

**Response to the Cabinet Office consultation paper on
Transformational Government - Enabled by Technology
from the
Institute for the Management of Information Systems (IMIS)**

Background

IMIS is the UK-based professional body for the management of information systems, including the multi-media systems that are beginning to transform entertainment, retailing, education, training and research, as well as the delivery of public services around the world. Over half of the 14,000 members of the Institute work outside the UK professional and this response takes account of their experience.

In 1993 the IDPM (now IMIS) organised a special interest group which included over 40 public sector IS managers, mainly from central government. The membership was akin to that of the current CIO council but was anonymous save for the chairman, the Head of IS for the Corporation of London, agreed as a neutral spokesman. Their report and the covering letter and attached as an appendix because the recommendations remain apposite, albeit with the need to add comment as to how they also apply to PFI contracts. The Comptroller and Auditor General, the Chancellor of the Duchy of Lancaster and the Chairman of Public Accounts Committee all welcomed the report as a yardstick of good practice.

The recommendations were subsequently incorporated in the Gateway Review process but the problems raised in the cover letter remain, largely because that process has not been adequately enforced, particularly before the start of major projects, during the planning and political commitment phase. In consequence systems are often doomed by unrealistic requirements before the procurement process has even started.

Hence one of the reasons for the strong support among IMIS members working in the UK for the approach outlined in the Transformational Government consultation paper. There is a belief that it has a better chance of bringing about long overdue reforms in the use of technology to support the delivery of public services in the United Kingdom than previous attempts over the past 20 years. The proviso is whether it is supported by the political will to ensure that the prime causes of failure, which doom most large public sector systems before the procurement procedure even begins, are addressed.

Main Points

1) Large, complex centralised systems are rarely, if ever, successful - whether public or private, however large or prestigious those contracted to supply them.

Para 17, page 5 highlights the problems caused by the “number, scale and difficulty of public sector projects”. Such problems can be eased by using the fundamental savings review, due for publication in June 2006, to rationalise requirements, remove duplication of effort of effort by planning to build on the best of what already works, switching off that which does not and terminating those projects unlikely to deliver.

Using the review to gather support for large centralised projects to be announced as part of the 2007 spending review would, however, almost certainly compound those problems, leading to major crises when procurements are finally completed and implementation begins at a time when UK based programme management resources are under peak strain with the parallel pre-2012 Olympic infrastructure (including ICT infrastructure) projects.

The best examples of successful public service delivery outside the UK are from smaller nations (like Latvia or New Zealand) and the smaller states of federal nations like the USA. The large US states, like California, have success rates that are little, if at all, better than those of UK central government. The best UK examples are in Local Government and the smaller central government departments and agencies.

Successful large scale private sector systems (whether Amazon or Google, BACS or Tesco, Experian or HSBC) simplify that which is centralised. Tasks requiring complex databases and calculations are commonly “federated” by function or application, using common interface standards (including management, governance, liability etc. not just technology) to enable the rapid transfer of information, when and where needed, in the format needed.

2) Which comes first the policy and legislation or the service need and systems requirement, the statutory instrument or the systems architecture?

Is not possible to resolve chicken and egg questions. Good practice in the private sector and overseas governments is to avoid “big bang projects”. Core to the success of government systems is the decoupling of systems development and technology specification (let alone systems architecture) from statutory requirements, so as to enable service delivery to evolve over time as requirement change, without the need for legislative change or lengthy studies and procurements.

Some of the most spectacular failures began with private policy study followed by a ministerial announcement, neither linked to any analysis of requirement let alone feasibility study. These were followed by an attempt “reverse engineer” what had been announced (sometimes even including timetables for delivery) into programme management and procurement framework. Such projects commonly run into problems 2 - 3 years after announcement, when top-down implementation plans encounter bottom-up reality.

The Transformational Government strategy is greatly to be welcomed if future programmes are indeed to begin by building on the best of what already works, removing duplication of efforts, with any major new programmes based on rigorous assessments of the needs of the recipients and the means of delivery. If, however, there is serious expectation that the 2007 spending review will include a new round of “big bang”, PFI-like contracts, shared across departments and agencies, then it is almost certain that their low point (delay, dissatisfaction and disillusion) will occur in 2009-10 (during the run-up to the next General Election).

