PUBLIC-FACING PDF | REVIEW BEFORE PRODUCTION | FOLIUM SYSTEMS

AI ORCHESTRATION CONTROL PLANE

AI Orchestration Control Plane

The next AI failure mode is not lack of tools. It is too many disconnected models, agents, dashboards, knowledge bases, provider accounts, local runtimes, and automations moving without one business-owned operating brain. Folium helps companies design the control plane that routes work, connects knowledge, manages agent fleets, governs authority, observes health, and keeps humans in command.

AUDIENCE

Executives, operators, technical buyers, security reviewers, AI platform owners, and teams planning multi-agent or multi-runtime AI

PURPOSE

Show how Folium can turn AI sprawl into a governed operating nervous system without exposing internal project topology

UPDATED

May 2026

> AI orchestration is the operating layer that coordinates models, agents, memory, tools, people, and governance.

> Agent fleets need scoped jobs, route contracts, permissions, lifecycle records, health checks, rollback paths, and open-source agent integration review when public frameworks are adapted.

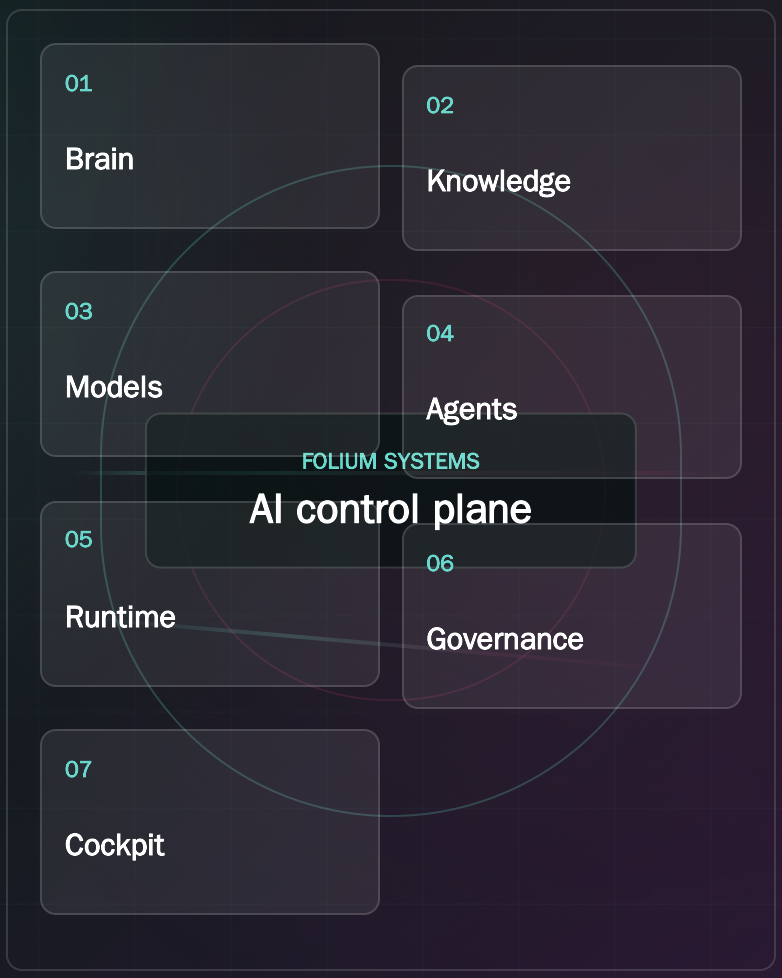
> The business brain is source truth, policy, process memory, knowledge network, and human decision rights working together.

AI CONTROL PLANE

AI orchestration becomes useful when the business owns the brain and the rules.

The control plane connects source truth, neural knowledge lanes, model routes, agent fleets, runtime placement, governance gates, and operating records into one reviewable system.

AI CONTROL PLANE



01

Shows Folium can coordinate many AI parts without selling unmanaged autonomy.

02

Makes mass agent management a controlled fleet discipline with roles, logs, and lifecycle records.

