Exempt from publication by virtue of : (fill in details or delete as appropriate)

www.oxford.gov.uk

OXFORD CITY COUNCIL

Report of: Business Manager - Business Systems

To: Finance Scrutiny Committee
Strategic Management Board

Date: 30 November 2006 **Item No**: 7

Title of Report : ICT Five-year strategy and Capital Investment plan

Summary and Recommendations

Purpose of report:

A) To set out the ongoing Capital investment needs for the Council's ICT infrastructure
B) To Outline the core strategies for ICT over the medium term
C) To gain agreement and funding for implementation of these strategies
D) To Highlight the risks of continuing the current policy of under investment in ICT

Key decision: No

Portfolio Holder: Councillor Stephen Tall

Scrutiny Responsibility: Finance

Ward(s) affected: All

Report Approved by
Portfolio Holder:
Legal:
Finance: Sarah Fogden / Penny Gardner
Strategic Director: Mark Luntley

Policy Framework:

Recommendation(s):

1. To note the Report, Long term cost pressures and potential risks and costs of not addressing them

2. To Build these into the Budget, Business planning and Risk Management processes

1. Introduction

1. There has been no strategic investment in ICT infrastructure within the City Council for many years. The last significant investments were

- £920k from the "PC replacement" project following a technology crisis in 2002-3, the tail end of this investment was completed during 2003-4. The bulk of the equipment purchased during this period is due for replacement in 2007-8.
- £1.24m e-Government project (£900k IEG grant and £340k from City Council). This investment funded an upgrade to the central computer system infrastructure, the Council's Web site and the CRM solution for City Works.

2. The current infrastructure is aging, as noted above, even the newer equipment is nearing the end of its useful life.

3. The lack of strategic investment in ICT is driving a "keep the engine running" mentality, preventing front-line services from making a step change in technology adoption, so inhibiting productivity and efficiency gains.

4. More serious, without continuous, planned lifecycle investment, starting next financial year, Business Systems are likely to continue the cycle of requesting seven-figure sums of money every few years to fend-off technology crises; whilst front line services struggle to deliver vital services on the back of failing technology.

5. Finally, as the infrastructure ages, it becomes subject to obsolescence. Equipment spares and available skills to continue support become increasingly difficult to source. ICT is a fast moving industry, without continued planned investment the ad hoc investments are unlikely to deliver value for money improvements.

6. Committing to continuous planned investments starting next Financial Year will allow strategic investments to be planned and delivered as part of the operational management processes. These investments can be dovetailed with the lifecycle management plans for the Business applications within the operational Business Units.

2. Benchmarking the current costs and quality of ICT services within the City Council.

7. SOCITM provide one of the few sources of benchmarking data relating to the delivery of ICT services within the Public sector. The following analysis is based on a relatively modest sample of Local Authorities (16%) so needs some careful interpretation. However, the indicators appear to be reasonable.

8. In summary Oxford City Council score "average" or slightly better than average on most measures. The reasons for this are probably a combination of the following factors:

- We don't invest strategically in ICT, so the actual spend for 2005-6 is lower than it otherwise would be. We would see very different results if we'd benchmarked 2002-3 or 2003-4 where there were the additional investments of C.£1m each year.
- Compared to other Local Authorities, OCC is a relatively large organisation (partly due to the Housing operation) and benefit from economies of scale not available to smaller Authorities.

9. See Appendix A for the detailed benchmarking analysis

3. Proposed strategies and Costs

3.1. Personal Computers – Desktop, Laptop and Tablet

10. Manufacturers recommend desktop PCs are replaced every three years. This is a very conservative view, in practice, good quality PCs have a very low failure rate in their first five years of operation. The failure rates increase significantly from year six onwards. The growth in demand for PC resources from the applications they support also increases over this timeframe.

11. The recommendation is to replace PCs in year six of their operation. This provides the optimum for return on investment – Maximum useful life of the PC with minimum support costs.

12. Mobile devices such as Laptop computers and Tablets are less physically robust and more vulnerable to accidental damage. Their useful life is limited to three years. The recommendation is to replace these in year four of operation.

