



Shrewd Investing in IT Assets through IT Governance

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The current economic slowdown is making technology dollars dearer. A national survey conducted by the Public Technology Institute shows that 38 percent of local government information technology budgets will decrease over the next two years.¹ Even for those whose budgets are not decreasing, there will likely be increased pressure to show more rapid and tangible returns on the dollars spent. However, there is no silver-bullet technology that fits any budget and unfailingly pays back the investment. The key to getting value from technology investments is information technology (IT) governance. IT governance defines how planning, investment, and prioritization decisions will be made and who will make them. IT governance also establishes the accountability framework needed to encourage desirable behavior in the use of IT — namely those behaviors that are necessary to realize value from IT investments.²

The Importance of IT Governance

The Center for Information Systems Research has found that private organizations with superior IT governance performance generate a return on investment up to 40 percent greater than those without.*

* Peter Weill and Jeanne W. Ross, *IT Governance: How Top Performers Manage IT Decision Rights for Superior Results* (Boston, MA: Harvard Business School Press, 2004).

IT governance helps an organization maximize the value of its IT investments by engaging stakeholders from across the organization in the decision-making and accountability processes around IT assets. Given the significant amount of resources spent on IT and the wide array of operational areas across which this spending occurs, a robust governance structure is important for: 1) creating consensus on the broader, strategic business objectives technology investments should fulfill; 2) identifying the criteria for evaluating technology investments; 3) directing spending toward the highest priority areas; 4) evaluating the results of technology spending and providing accountability for those results; and 5) realizing economies of scale and synergies from IT spending across the organization.

GOVERNANCE STRUCTURE

Successful governance does not occur spontaneously; rather, it is designed and implemented consciously. IT gover-

nance structures should be used to address a number of issues relative to the effective use of technology in the organization, but this article focuses on its role in project planning, evaluation, and resource allocation in particular. Critical design features characteristic of good governance in this role are described below.

Joint Decision Making. Good IT governance in the public sector is characterized by joint decision making between IT and business professionals.³ IT professionals provide insight into technical issues such as consistency of new projects with past investments and project management techniques. Input from business professionals ensures that IT investments align with business needs; in fact, business needs should always be the focal point of technology investments. When both groups make decisions together, they both own the resource allocation process. Formal committee structures are a particularly useful forum for joint decision making.

This is not to suggest that IT professionals have no useful insight into business issues or vice-versa. In fact, systems analysts and project managers with significant experience in one or more business areas can be key contributors to the decision-making process. Likewise, business professionals with some technical knowledge, or insight from other jurisdictions, may be able to help bridge any gaps between IT and business professionals. This kind of synergy is crucial to good IT governance.

Involvement of Top Decision Makers. The involvement of top executives such as the chief executive officer (CEO), chief investment officer (CIO), and chief finance officer (CFO) legitimize and provide momentum for the governance structure. Their involvement is most crucial when final funding decisions are being made.

Standard Evaluation Method. Good IT governance in the public sector is also characterized by communication.⁴ When projects are being planned and evaluated, everyone involved should have a shared understanding of the standards by which projects will be judged. Therefore, IT governance should include explicitly defined criteria that decision makers will use to evaluate projects. Successful governance structures recognize that the evaluation method should be broadly based on a number of factors, not simply cost and resources. Other factors that influence overall value might include policy mandates, integration with other projects, or the ability to provide long-term support.

Screen for Technical Considerations. The project planning and evaluation process should be used to screen proposed projects for technical considerations such as conformance with technology standards and to identify projects proposed by different business units that present possible synergies. This design feature can be especially valuable in organizations that tend toward decentralization in their IT decision making, since they have greater potential for duplicative or overlapping investments.

Technical considerations should be applied to all proposed projects, not just the ones that feature new or transformative technologies. As governments seek incremental improvements using current investments, it is tempting to skip technical evaluations of software upgrades or expansion of existing platforms, for example, since there is rarely any new technology involved. Good governance structures recognize that these projects can cause significant downstream effects and should be evaluated.

