DEALCRAFT ADVISORY

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The Partner Toolchain: A Roadmap for De-risking SAP S/4HANA

Where SAP Signavio, Celonis, smartShift and Natuvion fit in the journey, what each one de-risks, the value case, and how well each works with the SAP ecosystem.

PROCESS
SAP Signavio · Celonis

CODE
smartShift

DATA
Natuvion

Written for SAP bid teams, programme leaders, CIOs and procurement.

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EXECUTIVE SUMMARY

Four risks, four kinds of tool

S/4HANA programmes rarely fail on the software. They fail on four things the software inherits: processes nobody fully understood, custom code nobody wanted to touch, data nobody had time to clean, and value nobody measured.

A specialist ecosystem has grown up around each of those risks. **SAP Signavio**, SAP's own process suite, and **Celonis**, the process-mining company, make today's processes visible before anyone designs tomorrow's. **smartShift** analyses and automatically remediates custom ABAP code. **Natuvion** (with SNP, covered in Part 1 of this series) moves data selectively, rehearses the cutover and retires what's left.

None of them replaces the system integrator, and none of them is free. Used in the right phase, with the right owner, they turn guesses into measurements. Used as slides in a proposal, they add cost and a false sense of safety. This paper maps each tool onto the SAP Activate journey, sets out the value case and the evidence, and rates how well each one integrates with the SAP ecosystem.

End-2027

is when SAP mainstream maintenance for ECC ends; optional extended maintenance runs to 2030.

SAP, Feb 2020[1]

15%

of SAP migrations in ISG's study were delivered on time and on budget.

ISG, March 2026[2]

A to D

SAP's four clean-core levels, from released APIs only (A) to modifications (D).

SAP News, Aug 2025[3]

THE SHORT VERSION

Process: start with SAP Signavio Process Insights, included once in RISE with SAP. Add Celonis where you need deep, object-centric analysis across SAP and non-SAP systems.

Code: measure before you migrate. Automated remediation and dual maintenance shorten the code freeze, the most disruptive part of a conversion.

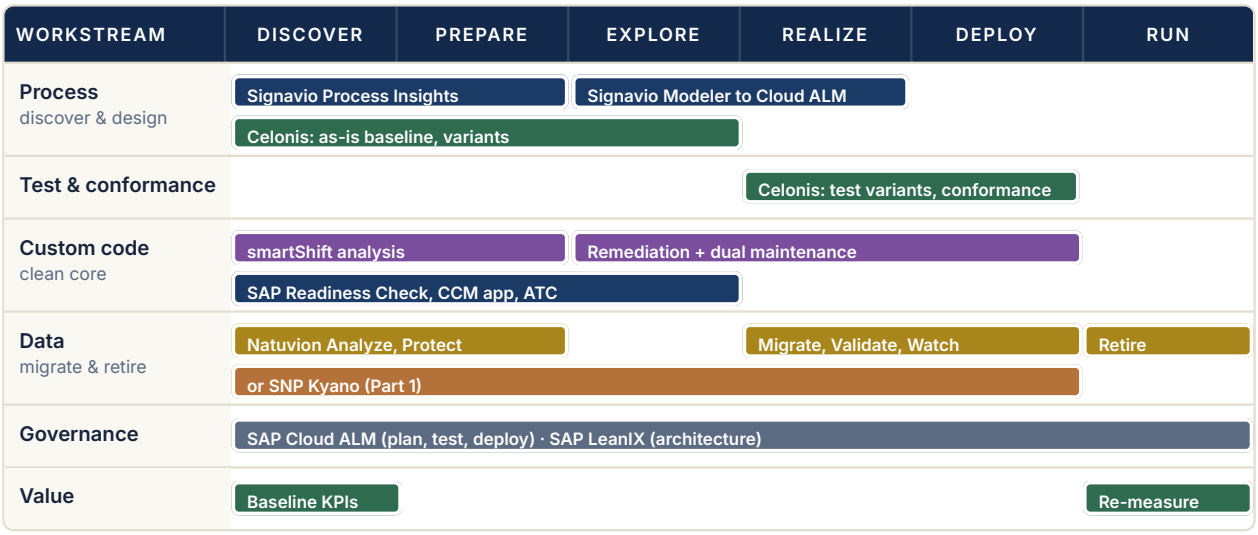
Data: decide what not to move. Selective data transition plus rehearsed, measured cutovers is where downtime and risk come down.

