Change Management and User Enablement for RISE with SAP Transformations
An Integrative Socio-Technical Governance Framework for Conversational ERP Environments

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Abstract
The rapid adoption of cloud-based enterprise resource planning (ERP) platforms, catalyzed by RISE with SAP, has fundamentally shifted digital transformation from technical migration toward a holistic operating model overhaul. While RISE enables infrastructure modernization and platform evolution, the concurrent emergence of Conversational ERP—the deployment of Generative AI assistants such as SAP Joule to mediate core business processes—introduces unprecedented challenges in governance, data integrity, and user behavior. Many organizations fail to realize transformation value due to a critical disconnect between autonomous AI capabilities and existing Organizational Change Management (OCM) protocols.

This paper proposes an Integrative Socio-Technical Governance Framework specifically designed for Conversational ERP environments within the RISE with SAP ecosystem. The model embeds OCM directly into the SAP Activate lifecycle, establishes rigorous control models for AI-mediated workflows, and addresses risks including process fragmentation, Shadow AI, and governance-AI gaps. A quantitative adoption metric—the Effective Adoption Rate (EAR)—is introduced to measure transformation health as a composite of AI efficiency, process compliance, and drift management. By treating change management as a core transformation capability, organizations can accelerate sustainable adoption of intelligent enterprise architectures.

Keywords: SAP S/4HANA, RISE with SAP, Organizational Change Management, Conversational ERP, Socio-Technical Governance, Clean Core Architecture, Generative AI Integration, Digital Adoption Platforms, ADKAR, Shadow AI

I. Introduction
Enterprise digital transformation has entered an evolutionary inflection point—one that moves decisively away from siloed legacy systems toward unified, cloud-based intelligent platforms. SAP's RISE with SAP offering, operating as Business Transformation as a Service (BTaaS), consolidates infrastructure modernization, SAP S/4HANA Cloud migration, and Business Process Intelligence (BPI) within a single, governed service model.
Historically, SAP implementation methodologies have treated Organizational Change Management (OCM) as a peripheral activity—relegated to end-user training and top-down communication following go-live. In the contemporary RISE landscape, this reactive posture is no longer sustainable. The transition to standardized Fit-to-Standard processes, Clean Core architectures, and AI-mediated workflows demands a deep architectural change in user behavior and organizational governance.
The emergence of Conversational ERP—where Generative AI assistants such as SAP Joule serve as the primary interface to core business processes—adds a critical new dimension. Without structured governance-driven change frameworks that address the specific risks of AI-integrated ERP environments, organizations face four critical failure modes:

- Process Fragmentation and Drift: Resistance to cloud standardization leads to manual workarounds and shadow processes that bypass the digital core.
- The Governance-AI Gap: Absent robust control models for AI-driven decision-making, organizations face stochastic hallucinations, data leakage, and non-compliant automated actions.
- Adoption Inertia: The workforce struggles to transition from a customization-first legacy mindset to a cloud-first operating model.
- Trust Deficit in Autonomous Systems: Without transparency and error-handling frameworks in conversational interfaces, users revert to legacy transactional methods, stalling transformation ROI.

This paper addresses these failure modes through a structured Integrative Socio-Technical Governance Framework that embeds OCM into the technical architecture of RISE transformations, aligning human behavior with AI-driven process standards throughout the SAP Activate lifecycle.

II. RISE with SAP as an Operating Model Transformation

The ERP has traditionally been viewed as a static configuration system. Implementations followed a lift-and-shift model: legacy processes migrated to newer platforms with minimal reimagination. RISE with SAP fundamentally disrupts this paradigm, positioning the ERP not as a software installation but as a dynamic Business Transformation as a Service—requiring a two-layered transformation of both Technical Architecture and Organizational DNA.

A. Platform Transformation: Architecting the Digital Core

The technical foundation of RISE is designed to eliminate dependence on legacy infrastructure, providing modularity and scalability through four integrated pillars:

- Cloud Migration and Infrastructure Modernization: Transition from on-premises data centers to hyperscale cloud infrastructure, enabling elastic data processing and shifting organizational focus from operational maintenance to strategic service management.
- SAP S/4HANA as the Digital Core: In-memory database capabilities provide real-time data processing and a simplified data model serving as the single source of truth across all enterprise functions.
- Business Process Intelligence (BPI): Integration of process mining and modeling via SAP Signavio allows data-driven process design, enabling organizations to identify inefficiencies prior to migration and baseline performance for post-transformation monitoring.
- SAP Business Technology Platform (BTP): The BTP serves as the extension and integration layer, enabling Clean Core development where all custom business logic and AI-driven capabilities—including conversational assistants—are developed outside the ERP core, preserving upgrade compatibility.

