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**REPORT TO THE EUROPEAN COUNCIL
FEIRA, 19-20 JUNE 2000
ON THE YEAR 2000 (Y2K) COMPUTER PROBLEM EXPERIENCE**

(presented by the Commission)

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1. INTRODUCTION

Addressing the Year 2000 Computing (Y2K) Problem was a unique experience with a global scope. Government involvement occurred at the very highest levels, yet unusually, there was little competitive or political advantage to be gained. In this arena, the Member States of the European Union each had their own individual roles to play in preparing for the century date change. This report highlights the main activities and results which were achieved at EU level, through the actions of EU Y2K Working Party and the European Commission.

From the outset, it was recognised that the nature and extent of the Y2K problem required everyone – whether individuals or organisations - to assess their own particular risks and to act responsibly to ensure that they were adequately prepared. At the same time, it was also clear that the most critical factor in achieving success on a global basis would be the exchange of information.

Initially, the focus on sharing information assisted those who were actually addressing the problem. As problems in certain equipment and software were identified, those who started later were able to concentrate their efforts on certain areas and avoid unnecessary investigations. As the emphasis shifted, however, the need to have reliable information on the preparedness of others - customers, partners, critical services and infrastructures, and eventually, even entire trading nations, became more apparent. Ultimately, due to our increasing dependence on information technology (IT) in daily life and the interconnectedness and interdependence of modern industry on a global scale, in the final few months of 1999, solving the Y2K problem became primarily an issue of maintaining public confidence.

It is for this reason that governments throughout the world, whilst ensuring that their own IT systems were ready for 2000, have also paid attention to various other aspects - raising the awareness of their industry and citizens to the nature of the threat posed by the so-called “millennium bug”, carrying out audits and publishing comprehensive information on the preparedness of their key infrastructure sectors, and reviewing the resources and plans of civil protection authorities.

Within the EU, the main forum for communication and the exchange of information on the Y2K problem between the Member States was the European Union High Level Working Party on the Y2K Problem (EUY2KWP).

2. CO-ORDINATION WITHIN THE EU - THE EU Y2K WORKING PARTY

2.1. Background

The Year 2000 Computing Problem certainly received a very high level of political attention in the EU. In June 1998, the Cardiff European Council conclusions highlighted the need to share information on this issue and to monitor progress. Subsequent European Councils in Vienna and Cologne continued to follow the evolution of the problem very closely, focusing particularly on potential cross-border risks. Discussions also took place at ministerial level in various other Councils, including Industry, Telecommunications, Transport, Energy, and Finance. Its diverse nature necessitated the involvement of many different sectors, thus it was difficult to identify a single existing organisation with the ability to deal with all aspects of the problem.

The Commission had also been active, organising quarterly workshops involving Member State representatives and participants from European industry associations starting in September 1997. Despite the usefulness of these workshops, there were also certain limitations. The mixture of industry and administrators occasionally prevented MS representatives from focusing on their particular information sharing needs. Furthermore, the experience and background of MS representatives was not consistent, thus not all representatives had similar responsibilities and knowledge of the issues. The mandate of workshop participants was unofficial, and understood to be primarily the gathering and exchanging of information, and not setting policy or taking decisions.

The need for a specific group to handle Y2K matters at EU level was identified by the Cologne European Council in June 1999. The Presidency conclusions (§36) requested the Commission to convene a High Level Group to “...*put forward proposals for strategic decisions which may be required within the European Union to ensure the proper functioning of essential areas of infrastructures should computer problems arise in connection with the change of millennium.*”

The Commission responded to this request by convening the first meeting of the EUY2KWP in July 1999. During this initial meeting, it was agreed that the group would focus specifically on cross-border issues associated with essential areas of infrastructure and related services. These areas were defined as being those which ensure the normal functioning of society and the economy, particularly aspects relating to the continued safety and wellbeing of citizens. The sectors of potential interest included energy, transport, telecommunications, water, finance, supply chains, healthcare, welfare, customs, and civil protection. The EFTA countries were invited to participate as observers, and actively contributed to the group.

