

Establishing good IT governance in the public sector

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In an era when IT has become indispensable for enabling governments to provide better services to the public more effectively, efficiently, and sustainably, IT governance has come to the forefront as a critical capability for public-sector leaders seeking to create and capture IT value.

While the basic design of IT governance in any given instance will always depend on the enterprise's overall strategy (the long-standing tenet that structure follows strategy still holds),¹ a subset of proven IT governance principles is particularly essential for any well-functioning transformational program in the public sector. This is because public-sector IT leaders and projects are often complicated by more extensive requirements and goals than occur in the private sector, including not only economic but political objectives. In our experience, proper IT governance in the public sector involves five value-driving dimensions, building on a supply and demand organizational model for the IT department that mirrors the enterprise's internal and external IT markets (Exhibit 1) and a proven

framework (which is described elsewhere).² These five dimensions are:

- 1. The leadership mandate.** This refers to the authority accorded an IT leader (whether a CIO, CTO, COO, or director of IT) and the scope of his mandate throughout the organization. This will range from stimulating IT demand (by defining, greenlighting, and managing the project portfolio, representing the business's strategic interests, and, sometimes, managing outside providers) to matching that demand to IT supply (for example, technical design, application development, application testing, and deployment).

¹ Alfred Chandler: *Strategy and Structure*, Boston:, The MIT Press, 1962.

² Paul Willmott et al: *Managing IT for scale, speed and innovation*, McKinsey on IT, Number 9, 2006, p. 17.

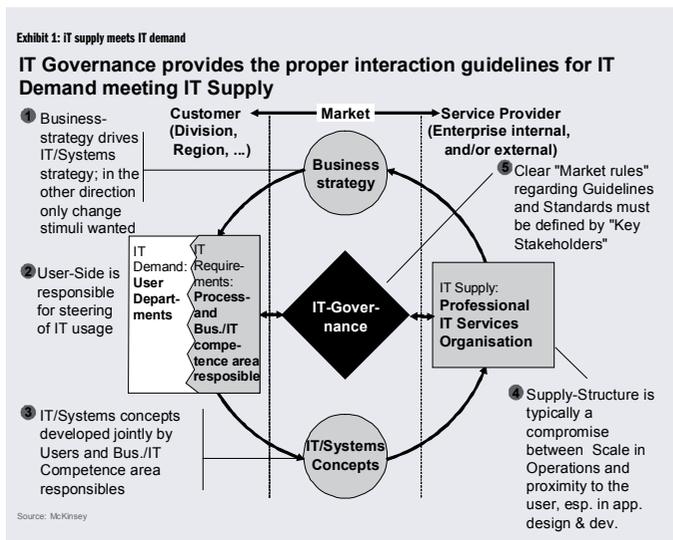
2. **The organizational structure.** These are the structural components of the IT organization, which should balance the quest for IT scale advantages (achieved through centralization and rational reporting relationships) with the closeness to the users that results in usability and project success.
3. **The decision-making processes.** These are the ways by which the various IT demands that compose the project portfolio are identified, prioritized, and met by IT supply. It also prescribes how users and providers of IT services will interact.
4. **The mindsets and skills.** These are the attitudes and capabilities needed in order to carry out IT management tasks.
5. **Performance metrics and incentives.** It is axiomatic that management is impossible without measurement. Metrics must be defined to allow performance to be assessed and rewarded.

Depending on how far the organization has progressed on its transformational journey, different dimensions may rise to the top of

the management agenda or recede in importance. However, the first three dimensions—the leadership mandate, the organizational structure, and the decision-making processes—must be in place before the organization’s focus can shift to the last two people-centric ones that are fundamental to every change management effort. We will therefore focus primarily on the first three dimensions, beginning with the importance of the leadership mandate.

