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SPEAR TECHNOLOGIES

Selecting the Right AI Solutions for Your Business

A Practical Guide for Insurance Leaders

Introduction: Why Selecting the Right AI Solutions Matters

Artificial Intelligence is reshaping the insurance industry, from claims to underwriting to operations to customer engagement. Yet, despite the enormous potential, many insurers struggle to select the right AI solutions. Vendors promise “intelligent automation,” “autonomous underwriting,” and “predictive insights,” but often fail to explain prerequisites, risks, business value, or how AI actually integrates into real workflows.

The result?
Leaders face AI fatigue, stalled initiatives, costly proofs-of-concept, and solutions that never scale past a pilot.

This whitepaper provides a structured, detailed roadmap for insurance carriers, TPAs, public entities, and risk pools to evaluate, select, and implement AI that creates real business outcomes, not theoretical potential.

We will walk through:

- Types of AI technologies relevant to insurance
- The difference between Accessible AI and black-box AI models
- How to evaluate vendors and capabilities
- How to align AI with business goals
- Common pitfalls and how to avoid them
- A readiness assessment framework
- A phased roadmap for implementation
- The role of governance, compliance, and Human-in-the-Loop oversight
- Real-world use cases and quantifiable ROI

By the end of this guide, leaders will understand not only what AI can do, but *how to choose the right solution and confidently implement it.*

Executive Summary

Insurance organizations are facing rising claim costs, increasing scrutiny from stakeholders, and growing pressure to provide real-time visibility across all operations. Yet traditional claims and core systems, along with the “black-box AI” approaches of the past, have often fallen short. They create silos, increase complexity, and limit the ability of business users to access timely insights or automate workflows.

Accessible AI changes this model.
Instead of requiring data scientists, long IT projects, or complicated integrations,

Accessible AI empowers business users across Claims, Operations, IT, Risk Management, and Pool Administration to access advanced automation, analytics, and natural-language insights: securely, transparently, and at scale.

This whitepaper combines themes from five thought-leadership series to show how Accessible AI improves decision-making, oversight, consistency, and cost control across the entire organization. It illustrates how each department benefits individually, and how these benefits multiply when adopted enterprise-wide.

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1. Understanding the AI Landscape in Insurance

Modern insurers encounter a wide range of AI technologies, each serving different purposes. Selecting the right solutions requires understanding their capabilities, limitations, and fit. Below is a detailed overview.

1.1 Intelligent Document Processing (IDP)

What it does: IDP extracts, classifies, and digitizes data from structured and unstructured documents: FNOL forms, medical bills, police reports, damage photos, policy declarations, adjuster notes, incident reports, subrogation demands, and more.

Why it matters: Insurance is a document-heavy industry; IDP can eliminate 40–70% of manual data entry.

Capabilities to evaluate:

- OCR accuracy across document types
- Ability to learn new forms without coding
- Metadata extraction quality
- Confidence scoring for human review
- Seamless integration into claims workflows
- Support for UI-based configuration vs. vendor coding

1.2 Smart Summarization & Natural Language Processing (NLP)

What it does: NLP models summarize long documents, emails, diaries, or claim notes into clear, digestible insights.

Why it matters: Adjusters spend up to 60% of their time reading notes and correspondence.

Capabilities to evaluate:

- Ability to handle long-form text
- Reliability across claim types
- Accuracy in risk-sensitive summarization
- Custom prompt tuning
- Data privacy and auditability
- Integration into claims and underwriting systems

1.3 Predictive Analytics & Behavioral Modeling

Predictive models use historical data to forecast outcomes such as:

- Claim severity
- Litigation likelihood
- Claim duration
- Return-to-work expectations
- Subrogation potential
- Fraud probability

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1.3 Predictive Analytics & Behavioral Modeling (*continued*)

Capabilities to evaluate:

- Transparency and explainability
- Bias detection and mitigation
- Model refresh frequency
- Ability to combine structured and unstructured data
- Alignment with regulatory expectations

1.4 Autonomous & Intelligent Underwriting

What it does: Automates or assists in risk evaluation, quoting, and rating with models that analyze submissions, loss histories, and coverage requirements.

