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DIRECTORATE FOR SCIENCE, TECHNOLOGY AND INDUSTRY

OECD FORUM ON ELECTRONIC COMMERCE

PROGRESS REPORT ON THE OECD ACTION PLAN FOR ELECTRONIC COMMERCE

OECD, Paris, 12-13 October 1999

This document is a report on progress made during the first year in carrying out the activities outlined in the OECD Action Plan for Electronic Commerce [SG/EC(98)9/Final] endorsed by Ministers at the Ottawa Ministerial Conference of 7-9 October 1998. This progress report has been prepared by the Secretariat.

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NOTE BY THE SECRETARIAT

This document, prepared by the Secretariat, is the *Progress report on the OECD Action Plan for Electronic Commerce*, prepared for the OECD Forum on Electronic Commerce, Paris 12-13 October 1999. It provides an account of the first year's progress made in a number of OECD committees and working parties in carrying out the activities referred to in the *OECD Action Plan for Electronic Commerce* [SG/EC(98)9/FINAL] endorsed by Ministers at the Ottawa Ministerial Conference on Electronic Commerce of 7-9 October 1998.

OECD FORUM ON ELECTRONIC COMMERCE

PROGRESS REPORT ON THE OECD ACTION PLAN FOR ELECTRONIC COMMERCE

Background

1.   At the OECD Ministerial Conference on Electronic Commerce in Ottawa, the significant impact of electronic commerce on economies and societies in the coming years and decades was recognised. Electronic commerce is inherently transborder and its successful development depends to a large extent on transborder solutions. Ministers at the Conference noted that the OECD has important contributions to make in specific areas where it has a clear comparative advantage and as a forum for dialogue among national governments, international organisations, the private sector and representatives of "civil society".

2.   Electronic commerce is a central element in the OECD's vision for economic growth, jobs, the expansion of world trade and improved social conditions. At the Ottawa Conference, priorities for the OECD's future work on electronic commerce were identified.

3.   Ministerial Declarations establishing baseline principles and goals to guide the OECD's further work were adopted in three critical areas:

−   The Declaration on Consumer Protection in the Context of Electronic Commerce – highlighting the need to ensure that consumers who participate in electronic commerce are afforded a transparent and effective level of protection for electronic transactions.

−   The Declaration on Protection of Privacy on Global Networks – reaffirming the importance of protecting privacy, recognising that the principles outlined in the 1980 OECD Guidelines continue to provide an international foundation for the protection of privacy, on any medium, and that countries should work together, with the help of the private sector, to ensure its effective implementation in an open, global network environment.

−   The Declaration on Authentication for Electronic Commerce – stating the determination of Ministers not to discriminate against the authentication approaches taken by countries other than their own and to amend, where appropriate, the technology or media specific requirements in current laws or policies that might impede electronic commerce.

4.   Outcomes were also achieved in the area of taxation:

−   Ministers welcomed the report: Electronic Commerce: Taxation Framework Conditions, and endorsed the proposals on how to take forward the work contained within it. A key component in this document is the guidance to tax authorities regarding the taxation of electronic commerce. The report concluded that existing taxation principles can work for electronic commerce at this time, and any new forms of taxation, such as bit tax would be discriminatory to electronic commerce and should not be adopted.

–   In addition to this foundation setting framework, a number of specific common understandings were reached. It was agreed that consumption taxes should be levied in the country where consumption takes place and that for the purpose of these taxes the supply of digitised products should not be treated as a supply of goods. New language was adopted on the character of software payments in the OECD Model Tax Convention. This was an important first step in determining the taxation of payments for all digitised products.

5.   Ministers also endorsed the *OECD Action Plan for Electronic Commerce* [SG/EC(98)9/FINAL] which outlined activities and recommendations for future work along the following thematic lines:

    A.   Building trust for users and consumers.

    B.   Establishing ground rules for the digital marketplace.

    C.   Enhancing the information infrastructure for electronic commerce.

    D.   Maximising the benefits of electronic commerce.

6.   The Action Plan highlighted areas of priority for the OECD, attaching particular importance to privacy, authentication, consumer protection, taxation, access to infrastructure and socio-economic impact. Work in other areas was also noted.