13. In attempting to smooth out the demand for a consistent level of funding going forward, some of the PC and mobile devices will be older than is desirable until 2011-12. This is manageable in the short term.

14. All new PCs will be delivered with the latest Microsoft Operating system Windows Vista and version of MS Office 2007 (Outlook, Word, Excel, PowerPoint, Access). Note the Council will be fully rolled out on these tools by 2012, in the meantime, we'll continue to exploit the current investments in Widows 2000 / XP and Office 2000 / 2003.

15. Implementation will be by Business Unit Department. All PCs in the operational area will be replaced at the same time; all existing PCs will be removed and either recycled within the Council or disposed of via an ethical beneficiary partner (eg Oxfam).

16. The cost will be C.230k per annum for both hardware and software

3.2. Servers & Storage Management

17. Business Systems operate a large number of computers in the Data Centre to support the Core business applications. The industry direction is to consolidate these smaller computers into larger computers (virtual servers), generating management and operational savings. OCC have been trialling this new technology for the past 6-9 months and have gained sufficient

experience with this technology, to be confident of rolling it out across the rest of the central computer base, over the next five years.

18. Manufacturers recommend these central computers (Servers) are replaced after 3 years of service. Again, this is a very conservative position, in practice, these devices perform with very low failure rates for up to five years; we recommend replacement in year six of service.

19. As with PCs, smoothing this funding requirement will mean that some of the current servers will remain in service for up to seven years. Whilst this is not ideal, we believe this is manageable in the medium term. Using older servers to run less critical applications will mitigate the risks of system failure; third party maintenance support cover will be taken out when the manufacturer's warranty expires.

20. The cost will be C.75k per annum for both hardware and software

3.3. Computer Printed material

21. The City Council has 437 printers on its asset register; this represents 1 printer for every 2.5 PC using staff! A more realistic ratio for OCC would be 1 printer for every 10-15 PC using staff, which would equate to C.80 - 100 printers. It's clear we have major issue with printing, which is driving both financial and environmental cost.

22. Unlike the Desktop and Server strategies, the recommendation is to define and implement a Printing Strategy incorporating Staff education, Policy (Best practice) and Technology to significantly drive down the volume of printing across the Council. This will drive significant savings in the purchase of printers and more significantly the purchase and consumption of paper and toner.

23. The cost of implementing and maintaining this approach is estimated at £53k pa and is based on a printer replacement strategy. This is an area where major cost savings can be made.

3.4. Data Networks

24. The Medium term objective (1-5 years) is to develop the Council's Wide Area Network to improve its flexibility, resilience and capacity. The biggest change within the ICT industry over the next five years is likely to be the integration of voice and data based networking. There are potentially significant savings to be made by moving our Voice communication (fixed and mobile Telephones) to our own Data network.

25. No provision has been made within the costing to fund any developments of the WAN, including adding additional capacity. These costs will be the subject of a separate investment proposal, following agreement of the broader Communications strategy.

26. The Short term objective (1-3 years) is to improve the security and capacity of our Local Area Network (within local offices) as follows:

- Replace the slow, aging and increasingly unreliable Town Hall network with a high speed, secure Wireless (WiFi) network
- Upgrade the St Aldates backbone to fibre (for increased speed and resilience)
- Replace the slow, aging cabling and switches in St Aldates
- Replace the older, aging network switches at the Town Hall and Ramsay House
- Upgrade the slow switches at the remote Housing Offices

27. The associated costs will be £64k in yr1, £16k in yr2, £37k in yr3

3.5. eMail and Data Archiving

28. Currently, there are no volume related controls over email usage within the Council. We are experiencing exponential growth in the demand for email storage, which can not be allowed to continue.

29. The strategy will implement a package of measures (education, policy and technology) to contain the level of email storage growth.

30. The policy and practice carry no financial cost and will be implemented Q1 2007. The technology will underpin the policy and provide sophisticated email distribution and archiving capabilities to minimise the storage demand placed upon the email systems.