3) Improved ICT Professionalism is not sufficient to improve service delivery

The plans (Para 41) to work with the UK ICT industry, both suppliers and professional bodies to improve ICT professionalism, particularly in the public sector with regard to procurement skills are very welcome and long overdue. But less than 20% of any large system is concerned with technology. Some of the most spectacular failures have involved technology delivered to specifications that did not properly reflect user needs, compounded by inadequate attention to the need to train users in new ways of working. The latter is essential to success and commonly costs more than the hardware and software.

The area in most need of greater professionalism is the identification of user needs, the specification of ways forward that will address those needs, given the resources (including skills as well as time and budget) available and checking that the deliverables are robust, reliable and meet the current needs. Management Sciences, (including operations and market research, organisational behaviour and methods, social anthropology and ergonomics, systems

engineering and programme [not just project] management) have long been neglected by UK Universities in response to government priorities.

This problem was identified by the E-Skills, the ICT Sector Skills Council, some years ago and a new generation of degree courses was launched last autumn but the initial intake will not graduate until 2008 and will then need to acquire work experience, including in junior roles on the implementation of the ICT systems for the Olympics. They will not be available for projects before then.

IMIS, whose qualifications are geared to international not UK requirements, is believed to be the only UK-based ICT professional body to still require "business methods" as a mandatory part of its qualifications but this has not fitted DfES requirements for publicly funded ICT courses since the 1980s. IMIS growth since then has been almost entirely overseas. Few UK-based ICT suppliers or management consultancies have in-house teams with the necessary skills.

We therefore need to re-skill those already in the public service and its suppliers, using a mix of in-service training (alias professional updating) and smaller projects, on which they can gain the end-over-end experience that is essential and have, at best, a 2 - 3 year window in which to complete the process.

In fact this fits well with the plans to publish a fundamental savings review in June 2006, with administrative budgets capped at the 2005 - 6 nominal level until the start of the period covered by the 2007 spending review, which will take a "zero based approach" to assessing existing delivery spend. Para 6 refers to delivering 10% savings on current ICT spend to fund systems. Private sector experience is that culling systems and projects which do not deliver benefit and are unlikely to do so, while building incrementally on those that do, can lead both to much greater savings and much lower costs in achieving service improvement.

Until the UK ICT and Management Science skills bases have been rebuilt, the likelihood of successfully delivering very large public sector projects is low, but using the current saving review to give impetus to the Transformation of Government, beginning with a series of smaller, rapid payback, projects, can be used to expedite that process. The proviso is that this needs to begin now: so that the provision of the necessary mix professional updating and practical experience has begun before the publication of the fundamental savings review.

4) Re-organisation is the biggest immediate obstacle

The biggest single obstacle to delivering widespread improvements from savings in current delivery costs is the diversion of political and management energy and resource into the review and/or reorganisation of local government, police and ambulance services and NHS trusts. Experience from around the world is that re-organisations rarely deliver the claimed benefits and that organisations covering populations much larger than the average English County rarely provide cost-effective, responsive, citizen-centric service.

The best current examples of UK shared services include the "virtual unitary authorities" that have grown up as well-run councils have had to make major cost savings in delivering services to growing populations in the face of the systematic transfer of central funding to deprived areas. The savings achieved by giving district councils direct access to county council systems and from sharing costs across consortia have, on occasion, already been well above the 10% targeted in Para 6.

A private sector speaker at the Manchester E-Government conference in November 2005 claimed to have achieved 75% savings from merging duplicated systems and culling those that

did not give benefit. Calculations akin to his indicate that some authorities in the South East have achieved similar savings and could achieve even more, provided their efforts are not diverted into the politics of re-organisation.

5) Can central planning and outsourcing deliver with customer-centric service?