7.   It was recognised that the OECD's work should be diffused as widely as possible to the global community. The OECD's work in electronic commerce should be carried out in a co-operative and complementary fashion with work under way in other international organisations, labour and consumer organisations, social interests and the private sector.

8.   The following OECD seven-point programme of work relating to electronic commerce was adopted:

1. Work to develop Guidelines for Consumer Protection in the context of electronic commerce within 1999.

2. Work on the practical implementation on global networks of the 1980 OECD Privacy guidelines.

3. Analyse the technological models for authentication and certification so that policy in this area will be well formulated.

4. Initiate work on defining and measuring electronic commerce.

5. Extend the analytical work at the OECD examining the economic and social impacts of electronic commerce, and applications in government, particularly education.

6. Continue work on examining the policy implications of changing information and communication networks, including technological convergence, enhancing access to infrastructures and the requirements for open markets.

7. Set up specific technical advisory groups with business to address taxation issues. Some of the areas suggested in Ottawa were: the treatment of royalties; permanent establishment; consumption taxes; and ways to use e-commerce technologies to reduce the burden of paying taxes.

9.　　　In order to maintain the momentum and preserve the co-ordination that was launched in Ottawa, the Secretary-General of the OECD pledged to convene a working-level meeting in one year's time to assess the progress made by the OECD and other international organisations as well as private sector groups (business and NGOs) on the issues discussed at the Ottawa conference.

10.　　　This Progress Report provides an update on the various activities set out in the OECD Action Plan, one year after the Ottawa Ministerial. As did the Action Plan itself, this report uses the four themes of the Ottawa "blueprint" to classify the activities. The four themes correspond roughly to sessions 2-5 of the Forum.

Progress Report on the OECD Action Plan

A. *Building Trust for Users and Consumers*

11. Trust is central to any commercial transaction. Developing new kinds of commercial activities in the electronic environment largely hinges on assuring consumers and businesses that their use of network services is secure, reliable and verifiable. Similarly, consumers want control over the collection and use of their personal data and assured access to appropriate redress mechanisms. Businesses need a framework that is predictable and workable for global transactions. Creating the appropriate level of confidence requires a mixture of trustworthy technologies, appropriate taxation rules, self-regulatory arrangements and public education. The mechanisms for redress and the role of law enforcement must also be clarified to assure that there is an appropriate and effective response to misuses or abuses of this new medium.

Consumer Protection

12. The OECD has continued to provide leadership and an international forum for the discussion of consumer-related issues. Work in 1999 has focused on helping to meet the challenges posed by the evolving networked environment by enhancing consumer confidence in electronic commerce while encouraging the development of the global marketplace.

13. In the course of the Ottawa Ministerial meeting, participants had recognised the need to address consumer concerns about fraudulent, misleading and unfair commercial conduct online. *The Ministerial Declaration on Consumer Protection in the Context of Electronic Commerce* that was adopted at the meeting urged the OECD to complete its ongoing work to draft effective consumer protection guidelines for electronic commerce to ensure that consumers are afforded a transparent and effective level of protection whatever the medium of commerce.

14. To achieve this goal, the Committee on Consumer Policy is working closely with business and consumer representatives, at both the national level and within the OECD. At its most recent meeting in September 1999, the Committee made significant progress towards finalising the Guidelines. Delegates expect to resolve the remaining issues by written procedure and forward the Recommendation to the OECD Council by mid-November 1999.

15. The Guidelines will be a recommendation to governments, businesses, consumers and their representatives outlining the core characteristics of effective consumer protection for electronic commerce. They will address such issues as fair business and marketing practices, online business and information disclosures, and the handling of consumer complaints and dispute resolution. The Guidelines are intended to assist governments, business and consumer representatives as they work together to develop and implement online consumer protection mechanisms, without erecting barriers to trade.

