

Knowledge that compounds.

Derived Logic is developing a shared operating system for defense organizations: an ontology, built by its users in the ordinary course of their work, from which the system derives logic that makes each subsequent contribution easier and better. Knowledge accrues to the institution rather than departing with each rotation.

Knowledge that endures

Military organizations rotate their staffs every two to three years. With each rotation goes a substantial share of what the institution knew: its context, its relationships, and judgment earned the hard way. Successor teams reconstruct much of it from first principles, and the cycle repeats.

Successive generations of software have not solved the problem. They have made it faster to produce work; they have not made it easier to keep.

A false choice between builders and practitioners

The present market obliges people to choose. One may become a technical builder, at an increasing distance from how the work is actually done, or remain a process specialist without the means to encode that knowledge. Because the two competences seldom reside in the same person, the knowledge and the system seldom reside in the same place.

Disposable artifacts

Headquarters still run largely on documents, slides, and spreadsheets. Even where modern platforms are adopted, the tools one officer builds are often unintelligible to the next, who reverts to a fresh slide deck or begins again on a new system. Effort is spent; little accumulates.

No basis for longitudinal assessment

Where nothing accumulates, there is no continuous record of how decisions were reached. Without one, an organization cannot determine whether it is improving or declining. The cognitive work was never encoded in its systems; it was held in people, and people move on.

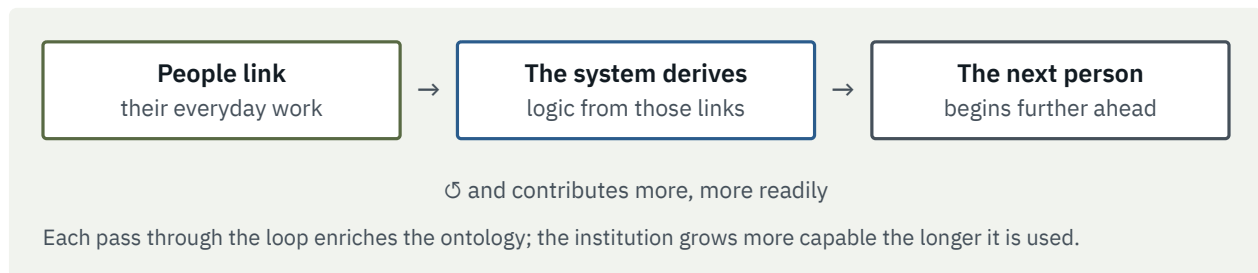
Wisdom and energy without a common medium

The senior practitioner with decades of experience can transmit judgment only as guidance, and guidance degrades as it is serialized, summarized, and relayed, until intent becomes incoherent. The newcomer brings energy and current skills but little context. In the prevailing environment the two work in different media and talk past one another. Derived Logic offers them a shared medium: experience encoded as structure rather than delivered as instruction, and inherited directly by those who follow.

Knowledge that builds on itself

What Derived Logic provides is not another interface. It is the ontology beneath: a living, formal model of how an organization's people, processes, data, and decisions relate to one another.

Users construct it simply by doing their work: linking a task to the requirement it serves, a decision to its rationale, a product to those who rely upon it. No dedicated knowledge engineers are required, and there is no separate data project.



Everyone draws upon the same underlying model, yet each person sees only the portion that role, clearance, and need-to-know permit. Releasability and classification are properties of the structure itself, enforced as the work is done rather than policed after the fact.

An interface can be copied. An ontology built by an organization's own people, which compounds with use, cannot.

Knowledge that improves the work

Many platforms offer to encode an organization's business processes in software. The offer assumes that the processes are sound. A good number persist only because they always have, and to digitize them faithfully is to make their shortcomings permanent, and faster.

Because knowledge compounds within Derived Logic, the system can do more than preserve a process: it can interrogate it and propose better ones, employing two modes of reasoning in combination.

Deterministic

Laws, regulations, directives, and rules of engagement, encoded as hard constraints. They hold in every case and remain auditable.

Generative

Exploratory reasoning that searches for improvements within those constraints, approached skeptically, with practitioners deciding what is adopted.

Your laws, your instructions, your caveats

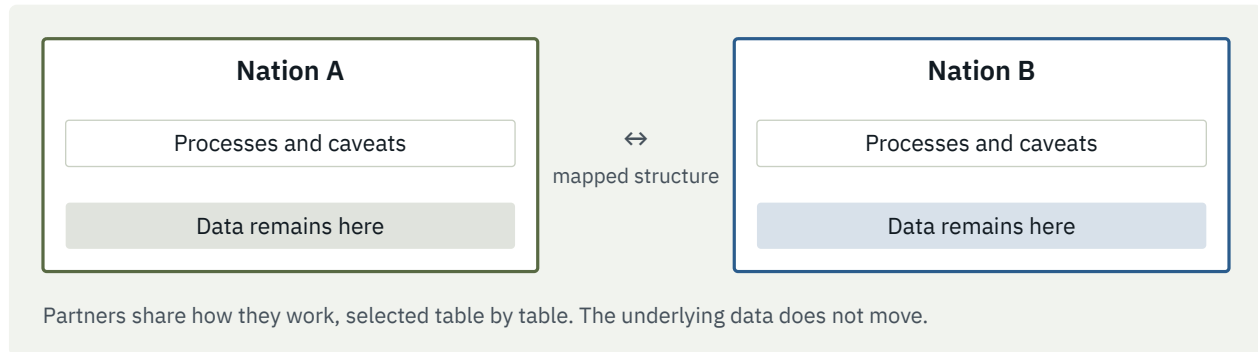
The guardrails belong to the customer. Derived Logic follows the laws, directives, and national caveats of the organization that employs it; it does not set itself above them as an arbiter, nor does it substitute its judgment for the commander's. Nothing crosses a legal or classification boundary unaccounted for.

Decisions judged by what was known

Each decision is preserved together with the data and rules in force when it was taken. It may therefore be assessed by the standard of its own time, on the basis of what was then known, and separately from how events unfolded. This is the difference between learning from the past and judging it with hindsight.

Knowledge that allies can share

Each nation operates its own instance, in which its laws, caveats, and procedures are encoded. Instances can map their ontologies to one another, so that partners understand how each other works without any data leaving national control.



Each nation determines precisely what it shares, down to an individual table of process or caveats. A partner that holds another's rulebook knows, during planning and execution alike, how that ally will operate, rather than discovering a caveat in the middle of an operation.

Coalition interoperability is among the most difficult and costly problems in modern warfare, and it most often founders on the demand to share data. This approach makes no such demand. Allies can act as a single force without surrendering either their data or their sovereignty.

Many languages, one structure

Coalitions work across languages. Concepts in the ontology are anchored to open, multilingual reference vocabularies, and every correspondence is typed (exact, close, broader, or narrower), attributed, and dated. Partners can therefore establish, at any later point, what a term means in another nation's usage and why a given mapping was made.

Knowledge from practice

Our work is grounded in practitioners' experience of campaign and operational planning in multinational headquarters, and in a thesis on compounding knowledge.

Derived Logic is an American company. It is designed from the outset for use by allied and partner nations, with whom we are in dialogue about their requirements. National sovereignty, national law, and national caveats are premises of the design, not later adaptations.

Build an institution that remembers.

We are working with a small number of early partners in defense and government. If your organization is contending with turnover, disposable tools, or coalition coordination, we would welcome a conversation.

contact@derivedlogic.ai

Last updated: October 15, 2026

Derived Logic takes data sovereignty seriously. Each nation's data should remain under its own control and its own law, and we treat that as a design principle from the first line of code.