



AI-Enabled Field Force Automation

WHITE PAPER

Next-Best-Action Tools for Pharma Sales Reps, and Where Human Judgment Still Belongs

Abstract

Roughly 80% of major pharmaceutical companies have deployed some form of next-best-action technology in the field, and McKinsey projects AI could generate \$18 to \$30 billion in annual value for pharma commercial functions. Adoption, in other words, is not the problem. The gap between deployment and actual field impact is. When next-best-action tools are built on fragmented healthcare provider identity, inconsistent metric definitions, and recommendations reps cannot see the reasoning behind, next best action quietly becomes next best guess, and reps stop trusting the system regardless of how sophisticated the underlying model is.

The organizations getting real value share a specific pattern: solid data foundations, explainable recommendations reps can actually evaluate, and a clear-eyed view of which decisions the system should inform and which ones a rep's own judgment should still make. This white paper applies established data-driven decision-support best practices to AI-enabled field force automation specifically, laying out where these tools genuinely improve rep effectiveness and where human judgment remains not just present but necessary.

Adoption Is Not the Bottleneck Anymore

Next-best-action technology has moved past the early-adopter phase in pharma commercial organizations. Roughly 80% of major pharmaceutical companies have already deployed some form of it in the field, guiding call priorities, channel selection, and content recommendations for reps and medical science liaisons. McKinsey estimates the technology could generate \$18 to \$30 billion in annual value for pharma commercial functions industry-wide.¹

That scale of deployment makes a specific failure pattern worth taking seriously: widespread adoption of the technology has not translated into widespread trust in what it recommends. Reps who do not understand why a system is telling them to prioritize one physician over another, or push one piece of content over another, do not reliably follow the recommendation, and a next-best-action tool that reps quietly ignore delivers none of the value it was built to generate.

Why Next Best Action Becomes Next Best Guess

The failure pattern has a consistent shape across organizations. Next-best-action models are frequently bolted onto fragmented data foundations rather than built on solid ones: healthcare provider identity split inconsistently across CRM, claims, and digital engagement systems, metric definitions for reach and prescribing behavior that vary depending on which team defined them, and recommendation engines that cannot explain their own reasoning in terms a rep can evaluate against what they know about their own territory.

Poor data quality alone would undermine model accuracy. Combined with a lack of explainability, it produces something worse: recommendations that may occasionally be right but that reps have no reliable way to evaluate, so trust erodes even when the underlying model is performing reasonably well. Organizations that have successfully avoided this pattern share a specific characteristic: their systems explain their reasoning in terms a rep can actually assess, something closer to a specific physician has a documented increase in new patients and similar physicians in the territory are prescribing more of a given therapy, rather than an unexplained score. One biotech deploying ML-driven targeting saw double-digit increases in new-to-brand prescriptions in pilot regions specifically where reps followed system recommendations more than half the time, evidence that the technology works when reps actually trust and use it.

Applying Best Practices: A Field Force AI Practice Built on Trust

A foundational best practice in data-driven decision support is surfacing genuinely actionable signal from noisy commercial data. AI-enabled field force automation is a direct application of that discipline, and the biggest risk is building a recommendation engine that generates plausible-looking output without the underlying data integrity or explainability that makes reps actually act on it.

1. **A Unified Healthcare Provider Identity Layer First.** Resolve fragmented HCP identity across CRM, claims, and digital engagement data before building recommendation models on top of it, since inconsistent identity resolution undermines everything built afterward.
2. **Explainable Recommendations, Not Black-Box Scores.** Design the system to surface the specific reasoning behind a recommendation in terms a rep can evaluate against their own territory knowledge, not just a ranked list.



3. **A Defined Boundary Between System Guidance and Rep Judgment.** Establish explicitly which decisions the system should inform, call prioritization, content selection, timing, and which ones remain the rep's own strategic call, relationship nuance, sensitive account handling.
4. **Start Narrow, Prove Value, Then Expand.** Deploy against a high-value, well-understood use case first and demonstrate measurable field impact before scaling the same approach into more complex or ambiguous recommendation categories.

None of this requires slowing adoption down. It requires sequencing the build correctly, identity and data integrity before recommendation logic, explainability built in from the start rather than retrofitted after reps stop trusting the output.

What Field Force AI Buys, and Where It Gets Hard

Advantages

- **Meaningfully more time to sell:** AI handling administrative tasks and call plan adjustments frees reps from work that does not require their judgment, expanding actual selling time.
- **Real-time responsiveness to market changes:** agentic AI can detect developments, such as a conference announcement, and adjust the next day's call plan and routing accordingly, something a static quarterly targeting model cannot do.■
- **Measurable prescribing impact where trust is high:** the documented double-digit new-to-brand increases in pilots where reps actually followed recommendations show the technology delivers real value once adoption barriers are addressed.
- **Expanded manager span of control:** AI-assisted territory management and coaching insight let sales managers oversee larger, more effective teams.