16. In keeping with the objectives of the Guidelines, the Committee has also decided to update its *Inventory of consumer protection laws, policies and practices in OECD Member countries* that will be applied to the online environment. The inventory provides an overview of existing public sector consumer laws and regulations including descriptions of their specific requirements.

Protection of privacy and personal data

17.   The OECD has continued to be active in the area of protection of privacy and personal data, building on its experience and history in producing the *Guidelines on the Protection of Privacy and Transborder Flows of Personal Data* (1980) and the *Declaration on Transborder Data Flows* (1985). Work in 1999 has focused on the practical implementation of the 1980 Guidelines in the context of global networks.

18.   In their *Declaration on Protection of Privacy on Global Networks, OECD Ministers* reaffirmed their commitment to effective privacy protection. They declared that they would build bridges between different approaches based on law and self-regulation, and affirmed their determination to take the necessary steps to ensure that the OECD Privacy Guidelines are effectively implemented in relation to global networks. They also recognised the need to co-operate with industry and business, and agreed for OECD to provide practical guidance in furtherance of their objectives, based on national experiences and examples.

19.   To achieve these goals, the ICCP's Working Party on Information Security and Privacy (WPISP) is working in co-operation with industry, privacy experts and consumer groups.

20.   The *OECD Inventory of Instruments and Mechanisms contributing to the implementation and enforcement of the OECD Privacy Guidelines on Global Networks* was declassified in March 1999. The Inventory provides a comprehensive survey of the existing legal and self-regulatory instruments on international, regional and national levels which contribute to the implementation and enforcement of the OECD Privacy Guidelines on global networks. The various practices, techniques and technologies that are in use or are being developed to implement and enforce privacy principles in networked environments are also considered.

21.   Adopting a pragmatic approach to the implementation of the OECD Privacy Guidelines, the Working Party examined the use of privacy policy statements in the context of global networks. The Working Party decided to build a Web-based Privacy Policy Statement Generator drawing upon the OECD Privacy Guidelines. This project aims at:

–   Encouraging the widespread display on Web sites of privacy policy statements.

–   Fostering education among Web site owners.

–   Increasing awareness of Web site practices by visitors.

22.   The Generator provides guidance on how to implement the OECD Privacy Guidelines on global networks, but does not "label" any Web site as compliant with these Guidelines. The use of the Generator highlights important considerations, such as applicable national privacy requirements, or substance and scope of policy statements. It automatically produces a draft Privacy Policy Statement for Web sites.

23.   In August 1999, version two of the Privacy Policy Statement Generator was made available on the OECD Web site for a two-month public testing period. After this period, a revised version will be prepared taking into account comments received and will be examined by the Working Party in December 1999.

24.   The Working Party is also preparing a report on the use of transborder data flow contracts for the protection of privacy in relation with global networks.

25.   Contracts provide one mechanism for protecting privacy in the context of global networks. This is particularly so in the case of transborder flows of personal data (TBDF) between countries which have adopted different approaches to privacy protection.

26.   In March 1999, the Working Party recognised the importance of the use of contractual solutions for TBDF in the online environment. The Working Party decided to prepare a report to be discussed in December 1999 which will focus on the OECD Privacy Guidelines, but reflect the diversity and complexity of the issue, and take into account work carried out in other fora.

27.   The report will examine the following issues: business-to-business contracts and consumer-to-business contracts (including common legal issues, existing models and possible alternatives); dispute resolution mechanisms and enforcement (including mediation, arbitration, litigation; and enforcement and remedies).

28.   To meet the objectives of the Ministerial declaration, the Working Party will have two other main issues to consider in the course of 2000: i) enforcement and dispute resolution mechanisms to address non compliance with privacy principles and policies, and to ensure access to redress; and ii) privacy-enhancing technologies.

Secure infrastructures and technologies, authentication and certification

29.   The OECD has continued to be active in examining policy and regulatory issues and promoting information exchange among public and private sector actors related to the development of secure information and communication infrastructures and technologies, most recently focusing on electronic authentication and certification.