Capabilities to evaluate:

- Workflow integration
- Business rule support
- Risk scoring methodology
- Human override features
- Data quality tolerance

1.5 AI-Orchestrated Workflows & Automation

AI-driven workflows allow insurers to:

- Auto-route claims
- Trigger next-best-actions
- Perform quality checks
- Escalate anomalies
- Execute robotic process automation (RPA)

Capabilities to evaluate:

- Low-code/no-code configuration
- Real-time decisioning
- Multi-step workflow builder
- Integration with existing claims/policy systems

COMMONLY DISCUSSED AI TECHNOLOGY TERMS

Predictive AI

Analyzes data to detect patterns and generate forecasts

Generative AI

Creates new content such as text, images & summaries

Agentic AI

Pursues objectives with minimal human oversight

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2. Accessible AI vs. Black-Box AI

Selecting AI begins with selecting the right philosophy.

2.1 What Is Accessible AI?

Accessible AI means business users such as adjusters, underwriters, operations leaders, pool administrators can configure, use, and understand AI without data scientists or engineers.

Characteristics:

- Transparent logic
- UI-based configuration
- Human-in-the-Loop review
- Business-readable explanations
- No dependence on specialized staff
- Fast time-to-value
- Lower total cost of ownership (TCO)

Accessible AI empowers insurance professionals to own their processes, not rely on external vendors.

2.2 What Is Black-Box AI?

Black-box models produce outputs that are difficult to interpret and often opaque.

Challenges include:

- “Trust gaps” with regulators and auditors
- High implementation cost
- Long deployment timelines
- Results that cannot be manually verified
- Vendor lock-in
- High failure rate in production

2.3 Why Accessible AI Wins in Insurance

Insurance is highly regulated, document-driven, and dependent on human judgment.

Accessible AI supports:

- Compliance
- Auditability
- Clear decision pathways
- Human oversight
- Fast iteration

Black-box AI may outperform on technical benchmarks but underperform on real-world insurance workflows.

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3. How to Evaluate AI Vendors: A Comprehensive Checklist

Below is a detailed framework insurers can use when assessing AI capabilities.

3.1 Technology Evaluation Criteria

Accuracy

- Document extraction quality
- Summarization coherence
- Predictive model confidence

Explainability

- Human-readable logic
- Audit trails
- Rationale behind predictions

Data Privacy & Security

- In-system model execution
- No data transfers outside your environment
- Encryption standards
- Sarbanes-Oxley SOC 2 / ISO compliance

Integration

- Does it work natively in your Claims Management System (CMS)?
- Does it require Application Programming Interfaces (APIs)?
- Is additional consulting services needed?

Scalability

- Can you add new use cases without custom code?
- Does performance degrade at volume?

Configurable vs. Custom

Prefer systems where business users, not engineers, manage:

- Workflows
- Document types
- Triggers
- Prompts
- Rules

3.2 Vendor Red Flags

- No demonstration of the AI at-work in your environment
- Heavy dependence on professional services
- Lack of transparency in model behavior
- No option for controlled human review
- Overreliance on unproven large language models
- One-size-fits-all “AI platform” messaging

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4. AI Readiness: Preparing Your Organization

Many insurers jump into AI before they're ready. This section addresses readiness in detail.

4.1 Data Readiness

AI thrives on clean, mapped, contextual data.

Checklist:

- Standardized document formats
- Consistent claim codes
- Reliable exposure and reserve data
- Digital-first workflows
- Prioritized metadata fields
- Clear taxonomy for document types

Red Flags

- Reliance on professional services
- No real-time demos
- One-size-fits-all "platforms"
- Opaque model behavior

4.2 Process Readiness

Identify processes that are:

- Repetitive
- Document-heavy
- Decision-point driven
- High cost
- Prone to latency

Common candidates include:

- FNOL intake
- Medical bill handling
- Loss run generation
- Submission intake
- Reserving updates
- Litigation management
- Subrogation identification

Data Quality Checklist:

- Standardized formats
- Clean Metadata
- Digitized workflows
- Mapped Fields
- Clear Taxonomies

Best Processes for Early Wins:

- FNOL
- Medical Bills
- Email Triage
- Subrogation Flags

4.3 People Readiness

AI will change roles. Prepare employees with:

- Training
- Human-in-the-loop workflows
- Oversight responsibilities
- Clear escalation paths

Preparing Staff for AI:

- Training
- HITL Workflows
- Clear Escalation Paths

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5. Implementation Roadmap

A detailed, multi-phase approach.

