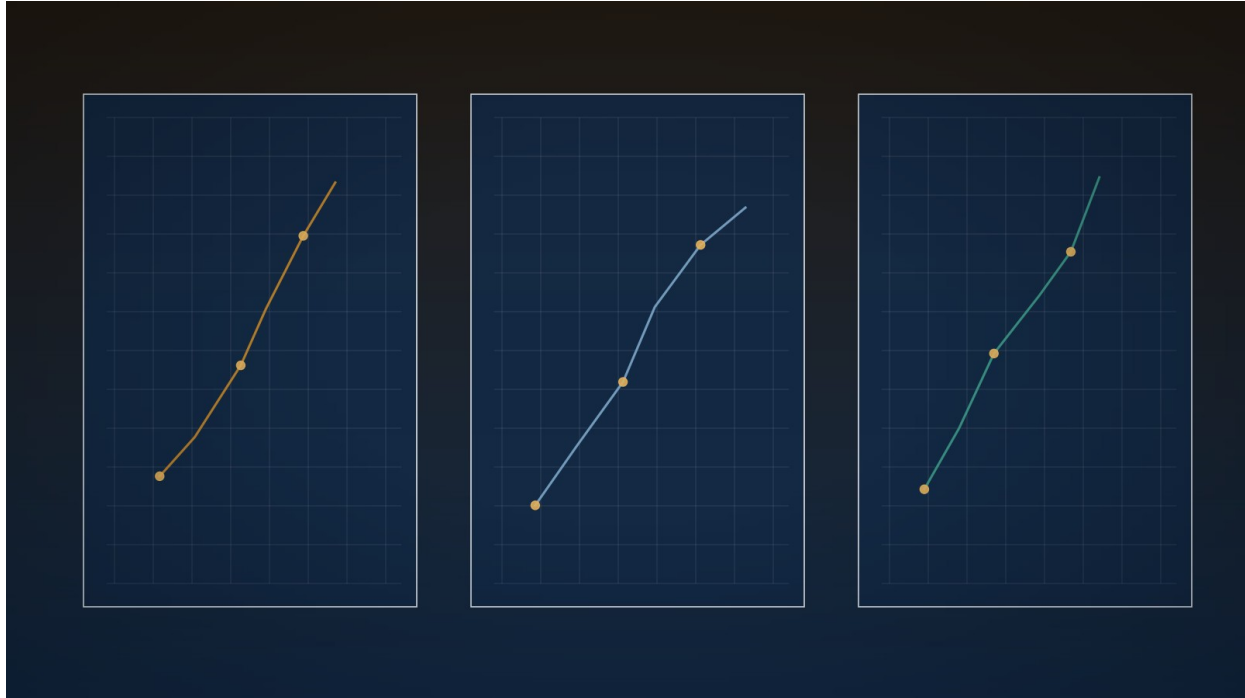


SAP ECC to S/4HANA Migration Strategies: Brownfield, Greenfield, and Selective (Bluefield) Transition

There is no single correct way to move from ECC to S/4HANA. There is only the approach that correctly matches an organization's existing landscape, ambition for process change, and appetite for risk.



Ask three different SAP consultancies which migration approach an organization should take, and it is not unusual to get three different answers delivered with equal confidence. That is less a sign of disagreement about the underlying technology than a sign that the honest answer is “it depends,” and different firms specialize in different answers to “on what.” The three broadly recognized approaches — brownfield, greenfield, and selective (also called bluefield) transition — are not competing philosophies so much as three different starting assumptions about how much of the existing ECC landscape is worth carrying forward.

Understanding the actual tradeoffs, rather than a vendor's preferred framing of them, is the first step toward choosing correctly.

The three approaches, defined precisely

Brownfield: system conversion

A brownfield migration, more precisely called a system conversion, takes the existing ECC system — its configuration, its custom code, its historical data — and converts it in place to run on the S/4HANA platform. The business processes largely stay as they are; the underlying database and application layer change. This is generally the fastest and least disruptive path to the S/4HANA maintenance runway, and it is the approach organizations choose most often: 44% of respondents in ASUG's S/4HANA adoption research, sponsored by

