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**Key Issues for
Relying on External Consultants for Public Sector
IT Projects**

**Submitted by Dr Ulrich Ditzen,
Member and Audit Director at the German SAI**

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Abstract

This paper submitted by Dr. Ulrich Ditzen, Member and Audit Director in charge of IT audit highlights the general structural IT problems of German federal departments and agencies. The paper reports on the current situation and procedures in place, highlights the shortage of staff with adequate IT skills in the public service, discusses the importance of the use of external consultants for planning and implementing IT projects in the German federal administration, the major shortcomings made in purchasing consultancy services and the conditions in which the use of external consultants can add value.

Audit findings generated by the German SAI on general structural IT problems of German federal departments and agencies

90% of the IT budget have been definitely allocated to operation and maintenance. IT-related staffing is often quantitatively and qualitatively inadequate for meeting current requirements. Either the number of posts is insufficient or posts are vacant and it is difficult to recruit adequately skilled staff. The use of external staff may be a potential solution.

There are a number of recurring problems and factors critical to the success of IT projects. The objectives of projects are often not clearly defined in terms of content, use of resources, value added and specific requirements. It is often difficult to identify the biggest common denominator. Deadlines are often set first without stating how to accomplish the objective. Staff with operational responsibilities are often not asked or do not clearly state their preferences. No investment appraisal is carried out.

IT project implementation periods are often so long that, given ever shorter innovation cycles, there is a risk that specifications laid down initially become outdated and obsolete while project implementation is still underway.

Management consulting firms often point out the following recurring problems and factors critical to the success of IT projects: skills available in-house are often limited,

so is expertise in procurement and contract-awarding procedures, in project steering and the later transfer of know-how. Changing specifications and managing the changes are often impaired by the shortage of adequate skills among public sector staff. These wanted skills are adequate computer literacy, experience with suppliers and with relevant legal practices.

The problems facing us can be illustrated by a quote from the budget documents of a German federal government department::

“In recent years, the degree of IT integration in operative functions, the intensity of IT support, the connectivity between workplaces at branch offices and headquarters, the degree of information density but also the dependence of stable operations on the high quality of IT systems have steadily increased.”

Further factors to be considered are the following:

Between 1995 and 2003, total IT expenditure (budget title groups 55 and 56) increased by more than 150%. Broken down by capital expenditure on IT and recurring expenditure on IT support services, the increases are 175% and 450% respectively.

There are 15 federal government departments (ministries) with a total of 435 agencies. There are 211,000 federal workers (137,140 civil servants and 73,875 employees (without Armed Forces and Federal Employment Agency). Total budget expenditure in FY 2007 will amount to about €260 billion. As far as can be ascertained under the present budget system, specific IT expenditure totals €2 billion. However, we have reason to believe that an undetermined amount of IT-related expenditure is hidden under budget items that belong to construction projects and to the performance of operative functions by departments and agencies.

As of early 2007, the civilian departments and agencies were equipped with 140,000 personal computers, while 135,000 personal computers were in place within the remit of the Ministry of Defence and 95,000 in the Federal Employment Agency. In the federal ministries, nearly 100% of all workplaces are equipped with personal computers. In the subordinate agencies, more than 90% of all workplaces are equipped with personal computers. Since 1999, departments are fully connected by a single intranet, which was built up in connection with the relocation of the seat of the Federal Government and Parliament from Bonn to Berlin)

Audit findings generated by the German SAI on general structural IT problems of German federal departments and agencies

IT services have become vital for government operations and transactions. However, IT applications and structures have for many years evolved as isolated solutions with an exclusive focus on the operative needs of the department or agency in question. The 'patchwork' grown over time had to be harmonised, as compatibility problems of the applications and a large number of (unused) IT system functions resulted in a lack of acceptance and in 'frictional loss'. Systems integration has become ever more important for suppliers and service providers but above all for the purchasers.

Audit results generated by the German SAI on problems with the availability of staff

Frequently, the project staff do not have adequate skills and the project leader does not have any solid experience. Staff are not released from their previous functions or are assigned to a project for different periods. Successful support by a coach would require intensive participation, steering and acceptance of the services delivered. A clear strategy as to developing skills needed in-house has often been lacking. The transfer of consultants' expertise has often not been stipulated in an extra contract.