Formal Business Case Made. The business case is a vital communication vehicle for the project planning and evaluation process. The business case describes the rationale for the project, including anticipated cost and benefits. The business case is also used to form the foundation for good project management (should the project be approved). The business case also reminds the organization of the project's stated goals during the implementation phase, and it provides the basis for evaluating results after the project is completed.

The business unit requesting the project should always make the business case, and its primary authors should usually be business personnel. This helps ensure that the proposed projects will have a strong business rationale and focus. Regardless, technical assistance should be made available to business case authors so that they can address issues of technical feasibility early on.

Partnership with the Finance Office. The finance office should be closely involved in IT governance during project planning and evaluation so the finance office is kept apprised of likely spending requests for technology, along with the rationale for those requests. This partnership allows the budget officer to be more effective in directing funding to the

most valuable projects, often by promoting these projects with key decision makers before funding decisions are made. This contrasts with a more disconnected model, where a set amount of funding may be allocated to "technology" spending without regard to the potential payback of the proposed project portfolio.

IT Strategic Plan. An IT strategic plan sets forth a multi-year direction for development of IT capabilities, including spending on new IT capital projects. An IT strategic plan starts by identifying the most important business goals of the government, along with opportunities for using technology to help achieve those goals. Strategies are then developed to take advantage of the opportunities. Typically, some gap will exist between the organization's current capabilities and the capabilities required by the strategies (e.g., the strategy requires the use of a technology the organization does not currently possess). This gap suggests prioritization of certain technology investments. IT strategic plans typically cover time periods from 18 months to five years and cover both infrastructure and business application investments.

There is no silver-bullet technology that fits any budget and unfailingly pays back the investment. The key to getting value from technology investments is IT governance.

IT GOVERNANCE AT WORK

City of Brookfield, Wisconsin. The City of Brookfield is a community of 40,000 people, located 13 miles west of downtown Milwaukee. The city has a \$32 million general fund budget and a \$68 million city-wide budget, and it operates an IT department comprising a department head and four staff members. Brookfield provides a good example of how IT governance and resource allocation decisions can work in a smaller organization with limited IT staff.

The city has an IT steering committee that serves as its main strategic governance body. The committee consists of the director of administration, director of finance, director of information technology, and three department heads appointed by the mayor. The IT steering committee is responsible for establishing spending priorities, coordinating resources, and monitoring project progress.

One of the committee's most important roles is to review and approve significant proposed IT projects to help the city



allocate its IT resources. The steering committee reviews projects that cost more than \$10,000, require more than 160 person-hours to implement, or are otherwise deemed important enough by the IT director to merit committee review. Any department can submit projects for consideration, first creating a “concept plan.” The concept plan provides information concerning the purpose, scope, and estimated cost/benefit of the project; it is used to determine if the submitter should move forward and prepare more detailed information. Submitters are able to access assistance from IT personnel at any point during the project submittal process, including during the concept plan’s development. In fact, the city’s five IT staff personnel each emphasize different functions of city business, so they are able to relate to departmental business and provide more valuable assistance in formulating new IT projects. Once prepared, a concept plan is conveyed to the IT director, who provides an initial review for technical feasibility, and it is then considered by the IT steering committee.

If the plan is approved, the requestor creates a “detailed project plan” that elaborates on the concept plan, including much more detailed cost and scheduling information, as well as a description of a methodology for how project benefits will be measured. Once the detailed project plan is approved by the IT steering committee, the project is included in the city’s overall IT project plan and is moved forward to the next stage of budgetary approval — the executive budget. The mayor, with support from the CFO, reviews budgetary requests from across the organization to fashion a complete proposed budget for council consideration. The CFO’s involvement on the IT steering committee allows the CFO to provide thorough advice to the mayor on IT spending priorities, which helps the city size its annual IT budget commensurately with the potential value of that year’s proposed projects.

In addition to its annual spending plan for technology, Brookfield maintains a long-term perspective on spending through its capital improvement plan (CIP) and a separate ten-year IT strategic plan. The IT strategic plan is focused primarily on anticipating the need to replace or refresh existing technology applications and infrastructure, such as telephone systems or the financial accounting information system. Development of the IT strategic plan is primarily based on estimates of the remaining useful life of existing technology investments. However, if a long-term need for an entirely new technology is identified during the project planning and evaluation process, the city may include the project in its IT strategic plan or its capital improvement plan. Projects that can be accommodated within the city’s anticipated, regular stream of technology funding are typically included in the IT strategic plan, while projects that will likely require new sources of funding (e.g., borrowing) are typically included in the CIP.