B. Operating Model Transformation: The Evolution of Enterprise Behavior

While the platform provides capability, the operating model transformation defines value realization. This requires a cultural and behavioral shift from bespoke, siloed operations toward unified cloud-centric principles:

- The Fit-to-Standard Mandate: A fundamental shift from Fit-to-Gap—configuring software to match existing processes—to adopting SAP best-practice preconfigured processes, reducing complexity and increasing platform supportability.
- Customization to Configuration: The Clean Core operating model prohibits direct ERP customization, externalizing all custom logic to BTP. Process owners must rationalize divergence from standard through governed configuration rather than development.
- Continuous Improvement and Release Cycles: Cloud ERP releases updates continuously rather than through big-bang upgrade cycles, requiring agile testing frameworks and a perpetual evolution mindset.
- Platform-Based Governance: Governance in the RISE era extends beyond technical permissions to ensuring platform integrity through cross-functional governance bodies responsible for process standardization, data quality, and ethical AI deployment.

This holistic transformation requires both users and leaders to evolve the ERP's role from a transaction recording tool to a continuously governed platform for business innovation.

III. Organizational Change Management and AI Governance Framework

For a RISE transformation to succeed in the Conversational ERP era, OCM must be integrated into the technical architecture through a Socio-Technical Governance Framework that aligns human behavior with AI-driven process standards. This requires embedding behavioral change mechanisms directly within SAP Activate phases rather than treating them as parallel workstreams.

A. Early Integration of OCM in the SAP Activate Lifecycle

The SAP Activate methodology provides a structured transformation path. The proposed framework maps OCM interventions directly to each phase, ensuring behavioral readiness is synchronized with technical milestones:

- Prepare Phase — AI Readiness: Organizations conduct an AI Literacy Audit to assess workforce readiness for conversational interfaces. An AI Center of Excellence (CoE) is established at project inception to define governance guardrails, interaction boundaries, and responsible AI principles before technical configuration begins.
- Explore Phase — Fit-to-Standard vs. AI-Augmented Design: Workshops examine how AI assistants such as Joule handle business intent. Enterprise architects define agentic workflows as monitored nodes within the BPI layer using SAP Signavio, establishing human-in-the-loop intervention points as measurable governance checkpoints.
- Realize Phase — Iterative Enablement: Training evolves from static instruction manuals to prompt engineering for business users, enabling users to articulate complex requirements through conversational interfaces. Human-in-the-loop validation processes are built into the realization phase.
- Deploy and Run Phases — Reinforcement and Monitoring: Post-go-live governance leverages SAP Signavio to monitor process compliance and detect the emergence of informal workarounds in real time.

B. Establishing a Clean Core Mindset

The psychological shift required for RISE success is moving from Ownership of Customization to Stewardship of Standards. Three governance mechanisms support this transition:

- The Narrative of Agility: Leadership must reframe the transformation story from losing custom features to gaining continuous innovation capacity. A Clean Core enables organizations to adopt new GenAI capabilities on a quarterly release cadence rather than waiting for multi-year upgrade cycles.
- Governance of Shadow AI: The framework establishes clear policies governing the use of external AI tools for business analysis. By emphasizing the enterprise-grade grounding of the SAP Generative AI Hub within BTP—with its data privacy controls and auditability—the framework provides a governed alternative that prevents data fragmentation.
- Continuous Improvement Loops: Change Councils composed of process owners and power users review how new AI releases affect existing business processes and user roles, providing a structured mechanism for iterative governance.

IV. Leadership Alignment and Communication

In the context of Conversational ERP, leadership alignment shifts from traditional oversight to an active human-in-the-loop governance role. As RISE transformations increasingly integrate agentic AI, leaders must navigate the tension between rapid innovation and the structural discipline of a Clean Core.