1. THE LEADERSHIP MANDATE AS THE FOUNDATION FOR TRANSFORMATIONAL CHANGE

Without a clear, top-level mandate to lead and to manage both the IT function and the transformational program, any major public-sector IT undertaking is doomed to failure. Lacking that top-level mandate, public-sector projects default to consensus-driven leadership, a structure and style that inevitably makes decisions based on what’s safe and avoids creating problems. This is even more of an issue within the IT department, where avoiding and mitigating risks is normally a deliberate strategy designed to ensure system availability and guarantee data integrity and security. But this strategy is counterproductive in a situation where change is desired and needed. A chief information officer (CIO) or a hierarchical equivalent needs to be put in place as early as possible in such transformational undertakings, and this person must be able to operate at the highest managerial level. In other words, the IT leader must be slotted into a senior management position, have enough statutory power to



be respected as a peer of any other senior manager, and have sufficient authority to determine which directions and actions should be taken to assure the transformational impact of IT on the organization. In short, the IT leader must be able to control IT demand as well as IT supply.

An institution's willingness to accord this kind of clout to the IT leader can be construed as the acid test for how serious it is about achieving real change. Ideally, the CIO will have the rank of a permanent secretary or its equivalent, reporting directly to the CEO (prime minister, governor, etc.). This kind of position goes a long way toward clarifying and cementing the CIO's leadership role throughout the organization and ensuring that the CEO and the whole senior management team will provide the CIO with their strong backing, a key prerequisite for any successful IT-enabled transformation program in the public sector.

Leadership is the most important factor in determining whether a public-sector organization can succeed in achieving transformational change. Leading first means demonstrating the will to lead,³ and then building up a management team of followers who are willing to internalize the leader's goals and assume responsibility for making the discretionary decisions that will lead to the realization of those goals.

Managing also means finding and appointing a person who will demonstrate the will to manage.⁴ This should be an individual at or near the top of the organizational hierarchy who is able to act as soon as he has been reliably informed of the facts; someone who assumes individual

responsibility for his decisions and actions rather than using committees to collectivize responsibility; someone who takes the reins instead of merely adding a signature to a circulating memo. Such virtues are commensurate with the meaning of the word manager.⁵

In Great Britain, for example, the public sector has in many cases done away with the practice of diluting responsibility by spreading it around; all critical projects have a single individual at the top who bears personal responsibility for the project's success. Gone are the days when it was possible for a leader to hide behind a bureaucratic hedge of divided responsibilities or to delegate that responsibility to subordinate working groups. Again, that leader can only be successful if he or she receives full backing at the top political level.

Declaring an issue to be a top management concern, and leaving it at that, is not sufficient to ensure broad, cross-department cooperation in the public sector, where there are many department heads who, generally speaking, cannot tell other departments heads what to do. And yet, the need for top management attention is in most cases more important in the public sector than it is in the private, as government committees on the third or fourth level are generally unable to reach any decision that is anything more than a compromise consisting of unreconciled, competing requirements and demands. This kind of bundling of demand is fatal for IT projects and for transformational change.

Examples from IT-intensive private industries support the need for

³ See Marvin Bower, *The Will to Lead: Running a Business with a Network of Leaders*, Boston: HBS Press, 1997.

⁴ See Marvin Bower, *The Will to Manage: Corporate Success Through Programmed Management*, New York: McGraw-Hill, 1966, reprint 1987.

⁵ Management as a function or as an institution is the pursuit of efficiency, systematization, professionalization, effective steering, and efficient and economical action. Correspondingly, it is the duty of a manager to plan, implement, control, and adjust measures for the benefit of the organization or company and all stakeholders using the resources at his or her disposal.

the CIO to play an unquestioned leadership role. In banks and insurance companies, the CIO often is a member of the executive board or is represented on the board by the chief operating officer (COO). At telecommunications providers, too, the CIO operates in at least the second line of command, and sometimes at the board level. In the public sector, where the role of IT is no less important, there is no reason why matters should be any different. The best possible IT manager, with the greatest possible scope of influence, should be placed high in the command structure if a powerful and lean administrative process is to be achieved. Authority and influence are required in order to communicate the benefits of IT to powerful managers in government agencies.⁶

The role of the CIO is typically to implement the business's strategy, generally with a mix of scale-driven efficiencies, expertise-based competitive differentiations, and IT-inspired innovations. However, if the business strategy is unclear (which is often the case in government entities that continuously change direction and reset priorities according to unpredictable events, shifting public demands, and legislative whims), the CIO's leadership will suffer unless he or she has enough institutional clout to set strategy and control IT demand in order to take advantage of technology-driven opportunities. But more often, public-sector CIOs find themselves distanced from their department's core activities and end up focusing on little more than running IT efficiently. While this is important, the true impact of transformational IT programs cannot be realized in this type of environment. The CIO must be given a clear mandate to lead change.