Brookfield’s practices meet the key design features for IT governance as follows:

- *Joint Decision Making.* The IT steering committee includes both IT and business executives.
- *Involvement of Top Decision Makers.* The IT steering committee involves the CFO, director of administration, IT director, and other department heads.
- *Standard Evaluation Method.* The IT steering committee’s publicly available policies and procedures describe the criteria the committee uses to evaluate projects.⁵
- *Screen for Technical Considerations.* The IT director reviews the concept plans for technical considerations before they are forwarded to the steering committee.
- *Formal Business Case Made.* The concept plan and detailed project plan constitute a business case, and IT staff is available to assist with authorship.
- *Partnership with the Budget Office.* The intimate involvement of the CFO on the IT steering committee provides a direct linkage between IT governance and the mayor’s budget formulation.
- *IT Strategic Plan.* Brookfield maintains an IT strategic plan and capital improvement plan to maintain a longer-term perspective on technology spending.

Oakland County, Michigan. Oakland County, Michigan, is located 20 miles north of downtown Detroit and serves a population of about 1.2 million people. In 2007, Oakland County’s general fund budget was about \$490 million, and the total

budget for all funds was about \$822 million. Oakland County makes extensive use of IT, not only for its own operations but also as the provider of IT services for a number of jurisdictions located within the county's boundaries. The Center for Digital Government has recognized Oakland for its progressive use of IT, designating it as a top-ten digital county. Oakland County presents an interesting case because its governance structure is designed to accomplish several goals relating to IT use, of which project prioritization and funding allocation is only one.

Oakland County's governance structure revolves around leadership groups,⁶ which are committees of users organized around different functional areas. For example, there are leadership groups organized around courts and law enforcement, finance and administration, and land management services. The leadership groups are constituted and headed by representatives from business departments, but they also include representatives from IT to help resolve any technical issues that might surface during the groups' deliberations. IT involvement at the planning stage also helps the leadership groups devise projects that are technically viable from their inception and coordinated with other IT activities. Also, Oakland County's IT operations are highly centralized, yet the Oakland County model still is able to incorporate a high degree of business input through the leadership groups. Oakland officials believe this is one of the reasons the county has been able to maintain centralization of IT operations — business people feel they have a meaningful influence over the way IT services are administered.

Oakland County's process for prioritizing and approving projects is rolled into a two-year IT master planning process. The process begins with a project sponsor — typically a business person within the leadership group — submitting a project request to a leadership group via a "scope and approach" document and "return on investment (ROI)" spreadsheet. The project scope and approach document provides a consistent basis for all projects to be evaluated and controlled across the county organization. It includes a project goal, business objective(s), major items to be delivered, approach, and benefits such as cost savings, cost avoidance, and intangibles. It also details staffing, facilities, technical, and other assumptions. The ROI spreadsheet qualifies the anticipated benefits of a successful project. The ROI analysis is used to ensure that all projects comply with the county's six-year payback guideline for IT projects.

Then, based on a number of pre-defined evaluation criteria, the leadership group reviews the proposed project. The primary criteria are the ROI analysis and the extent to which the project offers financial benefits. Beyond ROI, a number of other, more qualitative criteria are taken into account. These relate to the extent to which the project fulfills government mandates, has certain funding advantages (e.g., is grant funded), has beneficial effects for a wide range of stakeholders, entails different types of risk, and improves services.

If the leadership group approves the project, it is considered "authorized for sizing." At this point, the leadership group's IT representative works with the project sponsor to elaborate on the scope and approach documents and ROI analysis. This step also gives IT the opportunity to officially screen the project for technical feasibility and conformance with the county's technical architecture direction and standards — however, some or all of this screening may have occurred in advance, as the project sponsor always has access to an IT representative for advice on technical standards.

