

How To Select Your New Off-the-Shelf Software

You are considering a new IT solution, but are unsure how to select an off-the-shelf product and its supplier. Consultant, author and ‘poacher turned gamekeeper’ Martin Tate shows you how to find the product most suited to your organisation’s needs. His techniques draw on years of experience to enhance your normal procurement and decision-making processes and deliver a noticeably better result.

In many business areas, organisations rarely develop their own ‘tailor-made’ software. Off-the-shelf software dominates. By spreading development costs over many customers, they can offer quick and affordable installations of extremely capable software.

There are thousands of products, with different feature sets and costs. Some are so sophisticated it would take years for an organisation to grow into them. This sophistication and breadth of choice can be a problem in itself.

Some organisations assume selecting and implementing off-the-shelf software is quick, easy, cheap and low-risk. It is none of these things. Sadly, the benefits from off-the-shelf software often prove hypothetical. The unfortunate reality is that some organisations make a business-critical decision with inadequate due diligence, insufficient evidence and instinctive (System 1) decision-making. They later face significant after-contract costs to ‘upgrade’ ill-fitting software.

The proven method

This method – proven on many projects totalling millions of pounds invested over the last 20 years – reduces risk, saves time, saves money and protects you from unscrupulous IT suppliers. It delivers a *rational, defensible* decision in a *predictable* timescale.

The golden rule is to avoid comparing candidates to each other. Compare them all to the same yardstick – your business need or requirements. Define these before appraising candidates.

The approach is top-down. The progressive short-listing means the evaluators examine fewer candidates in more detail. (A bit like staff recruitment with candidate profile, sift of CVs, then first and second interviews.)

Figure A shows the method that provides the framework for this article.

“At the end, we had something that stood up to the scrutiny of the decision makers and answered all their questions, giving everyone confidence that we had the correct result that could not be overturned during the purchasing approval process without very good reason. We could all sleep at night, knowing that we had got it right!”

Project management and sponsorship

It is important that business managers, not the IT department, control the project. Select a project sponsor and a project board (PB).

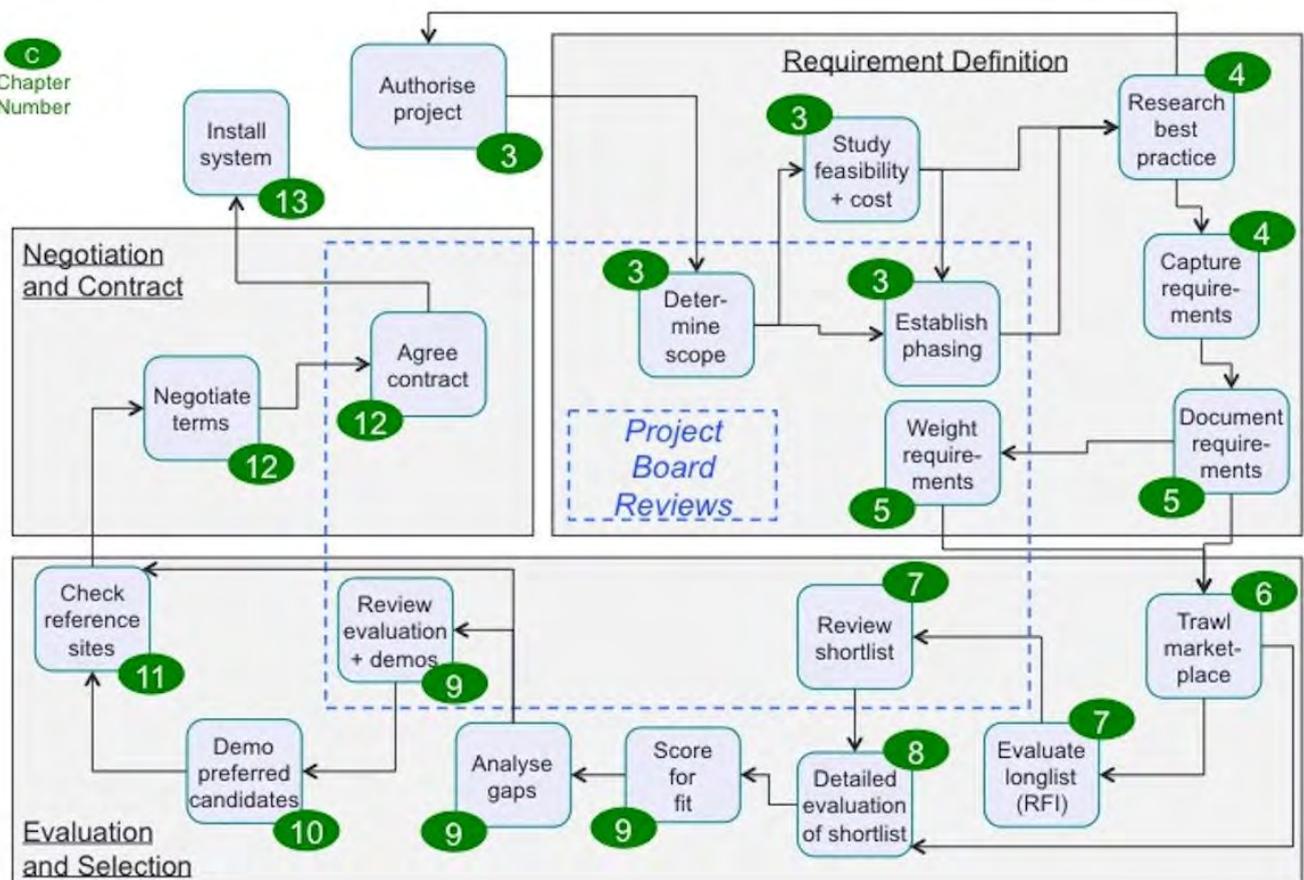
The best project sponsor is someone whose career benefits from a successful installation, and who has executive authority over other members on the PB. If necessary for seniority, enlist the Chief Executive. Note this method keeps in check the sponsor's time commitment.