A. Executive Sponsorship: Modeling the AI-First Mindset

Executive sponsorship is the primary predictor of success for intelligent ERP transformations. Evidence from enterprise-level programs suggests that initiatives with excellent executive sponsorship are nearly four times more likely to meet their objectives than those with poor leadership engagement. Effective sponsorship in the AI-integrated RISE context requires three behaviors:

- Visible Participation: Leaders must transition from approving AI use to actively utilizing conversational interfaces. When the C-Suite uses AI-powered forecasting tools for quarterly reviews or conversational agents for strategic planning, it signals that the transformation changes how decisions are made—not merely back-end infrastructure.

- The Standardize-over-Customize Mandate: Executive sponsors serve as the ultimate arbiters of the Fit-to-Standard approach, reinforcing that a standard ERP core enables continuous GenAI feature adoption. This shifts the organizational conversation from requesting custom features to optimizing processes within the RISE framework.
- Ethical Stewardship and Trust: With 89% of C-level executives now prioritizing ethical AI governance structures, sponsors must endorse a Responsible AI Charter that ensures transparency, auditability, and bias awareness in all AI-driven ERP processes.

B. Structured Communication Cadence

Communication in a RISE transformation must be continuous and data-driven to prevent the emergence of shadow processes and organizational resistance. The following framework structures communication across four phases of the transformation:

Communication Phase	Objective	Key Messaging
Vision Alignment	Strategic Buy-in	How RISE and Conversational ERP support long-term scalability and innovation agility.
Operational Guidance	Behavioral Shift	Defining the Clean Core and why standard processes enable faster AI adoption.
Risk & Ethics Transparency	Trust Building	Explaining the guardrails in place to prevent AI hallucinations and data privacy breaches.
Adoption Milestones	Momentum Building	Celebrating successful AI agent use cases, e.g., 20% reduction in production error analysis time.

Consistent, phased messaging reduces uncertainty, counters misinformation, and builds the organizational trust necessary for sustainable AI adoption.

V. User Engagement in Process Design

In the Conversational ERP era, user engagement shifts from passive validation to active co-design of AI-mediated workflows. Ensuring that the Fit-to-Standard paradigm is experienced as empowering—rather than restrictive—requires users to participate in shaping the conversational logic that governs their work.

A. Fit-to-Standard Process Design in the Generative AI Era

Traditional Fit-to-Standard analysis is redefined by AI-assisted process modeling. Rather than manually mapping legacy tasks to cloud templates, process owners can now utilize Business Process Intelligence tools—specifically SAP Signavio with LLM-assisted workflow recommendation—to generate optimized process designs. User engagement within this framework serves three functions:

- Validating Real-World Workflows: End users validate standard processes against high-impact edge cases, contributing to the grounding of AI copilots such as Joule by ensuring conversational logic reflects role-specific requirements—such as specialized procurement regulations or localized logistics constraints.
- Defining Interaction Boundaries: Co-design sessions establish where AI assistants may respond directly (informational use cases) versus where they must guide users through a transaction (navigational use cases), preserving human-in-the-loop controls for high-risk financial or compliance decisions.
- Democratizing Process Design via Text-to-Model: Emerging text-to-process technologies allow users to create workflow models from natural language descriptions during the Explore phase. A Clean Core validation gate ensures that AI-generated process models are automatically verified against SAP API standards, preventing legacy-style customization from entering the digital core under the guise of user innovation.

B. Preventing Informal Workarounds and Shadow AI

Absent authentic user involvement, standardized cloud processes risk bypassing through shadow systems—informal spreadsheets, manual approval loops, and unsecured external LLMs used for business analysis. The framework deploys three mitigation strategies:

- BTP-Based Extension Governance: SAP BTP extensions address unique business requirements while maintaining the Clean Core, repositioning standardization from a constraint to the prerequisite for high-velocity AI insights.
- Enterprise AI Grounding: Governing conversational integrity by promoting the SAP Generative AI Hub as the secure, grounded enterprise AI environment prevents Shadow AI and the associated data fragmentation and compliance risks.
- Change Councils and Feedback Loops: Power-user-led Change Councils provide structured mechanisms for feedback-driven iteration, ensuring process logic is refined in real time as the platform evolves through continuous release cycles.

