

THE SEMANTIC CORE

A Position Paper

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This paper introduces the concept of the semantic core — a governed model of organisational intent that occupies a specific and previously empty position between strategic intent and operational execution. It argues that the absence of this artefact is the structural cause of enterprise transformation failure, and that making it explicit changes what is possible for any organisation attempting to evolve.

The Problem That Has No Name

Every large organisation carries a version of the same burden.

Its operations work — after a fashion. Transactions are processed, customers are served, obligations are met, and the daily work of the business continues. But nobody fully understands the complete picture of how it all fits together. The people who designed the processes have largely moved on. The decisions encoded in the systems — why this rule applies here, what that status transition means, why this step precedes that one — are no longer fully retrievable. They live, if they live anywhere, in the memories of long-serving staff, in documents that were written for projects long concluded, or in the accumulated institutional knowledge of people whose departure would constitute a genuine operational risk.

This is not a technology problem. It is not a documentation problem. It is not, fundamentally, a people problem.

It is a structural problem. And it has been hiding in plain sight for decades.

The structural problem is this: every organisation operates across three levels that are meant to be coherent but almost never are.

The first level is strategic intent — what the business has decided to do, where it is going, what it exists to achieve. This is the domain of leadership.

The second level is operational capability — what the business needs to be able to do in order to execute that strategy. This is the domain of value streams and capabilities. It is expressed, when it is expressed at all, in operating model designs and capability maps.

The third level is implementation — how those capabilities are currently carried out through people, processes, and technology. This is the domain of operations and delivery.

In a well-functioning organisation these three levels are aligned. Strategy drives capability definition. Capabilities drive implementation. When strategy changes, the impact cascades predictably downward. When implementations are modernised, continuity with strategic intent is preserved.

In reality, alignment across these three levels is the exception rather than the rule. Strategy changes but operations don't follow. Implementations accumulate workarounds that nobody commissioned and nobody can explain. Capabilities exist in the systems that nobody remembers requesting. The gap between what leadership believes the organisation does and what the operation actually enforces grows silently, year by year, until a transformation programme is commissioned to close it — and the cycle begins again.

This gap — between strategic intent and operational execution — is the problem that has no name. It is not technical debt. It is not organisational misalignment. It is something more specific and more consequential than either of those terms captures.

It is the absence of a single artefact. An artefact that, in most organisations, has never existed.

What Has Been Tried

The gap between strategy and execution is not new. Organisations and their advisors have been attempting to close it for as long as enterprise transformation has existed. The attempts are worth examining — not to dismiss them, but to understand precisely what each one misses.

Enterprise architecture attempts to create coherence across systems and technology decisions. At its best it produces useful views of the current state and a desired future state. But enterprise architecture is fundamentally a technology discipline. It describes how systems relate to each other. It does not govern the relationship between what the business intends to do and what the operations actually enforce. The gap between the architecture diagram and the running organisation is well understood and widely tolerated.

Business process modelling attempts to capture how the organisation operates at the level of processes and workflows. It is more business-oriented than enterprise architecture but it is also more volatile — process maps go stale quickly, are rarely maintained, and are typically produced for a specific project rather than as a governed organisational asset.

Capability modelling attempts to describe what the organisation needs to be able to do, independent of how it currently does it. This is conceptually closer to the right level of abstraction. But capability models in practice tend to be strategy artefacts rather than

governance artefacts — they inform planning conversations but do not govern implementation decisions.

Each of these approaches occupies a real and useful position. None of them occupies the specific position that this paper argues has always been empty.

The Empty Position

Consider what an artefact would need to be in order to close the gap between strategic intent and operational execution.

It would need to be abstract enough to be independent of any particular implementation choice — whether that implementation is technology, process, or people. If it is tied to how something is currently done it becomes obsolete when that changes. The artefact must survive the replacement of everything below it.

