DEALCRAFT ADVISORY

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The Scope Multiplier

Bids count nouns. Delivery pays for multiplications. The three hidden multipliers behind SAP S/4HANA change requests, and how to price them before they become disputes.

OUTPUTS
The Output Iceberg

ACCESS
Roles Debt

INTEGRATION
The Interface Multiplier

Written for bid directors, estimators, programme leads and procurement.

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EXECUTIVE SUMMARY

The change request was written into the estimate

Most SAP change requests are not new requirements. They are the same requirement, counted properly for the first time.

An RFP says “25 forms”, “around 40 roles”, “integration with 12 systems”. The bid prices 25, 40 and 12. Delivery then discovers that each form exists in four countries and two languages and must also travel as a structured e-invoice; that each role must be restricted by company code and checked against segregation-of-duties rules; that each system connection carries several messages in both directions and must be rebuilt on new APIs and tested four times. None of that is scope creep. It is **multiplication the estimate never did**.

We call this the **Scope Multiplier**. Bids count nouns; delivery pays for nouns multiplied by their dimensions. The gap between the two is where change requests, margin erosion and client disputes come from. This paper names the three multipliers we see most often in SAP S/4HANA programmes, gives a formula and a worked example for each, and shows how to turn the multiplier into a priced unit rate, so that when the number grows, the price grows with it and nobody argues.

30%

longer than planned, on average, for S/4HANA transformations; fewer than 1 in 10 finished on schedule.

Horváth, 200 companies, March 2025[1]

15%

of SAP migrations on time and on budget; 58% both late and over budget.

ISG, March 2026[2]

45%

of ASUG members who missed dates cited unexpected complexity; 42% cited scope creep.

ASUG 2026, via SAPinsider[3]

AN HONEST NOTE ON THE EVIDENCE

The surveys above show that S/4HANA programmes overrun and that scope and complexity are leading causes. They do not measure outputs, roles or interfaces separately. Linking change requests to these three areas is our own model, built from bid and delivery experience and from SAP’s documentation of what each area requires. The worked examples are illustrative.

THE MODEL

Nouns, dimensions and the multiplier

Every scope item in an RFP is a noun: a form, a role, an interface. Every noun has dimensions that decide how many things actually get built and tested. The estimate is only as good as the dimensions it multiplies.

THE SCOPE MULTIPLIER

Delivered units = Nouns × Dimensions that apply · Multiplier = Delivered units ÷ Nouns

AREA	THE NOUN IN THE RFP	DIMENSIONS THAT MULTIPLY IT	TYPICAL CR TRIGGER
The Output Iceberg	"25 forms"	Countries · languages · channels (print, email, EDI, e-invoice) · legal variants	"We assumed standard forms"
Roles Debt	"About 40 roles"	Organisational restrictions · apps per role · SoD rules · countries	UAT blocked by access; SoD remediation
The Interface Multiplier	"12 systems"	Messages · directions · technology change · environments · test cycles	"Each system has more than one interface"

Why bids miss the multiplication

The RFP counts nouns. Buyers list what they can see. The dimensions sit in their country rollout plan, their org structure and their integration landscape, usually in other documents.

The bid team is under time pressure. Multiplying needs questions answered. Counting nouns needs none.

Price pressure rewards the smaller number. A team that multiplies looks expensive against a team that doesn't, until month six.

Nobody owns the gap. Functional, technical and security leads each estimate their part; the dimensions fall between them.

> *A change request is often the first time anyone multiplied.*

MULTIPLIER 1

The Output Iceberg

Forms look small: an invoice, a delivery note, a purchase order. Above the waterline is the count in the RFP. Below it are the countries, languages, channels and legal variants, and, increasingly, the e-invoicing mandates that turn an invoice from a PDF into a country-specific integration.

Why it grows in S/4HANA

Output technology changes. S/4HANA output management is BRF+ based on premise, and in SAP's cloud editions only SAP Forms service by Adobe is available. Legacy SAPscript and Smart Forms may need rebuilding, not just copying.[4,5]

E-invoicing mandates are arriving country by country. Belgium has required structured B2B e-invoices since 1 January 2026; Poland's KSeF phased in from February 2026; France requires all companies to receive e-invoices from September 2026; Germany requires issuing from 2027 for larger businesses and 2028 for all; Ireland's first phase starts on 1 November 2028; and EU-wide intra-community e-invoicing follows from July 2030 under ViDA.[6–11]

A structured e-invoice is an interface, not a form. With SAP Document and Reporting Compliance, country-specific mapping and adjustments sit in technical objects and enhancement points; that is where unplanned work lands.[12,13]

OUTPUT ICEBERG

Output deliverables = Output types × countries × languages × channels, for the combinations that differ

Worked example ILLUSTRATIVE

ITEM	UNITS
Output types listed in the RFP	25
Legal country variants: 9 types differ in 3 further countries	+27
Language variants: 12 customer-facing types in a second language	+12
Structured e-invoice mappings: invoice and credit note in 4 mandated countries	+8
Output deliverables to build and test	**72**

2.9×
the RFP count

8
of the 72 are compliance integrations, not layouts

0
of them are new requirements

MULTIPLIER 2

Roles Debt

In ECC, a role was a list of transactions. In S/4HANA, users reach their work through SAP Fiori apps, organised in business catalogs, spaces and pages, and the roles must be adjusted after conversion.[14,15] Every shortcut taken in the old role design comes due at once.