The private sector was already moving away from inflexible and detailed outsourcing contracts before most current PFI deals were finally agreed. Experience was showing that most of the claimed savings were illusory while the loss of ability to respond rapidly to changing business needs was all too real.

Few large private sector organisations have any track record of delivering customised services to the socially disadvantaged in most need of government services. Meanwhile the break up of local partnership operations delivering integrated care services to fit centrally negotiated outsource contracts (which commonly separate home, day and residential care and nursing) has often resulted in reduced service at increased cost, especially in rural areas. Those with the best track records of meeting the needs of the socially excluded are almost all in Local Government or the “third” (voluntary, co-operative, local partnership) sector.

A recent survey indicated that few public sector websites meet the level A standard for accessibility by those with physical disabilities and almost none reach level AA. It is said that only one website content management systems (from an accession state) meets level AAA. Even those whose intellectual capabilities are unimpaired may therefore need physical intermediaries to help them access on-line services. Younger age groups, including those in purdah in inner cities or excluded since they dropped out of (or were barred from) school, should also be able to reach public services via whatever intermediary they trust.

There is an obvious need to review current and planned central programmes to see whether they do indeed reach their target audiences, to identify the track records of possible intermediaries in doing better and to find ways of bringing the two together which reflect and respect the different motivations of those involved. There is also a need to persuade would-be private sector suppliers, including of technology, to learn how to support “third sector” groups with cost-effective, robust, reliable and inter-operable platforms while returning a reasonable reward to their shareholders.

6) Lack of Trust is the potential showstopper

Para 39 (4) says that data sharing is integral to transforming services and the need to balance this with privacy. Para 39 (6) refers to the provision of approved guidance on risk assurance and Para 39 (7) refers to the creation of a holistic approach to identity management. Consumer surveys indicate that the low usage of current public sector on-line systems is more because of the difficulty of finding anything useful than lack of trust with security. There is also much evidence that those dependent on public support are far more concerned to see joined up service than to protect their privacy. However, those not dependent on government services, whether social or health care, often take a very different view.

Those with professional knowledge of the systems and practices common, including across central government, have little, if any, confidence in the accuracy or security of most publicly held data:

- Error rates of 40% or more are common with regard to personal or business information
- Routines for preventing, detecting or correcting the fraudulent access or amendment of data information files are often primitive or non-existent

- Penalties for abuse, whether deliberate or accidental, are minimal, especially with regard to temporary or contract staff
- Guidance with regard to good practice, such as how to check who is authorised to have what access, is rarely available, let alone intelligible
- Governance routines, if any, are fragmented and not well publicised

There is a need to look at how the private sector, especially in financial services, handles the sharing of information between those who do not trust each others systems, data and staff. Trust is commonly earned by those who accept liability as well as responsibility. That posed major problems for those who do not.

Specific Recommendations

- 1) Use mandatory Gateway Zero reviews to ensure that no central government proposal for a re-organisation or a new system (stand alone or shared) gathers political momentum before a rigorous examination as to whether and how it will serve to improve the customer-centric delivery of services (including law enforcement, health, social and child welfare).
- 2) Use the Gateway Review process to ensure that the cost of organisational change and training (including to handle staff turnover on an ongoing basis) is budgeted and planned (time as well as cost) and that programmes do not go ahead without the necessary user management resources and staff development plans in place. This is particularly important where cross department/agency co-operation and relationship management with multiple partners is required
- 3) Use the 2006 fundamental savings review and zero based 2007 spending review to help rebuild requirements analysis and programme and project delivery skills, focussing political and management attention on “quick wins” which provide practical “end-over-end” (from pre-policy studies to post-performance monitoring) experience at the same time as demonstrating success and rebuilding political and public confidence.
- 4) Undertake a thorough review of current and planned public sector routines for information assurance (including validation and security) and data sharing (including guidance and governance) with a view to distilling, publicising and mandating good practice and privately removing those who seek to perpetuate unacceptable standards of behaviour (whether by design, neglect or ignorance).