VI. User Enablement and Training

Traditional ERP training programs have focused on rote system navigation and transaction execution. The integration of conversational AI within the RISE ecosystem necessitates a transition toward outcome-based enablement—shifting users from a data-entry role to a process-governance role.

A. The Enablement Technology Stack

The framework leverages a layered set of technologies to facilitate digital adoption:

- SAP Joule as the Conversational Layer: Shifting the training focus from navigating complex T-Codes to articulating business requirements through natural language. This direct path to transactional outcomes significantly reduces the S/4HANA learning curve.
- SAP BTP Generative AI Hub: Power-user enablement involves mastering the orchestration layer and prompt management within a secure private cloud environment, providing governance of AI interactions at the platform level.
- Digital Adoption Platforms (DAPs): Tools such as SAP Enable Now deliver just-in-time learning embedded in the user interface, ensuring enablement content evolves continuously alongside cloud release cycles rather than requiring periodic classroom retraining.

B. Transitioning from Transactional Literacy to AI-Driven Process Outcomes

The enablement strategy is structured around three behavioral transformation objectives:

- Prompt-Based Workflows: Users are enabled to interact with the ERP through structured natural language prompts. The system synthesizes data across Finance, Procurement, and Logistics modules through a single conversational interface, eliminating the need to navigate module-specific transaction codes.
- Verification and Oversight: A core enablement principle positions the conversational assistant as a digital collaborator rather than an autonomous decision-maker. Users are trained to audit AI-generated outputs against the digital core, maintaining human authority over compliance, data integrity, and ethical decisions.
- Role-Based Behavioral Change: Enablement emphasizes the strategic why of process design over the mechanical how of system navigation. This reinforces the Clean Core philosophy—users understand that adherence to standard processes is the mechanism through which advanced AI capabilities are unlocked.

VII. Governance and Adoption Monitoring

The integration of AI into SAP environments necessitates a formal governance framework ensuring that technical innovation does not fragment processes or erode compliance. The framework adopts a Design Science Research (DSR) approach, creating a Socio-Technical Mapping artifact that connects cloud-native technology design to measurable organizational behaviors.

A. Integrating SAP Activate with ADKAR

To support sustainable Conversational ERP adoption, the framework integrates the SAP Activate phase model with the ADKAR change management model (Awareness, Desire, Knowledge, Ability, Reinforcement),

creating governance control gates that ensure organizational preparedness is aligned with technical deployments at each milestone:

- Prepare Phase (Awareness): The AI Literacy Audit and AI CoE establishment assess organizational capacity to govern and utilize conversational systems before technical configuration begins.
- Explore Phase (Desire): Fit-to-Standard workshops incorporating conversational workflow co-design create user investment in the new operating model, fostering preference for governed AI interaction over legacy bespoke systems.
- Realize Phase (Knowledge and Ability): Human-in-the-Loop validation training enables users to verify AI-generated summaries from the S/4HANA digital core, ensuring technological capability is matched by human governance ability.
- Deploy and Run Phases (Reinforcement): Post-go-live process monitoring via SAP Signavio reinforces standardized cloud processes and provides early detection of drift before informal workarounds become embedded.

B. Adoption Metrics and the Effective Adoption Rate

The framework introduces a suite of quantitative and qualitative KPIs to measure transformation health across both technical performance and user adoption dimensions:

KPI	Definition	Purpose
Intent Resolution Rate (IRR)	% of business needs resolved via conversational interfaces without fallback to traditional UI	Clean Core adoption effectiveness
Process Compliance Index (PCI)	Deviation between Fit-to-Standard model and actual system usage via SAP Signavio	Early warning for process drift
Time-to-Insight Delta	Efficiency gain: conversational synthesis vs. manual reporting	Quantitative AI value demonstration
Model Trust Score	Qualitative confidence in AI grounding, data privacy, and suggestion accuracy	Governance health indicator
Effective Adoption Rate (EAR)	EAR = (IRR × PCI) / (1 + σ); composite metric weighting AI efficiency against process drift	Overall transformation success

The Effective Adoption Rate (EAR) is defined as the composite governance metric for transformation health:

$$\mathbf{EAR = (IRR \times PCI) / (1 + \sigma)}$$

Where:

- IRR (Intent Resolution Rate): The ratio of successful conversational queries to total user requests, measuring AI efficiency in satisfying business requirements through the conversational interface.
- PCI (Process Compliance Index): The percentage of workflows adhering to Fit-to-Standard protocols, continuously monitored via SAP Signavio process intelligence.
- σ (Process Drift Coefficient): A measure of Shadow AI frequency and manual workaround prevalence that bypass the digital core.