03

Connects cloud, local, private, containerized, virtualized, and hybrid placement patterns to public-safe workload routing.

R

NAVIGATION MAP

Choose the review route before reading cover to cover.

This packet is meant to support a real decision meeting. Different reviewers should enter through different routes, then come back together around the same controlled next step.

DECISION ROUTE | OPERATING ROUTE | TRUST ROUTE

EXECUTIVE ROUTE

Decision first

Start with the cover, visual summary, executive read, controls, first ninety days, and handoff. This route helps leaders decide whether the next move is education, audit, first build, pilot, or operations.

- Outcome
- Risk
- Owner
- Next gate

OPERATIONS ROUTE

How the work will run

Read the workflow map, procedures, operating roles, metrics, first sprint, and buyer worksheet. This route shows whether staff can actually use, review, and improve the future process.

- Workflow
- Staff
- Support
- Improve

TECHNICAL AND TRUST ROUTE

Where the boundaries live

Focus on records and work products, controls, risk assumptions, reference work products, source truth, runtime placement, and launch conditions before any private access expands.

- Source
- Access
- Runtime
- Rollback

BUYER SESSION ROUTE

Turn reading into a working session

Use the discovery questions, role review route, buyer worksheet, and engagement fit ladder to prepare one process, one owner, one source map, and one next decision.

- Process
- Examples
- Questions
- Decision

> Best use: bring one workflow, the people who own it, the systems it touches, the data classes involved, and the decision this packet should help leadership make.

01

EXECUTIVE READ

AI orchestration control plane in plain language.

The next AI failure mode is not lack of tools. It is too many disconnected models, agents, dashboards, knowledge bases, provider accounts, local runtimes, and automations moving without one business-owned operating brain. Folium helps companies design the control plane that routes work, connects knowledge, manages agent fleets, governs authority, observes health, and keeps humans in command.

RECORD | BOUNDARY | ACTION

BRAIN

The business brain holds source truth

Policies, customer rules, process memory, owners, documents, and decision rights become the operating context for AI.

- Source truth
- Policy
- Owners

NETWORK

Knowledge becomes a governed neural layer

Documents, databases, graph relationships, retrieval, memory, and feedback loops are connected with permissions and freshness rules.

- RAG
- Memory
- Graph

FLEET

Agents become managed workers

Each custom, market-standard, or open-source agent integration has a job, tools, model route, action limits, review path, health signal, and lifecycle decision.

- Role
- Tools
- Review

GOVERN

Authority is controlled by the system

Allowed, review, blocked, and escalated actions are enforced through approvals, logs, rollback, and operating records.

- Approve
- Block
- Rollback

> This packet is public-facing. It is written for serious review without exposing private infrastructure, customer data, credentials, live provider wiring, or internal project labels.

02

WORKFLOW MAP

The operating path should be visible before anyone trusts the outcome.

Folium uses workflow maps to turn broad AI ambition into inspectable work. Each phase names the procedure, the visible output, and the decision gate that prevents excitement from outrunning control.

DECISION GRID | REVIEW LENS | NEXT STEP

PHASE	PROCEDURE	VISIBLE OUTPUT	DECISION GATE
Estate sweep	Inventory models, prompts, agents, controlled-retrieval stores, dashboards, providers, automations, documents, data stores, runtime lanes, and exposed services.	AI estate inventory and route map.	No uncontrolled capability remains invisible.
Brain map	Name source truth, process memory, customer rules, policy owners, decision rights, stale-content rules, and human judgment points.	Business brain and knowledge authority map.	AI has controlled context instead of loose memory.
Network design	Plan retrieval, graph, cache, document, database, vector, relational, and memory namespaces with permissions and update cadence.	Neural knowledge network design.	Knowledge routes are grounded and governed.
Fleet design	Define custom, market-standard, and open-source agent roles, tools, model routes, action scopes, collaboration patterns, escalation rules, and lifecycle stages.	Agent fleet architecture and route contracts.	Each agent has a job and a boundary.
Runtime placement	Place cloud APIs, private endpoints, local models, containers, virtualized runtimes, GPU hosts, edge lanes, and fallback routes by data, cost, latency, and support.	Workload placement matrix.	Runtime choice is justified by business risk.
Governance layer	Turn policy into approvals, blocked actions, audit trails, kill switches, rollback triggers, human review, and launch gates.	Binding governance control plane.	Authority cannot outrun ownership.
Operations cockpit	Create health, cost, drift, source freshness, incident, support, release, and improvement records for the AI estate.	AI operations cockpit plan.	The system can be monitored and improved.
Handoff	Package owners, support paths, training, route contracts, known limits, recovery, expansion gates, and next-stage recommendations.	Control-plane handoff packet.	The buyer can operate the system after the first build.