Would it be possible to have a "Chief Information Office," with several officers instead of just one CIO, an organizational model that would reflect the complex structure of many government agencies? In our experience, shared or divided responsibilities in any environment where clear guidance and fast decisions are required leads to mixed results. We therefore would advise *against* establishing an assembly of officers with equal or shared responsibilities. Departmental, divisional, and regional CIOs are still needed, but any IT committee should always be chaired or represented by a top-level CIO with the ultimate say.

2. ORGANIZATION STRUCTURE AS A BALANCING ACT

The design of any IT organization—including the central and subordinate CIOs and key IT functions such as architecture, portfolio management, planning and budgeting, applications development, and infrastructure services—must reflect a clear separation of IT demand from IT supply. Unfortunately, in many cases there is no such separation, which tends to turn IT into a self-regarding organization with no awareness or understanding of the end user, the customer, or the business. By building the IT department along the lines suggested by the different character of IT demand and IT supply, IT organizations can achieve increased agility and efficiency.

In this model, which has been implemented successfully in the German federal state of Hesse, the demand side of IT has a broad set of responsibilities, including the coordination of IT service requests

⁶ See also, by way of analogy, M. Broadbent/E.S. Kitzis, *The New CIO Leader – Setting the Agenda and Delivering Results*, Boston: Gartner Inc., HBS Press, 2005.

made by the business or, in the public sector, the agency. Customer relationship managers have to fully understand the needs of the requesting organization and drive their fulfillment effectively. Creating a demand management function within the IT organization that is separate from the supply function has several advantages:

- It provides a clearer understanding of the business's or agency's needs (because that understanding is its specific charge) that can then be leveraged to design and develop more specific and targeted solutions.
- Funneling the coordination of requests through a central entity makes it possible to prioritize, plan, and standardize solutions rather than chasing after competing constituencies trying to develop applications to fulfill every perceived business need.
- The grouping of requests helps to achieve economies of scale (pooling of functions, consolidation of service centers) and avoids costly duplication of efforts.
- With an IT demand group dedicated to the business, business requests can be better understood, thereby minimizing the development of suboptimal solutions and increasing both project return on investment and customer satisfaction.
- When IT budget control resides within the demand side, it can implement transparent chargeback mechanisms that will encourage users to become more cost-conscious.

The ultimate responsibility for IT demand rests with the user managers

who request IT support for business initiatives. These users are often represented on the IT demand side by BIOs (business information officers), who may actually report (either dotted line or solid line) to the user department heads. The business users also may be working with more senior-level PIOs (process integration officers), who report directly to the CIO and bundle the demand for IT support for a class of requirements relating to a set of business process domains. Both the BIO and PIO positions serve as organizational vehicles to manage the user interface smoothly and to translate often abstract and unclear IT demand into specific IT requirements.

These IT requirements then form the basis for solid IT concepts that will either be contracted for with the IT supply side via RFPs (requests for proposal) if a new application is needed, or turned directly into an IT infrastructure operations support request or a fix to an existing application. Responsibility for IT supply is often bundled at two different functional levels under a head of application development (and maintenance) and a head of IT infrastructure services, both managing one or more organizational entities or sub-entities.