Value: keep the process baseline you measured in Discover, and measure the same KPIs after go-live. That is the business case closing its own loop.

THE ROADMAP

Where each tool fits in the SAP Activate journey

SAP Activate runs in six phases. The bars show where each tool does its main work. Most of the value comes from starting early: the process baseline and the code and data scans belong in Discover and Prepare, before the scope and price are fixed.



Phase placement combines SAP Activate guidance[4], vendor material[5–8] and our own judgement where vendors don't state a phase. Celonis and SAP Signavio overlap in the process row; most programmes need one primary process-mining tool, not two.

PHASE	WHAT SAP ACTIVATE EXPECTS	WHAT THE TOOLCHAIN ADDS
Discover	Strategy, value and impact analysis, readiness check, implementation strategy	A measured as-is: process baseline, code inventory, data volumes
Prepare	Scope, governance, sandbox, plans	Scope and price based on facts, not estimates
Explore	Fit-to-standard workshops; gaps into the backlog	Real variants and volumes in the workshop; code to retire, not rebuild
Realize	Agile build; integration and user acceptance testing	Automated remediation, repeated test migrations, tests based on real variants
Deploy	Production setup, cutover, hypercare	Rehearsed cutover with measured downtime and automated reconciliation
Run	Operations, continuous improvement	Legacy retirement, KPI re-measurement, process conformance

PROCESS · SAP'S OWN SUITE

SAP Signavio: the native process layer

SAP announced the acquisition of Signavio in January 2021, at the launch of RISE with SAP, and completed it that March.[9] It is now SAP's business process transformation suite and the process backbone of RISE.

ITEM	DETAIL
Suite	Process Insights, Process Intelligence (process mining), Process Modeler and Journey Modeler, Process Collaboration Hub, Process Governance, Process Transformation Manager, Value Accelerators.[10]
In RISE with SAP	A starter pack only for RISE customers: Process Manager for 3 users, Collaboration Hub for up to 10, and Process Insights with one 50 GB load from a production ERP system.[11] Anything beyond that is an extra licence.
Cloud ALM	To-be process models move from Signavio into SAP Cloud ALM for implementation; since November 2025, any model revision can be synchronised.[12,13]
SAP LeanIX	Complementary: Signavio covers processes, LeanIX covers IT architecture; LeanIX initiatives can create or link Cloud ALM projects.[12]
AI	Joule with SAP Signavio generally available in 2026; AI-assisted Transformation Advisory in Process Transformation Manager since December 2025.[13,14]

WHERE IT DE-RISKS

A benchmarked, data-based view of today's processes in Discover; process models that flow straight into Cloud ALM for build and test; one vendor accountable for the toolchain. For a RISE customer, the first discovery load is already paid for.

WATCH FOR

The RISE starter pack is small: three modelling users and a one-time data load. Programmes that need continuous mining, more users or non-SAP sources should price the full licence early, not discover it in Explore.

PROCESS · SPECIALIST

Celonis: process intelligence across SAP and beyond

Celonis, a 2011 spin-off from the Technical University of Munich with more than 3,000 employees, built the process-mining category and was long one of SAP's best-known partners.[15,16] Since SAP bought Signavio the two compete directly.

ITEM	DETAIL
Platform	Process Intelligence Graph, object-centric process mining, AgentC for feeding process data to AI agents, Data Core and an orchestration engine (2025).[17,18]
For S/4HANA	"Enterprise IT Modernization" offering and transformation apps, including a System Transformation Readiness app and a partner-built suite covering before, during and after the move.[19,20]
SAP data access	An on-premise extractor with an RFC module in SAP, plus an ODP/CDS-view route in limited availability.[21]
Partners	250+ partners, including Accenture, Deloitte, PwC, Capgemini, KPMG, TCS and Wipro.[19]

Evidence from SAP programmes VENDOR-REPORTED

HARMAN: mapped its as-is processes and found 34% of custom transaction codes were rarely used and might not need migrating; ECC to S/4HANA targeted for early 2027.[22]

Hager: compared its processes with about 280 SAP best practices in fit-to-standard and used rare variants to shape testing (2021).[23]

Mann+Hummel: Celonis and Accenture supporting the migration before, during and after go-live.[24]

INTEGRATION RISK TO MANAGE: THE DATA-ACCESS DISPUTE

In March 2025 Celonis sued SAP in the US, alleging SAP restricts third-party access to customers' SAP data to favour Signavio. In June 2025 SAP agreed, while the case continues, not to interfere with Celonis's extractor or charge customers extra for using it. In October 2025 the court allowed the main antitrust claims to proceed; the case is still pending. In July 2026 Germany's Federal Cartel Office closed its review, finding sufficient data-extraction options, and in October 2026 a Munich court ruled for Celonis on a patent claim against a Signavio feature, which SAP is appealing.[25–28] For buyers, the practical point is simple: write the data-extraction route and any SAP licence implications into the contract.