31. The associated software cost is £25k in yr1 and £3.5k pa thereafter

3.6. Business Continuity

32. The Council has invested significantly in Business Continuity plans and ICT lies at the heart of these. Whilst the Core business applications are covered under the existing agreement external email, Leisure services, Internet and Document management (for Planning, EH and others) are not.

33. Given the Council's increasing dependence upon these facilities in delivery of its services, it's recommended that these be included in the Business Continuity plan from 2007-8.

34. The associated cost will be C. £10k set up in yr1 with C.£5k pa thereafter.

3.7. Service Desk Management

35. The Service Desk (extended Help Desk) within Business Systems will own and drive the core systems management and governance systems. These processes include

- Patch management (distributing and applying software fixes to protect the Council's systems from security holes and other critical failings)
- New release distribution - to distribute new versions of Core business applications to PCs quickly and effectively
- Change Management – Tools to control and manage changes to ICT hardware and Software
- Job Schedule automation – to manage the increasingly complex inter-dependencies between different Core applications

36. The associated software cost is £35k in yr1, £3.5k pa in yr2, £23.5k in yr3 and £5.5k pa thereafter.

3.8. Internal and External Labour

37. Internal labour will be focused on two key areas: “Business As Usual” activities (management, delivery and support) and planning the future (strategy development and implementation).

38. External labour will be used within Business Systems to supplement key skill deficiencies and to deliver project based initiatives, either directly (supplementing skills or capacity gaps) or indirectly (backfill, thereby releasing internal staff to work on projects). Business units wishing to implement ICT based projects will be expected to build the full costs of their project’s ICT labour requirement into their investment proposal.

39. Specifically, internal labour will be deployed for

- Service Desk (Help Desk, Systems Management)
- Customer and Vendor relationship management
- Business application support, maintenance and development
- Infrastructure strategy and development
- Governance

40. A provision of £50k pa has been made to support the “projects” within this proposal.

4. Investment summary

42. A detailed analysis of the five-year investment can be found at appendix B. A summary is below.

Capital

	2007-08	2008-09	2009-10	2010-11	2011-12	5-year cost
Total Capital investment	525,554	472,929	496,477	416,736	411,120	2,322,815

Revenue

	2007-08	2008-09	2009-10	2010-11	2011-12	5-year cost
Total Revenue investment	25,000	12,000	15,500	15,500	15,500	83,500

5. Exclusions from this investment

43. This proposal is focused on delivering the core ICT infrastructure strategy. No provision is made in this proposal for:

- Changes or Upgrades to existing business application software
- Replacement of existing applications (eg Payroll, HR)
- New modules for existing solutions (eg Choice Based Lettings)
- Entirely new solutions
- Enhancements and developments for the Council's Internet or Intranet Web sites
- Replacement of the Council's Telephone systems (these are managed by the Facilities Business Unit)
- New Telephone systems (eg introduction of Voice over IP services) again these currently reside within Facilities

44. These will be treated as "project" investments, where the Project Sponsor will be expected to provide the full ICT funding (see 3.8 above)

6. Risks & Issues

45. Key risks of not making the investment are categorised as

- Equipment failure
    - Increased risk of major service outages for extended periods, possibly days at a time
    - Increased risk of minor systems failures resulting in poorer ICT service provision to staff delivering both front-line and back office services
    - Increased support costs (internal and external labour) likely to result in a demand for additional internal heads

- Obsolescence
    - Risk that Business Systems will not be able to upgrade Core Business Applications in line with statutory requirements, because the underlying infrastructure is no longer supported by the Application software vendor
    - Lack of available skills and spare parts to effect repairs resulting in an inability for Business Systems and its partners to keep the Council's systems operational
    - Demand for major investments at short notice to resolve critical systems failures
    - Risk that a solution to a major fault may take weeks or months to implement, due to the interdependencies of systems components and their incompatibility

- Opportunity cost
    - Systems are so out of date that they prevent the operational Business Units implementing their step change improvements required for efficiency and productivity gains
    - Unable to implement new services as the underlying technology is either not supported or does not have capacity to support the additional workload demands

6.2 Technical risks of implementing the recommendations

46. All of the recommendations in this proposal refer to technology that is proven within the industry. To that end, the risk of the technology being overly difficult to implement or not working properly after implementation are very low.

