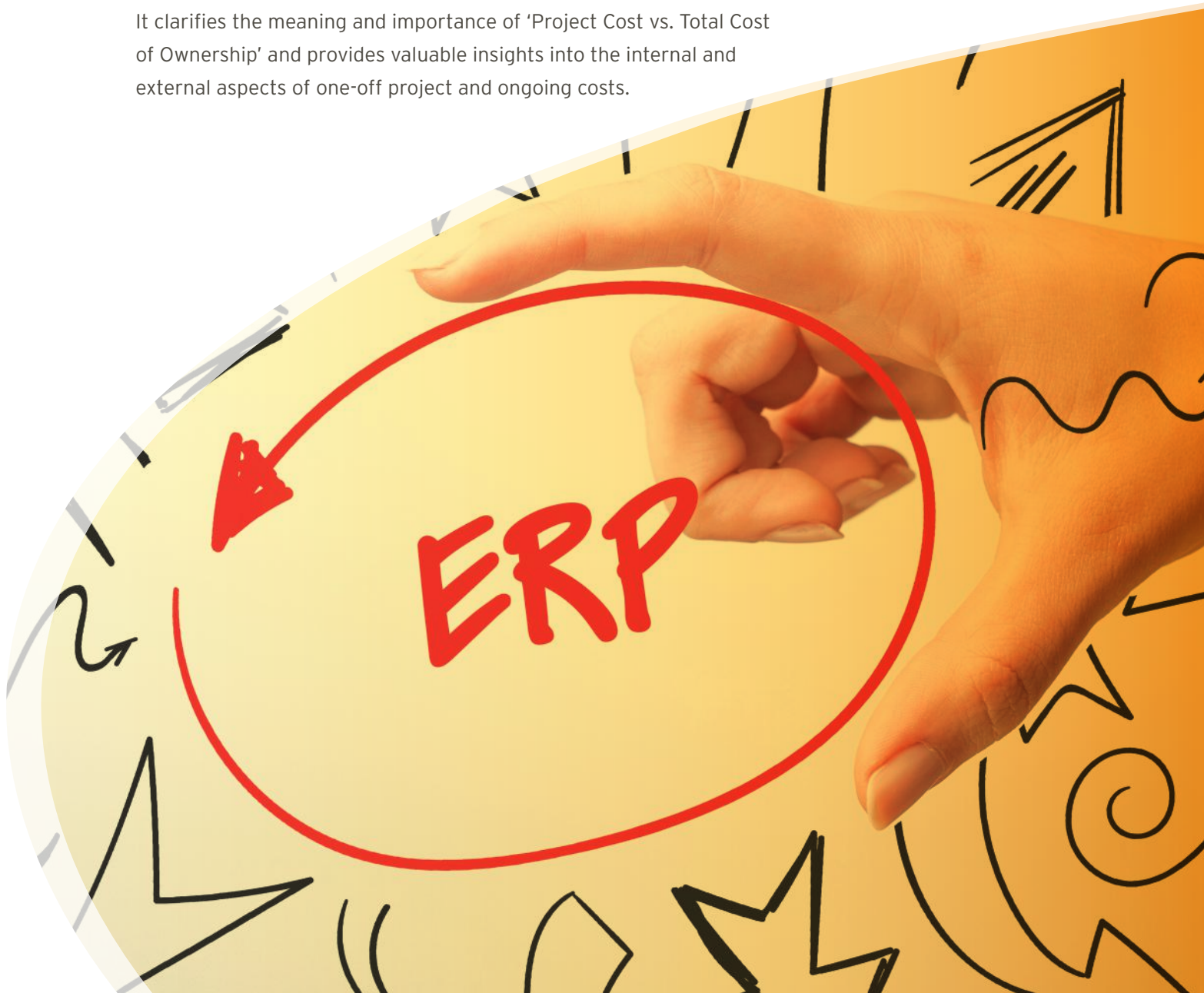


How Much Does ERP Cost?

This Lumenia report identifies the main cost components of a typical ERP project and the drivers that influence each.

It clarifies the meaning and importance of 'Project Cost vs. Total Cost of Ownership' and provides valuable insights into the internal and external aspects of one-off project and ongoing costs.



How Much Does ERP Cost?

The correct answer is the same as the length of the proverbial piece of string - it depends.

There are, of course, resources out there that provide survey responses and benchmark data on ERP costs, but these should be treated with caution. There are numerous variables impacting ERP cost, so the reality for individual organisations can vary wildly from those benchmarks.

Determining a sensible estimate of cost requires an understanding of factors such as the size and scale of the business and the scope and approach of the project. In this paper we identify the main ERP cost components and some of the drivers that influence each.