Capturing requirements

Major points when capturing and documenting requirements are:

- Inspect existing documents, such as strategy papers, previous statements of need (maybe memos or minutes), paper forms, computer screens and printouts.
- Take a 'diagonal slice' through the company's stakeholders, hold meetings using one-to-one interviews, small groups or workshops. The PB should approve the list of interviewees.
- Consider interviewing some of your suppliers and customers – often their processes must connect to yours.

Figure A – Method diagram – process flowchart of selection approach



- Organise notes under functional headings, such as Management Information, Sales & Marketing or Stock Control. This clarifies, reduces political interests and aids downstream selection processes.
- Document requirements as statements of need in *measurable* terms. “The IT supplier must be reputable” is too vague. Agree the acceptable thresholds – possibly “the IT supplier must turn over at least £1m, with at least 30 staff, 10 of them in R&D”.
- Distribute the requirements document for comment and approval. You must be willing to revise it to reflect responses.

The PB (or a special team) meets to approve the requirements by applying **weights**:

- these reflects the *importance* of the requirement to the organisation
- ‘nice to have’ requirements have low weights
- a ‘must have’ (or *mandatory*) one gets a high weight
- agree numbers to classify each requirement on the scale **0** to **5**.

Trawl the marketplace

It is important to trawl widely for candidates – the winner can only be as good as the best on the longlist.

Use directories, databases, magazines, exhibitions, search engines, referral services and experience. Tap personal knowledge from the team, customers, suppliers and allied organisations.

Include your existing supplier if appropriate.

From longlist to shortlist

The Request for Information (RFI) takes you from the longlist of ‘possibles’ to a shortlist of three or four candidates for detailed evaluation.

The RFI is a list of testing, closed questions, extracted from requirements with the highest weights. Typically, you create a questionnaire spreadsheet – criteria with space for drop-down and text responses.

E-mail the RFI to the longlist of suppliers and invite response. Stress answers have ‘contractual significance’. Insist on a written reply.

Marking the RFI responses determines the shortlist for detailed evaluation. Failure to meet mandatory requirements means the candidate is rejected. This reduces the candidate list quickly, to those needing detailed evaluation.