Name and contact details of author:
Rob Sproule
Business Manager - Business Systems

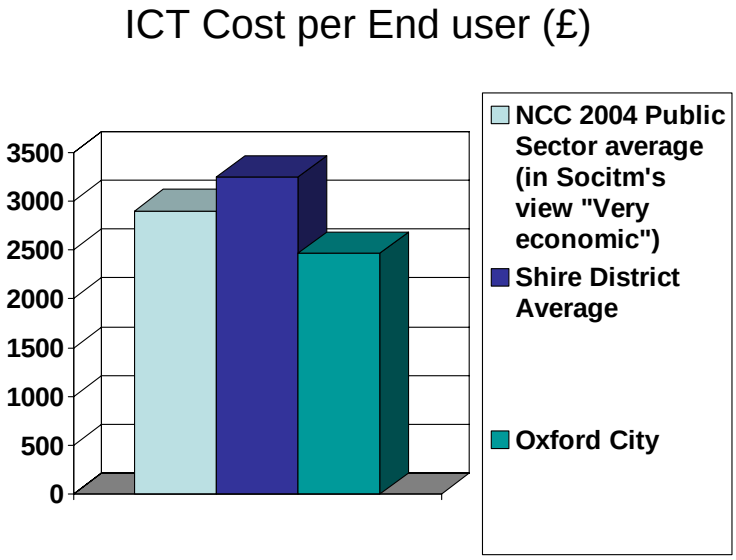
T: 01865 252284
M: 07979 245684
email rsproule@oxford.gov.uk

Background papers:
None

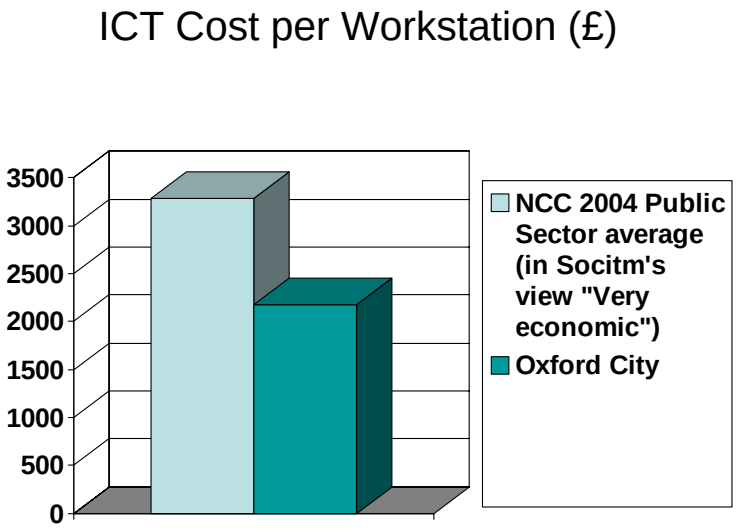
Appendix A

BENCHMARKING ANALYSIS

A1 Cost of Business Systems

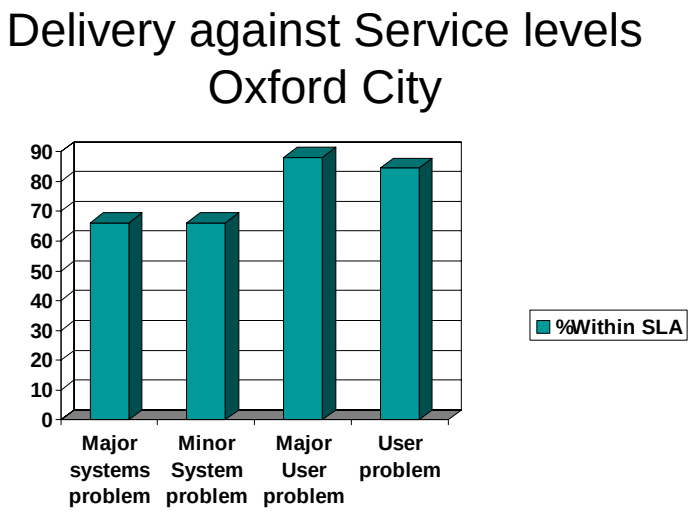


The National Computing Centre (NCC) have defined a “Very economic” baseline for ICT costs per End user. Business Systems’ costs are significantly below the average for other Districts and below the NCC target.