2.2. Results

The group met on a monthly basis during the second half of 1999. In general, the topics for discussion at each meeting were agreed during the previous meeting, which allowed the representatives to prepare themselves and obtain information from national experts in specific sectors in advance. The members also agreed to communicate and take decisions, if necessary, by electronic means. To this end, the Commission established a dedicated private internet forum. Between meetings, electronic communication and consultation were routine.

It was recognised that normal EU decision-making procedures would generally be inappropriate, as they would not accommodate the quick response times required for Y2K matters. Instead, it was decided that any agreements reached within the group would be achieved through consensus, and would then be implemented nationally as required.

During its meetings, the EUY2KWP dealt with a very wide-ranging set of topics, and the results of their discussions in key areas are summarised under the relevant domains.

2.2.1. Nuclear Safety

An important topic raised at every meeting was the subject of nuclear safety. Within the EU, the preparedness of nuclear power plants (NPPs) within the EU was closely monitored and information was readily available. However, uncertainty regarding the situation of CEEC and NIS plants was created by the overall lack of information coming from these countries and their close geographical proximity, making this a matter of particular concern in many EU countries.

The group asked the Commission to take action on two fronts. Firstly, they requested the Commission to provide as much information as possible on the actual situation of the nuclear sector in these countries. The Commission reacted by collecting information from various sources, including from the regular meetings held between EU and CEEC/NIS nuclear regulators as well as the IAEA, which had conducted site visits in these countries.

It was apparent that Y2K was very unlikely to pose a direct threat to the safety of power plant operations, since no safety critical systems were known to be affected in any nuclear power plant. Instead, since certain less critical monitoring systems were potentially involved, there was a need to ensure that plant safety would not be degraded over the longer term by problems.

The Commission was thus asked to provide funding to assist nuclear operators to address the problem. In this instance, the Commission already supported the IAEA work, as well as funding the ISTC, STCU, and WANO to provide on-site assistance to Russian and Ukrainian power plants. Following the urging of the EUY2KWP, a separate budget of some 3 million euro was identified to fund remaining needs for assistance during 2000. As of May 2000, it appears that the majority of the budget allocated to Russia and Ukraine will indeed be needed to correct problems in nuclear power plants.

2.2.2. Energy

The subject of energy, and specifically its production and distribution, was also regularly raised within the group. Much attention was given to electricity, as an energy source which cannot be stored. The stability of electricity grids in CEEC and NIS countries, as well as the reliability of electricity in general, and of gas and oil supplies coming from outside the EU, were considered.

The interest in electricity grids concentrated on the potential for a grid failure to have an impact on NPP stability, and also the possibility of humanitarian consequences arising from a widespread lack of heating during January (see section 2.2.9). As with NPPs, concerns were primarily focused on the CEEC and NIS countries. The Commission held a conference in July 1999 on electricity grids, with the participation of EU, CEEC, and NIS operators, to raise awareness of this threat and to exchange information on how it was being addressed.

In terms of other energy sources, various aspects were discussed, including the status of the NATO oil pipelines, which transport a large proportion of the aviation fuel to most major airports and bases in Western Europe. The Commission reported that NATO had been working on its pipeline system remediation for nearly three years, with the system having been fully tested and contingency measures put in place. The group was also informed of the oil supply contingency plans developed by the International Energy Agency (IEA).

With regard to gas production and distribution, the need for a closer co-ordination at European level was identified. The EU also relies heavily on foreign gas supplies. The Norwegians participated in the activities of the EUY2KWP, keeping other countries fully informed of their activities. Italian sources reported on the status of Algerian suppliers, while Finnish and German administrators were able to provide reassurance regarding the status of GAZPROM in Russia.