03

RECORDS AND WORK PRODUCTS

The work should leave behind material a buyer can inspect.

A serious engagement should produce more than conversation. Folium packages records, diagrams, checklists, routes, system surfaces, launch gates, and handoff material so the buyer can keep control after the first win.

DECISION GRID | REVIEW LENS | NEXT STEP

WORK PRODUCT	WHAT IT CONTAINS	HOW THE REVIEWER USES IT
AI estate inventory	Models, agents, prompts, RAG stores, tools, APIs, databases, dashboards, runtimes, owners, and exposed services.	Shows what exists before adding more AI.
Business brain map	Source truth, policy rules, process memory, customer rules, owner decisions, and human-only judgment.	Defines what AI must respect.
Neural knowledge network	Retrieval lanes, graph relationships, memory namespaces, freshness rules, permission classes, and correction paths.	Explains how knowledge flows safely.
Agent fleet roster	Agent roles, open-source agent integration status, tools, model routes, action scopes, review points, health signals, and lifecycle status.	Prevents unmanaged autonomous sprawl.
Runtime placement matrix	Cloud, private, local, hybrid, containerized, virtualized, GPU, edge, and fallback placement by workload class.	Makes cost, privacy, latency, and support tradeoffs visible.
Governance control plane	Allowed/review/blocked taxonomy, approval gates, logs, rollback triggers, kill switches, and incident paths.	Turns governance into operating behavior.

04

PROCEDURES

The procedure is the product as much as the technology.

The goal is not to make AI look impressive for one meeting. The goal is to make the operating path repeatable, explainable, reviewable, and safe enough to improve.

CHECKLIST	OWNER PATH	RELEASE SIGNAL

- Start by inventorying the existing AI estate before adding another agent or model.
- Name the business brain: source truth, owners, policy rules, process memory, customer rules, and decisions that stay human-owned.
- Separate agent roles by job, tool access, action authority, data class, and escalation behavior.
- Review open-source agent integrations for source, license posture, dependency risk, role fit, permission boundaries, eval behavior, support ownership, and retirement path.
- Write route contracts for every model, agent, RAG lane, API tool, and human review path.
- Design knowledge as a governed network: retrieval, graph, memory, correction, permission, freshness, and retirement rules.
- Place workloads by privacy, latency, cost, fallback, supportability, and vendor-exit needs.
- Use binding governance for state-changing actions: approvals, logs, fail-closed behavior, rollback, and blocked actions.
- Build an operating cockpit for fleet health, cost, drift, incidents, source freshness, release notes, and support ownership.
- Promote agents only after evaluation, reviewer acceptance, route proof, support plan, and rollback readiness.
- Retire or park agents, routes, and memory lanes that are stale, duplicated, unsupported, or no longer owned.

05

CONTROLS

Governance, quality, and launch gates keep speed honest.

Folium keeps the buyer's next decision tied to observable gates: source truth, authority, access, testing, ownership, support, rollback, and improvement cadence.