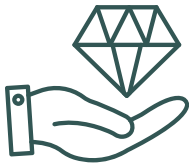
Phase 1: Identify High-Value Use Cases

Examples:

- Extracting key facts from PDF submissions
- Summarizing adjuster notes
- Creating claim narratives
- Classifying medical documents
- Predicting litigation likelihood

Each should have:

- Clear ROI
- Measurable KPIs
- Defined owners



Identify Value

Phase 2: Validate with Controlled Pilots

Run small pilots with:

- Sample claims
- Parallel processing
- Human validation
- Metrics tracking

Metrics should include:

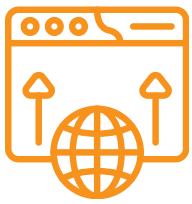
- Accuracy
- Time saved
- Reduction in manual work
- Error rate improvement

Pilot

Phase 3: Deploy Across Workflows

Expand deployment to:

- Higher claim volumes
- Additional lines of business
- New decision points
- Integrated routing



Deploy

Phase 4: Continuous Improvement

AI evolves. Governance must too:

- Reassess model performance quarterly
- Add new use cases bi-annually
- Update prompts and rules regularly
- Tune workflows as claim patterns change

Improve

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6. Governance, Oversight & Compliance

Insurance requires governance frameworks that ensure accountability.

6.1 Human-in-the-Loop (HITL)

Humans must:

- Review low-confidence AI outputs
- Make final claim decisions
- Override incorrect predictions
- Provide feedback to improve models

Humans Should Validate

- Low-Confidence Outputs
- Exceptions
- High-severity Claims
- Regulatory Triggers

6.2 Documentation for Regulators

Create audit-friendly documentation:

- Model specifications
- Approved uses
- Limitations
- Change logs
- Data lineage
- Testing history

Regulator-Ready Documentation Packet

- Model card
- Data lineage
- Approved use cases
- Testing summary

6.3 Risk Controls

Ensure consistent controls for:

- Data privacy
- Bias detection
- Security
- Access rights
- Result validation

Key Risk Domains to Monitor

- Data privacy
- Security
- Bias
- Model drift
- Access controls

7. Real-World Use Cases and ROI

AI delivers measurable value when deployed correctly.

Examples:

IDP + Summarization + Workflow Orchestration

- Automates document classification
- Extracts claim-critical data
- Summarizes narratives
- Auto-routes claims to adjusters
- Reduces 20–40 minutes of manual work per claim

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7. Real-World Use Cases and ROI (*continued*)

FNOL Intake Automation

- Auto-creates claims
- Extracts loss information
- Routes based on severity, coverage, or region
- Cuts intake time from hours to minutes

Litigation Likelihood Prediction

- Enables early intervention
- Improves reserving accuracy
- Reduces litigation costs by 10–20%

Subrogation Identification

- Flags third-party involvement
- Increases recoveries
- Reduces missed opportunities

Each of these use cases can be delivered using Accessible AI without complex data science deployments.

Conclusion

AI selection is no longer about choosing the most advanced technology, it's about selecting the right technology for your business.

The right AI solutions extend the capabilities of your staff, reduce manual workload, improve decision quality, and accelerate operations, all **while maintaining transparency, compliance, and control.** Accessible AI provides the optimal path forward: practical, configurable, compliant, and built for insurance workflows.