30.   The *Ministerial Declaration on Authentication for Electronic Commerce* adopted at Ottawa recognised the importance of authentication for electronic commerce and outlined a number of programme elements for the OECD in this area.

31.   In implementing the OECD Action Plan in this area, the ICCP's Working Party on Information Security and Privacy (WPISP) has further developed the *Inventory of Approaches to Authentication and Certification in a Global Networked Society.* The report is a stock-taking, at a specific point in time, of laws, policies and initiatives in the public and private sectors, at both national and international level related to authentication and certification on global networks.

32.   *The Working Party also held a joint OECD-Private Sector Workshop on Electronic Authentication* in Stanford California, June 1999, which discussed emerging technologies, models and issues for authentication.

33.   Following the Workshop, the Working Party decided to prepare a report in 2000 on progress in the implementation of the Ottawa Ministerial Declaration on Authentication including initiatives developed and results achieved in Member countries. The report will look at how national policy and laws are currently implemented toward facilitating legal recognition, party autonomy, technology neutrality, global authentication mechanisms, user confidence and ensuring that there is no legal discrimination in relation to different types of authentication technology.

Reference to Documents

Consumer Policy

Revised working draft of the Guidelines [DSTI/CP(98)4/REV6]

Inventory of Consumer Protection Laws, Policies and Practices that will be applied to electronic commerce [DSTI/CP(99)9].

Privacy

Inventory of Instruments and Mechanisms contributing to the Implementation and Enforcement of the OECD Privacy Guidelines on Global Networks [DSTI/ICCP/REG(98)12/FINAL]

On-line Privacy Policy Statement Generator [DSTI/ICCP/REG(99)2REV1] [http://www.oecd.org/scripts/PW/PWHome.asp]

Authentication

Inventory of Approaches to Authentication and Certification in a Global Networked Society [DSTI/ICCP/REG(99)13/FINAL]

Report on the OECD Workshop on Electronic Authentication (California, United States 2-5 June 1999) [DSTI/ICCP/REG(99)14][http://www.oecd.org/dsti/sti/it/secur/act/wksp-auth.htm]

B. *Establishing Ground Rules for the Digital Marketplace*

34.   Existing legal and commercial frameworks that govern how businesses transact with each other, with consumers and with governments were designed in a non-digital age. As consumers and business venture onto this new platform, they are looking to governments to ensure that the rules of the game are equivalent to those of the physical world as far as possible, and where it is absolutely necessary to introduce new rules and regulations or changes to existing rules, to ensure that these are transparent and predictable.

Taxation

35.   The OECD Action Plan for Electronic Commerce recognised the OECD as the leading international organisation in the area of taxation, with long standing expertise in establishing international taxation norms. The Action Plan noted that the OECD was given an international mandate, in 1997, to develop *Taxation Framework Conditions* applicable to electronic commerce and that these were delivered, as scheduled, to a Ministerial Conference on Electronic Commerce, in Ottawa, in October 1998.

36.   The *Taxation Framework Conditions* set out the taxation principles which should apply to electronic commerce - neutrality, efficiency, certainty, simplicity, effectiveness, fairness and flexibility - outlined agreed conditions for taxpayer service, tax administration, consumption tax and international taxation norms and included proposals on how to take the work forward.

37.   The key future work items were to: work in close co-operation with other international and regional organisations, non-OECD economies and the private sector; follow relevant developments regarding protocols and standards and where appropriate provide input to ensure the continued sound administration of tax systems; provide additional clarification of relevant international taxation norms as required, and to provide guidance on the adaptation of existing norms or administrative practices to respond to future developments in electronic commerce.

38.   The OECD has made good progress in the year since the Ottawa Ministerial Conference. The *Taxation Framework Conditions* were adopted by APEC economies at a joint OECD-APEC meeting in November 1998 and were endorsed by APEC Finance Ministers in May 1999. During 1999, the OECD has held meetings with the Centre for Inter-American Tax Administrators (CIAT) and with over 30 economies outside of the OECD area. The OECD has also maintained close contact with the European Union, the Commonwealth Association of Tax Administrators (CATA), the World Customs Organisation (WCO), the business community and groups representing the views of non-business taxpayers. In addition the OECD held an open forum on taxation and electronic commerce, inviting business to hear presentations by the OECD and by international experts. In the field of client service, the OECD is considering an exposition showcasing the new possibilities opened-up by Internet technologies for tax administrations.