DECISION GRID | REVIEW LENS | NEXT STEP

GATE	WHAT MUST BE TRUE	STOP OR REFINE SIGNAL
Brain gate	Source truth, decision rights, policy owners, and human-only judgments are named.	Agents act without knowing what authority they respect.
Fleet gate	Every agent has a role, tool scope, route contract, log record, escalation path, and lifecycle owner.	Agents are added because they are interesting, not because they have a job.
Network gate	Memory, retrieval, graph, document, database, and feedback routes have permissions and freshness rules.	AI pulls from stale, private, or contradictory sources.
Runtime gate	Cloud, private, local, hybrid, containerized, virtualized, GPU, and fallback placement is matched to workload risk.	A single runtime is forced across incompatible work.
Governance gate	Allowed, review, blocked, execute, rollback, and incident states are enforced by the process.	Policy advises but cannot actually stop unsafe action.
Operations gate	Health, cost, drift, support, incident, release, and retirement records have owners.	The first build becomes orphaned after launch.

06

DISCOVERY QUESTIONS

The right questions expose the real project.

These prompts help a buyer and Folium decide whether the next step should be education, audit, first build, security review, pilot, or an operating support path.

CHECKLIST	OWNER PATH	RELEASE SIGNAL

- How many models, agents, prompts, RAG stores, automations, dashboards, and provider accounts already exist?
- Where does the business truth live, and who owns correcting it?
- Which AI actions are explain-only, retrieve-only, draft-only, recommend, execute, blocked, or escalated?
- Which agents should collaborate, challenge one another, or require human approval?
- Which knowledge should be retrieved from documents, databases, graph relationships, cache, memory, or manual review?
- Which workloads need cloud scale, private endpoints, local models, hybrid routing, or offline fallback?
- What would trigger a rollback, pause, kill switch, or degraded-mode response?
- Who owns fleet health, cost, drift, incidents, releases, training, and retirement?

07

VISUAL DIGESTION

Diagrams, charts, and overlays make the work easier to review.

Dense AI work should not only be explained in paragraphs. The reviewer should be able to inspect maps, scorecards, matrices, lanes, and before-after views that reveal where the value and risk live.

RECORD | BOUNDARY | ACTION

AI control plane

A layered map from business brain to knowledge network, model routes, agent fleet, governance, and operations cockpit.

- Brain
- Fleet
- Govern
- Operate

Agent fleet topology

A map of custom and open-source agent roles, tools, data classes, allowed actions, review points, and fallback owners.

- Role
- Tool
- Data
- Review

Neural knowledge network

A diagram connecting documents, databases, graph links, memory, retrieval, feedback, correction, and retirement paths.

- Source
- Retrieve
- Correct
- Retire

Runtime placement grid

A grid comparing cloud, private, local, hybrid, containerized, virtualized, GPU, edge, and manual fallback by workload.

- Cloud
- Local
- Virtual
- Fallback

Governance ladder

A ladder from explain and retrieve to draft, recommend, execute, block, escalate, rollback, and improve.

- Explain
- Draft
- Execute
- Block

Operations cockpit

A cockpit for health, cost, drift, incidents, source freshness, release notes, support, and lifecycle decisions.

- Health
- Cost
- Drift
- Support

08

OPERATING ROLES

Every serious AI path needs named owners before it becomes dependency.

The same technology can be safe or unsafe depending on who owns the workflow, data, quality, launch authority, support, and improvement loop. Folium makes those responsibilities explicit so no buyer inherits an orphaned system.

DECISION GRID | REVIEW LENS | NEXT STEP

ROLE	OWNS	RECORD TO INSPECT
Executive sponsor	Priority, budget, risk tolerance, stop/continue decision, and expansion timing.	Decision note, value hypothesis, and approval boundary.
Business process owner	The day-to-day work, acceptance criteria, staff impact, and operational usefulness.	Workflow map, user feedback, and adoption notes.
Technical owner	Systems, APIs, databases, runtime placement, deployment, monitoring, and fallback.	Architecture map, integration log, and support route.
Knowledge owner	Source truth, document freshness, policies, retrieval scope, and correction workflow.	Source inventory, freshness cadence, and review exceptions.
Security or risk reviewer	Data classes, credentials, access, logs, retention, blocked actions, and incident path.	Boundary map, permission table, and rollback trigger.
Folium delivery lead	Build coordination, review file, known limits, quality checks, and handoff completeness.	Launch room, eval record, and improvement backlog.

