

Modernising Government in Action:

Realising the Benefits of Y2K

Presented to Parliament by the Rt Hon Margaret Beckett MP, President of the Council and Leader of the House of Commons by Command of Her Majesty

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Contents

Foreword

Executive summary

Chapter 1: How government manages its business

Chapter 2: Working with the essential services

Chapter 3: The communications challenge

Chapter 4: Reaching out to small businesses

Chapter 5: The international dimension

Appendices

I: Full list of benefits and lessons of the Year 2000 problem

II: The problem and how the Government approached it

III: Responsible Bodies under the National Infrastructure Programme

Foreword

The Year 2000 problem - or the 'Millennium Bug' - presented the world with a unique challenge as we ended the 20th century.

The UK's dependency on computers and electronics meant that, whilst its precise effects were unpredictable, the Bug's potential impact was great.

The UK Government placed a high priority on tackling the Bug. Through a co-operative approach spanning national and local boundaries, and public and private sectors, we achieved our objective of no material disruption. The UK also became an acknowledged global leader and influence in addressing this issue.

An enormous amount of work was put into identifying, fixing and testing Bug problems, but the Bug was not an IT issue. It was a business issue, which forced IT out of the back room and into the boardroom. Both business and Government are now betterequipped for the technological and management challenges of this century as a result.

The need to build and maintain public confidence that normal daily life would continue meant identifying core functions and services and ensuring they were maintained. This process, first of prioritisation of core services, and then of business continuity planning, was highly successful. It also demanded an unparalleled level of national and international co-operation and planning. The new constitutional arrangements of the devolved administrations in Scotland, Wales and Northern Ireland also led to new ways of working.

The hard work paid off. The UK passed into the year 2000 without any significant problems. This was one project which could not - and did not - come in late.

For this we must thank all the thousands of people across the UK in the public and private sector who have worked so hard over the last few years. In particular, Dr Iain Anderson, the Prime Minister's Adviser on the Bug, and Don Cruickshank and Gwynneth Flower, Chairman and Managing Director of Action 2000.

Government needs to build on the benefits from the Year 2000 problem. But this report also deals openly - and frankly - with the lessons we can learn for the Modernising Government agenda. The challenge for Government at the start of the 21st century is to ensure we do learn them - and apply them.



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Executive summary

The Government's programme to tackle the Year 2000 date-change problem or Millennium Bug, as it was better known - was made up of many elements, at local, national and global levels.

It involved every government department, many Ministers and the creation of Action 2000, an organisation set up specifically for the project. Critical to the programme was the close public/private sector partnership that was formed for sharing information and building and sustaining public confidence.

This was a UK-wide programme with the Government providing leadership where it was helpful and, with the help of Action 2000, facilitating co-operation and collaboration where it was important across the public and private sectors. The potential impact of the Bug on the daily lives of UK citizens was significant. Together, the thousands of people involved across the UK delivered success. The objective of no material disruption was achieved - it was business as usual at the Millennium. The hard work and money invested paid off.

The work on the Bug has yielded many benefits which this report discusses under five main themes:

- how government manages its business;
- working with the essential services;
- the communications challenge;
- reaching out to small businesses; and
- the international dimension.

The report also looks at the lessons of the Year 2000 project, in particular those that are relevant to similar cross-cutting issues like e-commerce and the Modernising Government agenda. It sets out the next steps requested by Ministers. Key lessons and benefits are summarised below and a full list of some 80 lessons and benefits is in Appendix I. For those not familiar with the programme, Appendix II gives an explanation of the Year 2000 problem and the history of the Government's approach to it.

This report takes into account reviews by every government department of their Year 2000 programme, Action 2000 and key elements of the wider public sector. It also draws on the views of members of the National Infrastructure Forum (NIF) Steering Group.

Key benefits and lessons

Chapter 1: How government manages its business

- The Bug demonstrated that Information Technology (IT) is an essential component of an organisation's overall business strategy. It has promoted a wider understanding of the role and importance of IT in service delivery and more fully integrated IT into senior managers' thinking.
- Departments need to improve their assessment and management of risk.
- Business continuity planning needs a stronger, service-focused approach in departments.
- Effective cross-cutting initiatives bring benefits way beyond the resources required to make them work. But they need vision, appropriate structures and, above all, senior-level buy-in.
- Public/private sector partnerships work where there is joint 'ownership' and benefits, and a clear objective.
- Departments need to invest time in developing strategic relationships with key partners in the private, wider public and voluntary sectors.
- A task-orientated Ministerial committee is an effective means of driving forward a cross-cutting issue at the strategic level.
- Central units have a crucial role to play in driving forward cross-cutting programmes at the working level. But they need a clear project management discipline. The model also works within departments.
- Central monitoring is a useful tool, both as a driver for action and in building external credibility by demonstrating

progress.

• Action 2000 is a potential model for tackling tightly defined initiatives and could be of particular value for projects cutting across the public and private sectors.

Chapter 2: Working with the essential services

- A successful public/private sector partnership brings demonstrable benefits for both parties but must be designed to gain maximum buy-in and common ownership.
- The potential of the infrastructure process map should be exploited in taking forward future work on policy areas relevant to contingency planning.
- Any future project in which public confidence is critical should ensure that, whatever strategy is adopted to deliver the objective, it has a sufficient degree of independent assessment.
- The use of a highly visual and readily understood 'traffic lights' image was essential and enabled complex information to be communicated in a consistent way.
- Employing professional project management techniques proved to be a valuable tool and future projects on this scale would benefit from doing the same.
- Future cross-cutting projects of this kind will need to take full account of the new constitutional arrangements and ensure an appropriate combination of local focus and UK-wide overview.
- Industry regulators played an important role in the success of the project, sometimes by taking on work outside their usual remit. There may be scope for industry regulators to identify other issues on which a co-ordinated approach will benefit the consumer by ensuring all service providers carry a consistent message.
- Collaborative working in sectors was helpful and could be extended to other issues. The Competition Act 1998 does permit co-operation where consumers stand to benefit from the ensuing technical or economic benefits.

Chapter 3: The communications challenge

- An integrated marketing and communications programme, utilising paid-for media, direct engagement with the press, and other devices, such as advertising and booklets, was key to the overall success of the strategy.
- Openness needs to be a pro-active strategy built into a planned structure for collecting and disseminating information.
- It is important to establish early contact with the media to promote balanced and timely messages.
- Any engagement with the media will have its limitations. A strategy should be in place to deliver messages direct to the market-place. Paid-for advertising and communications (eg literature) can play a key role, as can use of the Internet.
- Effective public/private sector partnerships can deliver complex messages across diverse sectors of the economy.
- Independent spokespeople have an important role to play in delivering a credible, authoritative message.
- Independent research is valuable in managing risk and developing communications campaigns.
- Swift and accurate rebuttal is important in co-ordinating cross-cutting communications issues.
- The Internet has the potential to lead the future delivery of communications.

Chapter 4: Reaching out to small businesses

- The small business sector is known to be difficult to reach across the board. Action 2000's strategy, based on national media activity supported by professional staff on the ground and by services such as Actionline, achieved an unprecedented level of success.
- Many small and medium-sized enterprises (SMEs) reported an improved understanding at senior level of the role of IT in their business. This will stand them in good stead for the growth in e-commerce.
- The campaign benefited from focusing on the employees of SMEs as well as their owners.
- The National Mentoring Scheme and Pledge 2000 offered innovative solutions to known problems. They demonstrated that it is possible for large and small companies to work together to address potential problems in the supply chain.
- It is important to be able to identify the most effective influences on SMEs, and also whether they are most successful at a national or a regional level. The key to maximising the ways of getting messages across to SMEs was to use a variety of approaches.
- The Government set up Action 2000 as a private sector company so that SMEs would see it as independent of both the Information Communication Technology (ICT) supply sector and government. Action 2000 was able to give a clear, authoritative and unbiased message that was welcomed, and in large part heeded, by SMEs. Action 2000's independent positioning was also possible because they provided their services without charge.

• Businesses will only tackle an issue if they see a business benefit, or if the issue puts them at risk. Since innovative companies will be more likely to recognise and act on specific issues, messages about an issue should be aimed at the less well prepared and should focus on benefits and competitive advantage.

Chapter 5: The international dimension

- The UK has demonstrated it can lead on key global business issues.
- To influence the international agenda by taking the political lead is not enough: high level support needs to be backed with practical initiatives.
- The Foreign and Commonwealth Office (FCO) has a key role to play in working with other government departments in engaging effectively with global issues.
- E-diplomacy will be as important as e-government and e-business.
- Global issues need a global perspective: national strategies should consider the international dimension from the start.
- International organisations need to be flexible and innovative in responding to new global issues.

Next steps

Government must build on these benefits and learn from - and apply - the lessons. This report sets out the following steps to take them forward:

- The Cabinet Office will take into account the points raised in pursuing the Modernising Government reforms and in the context of the Major IT Projects Review in particular. Departments will be taking forward work on business continuity planning. The recommendations that come out of the Major IT Projects Review will include measures to ensure that departments improve their management of risk and view IT projects in the context of delivering wider business change.
- Government and service providers should both take forward the key messages of the project the value of partnership and openness in the relationships between suppliers and customers.
- The Head of the Government Information and Communication Service will be issuing best practice guidance to departments on the co-ordination of cross-cutting issues. This will draw on the experience of the Year 2000 effort and a number of other programmes, and reflects the points outlined in Chapter 3.
- The Small Business Service is developing its media and communications issues in the light of best practice across the board, including the Action 2000 campaign.
- The FCO will be taking the lead in discussions with other interested departments, and the Office of the e-Envoy, to identify global issues where the lessons of the Year 2000 programme can affect a step-change in enhancing the UK's effort and profile globally. In particular, the joint Department of Trade and Industry and FCO body, British Trade International, could adopt some of the lessons of the Year 2000 programme, as well as building on the confidence generated by the UK's leading role in combating the Bug.

1: How government manages its business

What was the objective?

When presented with the Millennium Bug problem, government faced two major issues.

1.1Like any other large organisation, it needed to put its house in order and make sure that it was able to deliver the services for which it was directly responsible. But there was also a bigger challenge. If the Bug was not dealt with effectively across the whole of the UK national infrastructure and wider business community, as well as internationally, the impact on the daily lives of UK citizens would be dramatic. Government was not in a position to solve the problems itself but it did have an important enabling role:

Key lessons for the future

- There are no IT issues, only business issues: the Bug demonstrated that IT is an essential component of an organisation's overall business strategy. It has promoted a wider understanding of the role and importance of IT in service delivery and more fully integrated IT into senior managers' thinking.
- Departments need to improve the management of risk.
- Business continuity planning in government departments needs a stronger, more service-focused approach.
- Effective cross-cutting initiatives bring benefits way beyond than the resources required to make them work but they need vision, appropriate structures and, above all, senior-level buy in.
- Public/private sector partnerships work where there is joint ownership and benefits and a clear objective.
- Departments need to invest time in developing strategic relationships with key partners in the private, wider public and voluntary sectors.
- A task-orientated Ministerial committee is an effective means of driving forward a cross-cutting issue at the strategic level.
- Central units also have a crucial role to play in driving forward cross-cutting programmes at the working level but they need a clear project management discipline. The model also works within departments.
- Central monitoring is a useful tool, both as a driver for action and in building external credibility by demonstrating progress.
- Action 2000 is a potential model for tackling tightly defined initiatives and could be of particular value for projects cutting across the private and public sectors.
- to raise awareness of the Bug and of the need for action;
- to ensure that all significant risks were addressed; and
- to work with others to build and maintain public confidence.

The scale of the problem

Across government, more than 300,000 critical systems had to be checked. The Ministry of Defence (MOD) alone identified over 30,000 vulnerable systems, of which some 1700 were critical to its business. Thirty-five per cent needed fixing and 18 per cent required major work. The entire effort involved 1350 staff at its peak and cost the department around

£150 million.

It was essential for the smooth working of government that all departments were prepared for the Bug. For instance, had the Inland Revenue's key tax collection systems failed, it would have cut the daily net cashflow to the Exchequer by $\pm 10-15$ million. And had the problem been allowed to continue, it would have had a huge impact on the ± 180 billion in tax and National Insurance Contributions the Inland Revenue collects annually and on which government depends. The cost of dealing with such a failure could have been as much as 10 times the ± 30 million that the Inland Revenue spent on tackling the Bug.

What was achieved?

Putting government's own house in order

Managing the Bug within departments

1.2 The responsibility for solving government's own Bug problems fell to individual departments. All of them met the ultimate deadline successfully, although slippage at times caused concern: none of the key services they delivered was disrupted and, while there was a handful of minor Bug failures across government, these were quickly fixed. This success disguises the significant challenges that departments faced, and which many of them had been working on since 1995.

The time, effort and money invested in tackling the Bug have generated a large number of direct benefits for government.

A lasting internal legacy for government

Departments are now better able to respond to the demands of e-government:

Programme management

Preparing for the Bug tested programme management to the full. In most departments, programme management arrangements evolved over time, with new tools being developed as understanding of the problem grew. Departments will be able to use the experience gained to inform and improve the management of future projects.

Better understanding of systems

All departments now have inventories of their electronic systems and a better understanding of the way these systems fit together to support the delivery of their services. Many departments have used this knowledge to rationalise their existing systems and, as a result, have made financial savings. One HM Customs and Excise region was able to reduce local administrative systems by almost 60 per cent without affecting operational effectiveness.

Technological refresh

The Year 2000 problem was a powerful driver for a number of departments to upgrade their systems and software. Some departments were also able to bring forward new capital-replacement projects.

Improved management of IT resources

Compliance programmes have exposed weaknesses in the management of IT resources, particularly in the processes used to identify non-approved software and monitor the installation of unauthorised software.

Improved infrastructure management

The Year 2000 problem has given a sharper profile to the importance of buildings and security systems and their

management, in particular the management of contractors and health and safety issues.

Independent assessment

The value of independent assessment in capturing best practice, monitoring progress and providing independent assurance was clearly demonstrated.

Improved testing

Departments have improved their testing methodologies. Business assurance testing, in particular, has gained wider currency. This should lead to improved confidence in and control over future projects.

Electronic communications

Dealing with the Year 2000 problem further demonstrated the business benefits of electronic communications. For example, being able to gather information rapidly from, and disseminating it to, a geographically widespread organisation was invaluable to the Year 2000 programmes of the National Health Service (NHS) and MOD.