2.2.3. *Air transport*

Due to its nature, aviation was generally handled at an international level by the regulators through the International Civil Aviation Organisation (ICAO), and by various operators through the International Air Transport Association (IATA). Within the EU, Eurocontrol was involved in co-ordinating contingency planning for several EU countries.

Thus the particular aspect which was discussed within the EUY2KWP concerned the potential need to ban certain non-compliant operators from flying into EU countries, and possibly to prevent national operators from flying to countries where the readiness of air traffic control systems was in doubt. The intention of these discussions was to try to avoid the adoption by Member States of contradictory positions. Possible arrangements were discussed as the rollover period moved closer and information on particular carriers and countries was shared. However, as it happened, no country decided to take such action and thus a co-ordinated action at EU level proved to be unnecessary.

2.2.4. *Maritime transport*

In the maritime domain, there were two key issues having an impact beyond national borders. Firstly, there was a need to ensure a consistent policy to deal with ships in EU waters or ports which had not declared their preparedness for Y2K in conformance with the guidelines issued by the International Maritime Organisation (IMO). In this area, the contingency plans which each EU Member State had developed to cope with their own situation were compared, and found to be compatible.

Secondly, the readiness of individual EU ports, and also customs and immigration systems in general, was of vital importance in ensuring that supply chains would continue to function normally. Overall, the main EU ports were well aware of the threat posed by the Y2K problem and were felt to be prepared. There are also a number of community-wide information technology systems used to exchange data for the purposes of the Internal Market. The Commission itself undertook substantial efforts to ensure, in co-operation with MS, that these systems were remediated.

2.2.5. *Finance*

The financial sector was particularly threatened by the Y2K problem, due to its heavy reliance upon information technology systems and the inherent global and interconnected nature of its business. In response, the world's financial community, both the public and private sectors, undertook an enormous, and ultimately very successful, collaborative effort to address the problem. The EU financial institutions benefited substantially from the introduction of the euro, particularly when defining contingency plans for the rollover period.

The quality and scope of the existing international collaboration thus made it unnecessary for the EUY2KWP to consider specific actions regarding cross-border issues in the financial area. The impact of Y2K on insurance policies and claims was discussed. EU countries discussed the legislation on Y2K and legal liability introduced in the US, but took the view that there was no need for similar legislation in any EU country due to the absence of certain aspects specific to the US legal system, including the less litigious nature generally prevalent in the EU.

2.2.6. Telecommunications

Similarly, the telecommunication domain, being an inherently global and interconnected sector, also required an international response. In this case, it was primarily the International Telecommunication Union (ITU) which took responsibility for informing their members of the need to take action, providing direct assistance by carrying out workshops in less developed regions. They also co-ordinated international testing efforts designed to test the Y2K compliance of the main technologies used throughout the world.

Telecom regulators and operators throughout Europe were strongly involved in ITU activities. Unique to the telecommunication sector is the “normal” pattern of heavy demand experienced at the beginning of each New Year. In this instance, the coincidental arrival of 2000 was expected to further exacerbate this situation. The EUY2KWP members identified a need for operators to take this into account in their rollover plans, and to ensure that emergency telecommunication services continued to operate normally.

2.2.7. Y2K Information Policy

Another issue also discussed was the importance of having a consistent Y2K information policy. This had various aspects - the exchange of information on the EU situation with other governments, the publication of information aimed at the EU public and industry, and finally, reporting on third country preparedness.

The EUY2KWP endorsed the need to have regional representation in the Steering Committee of the Washington-based International Y2K Co-operation Centre and requested the Commission to fulfil this role. The Commission responded to this request by nominating a representative to the IY2KCC, and it also ensured that the EU was represented in various other international fora dealing with this subject, such as ICAO, the IMO, the IEA, the IAEA, and the G8 Expert Group on Y2K, as well. This ensured that the EUY2KWP were regularly informed of the numerous activities taking place in various sectors at international level, and also that other participants in these fora were aware of the actions being carried out within the EU.