Appendix: IDPM response to: The Proper Conduct of Public Business

18th November 1994

Sir John Bourn KCB
Comptroller and Auditor General
157-197 Buckingham Palace Road
London
SW1W 9SP

The Proper Conduct of Public Business

Dear Sir John

On 20th April 1994, with the assistance of members of the Public Accounts Committee (PAC) of the House of Commons and of the Parliamentary Information Technology Committee (PITCOM), THE Institute of Data Processing Management (IDPM) organised a conference on the IT related issues raised in the PAC report "The Proper Conduct of Public Business".

In the aftermath of that event it was suggested that IDPM form a Special Interest Group on IT Procurement and Supplier Relations in the Public Sector with the initial task of agreeing "an open letter to the Comptroller and Auditor General drawing attention to existing documentation and setting out recommendations on stewardship, accountability and enforcement issues".

The attached paper summarises the consensus of opinion of that Group with regard to current good practice. There are, however, serious concerns as to whether promulgating good practice really is sufficient to avoid all the problems identified by the PAC.

In particular, problems can occur because good practice is:

- not easily accessible, or not brought to the attention of those who should follow it
- not followed despite its availability
- not good enough to achieve the objectives of the project within the constraints of public policy.

Among the specific problems identified were:

- placing "personal responsibility" at too high a level of seniority so that those taking decisions are not competent to appreciate the implications of those decisions
- situations where those responsible lack the necessary competence or authority and can do little but strive honestly and conscientiously to achieve unrealistic objectives, to the best of their ability, within policy, time and budget constraints outside their control
- the propriety of changing requirements defined in an invitation to tender without reopening the bidding and delaying the project
- potential conflicts of interest for those providing advice on policy, procurement or service objectives when they may also provide subsequent implementation/delivery services.

The Group feels that current guidance may be inadequate for those faced with such problems and that there may be a need to clarify and extend current guidance with regard to good practice, stewardship and accountability. In the meantime the Group will seek to promote informed debate and, if possible, identify areas of consensus, with regard to the issues as they impact the successful and cost-effective use of IT in the public sector.

Yours sincerely,

ROGER MARSHALL, Chairman, IDPM Public Procurement SIG.

The Proper Conduct of Public Business The Conditions for IS Success in the Public Sector

INTRODUCTION

1. On 20th April 1994, with the assistance of members of the Public Accounts Committee (PAC) of the House of Commons and of the Parliamentary Information Technology Committee (PITCOM), the Institute of Data Processing Management (IDPM) organised a conference to discuss the IT related issues raised in the PAC report "The Proper Conduct of Public Business".
2. Arising from the conference, the IDPM formed a Special Interest Group (SIG) tasked with preparing a response to the PAC report. This paper is intended to be the first component of an evolving programme of action.

THE ISSUE

3. The PAC has on a number of occasions identified cases where value for money has not been obtained from the development, procurement, implementation and use of IS in the public sector. The causes have been many and varied - inappropriate requirements; failure to manage and staff programmes and projects effectively; failure to respond to change, and failure to follow accepted good practice in areas such as procurement. Problems appear to have been most evident on projects which are either large in terms of sheer scale or critical because of the nature of the business change they effect. In particular the PAC report highlighted the following failures in IS projects:-

- inadequate appraisal and failure to ensure the system meets requirements.
- inadequate reappraisal in response to changing circumstances and requirements
- non-observance of established principles of full and open competition.
- conflicts of interest arising from inappropriate relationships with private sector consultants.

THE SIG RESPONSE

4. The SIG considers that value for money can only be measured by the effectiveness with which IS is used to support and facilitate the achievement of the corporate business and service objectives of an organisation. Those objectives are usually documented by means of a formal business plan. At each stage in the life cycle of information systems it must be possible to assess performance against an agreed, clear, relevant and up-to-date plan.

5. The lifecycle stages can be broadly described as:
 - Setting Direction
 - Delivering Products and Services
 - Managing Products and Services once delivered.

These stages are iterative rather than purely sequential. Particular factors which need to be addressed to ensure the effective delivery and use of IS at each stage are set out below. Whilst the particular PAC concerns are primarily reflected in the delivery stage, the SIG believes the other factors identified are closely related and that it is through the full prescription that best value for money is achieved.