> Project Cost vs. Total Cost of Ownership

The first thing to establish when considering ERP cost is whether you're more interested in project cost or Total Cost of Ownership (TCO).

Project cost relates only to the cost elements incurred during the lifetime of the implementation project itself. In the example opposite, the project is assumed to be 18 months in duration, and for the sake of simplicity each element is shown to have an equal proportion of cost. In reality, of course, the cost of each element varies from project to project.

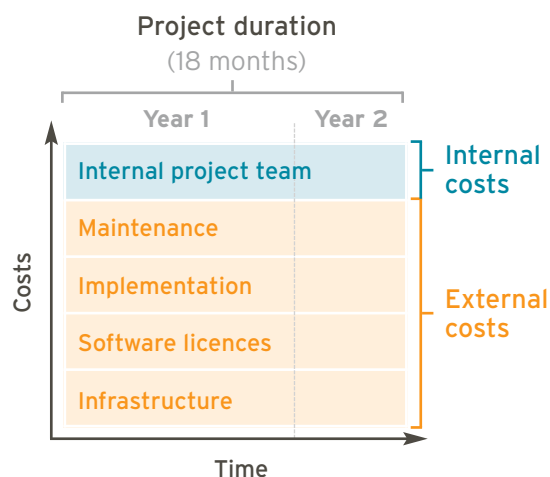


Figure 1: ERP project cost elements

Total Cost of Ownership, on the other hand, includes costs that will be incurred in using the ERP system over a defined period, as well as the project implementation costs. Generally, the period used

in TCO calculations is three to five years. The TCO elements for ERP over a four-year period are shown graphically below (18-month project duration plus two and a half years of post-project support).

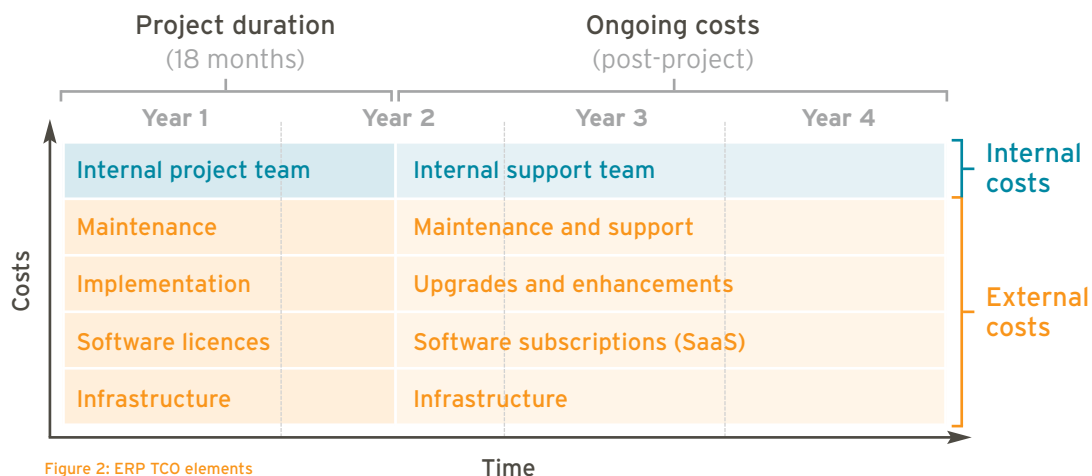


Figure 2: ERP TCO elements

Note that the example above assumes a single go-live event with a clean break between project implementation and ongoing support costs after 18 months. In phased ERP deployments (i.e. with more than one go-live event), implementation and support phases overlap. While this can complicate the cost allocation, it does not change the cost elements themselves.

In the remainder of this report we explore the project and TCO cost elements shown in the diagrams above and the factors that influence each.

> Project Costs

External Project Costs

The main external cost elements during the lifetime of an ERP implementation project are set out below.

Infrastructure

Infrastructure costs include the capital outlay for hardware such as servers, storage devices, networking and communications technology, computers and handheld devices, barcode scanners and printers, as well as any software required to support those components.

Infrastructure requirements depend on the geographical scope of the project, the ERP hosting and deployment strategy, mobile and handheld device needs, and the condition of any legacy equipment that may be available for reuse.

In the case of Software as a Service (SaaS) solutions, server infrastructure costs are included in the per-user licence fees, however storage costs may vary as the amount of data grows over time.

Note that there are various different SaaS hosting models (Public vs. Private Cloud), and some ERP providers also support hybrid solutions.

To find out more about ERP hosting options, read Lumenia's Executive Briefing, 'ERP and the Cloud: What are your Options?'

Software Licences

Software licensing typically includes the cost of any business application, related database and web access licence costs.