In terms of the provision of information to the public, it was evident that each Member State needed to take into account the particular needs of their citizens and develop an approach which was best suited to their national situation. However, all MS saw the value of exchanging detailed information on their ideas and plans with each other, and ensuring that there was consistency throughout the EU in the information which was provided on infrastructures with a cross-border nature.

Regarding the publication of information on third countries, it was proposed that the EU MS should pool the information which they had obtained on the preparations in countries outside the Union and have this published jointly through the Commission. Whilst recognising the importance of having such information made available to the EU public, the greatest concern was to ensure that such published information should be accurate, reliable and well balanced. It was considered that this would be impossible to guarantee in such a complex domain where the actual situation was constantly evolving. Furthermore, it was not clear that the Commission itself had a mandate to publish such material concerning individual countries outside the Union. A decision was therefore taken that in this instance, the Member States would act if they so chose on an individual basis.

2.2.8. The EU Communication Centre

All EU Member States decided to create “early warning” or monitoring platforms at national, and often regional and local, levels. These platforms varied considerably in terms of their resourcing and methodology, but were generally intended to reinforce existing mechanisms to respond in the event of serious disruptions following midnight on the 31 December 1999. Most closely tracked the date rollover on a global scale, to take advantage of any advance warning of problems, and provided information aimed at the public regarding the national situation.

The Commission was requested to provide a mechanism for private communication between Member States during this period, which was also used to monitor reports coming from critical sectors and countries in order to rapidly identify any potential problem which could require a reaction from the Commission itself. In addition to the work undertaken to prepare its own systems for the Y2K problem, the Commission thus established the European Union Y2K Monitoring and Communication Centre (**EUY2KCC**). The Centre was staffed by Commission officials with knowledge of the Y2K problem and of the vital sectors which could be affected, and fully equipped with access to various media. It operated on a 24 hour basis from 31 December 1999 at 10:00 until 3 January 2000 at 20:00 (Brussels time).

2.2.9. Civil Protection and Humanitarian Aid

The EU national authorities for civil protection shared their plans for the rollover period on various occasions, including during specific Y2K workshops and regular meetings of Directors-General and committees. In each Member State, the civil protection authorities were in a higher state of readiness to react at year end than is normal, supported by enhanced and thoroughly testing contingency plans designed to cope with any potential Y2K-induced emergency.

The Commission itself operates three permanent alert systems for disasters. They cover nuclear accidents (ECURIE), maritime accidents, and civil protection. For these systems, the Y2K transition was regarded as a special situation. Although they were on constant alert as usual, they were also linked with the Y2K Centre of the Commission, and three Heads of Units and the Environment Commissioner were all on call and available to respond urgently if necessary. As it happened, Commission emergency systems instead became very involved in dealing with the Erika disaster, as well as the violent storms affecting France and a number of other Member States.

The potential need for humanitarian aid to cope with Y2K-related disasters in developing countries was primarily discussed by the G8 group and within the appropriate fora of the United Nations. In the EU, ECHO, the EU Humanitarian Aid Office, confirmed that it was also prepared to react to any Y2K-related emergency in the same manner as it would to any other event.

3. THE CONTRIBUTION OF THE COMMISSION TO ADDRESSING THE Y2K COMPUTING PROBLEM

3.1. Role and Mandate

The root of the Y2K problem was a technical problem which could only be solved by each organisation individually. Nevertheless, the extent of the problem and the need to ensure that both the public and industry alike were well informed of its implications and the need to take

individual action ensured that public administrations became strongly involved. Similarly, the potential for the problem to have an impact beyond national borders created a requirement to address certain issues at EU level.

The exchange of information between industries and the public sector throughout the EU was necessary to share experiences and to understand the preparedness of others. Moreover, many key infrastructures in the EU, including transport, energy, finance, and telecommunications, are inherently international in nature and have aspects which cross national boundaries. Thus there were issues where decisions needed to be taken which would affect regulators and operators in several countries.