6. The SIG would emphasise that much of the relevant advice is a restatement of good management practice. Good management practices apply to the procurement and use of information systems, just as much as to anything else. Many of the recent failures were due to poor management: they had nothing to do specifically with technicalities of IT.

7. In particular, good *Project Management* practices should be applied to IS projects as to any other major project. The management of large projects is inherently difficult. The skill lies in subdividing them into smaller steps which are capable of being properly controlled.

8. Those responsible for policy, planning and implementation must have appropriate experience and training, including the effective management and policing of external consultants and service providers if these are to be employed.

9. Successful implementation depends on the managerial and professional competence of those responsible. Strategies should not be embarked upon unless the necessary skills and competence are known to be available.

10. Problems will occur if the planning and management of the non-IS aspects of projects (redesign of business processes, implementation, training, testing, and so on) are not integrated with IS and subject to the same disciplines.

Setting the Direction

11. The essential strategic requirements for successful Information Systems are as follows:-

- The capability of the business customer to appreciate the potential and limitations of IS.
- The development by the business customer, with support from the IS department as appropriate, of a strategy which aligns the use and sourcing of IS to the business strategy, processes and plans of the organisation.
- The maintenance of IS Strategies so that IS responds appropriately to changes in the business of the organisation and to opportunities afforded by advances in technology and evolving standards.
- The clear differentiation of the roles and responsibilities of both business customer and IS provider: the implementation of an organisational structure and skill-set which gives effect to these roles.
- The realisation of predicted business benefits from IS, by rigorous identification, tracking and management of benefits and costs.

Delivering Products and Services

12. Success at the delivery stage cannot be guaranteed. The risks can be minimised, however, if proper attention is paid to the following:

Management Arrangements

- The *design* of IS programmes, sub-divided into IS projects, which are inherently capable of management and control, and of being delivered at low risk.
- The *ownership* of programmes and projects by a responsible and competent business customer.
- The *allocation* of clear authority and responsibility to individuals.

- The rigorous and systematic *management* of programmes and projects, against defined targets expressed in terms of meeting the requirements, costs, timescale, quality and risk.

Deployment of Resources and Skills

- The analysis of the most *appropriate* options for service provision, for example market testing, private finance initiatives, outsourcing, and so on.
- The identification of *internal skills* for managing external service provision, to ensure that it is properly and legitimately harnessed.
- The *selection* and *effective* use of available system and service delivery methods and tools to promote economy, speed, accuracy, quality and maintainability.
- The confirmation that the necessary programme and *project management* skills and structures are in place to handle the redesign, implementation and testing of business processes as well as informal systems.

Procurement

- The integration into overall programme and project management of procurement *processes* which are designed to achieve optimal value for money and to deliver the stated business requirements and benefits.
- The adoption of procurement *policies* which meet legal requirements, for example on competition, and accepted ethical standards.
- The negotiation of *contracts* with suppliers which offer best value for money, clearly identify respective responsibilities and obligations, provide an appropriate balance of risk and reward for each party, allow for technology and business changes, and facilitate dispute avoidance.

Implementation & Review

- The *regular* review of programmes and projects, to ensure not only that they are proceeding according to plan, but also that the business requirements and context have not changed.
- The *responsibility* of the business customer to terminate projects if a review reveals that to be the best option.
- The explicit *monitoring* of acceptance tests, documentation delivery and user training, with all deliverables to be complete before projects are certified as complete.

Managing Products and Services

13. Specific management issues which need to be addressed are:-

- The implementation of and management by the customer of outsourced or in-house service provision arrangements to deliver value for money and stated business objectives.
- The efficient and effective management by the provider of IS infrastructures, supporting services and suppliers to meet the requirements of the business.
- The achievement of progressive improvements of the cost of ownership of systems and their ability to cope with changes in business requirements.
- The regular review of implemented systems and services to ensure their continued strategic fit, value for money and business effectiveness.