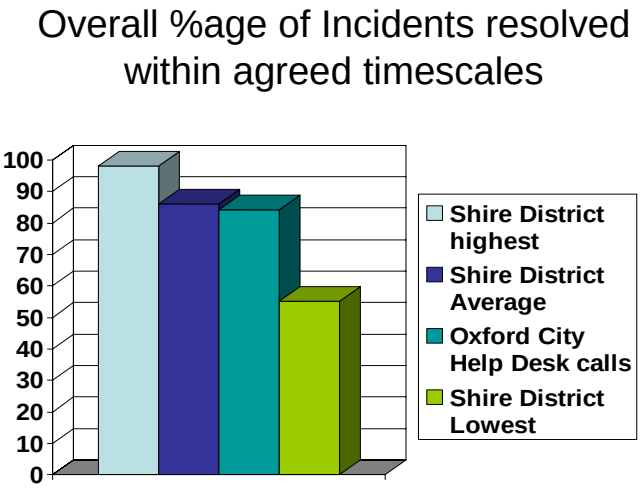


The National Computing Centre (NCC) have defined a “Very economic” baseline for ICT costs per Workstation (or PC). Business Systems’ costs are significantly the NCC target, there is no data for other Districts.

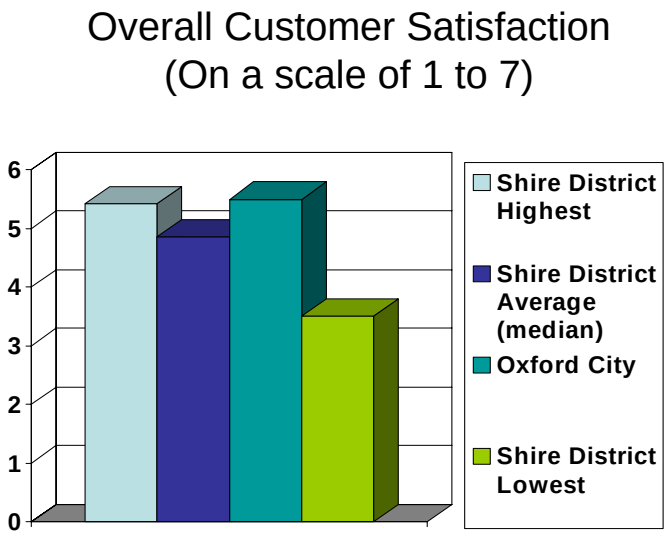
A2 Quality of Service



Scores based on the Help Desk Service Level data for October 2005 to September 2006



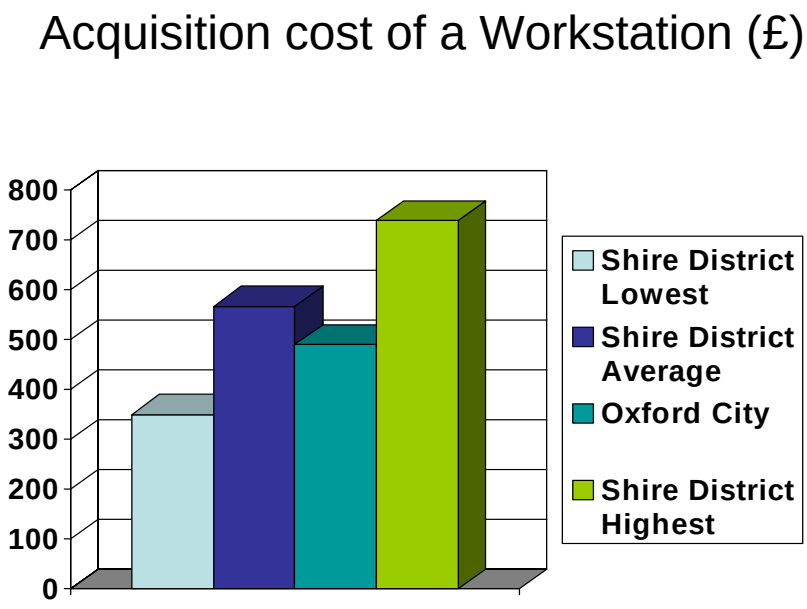
Business Systems perform very slightly below average of other Districts