1.3There was an early perception, common to managers in the private as well as the public sector, that the Bug was 'just an IT issue' and responsibility for fixing it was given to IT departments. However, it soon became apparent that tackling the Bug would require significant intra-departmental working and most departments established small project teams to co-ordinate the whole range of work on the Year 2000 problem. In the best examples, the problem brought IT teams together with business units and policy teams.

Departments have developed a broader understanding of their whole organisation and a wider understanding of the role of IT in supporting the delivery of key services.

1.4 The Year 2000 project teams also provided the main contact points for the Cabinet Office Year 2000 Team and were invaluable in driving progress and promoting joined-up working across departments. The Scottish Executive and a number of departments, like the Department of the Environment, Transport and the Regions, created high-level Year 2000 programme boards, with representatives of all relevant departmental divisions, to oversee the progress of remedial work and identify and discuss strategic issues and areas for further work.

The high-level Year 2000 programme boards provide a model that could work well in the management of other strategic issues.

The Scottish Executive Millennium Steering Group

The Scottish Executive created a Millennium Steering Group which met monthly to consider Year 2000 progress and wider strategic issues. Members included the Director of Administrative Services, who had overall responsibility for the internal programme, and senior managers from across the Executive with policy responsibility for the National Health Service, police and fire services and local authorities. The Action 2000 Regional Manager, the Year 2000 Programme Manager for the Convention of Scottish Local Authorities (CoSLA) and the Cabinet Office Year 2000 Team also attended.

The importance of senior level buy-in

1.5 The Ministerial Group, Cabinet Office Year 2000 Team, Dr Anderson (former Strategy and Technology Director of Unilever and the Prime Minister's adviser on the Bug), Year 2000 co-ordinators within departments, and Action 2000, all played an important part in engaging senior officials and Ministers. Promoting the Bug as a priority business issue ensured that it could compete with departments' immediate policy priorities and core business.

Senior level buy-in was a key factor in the success of the Bug effort and in securing the necessary commitment and resources to make things happen.

Managing the bug compliance programme across government

1.6The Cabinet Office Year 2000 Team fulfilled an important 'headquarters' function in monitoring and reporting on progress made across government in tackling the Bug, setting targets, and, together with the Central Computer and Telecommunications Agency, in spreading best practice. A number of departments felt that the Year 2000 Team should have adopted a more formal project-management approach. This would have made it easier to communicate the direction of the overall programme and facilitate wider discussion between the centre and departments, allowing the experience of leading departments to be fully captured.

Policy teams need to develop a wider understanding of formal project-management techniques and adopt them where appropriate.

1.7 A generic questionnaire was used to monitor each department's progress. This allowed any problems that were developing to be spotted early, discussed, and, where necessary, raised with relevant Ministers. Opening up departments to external scrutiny proved to be a powerful driver for action. The information collected also increased the Government's credibility by demonstrating its commitment to tackling the Bug. However, the 'one type fits all' questionnaire used restricted the ability of individual departments to put their problems into context. The quality of returns also varied.

The system of monitoring used proved to be a powerful, if blunt, tool that could usefully be applied to other cross-government initiatives. However, project managers should consult fully when designing their overall approach to monitoring and constructing questionnaires.

The Bug as a business issue

1.8 The Bug was not an IT issue - it was a business issue. The pervasive nature of the Bug and its potential impact forced departments to adopt a more integrated, business-focused response, challenging the established management culture in departments where the two areas are traditionally managed separately.

Tackling the Bug has demonstrated that IT is an essential component of an organisation's overall business strategy. The work has also promoted a wider understanding of the role and importance of IT in service delivery and more fully integrated IT into senior managers' thinking.

A new service focus

1.9 In the process of identifying and managing the risks posed by the Bug, departments were forced to analyse the problem in terms of the key services they provided and the potential impact of failure on their customers.

Departments have reached a wider and deeper understanding of their key services and have developed a new, stronger customer focus.

Improved understanding of business processes

1.10 The scale of the Bug problem forced departments to prioritise their work. For instance, within the MOD, a number of focus groups were created. These groups, or 'capability workshops', brought together personnel from the armed services and support organisations, to identify the key processes and systems that contribute to defence capabilities. Other departments went through a similar process.

Departments now have a far better understanding of their business processes and the critical systems that contribute to the delivery of their services.

Business continuity planning

1.11 The process of managing the Year 2000 problem has introduced many more managers to the concept of business continuity planning and alerted departments to the importance of managing risk on an on-going basis. Some departments are already building on the experience gained in this area, for example, the Department of Social Security and the Home Office now have staff dedicated to business continuity planning.

All departments now have up-to-date business continuity plans in place. But the work invested by departments in preparing business continuity plans for the Year 2000 needs to be captured properly and built on, otherwise the work done to date will be

lost.

Supply chains

1.12 The logic of identifying risks to key services led departments and agencies to identify where they were dependent on external organisations and cast a critical eye over their suppliers. The process also led departments to rationalise many of their contracts and helped them to foster a closer relationship with their key suppliers.

Departments have a better understanding of their supply chains and the other areas where they are vulnerable to external influences.

Dealing with the wider problems

Tackling cross-cutting issues

1.13 Some departments were responsible for ensuring action in specific areas - for example, the Health and Safety Executive recognised the need to raise awareness about the potential safety risks posed by the Year 2000 problem. But more generally, government had an important enabling role to play in helping to ensure that the Bug was dealt with across the national infrastructure and internationally. Departments had to deal with a range of problems that cut across departmental interests and policy areas. Some of these cross-cutting issues were recognised early and tackled well, both within and across departments. Action 2000's National Infrastructure (NIF) programme (see Chapter 2) was one striking example. Another was the work of the Government Office for London that brought together the stakeholders in Bug activity across London and linked their work to the preparations for the Millennium in London.

Year 2000 Assessment

The HSE produced an extensive range of guidance materials

1.14Some departments were slow to recognise and engage with the wider issues raised by the Year 2000 problem: some initially took a too-narrow view of their responsibilities and, in others, ownership of the problem was focused on IT teams and not widely shared across the organisation.

1.15 Tackling the Bug holds a number of useful lessons for the way in which cross-cutting issues are handled.

Cross-cutting, 'joined-up' government delivers real benefits, but only when there is a clear set of objectives which all stakeholders recognise, with clear benefits, and where roles and responsibilities are clearly set out and resourced.

London and the Millennium - a well co-ordinated campaign

A Pan-London Readiness 2000 Steering Group (PLSG) was brought together by the Government Office for London to ensure that the capital was ready for the Bug. Chaired by the Minister for London, the Group involved senior representatives from the emergency services, local authorities, health authorities and NHS trusts, the Port of London Authority, Health and Safety Executive, Action 2000 and London's business community.

The PLSG was supported by a dedicated London Readiness year 2000 Team, based in the Government Office for London, with staff drawn from central government, the Association of London Government, Corporation of London, London Fire Brigade, Metropolitan Police Service and the NHS London Region.

In preparing for possible Bug-related failures, PLSG identified the need for contingency planning and co-ordination for the whole Millennium weekend and subsequently developed a series of working groups to plan the management of the main

The work done by the Government Office for London in preparing for the Year 2000 may hold lessons for those developing support mechanisms for the new Mayor of London.

Maximising influence without powers

1.16 Some departments initially felt constrained in working with organisations in the private or wider public sectors on wider Bug issues because they lacked formal powers to require information or action. Action 2000, working with departments through the NIF programme, demonstrated that much could be done without such powers, particularly by bringing organisations together to meet a common challenge. Some departments were hampered in working in this way because they had not engaged with their key sectors or partners at a strategic level where the Year 2000 problem was already identified as a priority.

The Year 2000 problem has demonstrated what can be achieved through a flexible and innovative approach to problem solving. The new relationships built as a result of planning for the Bug must be maintained.

Protecting drugs supply through partnership

The Department of Health worked with the NHS Executive to bring together an alliance to protect continuity and access to medicines up to, during and beyond the Millennium. Led by the Association of the British Pharmaceutical Industry (ABPI), this was the first ever pan-industry collaboration.

Sitting with the ABPI were representatives of the British Association of Pharmaceutical Wholesalers, the Head of the Home Office Drugs Branch, the Chief Pharmaceutical Officer, the National Pharmaceutical Association (representing retailers), the Royal Pharmaceutical Society (UK), dispensing GPs, the NHS Prescription Pricing Authority, NHS Supplies, the *Pharmaceutical Times* and the *Chemist & Druggist*.

Co-operation and collaboration across government

1.17As well as reinforcing existing lines of communication between departments and agencies, the Year 2000 problem also led to new links being created and brought about new forms of co-operation and collaboration. For example, building on their existing Closer Working Steering Group, HM Customs and Excise and the Inland Revenue shared best practice on tackling the Bug and established a reciprocal peer review programme.

Departments were willing to work together and collaborate where staff shared a common language and faced similar difficulties.

Collaboration on medical devices

The Defence Secondary Care Agency (DSCA) checked the compliance of its medical devices in collaboration with the Scottish National Health Service and the Canadian Military Medical Authority. The results were published on the Scottish National Health Service's website for others to share. The DSCA estimates that it saved £250,000 through this collaboration.

Co-ordination across government

1.18A Ministerial Group was established to develop and drive forward the overall government response to the Bug. The Group was responsible for agreeing the programme, identifying strategic issues, prioritising action and reviewing progress. The operational role played by the Group, while not unique, differed from that of the majority of Cabinet Committees, which most

often meet to resolve particular issues or refine specific policies.

1.19 The keys to the Group's effectiveness were:

- the broad representation achieved within the committee. This helped to secure a wide ownership of the overall strategy. The Prime Minister's adviser on the Bug, Dr Iain Anderson, and Don Cruickshank, Chairman of Action 2000, also brought their individual expertise and experience to the discussions;
- holding regular meetings. This gave the programme impetus and allowed Ministers to develop a command of the issues;
- the role of the President of the Council in providing continuity. Mrs Beckett played a key role as Chairman of the Ministerial Group and Government spokesperson for the Bug issue; and
- the role of the Year 2000 Team. The team acted as a policy engine for the Group, working with the President of the Council and the Cabinet Secretariat in setting the agenda and ensuring that issues were followed through at official level.

"The Ministerial Group really kept Ministers focused on the problem and drove forward action across government and the wider public sector."

Dr Iain Anderson

Prime Minister's adviser on the Millennium Bug

1.20The Civil Contingencies Committee, chaired by the Home Secretary, met to review central government's Millennium emergency planning activity, the preparations for the Millennium and how these might be affected by the Bug. Mrs Beckett also chaired a Year 2000 Communications Committee which reviewed and co-ordinated government communications in the immediate run-up to the Millennium date change. Some departments found the division of work between the committees confusing and felt that it added unduly to their workload. They also saw the creation of separate ad hoc groups at official level as duplication rather than as adding focus.

The model adopted for the Year 2000 problem, of a task-orientated Ministerial committee backed by a dedicated policy team, proved extremely effective and should be considered for tackling future cross-cutting issues, such as e-commerce and e-government. However, it demanded a significant input of time and effort from Ministers and officials and these pressures should be recognised at the outset and built into any programmes.

1.21At the working level, the Year 2000 Team also played an important enabling role, identifying new strategic issues and priorities, establishing ownership of problem areas and chasing up progress to ensure that matters were being dealt with. The Team gave impetus to work on cross-cutting issues at an early stage when departments were more focused on their own internal Bug problems. On communications matters, the Cabinet Office Media Co-ordination Unit mirrored this role.

Co-ordinating the work on the Year 2000 problem highlighted the importance of having single-issue teams able to take a strategic view and chase progress.

The Action 2000 model - an independent agent

1.22 Action 2000 was a key element in the delivery of the Government's Year 2000 programme. Initially created as a private sector company to deliver the awareness campaign to small and medium size enterprises (SMEs), it later set up and managed the National Infrastructure Forum (NIF) and took a key role in the public information programme. Action 2000 was deliberately set up in a way that enhanced its independence from government and gave it freedom to achieve the objectives it had been set in the way it thought best. It was extremely effective, delivering an innovative SME campaign and building a private/public sector partnership across the national infrastructure. The Action 2000 model can be characterised by its ability:

- as a private company, to assemble the necessary resources and expertise quickly, including appointing widely respected individuals to lead the company with direct access to key Ministers;
- to reinforce a culture of independence from government, which boosted its credibility with the private sector, media and general public. It also gave Action 2000 members the confidence to defend their views in discussion with officials and Ministers; and
- to think across traditional departmental boundaries.

1.23 Tensions did emerge sometimes between Action 2000 and government departments, which operate in a broader context and with wider responsibilities to Ministers. These tensions were structurally inherent to the model used and, on the whole, creative, but handling them was resource intensive at times.

The Action 2000 model was crucial to the success of the Year 2000 programme. It is a potential model for delivering specific, tightly defined initiatives and would be of particular value in projects which require working across the public and private sectors. However, when following such a model, the roles and responsibilities of the private sector body and the departments should be established from the start and clear 'rules of engagement' agreed.

The impact of devolution

1.24 The programme coped well with the new constitutional arrangements brought about by devolution. This reflected the willingness on all sides to see the merits of continued UK-wide collaboration and co-ordination. Ministers from the devolved administrations continued to participate in the Ministerial Group and sat on the Civil Contingencies Committee, ensuring that a UK-wide perspective was maintained. Parallel structures, which were in place before devolution, continued and were strengthened. Both the National Assembly for Wales and the Scottish Parliament continued to play active roles in the national programme as well as managing their own programmes. The quarterly/monthly statements at Westminster continued to reflect the UK as a whole, with parallel reports being made to the Scottish Parliament and National Assembly for Wales.

1.25 There will be future issues affecting the UK as a whole when collaboration across administrations could be very beneficial. While the benefits of continued co-operation were mutually well understood for the Year 2000 programme, the fact that the programme was well underway when devolution came into effect may have influenced the ease with which arrangements continued. It should not be presumed that future exercises would necessarily proceed in the same way.

Next steps

1.26 The Cabinet Office will take the experience of managing the Year 2000 problem and the lessons learned into account in pursuing the Modernising Government reforms and in the context of the Major IT Projects Review currently being undertaken by the Central IT Unit in particular. Departments will be taking forward work on business continuity planning. The recommendations that come out of the Major IT Projects Review will include measures to ensure that departments improve their management of risk and view IT projects in the context of delivering wider business change.