Why it grows

Transactions don't map one-to-one to apps. SAP's conversion guide requires business roles to be adjusted, obsolete transactions replaced and back-end role menus mapped to Fiori catalogs.[14]

Every restriction multiplies. A job role restricted by company code or plant becomes one derived role per organisational value.

Segregation of duties must be re-proved. Risk analysis for S/4HANA and Fiori needs rulesets that recognise app-based access; SAP documents specific configuration steps to avoid false or missed conflicts.[16]

It surfaces late. Access problems show up in user acceptance testing, when every blocked tester is a day lost and the fix is urgent, which is exactly when a change request is hardest to price fairly.

ROLES DEBT

Role objects = Job roles × organisational restrictions, plus catalog mapping and SoD rules per role

Worked example ILLUSTRATIVE

ITEM	UNITS
Business roles listed in the RFP	40
Of which restricted by company code: 30 roles × 6 company codes	180
Unrestricted roles	10
Role objects to build, assign and test	**190**
Plus: Fiori catalog and space mapping for 40 master roles; SoD ruleset update and conflict remediation	scope

4.75×
the RFP count in role objects

UAT
is where the gap appears

1
owner needed across security, functional and GRC

MULTIPLIER 3

The Interface Multiplier

"Integration with 12 systems" sounds like twelve things. It rarely is. Each system exchanges several business objects, often in both directions, and S/4HANA's clean-core direction means many existing IDoc and RFC interfaces should move to released, standard APIs.[17]

Why it grows

A system is not an interface. One warehouse system may need item master, orders, confirmations, stock and returns, each in its own direction and timing.

Technology changes. SAP's guidance is to build on standard OData and SOAP APIs and avoid traditional RFC and IDoc where possible, so existing interfaces are often rebuilt, not reconnected.[17]

Testing multiplies everything. Every message flow must work in each environment and pass each integration-test cycle and the dress rehearsal.

Landscapes are bigger than they look. MuleSoft's 2025 benchmark found the average enterprise runs 897 applications, with only 29% integrated.[18]

INTERFACE MULTIPLIER

Message flows = Systems × business objects × directions · Test executions = Message flows × test cycles

Worked example ILLUSTRATIVE

ITEM	UNITS
Systems to integrate, as listed in the RFP	12
Message flows once objects and directions are counted	31
Of which rebuilt on standard APIs rather than reconnected	9
Integration test cycles plus dress rehearsal	×4
Message-flow test executions	**124**

2.6×
the RFP count in build objects

10×
the RFP count in test executions

3
parties often involved per interface: integrator, client and third-party vendor

GETTING THE ESTIMATE RIGHT

From change request to unit rate

You can’t always multiply before submission: the dimensions may not be known. What you can always do is decide, in the bid, how the price moves when they are. That turns a future dispute into a pre-agreed calculation.

1 **Multiply what you can**

Ask the clarification questions that expose the dimensions: countries in scope and their dates, languages, company codes, the integration inventory. Use the answers, not the RFP nouns, as the base.

2 **State the base in units, not words**

“Price includes 72 output deliverables: 64 layouts and 8 e-invoice mappings for the countries listed” is defensible. “Standard forms” is not.

3 **Attach a unit rate to every multiplier**

A price per additional layout, e-invoice mapping, derived role, message flow and test cycle. When the number grows, the price grows by an agreed amount.

4 **Narrate it as risk control**

Buyers dislike surprises more than they dislike numbers. A unit-rate schedule shows you have thought further than your competitors, and gives procurement a way to compare bids on the same base.

Tool: the Scope Multiplier sheet

AREA	RFP NOUNS	DIMENSIONS CAPTURED	DELIVERED UNITS	MULTIPLIER	UNIT RATE
Outputs					
E-invoice mappings					
Roles					
Message flows					
Test cycles					

A multiplier above 2 on any line is a pricing decision, not an assumption. Escalate it before submission.

FOR BID TEAMS AND BUYERS

Twelve clarification questions that expose the multiplier

Outputs

1. Which output types differ by country, legal entity or language?
2. Which countries in scope have e-invoicing or e-reporting mandates during the programme, and from what date?
3. Which outputs leave as print, email, EDI or structured e-invoice?
4. Can existing SAPscript or Smart Forms be retained, or must they move to Adobe forms?

Roles

5. How many company codes, plants or sales organisations restrict access?
6. Who owns the SoD ruleset, and is it current for app-based access?
7. Is the role design being kept, simplified or rebuilt?
8. Who signs off role testing before UAT starts?

Interfaces

9. For each system, which business objects move, in which direction and how often?
10. Which interfaces must move from IDoc or RFC to standard APIs?
11. Who changes the third-party side, and is that in anyone's contract?
12. How many test cycles and environments must each interface pass?

FOR BUYERS

Publish the dimensions in the RFP: countries and dates, languages, org structure, the integration inventory. Then ask every bidder to price on the same units with unit rates. You will get comparable bids and fewer change requests.

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The Scope Multiplier, the Output Iceberg, Roles Debt and the Interface Multiplier are models developed by Dealcraft Advisory. Worked examples are illustrative and not drawn from any client. E-invoicing dates change; check the current rules for each country. This paper is general information, not legal or tax advice. SAP, S/4HANA and SAP Fiori are trademarks of SAP SE.

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Bid direction, win strategy and independent reviews for system integrators pursuing SAP and ERP programmes, and buy-side tender support for organisations buying them.

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Want the multiplier run on your bid? Our Orange Team review stress-tests assumptions, scope lines and staffing before you freeze scope and price, including the outputs, roles and interfaces behind your numbers.

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