Risks and Barriers

- **Fragmented HCP identity undermines everything built on top of it:** recommendation quality cannot exceed the quality of the underlying identity resolution feeding it.
 - **Explainability is a genuine design requirement, not a nice-to-have:** systems that cannot articulate their reasoning in rep-legible terms will not earn adoption regardless of underlying model quality.
 - **Over-automation risks flattening genuine rep judgment:** some account and relationship decisions carry nuance a model cannot capture, and treating every recommendation as authoritative erodes exactly the judgment that makes top performers effective.
 - **Rollout scope creep dilutes early wins:** expanding into ambiguous, low-confidence recommendation categories before the core use case has proven itself risks reintroducing the trust problem the initial deployment solved.
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Case in Point: The Recommendation Reps Quietly Stopped Following

A mid-size specialty pharma company rolled out a next-best-action tool across its full sales organization simultaneously, covering call prioritization, content recommendations, and channel timing all at once. Early usage metrics looked reasonable: reps were logging into the tool and viewing recommendations as expected.

A quarterly review of actual field behavior told a different story. Reps were viewing the recommendations and then, in a large share of cases, making call decisions that did not match what the system had suggested. Interviews with the field force revealed the reason: the tool presented a ranked list of physicians to prioritize with no visible reasoning behind the ranking, and reps who knew their territories well simply did not trust rankings they could not evaluate against what they already knew about a given physician's practice.

The company's fix was not a more sophisticated model. It was redesigning the interface to surface the specific evidence behind each recommendation, recent prescribing trend data, comparable physician behavior in the territory, so reps could assess the reasoning rather than accept or reject a bare ranking. Recommendation-following rates rose substantially once reps could see why a given physician was being prioritized, without any change to the underlying model itself.

Recommendations for Commercial and Field Force Leaders

1. **Resolve HCP identity fragmentation before deploying recommendation models.** since inconsistent identity resolution across CRM, claims, and digital data undermines any recommendation built on top of it.
 2. **Require explainable output as a core design requirement.** not a future enhancement, so reps can evaluate recommendations against their own territory knowledge from day one.
 3. **Define explicitly which decisions belong to the system and which belong to the rep.** so reps understand where AI guidance is meant to inform their judgment rather than replace it.
 4. **Start with one well-understood, high-value use case.** and prove measurable field impact before expanding into more complex or ambiguous recommendation categories.
 5. **Track recommendation-following rates, not just tool usage.** since login and view metrics do not reveal whether reps actually trust and act on what the system suggests.
 6. **Build a feedback loop from field results back into the model.** so rep outcomes continuously refine recommendation quality rather than the model operating as a static, unchanging system.
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Measuring Success: KPIs for AI-Enabled Field Force Automation

- **Recommendation-following rate:** the percentage of system recommendations reps actually acted on, tracked as the leading indicator of genuine trust and adoption.
- **HCP identity resolution accuracy:** the percentage of provider records successfully unified into a single, consistent identity across source systems.
- **New-to-brand prescribing lift in high-adherence territories:** the measurable prescribing impact in territories where reps follow recommendations at a high rate, isolating the technology's actual field effect.



- **Rep-reported trust in system reasoning:** periodic survey measurement of whether reps can understand and evaluate the reasoning behind recommendations, tracked toward improvement.

Conclusion

Next-best-action technology is not an adoption problem in pharma commercial organizations anymore. Eighty percent deployment proves that. It is a trust problem, and trust is earned through data integrity and explainability, not through more sophisticated models layered on the same fragmented foundations.

Applying disciplined best practices to build a field force AI practice built around unified identity, explainable recommendations, and a clear boundary between system guidance and rep judgment turns AI-enabled field force automation from a deployed technology reps quietly route around into one that actually changes how territories get worked. The value McKinsey projects is real. Capturing it requires building for trust from the start, not retrofitting it after adoption stalls.

About OmniTek & Contact Information

OmniTek Consulting is a trusted partner for organizations seeking to enhance governance, operational agility, and decision-making. We specialize in modernizing business processes with a blend of human-centered design, technology expertise, and hands-on change management.

For commercial and field force leaders investing in next-best-action technology, OmniTek applies proven best practices to build a practical field force AI practice: unified HCP identity, explainable recommendations, and a clear boundary between system guidance and rep judgment. Whether you are launching your first AI-enabled call planning tool or diagnosing why reps have stopped trusting an existing one, OmniTek can help you build field force automation that reps actually use.

Contact us today to explore how OmniTek can support your transformation journey and drive lasting results.



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Endnotes

ⁱ Tellius, "AI for Next Best Action in Pharma: What Actually Works," citing IQVIA deployment data and McKinsey commercial AI value projections, available at <https://www.tellius.com/resources/blog/ai-for-next-best-action-in-pharma-why-most-programs-fail-and-what-actually-works>

ⁱⁱ Deloitte, "Future of Pharma Field Force: AI-Driven Agility," on agentic AI call planning and the balance between AI guidance and human judgment, available at <https://www.deloitte.com/us/en/industries/life-sciences-health-care/articles/future-pharma-field-force-ai-agility.html>