This model demonstrates that transformation value is non-linear: even a high-performing AI assistant (high IRR) yields diminished returns if process integrity (PCI) is compromised or if unauthorized workarounds (σ) remain prevalent. The EAR metric provides governance teams with a single, actionable indicator of socio-technical alignment.

VIII. Case Study Insights

The practical application of the proposed framework across large-scale RISE with SAP transformations reveals critical patterns at the intersection of AI governance and organizational behavior. Analysis of enterprise implementations that prioritized Clean Core architecture alongside conversational integration surfaces four distinct patterns:

A. The Impact of Early OCM Integration

Organizations that integrated OCM directly into the Prepare phase of the SAP Activate lifecycle achieved significantly higher process standardization rates. The early establishment of an AI Center of Excellence allowed governance guardrails to be defined before technical configuration began, reducing the mid-project resistance typically encountered when transitioning from highly customized legacy environments to Fit-to-Standard cloud models. This pattern confirms that OCM embedded in architecture is more effective than OCM delivered as change communications.

B. Leadership Influence on Digital Adoption

Case observations demonstrate that effective executive sponsorship must extend beyond financial approval to active participation in the new operating model. In transformations where leadership visibly utilized conversational interfaces for strategic decision-making, measurable reductions in Shadow AI usage were observed across the workforce. Leadership endorsement of the Responsible AI Charter was the primary factor in establishing organizational trust in AI-mediated workflows.

C. Validation of Human-in-the-Loop Protocols

Deployments of SAP Joule as a primary user interface demonstrated that Human-in-the-Loop verification protocols defined in the Realize phase were essential for maintaining data integrity. Organizations that failed to implement structured verification training experienced increased process errors from unvetted AI suggestions. Conversely, organizations that empowered users as Process Overseers achieved higher Intent Resolution Rates, as users became adept at refining prompts and auditing AI outputs against the digital core.

D. Reducing Process Drift Through Continuous Monitoring

Post-go-live use of SAP Signavio for process compliance monitoring enabled governance teams to detect process drift in real time. Organizations that tracked the Process Compliance Index identified specific business units circumventing cloud-standard processes through manual workarounds and were able to deliver targeted, role-specific enablement rather than broad generic retraining. This feedback-driven approach significantly reduced recurrence of non-compliant behaviors.

IX. Conclusion and Future Research

The transition to cloud-native enterprise architectures through RISE with SAP represents a fundamental reorientation of how organizations deploy, govern, and derive value from ERP systems. This paper has demonstrated that while technical migration and infrastructure modernization are necessary conditions for transformation success, they are not sufficient. Organizational adoption—governed through a structured socio-technical framework—is the ultimate determinant of transformation value.

The proposed Integrative Socio-Technical Governance Framework advances existing OCM practice in three ways: it embeds change management into the technical architecture of SAP Activate rather than treating it as a parallel workstream; it introduces AI-specific governance mechanisms—including Shadow AI controls, Clean Core validation gates, and Responsible AI Charters—that address risks unique to Conversational ERP environments; and it provides a quantitative measure of transformation health through the Effective Adoption Rate metric.

By treating change management as a strategic transformation capability—rather than a communications support function—organizations can significantly increase the success rate of RISE with SAP initiatives and realize the full value of AI-governed enterprise architectures.

Future research directions include:

- Human-AI Dynamics: Assessing the long-term impact of AI-mediated workflows on job satisfaction, decision-making autonomy, and workforce capability development.
- Agentic Scalability: Evaluating the governance implications as enterprises transition from single AI assistants to coordinated multi-agent ecosystems within the ERP environment.
- Predictive OCM: Developing analytics to forecast organizational resistance using historical process data and sentiment signals, enabling proactive intervention before adoption barriers emerge.
- Process Optimization: Investigating Generative AI's potential to automate Fit-to-Standard gap identification and requirements mapping, further accelerating transformation timelines.

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