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The IT Implications of the Convergence of Year 2000 and EMU

Introduction

There is worldwide concern that many systems and services will fail at the start of Year 2000 (Y2K). The process of identifying where there is a problem and making the necessary changes commonly demands more resource than is available and staff are moving to those organisations which pay best. It is estimated that there are currently over 400,000 unfilled IT vacancies worldwide.

There is also growing concern that rising staff shortages and turnover will lead to increases in serious systems failures from 1998 onwards. An example of the seriousness of the issue is the way in which Insurance cover against Y2K problems/liabilities is being routinely excluded or is offered only on restricted terms.

The Single European Currency also requires major systems effort. Present timetables mean that financial institutions will be amending and testing their systems at the same time as handling Year 2000. The impact will be felt in all the countries of Europe, not just those who join on day-one. Examples of the level of IT resources required appear similar to those needed for Y2K.

The problems arising from uncorrected date problems could put companies out of business. Those whose own systems do not fail can be brought down by the failures of others. Problems in communications or utilities or from market interdependency could cause economic and social disruption. Organisations sharing common supply chains or market systems need to be able to work together to reduce risk without fear of regulatory or anti-trust action. EU Governments and the Commission must remove or suspend barriers to co-operative action to ensure that the risks are minimised, including in the public sector. For example it may already be too late to follow the EU public procurement directives for work that needs to be externally contracted.

Recommendations

1. There is insufficient IT resource to avoid serious risk in handling Y2K and EMU at the same time. It is essential that resources are not diverted to other IT tasks which could be postponed. HMG and the Commission should review the implementation schedules of current and prospective legislation and directives so that any requirements for further systems changes, public or private, can be scheduled for after Y2K and EMU.

2. The domino effect of failures in networked systems could seriously affect social and business life. Contingency plans are needed to handle the knock-on effects of system failures at corporate, national and international levels.

3. The Commission should call on other member states to match the open approach of HMG to reporting progress on the Year 2000 plans of Government Departments and the Public Sector.

4. Both public and private sectors need to focus less on avoiding liability and to concentrate more on co-operation, openness, shared information and

compliance testing programmes across markets and along supply chains.

5. The Commission, Member States and International Telecommunications Union should designate the 1999 May Holiday for the testing of International Communications, national test days having previously been held. In the UK, Action 2000 should maintain and distribute schedules of test days within individual sectors, so that non-participants can avoid these.

6. The introduction of EMU will affect all EU states, not just those who join at the start and there is a need for clear guidance for all UK organisations which may be affected, particularly SMEs.

7. The Commission should monitor and publicise authoritative information on the common and national rules and timetables for EMU and for Year 2000 testing plans. It should draw attention to those areas where information is not available and the consequent need for those affected to make contingency plans.

1. Year 2000

The UK has made good progress in promoting awareness of Year 2000 problems. Suppliers and trade associations are starting to receive communications asking for help and advice. This is a good sign, but there is evidence that, although awareness is growing, understanding of what needs to be done is still inadequate. The lack of awareness in some parts of Europe is, however, of great concern given the growing economic interdependence of EU member states.

BSI/DISC (the UK standards authority) and others have produced definitions of the conformity requirements for Year 2000. These appear consistent but only a minority of companies in the UK have so far carried out a full systems audit. Those organisations that are confident that their systems are compliant still face the problem of inter-dependence with others that may not be.

Some organisations who previously claimed their software or their products with embedded systems were compliant are backing off from earlier assertions for lack of positive proof. Year 2000 problems are now commonly uninsurable as cover is removed from standard product and service liability renewals because even those who have taken reasonable measures to be compliant cannot be sure of the behaviour of components and sub-systems. This is a problem for suppliers of control systems as well as of software. The implications of malfunctions in process machinery are profound and there is concern at the lack of realism in Health and Safety Executive proposals in this area.