2: Working with the essential services

What was the objective?

The overall objective of all the efforts to pre-empt and tackle the Millennium Bug was to ensure that there was no material disruption to essential public services as a result of the date change.

Key lessons for the future

- A successful public/private sector partnership brings demonstrable benefits for both parties but must be designed to get the support and participation of as many organisations and departments as possible and encourage a sense of common ownership.
- The potential of the infrastructure process map should be exploited in taking forward future work on policy areas relevant to contingency planning.
- Independent assessment should be sought for any projects where public confidence is critical, whatever strategy is adopted to deliver the objectives.
- The use of a highly visual and readily understood 'traffic lights' image was helpful and enabled complex information to be communicated in a consistent way.
- Employing professional project management proved to be valuable and future projects on this scale would benefit from doing the same.
- Future cross-cutting projects of this kind will need to take full account of the new constitutional arrangements and ensure that they allow for an appropriate combination of local focus and UK-wide overview.
- Industry regulators played an important role in the success of the project, sometimes by taking on work outside their usual remit. There may be scope for industry regulators to identify other issues on which a co-ordinated approach will benefit the consumer by ensuring all service providers carry a consistent message.
- Collaborative working in sectors was helpful and could be extended to other issues. The Competition Act 1998 does permit co-operation where consumers stand to benefit from the technical or economic outcomes.

2.1 This could only be achieved through a partnership between the providers of essential services, which included government itself, the wider public sector, local government and the private sector. Action 2000 led the government effort to build that partnership and deliver the objective.

What was achieved?

Building the framework

2.2 The first stage of the work was to map the key processes and interdependencies that support the national infrastructure. Ernst and Young did this on behalf of the Cabinet Office. They identified 58 high-level processes and over 1000 subsidiary processes essential to the provision of key services.



Process Flow for providing electricity

An example of one of 58 high-level processes defined by Ernst & Young

2.3 It was the first time that government had attempted a full analysis of these key processes and understanding them underpinned all work on the national infrastructure. The model proved to be essentially accurate. Inevitably, it will go out of date unless maintained but will nevertheless still provide a valuable starting point for any future cross-cutting projects. Business and key sector representatives have urged that this work should not be lost.

The Government will need to take account of the infrastructure process map when taking forward work on policy areas relevant to contingency planning.

2.4The challenge facing government was how to use the process mapping to monitor the readiness of the infrastructure. Substantial work was already underway in a number of key sectors, such as finance, food supply and the NHS, often involving government departments. Action 2000 set out to build on existing work by:

- facilitating and co-ordinating work across key sectors;
- independently assessing Year 2000 readiness to a common standard; and
- ensuring disclosure of results by the essential services.

2.5 Action 2000 devised an innovative three-pronged strategy:

- Appointing a Responsible Body (RB) for each sector whose role was to commission, monitor and endorse an independent assessment of the sector. (A list of all Responsible Bodies is at Appendix III.)
- Facilitating an assessment of each sector by an independent third party. The nature of this assessment, and the public disclosure of it, lent credibility to the programme.
- Ensuring public disclosure of the results of the independent assessment. This was done through the National Infrastructure Forum (NIF), supported by press conferences and, from April 1999 onwards, a widely published national newspaper advertisement showing clearly the state of readiness in each sector.

The Action 2000 strategy recognised that, for public confidence to be maintained, sector readiness must be assessed by a body independent of the service provider. Any future project in which public confidence is critical should ensure that a comparable degree of independence and public disclosure is built into its strategy.

worked well in ensuring that everyone involved in the process understood at all times what they needed to be doing and the consequences of falling behind. The project's progress was discussed at key stages in meetings of the NIF Steering Group and the NIF Advisory Board.

The NIF enabled participants to develop a sense of common ownership of the programme. It also demonstrated the value of professional project management.

A flexible approach

2.7 The programme allowed each sector to develop the assessment model most appropriate to its business needs, degree of regulation and necessary commercial considerations. Nevertheless, all sectors were assessed against a common benchmark.

The common benchmark permitted light-touch management of the project and enabled sectors to devise programmes that best suited their needs.

An example of the independent assessment process: water and sewerage in Great Britain

Scope of assessment

The Office of Water Services (Ofwat) commissioned three assessment studies to be carried out by independent engineering consultants. The three assessments covered the following key areas:

system inventory;	assessment and testing;
remediation;	project timetables;
resources;	communication with customers;
contingency plans;	millennium operating regimes; and
supply chain assessment;	industry-wide co-operation.

In addition to the independent assessments, Ofwat co-ordinated its monitoring role with the Office of Gas and Electricity Markets (Ofgem) and the Office of Telecommunications (Oftel). Ofwat set up a Water Regulators' Group comprising the Department of the Environment, Transport and the Regions (DETR), Environment Agency (EA), Drinking Water Inspectorate (DWI), Scottish Executive, Northern Ireland Office and Health and Safety Executive (HSE). This group was consulted throughout the independent assessment process.

Method of independent assessment

The process focused on verifying the adequacy of existing project plans, know-how and methods of testing. It included questionnaires and site visits. Independent engineers examined documentation, questioned operational staff and witnessed tests. Follow-up meetings, site visits and reports ensured all companies met the required standards and timetable.

Independent assessment results

In October 1998, the industry was assessed as 100 per cent amber on the NIF 'traffic lights' measure of readiness (see para. 2.8). By June 1999, it was 100 per cent blue and this was confirmed by a follow-up survey in September. In December 1999, Ofwat confirmed that the sector was maintaining its blue status.

ASSESSMENT HAS NOT IDENTIFIED ANY RISK OF MATERIAL DISRUPTION. Some Risk of Material Organistion but Agreed Rectification and Containment Plans are in Place Severe Risk of Material Disruption There hav not be enough Time to rectify

The traffic light system used by Action 2000

The use of a visual and easily understood image to define each sector's state of readiness was essential to communicate complex information in a consistent way.

2.8The results of the independent assessments were communicated through a 'traffic lights' system that could be easily understood and ensured a broad degree of consistency. The target for each sector was to reach 'blue' status which, in the terminology of the NIF assessment handbook, indicated that the independent assessment

Engagement

The 'traffic lights' approach

had identified no risk of material disruption.

2.9 Crucially, the partnership between government and the private and public sectors worked because the participants were actively engaged in the process. In the past, both private and public sectors have sometimes felt that they were being pressed to act primarily in the interests of government. In the NIF, there was a common agenda and participants could see clear commercial benefits for themselves in taking part. Moreover, nobody wanted to be the only organisation in their sector to be identified as lagging behind.

2.10 The Action 2000 approach contained elements of both carrot and stick. NIF members were given every encouragement and support in pursuing their compliance programmes but it was always made clear to them that, under the principle of 'granularity' (disclosure of readiness down to company or organisation level) they would be identified publicly if they failed to come up to scratch.

Partnership with the private sector in the NIF worked because they were actively engaged in the process and saw commercial benefits for themselves, as well as for government, in participating. This will be essential for any future project involving the private sector, which will be able to build on the goodwill generated by the Year 2000 problem, for the benefit of other areas such as e-commerce.

Building new links and understanding

2.11Through Action 2000 government was able to form a real and effective partnership with the private sector, based on mutual understanding of responsibilities and priorities. Equally important was the way in which infrastructure providers came together to share information and develop integrated strategies. The NIF was the prime example of how this was achieved but not the only one. The utility companies formed a group that met regularly and the information they accrued was shared with other countries, in many cases allowing them to save time and money by concentrating on those areas where potential problems had already been identified. The Telecomms Operators Forum, the Y2k Utilities Group and the Food Sector Steering Group were all

good examples of highly competitive industries working together.

In many areas, new ways of working together brought benefits that extended beyond the immediate work in hand. This has created a solid foundation for co-operative work in the future.

2.12 The role of regulators was important in many sectors. Traditionally, regulators concentrate on competition and customer service but most also have duties to ensure continuity of supply. The Year 2000 problem focused attention on this aspect of their role. HSE brought together UK regulators on a regular basis, to share information and experiences, and this was valuable in ensuring a consistent approach across diverse industries.

There may be scope for industry regulators to identify other issues on which a co-ordinated approach will benefit the consumer by ensuring all service providers carry a consistent message.

2.13The independent assessment project, and relationships with key players in Scotland, Wales and Northern Ireland, were well established prior to devolution, and a flexible, pragmatic approach on both sides ensured that the good relationships continued. Scotland and Northern Ireland ran their own infrastructure forums to focus on the readiness of the local infrastructure, while in Wales a high-level steering group, chaired at Ministerial level, helped to drive the process forward.

Future cross-cutting projects of this kind will need to ensure an appropriate combination of local focus and UK-wide overview.

2.14 Government will need to ensure that industry does not feel it is receiving mixed messages concerning co-operation and competition. This will be particularly important as government encourages the growth of e-commerce. Competitive sectors such as food supply will need to be very clear about the areas in which government sees a positive benefit for consumers in cross-industry co-operation.

Collaborative working in sectors was helpful and could be extended to other issues. The Competition Act 1998 does permit co-operation where consumers stand to benefit from the technical or economic outcomes.

Next steps

2.15 Government and service providers should both take forward the key messages of the project - the value of partnership and openness in the relationships between the public and private sectors and between suppliers and customers. The Year 2000 work has also meant that IT is now seen far more clearly as a business issue and part of senior management's strategic view. The Office of the e-Envoy and others will need to consider how to build on this in the work on e-commerce. They should also consider the potential future use of the Action 2000 model. The Government will take account of work on the infrastructure process map in taking forward work on the policy areas relevant to contingency planning.

3: The communications challenge

What was the objective?

Effective communication was central to the overall Year 2000 programme and it informed the strategy from the start - a strategy of openness, transparency, accessibility, credibility, authority and commentary, both for and independent of government.

3.1 The objective was to build and sustain public confidence through a strategy that delivered a single, coherent and coordinated message. Early research had

Key lessons for the future

- An integrated marketing and communications programme, utilising paid-for media, direct engagement with the press and other devices such as advertising and booklets, was key to the overall success of the strategy.
- Openness needs to be a proactive strategy built into a planned structure for collecting and disseminating information.
- It is important to establish early contact with the media to promote balanced and timely messages.
- Any engagement with the media will have its limitations. A strategy should be in place to deliver messages direct to the market-place. Paid-for advertising and communications (eg literature) can play a key role, as can the Internet.
- Effective public/private sector partnerships can deliver complex messages across diverse sectors of the economy.
- Independent spokespeople have an important role to play in delivering a credible, authoritative message.
- Independent research is valuable in managing risk and developing communications campaigns.
- Swift and accurate rebuttal is important in co-ordinating cross-cutting communications issues.
- The Internet has the potential to lead the future delivery of communications.



shown that small businesses were largely unaware of the potential impact of the Millennium Bug, and Action 2000 was set up specifically to raise awareness and promote action (this is dealt with in detail in Chapter 4). The more complex challenge was to ensure that the progress made by key public services in tackling the Bug was communicated to business and the public at large. That task involved Ministers and their departments, Action 2000 and, crucially, the providers of those key services. The price of failure would have been high. If public confidence was lost, it could have led to unwarranted fears about business failures causing harm to life and the environment, or panic behaviour like stockpiling, which would have been more damaging than any Bug problems.

Action 2000's Home Check booklet, October 1998

What was achieved?

A high degree of openness

3.2 A conscious decision was taken at the start to be open about progress in tackling the Bug problem. It was recognised as the most effective way of building and maintaining public confidence. It also made it more difficult for the media to undermine that confidence with scare stories.

3.3 Government, through Action 2000, needed to reach those organisations whose plans depended on the compliance of products and services provided by others - like businesses within the supply chain or with dependencies outside their own sector. Only by promoting the sharing of information could this be achieved. An unprecedented degree of information exchange was achieved across public and private sector organisations, much of it verified by independent assessment.

3.4 The policy brought a number of clear benefits:

- it gave credibility to the overall effort in the eyes of the media and public;
- Action 2000 and the Government were able to move much of the debate from the general which can engender fear to the specific, where rebuttal was possible. It also enabled early identification of legitimate and specific concerns, allowing a swift and targeted response by the Government;
- the quality and consistency of the information helped to temper the expectations of both the media and the public; and
- the public scrutiny generated by openness served to energise those organisations caught in the spotlight.

"Planes will drop from the sky"

The International Air Transport Association (IATA) and the International Civil Aviation Organisation (ICAO) did a great deal of excellent work to ensure that air travel would be safe from the Bug. However, ICAO was slow to recognise the

value of an effective communications strategy in delivering messages to the public. Its website containing detailed information about the compliance of airports, air traffic control and airlines in individual countries was not opened to the public until December 1999.

Some scare stories therefore continued to appear in the press as the date change approached. An earlier release of information by ICAO would have helped to quash these stories and reinforce positive advice emanating from IATA, thereby providing greater reassurance to the general public.

3.5 Openness quickly became a central driver to pushing forward the overall Year 2000 programme.

Year 2000 showed that there is a discipline inherent in adopting openness as an approach; once the commitment is made, it is not possible to retreat from it at a later stage. It needs to be built-in early as a conscious strategy and developed in parallel with a system for collecting information in a format that can be usefully published.

Getting the message across

3.6 The aim was to use a consistent flow of information to build public confidence throughout 1999 rather than launching a single information drive at the end of the year, which might in itself have sparked alarm. There were a number of key moments during the campaign, for example, the National Infrastructure Forum (NIF) meetings. In addition, public expectation that information would be provided led to the two main public information campaigns in late spring and autumn 1999, each of which resulted in the production of a booklet for the public. A central element of the campaign was the use of paid-for advertising and communications. This had a key role to play in raising the public profile of the information that was available, making it accessible and in providing a balanced platform, rather than one founded on the agenda of the media.

With a long-running issue, information needs to be drip-fed continuously and a co-ordinated approach is vital to ensure that the various activities of the programme reinforce each other.

3.7 The information had to be presented in such a way as to allow the media and public to draw their own conclusions. It needed to be frank and realistic about possible problems in order to inform decision-making and be credible. A message that claimed there was no cause for worry would not have had the same weight.

Finding the right tone for the message was central to the strategy.

Engaging the media

3.8 Action 2000 began engaging with the media as early as January 1998 through press briefings held every six weeks. Together with the Cabinet Office Media Co-ordination Unit (MCU), they worked hard throughout 1999 to foster constructive working relationships with key Year 2000 correspondents in the national and regional media, offering regular briefings and contact with Ministers, senior members of Action 2000 and officials. The strategy of engagement with the media culminated in the work of the UK Government Millennium Centre (GMC) over the date change.