09

QUALITY SCORECARD

A max-detail packet should tell reviewers how to judge the work.

Folium uses scorecards to make a subjective AI conversation more inspectable. The score is not a substitute for judgment; it helps leadership see whether the next step is education, repair, sandbox, pilot, or operations.

DECISION GRID | REVIEW LENS | NEXT STEP

SCORE AREA	STRONG SIGNAL	WEAK SIGNAL
Business fit	The workflow is specific, painful, owned, and tied to measurable operational improvement.	The project is framed as adding AI generally.
Source truth	Approved sources are known, fresh, classified, and connected to the answer path.	The system mixes stale, unknown, or unapproved sources.
Behavior quality	Representative tasks pass, wrong-answer behavior is known, and edge cases are recorded.	The review build only shows a polished happy path.
Authority control	AI actions are separated into draft, retrieve, recommend, route, execute, block, and escalate.	The system can act without visible permission.
Staff readiness	Users can explain the tool, correct it, escalate, and understand their role.	Staff feel replaced, confused, or unsupported.
Operations readiness	Support, monitoring, rollback, release rhythm, and source refresh are owned.	No one knows who maintains the system after launch.

10

THIRTY / SIXTY / NINETY

The work should have a believable first ninety days.

A controlled first ninety days keeps ambition high without turning uncertainty into production risk. Folium uses the period to move from understanding into a narrow working example, then into reviewable operating rhythm.

DECISION GRID | REVIEW LENS | NEXT STEP

WINDOW	FOCUS	EXPECTED OUTPUT
First 30 days	Discovery, source inventory, first-lane selection, staff interviews, data boundary, and build plan.	Process map, owner map, first-build scope, source list, and launch blockers.
Days 31-60	Working surface, RAG or agent behavior, integration stub, evaluation cases, browser checks, and staff review.	Sandbox, evaluation file, screenshots, known limits, and repair list.
Days 61-90	Architecture review, pilot conditions, governance layer, training guide, support path, and improvement cadence.	Launch room, go/no-go record, operations guide, and next-stage recommendation.

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RISK AND ASSUMPTION REGISTER

The hidden assumptions should be visible before they become expensive.

Every AI engagement contains assumptions about data, people, systems, cost, behavior, and authority. Folium treats those assumptions as review material, not background noise.

DECISION GRID | REVIEW LENS | NEXT STEP

ASSUMPTION	WHY IT MATTERS	HOW FOLIUM REVIEWS IT
The source is authoritative	AI can only be as reliable as the sources and business rules it is allowed to use.	Source inventory, owner confirmation, retrieval tests, freshness cadence.
The process is ready	A broken process can become a faster broken process when AI is added too early.	Workflow mapping, bottleneck review, owner interview, first-lane narrowing.
The runtime fits the data	Cloud, private, local, and hybrid routes carry different privacy, cost, latency, and support tradeoffs.	Runtime matrix, data classification, provider review, fallback plan.
Staff will adopt the tool	Adoption fails when users do not understand, trust, correct, or benefit from the system.	Training notes, staff review, feedback loop, manager visibility.
Authority is clear	The system can create harm if it sends, updates, approves, or routes without permission.	Permission table, blocked actions, human review, audit trail.
The system can be supported	A useful first build becomes fragile if nobody owns incidents, source updates, or cost review.	Support guide, owner map, release rhythm, rollback trigger.

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FIRST SPRINT PROCEDURE

The first sprint should produce something real and reviewable.

Folium prefers a narrow first sprint that creates a working surface or review file the buyer can challenge. The first sprint is not the final system; it is the safest way to make the future visible.