It would need to be precise enough to govern. Vague statements of strategic intent do not govern operational decisions. The artefact must be specific enough that when an implementation decision is made — about a business rule, a process step, a workflow — it can be evaluated against the artefact and found to be either consistent or inconsistent. Governance requires precision.

It would need to be connected — upward to strategic intent and downward to implementation. It must be possible to trace any implementation decision to a capability, any capability to a value stream, and any value stream to a strategic objective. And it must be possible to trace that chain in reverse.

It would need to be owned by the business, not by any particular function. If the artefact is owned by a technology team it will be maintained when it is convenient for technology and neglected when it is not. The organisation's knowledge of itself cannot be a technology asset. It must be a business asset — reviewed by the people who understand the business, governed by the people who are accountable for its accuracy.

It would need to be durable — the one asset that survives transformation. Every other artefact produced in the course of running an enterprise is eventually replaced. The processes change. The technology changes. The organisational structures change. The artefact that describes what the business actually does — at the level that is independent of any particular implementation — should never need to be replaced. It should only need to be refined.

This combination of properties — abstract enough to survive implementation change, precise enough to govern, connected across all three levels, owned by the business, and durable across transformation cycles — defines a position in the organisational landscape that has always existed as a requirement and almost never existed as a reality.

That position is what the semantic core occupies.

The Semantic Core

The semantic core is the canonical model of what an organisation actually does — expressed at the level of precision required for governance, and at the level of abstraction required for independence from any particular implementation.

It is not a data model. Data models describe the structure of stored information in a specific implementation context. The semantic core describes the concepts, rules, events, and capabilities that the organisation operates with, independent of how any of them are currently stored or processed.

It is not an architecture diagram. Architecture diagrams describe how systems relate to each other at a point in time. The semantic core describes what the business intends, independent of any current arrangement of systems, processes, or people.

It is not a process map. Process maps describe how work flows through the organisation under current conditions. The semantic core describes what the organisation needs to be able to do, independent of how it currently does it.

It is not a capability model. Capability models describe what the organisation needs to be able to do at the level of strategic planning. The semantic core extends downward from capability — into the precise domain concepts, business rules, and event structures that give capability definition its operational meaning.

The semantic core sits at the exact point where all of these disciplines converge and where none of them, individually, is sufficient. It is precise enough to govern every downstream implementation decision. It is abstract enough to survive the replacement of every downstream implementation. It connects strategic intent to operational capability to implementation in a single governed artefact.

The semantic core occupies a specific and previously empty position in the relationship between strategic intent and operational execution.

That combination — precise enough to govern, abstract enough to be independent of any particular technology or process design — is what makes the semantic core genuinely new.

It sits at the exact point between intent and execution where the translation from one to the other has always happened informally, imperfectly, and at great cost.

The Accumulated Evidence

If the semantic core is the artefact that has always been needed but rarely existed explicitly, the obvious question is: where does it come from?

The answer, for most organisations, is that it already exists. It is just buried.

Every organisation that has been running long enough has encoded a version of its operating model across its people, its processes, and its technology. The encoding is implicit rather than explicit. It is distributed across documents, procedures, systems, and the accumulated institutional knowledge of the people who run the operations. It exists in forms that cannot be easily queried, governed, or connected to the strategy they are supposed to serve. But it is there.

The operating model has always existed. It has never been made explicit in a form that is governed, owned by the business, and durable across the changes that organisations continuously make to their people, processes, and technology.

The archaeology of intent — the systematic recovery of the semantic core from the accumulated evidence of what the organisation has built and decided over the years — is the act of making explicit what has always been implicit. It is not an exercise in documenting what currently exists. It is the recovery of what the business actually means, beneath everything that currently exists, expressed in business language and validated by the people who own it.

Once the semantic core is explicit and governed, future changes to the organisation's implementations — its technology, its processes, its operational arrangements — do not require the same excavation again. The model is already there. Future implementations are projections of that model, not new excavations of buried knowledge.

Projections and the Disposable Implementation

The concept of the projection follows directly from the semantic core.