It was for these reasons that the Commission became actively involved in assisting others to address the problem, at the same time ensuring that its own IT systems were well prepared. It did so in various ways - through participation in international fora and Y2K-related events throughout the world, hosting its own workshops and meetings with MS authorities, producing status reports on the EU situation, and ultimately, establishing a Y2K communication centre at EU level which operated throughout the critical period during the changeover.

3.2. Organisation

Within the Commission, it was the former Directorate General III for Industry (now DG Enterprise) which acted as chef de file for this particular issue. This choice was made at an early stage where the nature of the problem was considered to be essentially technical in nature. At the time, DG III was responsible for certain areas of the 4th Framework Programme, notably the IT programme, where the responsibility for research projects looking at ways to solve the problem was located. The main expertise for the topic was thus considered to lie within DG III.

Once the potential impact on major infrastructures became more apparent, it quickly became necessary to integrate the efforts of many other DGs as well. A vital factor in the success of the Commission's efforts to address the problem was the core team of knowledgeable and dedicated Commission personnel who formed the Y2K Interservice Group (Y2K ISG). The group actively began to work together at the beginning of 1999, although many had been addressing aspects of the Y2K problem in their specific sectors for months beforehand. The complementary expertise of the group members and the degree of collaboration demonstrated in working together towards common goals was exemplary for the Commission.

3.3. Reporting

The most problematic aspect of the Commission's work on the Y2K subject was the delivery of the status reports which it produced at the request of Council and Parliament. Status reports were compiled on the basis of information provided in a common format by Member States in March, June, and September of 1999.

Not surprisingly, Member States were collecting and reporting similar information for national purposes throughout the year as well, thus all those dealing with the Y2K problem were extremely busy and the national reporting timetables rarely coincided with those at EU level. Reports often arrived several weeks late and in various languages. At the same time, supplementary information was also being collated by the Y2K ISG members for their own sectors, and the integration of all these sources of information into a coherent whole was also

a task which required substantial effort. The national Y2K co-ordinators also had the opportunity to review draft reports.

If every step is completed without delay to normal timescales, the earliest date of publication for such a communication which could be envisaged is approximately 3 months. Nevertheless, the final report for quarter 3, having received top priority in the translation process, was adopted during the first week of December, and thus only took 10 weeks in total to be published.

It is clear that the process for adopting official Commission communications is not well suited to the rapid publication of primarily factual status reports. Should a similar need for factual reporting to Council and Parliament arise in the future, other options should be considered to allow a more responsive timetable. Since by far the greatest delay is incurred in the translation process, a reduction in the number of language versions could be considered. Furthermore, insofar as a status report is an essentially factual document based upon information obtained from MS authorities and has no political ramifications, there is no significant additional benefit achieved by having the approval of the College. In this case, it should be sufficient to reach agreement within the services concerned.

3.4. International Co-operation

Various aspects of the Y2K problem needed to be dealt with at EU and international level. Within the EU itself, meetings organised by the Commission provided the natural forum for both MS authorities and industry to share information. General discussions at EU level initially took place within Y2K workshops, and from July 1999, in the meetings of the EUY2KWP. However, sectors also tended to hold their own meetings in both regional and international fora. The Commission was represented by sectoral experts from various Directorates General in many such meetings, acting as an intermediary both to exchange information on the EU situation to those outside the EU and to provide information on external activities to the Member States.

Apart from the sectoral organisations, the Commission actively participated in several meetings on Y2K hosted by the Informatics Working Group of the United Nations, in the steering committee of the International Y2K Co-operation Center, and in the Y2K Expert Group of the G8. In these areas, the Commission acted as an intermediary, facilitating the flow of information regarding the EU situation to other countries, and reporting on the progress and activities of various countries and organisations to EU representatives.