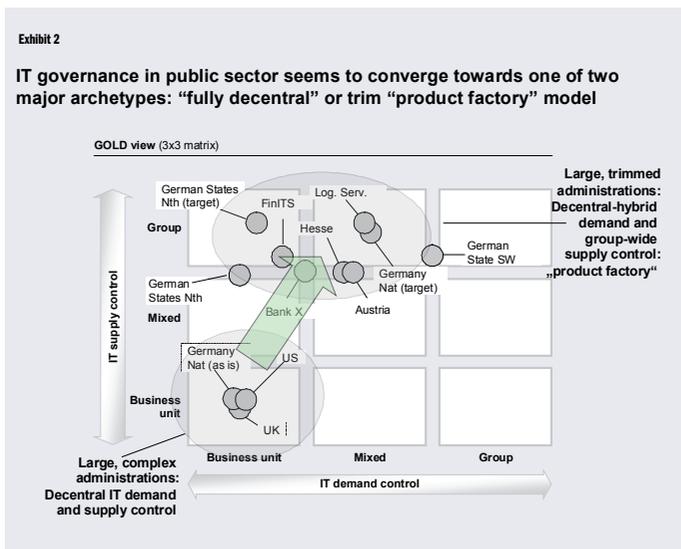
If the demand side of the IT organization is charged with funding, prioritizing, and interpreting the needs of the business and turning them into IT projects, supply management is responsible for meeting requests for IT services with the utmost speed and quality. Given the current trend toward migrating application development, maintenance, and infrastructure to utility-like service models such as software as a service (SaaS),

shared services centers (SSC), or IT outsourcing (ITO), IT organizations are not necessarily restricted by their own internal capacity or capability and can improve their focus and spend resources on solving business problems rather than technical ones. Nevertheless, government entities have to consider initiatives such as outsourcing carefully, as they may not be able to reap the full benefits either in cost or functionality. For example, the US Department of Defense (DoD) requires US citizenship for all contractors developing key IT solutions. Therefore, an offshore solution may not be feasible for the DoD and the skill sets available to it may be restricted.

Depending on the degree of centralization or decentralization of IT demand and supply, nine IT governance archetypes can be distinguished. In the public sector, clusters appear to form under two specific governance archetype models (GAM).

and IT architecture are determined by the individual business units (BUs) or administrative entities (AEs). In this model, IT supply is also decentralized, meaning that applications and infrastructure are delivered by the IT staff within the BUs and AEs.

GAM2. Large but streamlined administrations tend to increase the centralization of their IT demand governance. Responsibility for budgets, projects, and architecture is still divided between BUs and AEs, but IT supply is controlled centrally at the group level, resulting in a special product factory governance archetype model, wherein applications and infrastructure are delivered by an IT staff serving all the business units and administrative entities. This GAM2 has the potential to be much more efficient than other models, provided all other governance mechanisms are aligned. The streamlining exercise, however, can well be a multiyear transformation program.



GAM1. In large, complex agencies, IT demand is often decentralized. This means that the budgets, projects,

The state of South Dakota in the United States, for example, has structured its organization along the lines of a GAM2. The state’s CIO, whose agency is responsible for all government computers, telecommunications, and radio and public broadcasting, oversees IT finances, budgets, and projects at the group level. On the demand side, development teams are aligned with each other and maintain relationships with different government agencies (eg, Development Team A with the Department of Agriculture, Development Team B with the Department of Transportation). However, all development teams are governed under a central supply leadership.⁷

⁷ South Dakota Bureau of Information and Telecommunications – www.state.sd.us/bit

The choice of the IT governance archetype will greatly influence the design of the IT organizational structure and will help in evaluating tradeoffs. For example, an organization that has defined an innovation strategy may consider centralizing its IT innovation function because otherwise it may not have an adequate mass of developers and intellectual capital within the individual business units. Conversely, if a high level of IT IQ resides within a particular business unit, the innovation function might be more effectively embedded there. Thus, the design of the organizational structure always needs to align with the organization's strategic direction and its allocation of resources. As efficiency becomes a more critical factor, centralization or consolidation of control will become increasingly desirable, especially on the supply side.

The sheer size of government operations constitutes one of the greatest challenges in designing organizational structures in the public sector, especially on the federal level in countries like the United States, and India. Given the magnitude of a large country's geography and the challenge of providing IT services over great distances to many locations, leaders may choose to maintain a multi-center structure to reduce organizational complexity. Political factors may also play a part. Elected officials may prefer to keep application development and maintenance—and the jobs and local revenues they provide—in their own backyards rather than agreeing to colocate resources, which might lose them votes in their home districts. GAM2, on the other hand, can easily accommodate a multi-competence center topology on the

supply side, especially when they are governed by central leadership on the demand side. This approach is often implemented by large private multinational corporations, which typically place their follow-the-sun data and service centers in three regions (Americas, EMEA, and Asia Pacific). The five-dimensional governance model increases transparency around these design choices so that leaders are aware of the tradeoffs.