Early and sustained engagement with the media can contribute to the delivery of balanced reporting. It is crucial that the media have confidence in the accuracy of information sources.

3.9MCU built on the established work of the Media Emergency Forum (MEF), which is sponsored by the Home Office and chaired by the Head of the Government Information and Communication Service (GICS). It brings together senior representatives of the media, central and local government, the emergency services and others to review the handling of disasters and crises. Using the Forum, MCU rapidly established a policy-level dialogue involving Action 2000 and the media about operational issues and end-of-year arrangements.

The media over the Millennium

For the first time, key representatives of television, radio and print worked alongside government over the Millennium. The media were invited into the Government Millennium Centre in the Cabinet Office in London and the Scottish Executive's Scottish Information Liaison Centre in Edinburgh. The result was a well-informed media who received prompt and accurate domestic and international information along with wide-ranging access to interviews and briefings with senior officials and Ministers.

The MEF is a valuable platform for planning and partnership that negates the need to establish a new government-media mechanism to handle crisis plans. It should be used as early as possible to develop mutual understanding and joint processes.

3.10The relationships built by Action 2000 and MCU with the media meant that stories which could be proved inaccurate could be contained or, at the very least, balanced by including the government viewpoint. And the number of scare stories did not escalate, as had been feared, in the run up to the date change. However, the strategy was not universally successful. Sections of the media still saw scare stories as good copy and there was little interest in reporting 'good' news, particularly among national newspapers. This underlined the importance of having paid-for advertising and communications, which allowed Action 2000 and the Government to talk directly to the public and to give them first hand information.

Any engagement with the media will have its limitations and there must be a strategy in place to get out information if the media are not interested.

Rebuttal

3.11 Rebuttal formed a key part of the proactive strategy adopted for Year 2000 work. Both Action 2000 and MCU worked hard to ensure that any inaccuracies or scare stories were rebutted by continuously monitoring the press and by developing a network of contacts across the national infrastructure and government who had the necessary sector knowledge. Rebuttal worked where it was swift and targeted but this was not always the case, despite the fact that many departmental press offices were very active.

Rebuttal was on occasion patchy, and rebuttal systems were generally not as effective on cross-cutting issues as they were on purely departmental ones.

National versus local

3.12 The regional and local media were targeted as key deliverers of the public information message. Many elements of the wider public sector, for example, hospital trusts and police forces, were active locally and did important work in reducing levels of anxiety. This was reinforced towards the end of 1999 when Action 2000 sponsored a 'Featurelink' page in 600 regional and local newspapers, which included readiness statements and telephone helpline numbers of local service providers.

Any government communications strategy targeted at the public at large should have a regional and local dimension to ensure more and better-balanced coverage.

Line server The Salary Bug Salary FACTS ON Salary Cons Salary Sal

The importance of independent spokespeople

3.13 In establishing Action 2000, Ministers recognised that high-profile spokespeople from the private sector were more likely than government representatives to carry weight with the business community. Don Cruickshank and Gwynneth Flower fulfilled this role. In particular, Don Cruickshank's background in commerce and as a high-profile regulator gave him credibility as someone who would have an independent stance as regards government but who would not be beholden to the private sector. Together, they projected an authoritative voice of experience which business, the general public and the media recognised and respected.

Facts not Fiction booklet, June 1999

3.14 The partnership of Don Cruickshank and Gwynneth Flower was supplemented by a range of credible, expert spokespeople from all key sectors. For example, the major supermarkets fielded representatives to talk about preparations being undertaken in the supply chain, which carried more weight than government speaking on their behalf. This approach also worked well, although it took time to find the right people and convince them of the importance of the role. A further benefit was that it tied people into the strategy.

Ministers are not always the most appropriate spokespeople; it is important to find the most effective spokespeople who will have maximum resonance with the public and enhance the credibility of the message.

Delivering a consistent message

3.15The Cabinet Office Year 2000 Team produced a monthly briefing of key government messages, which was agreed with Action 2000, MCU and departments. This was circulated to departmental Ministers, the relevant policy officials, key spokespeople and departmental press officers. An additional key message brief on wider Millennium issues was produced and circulated in December 1999.

Key-message briefings were important to establish clear, agreed messages and standardise the language used so that presentation would be consistent. This form of briefing is a useful tool that has a wide application.

Using new technology to deliver information

3.16 Websites were a successful and popular part of the communications strategy. They were used to deliver information to target audiences, providing them with swift and user-friendly access to large amounts of information. Action 2000's website had over 32 million hits over its lifetime and the Foreign and Commonwealth Office website, on which country readiness statements were placed, received over 2.5 million hits in its first week.

3.17The GMC's password-protected departmental website, backed by an incident database and electronic mapping system, demonstrated the ability of IT to support complex co-ordination of information. Similarly, the GMC public website was widely praised by the media and drew around 1.5 million hits over the date-change period. It proved a simple but effective conduit for issuing regular media bulletins and impartial reports of the worldwide situation over the date change. The National Assembly for Wales also provided Assembly Members with remote access to updated information on its intranet site over this period.

The success and reception of Year 2000 websites are evidence of the growing power of the Internet as a communication tool for government, but there were a number of lessons to be learned about the development of websites as part of a communications strategy.

Lessons for developing a website

- The development and implementation of the website should be run as a project.
- Be clear from the outset about the requirements of the target audience.
- Do not overload the audience with extraneous information. Provide levels of detail within the site to allow people to build their own reassurance.
- Allow more time than imagined for website design, so as to ensure it is user-friendly, iterative and interactive.
- Make sure there are links to complementary sites and that the links are user-friendly.
- Integrate the website into the campaign communication strategy from the start. This will require a targeted approach, particularly in terms of staffing, monitoring and facilitating quick response times.
- Do not rely on a website to sell itself. Marketing and advertising will still be crucial for capturing audience attention.

The role of market research

3.18 The development of the communications strategy was underpinned by a great deal of independent research. This included Action 2000's *State of the Nation* research into the business drivers, environment and readiness, which began in March 1998, and the MCU's tracking study, which monitored changes in public perceptions and concerns during 1999. The research generated a significant level of media interest, particularly *State of the Nation*.

Tracking research is potentially an extremely useful tool for monitoring the effectiveness of communications activities and for allowing a more targeted approach to be developed. To influence an on-going programme, the results must be made available quickly and sample sizes must be significant.

Working through partnerships

The importance of partnership working

3.19A unique level of public/private sector partnership was achieved in delivering the communications strategy within the NIF Steering Group; between Action 2000, the MCU and the Year 2000 Team; between government departments and their sectors, and between departments and the Cabinet Office.

Partnership was crucial to the overall strategy and ensured that all players across government and the national infrastructure were delivering a consistent message.

3.20Action 2000 also put together working groups from key organisations to ensure the accuracy of messages and achieve, through them, free communication routes to the market-place. The organisations included banks, utility companies, mobile and telephone companies, through to business publishers, such as Yellow Pages. The groups developed text that could be delivered in a variety of ways. Some appeared as messages inserted with or printed on statements or bills. Other information, promoting the work and support services available to businesses, appeared as leaflets that were either mailed or put in reception areas for collection. The commercial companies funded the cost of mailings and insertions, while Action 2000 provided the printed materials.

Public/private sector co-operation is an extremely effective and cost efficient mechanism for raising business awareness and providing public reassurance. It is increasingly likely to be a key feature in future government initiatives that can deliver mutual benefit.

3.21 There was a limit to how far it was possible to agree a common agenda among partners. In the final months before the date change, the private sector was resistant to Action 2000's encouragement to put more information into the market-place. There were a variety of reasons behind this, with one cause being the different perceptions held by the partners of the public's needs. As a result, Action 2000 decided to put information into the market-place itself, through the 'Featurelink' campaign in December 1999.

Any joint public/private sector partnership needs to be flexible enough to recognise and accommodate different agendas.

What everyone should know about the Millennium Bug Millennium Bug

Information booklet delivered to UK homes in November 1999

Working in partnership across government

3.22 One of MCU's key roles was to co-ordinate the delivery of the Year 2000 communications strategy across government. Departmental press offices were doing much good work but early attempts to engage them in the co-ordination of the Year 2000 communications strategy were not wholly successful. The MCU set up the Departmental Year 2000 Press Officers Group. It met on a monthly basis and provided a framework for agreeing an overall strategy and improving the communication between press officers and departmental policy teams. Earlier and broader high-level buy-in might have been achieved if the MCU had been set up sooner.

A central unit driving forward communications issues can be crucial where there is a significant cross-cutting element, but it needs to be set up early and supported by senior-level commitment. It is also essential to have good communication between press and policy teams.

3.23Elements of both the private and public sectors demonstrated what could be achieved when a business strategy incorporates the challenge of communications early and in a fully integrated way. The NHS successfully built Year 2000 issues into the larger communications programme it developed to meet the demands of 'Winter 2000'. The food supply industry was another

Food Sector Communications Group

The Ministry of Agriculture, Fisheries and Foods (MAFF) was instrumental in helping to establish a joint government/industry group in the food sector, comprising communications officers from MAFF and representatives from Action 2000, the Institute of Grocery Distribution and a number of key food businesses. The group agreed a strategy for getting information across to the public, identified possible triggers for media interest and developed common answers to frequently asked questions to ensure that information conveyed to the public was compatible, consistent and accurate. The group also identified appropriate representatives to speak on behalf of the industry and ensured that they were regularly briefed. The result was that the food sector was ready to respond to queries at any time and, in the context of the overall government programme, public confidence in the sector remained high.

Next steps

3.24The Head of the Government Information and Communication Service will be issuing best practice guidance to departments on the co-ordination of cross-cutting issues which draws on the experience of the Year 2000 effort and a number of other programmes, and reflects the points outlined in this chapter.

4: Reaching out to small businesses

What was the objective?

Action 2000's work with private sector businesses, especially small and medium-sized enterprises (SMEs) aimed to raise awareness and understanding of the date-change problem and motivate them to take action to minimise the potential impact to their business and to the UK economy.

Key lessons for the future

- The small business sector is known to be difficult to reach across the board. Action 2000's strategy, based on national media activity supported by professional staff on the ground and services such as Actionline, achieved an unprecedented level of success.
- 86 per cent of SMEs achieved Year 2000 readiness and many also reported an improved understanding at senior level of the role of IT in their business. This will stand them in good stead for the growth of e-commerce.
- The campaign to raise awareness 'benefited from focusing' on the employees of SMEs as well as their owners.
- The National Mentoring Scheme and Pledge 2000 offered innovative solutions to known problems. They demonstrated that it is possible for large and small companies to work together to deal with potential problems in the supply chain.
- It is important to be able to identify what are the most effective influences on SMEs and whether they are more successful at a national than a regional level. The key to maximising the ways of getting messages across to SMEs was to use a variety of approaches.
- The Government set up Action 2000 as a private sector company so that SMEs would see it as independent of both the Information Communication Technology (ICT) supply sector and government. Action 2000 was able to give a clear, authoritative and unbiased message that was welcomed, and in large part heeded, by SMEs. Action 2000's independent positioning was also possible because they provided their services without charge.
- Businesses will only tackle an issue if they see a business benefit or the issue puts them at risk. Since innovative companies will be more likely to recognise and act on specific issues, messages about an issue should be aimed at the less well prepared and should focus on benefits and competitive advantage.

4.1 Some SMEs had become very dependent on IT and automation during the 1990s, without having ready access to the inhouse technical expertise available to larger companies. Many also appeared unprepared for the potential impact of the Year 2000 issue; by March 1998, a quarter of businesses had reportedly not yet started their remedial work.

What was achieved?

An innovative approach

4.2 The private business sector in the UK is heavily weighted towards SMEs in terms of numbers of businesses. The risk to the UK economy from the Bug was judged to lie predominantly with the 250,000 companies employing between 10 and 249 people and accounting for around 30 per cent of gross domestic product (GDP). These companies are key parts of the supply network of large companies. The aim of Action 2000's strategy was to communicate right across this large, diverse business

audience and reach 100 per cent of the market-place. On the ground initiatives were supported by a high-profile national media campaign and a range of well-received information services.

The strategy adopted by Action 2000 ensured that business people became aware of the national Year 2000 message through the media, and its relevance was then emphasised at local level through organisations such as the Federation of Small Businesses, Business Links and Chambers of Commerce, and through support services such as Actionline, the National Mentoring Scheme and Action 2000 regional managers.

4.3 The key elements of Action 2000's strategy included:

- segmentation of the market-place, by company size and industry sector, as well as technological reliance;
- understanding the drivers and motivators of the target audience;
- planning activity against the SMEs' own planning horizons;
- ensuring availability of best practice advice;
- undertaking continuous review and development of messages and information;
- a support service that provided comprehensive, credible, authoritative information and signposting;
- positioning Action 2000 as a government-funded but nevertheless independent, non-commercial company.

4.4 The strategy resulted in an overall readiness rate for the SME sector of 86 per cent.

Many organisations report an improved understanding at senior level of the role of IT in their business which will stand them in good stead for the growth of e-commerce.



Readiness of SMEs (employing 10-249 people)

4.5 Action 2000 sought to gain direct access to SMEs through the use of key influencers including customers, trade associations, professional bodies and financial institutions like banks and accountants. In addition, the audience was defined not only as the business owners but also as those working in the businesses.

Targeting employees of SMEs as well as business owners was a key part of the strategy to raise awareness in the market-

4.6 Action 2000's programme consisted of a tightly co-ordinated and integrated marketing programme run in phases and backed up by a support structure that included:

- high-profile marketing activity across advertising, PR and direct mail on a national and regional basis;
- comprehensive and professional literature and signposting;
- a professional and competent 'Actionline' telephone service;
- a detailed and up-to-date website;
- links with major supply chains and key business support organisations (for example banks) and the use of their delivery mechanisms;
- support tools and services for Business Support Organisations; and
- baseline support activity for more detailed discussion and increased reach, for example, the National Mentoring Scheme, channel strategy and regional managers.



Action 2000 produced a series of guides for businesses

4.7Taking a variety of approaches was the key to activating different motivators within the Year 2000 programme's very diverse audience. For example, the way in which a person typically consumes messages - and therefore can be reached - is illustrated in 'A day in the life of a business person'.

It is important to maximise the ways and means by which all segments of the target audiences can receive messages.