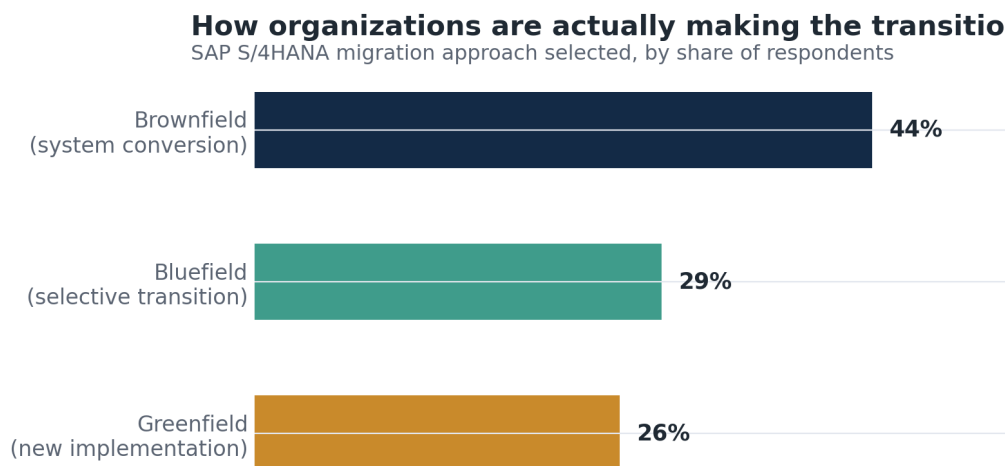
BearingPoint, reported taking this route. Its principal risk is that it can faithfully preserve exactly the process debt and customization sprawl an organization might otherwise have used the migration as an opportunity to address.

Greenfield: new implementation

A greenfield migration starts over: a fresh S/4HANA implementation built around SAP's standard, best-practice processes, into which historical data and legacy customizations are deliberately not carried forward wholesale. Twenty-six percent of ASUG respondents took this approach. It offers the cleanest opportunity for genuine process re-engineering and typically the smallest long-term custom-code footprint, at the cost of the largest implementation effort, the most significant change-management burden, and the greatest risk of disrupting processes that were, in fact, working well.

Selective (bluefield) transition

A selective, or bluefield, transition sits between the two: it allows an organization to combine elements of system conversion with elements of new implementation — migrating some business units, processes, or data selectively while re-engineering others, often using specialized tooling to move only the data and configuration that is actually still needed. Twenty-nine percent of ASUG respondents chose this route.



Source: ASUG, SAP S/4HANA Adoption Trends research, sponsored by BearingPoint (n=168)

Figure 1. SAP S/4HANA migration approach selected, by share of organizations surveyed.

What this shows: Brownfield remains the most common choice, but more than half of organizations are choosing an approach — bluefield or greenfield — that involves deliberate re-engineering rather than a like-for-like conversion.

The variables that should actually drive the decision

The right approach depends less on industry convention and more on a small number of organization-specific variables, evaluated honestly rather than aspirationally.

- **Process fitness:** are the organization's current processes genuinely differentiated and worth preserving, or have they simply accumulated because no one revisited them? A brownfield conversion preserves the former as intended and the latter as a missed opportunity.

- Custom-code footprint: a large volume of business-critical custom code is easier and cheaper to carry forward through conversion than to rebuild from scratch — but it also means the migration inherits whatever technical debt that code represents.
- Data and landscape complexity: organizations with multiple ECC instances, significant merger-and-acquisition history, or heavily fragmented master data are often better served by a selective transition that lets them consolidate deliberately rather than converting complexity as-is.
- Change capacity: greenfield implementations demand the most from an organization's change-management capability, precisely because more is changing at once. An organization with limited bandwidth for user retraining and process adoption should weigh that constraint honestly against its appetite for a fresh start.
- Timeline pressure: system conversion is generally the fastest path to the S/4HANA maintenance runway, which matters more for organizations closer to their support deadline with less remaining planning time.

None of these variables produces a universally correct answer, and no organization should adopt a strategy simply because it was the most common choice in a survey, or because a particular systems integrator specializes in delivering it. The 44/29/26 split among ASUG respondents is evidence that all three approaches are viable at scale — not evidence that any one of them is the default correct choice for a given organization.

Where organizations most often get the decision wrong

In practice, the most common misstep is not choosing the wrong approach outright — it is choosing an approach for the wrong reason. A brownfield conversion selected purely because it is fastest, without an honest audit of how much technical debt is being carried forward, simply relocates that debt onto newer, more expensive infrastructure. A greenfield implementation selected purely because it sounds more transformational, without a realistic assessment of the organization's change capacity, can produce a program that is technically elegant and operationally traumatic. A selective transition chosen without disciplined scoping can, in the worst case, combine the complexity of both other approaches rather than the advantages of either.

The organizations that navigate this well typically do one thing consistently: they base the decision on an evidence-based inventory of their actual landscape — custom-code volume and criticality, data quality, process variance across business units — rather than on a strategy chosen first and justified afterward.

Next Step

Because this decision depends on landscape-specific evidence rather than a default preference, Orpington Technologies' Full ERP Diagnostic Report includes an evidence-verified review of the technical and organizational variables — custom-code footprint, data quality, process variance — that should inform a brownfield, greenfield, or selective transition decision. Organizations still weighing which approach fits are welcome to request a scoping conversation.

Sources

- [ASUG, “SAP S/4HANA Adoption Trends, Insights, and Advice,” research sponsored by BearingPoint \(n=168 ASUG members\).](#)