Finally, order and integrity in IT will always be needed, and IT staff functions that ensure this should be located at a central or group level to provide a critical mass of expertise. These functions most notably include IT architecture and standard setting, IT portfolio management, and IT budgeting, planning, and control,⁸ all of which need to be empowered properly.

3. DECISION-MAKING PROCESSES FOR SMOOTH INTERACTION

Even in the private sector, the decision-making processes affecting such functions as portfolio prioritization, investment decisions, and sourcing (the demand side of IT) are typically somewhat inefficient due to the difficulty of reaching consensus on the allocation of resources. This challenge is greater in the public sector as the diversity of the stakeholders and the complexity of their hierarchical and cross-agency relationships serve to confuse issues. Rather than imposing solutions based on economic or political requirements, decisions in the public sector are often reached by working to get buy-in from a host of people with individual agendas.

⁸ For further details, see Joe Stenzel, ed., *CIO Best Practices*, especially Chapter 2: "Architecture, Portfolio Management, Organizational Development: Integrated Foundations for Strategy Realization," Hoboken, New Jersey: Wiley, 2007. More helpful details on this also in: Detlev Hoch, Markus Klimmer, Peter Leukert: "Erfolgreiches IT-Management im öffentlichen Sektor. Managen statt verwalten" ["Successful IT Management in the Public Sector"], Gabler, Wiesbaden, 2005 (English transcript available via the authors).

Organizations such as MPS Scotland Yard use committees to ensure representation and transparency in making difficult policy and operational decisions.⁹ However, just having these committees and steering mechanisms is not enough. There are cases where senior executives agree to serve on committees but then do not attend meetings, or send lower-level assistants in their stead, making these committees largely ineffective when it comes to arriving at decisions that can be translated into action. These committees tend to lack the leadership mandate and senior-level attention that successful project management demands.

There are a few basic ground rules that can ensure that the interaction between IT demand and supply work smoothly. These are critical to the efficient functioning of the IT organization and its ability to provide value. Some of the IT staff functions mentioned above only work well when decision-making is channeled correctly to ensure, for example, the enforcement of meaningful standards. These rules can range from ways of monitoring compliance to penalizing noncompliance (for example, by deferring or canceling project funding). Linking compliance with standards to budget approval is actually one of the most effective and powerful swords of proper public-sector IT governance.¹⁰ Often, dedicated management committees, such as an architecture board, should be established to ensure that the standard-setting process is aligned to the organization's needs. Service-level agreements and procurement rules are also important to the smooth interaction of IT demand and supply.

When transitioning toward the desirable Governance Archetype

Model 2 (GAM2), the appropriate decision-making processes need to be in place within the BUs and hybrid entities on the demand side (for example, to ensure prioritization and standardization) in order to capture the benefits of a consolidated IT supply. Otherwise, there is the risk that the model may be weakened as IT supply tries to satisfy too many divergent demands. The federal state of Hesse, Germany, where suitable governance mechanisms are paired with a strong leadership mandate, can serve as an exemplar.