CHOOSING

SAP Signavio or Celonis?

Most programmes need one primary process-mining platform. The choice depends less on features than on landscape, licences and how long you intend to use it.

QUESTION	POINTS TOWARDS SAP SIGNAVIO	POINTS TOWARDS CELONIS
Commercial model	You are on, or moving to, RISE with SAP and want to use the included starter pack first	You already have a Celonis licence and an established centre of excellence
Landscape	Mainly SAP, and you want one vendor for process, ALM and architecture	Many non-SAP systems in the end-to-end process (CRM, logistics, finance)
Toolchain	Models must flow into SAP Cloud ALM and LeanIX with minimal integration work	You want process data to feed AI agents on other platforms
Depth	Benchmarking against SAP best practice and standard KPIs	Object-centric analysis, operational apps and action automation
Risk	Lower integration and licensing uncertainty inside the SAP stack	Data-access dispute with SAP; contract the extraction route

> *The tool matters less than the habit: measure the process before you design it, and measure it again after go-live with the same KPIs.*

CODE

smartShift: automated custom-code transformation

smartShift analyses and automatically rewrites custom ABAP for S/4HANA, upgrades and clean core. Ridgemont Equity Partners led a recapitalisation of the company in September 2023.[29]

ITEM	DETAIL
Analyse	Custom Code Analysis classifies every object as retain, retire, redesign or transform; the analysis product is sold on SAP Store (since June 2024).[30,31]
Transform	Automated remediation for ECC to S/4HANA, version upgrades, RISE, consolidation and carve-outs, described by the vendor as deterministic automation with thousands of transformation rules.[32]
Dual maintenance	Merges ongoing ECC changes into the S/4HANA project system, so the business avoids a long code freeze.[33]
Clean core	Clean Core Analysis against SAP's rules, and ABAP Cloud enablement to move towards levels A and B.[34,35]
Partners	Deloitte, Accenture, Capgemini, PwC, IBM, TCS, DXC, T-Systems and others; also SNP and cbs.[36]

Evidence VENDOR-REPORTED

Forrester Total Economic Impact study (commissioned by smartShift, 2023, composite of four interviews): 253% ROI, payback under six months, about 40% of code decommissioned.[37]

Jabil: about 5 million lines remediated in 5 weeks, 29,000 issues fixed automatically, 40% obsolete code decommissioned.[38]

JBS USA: 2.8 million lines in 8 weeks, about 30,000 hours saved by the customer's estimate.[39]

FIT WITH SAP'S OWN TOOLS

SAP provides the Custom Code Migration app (scoping and unused-code detection, feeding Readiness Check), ABAP Test Cockpit checks and semi-automatic quick fixes.[40] smartShift treats ATC as one input, not the whole governance model, and its value case rests on automating the remediation SAP's tools identify. Run SAP's free tools first; use the result to size whether automation pays.

DATA

Natuvion: selective data transition and retirement

Natuvion, founded in Walldorf in 2014 and majority-owned by NTT DATA Business Solutions since August 2022, is one of the members of SAP's Selective Data Transition Engagement alongside SAP, SNP and cbs.[41–43]

ITEM	DETAIL
Data Conversion Suite	Nine modules: Analyze, Migrate, Watch (cutover monitoring), Protect (anonymisation), Validate, Test (test data), Retire (decommissioning), Compose (rules library) and Safeguard.[44]
Scenarios	Brownfield, greenfield and selective transition; carve-outs, carve-ins and mergers; S/4HANA Utilities; also non-SAP targets.[45,46]
SAP Activate	Natuvion organises its S/4HANA service around SAP Activate's phases and maps its modules to Realize.[47]
SAP tools	Used alongside SAP's Database Migration Option in at least one published case. SAP notes that each Engagement member uses its own tools and that SAP does not certify or endorse them.[43,48]

Evidence VENDOR-REPORTED

BMW Group: selective ECC to S/4HANA migration of over 30 TB with downtime of no more than 72 hours; first wave live on time and on budget.[49]

Wiener Linien: go-live in 54 hours against 72 planned, after seven test migrations; about 70% less effort through automation.[50]

NRG Energy: database reduced from about 28 TB to 4.21 TB; 13 hours of downtime against an 18-hour plan.[48]

NATUVION OR SNP?