PROMOTING GOOD PRACTICE

14. The SIG proposes that the most appropriate vehicle for tackling all of these issues is the identification, definition, promulgation and adoption of acknowledged good practice in the areas identified. This in turn depends on suitable structures and personnel existing within the organisation.
15. The SIG considers that, with notable exceptions, there is frequently a lack of commitment to good practice in the public sector and that many problems arise because of attempts to work around perceived public sector constraints.
16. Knowledge of, and commitment to, good practice guidance must be supported by suitable management structures within the organisation. It must be carried out by properly skilled and qualified staff.
17. Whilst the availability of good practice cannot, of itself, solve the problems identified, it will provide a sound framework upon which individual organisations can devise solutions and responses appropriate to their own particular business needs and circumstances.
18. The SIG contends that good practice guidance and exemplars dealing with the majority of the issues identified already exist or are in the process of production or updating. In addition there are a number of potential sources of independent advice and assistance. A list is given in the Annex, together with details of how each may be obtained. It is clear that an accessible guide to the literature would be advantageous.

SUMMARY

19. Success with IS requires:
 - **adherence to good practice**
 - **appropriate structures and staffing**
 - **clear objectives and responsibilities**
 - **good management (both of the organisation as a whole and the IS function)**
 - **regular monitoring against objectives and plans**
 - **a willingness to change direction or terminate projects if appropriate.**

FURTHER ACTION

20. The SIG urges all responsible public agencies to adopt, advocate and encourage the use of the available good practice guidance described above. For its part, the SIG will consider what further work it is appropriate for it to undertake.

THE CONDITIONS FOR IS SUCCESS IN THE PUBLIC SECTOR

SOURCES OF GUIDANCE

CCTA (The Government Centre for Information Systems) provides a range of guidance across the IS lifecycle. Topics covered include: strategic planning, benefits management, the role of the business customer, appraisal and evaluation, programme and project management, risk management, information management, systems engineering, market testing and outsourcing, procurement and contracting, supplier management and infrastructure management. Guidance is in the form of publications and management briefings.

The CCTA produce a Publications Catalogue which is a useful guide to their literature.

For a copy of the *CCTA Publications Catalogue* contact CCTA Corporate Marketing Group, Rosebery Court, St.Andrew's Business Park, Norwich, NR7 0HS - telephone (01603) 704930.

The Central Unit on Procurement (CUP) in HM Treasury produces a series of guidance notes (CUP Guidance) on all aspects of general purchasing and supply procedures and practices.

Contact CUP, HM Treasury, Allington Towers, Allington Street, LONDON, SW1E 538 - telephone (0171) 270 1638.

The Efficiency Unit in the Cabinet Office has produced two relevant publications "The Government's Guide to Market Testing" and "The Government's use of External Consultants".

Available from HMSO Publications Centre, PO Box 276, London, SW8 5DT - Telephone (0171) 873 0011.

The NHS Executive Information Management Group produce a range of publications tailored to the particular needs of the NHS community: this covers both general guidance on strategic planning, investment appraisal and procurement, and advice on individual issues and initiatives.

For a copy of the Publications List, contact: NHS Executive HQ, Information Management Group, Information Point, c/o Anglia and Oxford RHA, Union Lane, Chesterton, Cambridge,, CB4 1RF - telephone 01223 275350/312225.

The publications which follow below have particular relevance to local Government.

The Audit Commission had produced three relevant papers - "Acquiring IT" (Information Paper No.4), November 1990, "The Acquisition of IT - a good practice guide", August 1992, and "High Risk/High Potential: Management Handbook on IT in Local Government", May 1994.

Available from HMSO or Audit commission, Nicholson House, Lime Kiln Lane, Stoke Gifford, Bristol, BS12 6SU - telephone 01272 236757.

Also directed mainly at Local government, are publications from SOCITM (Society of Information Technology Managers); attention is drawn particularly to "The Management and Provision of IT (MAPIT) programme" (ISBN 0 118 86106 9).

SOCITM can be contacted through the Secretary, PO Box 121, Northampton, NN4 6TG - telephone 01604 236540.