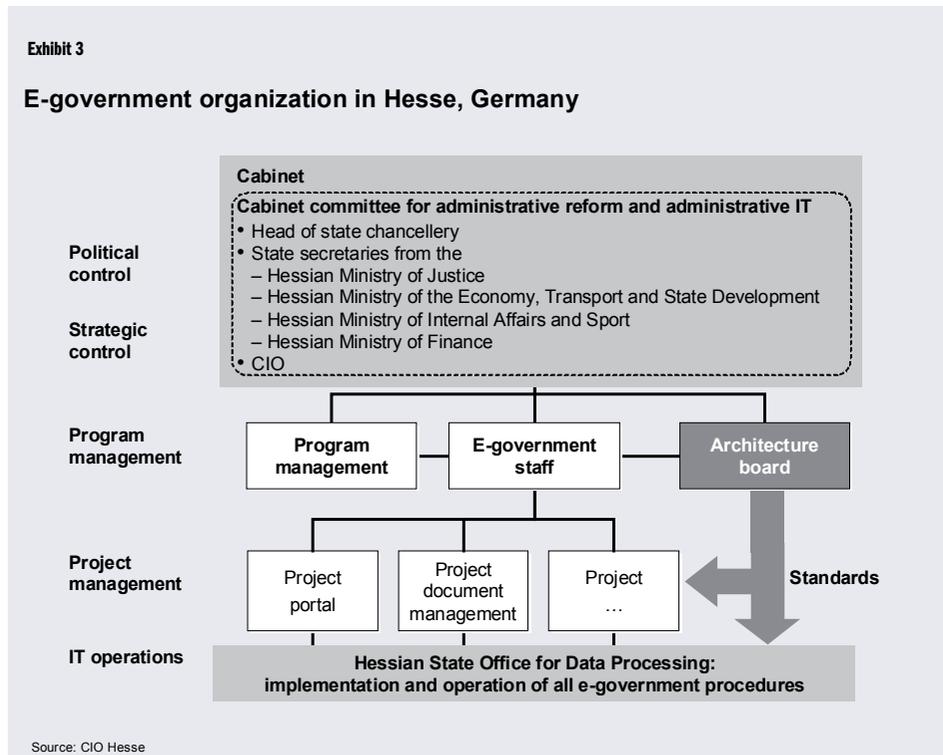
Bundling IT responsibilities into a well-rounded IT governance model—a case study

The German federal state of Hesse is a front runner when it comes to the bundling of IT responsibility. It aims to establish constructive and targeted cooperation across the state on the basis of a single management and common standards and procedures. Responsibility for IT has been bundled with Harald Lemke, the CIO and a permanent secretary in both the Hessian Ministry of Finance and the Hessian Ministry of Internal Affairs, who has been entrusted with strategic implementation of the political management directives and development of an integrated e-government program. He reports regularly on the status of implementation to both the cabinet committee for administrative reform and administrative IT and the cabinet. An architecture board ensures that shared standards are created.¹¹ Hesse has thus successfully established a modern form of IT governance that centralizes decision-making rights and coordination mechanisms within IT (see Exhibit 3), fully backed by the Prime Minister.

⁹ For a detailed description of the MPS Scotland Yard case and more, see: Peter Weill, Jeanne W. Ross: "IT Governance – How Top Performers Manage IT Decision Rights for Superior Results," chapter 7: Government and Not-for-Profit Organizations, p. 185-214, HBS Press, Boston, 2004.

¹⁰ Harald Lemke, CIO, federal state of Hesse, Germany, at the Hesse e-Government Forum, Frankfurt, Oct. 11-12, 2005

¹¹ Detlev J. Hoch, Markus Klimmer und Peter Leukert, op. cit..



The benefits of establishing efficient decision-making processes are great. By around 2010, private-sector companies hope to reduce their back-office costs by 20 to 40 percent by empowering a single leader to make investment decisions across IT. Similar or even higher savings and simplifications could be accomplished in the public sector by “winning over all key external and internal stakeholders,”¹² Such wins require a strong cadre of change managers with excellent communication skills and open minds.

4. MINDSETS AND SKILLS THAT FACILITATE CHANGE

The private and the public sector are in head-to-head competition to hire people with the will and skill to provide superior IT performance. The public sector, it must be acknowledged, is at a competitive disadvantage due to its reputation for

having a high degree of bureaucracy that is unpopular with IT talent. It is also constrained in comparison with the private sector in its ability to provide competitive compensation to the best talent (see Section 5).

Government entities typically compensate for their lack of in-house skills with contractors, who bring with them higher costs. But this is only one way to address the skills gap and skills development imperative, and possibly not the best one. Interestingly, in societies where civil servants are held in high regard, such as in France and Singapore, these skills issues are less apparent and tend to be addressed in-house.

The public sector has begun to focus on the development of its people, providing opportunities and investments in training, but much remains to be accomplished in the way of fundamental change

¹² Frank Ostroff: “Change Management in Government,” Principle 2: Win Over Stakeholders, HBR, May 2006.

management programs.¹³ IT people are attracted to open-minded, flexible, tolerant environments, which are not, unfortunately, typical of government service, traditionally dominated by rules and protocol. Consequently, it's not only the IT staff and organization that must change but their non-IT colleagues and the government structures.