Based on the more detailed information available, each leadership group uses a consensus-based approach to assign

Portfolio Management in Oakland County

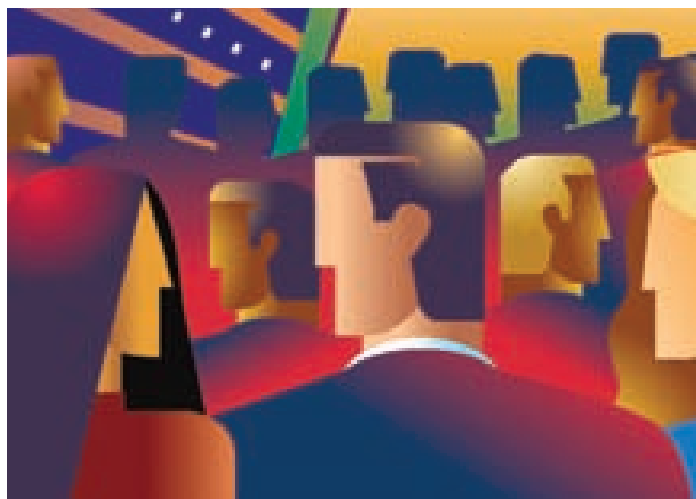
A distinguishing characteristic of Oakland County's governance structure is that leadership groups have a prominent role in managing and overseeing the ongoing success of the IT application and project portfolio within the group's purview. Each group is assigned a defined pool of person-hours from the IT department from which all IT services are drawn. This pool is divided into activities such as maintenance of existing applications, enhancements and new development, and customer support. Each group is responsible for managing its pool of hours and must consider how new projects might affect the pool. For example, if a new technology will require a large, ongoing maintenance commitment from central IT, the group must consider what older technologies in its portfolio could be decommissioned or reduced to make room for the new technology. This approach causes the county to give more consideration to the total ongoing costs of new technologies and provides greater incentive to divest itself of older, less productive technologies when new ones are added, rather than simply layering the new on top of the old.

priorities to the portfolio of projects under consideration. The leadership group's priorities are then forwarded to the IT department to be incorporated into a countywide IT master plan.

During the master planning process, IT reviews all of the projects from the county's five leadership groups. This gives IT the opportunity to identify potential project synergies across leadership groups and to assess projects consistently across all departments. At this point, the IT steering committee allocates funding and resources, based on the total funding allocated to the central IT department each year (which tends to remain relatively constant). The funding decision is made according to which projects most benefit the county overall, while taking into account the priorities assigned by the individual leadership groups.

There are two notable items about the master planning process. First, the IT steering committee consists of the CIO and staff from the IT department. While it may seem that funding and resource decisions are being made primarily by "technology" staff, the reality is quite different. The CIO position in Oakland County is a deputy county executive whose responsibilities include business process improvement initiatives in all areas of county business. Also, the county's IT department is committed to remaining customer-oriented and not creating a divide between itself and operating departments. This attitude has resulted in a history of successful interactions between IT and the user departments, creating a high degree of trust between central IT and the users. This means that the leadership groups trust that the master plan will reflect a resource distribution that is best for the county. The second notable item is that IT has a relatively fixed amount of resources to allocate — the pool does not vary much from year to year. If the portfolio of proposed projects has especially high potential value in a given year, then the leadership groups must secure additional funding.

After the master plan has been formulated, it goes back to the leadership groups for review and approval. If a leadership group is not satisfied with the funding allocation for its projects, the group has a few options. It could decide to reprioritize its projects to move funding from one project to another. Another option is for the leadership group to approach the county board for additional funding. County officials feel that it is important that the leadership groups, rather than central IT, take the lead role in any appeal for additional funding, as the leadership groups are ultimately responsible for a pro-



ject's success. A final, but rarely used, option would be for the leadership group to divest of a technology in its existing portfolio to free up resources for a new technology (see "Portfolio Management in Oakland County" sidebar for background information). Normally, the ROI analysis for a project would take planned divestitures into account, but it could be possible for additional divestitures to be identified as resources for a new project. Projects commence after the master plan has been approved.