“We had all the benefits of spreading the enormous development costs over multiple customers by buying off-the-shelf. Having been involved in this process from end to end, I can honestly say that you will never have any second thoughts of whether you made the right decision as this process puts the decision in everyone’s hands.”

Detailed evaluation visits

Send the requirements document a week in advance to those shortlisted.

Usually, your evaluation team should visit the supplier. They have more resources at their offices, they can draw on their experts on demand and you can assess 'supplier substance' (such as premises) or attitudes (reflected in observed behaviours).

Remember the evaluation team is not there to select the winner on the spot, but to gather facts. Team members must make copious notes.

Largely, you rely on the supplier's knowledge of their software and services. It is not feasible for your evaluation team to 'take apart' 3 or 4 major pieces of software and reach sensible conclusions on fitness for purpose.

The defence against misrepresentation is that supplier responses will shape the evaluation team's scores of each candidate. These scores will be an attachment to contract – ensure suppliers are aware of this.

Scoring candidates

After *all* the evaluation visits, the team assess the candidates and express their capability as a score.

Figure B – Scoring spreadsheet – extract to illustrate

Scores To RDD-IntegratedPES-45-Approved-ColterCivils.pdf					Perfect	Candidate I		Candidate J	
Categ	Requirement Title	Nbr	Wgt	Max	Match I	Fit Xtd I	Match J	Fit Xtd J	
Product Lifecyc	Partners Access Designs	0081	5	15	3	15	2	10	
Product Lifecyc	Formal Processes For Design & Programme R	0083	3	9	2	6	2	6	
Product Lifecyc	Design Flexibility Means Approvals At Element	0084	4	12	3	12	3	12	
Product Lifecyc	Traceability	0086	3	9	3	9	2	6	
Product Lifecyc	Monitor & Control Concessions	0087	3	9	2	6	1	3	
Product Lifecyc	System Codes Or Uniform Station Numbering	0089	4	12	3	12	2	8	
Product Lifecyc	Fault Codes & Correlations	0090	4	12	3	12	3	12	
Product Lifecycle		7	3.7	78	92%	72	73%	57	
Procurement at	Integrated Ledger For Projects/Programmes	0097	5	15	3	15	3	15	
Procurement at	Supplier Details – Effective Dates	0101	5	15	3	15	2	10	
Procurement at	Vendor Data Includes Approved Range	0102	5	15	3	15	3	15	
Procurement at	Avoid Overloading Suppliers	0103	3	9	2	6	1	3	
Procurement at	Identify Preferred Supplier	0104	4	12	3	12	2	8	
Procurement at	Standard Supplier Ts & Cs (Terms Of Supply)	0106	3	9	3	9	3	9	
Procurement and Inventory		6	4.2	75	96%	72	80%	60	
Time Recording	Time Booking – Capture Hours	0154	5	15	3	15	3	15	
Time Recording	Time Booking – Charge Hours At Multiple Rate	0155	5	15	2	10	3	15	
Time Recording	Overhead Costing & Charging	0158	4	12	3	12	3	12	
Time Recording	Facility To Convert & Round Bookings	0159	3	9	2	6	2	6	
Time Recording	Re-Allocate Time After Booking	0165	5	15	1	5	3	15	
Time Recording	Generate Customer Invoice For Time Booked	0166	2	6	2	4	3	6	
Time Recording and Charging		6	4.0	72	72%	52	96%	69	
IT Supplier Cor	Sound Company – Developer	0356	4	12	3	12	3	12	
IT Supplier Cor	Documentation – Levels & Customisation	0359	3	9	2	6	3	9	
IT Supplier Cor	Global Reach	0361	3	9	3	9	3	9	
IT Supplier Cor	Training Available	0366	4	12	2	8	3	12	
IT Supplier Cor	Standard Warranty, Contract & Negotiated SLA	0376	5	15	3	15	3	15	
IT Supplier Cor	Indicative Prices	0383	4	12	3	12	3	12	
IT Supplier Cor	Flexible Licensing Arrangements	0385	4	12	3	12	2	8	
IT Supplier Cor	Changes In Pricing Models	0386	1	3	1	1	2	2	
IT Supplier Considerations		8	3.5	84	89%	75	94%	79	
Grand		27	3.8	309	88%	271	86%	265	

This is not a *general* marketplace review, like those found in IT magazines. The objective is to pick a winner, in the context of the company's requirements.