Reestablishing a strong reputation and standing for civil servants is certainly beyond the scope of this article. Nevertheless, we should mention here that positioning IT leadership at the very senior level (which we discussed above) should go a long way toward remedying the situation. A CIO at a permanent secretary level would translate to a substantial rise in the status of the entire IT department. Some countries, including Egypt and Russia, have gone beyond the permanent secretary level and have established a Ministry of ICT (information and communication technology). In any case, good IT skills have their fair market value and should be treated as important assets for the future of the public sector.

5. PERFORMANCE METRICS AND INCENTIVES FOR MEETING TARGETS

Another way the public sector can develop and retain IT talent is by establishing a robust set of performance metrics and incentives, as well as by increasing transparency about the overall health of the IT organization.

To secure the efficiency of an IT organization, consistent performance management needs to be established to measure, for example, compliance with service-level agreements and

to inform incentive schemes that can reward individuals for excellent work. Statistically, so-called governance performance, which describes the performance of an organization, tends to be significantly lower (by 10 percent on average) in public-sector institutions than in the private sector.¹⁴ This could be due in part to the public sector's limited ability to incentivize and motivate employees. But true comparisons are problematic because the difficulty of measuring public value and performance and setting specific measurable organizational goals is simply greater in the public sector than in the private with its bottom-line performance targets.

The public sector's opportunities for offering positive performance incentives and negative performance disincentives are usually limited. On the one hand, salary levels are often lower in the public sector than for comparable positions in the private sector, and the compensation difference among public-sector jobs is relatively small. Opportunities to respond to underperformance with adequate consequences are also limited due to civil service work rules. Often, however, the scope for action is greater than generally assumed. Germany's Federal Office of Administration (BVA), for example, is trying to explore the potential for implementing performance management strategies. According to data from the BVA, up to 10 percent of its employees are rewarded with bonuses of different kinds for extraordinary performance every year.

If efficiency is to be increased consistently, it needs to be measured systematically. One proven tool for monitoring efficiency that is increasingly being transferred from

¹³ For details on general change management and how to address it, see for instance: Michael Beer, Nitin Nohria (Edit.): "Breaking the Code of Change," HBS Press, Boston, 2000; John P. Kotter: "The Heart of Change," HBS Press, Boston, 2002; Howard Gardner: "Changing Minds," HBS Press, Boston, 2004.

¹⁴ P.W. Weill/J.W. Ross, "IT-Governance: How Top Performers Manage IT Decision Rights for Superior Results," HBS Press, Boston, 2004.

the private to the public sector is the balanced scorecard. With the help of a balanced scorecard, it is possible to gain more control over a public institution's multidimensional, complex IT situation.¹⁵ The key ratios for efficiency are divided into four categories: economic performance indicators (eg, total IT expenditure), customer-oriented performance parameters (eg, customer satisfaction with IT), process performance indicators (eg, throughput and processing times), and employee development parameters (eg, level of qualification of IT staff).

GOING FORWARD

The five-dimensional framework described in this article enables an organization to identify the institutional design model most appropriate to its specific circumstances, and it also provides a useful diagnostic tool for understanding the root causes of poor IT governance. It enables an entity to create a baseline to calculate the potential value that can be gained from redesigning IT governance.

We hope that we have conveyed the extreme importance of strong governance to the effective functioning of IT in the public sector and how critical that is to the ultimate realization of IT's value to the enterprise. And we would like to close with this plea:

“Be a leader, not a bureaucrat!”¹⁶

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¹⁵ Cf. R. Becker/F. Weise, Die spezifische Ausgestaltung des Performance Management für den öffentlichen Bereich, in: P. Horváth (ed.), Performance-steigerung und Kostenoptimierung, Schäffer-Poeschel, Stuttgart, 2003; also: L. Ulschmid, IT-Strategien für die öffentliche Verwaltung, Gabler, Wiesbaden, 2003.

¹⁶ Frank Ostroff: “Change Management in Government,” Principle 5: Be a Leader, Not a Bureaucrat, HBR, May 2006.