A day in the life of a business person

- Wakes to hear a radio interview about Millennium Bug on the 'Today' programme.
- Sees an outdoor poster on drive to station.
- Reads a newspaper with an advertisement in it.
- Hears a radio advertisement at work.
- Receives a mailing about the Bug in the post.
- Receives a phone call from a key customer about filling in a questionnaire about Bug readiness and suggestion to 'sign the Pledge'.
- Business adviser visits the company with a CD-Rom about Bug issues.

- Gets a bank statement that includes an insert about the Bug.
- Receives a phone call about attending the Mentoring scheme.
- Goes on Internet and picks up a hotlink to Action 2000 site.
- Reads a trade magazine that includes article about the Bug and a copy of Buildings Check.
- Reads a newspaper editorial about the Bug on the way home.
- Turns on the TV at home and sees the advertisement about the mailout.

4.8Many larger companies gave help to smaller ones - often their suppliers - and Action 2000 identified a general willingness to share knowledge and information. This process was largely facilitated through the National Mentoring Scheme by Action 2000, which was also successful in persuading organisations to share information, particularly in the early days when much legal advice favoured keeping silent. Smaller companies in particular saw Pledge 2000 as a helpful way of developing dialogue without fear of legal penalties.

The National Mentoring scheme and Pledge 2000 both demonstrated the value of adopting new approaches to tackle known problems. They also showed that it is possible for large and small companies to benefit from working together to address potential supply-chain problems.

South West regional initiative

Action 2000 became aware that businesses in the South West peninsula were lagging behind, particularly the major local industries of hotels and catering. A Programme Manager was brought in as a regional manager for Devon and Cornwall. Active links were established with business support organisations, trade associations and local authorities. This opened up channels of influence and allowed a localised version of the National Mentoring Scheme to be set up. Coupled with local publicity and PR, this localised, focused approach engaged effectively with the business community, raising the profile of the Action 2000 message and the level of readiness in these sectors.

4.9 Action 2000 found that some channels of influence were far more effective at local, rather than national level. Achieving effective liaison at national level with trade associations and professional bodies proved to be a lengthy process and it was not possible to derive maximum benefit from these connections in the short timescale dictated by the project. Eventually, Action 2000 realised that deploying its own regional managers would be the best way to gain overall support.

4.10 SMEs trusted Action 2000 because of its independence from government and the ICT supply sector but appreciated the financial backing that government provided. SMEs will respond most readily when they see clear business benefits and such organisations were ready to work with Action 2000 or their own business contacts.

Not charging for services allowed Action 2000 to establish its independence and differentiate itself from the multitude of commercial 'solution providers'.

4.11Action 2000 monitored the small business sector both before and after the date change to assess the state of readiness and any wider benefits that SMEs felt they had gained from the exercise. Research shows that SMEs, like larger companies, identified positive outcomes that include, but go way beyond, achieving Bug readiness. The earlier *State of the Nation* research, conducted to measure how effectively Action 2000 was communicating messages to SMEs, revealed a marked difference between sectors.

Businesses will only tackle an issue if they see a business benefit or the issue puts them at risk. Since innovative companies will be more likely to recognise and act on specific issues, messages about an issue should be aimed at the less well

The benefits of the Year 2000 programme most often identified by businesses

- A much improved understanding of processes and dependencies.
- Better contingency planning and business continuity planning.
- Enhanced sector and company reputations.
- Improved staff training.
- Upgrading of equipment and systems.
- Contractual arrangements revised and made more robust.
- Rationalisation of systems and procedures.
- Equipment and technology inventories updated.
- The role of third-party support organisations clarified.
- Improved knowledge of the business's stakeholders and their requirements.
- Better communication with customers, the wider public and other stakeholders.
- Development of new relationships with other companies, organisations and government.
- Better understanding of the sector by others.
- Project management has improved and with it small businesses' confidence in their ability to handle large projects in the future.

Next steps

4.12 The success of Action 2000 in reaching large numbers of small businesses will provide a useful model for the new Small Business Service and in helping the new service to target its resources most effectively. In particular, the Action 2000 programme has demonstrated the importance of achieving the right balance between national media activity and local support on the ground. The Small Business Service is developing its media and communications issues in the light of best practice across the board, including the Action 2000 campaign.

5: The international dimension

What was the objective?

In a global economy any major problem overseas has a potential knock-on effect for the UK.

5.1 Businesses and consumers alike depend on overseas supply chains for many of the products and services they take for granted. Equally, economic growth and successful exports depend upon healthy foreign markets for British goods and services. One of the key challenges for the UK was to seek to minimise the risks to itself, economic and otherwise, posed by Year 2000 failures overseas.

Key lessons for the future

- The UK has demonstrated that it can lead on key global business issues.
- To influence the international agenda by taking the political lead is not enough: high level support needs to be backed with practical initiatives.
- The Foreign and Commonwealth Office (FCO) has a key role to play in working with other government departments to engage effectively with global issues.
- E-diplomacy will be as important as e-government and e-business.
- Global issues need a global perspective: national strategies should consider the international dimension from the start.
- International organisations need to be flexible and innovatory in responding to new global issues.

What was achieved?

Global leadership

5.2 The UK demonstrated that it could show leadership on what was perceived as a high-technology issue but was, in fact, a global business issue. By stating a position early and backing it with practical political and financial resources, the UK succeeded in placing the issue on the international agenda and ensuring that other countries understood the significance and nature of the problem. Britain has gained significant credit, which should pay dividends in future working relationships with many countries. Several key factors contributed to this achievement:

Taking an early lead

5.3 The stance of the Prime Minister was vital. He remained for a long time the only global leader who was prepared to associate himself personally with the issue. The Prime Minister's speech to the Midland Bank Conference in March 1998 (see p.66) has been openly cited by many as the moment at which their own government realised the significance of the issue.

Top level buy-in from the start is crucial for establishing and maintaining momentum.

Sharing advice and information around the world

5.4 The FCO drove forward practical initiatives to support the political imperative provided by the Prime Minister. In order to

raise global awareness and aid international Year 2000 compliance, the FCO funded visits for overseas experts to meet their counterparts in the UK, hosted practical seminars overseas through the British Council and distributed information around the globe. At home, the FCO helped support public confidence by providing good quality international information to businesses and travellers as well as to Government.

Political statements must be backed by practical initiatives if credibility is to be sustained.

5.5This work was mirrored by the activities of the Ministry of Defence (MOD), who sought to encourage co-operation on Year 2000 defence issues both in NATO and with other key nations including Russia.

Defence co-operation

The MOD formed a group with the defence departments of the USA, Canada, and Australia, to co-ordinate Defence Year 2000 programmes, share information on equipment used multinationally, and ensure that cross border systems would continue to function and peacekeeping operations worldwide could be sustained. This group was later joined by some NATO and Partner for Peace nations, becoming a driving force in establishing defence programmes worldwide.

5.6Action 2000 built on the considerable international interest in the UK's approach to solving the Year 2000 issue by making its publications freely available to other countries. Action 2000 built effective relationships with some 40 countries around the world and its website was used extensively. Its *Action Pack* and *Building Check* leaflets were circulated worldwide through FCO posts abroad and other Action 2000 materials, ranging from leaflets to TV adverts, were used by various countries in their own domestic campaigns.

A significant contribution can be made to the efforts of others simply by making available to them the results of work already done.

5.7 UK-based multinationals played a very important role in helping many countries protect their infrastructure from the Year 2000 threat. Companies worked with their host countries and suppliers to share information and best practice and pressed for action in areas that were being neglected. While commercially motivated, this action has raised many public/private relationships around the world to a new strategic level which could be exploited to tackle other issues.

Co-operation on telecommunications

British Telecommunications (BT) started work to tackle the Year 2000 problem at an early stage and put in place a comprehensive Bug programme. This gave it an early insight into the full significance of the Bug problem and how best to tackle it. BT shared this information with other telecommunications providers world-wide. As a result other countries were able to tackle the really necessary work in a much shorter period of time.

BT also chaired the International Telecommunication Union (ITU) Year 2000 Taskforce and so was able to shape action on the Bug internationally. For example, the ITU played an important role in brokering the transmission of information between manufacturers and users about the systems and switches that were affected by the Bug. In this way the UK helped to ensure that international telecommunications continued to work after the date-change.

5.8All these efforts clearly contributed to the ability of many parts of the world to meet the challenge of the Year 2000 threat so effectively. Few countries are as dependent on IT as the UK and most had significantly less equipment to test. Nevertheless, it has been acknowledged by countries in the developing world that they could not have made so much progress had they not

been able to take advantage of the experience of the UK and other countries that had started their preparations earlier. The Action 2000 website, which made available key management documents including complete manuals on infrastructure assessment, received some 3 million hits in the last three months of 1999, many of which were from overseas.

Financial assistance and practical aid

5.9The UK provided practical assistance as well as leadership. The Department for International Development (DFID) contributed £10 million to the World Bank's Information Development (InfoDev) programme. This was the first and largest single contribution from any country and it acted as a catalyst to encourage others to donate. By itself this was the most costly and, arguably, the most important element of the UK's international programme. In addition, DFID provided smaller sums through the Commonwealth Secretariat and bilateral country programmes.

Well-placed funding contributions can generate credibility for the UK in areas beyond those immediately benefiting from the money.

5.10 The InfoDev programme made a significant impact on the Year 2000 problem and has helped to improve the understanding of this kind of issue in many governments around the world.

DFID will be taking forward the lessons learned from the UK's global involvement in tackling the Year 2000 problem through a workshop on the role of information and communications technologies in development activity.

5.11 Key parts of the public sector provided help and assistance outside the UK. Through imaginative joined-up government, the UK was also able to supply skilled individuals to aid the international community. A health sector support team for the International Year 2000 Co-operation Centre (IYCC) was pulled together by DFID, FCO and Cabinet Office and delivered by NHS Estates.

The NHS reaches out to the world

Health was unique among the key Year 2000 challenges. Service delivery is usually local, yet any failures could impact critically on public confidence across an entire country. NHS Estates set up a team, led by the Chief Executive Kate Priestley, to help other countries benefit from the experience of the largest managed health service in the world. They gave real-time advice to Year 2000 national co-ordinators, using the IYCC web link, made numerous presentations across the world, organised 'Year 2000 health-check' missions to 13 countries and provided dedicated support to the IYCC over the Millennium rollover.

The NHS Estates team brought practical benefits to health sector programmes around the world and provided a platform on which it plans to build further relationships.

5.12The Meteorological Office (Met.Office) also shared information with other organisations across the globe. In this case, the range of initiatives was driven by the interdependence of weather monitoring systems around the world.

Weather is global

The international aviation sector was particularly vulnerable to problems that may arise in weather forecasting systems. The Met.Office worked bilaterally, and through international organisations, to minimise the effects of the Year 2000 Bug on these systems. In particular, it provided over £1 million to replace non-compliant meteorological equipment in other countries. A number of countries that ignored the advice of the Met.Office did suffer failures at the rollover.

The Met.Office's global Year 2000 activity has improved business continuity planning across the international aviation sector and enhanced the reputation of the UK worldwide.

Making the most of international co-operation

5.13 In driving forward international co-operation on the Year 2000 problem, the UK showed that it could work with its partners, international organisations, business and the global community to minimise the impact of a global threat. However, it became clear that traditional ways of working internationally might not prove adequate in tackling future global challenges.

In many cases, the most effective response was provided by less formalised groupings sharing common interests, where multinationals, governments and international organisations could combine to take forward action.

The value of innovation and flexibility

5.14 The UK, along with other G8 partners, encouraged international sector organisations to raise awareness, spread best practice, test interconnections and share information on progress. The most effective bodies (like the International Telecommunications Union) recognised the need to adapt their usual procedures in favour of less formal decision-making processes and be more open about the work that was underway. International groups that failed to interpret their remit flexibly could only play a limited role and ad hoc organisations stepped in to deliver people with different skill sets and experiences.

In a faster-moving and more dynamic global scene, existing international organisations will need to show greater innovation and flexibility.

Building on global commitment

5.15 The IYCC provides a striking example of the positive contribution that an ad hoc organisation can make. The Centre was resourced by the World Bank's InfoDev fund, and set up with the support of the UN but without becoming embroiled in UN bureaucracy. The USA in particular realised that donations to the World Bank would not alone guarantee success and recognised the need to develop a new kind of organisation. The Americans were able to put senior people in place quickly to get the project started. The IYCC identified national Year 2000 co-ordinators and used the latest communications technology to bring them together as a global virtual network, to share information and best practice. It worked swiftly and informally through consensus and succeeded in ignoring traditional processes because it was thought that no precedent would be set.

The IYCC was probably the first example of an effective global e-community. Year 2000 co-operation has demonstrated here and elsewhere the value of e-diplomacy.

5.16 The IYCC succeeded in promoting much effective co-operation at the regional level among - and often led by - countries that do not usually play a prominent part on the world stage. This undoubtedly helped to minimise the initial, and widely held, perception that the Year 2000 problem was a Western problem and that the West would have to fix it.

The IYCC achieved a high level of commitment largely through the organisation's accessible and inclusive structure, which represented every country on equal terms and avoided marginalising less developed nations.

The power of the regional response

The IYCC helped turn the Year 2000 problem into an extremely powerful force for regional co-operation in many parts of the world: most notably East Africa (under DFID leadership), South America and Southern Africa. Many of the links forged to identify regional interdependencies and work jointly to tackle infrastructure issues will be of lasting benefit and a number are already actively being taken forward.

The Africa Year 2000 working group is already thinking about how it could build on the experience to acquire and
disseminate much-needed IT and communications equipment in Africa. In support of this, the working group is considering forming an African Partnership for Information and Communication Technology.

5.17 The Year 2000 issue provided an excellent, but largely missed, opportunity for Europe to take an early leading role in responding to a global issue. Good work was going on in the various directorates-general, for example, the provision of assistance to Eastern European nuclear power plants. However, the European Union (EU) was slow in getting to grips with cross-border infrastructure issues. It was not until the Cologne Council in June 1999 that an EU high-level group was created to address cross-directorate issues. This group provided a valuable vehicle for strategic consideration of the issue by member states, but it would have been more useful had it been set up earlier.

The EU could work towards developing greater structural flexibility to respond quickly to issues, like Year 2000, that affect all member states both individually and as a group, and which cross economic sectoral boundaries.