Fear of liability for systems failure has led to a proliferation of compliance questionnaires. This is now diverting resource from practical information sharing and co-operation in the planning of the common testing of shared products and services. As certainty is not practical within the time available, a much higher priority needs to be given to the transparent provision of the best information available as opposed to the avoidance of legal liability.

Particular priority needs to be given to the provision to SMEs of clear and positive guidance for practical action, not mere awareness. HMG should ensure the effective use of those channels which indeed reach SMEs, from storylines in *The Archers* or *Coronation Street* to posters in computer

stores and post offices.

The testing of systems interdependencies along supply chains and across markets, with suppliers and customers, partners and competitors requires co-ordination; planning and timing and can be very expensive. There is no established Code of Practice for such testing. Concerns over anti-trust and other regulatory issues can hinder the sharing of information and common testing of systems which affect competitors in the same market.

The Commission, National Governments, and Regulators should co-operate with Industry Bodies to schedule national and international test days on which groups of organisations whose systems inter-relate can combine to test shared supply chain and market systems (including with public sector bodies). Where all members of a sector close down over a holiday period this may be fairly straightforward. But many industries have vulnerable equipment in continuous operation. There are concerns about the extent to which such systems can be simulated realistically for test purposes.

Telecoms systems present particular testing problems. Many suppliers appear unable to provide compliance statements. The possible side effects of testing across live services are such that it is essential to give prior warning so that users and consumers can avoid allocated test days other than as agreed participants providing dummy traffic.

There are specific difficulties in the public sector. HMG has released the Year 2000 plans of Government Departments for their Information Systems. These appear well advanced but other public sector operations and regulated utilities which find that external work is needed may be unable to issue and adjudicate tenders for action during the time available without breaching the relevant EU procurement directives.

There is serious concern over the utility systems in some other Member States. Staff shortages are such that even high-paying financial institutions are facing the choice between cancelling systems and relaxing standards for contractors and new recruits. As staff leave for more money, utilities may have to choose between demands of regulators for changes to business systems and ensuring that infrastructure systems survive the next couple of years, let alone the Year 2000.

Organisations dependent on internationally

integrated supply chains are making contingency plans against significant disruption in a number of EU Member States. Market-makers are predicting the effects of these plans on futures markets. Financial regulators are making plans to handle the consequences of increased fraud and market turbulence from Spring 1998 onwards.

National Governments and the Commission need to make equivalent plans to ensure the continuity of public services, particularly those related to the emergency services, health, transport and state-owned utilities.

2. EMU Considerations

The political issues relating to EMU have tended to obscure other aspects. The introduction of the Euro on 1st January 1999 has legal, financial and IT implications for all Member States, not just those participating from day one. The IT industry has a massive task to perform.

There is supposedly a three year period over which companies can convert their systems, but the added requirements during the transitional period greatly complicate the development of Euro-compliant systems. Given the skills crisis and Y2K problems, many financial institutions and multinationals, therefore, feel that they have no choice other than to do one-off conversions as early as possible and reduce the overheads of phased transition to a minimum. Management of the economic risks consequent on a sudden *de facto* transition needs to be planned.

SMEs supplying multinationals which convert from day-one may also have to be compliant or lose business. Those not within a participating State may need to work in dual currencies, perhaps for the first time. Exporters will have similar problems. (Over half the UK's external trade is with other countries in the EU). Those catering for inward tourist trade from the EU will also suffer competitive disadvantage if they cannot be Euro-friendly from day-one.

The preparation of banking and financial systems has been hampered by the lack of precise information on requirements, reporting and enforcement dates and national practices. There is concern over the application of "triangulation" to conversions between participating and non participating currencies. Extra functions have to be built into currency conversion programs and systems will have to

be tested during mid-1998 at the latest. Rapid results are needed from the agreed co-operation between the Commission and accounting software suppliers to develop Euro-compliant standards.

Unless implementation of the directive requiring multiple types of price information at the point of sale is postponed until after the transition period, retailers, particularly SMEs, face major costs.

