



# ERP system integrations: the backbone of digital business transformation

In today's hyper-connected enterprise landscape, ERP systems are no longer isolated monoliths. They form the digital backbone of organisations, orchestrating everything from finance and supply chain to HR and customer service. Yet the true power of ERP systems is unlocked not merely through the core capabilities, but through integration.



Integration bridges these gaps, enabling end-to-end process automation, real-time analytics, and agility in responding to market changes. Whether it's syncing customer orders from an online shop to the ERP or feeding production data from MES systems into financial forecasting, integration is what makes digital transformation tangible.

## Key risks in ERP integration projects

ERP integrations are essential for enabling seamless business operations, but they carry risks that can impact timelines, budgets, and business continuity. At Midagon, we help you identify and mitigate these risks early. Here are ten of the most critical ones (not in particular importance order) that we like to highlight:

## Why ERP integrations are essential

ERP systems are designed to centralise and streamline business processes. But it's no longer just about ERP. Companies now operate within a network of systems, including Manufacturing Execution (MES), Warehouse Management (WMS), Transport Management (TMS), Planning Tools, Human Resource (HR), Customer Relationship Management (CRM), e-Commerce and Internet of Things IoT, Material Resource Planning (MRP) and many others, that must work together seamlessly. Without integration, these systems function in silos, leading to:

- **Data fragmentation** and inconsistent reporting
- **Manual workarounds** that increase operational risk
- **Delayed decision-making** due to a lack of real-time data flow



## 1. Data quality and governance

*Risk:* Inconsistent or poor-quality data can lead to errors across systems.

*Example:* A global manufacturer integrated its ERP with the CRM, only to discover duplicated and outdated customer records, resulting in incorrect invoicing.

*Mitigation:*

- Conduct data profiling and cleansing before integration.
- Define data ownership and governance roles.
- Align master data structures across systems.

## 2. Interface complexity and technical debt

*Risk:* Legacy systems often require custom connectors that are fragile and costly to maintain.

*Example:* A logistics company had over 30 point-to-point integrations, each requiring manual updates, slowing every release cycle.

*Mitigation:*

- Use modern integration platforms, e.g. iPaaS (integration Platform as a Service) and standard APIs (Application Programming Interface).
- Avoid hard-coded logic, favour reusable components.
- Document all interfaces and dependencies.

## 3. Lack of end-to-end process understanding

*Risk:* Integrations that do not accurately reflect real business processes can disrupt workflows.

*Example:* During an ERP rollout, the finance and supply chain teams had differing views of the order-to-cash process, resulting in failed invoice postings.

*Mitigation:*

- Map and validate cross-functional processes with business stakeholders.
- Use BPM (Business Process Management) tools to visualise and align workflows.
- Involve both business and IT in integration design.

## 4. Change management and user adoption

*Risk:* Even well-built integrations can fail if users don't trust or understand them.

*Example:* A retail company automated the inventory updates, but store managers continued using spreadsheets due to a lack of training.

*Mitigation:*

- Communicate changes early and clearly.
- Provide hands-on training and support.
- Involve users in testing and feedback loops.

## 5. Security and compliance

*Risk:* Integrations can expose sensitive data if not adequately secured.

*Example:* A healthcare provider integrated patient data without encryption, risking GDPR violations.

*Mitigation:*

- Implement role-based access controls and encryption.
- Ensure audit trails and logging are in place.
- Validate compliance with GDPR, ISO, and other industry-specific standards.

## 6. Underestimated scope and effort

*Risk:* Integration work is often scoped too narrowly during planning, especially when relying on assumptions like 'standard interfaces' or 'out-of-the-box connectivity'.

*Example:* A company underestimated the effort required to integrate its ERP with its legacy WMS, resulting in delays and budget overruns.

*Mitigation:*

- Involve integration experts early in planning.
- Validate assumptions with technical teams.
- Use historical data to estimate effort realistically.