A tick box or yes/no approach is inadequate – with effective short-listing, many requirements will be supported in some way by the candidates. Therefore, you need to compare *relative* capabilities.

Figure B has an example scoring spreadsheet. This illustration shows only two candidates, but there would be other columns for more. Moreover, the list of requirements would be longer.

- You score for fit in a range 0–3. These correspond roughly with up to 25, 50, 75 and 100 percent fit. Note that the scoring also produces specific *definitions* – a record of the capability necessary to reach each score awarded.
- Use the definitions to ensure you are scoring equitably across all suppliers.
- Record the scores for each candidate on the scoring spreadsheet.
- Earlier, weight reflected importance [*Wgt* on Figure B]. The evaluation team allocate the score [*Match*] for each requirement for each shortlisted candidate. Multiplying *weight* by *match*. magnifies the gap between candidates – ‘rewarding’ those that are strong in important areas.
- Release the definitions to the top suppliers with their scores, for a check on your understanding of their replies. Be prepared to process their ‘bids’ to change (some of) the allocated scores.

Live demonstrations

The PB reviews the scoring spreadsheet and normally picks two candidates for demonstration. Unless there are special circumstances, it is the two highest-scoring candidates.

The demonstration is an expensive meeting, and very important to the project's reputation for a selection process with integrity. You should specify the outline of the demonstration, and send sample data (such as real product codes). This means the two demonstrations will be comparable, the audience will see realistic business situations and the demonstrations will further test capabilities.

Note attendees should include many of the original interviewees, with some new representatives. Collect attendee reactions on a feedback form.

Reference sites

Make it clear during early supplier contact you intend to ask for reference sites later. This is part of policing supplier answers for honesty – although it is unlikely a supplier will give out a bad reference site.

Telephone or visit to ask for views on:

- the usability of the software, especially if it seems complex to a novice
- the quality of supplier support, especially the knowledge and responsiveness of the service desk
- the ease of implementation, especially the effort and staff required.

“I soon found that many of the most vocal, and historically those people most resistant to change, became the greatest advocates for the solution chosen.”

Supplier negotiations

A major IT adoption will usually represent one of the most expensive and disruptive purchases your company will make.

Moreover, the impact on the company of successful negotiation goes far beyond the initial capital outlay. Prepare a negotiation plan, with points to agree. Analyse the scores for weaknesses.

- Your main negotiation objective is to come to agreement. The PB has already endorsed one candidate as the best fit.
- The second objective is to close gaps to requirements in the next couple of versions of the standard software. These enhancements will be free and supported throughout its lifetime.

It is *essential* to agree that attachments to contract will include the requirements document, scores and definitions from your project.

“During formal consideration of project scope using the method here, the team spotted an opportunity to merge two selections and attempt to find one solution. We did so. A year later, supplier estimates showed the external cost with this approach would be roughly £18m less over 10 years.”

Consider outside help

Despite the sophistication of modern software (probably because of it), the greatest single factor in success or failure is the calibre of the people involved. If your organisation lacks selection experience, consider outside consultants for your selection project.

Choose team members carefully. Assess internal and external people rigorously. IT projects involve deep, specific skills that might only be used once every five years. Do-it-yourself amateurism is a false economy.

- Interview candidates. This is mini-recruitment, with candidate profile and selection. The person is more significant than their company. Beware ‘bait and switch’ – a senior winning the work, but then handing over to a junior.
- Ask whether any consultancy is a reseller of software. Or if they accept ‘referral fees’ (*aka* commission) from the eventual IT suppliers. Or if they have implementation consultancy divisions.

The benefits

Problems during IT implementations usually comprise 5% technology, 15% process and 80% people-related issues. This method finds you the best-fitting technology, and does so in a way that addresses the process issues and engages the people.

At the end of the process, nobody in your organisation can complain that “you never asked me”. Suppliers have been treated as stakeholders, because you need to enlist their expertise.