Minimising the risk

5.18The UK gathered, analysed and shared all available information on international preparations so that government, business and the public could make the preparations necessary to avoid being affected by failures overseas.

The value of a global perspective

5.19The FCO took the lead in identifying potentially vulnerable areas overseas and pushed forward action to ensure that the UK and British nationals travelling abroad did not suffer as a result of any failures. This required overseas FCO posts to make contact with the various organisations that were critical to their local infrastructure.

New contacts have been established for overseas FCO posts that will bring lasting benefit to the UK.

5.20The FCO also played a key part in various cross-sector risk assessment exercises, including groups which looked at the potential for economic contagion and the likely impact of the Bug on trade flows. The global perspective offered by the FCO through the work of the overseas posts contributed to the policy-making of other departments. The FCO's work widened the understanding in other government departments of how the FCO can help them to meet their policy objectives, particularly through its ability to engage directly with other countries and international bodies on their behalf.

The issue-focused diplomacy employed by the FCO in managing the Year 2000 programme offers a model for how the UK might practically position itself with regard to future global opportunities such as e-commerce.

5.21 Action 2000 worked with the National Infrastructure Forum (NIF) to map the UK infrastructure, identifying direct dependencies overseas for the first time. As part of the programme of independent assessment, Action 2000 also prompted businesses to look at their overseas supply chains.

The improved understanding of supply-chain international dependencies will have long-term benefits for business continuity planning in a number of sectors.

The benefits of openness

5.22 Despite legitimate concerns about diplomatic fall-out, the FCO responded to calls from industry for information on progress in other countries. It provided confidential briefings to business and issued travel advice and statements on international preparedness to the UK public. The FCO worked proactively with partner countries to share information on international readiness, and with the countries directly concerned to ensure the information was as accurate as possible. The statements released by the FCO proved to be far more accurate than many of the scare stories reported in the media.

The positive reaction to the FCO's 'public diplomacy' role may be a useful pointer to the scope for its wider involvement in the delivery of Information Age government.

Next steps

5.23 The FCO will be taking the lead in discussions with other interested departments and the Office of the e-Envoy to identify global issues where the lessons of the Year 2000 programme can be applied to enhance the UK's effort and its global profile. In particular, the joint DTI and FCO body, British Trade International, could adopt some of the lessons from the Year 2000 programme, as well as building on the confidence gained from the UK's leading role in combating the Bug.

Appendix I:

Full list of benefits and lessons of the Year 2000 problem

1: How government manages its own business

Benefits

- Preparing for the Bug tested programme management to the full. In most departments, programme management arrangements evolved over time, with new tools being developed as understanding of the problem grew. Departments will be able to use the experience gained to inform and improve the management of future projects (case study at para 1.2).
- All departments now have inventories of their electronic systems and a better understanding of the way these systems fit together to support the delivery of their services. Many departments have used this knowledge to rationalise their existing systems and, as a result, have made financial savings. One HM Customs and Excise region was able to reduce local administrative systems by almost 60 per cent without affecting operational effectiveness (case study at para 1.2).
- The Year 2000 problem was a powerful driver for a number of departments to upgrade their systems and software. Some departments were also able to bring forward new capital-replacement projects (case study at para 1.2).
- The Year 2000 problem has given a sharper profile to the importance of buildings and security systems and their management, in particular the management of contractors and health and safety issues (case study at para 1.2).
- Departments have improved their testing methodologies. Business assurance testing, in particular, has gained wider currency. This should lead to improved confidence in and control over future projects (case study at para 1.2).
- Dealing with the Year 2000 problem further demonstrated the business benefits of electronic communications. For example, being able to gather information rapidly from, and disseminating it to, a geographically widespread organisation was invaluable to the Year 2000 programmes of the National Health Service (NHS) and MOD (case study at para 1.2).
- Departments have developed a broader understanding of their whole organisation and a wider understanding of the role of IT in supporting the delivery of key services (para 1.3).
- Departments have reached a wider and deeper understanding of their key services and have developed a new, stronger customer focus (para 1.9).
- Departments now have a far better understanding of their business processes and the critical systems that contribute to the delivery of their services (para 1.10).
- All departments now have up-to-date business continuity plans in place (para 1.11).
- Departments have a better understanding of their supply chains and the other areas where they are vulnerable to external influences (para 1.12).

Lessons

- Compliance programmes have exposed weaknesses in the management of IT resources, particularly in the processes used to identify non-approved software and monitor the installation of unauthorised software (case study at para 1.2).
- The value of independent assessment in capturing best practice, monitoring progress and providing independent assurance was clearly demonstrated (case study at para 1.2).
- The high-level programme boards developed within departments to tackle the Year 2000 problem provide a model that could work well in the management of other strategic issues (para 1.4).
- Senior level buy-in was a key factor in the success of the Bug effort and in securing the necessary commitment and resources to make things happen (para 1.5).
- Policy teams need to develop a wider understanding of formal project management techniques and adopt them where appropriate (para 1.6).
- Central monitoring is a powerful, if blunt, tool that could usefully be applied to other cross-government initiatives. However, project managers should consult fully when designing their overall approach to monitoring and constructing

questionnaires (para 1.7).

- Tackling the Bug has demonstrated that IT is an essential component of an organisation's overall business strategy. The work has also promoted a wider understanding of the role and importance of IT in service delivery and more fully integrated IT into senior managers' thinking (para 1.8).
- The work invested by departments in preparing business continuity plans for the Year 2000 needs to be captured properly and built on, otherwise the work done to date will be lost (para 1.11).
- Cross-cutting, 'joined-up' government delivers real benefits, but only when there is a clear set of objectives which all stakeholders recognise, with clear benefits, and where roles and responsibilities are clearly set out and resourced (para 1.15).
- The Year 2000 problem has demonstrated what can be achieved through a flexible and innovative approach to problem solving. The new relationships built as a result of planning for the Bug must be maintained (para 1.16).
- Departments were willing to work together and collaborate where staff shared a common language and faced similar difficulties (para 1.17).
- The model adopted for the Year 2000 problem, of a task-orientated Ministerial committee backed by a dedicated policy team, proved extremely effective and should be considered for tackling future cross-cutting issues, such as e-commerce and e-government. However, it demanded a significant input of time and effort from Ministers and officials and these pressures should be recognised at the outset and built into any programmes (para 1.20).
- Co-ordinating the work on the Year 2000 problem highlighted the importance of having single-issue teams able to take a strategic view and chase progress (para 1.21).
- The Action 2000 model was crucial to the success of the Year 2000 programme. It is a potential model for delivering specific, tightly defined initiatives and would be of particular value in projects which require working across the public and private sectors. However, when following such a model, the roles and responsibilities of the private sector body and the departments should be established from the start and clear 'rules of engagement' agreed (para 1.23).

2: Working with the essential services

Benefits

- Partnership with the private sector in the NIF worked because they were actively engaged in the process and saw commercial benefits for themselves, as well as for government, in participating. This has generated a lot of goodwill, which can be built on in other areas such as e-commerce (para 2.10).
- In many areas, new ways of working together brought benefits that extended beyond the immediate work in hand. This has created a solid foundation for co-operative work in the future (para 2.11).

Lessons

- The Government will need to take account of the infrastructure process map when taking forward work on policy areas relevant to contingency planning (para 2.3).
- The Action 2000 strategy recognised that, for public confidence to be maintained, sector readiness must be assessed by a body independent of the service provider. Any future project in which public confidence is critical should ensure that a comparable degree of independence and public disclosure is built into its strategy (para 2.5).
- The NIF enabled participants to develop a sense of common ownership of the programme. It also successfully demonstrated the value of professional project management (para 2.6).
- The common benchmark for assessment permitted light touch management of the project and enabled sectors to devise programmes that best suited their needs (para 2.7).
- The use of 'traffic lights', a visual and easily understood image, to define each sector's state of readiness was essential in communicating complex information in a consistent way (para 2.8).
- There may be scope for industry regulators to identify other issues on which a co-ordinated approach will benefit the consumer by ensuring all service providers carry a consistent message (para 2.12).
- Future cross-cutting projects of this kind will need to ensure an appropriate combination of local focus and UK-wide overview (para 2.13).
- Collaborative working in sectors was helpful and could be extended to other issues. The Competition Act 1998 does permit co-operation where consumers stand to benefit from the technical or economic outcomes (para 2.14).

3: The communications challenge

- It gave credibility to the overall effort in the eyes of the media and public (para 3.4).
- Action 2000 and the Government were able to move much of the debate from the general which can engender fear to the specific, where rebuttal was possible. It also enabled early identification of legitimate and specific concerns, allowing a swift and targeted response by the Government (para 3.4).
- The quality and consistency of the information helped to temper the expectations of both the media and the public (para 3.4).
- The public scrutiny generated by openness served to energise those organisations caught in the spotlight (para 3.4).

Lessons

- Year 2000 showed that there is a discipline inherent in adopting openness as an approach; once the commitment is made, it is not possible to retreat from it at a later stage. It needs to be built-in early as a conscious strategy and developed in parallel with a system for collecting information in a format that can be usefully published (para 3.5).
- With a long-running issue, information needs to be drip fed continuously and a co-ordinated approach is vital to ensure that the various activities of the programme reinforce each other (para 3.6).
- Finding the right tone for the message was central to the strategy (para 3.7).
- Early and sustained engagement with the media can contribute to the delivery of balanced reporting. It is crucial that the media have confidence in the accuracy of information sources (para 3.8).
- The Media Emergency Forum is a valuable platform for planning and partnership that negates the need to establish a new government-media mechanism to handle crisis plans. It should be used as early as possible to develop mutual understanding and joint processes (para 3.9).
- Any engagement with the media will have its limitations and there must be a strategy in place to get out information if the media are not interested (para 3.10).
- Rebuttal was on occasion patchy, and rebuttal systems were generally not as effective on cross-cutting issues as they were on purely departmental ones (para 3.11).
- Any government communications strategy targeted at the public at large should have a regional and local dimension to ensure more and better-balanced coverage (para 3.12).
- Ministers are not always the most appropriate spokespeople; it is important to establish the most effective spokespeople who will have maximum resonance with the public and enhance the credibility of the message (para 3.14).
- Key-message briefings were important to establish clear, agreed messages and standardise the language used so that presentation would be consistent. This form of briefing is a useful tool that has a wide application (para 3.15).
- The success and reception of Year 2000 websites are evidence of the growing power of the Internet as a communication tool for government, but there were a number of lessons to be learned about the development of websites as part of a communications strategy (para 3.17).
- Tracking research is potentially an extremely useful tool for monitoring the effectiveness of communications activities and for allowing a more targeted approach to be developed. To influence an ongoing programme, the results must be made available quickly and sample sizes must be significant (para 3.18).
- Partnership was crucial to the overall strategy and ensured that all players across government and the national infrastructure were delivering a consistent message (para 3.19).
- Public/private sector co-operation is an extremely effective and cost efficient mechanism for raising business awareness and providing public reassurance. It is increasingly likely to be a key feature in future government initiatives that can deliver mutual benefit (para 3.20).
- Any joint public/private sector partnership needs to be flexible enough to recognise and accommodate different agendas (para 3.21).
- A central unit driving forward communications issues can be crucial where there is a significant cross-cutting element, but it needs to be set up early and supported by senior commitment. It is also essential to have good communication between press and policy teams (para 3.22).

4: Reaching out to small businesses

Benefits

• Many small businesses reported an improved understanding at senior levels of the role of IT in their business which will stand them in good stead for the growth of e-commerce (para 4.4).

- Action 2000's strategy ensured that business people became aware of the national Year 2000 message through the media, and its relevance was then emphasised at local level through organisations such as the Federation of Small Businesses, Business Links and Chambers of Commerce, and through support services such as Actionline, the National Mentoring Scheme and Action 2000 regional managers (para 4.2).
- Action 2000's targeting of employees of small businesses as well as the owners was a key part of the strategy to raise awareness in the market-place (para 4.5).
- It is important to maximise the ways and means by which all segments of the target audience can receive campaign messages (para 4.7).
- The National Mentoring scheme and Pledge 2000 both demonstrated the value of adopting new approaches to tackle known problems. They also show that it is possible for large and small companies to benefit from working together to address potential supply-chain problems (para 4.8).
- Not charging for services allowed Action 2000 to establish its independence and differentiate itself from the multitude of commercial 'solutions providers' (para 4.10).
- Businesses will only tackle an issue if they see a business benefit or if the issue puts them at risk. Since innovative companies will be more likely to recognise and act on specific issues, messages about an issue should be aimed at the less well prepared and should focus on benefits and competitive advantage (para 4.11).

5: The international dimension

Benefits

- The work that many UK-based multinationals undertook with their host countries has pushed many public/private relationships around the world on to a new strategic level which could be exploited to tackle other issues (para 5.7).
- The NHS Estates team, working with the IYCC, brought practical benefits to health sector programmes around the world, and provided a platform on which NHS Estates plan to build further relationships (case study at para 5.11).
- The Met.Office's global Year 2000 activity has improved business continuity planning across the international aviation sector and enhanced the reputation of the UK (case study at para 5.12).
- New contacts have been established for FCO posts that will bring lasting benefit to the UK (para 5.19).
- Improved understanding of supply-chain international dependencies will have long-term benefit for business continuity planning in a number of sectors (para 5.21).
- The Department for International Development will be taking forward the lessons learned from the UK's global involvement in tackling the Year 2000 problem through a workshop on the role of the information and communications technologies in development activity (para 5.10).

Lessons

- Top level buy-in from the start is crucial for establishing and maintaining momentum (para 5.3).
- Political statements must be backed by practical initiatives if credibility is to be sustained and real progress made (para 5.4).
- In driving forward international co-operation, in many cases, the most effective response was provided by less formalised groupings sharing common interests, where multinationals, governments and international organisations could combine to take forward action (para 5.13).
- A significant contribution can be made the effort of others simply by making available to them the results of work already done (para 5.6).
- Well-placed funding contributions can generate credibility for the UK which extends far beyond those immediately benefiting from the money (para 5.9).
- In a fast moving and more dynamic global scene, existing international organisations will need to show greater innovation and flexibility (para 5.14).
- The EU could work towards developing greater structural flexibility to respond quickly to issues, like Year 2000, which affect all member states both individually and as a group, and which cross traditional economic sectoral boundaries (para 5.17).
- The issue-focused diplomacy employed by FCO in managing the Year 2000 programme offers a model for how the UK might practically position itself with regard to future global opportunities such as e-commerce (para 5.20).
- The FCO proved highly successful in providing businesses and the public with relevant information about international Year 2000 readiness. The positive reaction to the FCO's 'public diplomacy' role may be a useful pointer for its wider involvement in the delivery of Information Age government (para 5.22).
- The International Year 2000 Co-operation Centre (IYCC) was probably the first example of an effective global ecommunity. Year 2000 co-operation has demonstrated here and elsewhere the value of e-diplomacy (para 5.15).