CHECKLIST	OWNER PATH	RELEASE SIGNAL

- Confirm the single process and the decision the sprint must support.
- Collect approved example material, redacted review records, public references, screenshots, workflow notes, and source rules.
- Define what will be built: portal, dashboard, RAG assistant, agent route, integration adapter, audit file, or launch room.
- Create the visual workflow: intake, source, model or agent route, human review, output, record, and next gate.
- Run representative tasks, edge cases, bad input, missing data, and blocked-action tests.
- Prepare browser screenshots, known limits, support questions, and next-stage blockers.
- Review with staff and leadership before expanding data, access, authority, or dependency.
- End with a decision: stop, refine, rebuild, pilot, or prepare an operating plan.

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REFERENCE WORK PRODUCTS

The packet should make the invisible work tangible.

AI work often fails because the important pieces are invisible until something breaks. Folium turns those pieces into work products the buyer can open, print, challenge, and improve.

RECORD | BOUNDARY | ACTION

Process map

A before-and-after workflow showing people, systems, data, decision points, blockers, and expected output.

- Before
- After
- Owner
- Gate

Data boundary map

A map of source classes, approved use, blocked use, retention, provider exposure, and custody.

- Public
- Internal
- Private
- Blocked

Model and agent route

A path showing which model, tool, retrieval source, or agent lane is used and where humans approve.

- Route
- Tool
- Review
- Escalate

Evaluation file

A record of tasks, expected outcomes, failures, repairs, known limits, and acceptance criteria.

- Cases
- Failures
- Repairs
- Limits

Launch room

A board for owners, support, training, rollback, incidents, go/no-go, and improvement backlog.

- Owner
- Support
- Rollback
- Backlog

Handoff guide

A plain-language guide staff can use to understand what the system does, cannot do, and how to report problems.

- Use
- Limit
- Correct
- Report

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METRICS AND REVIEW RHYTHM

The business should know how improvement will be measured.

Folium keeps measurement practical. The first goal is not a perfect dashboard; it is a clear set of signals that shows whether the process is saving time, reducing risk, strengthening staff, or improving customer outcomes.

DECISION GRID | REVIEW LENS | NEXT STEP

SIGNAL	WHAT TO WATCH	DECISION IT SUPPORTS
Time recovered	Manual steps removed, average handling time, repeated work reduced, faster routing.	Should this workflow expand to more users or adjacent processes?
Quality improved	Wrong answers, missing sources, correction rate, review exceptions, customer rework.	Is behavior strong enough for pilot or does it need repair?
Risk reduced	Blocked unsafe actions, escalations, data-boundary violations avoided, rollback readiness.	Can authority expand or should controls remain tight?
Staff confidence	Training completion, feedback volume, adoption friction, override rate, manager notes.	Does the workforce need more support before launch?
Cost and runtime	Provider cost, local infrastructure cost, latency, uptime, fallback use, subscription sprawl.	Should runtime placement change?
Customer impact	Response speed, consistency, issue resolution, conversion support, satisfaction signals.	Is the capability improving the business outcome?

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ROLE REVIEW ROUTE

Each reviewer should know what to inspect first.

A max-detail packet is only useful when different reviewers can find their lane quickly. Folium separates executive, operations, technical, security, finance, and staff questions so the buyer can bring the right people into the right part of the review.

DECISION GRID | REVIEW LENS | NEXT STEP

REVIEWER	START WITH	DECISION THEY SUPPORT
Executive sponsor	Value hypothesis, launch gate, first ninety days, and stop/refine/continue choices.	Whether the process deserves a controlled engagement.
Operations lead	Workflow map, operating roles, support rhythm, and staff feedback loop.	Whether the future process can be run by the team.
Technical lead	Runtime placement, data path, integration surface, monitoring, and fallback.	Whether the architecture can be supported safely.
Security or risk reviewer	Data classes, permissions, blocked actions, logs, retention, and rollback.	Whether access can expand beyond public review.
Finance or owner	Cost signals, subscription overlap, runtime tradeoffs, labor impact, and support burden.	Whether the first build has a practical business case.
Staff user	Plain-language use, limits, escalation, correction path, and training expectations.	Whether the tool strengthens the job instead of confusing it.