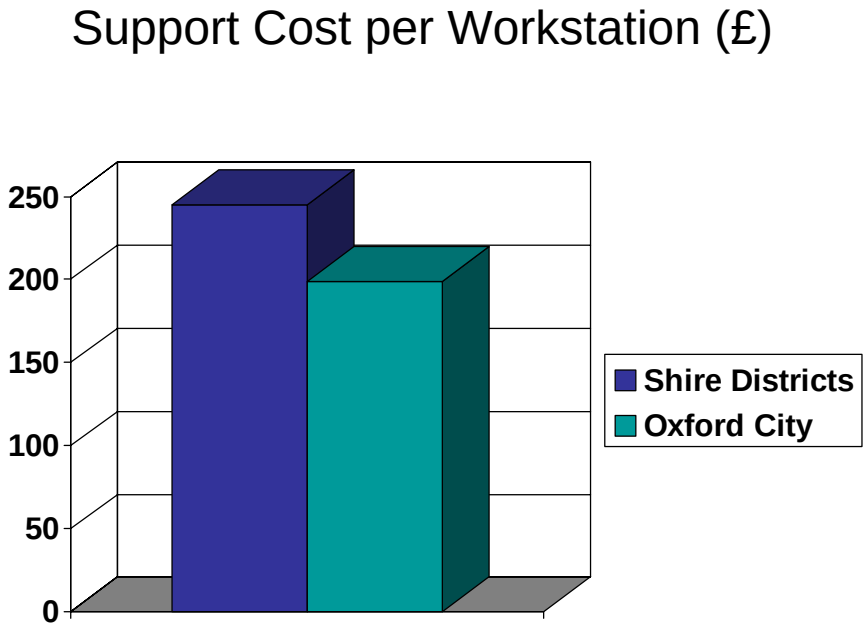
Oxford City Council (Business Systems) did not take part in the Survey; if we had, we would have had the highest Customer Satisfaction score.

The OCC data is based on the Customer Satisfaction survey carried out during September 2006. A full report of this survey is available on the Council's Intranet.

A3 Cost efficiency



"Acquisition cost" is the price paid for the equipment and excludes processing costs. Clearly, the specification and quality (brand) of the PC have a significant bearing on the result. Business Systems buy moderate specification durable "Dell" PCs which represent very good value for money.



This is the cost of Business Systems staff to support the deployed PC base and includes Management overheads. OCC benefit from economies of scale that are unavailable to smaller Districts.

Appendix B

FIVE-YEAR COST ANALYSIS

	2007-08	2008-09	2009-10	2010-11	2011-12	5-year cost
Server & storage H/w & Software	78,200	80,600	86,200	65,500	60,000	370,500
PC Hardware & Software	229,714	229,714	229,714	229,714	229,865	1,148,719
Network LANs & WANs	63,983	15,583	37,243	0	0	116,810
Printers	52,440	52,440	52,440	52,440	52,440	262,200
Business Continuity - Email,Internet, IDOX, Leisure etc	10,000	5,000	5,000	5,000	5,000	30,000
Email & data archiving	0	25,000	3,500	3,500	3,500	35,500
Service Desk software - Patch Management	15,000	0	0	0	0	15,000
Service Desk software - Change control	25,000	3,500	3,500	3,500	3,500	39,000
Service Desk software - Job Scheduling	0	0	20,000	2,000	2,000	24,000
External labour provision	50,000	50,000	50,000	50,000	50,000	250,000
Contingency (5%)	26,217	23,092	24,380	20,583	20,315	114,586
	550,554	**484,929**	**511,977**	**432,236**	**426,620**	**2,406,315**