There are significant differences between the impact on international and on domestic financial operations. Changes to handle dealing and clearing operations in Euros and to provide corporate services appear well advanced in the UK. The situation for smaller customers wishing to make card payments, draw cheques or receive statements in Euros is less clear. There will be no legal compulsion to trade in the Euro so the issues appear to be strictly commercial.

The Commission has moved with commendable speed to create a web-site covering the information needed by those developing software to enable businesses operating across Europe to meet national timetables. Unfortunately the provision of guidance material from national governments, banks, stock exchanges and other institutions is most uneven. The consequences, particularly for small firms trying to operate across Europe, to whom such lip service is paid, are DIRE.

The Commission needs to publicise the consequences, particularly for small firms, in those states which fail to provide timely and well-publicised guidance.

Even though UK will not join EMU at the start, the effects will ripple through much of the economy. Not only banking, finance and exporters, but those supplying the UK subsidiaries of multi-nationals and those catering for tourists, will require software packages that handle pricing, invoicing, accounting and reporting in the Euro.

More profound changes are needed in some states. Belgium and Spain do not currently have a decimal point in their currencies. There are also the problems with replacing keyboards and printers which do not have the Euro symbol.

We welcome the announcement of the setting up of advisory groups to provide a two-way

exchange between HM Treasury and business about the practical impact of monetary union and trust that the IT group will address the full range of issues entailed.

3. The Combined Impact

There is little time to tackle the necessary tasks. Year 2000 date problems could start early. For example, 9.9.99 was used at one stage as the default date on which a run stopped. That and all the EMU related issues have to be sorted out during the coming year.

The combination of Year 2000 and EMU stretches IT resources to the limit. At the DTI Millennium IT Skills Summit it was estimated that the UK needs 30 - 50,000 more IT professionals. The shortfalls in other EU states are understood to be similar. The US has 190,000 IT vacancies and is actively recruiting overseas, as well as subcontracting work to Europe, India and the Far East.

One international banking corporation has stated publicly that it needs 400 man years of expertise to tackle its Year 2000 problems and an extra 200 man years to be ready for EMU. They, like most other companies, do not yet have all the staff they need in post. Many companies have not started recruiting yet. The current skills crisis will only get worse in 1998.

There is a global problem of capacity. There are simply not enough IT professionals to do everything that has to be done. Few suppliers or users reliant on their IT systems can afford other changes. Many have already frozen other systems work and are making desperate pleas for a STOP to any more legislative or regulatory changes.

The levels and types of skills needed to handle Y2K and EMU are commonly very different. Those to handle EMU are in even shorter supply. There is a growing risk that, as recruitment, security and performance standards are relaxed in the face of skills

shortages, there will be increases in systems failure (including current operational systems) and computer crime (including fraud).

Some corporations are devoting the whole of their IS budget for the next two years to tackling the combination of Y2K and EMU. Others are no longer able to staff projects in other areas. The consequent decline in demand for IT products and services for other applications may release resources but could place severe strain on the cash flows of European IT suppliers and their ability to invest in the future.

Awareness of the Year 2000 problem and its conjunction with EMU is increasing rapidly among National and European legislators and regulators. It must be matched by awareness that the diversion of IT resources to handle the consequences of other legislative proposals could jeopardise the ability of even large well-funded organisations to cope. National governments and the Commission should review the implementation timetables for all existing and proposed legislation, directives and derogations which may require significant changes to public or private sector systems over the next couple of years.

EU Directives where suspension or postponement until after 2001 might form part of risk reduction strategies include: Procurement, Distance Selling, Pricing Display and Data Protection. In the UK, the review should include statutory instruments and regulatory decisions. Examples include: pension, banking, financial and regulatory changes, telephone numbering, electricity and rail pricing and NHS re-organisation. A list is given in Appendix 3.

The vital message to legislators is that the Year 2000 is immutable and urgent action must be taken to ensure that IT for EMU can be handled simultaneously. All other legislation with significant IT implications can and should be postponed.