The importance of external consultancy for public-sector IT projects

IT projects have become increasingly complex and their implementation requires more input. This is due to higher quality requirements, the widening scope of functions to be performed, the increasing number of stakeholders, the need to take into account existing IT systems and the stronger integration between different IT systems. Project objectives are often conflicting in terms of performance, time and resources.

Until recently, no generally accepted definitions of the terms "experts" and "support services" did exist within the German federal administration. Other terms such as

“assessor”, “business advisor”, “consultant” and “coach” have frequently been used indiscriminately without much regard for a precise and uniform definition.

In 2005, the German SAI developed in agreement with the Federal Ministry of Finance a definition of “external consultancy”. According to this definition, the subject of external consultancy is the provision of a service against remuneration with the objective of developing, assessing and imparting to the decision-makers practical recommendations with respect to concrete decisions to be taken by the contracting authorities and, where appropriate, providing further advice during implementation. In the context of this definition, recipients of the consultancy services are federal departments and agencies, quangos and grant recipients. The service provider is a natural or legal person active outside this field.

The German SAI’s audit work has revealed that consultants are primarily relied on in the following stages of IT projects:

(1) identification of requirements, (2) drawing up of specifications, (3) valuation / estimates of costs and expenditure, (4) negotiations with contractors, (5) change request procedure, (6) review and revision, risk assessment, (7) testing and acceptance.

The administration often justifies its reliance on consultancy services with the following arguments: Funding can be obtained more quickly because funds for “procurement” are easier to obtain than funds for hiring staff. A consultancy contract is usually made for a limited period of time. This improves the chances for a project to be approved, facilitates quick implementation and the overcoming of internal conflicts. The use of external consultants also enhances the legitimacy and prestige of projects, often generates new ideas and facilitates the discovery of other options. On rare occasions, external consultants serve as trouble shooters.

Audit findings generated by the German SAI on general IT-related staffing problems in German federal departments and agencies

As a result of the increasing use of external staff, private-sector staff are used for long periods of time to perform inherently administrative functions. There is a trend to contract out even sophisticated and conceptual IT functions to the private sector. External (private-sector) staff permanently perform functions of ever-increasing importance.

Where external staff are used to evade internal staffing problems, this creates a high and increasing dependence on external expertise in an environment of rapid technological change. Departments and agencies increasingly lose the ability to assess and act upon emerging issues. Declining budgets, increased cost pressure and shortage of staff resources increasingly restrict the scope for government action.

Shortcomings found by the German SAI concerning the use of consultants

There is a general trend to rely on consultants also for the performance of core functions. The contracting authority often has inadequate competence for controlling. Mistakes are made most frequently during the following stages and in the following fields: planning of the use of consultants (identification of the need for consultancy services), performance (value for money), contract award procedure, project results evaluation, implementation and use of results.

Audit experience in connection with the implementation of results generated by consultancy

In a number of cases, the German SAI has had doubts as to whether results generated by consultancy had the intended effect or were suitable as a sound basis for decisions. These doubts were based on the criterion that successful necessary consultancy should have a clear influence on further action, current and future decision-making.

Scientific study

A scientific study carried out in the public sector revealed that the feasibility of the problem solution worked out is the most important criterion for selection (80%). However, the criterion is ultimately met in only 50% of the cases reviewed. The study

further found that the proposed solution was often implemented only “to a small extent” and that, in nearly one third of the cases, consultants had to remain active during implementation. The know-how expected to be generated was transferred in only two thirds of the cases reviewed

Summary and outlook

(Core) functions that should be reserved to the public sector include developing and deciding on the IT strategy, IT portfolio, IT architecture, IT standards, IT controlling and reporting, IT procurement and management of IT interfaces.

In its audit work, the German SAI has found that the factors critical to the success of consultancy for IT projects and the measures necessary in this context are:

(1) the definition of problems and objectives, (2) the necessity of consultancy, (3) performance (value for money), (4) the specification of requirements, (5) the methods of awarding contracts for consultancy services, (6) the precise formulation of contractual provisions, (7) monitoring, steering and acceptance, (8) the implementation of the results developed by consultancy.

To address an IT problem, the administration should accurately analyse and determine the current situation, the objective to be accomplished and the difficulties emerging or identified in achieving the objective.