3.5. Website

For a topic such as the Y2K problem, with the core involvement of information technology, the Internet became an essential source of up-to-date information. Given the constant progress of each organisation and the rapid evolution of issues and plans, the only media which could keep up with an ever-changing situation was the Internet. Thousands of Y2K websites were created worldwide and e-mail lists with global Y2K experts ensured a close collaboration between technicians addressing the problem. The work of the IYCC and the G8 group was greatly facilitated by electronic communication. Information on the Internet clarified technical issues, provided insight into new aspects of the problem, gave specific examples of early problems in 1999, as well as giving an impression of how the problem was perceived by the press and the public.

For more than 2 years, the Commission itself maintained a website on the Information Society Project Office server, which linked to many useful sources of information on various aspects of the Y2K problem. A specific focus was given to information provided by EU Member States, the majority of whom had national Y2K websites, and international information on critical sectors provided by industry associations. All Commission documents relating to Y2K, including the minutes of the various workshops and official communications, were published on the website. Towards the end of 1999, the website received tens of thousands of hits each month. It was also the recipient of several awards.

The Y2K Computing Problem was also chosen as to be represented as a key issue on the Commission's Europa website during the final 4 months of 1999. This provided an overview of the problem aimed at EU citizens in all community languages, directing visitors to numerous other sources of information.

The Internet also acted as a vital information and communication tool during the rollover period itself at year end. Dedicated websites such as the Global Status Watch (GSW), were hosted by the IY2KCC and fed by information from national Y2K platforms. The Commission provided a mirror of the GSW website in order to give Europeans a better chance to access up-to-date and reliable information on the status of critical infrastructures throughout the world. At year end, 150 000 visits (hits) were registered in less than 3 days, about 20% of the total for the GSW system, indicating a considerable level of interest. Numerous private websites were also operational during the changeover period to exchange information, including the YEWS¹ website operated by the US-Nuclear Regulatory Commission (US-NRC) which provided reports from NPP operators throughout the world.

The site and its material has continued to be available for reference during 2000. It is the intention to shut down the site and archive its material in June 2000.

3.6. Workshops

From the beginning, the Commission recognised the benefits of information exchange and thus a key focus of activity was the workshops which were organised at EU level. In the beginning, these workshops took place on a quarterly basis and involved both industry and EU authorities. The value of these workshops was such that speakers freely provided their services and all participants willingly paid their own expenses to attend.

At the request of the Vienna European Council, the Commission organised a meeting in April 1999 with the providers of EU critical infrastructures in Brussels, with an emphasis on cross-border and cross-sector Y2K issues. Over 150 participants, including national Y2K co-ordinators, regulators, and representatives of both international associations and industry, shared information on their progress and concerns relating to the aviation, maritime, electricity, gas, telecommunications, and nuclear power sectors. This forum provided a valuable opportunity for the various sectors in each EU country to inform others of their progress and plans. The need to encourage better communication between the different infrastructure sectors at local, national and international level was identified as a major issue.

The dependency between electricity grids and nuclear power plants and the lack of information regarding the situation in Central and Eastern European (CEEC) countries, as well as the Newly Independent States (NIS), led to the organisation of a specific workshop on

¹ EWS: Y2K Early Warning System.

this topic, which was held in July 1999. Participants from the electricity industry and government authorities with responsibility for regulating this sector from more than 25 countries met together to share their experiences and make contacts to provide mutual assistance.

A second workshop with European infrastructure providers took place in September 1999, providing a further opportunity to share information between sectors and countries prior to the rollover. In this instance, the 200 participants included representatives from 35 EU, EEA, CEEC, and NIS countries. A focus was placed on contingency plans and strategies for the rollover period itself, including communication with the public and the preparations of national emergency services.

It is important to note that due to the time constraints and without a specific budget for Y2K activities, all these workshops were organised by the Commission itself, with the invaluable assistance of Member States and EU industry. The programme was agreed with MS Y2K co-ordinators, who helped to identify speakers and participants. Within the Commission, each DG concerned organised the sessions relating to their particular sector, chairing the panel and providing a reporter to summarise the results.