The number of users per business function and module is a key determinant of licence cost. These costs can also vary by user type.

For example, licences for advanced or 'power users' of the ERP solution are priced higher than basic licences for 'lite' users that only require access to purchase requisition or reporting functionality.

Metrics other than user numbers may also be used to calculate licence costs. Transaction volumes, number of processors per server, sales revenue and cost of goods sold are among many of the imaginative ways devised by ERP vendors to licence their software.

Additionally, some vendors allow customers to flex the number of user licences up and down as required, whereas others will only do so at agreed intervals or when certain conditions are met.

Bear in mind that for global implementations, equivalent software licences may not be sold at the same price in all countries or regions.

The ownership structure of the legal entity in scope for an ERP solution can also affect software licensing costs. For example, some software vendors price licences for joint ventures differently if the legal entity being considered is not majority-owned by the customer purchasing the ERP software.

Finally, if SaaS is your preferred option, capital cost for software licences will disappear and be replaced by a monthly or quarterly subscription charge and accounted for as an operating expense.

Implementation

Implementation costs include all of the services provided by the software vendor or system integrator to implement the ERP solution. This includes analysis, design, configuration, testing, training and deployment services, as well as development costs for any customisations, interfaces, localisations and reports.

Implementation costs are often the biggest single external project cost element and are heavily dependent on the complexity of the project's functional, geographic and technical scope. This is where cost overruns are most likely to be incurred, so a robust Statement of Work (SOW) should be agreed with the implementation partner to mitigate that risk. The SOW should explicitly state the in-scope (and out-of-scope) deliverables, the phasing and deployment approach and the specific roles and responsibilities of the customer and the implementation partner.

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Note that a budgetary figure of 15-20% of the external implementation costs should be anticipated for travel and expenses, as the implementation partner's consultants will spend time on-site at your premises during the project.

Maintenance

Software vendors charge annual fees to cover software maintenance and licensing for future upgrades. In the case of on-premises or hosted solutions, maintenance fees are calculated as a percentage of the perpetual licence cost and are usually incurred from the date of purchase, so they need to be included in both the project and ongoing costs. With SaaS solutions, software maintenance is included in the recurring subscription fees mentioned above.

> Internal Project Costs

Internal Project Team

The largest contributor to internal ERP project costs is typically the labour cost of internal team members. In some organisations this cost is not considered, the argument being that the salaries of internal team members would be paid anyway, irrespective of the project. Conversely, other organisations factor in any and all time spent on the project by internal resources, whether or not they are a core member of the project team. For example, all users will require training, and the time they spend at this could be considered a project expense.

The most common approach is that the labour cost of the core project team members is included. Full costs are applied for fully-dedicated resources, whereas costs are calculated on a pro-rata basis for part-time members of the team. It may also be necessary to supplement the internal team with additional contract resources. For example:

- ▶ **it may be necessary to temporarily back-fill Business-as-Usual (BAU) roles in the organisation that have been vacated by project team members.** In this case, either the cost of the replacement resources or the cost of the project team member can be used;

- ▶ **it may be necessary to bring in external expertise where this does not already exist in the organisation,** such as a contract Project Manager, Business Change Manager and master data specialist.

While the resources in the two examples above are technically external to the organisation, they are categorised as 'internal' project costs because they are incurred in building and maintaining the internal project team, as distinct from the vendor costs described previously.

Other Internal Costs

Other internal costs might include travel expenses for the internal team, rental of office space and equipment and the cost of software tools for project management, documentation management and collaboration. Some organisations also include bonuses for ERP project team members, payable if the project is delivered successfully.

Overall, the main determinants of internal project cost are the project organisational structure, the quality and availability of internal resources and the duration of the project.

> Ongoing Costs

Several recurring ERP costs become applicable following project completion. These, taken with the project implementation costs set out in section 3 above, make up the full ERP TCO. As before, we can distinguish between external and internal ongoing costs, as described below.

> External Ongoing Costs

Infrastructure

Recurring infrastructure costs can include maintenance and technical support for hardware and network devices, as well as telecoms charges if the ERP system is to operate across multiple sites. If the ERP strategy dictates that the system will be hosted off-site, there will also be a recurring hosting charge for rental of rack space and, potentially, management of hardware, database and operating system software.

If a SaaS model is adopted, the hosting costs will be included in the recurring SaaS subscription fees, as outlined below.

Software Subscriptions (SaaS)

Where a SaaS-based ERP solution has been implemented, ongoing per-user subscription fees are charged by the software vendor on a monthly or quarterly basis. These fees include software licensing, maintenance and hosting of the software as part of a managed service.

SaaS solutions avoid the substantial capital outlay for purchase of perpetual software licences during project implementation, but they typically result in higher ongoing operational costs to cover these software subscriptions.