To avoid an excessively technical viewpoint, the benefits below also highlight 'the human dimension'.

Collaboration

Specific capabilities augment your procurement (such as evaluating intangibles) and your project management (such as stage estimating).

Process integrity and structure gives the project sponsor the tools to get funding for the project.

Specialists gain buy-in as the framework encapsulates their experience in simple, understandable values such as weights for importance or scores for fit.

Stakeholders are managed, consulted and engaged – united in a clear framework that makes their contribution clear. The methodical approach gains acceptance because it is coherent, structured, impartial and transparent.

A pre-existing selection approach makes it easier for management to delegate the process management, yet be involved when relevant.

Using a formal framework and distributing relevant documentation means remote team members can be effective and all opinions are gathered into the basis of decision.

Combined with an emphasis on representation, this means departmental, divisional or national representatives can brief colleagues with confidence, and engage them with less effort.

A wide range of pre-defined roles mean people can get involved with known time commitments, matched to availability.

Understanding what you want, and where you can compromise, improves relationships with suppliers.

Formal gap analysis means negotiation continues to be driven by customer need and not by supplier tactics.

Safeguards protect both customer and supplier from misunderstandings and exaggerated claims, for instance attaching requirements and scores to contract.

Effectiveness

The systematic approach, specifically targeted to manage complexity and risk, yields better candidate suppliers, software and deals.

Business and technical complexity is minimised without damaging integrity, the method simplifies without impairing clarity. This protects decision-makers, who make solid decisions based on visible evidence within a credible framework. The decision-makers gain peace of mind.

Incremental effort and staged commitment by both the purchaser and the candidate suppliers, investing more as your shortlist gets shorter. The staged decision-making encourages just enough information gathering to pass through the next gate, so decisions and responsibilities are clear.

Proven approach steers you away from the common pitfalls or *AntiPatterns*.

Philosophy combined with gap analysis means modifications are usually avoided and always minimised (and deferred so impact and specifications are clear).

“As project sponsor, I led our negotiation team. The negotiation for our solution was one of the most structured, objective and ultimately successful I have ever conducted.”

A defined, proven approach allows the project team to concentrate on content such as requirements or demo specs.

Reference to external best practise and emphasis on requirements guides people to full statement of needs, which forms the basis of decision.

The method is empowering because operations people are consulted – requirements definition with active listening collects aspirations at all levels, plus ‘invisible’ knowledge.

The method is intolerant of poorly matched options, which are not procured because they are ‘found out’ by one of the down-selecting steps. Ethical suppliers welcome selling on a ‘level playing field’.

The due diligence process means the selected candidate is understood, it gains acceptance and implementation is easier because people have been continually consulted.

Fairness

The objective framework consistently measures all candidates to the common yardstick created for that stage, and derived from requirements. All candidates are treated equally, including your incumbent software, if evaluated.

The method does not pre-suppose purchase. It gathers requirements and if scrutiny reveals a ‘shortlist of zero’ the requirements can feed construction instead.

Verbal statements have contractual significance and suppliers verify assessment of fit before agreeing contract. There is clear line of sight from requirements to your software and supplier.

Summary

Selections are increasingly important to organisations and to IT. It is more common for users and IT staff to select software than to create bespoke software. However, a badly fitting solution will damage the organisation.

- Be a sophisticated, informed purchaser, whose requirements drive the selection.
- Take advantage of suppliers’ product knowledge – with checks for misrepresentation or misunderstanding.
- Use a methodical, evidence-based selection approach, and ‘scale’ the amount of effort to match the project risk and cost profile.

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Decision Evaluation advise clients on IT procurement, particularly feasibility studies, readiness assessments, defining requirements, evaluating solutions, suppliers and cloud services, and negotiating contracts. See our [client list](#) and [case studies](#). **Martin Tate** is one of the UK’s authorities on IT selections, with 20+ years’ personal experience of over 50 selection projects, 700+ requirement interviewees, 1,000+ candidates appraised and combined budgets exceeding £15m. BCS published his book in March 2015 bcs.org/offtheshelfextras. Contact him about queries, workshops or a meeting about selecting IT solutions, suppliers, services or cloud provision.