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BUYER WORKSHEET

The packet should turn into a working session, not only reading material.

Before a call, Folium wants the buyer to gather the real operating pieces that make the review useful. The worksheet keeps the conversation grounded in one process, one owner, one source map, and one next decision.

CHECKLIST	OWNER PATH	RELEASE SIGNAL

- Bring one workflow that is slow, risky, expensive, repetitive, customer-visible, or staff-heavy.
- Name the systems touched by the workflow: store, CRM, ERP, inbox, spreadsheet, database, portal, document folder, or legacy application.
- Separate approved public material from internal, customer, regulated, confidential, credential, and blocked material.
- Write down who owns the work today, who reviews exceptions, and who will own the AI-assisted version.
- List the decisions AI may draft, retrieve, recommend, route, block, or escalate, and the decisions that stay human-owned.
- Bring examples of good output, bad output, common exceptions, missing data, and customer-facing risk.
- Name the first useful working surface: dashboard, portal, assistant, queue, control room, commerce lane, integration, or review file.
- Decide what record would make leadership comfortable with the next stage.

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ENGAGEMENT FIT LADDER

The next step should match the maturity of the record.

Folium does not need every buyer to start at the same altitude. The right offer depends on how much process clarity, source truth, owner alignment, and launch readiness already exists.

DECISION GRID | REVIEW LENS | NEXT STEP

IF THE BUYER HAS	BEST NEXT FOLIUM MOVE	OUTPUT TO EXPECT
AI interest but no clear process	AI systems audit or first workflow finder.	Pressure map, source inventory, first-lane recommendation, and risk view.
A clear process but no working surface	Forward engineering first sprint.	Clickable surface, route map, known limits, and next-stage blockers.
A tool that works in parts but not in operations	Architecture and launch readiness review.	Permission map, runtime decision, support model, and go/no-go record.
A failed or frightening rollout	AI recovery and staff enablement path.	Issue register, staff training plan, repair roadmap, and confidence loop.
Sensitive data or cost pressure	Local, private, or hybrid AI placement review.	Runtime matrix, data custody plan, fallback route, and vendor-exit view.
A useful pilot that needs care	AI operations support.	Monitoring rhythm, source refresh, release notes, incident path, and improvement backlog.

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HANDOFF

The last page of a packet should create the next controlled move.

Folium's handoff view separates what can be done now, what needs customer records, what needs approval, and what should wait until the review file is stronger.

DECISION GRID | REVIEW LENS | NEXT STEP

HANDOFF LANE	OWNER	NEXT RECORD
Executive sponsor	AI estate priority, business brain ownership, risk appetite, and expansion timing.	Control-plane decision memo and first ninety-day path.
Operations owner	Workflow usefulness, staff adoption, process exceptions, support rhythm, and service continuity.	Agent fleet operating guide and review cadence.
Technical owner	Runtime placement, model routes, tool access, deployment, observability, fallback, and recovery.	Route contracts, runtime matrix, and support map.
Knowledge owner	Source truth, freshness, correction, retrieval permissions, memory namespaces, and retirement.	Neural knowledge network map and source-governance ledger.
Risk or security owner	Approval gates, blocked actions, logs, data custody, incident path, and rollback triggers.	Governance control plane and boundary register.
Folium delivery lead	Fleet architecture, working surface, evaluation, launch room, and handoff completeness.	Review file, known limits, and improvement backlog.

> The strongest next step is narrow: one process, one owner, one source map, one working surface, one review file, and one decision gate.

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NEXT STEP

AI orchestration is how a company keeps control when AI capability multiplies.

Use this packet to move from scattered tools and unmanaged agents toward a business-owned AI nervous system with routes, records, governance, and operating care.

Bring the process

Name the business process, the systems involved, the people affected, and the decision this PDF should support.

Separate review from production

Keep public examples, sandbox review, pilot access, and production dependency in separate stages with clear owners.

Ask for the record

Request screenshots, browser checks, known limits, launch blockers, support plans, and the next approval path.