In addition to its IT master plan, Oakland County also accounts for longer-range technology needs in its capital improvement plan. While the IT master plan is used primarily to fund new business applications, the capital plan is oriented more toward upgrades of existing technology. For example, the capital improvement plan includes major upgrades to the county's financial system and major hardware replacement programs. The IT department works with user departments to identify requirements for infrastructure and application upgrades that will be needed over a multiyear time period. The IT department then develops cost estimates and works with the department of management and budget to schedule these items into the capital improvement plan.

Oakland County's practices meet the key design features for IT governance as follows:

- *Joint Decision Making.* The leadership groups involve stakeholders from across county government, are responsible for prioritizing funding requests, and have a high level of involvement in ongoing monitoring.
- *Involvement of Top Decision Makers.* Executives from throughout the county participate in the leadership groups. Leadership groups are chaired by top leadership

positions such as the sheriff and treasurer. The CIO, a deputy county executive position, is involved in the IT steering committee.

- *Standard Evaluation Method.* The county has a standardized ROI method, which is the primary means for project evaluation. The county has also published a set of qualitative criteria that serve as a secondary evaluation tool.
- *Screen for Technical Considerations.* The IT representatives to each leadership group perform a first screening during the project sizing step. After projects have been prioritized, the IT master planning step provides a second screening of projects and also identifies opportunities for countywide synergies.
- *Formal Business Case Made.* The preliminary scope and approach, ROI analysis, and sizing estimate constitute a business case. Each leadership group has a relationship manager with the IT department, and that person is available to assist with technical issues.
- *Partnership with the Budget Office.* The budget director participates directly in one of the leadership groups and works closely with IT to understand annual resource requirements as expressed via the master plan. While this will not result in a change to the total allocation made to IT each year, it provides for a smoother process if a leadership group wishes to make an appeal to the county board for additional funding.
- *IT Strategic Plan.* The county's two-year IT master plan represents a prioritized spending plan of the technology investments deemed to be of greatest potential value to the county. In addition to the master plan, the county uses its capital improvement plan to provide a longer-term perspective on significant upgrade needs for software and infrastructure.

CONCLUSION

Effective IT governance systems have much in common; however, three primary conclusions can be drawn from the Brookfield and Oakland County case studies. First, each agency stresses the importance of a fundamentally sound and collaborative relationship between IT and its user departments. The IT department must consider the user departments as customers and dedicate itself to working in partnership with them. Only in this environment can collaborative decision making on IT asset use and resource allocation succeed.

The second point is the prominence of the business case in the resource allocation process. The business case serves as the locus for planning because that is where a project's exponents describe the business rationale for the project, its goals, costs and benefits, estimated timeline, and project risks. The business case serves as the basis for project evaluation, as it allows decision makers to weigh IT investment opportunities against available resources. The business case is a central element in both case studies and serves as the basis for discussion about a project throughout the project prioritization and approval process. Finally, IT governance should bring together executives from IT, operations, and finance and budgeting into a collaborative process to identify the technology investments that are most aligned with the organization's strategic objectives and that present the best return on investment. Collaboration and involvement of these key players in investment decision making will lead to their cooperation and involvement during the technology implementation.

The concept of doing more with less will take on all new meaning over the next few years. Technological automation will be crucial in meeting the challenge. Effective IT governance, incorporating the design features described in this article, is vital to creating an investment decision-making process that recognizes the IT projects with the greatest potential value, funds them accordingly, and involves the key players that will be critical participants in the technology's implementation. ■

Notes

1. The Public Technology Institute, "State of City and County IT 2008 National Survey," <http://www.pti.org/index.php/ptiee1/more/420/>.
2. Peter Weill and Jeanne W. Ross, *IT Governance: How Top Performers Manage IT Decision Rights for Superior Results* (Boston, MA: Harvard Business School Press, 2004).
3. Ibid.
4. Ibid.
5. Criteria include: project requests in relation to other project requests; project alignment with the City of Brookfield's strategic objectives; urgency and scope of identified projects; available funding and resources; return on investment calculations; non-monetary benefits derived from implementing the solution; risk; necessity, opportunity and desirability; impact on the City of Brookfield.
6. Oakland County's leadership groups are akin to "communities of interest," a term used in similar models of IT governance.

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