If the semantic core is the canonical model of what the organisation does — precise enough to govern, abstract enough to survive implementation change — then every implementation is a projection of that model into a specific operational context. Technology is one medium of projection. Process is another. Organisational structure is another. Each projection is different. The model they are projected from is the same.

This has a counterintuitive implication: implementations are meant to be replaced. Not because they fail — although they eventually do — but because contexts change, and what was an appropriate projection of the model at one point in time is not necessarily the appropriate projection at a later point. The projection is disposable. The model is not.

This reframes the relationship between the organisation and its operational estate in a fundamental way. The fear that makes transformation so difficult — the fear that changing the implementation means losing what it knows — dissolves when the semantic core is explicit. The implementation does not know anything that the model does not know. Changing the implementation is an engineering task. The knowledge is safe.

The Governance Requirement

The semantic core is only as valuable as its governance.

A model that is built once and then left to drift is not meaningfully different from the implicit encoding it replaced. The reason the operating model became unreadable in most organisations was not that it was poorly designed at the outset — it was that changes accumulated without a governing model to evaluate them against. Each change made sense locally. Cumulatively, they produced opacity.

The semantic core requires a different relationship between the business and its own model. Domain experts — the people who understand what the organisation actually does, not just how it currently operates — must be able to review the model, validate its accuracy, and approve changes to it. The model must be theirs, not technology's.

This requires the model to be expressed in language the business can engage with — in the concepts, vocabulary, and relationships that the business uses to describe its own operations. A model expressed in technical terms is a model the business cannot own. A model expressed in business language is a model the business can govern.

When the business owns the model, and the model governs implementation, the alignment between strategic intent and operational execution becomes maintainable rather than aspirational. Strategy changes are evaluated against the model. The model is updated to reflect new strategic intent. Implementations follow from the updated model. The chain from intent to execution is explicit, traceable, and governed at every link.

Implications

The semantic core, as described in this paper, is a conceptual position. The argument is that this position exists, that it has always been empty, and that filling it changes what is possible for any organisation attempting to evolve.

For transformation programmes: The discovery phase — the expensive, time-consuming activity of recovering what the organisation actually does — is not a project cost. It is an investment in the semantic core. Framed correctly, it produces a governed organisational asset rather than a project deliverable that will be archived and forgotten.

For strategic alignment: When strategy changes, the impact on operational capability and implementation becomes traceable rather than approximate. The question 'what does this strategic change require of our operations?' has a specific answer, derivable from the model rather than estimated from tribal knowledge.

For investment decisions: The fear that changing an implementation means losing what it knows is dissolved when the semantic core is explicit. Decisions about technology, process, and organisational structure can be made on their merits rather than on the basis of what is least likely to destroy institutional knowledge.

For organisational resilience: The dependency on individuals who carry critical knowledge in their heads is an organisational risk. Externalising that knowledge into a

governed model is an act of organisational resilience — the knowledge lives in the model rather than in the person.

For the economics of change: If implementations are projections of a stable semantic core, the cost of changing implementations falls significantly. The expensive part of a transformation programme is not the building. It is the discovery. Remove the discovery cost from every subsequent transformation cycle and the economics of change are fundamentally different.

Conclusion

The semantic core occupies a specific and previously empty position in the relationship between strategic intent and operational execution.

It is not a rebranding of enterprise architecture, or capability modelling, or any other existing discipline, although it draws on the insights of each. It is the artefact that sits at the exact point between intent and execution where the translation from one to the other has always happened informally, imperfectly, and at great cost.

The operating model, in this framing, is not a problem. It is an accumulated record of every decision the organisation has made about how to deliver value to its customers — encoded implicitly across people, processes, and technology, but real. The recovery of the semantic core from that record is the act of making explicit what the organisation has always known but never been able to state.

And once stated, it does not need to be rediscovered.

That is the last great dig.

*Neal McCormick is the founder of Semantic Foundry. This paper presents concepts developed at length in the book, *The Last Great Dig*.*

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