Maintenance & Support

In addition to annual maintenance costs, outlined previously, software vendors and support organisations charge additional fees to cover helpdesk and enhanced support. Vendors typically offer multiple levels of optional cover to suit the customer's needs and internal support capabilities.

Upgrades

While the annual maintenance charge covers the software licence component of upgrades, it does not include the ERP vendor's labour costs. Factors that influence this cost include the frequency and complexity of software upgrades, the amount of re-training likely to be required, the daily rate charged by the ERP vendor and, crucially, the number and complexity of customisations, interfaces and localisations in the original implementation. The cost of regression testing should also be considered (i.e. testing of existing interfaces and previous developments to ensure the latest ERP updates have no unexpected impacts).

Note that customers effectively own any customisations that have been developed for them, and it is their responsibility to ensure those customisations have been tested prior to the roll-out of ERP upgrades. However, software vendors will support, test and upgrade customisations for an additional fee. This point is particularly important for multi-tenant SaaS solutions, as you may not have the ability to opt out of ERP upgrades or influence their timing.

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Enhancements

Most ERP implementation need to be modified or enhanced over time, in response to organisations' evolving business requirements. The initial ERP go-live should mark the beginning of the 'Optimisation' phase of the ERP lifecycle. Subsequent enhancements might include development of new reports, reconfiguration of some parts of the system, development of new interfaces or even customisations.

The amount of system enhancement is generally dependent on the completeness of the initial

implementation, the degree of change in the business environment and the functional and technical flexibility of the solution to be modified. Multi-tenant SaaS solutions, for example, tend to be more suited to configuration and 'personalisation' rather than true customisation, as doing so can affect the upgrade path of the solution.

The cost of ERP enhancements depends on the depth of functionality offered by the ERP system and the amount of internal resource available with the skills to do the work. Even where there is a well-resourced internal team, vendor input may still be required.

> Internal Ongoing Costs

The effort to support a new ERP solution requires setup of new processes and teams to provide the necessary level of service to the business. Go-live marks the transition from project-mode to those new ways of working. Usually, some members of the core project team return to the business, whereas others join new teams to provide ongoing solution support and deliver upgrades and enhancements.

IT Service Management & Master Data Management

Internal support teams may include roles such as a helpdesk manager and helpdesk agents, to own and manage ERP-related incidents, problems and service requests, as well as business analysts to act as the bridge between business and IT teams. Business analysts might identify and scope new projects, for example, understand and interpret business changes, and deliver reports and Business Intelligence outputs. Master data management and governance resources are also required, to ensure the ongoing integrity and consistency of data within the ERP system and across the organisation.

Regardless of the scale of the enterprise, IT service management and master data management processes should always be considered. Master data management, in particular, is an area that is often underestimated. In smaller organisations, some of these roles may be carried out by a single person.

Other Technical Resources

In addition to the support resources just mentioned, there are internal labour costs associated with the infrastructure required to run the ERP system, including network administration and technical support resources. While, typically, such resources are not fully dedicated to the ERP system, a proportion of their cost should be factored into TCO calculations.

Software developers, software testers and database administrators may also be required, particularly where an on-premises (or non-SaaS) solution is deployed, and where the decision has been made to keep these skills in-house.

Ultimately, hosting strategy has a significant bearing on internal costs. If a decision is made to host the ERP system externally, with an organisation that can provide full hardware, infrastructure and ERP system support, internal support costs will be minimal. However, there may be little difference in TCO, as costs are simply re-allocated from internal labour to outsourced services.

> Conclusion

There are numerous factors that contribute to ERP project cost and TCO, many of which are inter-related. Determining these costs is not a straightforward task, so basic cost surveys and benchmarks should be treated with caution.

The most accurate way to estimate ERP costs is to carry out a detailed project scoping exercise, which should be led by someone with knowledge of and experience in ERP strategy, selection and implementation. This takes time and may require external expertise, but it will ensure that your cost estimates and assumptions are complete and realistic.



To find out more about ERP budgeting, check out Lumenia's 'Budgeting for ERP' whitepaper or contact us to discuss your needs. All of our whitepapers and reports are available for download:

www.lumeniaconsulting.com/insights

Lumenia Consulting is a leading independent ERP consulting organisation and is not aligned with any ERP or other vendor of business software.

We provide objective advice and experienced project resources to organisations that are planning to upgrade or change their ERP systems. Specifically, we provide services in the following areas:

- ▶ ERP systems strategy
- ▶ ERP business case development
- ▶ Business process transformation
- ▶ ERP selection
- ▶ ERP readiness
- ▶ ERP deployment services
- ▶ ERP business change management

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