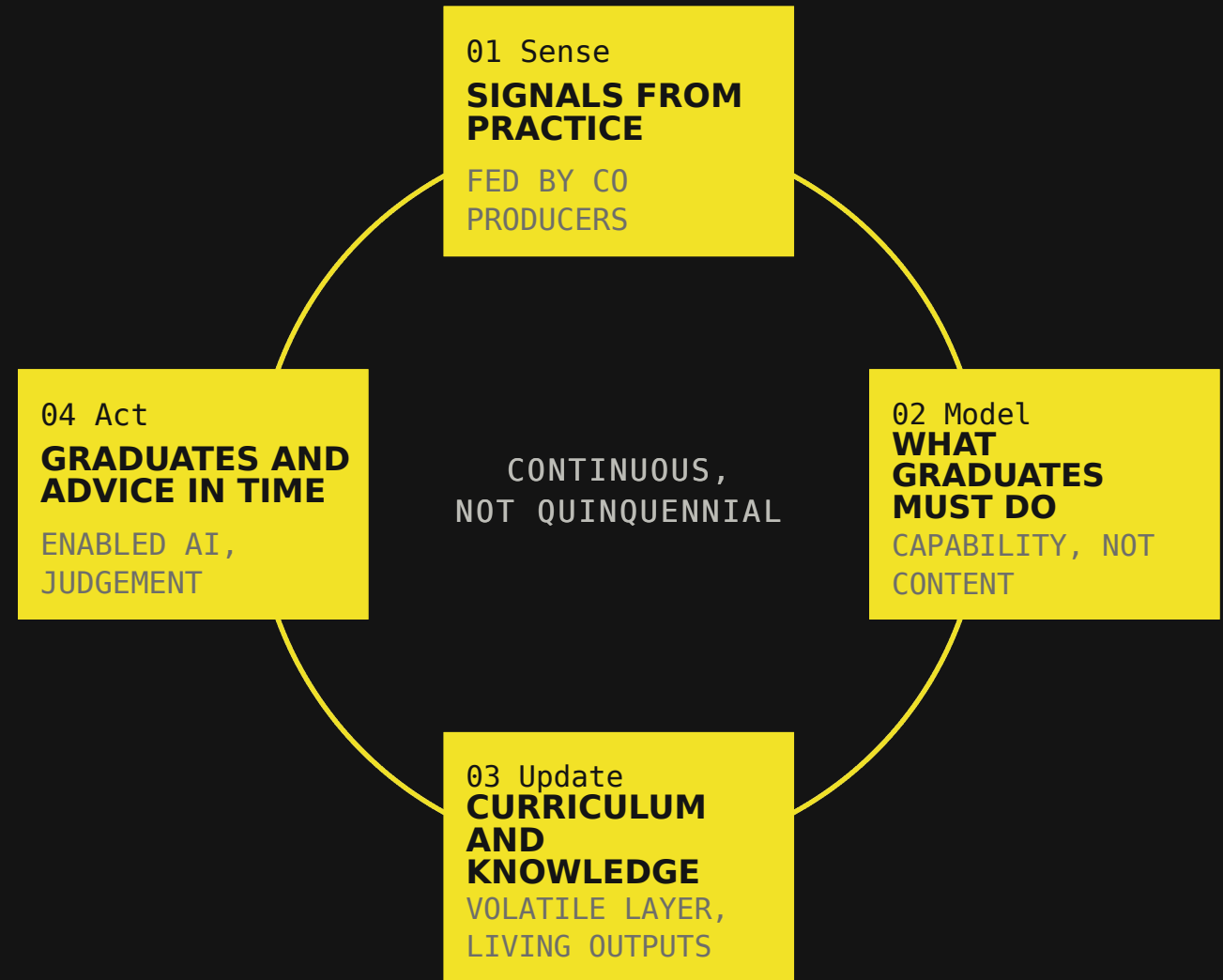
DIGITAL TWIN // GOVERN LIVING DATA ACROSS THE WHOLE LIFECYCLE



THE SCHOOL AS A TWIN OF ITS ECOSYSTEM

Four stations on one loop. Each station is fed by the shifts in part three. The grey line under each is what the static version does instead.

SENSE	static: at review time, years late
MODEL	static: a content list, rarely revised
UPDATE	static: by committee, slowly
ACT	static: after the moment has passed



PART FIVE

LEADING THROUGH IT

A MODEL DOES NOT LEAD ITSELF. PEOPLE HAVE TO LIVE INSIDE IT.

SO FAR

The school as a loop that senses, models, updates and acts in time.

NOW

Running a loop under uncertainty, with staff who did not choose this pace, and what to ask of the CIB community.

SHORTEN THE CYCLE, CAP THE COST OF BEING WRONG

THE LONG PLAN // ONE DECISION, ONE CHANCE TO BE WRONG



EXPOSURE TO A WRONG CALL GROWS UNTIL THE REVIEW, THEN IS PAID IN ONE CORRECTION

SHORT CYCLES // EIGHT DECISIONS, EIGHT CHANCES TO BE WRONG CHEAPLY



DECIDE, CHECK, KEEP OR REVERSE. EXPOSURE NEVER EXCEEDS ONE CYCLE.

// REVERSIBILITY IS A DESIGN PRINCIPLE, NOT A FAILURE TO COMMIT

ANXIETY IS A LEADERSHIP PROBLEM, NOT AN HR PROBLEM

People trained for a stable world are watching it end in real time. Their worry is rational, and some roles will change in substance. What a leader does next decides whether the worry turns into withdrawal or into work.

TWO PATHS FROM THE SAME WORRY



The one thing on the lower path that cannot be delegated: saying plainly which roles will change, and when. Staff already know. A leader who pretends otherwise loses them in the first minute.

STATIC INSTITUTIONS CANNOT PRODUCE IMPACT IN A DYNAMIC SECTOR.

01

**RUN CURRICULA,
PARTNERSHIPS AND
PUBLICATIONS AS LIVING
SYSTEMS**

02

**SHARE WHAT WORKS,
INCLUDING WHAT FAILED**

03

**BUILD THE GOVERNANCE FOR
DYNAMIC KNOWLEDGE
TOGETHER**

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THANK YOU

QUESTIONS

**Disagreements and
better mechanisms
welcome**

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