• The IYCC achieved a high level of commitment largely through its organisation's accessible and inclusive structure, which represented every country on equal terms and avoided marginalising less-developed nations (para 5.16).

Appendix II: The problem and how the Government approached it

What was the problem?

1 The Year 2000 problem - or Millennium Bug - existed because in the early days of computing, in order to save memory, programmers abbreviated years to just the last two digits: eg 80 instead of 1980. This meant that problems would occur when computers or systems encountered the year 2000 for the first time, since they might assume that the year was 1900 rather than 2000.

Fact file

As long ago as 1996, a batch of tinned corned beef with the use-by date of 00 was rejected by a computer which wrongly calculated that the tins were 96 years out of date and refused to deliver them.

2 Initially, the Year 2000 problem was seen as a PC problem and then a systems problem. In reality it was a business problem. Only when organisations, in both the public and private sectors, recognised this, would they be on the road to solving it.

3 No one could be certain just what effect the Bug would have on systems or which systems would be affected. Every organisation in the country relies on computers and electronics, either directly through their own systems, indirectly through their suppliers or customers or through the services they receive from national infrastructure providers like the utility companies.

Fact file

In August 1998, Unilever estimated that it would spend 1300 man-years, about 2.5 million man-hours, working on its Year 2000 project before the end of 1999.

In July the same year, the Abbey National was reported as having 14 million lines of code to check.

4 The potential impact on UK citizens and their ability to go about their daily business was significant. There was a real risk of failure of essential services and safety critical systems. The Year 2000 problem was unique in that, to some extent, it affected every country in the world. Each country's interdependency with others was therefore a source of risk. The UK is the fifth largest trading economy in the world. There was a potential impact on the national economy and the global economy, although no one was clear in the early stages how great either might be.

5Such uncertainty about the effect of the Year 2000 problem led to a number of stories in the UK media about 'Millennium meltdown'. There were concerns among the public about aeroplanes falling from the sky, banks losing customers' accounts and failures in essential public services. The threat to public confidence of such alarmist stories was as great as the threat of the problem itself. If public confidence that daily life could continue as normal was damaged, the public might respond by acting in a way that would exacerbate the problem. This could lead to a domino effect.

The Government's approach

⁶ The Government could not solve the Bug problem but it could provide leadership to the national effort. With little more than two years until the Millennium it was essential that organisations started to take action.

7 In September 1997, Margaret Beckett, then President of the Board of Trade, and Barbara Roche, then Minister for Industry,

set up Action 2000, a private company to lead the Bug effort. The Government recognised that the business community was more likely to act on the advice of a high-profile independent spokesperson with experience of the private sector and chose Don Cruickshank (then Director General of OFTEL) as Chairman. He in turn appointed Gwynneth Flower (former Head of Central London Training and Enterprise Council) as Managing Director in March 1998. They gave Action 2000 the independence from government and the IT industry that was necessary to get business to listen and take action. They became the public face of the Government's Bug campaign.

8 The previous Administration had provided funding to the Computing Services and Software Association to support Taskforce 2000, an industry initiative, which had helped raise awareness of the Bug. The creation of Action 2000 represented a step change in the Government's commitment to action.

9 Action 2000's initial remit was to raise awareness and to promote action in the private sector, with a particular focus on small and medium-sized enterprises (SMEs). However, it became clear that there was also a need for work on contingency planning and risk assessment across the national infrastructure.

10 In November 1997, the Ministerial Group on the Millennium Date Change (MISC4), a Ministerial Cabinet Committee, was set up. Chaired by Margaret Beckett, the Group was to "drive action in the public and private sector, including the national infrastructure, to prevent damage from the failure of electronic systems related to the year 2000 date change". Don Cruickshank and Action 2000 were asked to consider how to achieve this and to work with the Cabinet Office on developing a strategy.

11 In March 1998, at a speech to the Midland Bank Millennium Bug Conference in London, the Prime Minister set out the Government's agenda. It would:

- ensure the national infrastructure was as ready as it could be;
- deal with specific problems in the public sector;
- raise awareness and promote action in the private sector; and
- act internationally.

"The Millennium Bug is a serious issue. I pledge that the Government will do all it can to help you prepare and to prepare itself for the year 2000. This is one deadline that is non-negotiable."

The Prime Minister

Midland Bank Millennium Bug Conference

Ensuring the national infrastructure was ready

12 Ministers had agreed in January 1998 there was a need for a systematic risk analysis to 'map' the interdependencies between the many processes that make up daily life. For instance, seven different organisations deliver the criminal justice process in England and Wales. The Cabinet Office appointed the consultants Ernst and Young in March 1998. They identified 58 main processes that make up the country's essential infrastructure services, the interdependencies between those processes and the potential outcomes from process failures. This was the first time this had been done anywhere in the world. Ernst and Young's report, *The Millennium Infrastructure Project Process Catalogue*, was published in July 1998 (www.citu.gov.uk/2000/ey_study/ey_menu.htm).

13 Also in March 1998, Action 2000 brought together the organisations that made up key parts of the national infrastructure in the National Infrastructure Forum (NIF), to discuss a co-ordinated plan for tackling the potential impact of the Bug on the infrastructure. Infrastructure providers all had Year 2000 programmes underway but there was a clear role for Action 2000 to help the process of sharing information across sectors. Scotland and Northern Ireland ran their own forums and, in Wales, a high-level steering group was set up to help drive the process forward.

14 By May 1998, the Government and Action 2000 had agreed a strategy aimed at sustaining confidence in the delivery of essential services. The strategy developed over time but at its core was the need to:

- gain the collaboration of the infrastructure providers in the UK in a joint effort to deliver 'business as usual';
- establish a programme for the independent assessment of readiness by Responsible Bodies and to put the results in the public domain;
- identify those overseas dependencies of the UK where a failure would have a direct effect on the UK infrastructure and to prompt action; and
- publish information of direct personal concern to the general public to sustain public confidence in UK readiness and minimise unusual behaviour.

15 The strategy's stated objective was "to ensure no material disruption to essential public services as a result of the Millennium Bug".

16 The NIF met quarterly between October 1998 and October 1999, attracting over 850 different participants. It was the main vehicle for disseminating information to key infrastructure providers and users.

17 A steering group, chaired by Don Cruickshank, guided the work of the NIF. The group met nine times between September 1998 and November 1999 to identify the key issues, consider options for their resolution and recommend action. Members of the steering group are listed in Appendix III. The NIF was also supported by an Advisory Board, which met six times and helped define the NIF work programme.

18 For each sector a Responsible Body was appointed to commission an independent assessment of the Year 2000 readiness of the sector, by process and by organisation, and to disclose the results through the NIF. As a result the assessment of the national infrastructure in the UK was probably the most rigorous anywhere in the world. A full list of Responsible Bodies is in Appendix III.

19The final reports of all Responsible Bodies were published together by Action 2000 in December 1999 (http://infrastructure.bug2000.co.uk/).

20 As well as being disclosed to the NIF, the results of the independent assessments were also published in national newspaper advertisements and on the Action 2000 website. By the end of November 1999, all 25 sectors had been independently assessed as being 'blue', which in NIF terminology indicated there was no risk of material disruption.

Dealing with the problem in the public sector

21 Much work was already underway in government departments on auditing their own systems, but in May 1997, David Clark, then Chancellor of the Duchy of Lancaster, wrote to Ministerial colleagues asking to receive copies of their departmental action plans, with the aim of fully co-ordinating activity.

22 All departmental action plans and, later, quarterly and monthly monitoring returns were published in the Libraries of the House and on the Internet (http://www.open.gov.uk/year2000), to fulfil the Government's commitment to openness about progress.

23 Margaret Beckett was appointed President of the Council and Leader of the House of Commons in July 1998 and was given responsibility for overseeing all preparations for addressing the Year 2000 problem. She continued to report to Parliament each quarter and, from July 1999, on a monthly basis. The statements updated Parliament on progress across government and the wider public sector, highlighting areas of concern.

"The best data I encountered...was that which resulted from the CCTA questionnaires to central government departments and agencies and some other wider public sector bodies... Firstly, the structure remained consistent over two years; secondly, the degree of detail requested on specific project stages shifted in time, in line with the stage at which the critical mass of programmes was expected to reach."

Ian Hugo, Taskforce 2000

Year 2000: Goodbye To All That?

1 February 2000

24 A dedicated Year 2000 Team was set up in March 1998 in the Cabinet Office to support MISC4 and drive forward the Government's programme.

25 In January 1999, a dedicated Year 2000 Media Co-ordination Unit (MCU) was set up in the Cabinet Office. The MCU was to work alongside the Year 2000 Team and Action 2000 on the Government's overall Bug media strategy. The MCU also worked throughout the year with the media in the Media Emergency Forum, encouraging responsible handling of Bug stories.

26 The Year 2000 Team worked closely with the Year 2000 co-ordinators in government departments and with Action 2000; indeed some members of the Team were also members of Action 2000's Independent Assessment Project Team.

27 Many government departments - like many businesses - were slow to recognise the Year 2000 problem as primarily a business rather than an IT issue. The Year 2000 Team worked with colleagues in other government departments to engage senior management in understanding the issues. They were supported in this by the Prime Minister's appointment, in March 1998, of Dr Iain Anderson, former Strategy and Technology Director of Unilever, as his adviser on the Millennium Bug. Dr Anderson used his position to encourage the personal engagement of Ministers, Permanent Secretaries and senior officials across Government in the programme.

28All departments were asked to ensure that they had initial business continuity plans, including contingency plans, in place by January 1999 and full and tested business continuity plans in place by the end of October 1999.

Government Year 2000 framework



29The Year 2000 Team worked with the Central Computer and Telecommunications Agency (CCTA) to provide guidance and seminars for the public sector on dealing with the Bug. The Team also funded the CCTA's Year 2000 Public Sector Group, a forum for sharing best practice.

30 Many parts of the wider public sector had begun work on the Bug before central government. For example, the NHS began work in early 1996 (when it encountered problems with information in health screening systems that spanned the date change) to ensure that service was maintained and patient safety assured.

31Local government is accountable for its own actions and answerable to its own communities but there were concerns that a minority of local authorities had started late and that there was a wide gap between the best and worst authorities.

32 The Audit Commission had been working with local authorities in England since 1997/98 to assess their Year 2000 readiness and published *A Stitch in Time*, the first of four management reports, in June 1998. The reports offered practical advice on actions that needed to be taken. The Audit Commission and regional government offices reported for the first time to the NIF in April 1999. In early 1999, the Audit Commission undertook an assessment of every council in England and commissioned additional audits of the 91 authorities that had been identified in April as being potentially at risk or where information was missing. At the July NIF 93% of local authorities were rated amber and 6% blue, this increased to 100% blue in October.

33 In Scotland, independent assessments of local authorities were carried out by the Accounts Commission, which worked closely with the Scottish Executive and the Convention of Scottish Local Authorities (CoSLA). The first results were given to the NIF in July 1999. District Audit (Wales) and Helm Corporation Ltd carried out the independent assessments in local authorities in Wales and Northern Ireland respectively.

34 The National Audit Office (NAO) adopted a proactive role in examining the compliance of central government and the readiness of the national infrastructure and in making recommendations for improvements. The NAO produced a series of reports, the first as early as May 1997, which were followed up by enquiries by the House of Commons Public Accounts Committee. The Scottish Parliament's Audit Committee also took evidence in November 1999 on the NAO's report *The Millennium Threat: Is Scotland Ready?* The NAO also published *The Millennium Threat: Is Wales Ready?* in December 1999.

Raising awareness in the private sector



35 Although many businesses had been working on the Year 2000 problem for some time, the majority, particularly SMEs, had not. This posed a real threat to the rest of the economy.

36 Action 2000 launched its Millennium Bug campaign in January 1998. It comprised a national press launch, information describing what steps business should take, a helpline from which to order the information and a website (www.bug2000.co.uk).

37 A number of innovative and imaginative campaigns followed culminating in the launch of the *Last Chance guide*, which was mailed to over 1.3 million businesses in September 1999.

Fact file

Action 2000 spoke at over 300 seminars and events and produced a wide range of information for business, including Action Packs, leaflets and helpsheets covering:

Audit and inventory check	Financial issues
Best practice	Interest groups
Best practice information guide	Legal issues
Bug in your home	Product compliance
Case studies	Questions and answers
Check your supply chain	Skills
Contingency plan	Small business systems
Embedded systems	Suppliers

38 To encourage businesses to work together to beat the Bug, Action 2000 launched Pledge 2000 in July 1998. The Pledge promoted co-operation rather than litigation and was a world first. The Deputy Prime Minister signed the Pledge on behalf of the Government and its agencies in August 1998. Over 6,500 organisations signed the Pledge. The Pledge was also adopted in the Netherlands.

39 The National Mentoring Scheme, a joint Action 2000 and industry initiative, was launched in April 1999. Over 500 free workshops were held throughout the UK to enable businesses to share experience and best practice.

40 Action 2000 tracked the readiness of UK business from March 1998 through its regular State of the Nation research programme. From September 1998, the research used a Best Practice Readiness Model to separate businesses into varying levels of Year 2000 readiness - from 'low risk' to 'Millennium ready'. At the time of the Midland Bank Conference, over 25 per cent of businesses had not yet taken any action. By October 1999, the State of the Nation showed that 99 per cent of FTSE 500 companies, 93 per cent of businesses with more than 250 employees and 86 per cent of SMEs were rated as 'on course/complete' in their preparations.

41 In March 1998, the Prime Minister announced 'Bug Busters' - a £26 million Government programme to help SMEs train people to help them tackle the Bug. Small businesses were initially charged a nominal rate but, following a slow take-up of places, the training was offered free of charge with Action 2000 referring Actionline callers for direct follow up. At the end of the programme 'Bug Busters' had trained over 44,000 people.

Public information

42 An important element of the Government's strategy was to provide the public with reliable and impartial information about the effect of the Bug.