Both are Selective Data Transition Engagement members with comparable scope. The useful questions are capacity for your dates, references at your data volume and industry, and how each fits your integrator. NTT DATA ownership may matter if your integrator competes with NTT DATA.

INTEGRATION

How well each tool works with the SAP ecosystem

Based on what SAP and the vendors publish. “Not stated” means we found no public statement, not that integration is impossible: ask the vendor to demonstrate it.

SAP COMPONENT	SAP SIGNAVIO	CELONIS	SMARTSHIFT	NATUVION
RISE with SAP	Included starter pack	Works; extractor route under dispute	RISE offering	SDT Engagement member
SAP Cloud ALM	Model sync	Not stated	Not stated	Not stated
SAP LeanIX	Complementary	Not stated	Not stated	Not stated
SAP BTP / ABAP Cloud	SAP platform	Not stated	ABAP Cloud enablement	Not stated
Readiness Check / ATC / CCM	n/a	n/a	Uses ATC as an input	n/a
Migration tools (DMO, Cockpit)	n/a	n/a	n/a	Used with DMO in a case
SAP Store / SAP listing	SAP product	Not stated	Analysis on SAP Store	Listed by SAP (SDT)
Joule / SAP AI	Joule GA 2026	Own AI (AgentC)	Own AI agents	Own AI features

WHAT THIS MEANS FOR A BID OR A CONTRACT

Where integration is “not stated”, the integrator owns the gap: who moves results from the partner tool into Cloud ALM, the test plan and the cutover runbook. Put that work in the plan and the price, or the programme will do it unpaid in month nine.

THE VALUE CASE

Where the money is, and how to measure it

Partner tools cost real money. They earn it back in four places. A business case should name the metric, measure the baseline before the tool is bought, and assign an owner for re-measuring it.

LEVER	TOOLS	HOW IT PAYS BACK	METRIC FOR THE BUSINESS CASE
Less scope	Celonis, Signavio, smartShift, Natuvion	Retire unused transactions, code and data instead of migrating them	% of custom code retired; % of data volume left behind; unused transactions
Less effort	smartShift, Natuvion	Automated remediation and repeatable migration runs replace manual work	Person-days per 100,000 lines or per TB; test-migration cycle time
Less disruption	Natuvion, smartShift	Shorter code freeze and cutover window	Code-freeze weeks; cutover hours against the business's tolerance
More value	Signavio, Celonis	Process KPIs measured before and after go-live	Cycle times, automation rate, on-time delivery, working capital

Five ways a partner tool fails to pay back

1. Bought after the scope and price were fixed, so its findings become change requests.
2. Licensed for the programme but nobody in the business owns the results.
3. Two overlapping tools bought for the same job, usually process mining.
4. Integration with Cloud ALM, testing or the cutover plan left to "the team".
5. No baseline measured, so the value can never be shown.

TOOLS · FOR BID TEAMS AND BUYERS

Ten questions before you rely on the toolchain

For bid teams

1. Did you scan the code and data before pricing, or is volume a guess?
   A scan turns the riskiest assumptions into numbers.
2. Is every partner licence in the commercials, with its term?
3. Who moves partner-tool output into Cloud ALM and the test plan?
4. Is there a joint responsibility matrix with each partner?
5. Are the partner's people available for your dates?

For buyers

6. Which tools are included in what we already pay SAP for?
7. Who owns the licence and the data after go-live?
8. Who is accountable if a tool's output is wrong: the integrator or the partner?
9. What did comparable customers actually achieve, and can we call two?
10. Are any data-access or licence disputes relevant to our landscape?

A NOTE ON SAP ENDORSEMENT

Membership of SAP's Selective Data Transition Engagement or an SAP Store listing is a useful signal, but SAP states it does not certify or recommend Engagement members' tools. Ask for references and a demonstration on your own data.[43]

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