In this manner, the Commission was able to draw upon both internal and external resources with a very little financial expenditure in order to attract a large number of knowledgeable participants and obtain substantial and relevant information. Workshop minutes were able to be rapidly compiled and published on the Commission's Y2K website immediately after each event. Contacts between the various industry sectors and experts in other countries substantially improved co-ordination and co-operation within the EU.

4. CONCLUSIONS

Solving the Y2K problem has required a comprehensive, sustained and unprecedented level of collaboration at international level, involving both the public and private sectors. The interest provided by international groups, including the G8 and the International Y2K Co-operation Centre (IYCC), ensured that Y2K was given a high political profile and contributed to raising awareness, convincing governments and organisations of the seriousness of the issue and of the need to take action.

Within the EU, the activities of the EUY2KWP and the Commission have thus made a significant contribution. The EUY2KWP provided an important forum in which the national co-ordinators of the EU Member States were able to discuss common issues and ensure that they remained well informed of the situation in various sectors and other countries in a very open and transparent manner.

The work of the EUY2KWP did not result in major policy decisions. Instead, governments and officials shared information on their strategies and activities over a period of months with each other. The EU and EFTA countries adopted a consistent and compatible approach to handling cross-border issues, even though they may have differed in the way in which they handled the Y2K problem on a national basis.

Thus it can be considered that the EUY2KWP has contributed substantially to ensuring this consistency. There can be little doubt that the exchange of information provided an opportunity to learn from each other, and to develop and refine ideas together. In this sense alone, the relatively modest expenditure in terms of time and travel to meet together with each

other has been a wise investment. In particular, the simple but effective communication structure which was implemented to permit the exchange of information between MS authorities, as well as key industry sectors, during the Y2K rollover was a significant achievement.

At another level, it is also true that there are lessons to be learned for the future from the manner in which different countries were able to work constructively together to face a common problem, and the actual results which were achieved. The particular circumstances surrounding this problem were unique in many ways - a pervasive, although unquantifiable, threat known in advance to organisations throughout the world, with possible economic and safety consequences, a fixed deadline, and notably, not involving strong national competitive interests.

Nevertheless, the degree of openness and transparency exhibited by governments in communicating with each other, the facility to circumvent or minimise normally slow and tedious administrative reactions and approvals, the modernisation of IT portfolios, the development of common approaches to handle cross-border threats, and particularly the establishment of contingency plans on an international basis in many infrastructure sectors - all are achievements which may prove useful in the future.

Few managers in industry or government will ever regard their IT systems in quite the same light again. Whereas once information technology may have been regarded as simply a valuable tool, it is now clear that it is a core asset on which the organisation depends for its continued operations. It is critical, however, that the plans and achievements resulting from Y2K should be recognised and maintained for the future. It would be deeply regrettable if much of the enormous collaborative effort and resources which went into their development were wasted due to a lack of foresight and care during the aftermath, as attention naturally turns to other matters.

For the EU, the preparations for the imminent introduction of the euro as a real currency will certainly have been facilitated by the work which has gone into addressing the Y2K problem. Many will have addressed both problems simultaneously, others can take advantage of the better knowledge of their IT systems to prepare more easily. The financial sector has now had the experience of two rollovers – the introduction of the virtual euro in 1999 and the century date change of 2000, to co-ordinate testing and establish contingency plans which can be of benefit at the end of 2001.

The Y2K problem served as an important reminder of the vital supporting role of information technology to individual organisations and global trading as a whole. During the first few months of 2000, topics such as secure electronic commerce, protection against “cyberattacks”, as well as taxation and personal privacy on the Internet, are all the subject of intensive debate at national and international levels. These issues share many characteristics with the Y2K problem, and thus can also potentially benefit from the global synergy and learning experiences developed in tackling Y2K.