43In October 1998, Action 2000 published *Homecheck* giving the public information about what the Year 2000 problem was and how it might affect appliances in the home. *Homecheck* succeeded in containing some of the Millennium scare stories.

44 In January 1999, the MCU began to supplement the work of Action 2000 by tracking public awareness and concern about the Bug and publishing the results. Based on this research, a joint strategy was developed by Action 2000 and the Cabinet Office to ensure that Millennium scare stories did not damage public confidence. A leaflet, *The Millennium Bug: Facts not Fiction*, was distributed through newspapers in June 1999, supported by press and television advertising and a second leaflet, *What everyone should know about the Millennium Bug*, was delivered to all 26 million homes in the UK in November 1999. In December 1999, Action 2000 sponsored a 'Featurelink' press advertorial in 600 regional and local newspapers, which included readiness statements and the telephone helpline numbers of key local services, such as gas, water, electricity, transport and local authorities.

The international dimension

45 The Year 2000 problem was a global problem. Every country in the world was faced with the same challenge to a greater or lesser extent.

46 The NIF Independent Assessment Programme took into account the direct international dependencies of the UK national infrastructure, for example, in telecommunications and transport. The UK also used its position to encourage other countries to take action. The FCO's overseas posts raised awareness of the problem and sought to gain understanding of the local level of preparations. The FCO shared this information with UK businesses. It also published country readiness statements on its website from September 1999 and this information proved very popular attracting over 2.5 million hits in the first week alone.

47 The UK was widely acknowledged as a world leader in its preparations for the Year 2000 and used its Presidency of the European Union (January-June 1998) and its Chairmanship of the G8 (January-December 1998) to give the issue an international profile. The Prime Minister's speech to the Midland Bank Conference was widely reported internationally and played an acknowledged part in bringing the issue to the attention of many world leaders.

48 The UK Presidency of the EU led to the establishment of a working party on Year 2000 technical issues and, following the Cologne Summit in June 1999, an EU High-Level Group was set up, under the chairmanship of the European Commission, to consider cross-border co-ordination and contingency planning issues. The G8 also set up a co-ordinators group to consider

strategic Year 2000 issues of global interest.

49The Ministry of Defence also raised awareness internationally. The MOD worked closely with our allies and drove forward the issue in international groupings such as NATO to make sure that allied and coalition peacekeeping forces were not at risk from Bug-related failures.

50 Many countries were able to benefit from the experience and expertise of the UK through the 18 seminars organised by the British Council and funded by the FCO, and over 40 countries received direct briefings from Action 2000. The Ministry of Defence also distributed a defence-specific version of the Action 2000 and CCTA guidance to over 70 defence forces worldwide through our military attachés overseas. The Action 2000 website contained comprehensive information on preparations in the UK, which helped other countries with their own preparations. It also contained links to the Year 2000 websites of 87 other countries, which gave information on their preparations. Action 2000 produced a summary report of information put into the public domain by a number of other countries.

51The UK contributed £10 million to the World Bank's InfoDev programme for assistance to developing countries (the programme's largest single donation) and £250,000 to the Commonwealth Secretariat to help developing Commonwealth countries. The FCO also funded visits for overseas experts to meet their UK counterparts.

52 The UK was also a founder member of the Steering Group of the International Year 2000 Co-operation Centre (IYCC), which was set up under the auspices of the United Nations with World Bank funding, to help countries across the world minimise the impact of the Bug. The IYCC identified national, regional and sectoral Year 2000 co-ordinators and brought them together as a global electronic network. This was probably the first truly global e-community.

Preparing for the Millennium

53 As well as dealing with the threat of the Year 2000 problem, departments had to take account of the fact that, at the date change, the country would be in the grip of enormous celebrations to mark the Millennium. There were also the usual winter pressures to contend with: potential bad weather, flooding and the seasonal pressures on the NHS. These factors would compound any potential Bug problems.

54 Nick Raynsford, Minister for London from May 1997 to September 1999, and his successor Keith Hill, led preparations for the date change and Millennium celebrations in London. In November 1998, Nick Raynsford set up the London Readiness Year 2000 Team (a joint central/local government team) in the Government Office for London and convened the Pan-London Readiness 2000 Steering Group. The Steering Group was made up of those organisations with a role in keeping London operating, including the emergency, health and local authority services, utilities and transport providers. Members of the Steering Group reported on progress within their own organisations, discussed interdependencies and how best to tackle cross-cutting issues and set up a co-ordinated and highly effective Millennium Operating Regime (MOR) for London.

55 Government departments were required to have their own MORs in place by the end of October 1999. These would define how departments would operate over the Millennium and their links to critical sectors for which they had policy responsibility.

56MORs formed part of departments' business continuity plans: they did not replace normal business continuity plans or emergency arrangements. The MORs were based on key services and business processes, operational needs over the critical period and liaison with the sectors for which departments had policy responsibility. They had to include provision of information to Ministers and the Cabinet Office over the critical period and plans for providing public information. MORs also had to include the capacity of departments to respond swiftly and effectively to issues that arose unexpectedly, and they had to cover all systems, including computer, telecommunications and embedded systems which underpinned these processes.

57A Government-wide test of the information flow arrangements between departments and the Cabinet Office took place in October 1999. The lessons from this test helped inform the preparations for the Millennium.

58 Over the Millennium period, the Cabinet Office operated the Government Millennium Centre. The GMC was made up of the Year 2000 Team, the MCU, the Secretariat to the Civil Contingencies Committee (CCC) and staff from other government departments. Action 2000 was also on hand to provide independent advice to Ministers. The GMC operated from 31 December 1999 to 7 January 2000. There were similar arrangements in every government department and the devolved administrations. The Scottish Executive, the National Assembly for Wales and the Northern Ireland Assembly all operated their own Millennium units for the critical period with links to local authorities and key infrastructure services. They were also in touch with their own media, as well as feeding into the GMC in London. In England, the Central Office of Information worked with regional government offices. The Government Millennium Centre's role was to:

- collect and analyse information about the national and international picture on Bug and non-Bug issues;
- provide information for the media and the public;
- provide information to government departments and key parts of the national infrastructure; and
- brief CCC.

59 The GMC had no operational function but worked alongside the usual arrangements, in place every day of the week, to respond to civil contingencies under the responsibility of the Home Secretary.

60Millennium night passed smoothly at home and overseas without any significant Bug problems reported. In London three million people celebrated along the banks of the Thames without any major public order problems (indeed there was a 5 per cent reduction in crime figures compared with previous years). It was a similar story around the country. The NHS was busier than normal, but its planning meant that it coped well. The UK also passed through the leap day on 29th February without any significant problems reported.

Information flows to and from the Government Millennium Centre



61 This was the culmination of all the work that had gone into fixing the Year 2000 problem across the public and private sectors over the previous few years. Central government spent approximately £380 million tackling the Bug (of which £150 million, or 39 per cent, was on the Ministry of Defence's programme). In addition, some £350 million was spent in the NHS in England and an estimated £200 million in local government in England and Wales. Government also funded Action 2000 to the level of £58 million. Individually big businesses in the UK spent just as much as - and in many cases more than - central

government. The £380 million spent by central government compares to £570 million spent by central government in the Netherlands and over £5 billion by the US Federal Government.

62The Government's objective had been to ensure no material disruption to essential services or the UK economy as a result of the Millennium Bug. This was fully achieved.

Appendix III: Responsible Bodies

List of sectors that formed part of Action 2000's independent assessment project, the processes involved and their Responsible Bodies

		Responsible Bodies				
Sector	Process Name	England	Wales	Scotland	Northern Ireland	
Electricity	Provide electricity	Office of Gas & Electricity Markets (OFGEM)			Office for the Regulation of Electricity & Natural Gas (OFREG)	
Gas	Provide gas	OFGEM OFREG			OFREG	
Water and Sewerage	Treat dirty water	Office of Water Services (OFWAT)		Scottish Executive (SE), Rural Affairs Department (RAD), Water Services	Department of the Environment – Northern Ireland (DoENI)	
	Supply clean water	OFWAT SE		DoENI		
Fuel supplies	Supply transport fuel	Department of Trade & Industry (DTI)				
	Supply coal	ITO			DTI/ Department of Economic Development (DED)	
	Supply nuclear fuel	DTI			n/a	
	Provide oil	ודס			-	
Financial Services	Transmit monies	Bank of England. Contributions by Financial Services Authority (FSA)				
	Trading markets	FSA				
	Provide insurance	F5A				
	Invest and borrow money	FSA				
Telecomm- unications	Provide telecommun- ications	Office of Telecommunications (OFTEL)				

		Responsible Bodies				
Sector	Process Name	England	Wales	Scotland	Northern Ireland	
Air	Transport people and goods by air	Civil Aviation Authority (CAA)		CAA SE Transport Division	CAA	
	Provide air infrastructure	CAA		CAA SE Transport Division	CAA	
Roads	Provide road infrastructure (see also local government)	Department of the Environment, Transport and the Regions (DETR)/ Highways Agency (HA)	National Assembly for Wales (NAW)	SE National Roads Directorate	DoENI	
Railways	Transport people and goods by rail	Office of the R (ORR)/HM Raily	DoENI			
	Provide rail infrastructure	ORR/HMRI			DoENI	
	Transport people by underground	Government Office for London	n/a	SE Transport Division	n/a	
	(inc Light rail)	Government Offices (GOs)	n/a	n/a	n/a	
	Provide cross channel rail services	Inter Governmental Commission (IG Comm)	n/a	n/a	n/a	
	Maintain channel rail infrastructure	IG Comm	n/a	n/a	n/a	
Shipping	Transport people and goods by sea	DETR/ Maritime and Coastguards Agency (MCA)		DETR/MCA SE Transport Division	DETR/MCA	
	Provide sea infrastructure	DETR		DETR SE Transport Division	DETR	
Essential Food and Groceries	Supply goods	Essential Foods and Goods Steering G		ering Group (EF	GSG)	
	Produce food	EFGSG				
	Process food	EFGSG				
	Distribute food	EFGSG				
	Sell to customer	EFGSG				
Broadcasting	Broadcast information	BBC Board of Governors (BBC)				
		Radio Authority				

	Process Name	Responsible Bodies				
Sector		England	Wales	Scotland	Northern Ireland	
Fire and Rescue Services	Provide fire and rescue services	Home Office (HO) Fire and Emergency Planning Directorate		SE, Fire Services and Emergency Planning Division	DoENI	
Police	Police emergencies	HO and Police Policy Directorate		SE, Justice Department Police Division	Northern Ireland Office (NIO)	
		British Railways	Board (BRB) fo	or British Transport	Police (BTP)	
2	Deal with offences and incidents	но		SE	NIO	
		BRB (for BTP)				
	Maintain public order	HO BRB (for BTP)		SE	NIO	
	Provide policing services	но	но	SE	NIO	
		BRB (for BTP)				
Healthcare	Provide healthcare services	NHS Executive	NAW	SE, Health Department Management Executive	Northern Ireland Department of Health and Social Services (NI HSSE)	
	Provide emergency ambulance service	NHS Executive	NAW	SE, Health Department Management Executive	NI HSSE	
Local Government	Co-ordinate emergency planning	9 GOs	NAW	SE Local Government Division	n/a	
	Provide housing (local government)	9 GOs	NAW	SE Local Government Division	DoENI (Housing)	
	Provide housing (other)	Housing Corporation	n/a	SE Local Government Division	DoENI	
	Educate people	9 GOs	NAW	SE Local Government Division	DoENI	
	Manage sanitation and waste disposal	9 GOs	NAW	SE Local Government Division	DoENI	

		Responsible Bodies				
Sector	Process Name	England	Wales	Scotland	Northern Ireland	
Local Government Continued	Register births, marriages and deaths	9 GOs	NAW	SE Local Government Division	DoENI	
	Manage death	9 GOs	NAW	SE Local Government Division	DoENI	
	Maintain public health	9 GOs	NAW	SE Local Government Division	DoENI	
	Provide community and nursing care	Covered under hospitals and healthcare				
	Provide social services	9 GOs	NAW	SE	NI HSSE	
	Provide road infrastructure (see also roads)	9 GOs	NAW	SE	DoENI	
Criminal Justice	Secure prisons	HO/Prison Service		SE Justice Dept	NIO	
	Run court system	Lord Chancellor's Department		5E Justice Dept	Attorney General	
	Provide post- sentence support and supervision	но		SE Justice Dept	NIO	
	Prosecution	Crown Prosecution Service Monitoring Committee		Crown Office	Attorney General	
Postal Services	Distribute letters	DTI (Posts)				
	Distribute parcels	DTI (Posts)				
	Operate Post Office counters	DTI (Posts)				
Welfare Payment	Pay benefit	Department of Social Security NI HSSE			NI HSSE	
Tax Collection	Collect revenue	HM Treasury (HMT)				
Weather Forecasting	Provide weather information	Met.Office				
Sea Rescue	Provide sea rescue service	DETR				

Sector	Process Name	Responsible Bodies				
		England	Wales	Scotland	Northern Ireland	
Flood Defence	Maintain flood defence	Fisheries & Food		SE RAD, Environment Protection Unit	NI Rivers Agency/NI Department of Agriculture	
Buses	Transport people by bus	DETR		DoENI		
Newspapers	Supply newspapers	DTI				

Members of the NIF Steering Group

Association of Chief Police Officers	Health & Safety Executive
Audit Commission	Highways Agency
Bank of England	Home Office
British Airways	IBM
British Telecommunications plc	Local Government Association
Cabinet Office Year 2000 Team	The Meteorological Office
Cabinet Office Year 2000 Media Co-ordination Unit	Ministry of Agriculture, Fisheries & Food
Chamber of Shipping Ltd	National Air Traffic Services Ltd
Chief & Assistant Chief Fire Officers Association	National Audit Office
Civil Aviation Authority	NHS Executive
Crown Prosecution Service	Northern Ireland Office
Department of Health	Northern Electric
Department of Trade and Industry	Office of Gas & Electricity Markets
Department of the Environment, Transport & the Regions	Office of Telecommunications
Electricity Association	Office of the Rail Regulator
Emergency Planning Society	Office of Water Services
Ernst & Young	Post Office
Financial Services Authority	Rail Millennium Programme Office
Foreign & Commonwealth Office	Scottish Executive
Government Office for the East	Shell Exploration & Production
Midlands (representing all GOs)	Telecommunications Operators
Government Office for London	Forum
Health & Safety Executive	Transco
	Water UK