Why Business-User Accessibility Is a Game-Changer

When AI tools are designed for business users, rather than requiring intervention from IT teams, data scientists, or external vendors, the result is more responsive, agile, and relevant model development. Empowering business users to adapt and train AI models on their own yields multiple advantages:

- Faster Time-to-Value: No waiting on IT backlogs or vendor response times
- Higher Accuracy: Models reflect real-world operational needs and are continually refined by domain experts
- Greater Adoption: Tools that align with existing workflows and skill sets see higher engagement
- Scalable Innovation: Business teams become active participants in digital transformation, not passive consumers

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Spear's Latest Innovations Facilitating Accessible AI:
Spear's Next-Generation AI Capabilities leverage generative AI, predictive analytics, and intelligent automation to address key pain points for insurers and public entities.
They deliver a more seamless, intuitive experience, allowing business users to tailor AI models to their specific needs and domain realities—ensuring the AI not only works but works for them.

No developers are necessary, saving time while giving teams greater control, enhanced capabilities, and a stronger return on technology investment.

- **Predictive Analysis** – Embedded models identify high-risk claims—such as those likely to result in litigation or fraud—and trigger proactive actions based on customizable business rules. These models deliver real-time risk assessments across claims and policy modules, using business rules and notification engines to support timely, informed decision-making.

- **Smart Summarization** – AI-driven tools condense emails, notes, documents, and claim timelines into concise summaries, dramatically reducing review time and enabling faster decisions. Activities such as emails, calls, notes, and tasks are distilled into actionable highlights, minimizing clicks and increasing workflow efficiency with a one-click copy feature for easy content reuse.

- **Claims Assistant Email Agent** – An AI-powered solution that automatically extracts key claim details from incoming emails and generates accurate, real-time in-thread responses. Generative AI assists in drafting or refining communications, with customizable tone and length options to save valuable time for users.

- **Automated Responses & Sentiment Analysis** – AI-generated email and notepad responses include tone and length adjustments, while built-in sentiment analysis alerts supervisors to negative or urgent messages. The system evaluates incoming communications and suggests response strategies to enhance customer service.

- **Intelligent Document Processing** – Customized models automate data extraction and record generation from a variety of documents, including policies, invoices, and medical reports. This automation reduces manual effort, improves data accuracy, and seamlessly integrates extracted information into SpearSuite™.

THE POWER OF BUSINESS-USER ACCESSIBLE AI

58%
Increase in Operational Efficiency

40%
Savings on Development Costs

25%
Faster Time to Market

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- **Virtual Agents** – Secure, self-service AI agents deliver real-time answers to vend stakeholders by directly accessing system databases. Designed to execute tasks and make decisions based on predefined logic and AI intelligence, these agents initiate events, automate complex business processes, and significantly boost operational efficiency.

- **Smart Paste** – A time-saving feature that suggests form field inputs based on copied text, speeding up data entry and improving accuracy. Users can simply copy content from any source, activate smart paste via a button or keyboard shortcut, and receive inline suggestions for completing forms within model-driven apps, choosing to accept or ignore each recommendation.

- **Copilot Assistant** – A conversational AI assistant that helps users navigate SpearSuite™, generate real-time insights, and receive AI-driven recommendations through natural language interaction. Copilot enhances productivity by providing intuitive system navigation, dynamic data insights, and actionable guidance.

Example of a currently live use case utilizing SpearSuite™:
A business user successfully deployed 12 AI models—without a developer—to automate tasks previously being done manually and is now successfully reading invoices and indexing them to claim files, entering payments based on invoices, processing documents, and summarizing notes, leading to measurable efficiency gains.

Curious about how your organization can start leveraging Accessible AI? **Schedule a Demo** to see how our low-code platform can support AI-powered operations from day one.

Or **Request Pricing** to discover how SpearSuite™ makes it possible to compete with industry titans — without needing a titan budget.

About Spear Technologies

Spear Technologies is a leading provider of core software solutions systems for the P&C insurance industry. Spear's cutting-edge software solutions empower insurer organizations with unprecedented speed, control, and results. Spear's latest solutions take advantage of the low-code Microsoft Power Platform™ and incorporate AI, data analytics and intelligent automation to achieve better results. Spear's cloud-based policy, billing, claims, and portal solutions enable organizations to easily configure their systems to align with their unique and ever- changing business needs. For more information about Spear Technologies visit www.spear-tech.com.

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