## 7. Insufficient testing

*Risk:* Insufficient testing is one of the most underestimated risks in ERP integration projects, with severe consequences. Main reasons to test failures are:

- Time Pressure: Testing phases are often compressed to meet go-live deadlines.
- Complexity: ERP integrations involve multiple systems, data flows, and business processes, making comprehensive testing challenging.
- Underestimation: Teams assume that if individual components work, the integration will, too, ignoring end-to-end scenarios.

*Example:* Integration works in development but fails in production due to the presence of missing edge cases.

*Mitigation:*

- Create sufficiently comprehensive end-to-end test scenarios.
- Include volume and stress testing.
- Involve business users in User Acceptance Testing (UAT).

## 8. Misaligned timelines between systems

*Risk:* The ERP integration often depends on external systems (e.g., CRM, MES, WMS) being ready. If those systems are delayed, integration testing and go-live are impacted.

*Example:* A CRM upgrade delay resulted in a two-month postponement of the ERP go-live.

*Mitigation:*

- Align the project milestones across the systems.
- Track dependencies actively.
- Build contingency buffers into the plan.

## 9. Resource constraints

*Risk:* Integration requires specialised skills, such as middleware, APIs, and data modelling, which are often in short supply or shared across multiple projects.

*Example:* A project stalled for weeks due to a lack of available integration developers.

*Mitigation:*

- Secure key resources early.
- Identify skill gaps and plan for external support.
- Avoid overloading critical team members.

## 10. Late discovery of integration requirements

*Risk:* If integration needs are discovered late in the project, they often require rework or scope changes.

*Example:* A late requirement to integrate with a third-party logistics provider led to costly rework.

*Mitigation:*

- Conduct integration scoping workshops early.
- Treat integration as a core part of the ERP planning.
- Maintain a prioritised backlog for late-stage enhancements.

## When integrations are done right

When ERP integrations are carefully planned and executed, they do more than reduce risks; they unlock significant *business opportunities*. Effective integration enables:

- **Real-time visibility** across the entire supply chain and financial performance
- **Automated processes**, reducing manual work and minimising errors
- **Improved customer experiences** through faster service and accurate information
- **Data-driven decision-making**, supporting predictability and agility
- **Innovation and new service development**, thanks to seamless system connectivity

Integration is not just a technical requirement. It is a *strategic investment* that can transform your ERP system into a true engine for business growth.

## Integration as a strategic capability

Successful projects require a blend of technical excellence, business alignment, and governance discipline. When done right, integrations transform ERP systems from transactional engines into intelligent platforms that drive innovation, efficiency and growth.

As consultants and integration specialists, our role is to guide organisations through this complexity, ensuring that every connection made is a step towards a more agile, data-driven future.

## Success requires cross-functional ownership

An ERP integration is not just an IT project; it's a *business transformation initiative*. Success depends on collaboration among business leaders, process owners, IT architects, and end-users. It requires:

- Clear sponsorship and governance
- Shared understanding of business goals
- Realistic timelines and resource planning
- Continuous testing and validation



## Integration is the enabler, not the afterthought

ERP integration is often treated as a technical detail to be solved late in the project. It should be a *strategic foundation* from day one. When done right, it transforms ERP from a system of record into a system of insight, driving efficiency, innovation and growth.

For stakeholders, this means:

- **Prioritising integration early** in the ERP project lifecycle
- **Allocating sufficient resources and attention** to integration planning
- **Recognising integration as a strategic investment**, not just a technical task



## How we at Midagon help you succeed with ERP integrations

At Midagon, we see ERP integration as a critical success factor and a strategic enabler of business transformation. We work alongside your teams to ensure that integrations are designed to support your business processes, not just connect systems. We help you define integration needs early, align them with your business goals and manage them as an integral part of your ERP programme.

Because we are vendor-independent, our advice is always based on what's best for your organisation, not tied to any specific technology or provider. We lead integration workstreams with a hands-on, pragmatic approach, ensuring that timelines, risks and dependencies are managed proactively. We also bridge the gap between business and IT, ensuring that integration reflects how your organisation operates and delivers measurable value.

With our experience in complex transformation programmes, we help you avoid common pitfalls, such as underestimated scope, data quality issues, and change resistance, so that your ERP integrations become a foundation for long-term agility, efficiency, and growth.

## Contact for more information



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