The German SAI’s audit findings highlight the fact that, on the whole, the decisions about the use of external consultants are too rarely based on a sound and sensible analysis of the problem and that the objectives and criteria have often not been determined in a way permitting project evaluation.

Before considering the award of a contract to an external service provider, the administration should critically examine whether it can perform the service itself.

In the course of its audit work, the German SAI has found that, in many cases, departments and agencies give reasons for the use of consultants that are not directly connected with the problem to be solved, e.g. “opening up other

perspectives“ or “better way of convincing the policy-making level of the validity of results [generated by third parties] on which action should be taken“. Such reasons often were more important than the need to compensate for a lack of professional or technical in-house expertise.

It is always necessary to carry out an investment appraisal, in the course of which all alternative options need to be stated and evaluated. The Bundesrechnungshof found that, preliminary to awarding contracts to external consultants, investment appraisals, which are a necessary tool for verifying compliance with the requirements of efficiency and effectiveness, have rarely been carried out. Based on the German SAI's experience, there are the following alternatives to commissioning external private-sector consultants: Apart from performance of the service by the department or agency itself, support can be obtained e.g. from internal consultancy teams of the public administration from the own government department or another government department.

If purchasing external consultancy is the most cost-effective option, the administration needs to unambiguously and comprehensively describe the consulting service to be performed. If the administration itself is not capable of describing the service required, this is evidence of the fact that the project is not yet 'mature' enough for calling in external expertise. Where the department or agency in question is not able to describe the problem to be solved or – as frequently observed – needs a third party to describe the problem, it will also not be able to verify whether a specification of requirements drawn up by an external consultant actually meets the requirements of the department or agency.

As a matter of principle, a public invitation to bid must be issued and, where appropriate, such invitation has to be published throughout the European Union. A contract award by negotiated procedure is admissible in few exceptional cases only. However, in most of the cases audited by the German SAI, contracts for consultancy services were awarded without competition.

Contracts must be worded so as to ensure that the content and timing of the service purchased are described unambiguously in a way permitting verification. Prior to

awarding a contract for consultancy services, there should be full understanding of the essential contents of the contract. This includes the description of both the service to be provided and of the results aimed at. Sound evaluation criteria and milestones defined in detail should be available at an early stage.

By appropriate monitoring and steering of the consultancy activities, the administration can make a substantial contribution to their success.

The results generated by consultancy have to be accepted on a timely basis in order to safeguard the possibility of claiming damages for breach of contract or poor performance.

The Bundesrechnungshof has found that departments and agencies adequately monitor and steer the consultancy projects only in a few cases, that the acceptance of the service was frequently delayed, that ambiguous specifications such as “assisting the contracting authority with ... “ or “... will be available as consultant beyond that period“ hamper any effective monitoring of service provision. Such formulae are no appropriate basis for accepting the service.

A reliable and transparent *ex post* project results evaluation should be carried out after the conclusion of any consultancy project.

In many cases, the results evaluations required under budgetary law had not been carried out.

The German SAI often had doubts as to whether results generated by consultancy had the desired effects or whether they were used at all as a basis for decision-making.

On balance, budget funds were spent on consultancy work whose results added no or little value; due to omitting *ex post* results evaluations, no lessons were learnt to prevent deficiencies in future similar cases.

The administration needs to transparently document each successive step from the description of the problem via the verification of needs to the implementation of the results generated by consultancy. This is an indispensable prerequisite for carrying out any *ex post* project results evaluation.

In the course of its audits, the German SAI frequently found inadequate and incomplete records.

Comprehensive documentation avoids duplication and provides key information for the staff assigned to an IT project later on and for the planning of future projects.

The use of consultants may effectively support administrative activities in cases where problems cannot be solved in-house. The extent to which external consultants are used will continue to increase, especially in the case of major IT projects. Nevertheless, the risks and potential errors are as manifold as the possibilities for making use of external expertise.

The decisive factor is the ability of the contracting authority to identify its own needs and to monitor the provision and success of the service purchased.

Consultancy services are not a commodity whose choice is merely governed by its price (as in the case of hardware or IT infrastructure services).

It is absolutely necessary for the decision-makers to be aware that the principles of economy and efficiency also apply to the use of external expertise (need, efficiency, competition, evaluation of results).

Alternative options would be service centres within the administration having the necessary special skills and expertise needed to cover the entire remit of a department or even to perform cross-boundary advisory functions.