39.   However, the primary vehicles for taking forward the OECD work on taxation and electronic commerce, are the technical advisory groups (TAGs). Five TAGs were established in January 1999 - on Income Characterisation, Business Profits, Consumption Tax, Technology and Professional Data Assessment - to develop solutions to the challenges in the areas of international taxation norms, consumption tax and tax administration. The groups were established with experts from OECD and non-OECD economies and from the private sector. Each has a public sector and a private sector co-chair and all participants have equal standing.

40.   The TAGs have established detailed work plans which will carry them through to January 2001. These work plans involve matters such as: monitoring the application of the current tax treaty rules for the taxation of business profits; examining proposals for alternative rules; using insight gained from public

comment on revisions of Article 12 (Software) of the *OECD Model Tax Convention* when considering the tax treatment of other intangible products; monitoring and providing input into technology standard-setting bodies; reporting on digital certificate technology and its uses for identity, residence or jurisdiction; examining the accountability characteristics of electronic banking and payment systems; considering the technological feasibility of a "clearinghouse" model for the collection of consumption taxes and reviewing and proving input to international standards for accessing electronic data, books and records.

41.   The Consumption Tax TAG is examining how to determine Place of Consumption for the cross-border supply of intangible property and services (including on-line and off-line supplies). The Group is examining the implications of determining Place of Consumption for cross-border services and intangible property supplied in business-to-private consumer (individual) transactions to be the domicile of the purchaser. For ease of administration, the determination of the domicile of the purchaser might be first indicated by objective factors such as the billing address or other indicia of residence of the purchaser, verifiable through trusted third parties, digital certification (where appropriate), or other means. The tax administration may also look to other facts and circumstances to establish domicile.

42.   This, and other, work is programmed over the two-year life of the TAGs. This two-year time frame was designed to give certainty of tenure to the participants and to allow adequate time for focussed and measured deliberations. Much of the detail included in the work plans of the TAGs is consistent with the ideas contained in the Taxation Discussion Paper, publicly released in 1998. This document has stood the test of time and will be used in the ongoing TAG deliberations. The public may follow these deliberations via an electronic forum which will also allow public participation in developing globally applicable solutions. While some provisional solutions to some of the challenges may emerge during 2000, these solutions must be tempered by international work in such fields as privacy, consumer protection or intellectual property rights where issues like identity and jurisdiction are also being examined from other perspectives.

Other Work of the OECD

Trade Policy and Market Access

43.   The OECD has traditionally been a forum where future trade policy issues are discussed with a view to preparing discussions in the WTO/GATT arena and has produced a number of papers pertaining to Trade Policy and Market Access aspects of electronic commerce. Its role, complementary to that of the WTO, and its comparative advantage in conducting empirical analysis is widely acknowledged.

44.   The document *Measuring Electronic Commerce: International Trade in Software* (1998) shows how the Internet will affect practices of measuring and thinking about trade transactions by using available sources and statistics for software to try to measure the extent to which international transactions are, or could become, "digital". It also raises policy issues related to international trade in electronic markets. The OECD document *Electronic Commerce -- Online Product Customisation* (1998) discusses the use of the Internet to produce customised versions of a broad range of products, from cars and clothing to software and music. The document *Jurisdictional Issues in International Commercial Transactions and Approaches to Regulatory Jurisdiction* (1998) discusses existing legal approaches to jurisdictional issues for the international sale of goods and services, as a prelude to analysis of jurisdictional issues arising from such transactions in the e-commerce context. A paper analysing the scope and nature of existing WTO commitments for the online supply of services, and a paper reporting results from a survey of unilateral liberalisation and facilitation measures undertaken by governments to promote e-commerce, have been prepared for consideration by the Working Party of the Trade Committee.

References to documents

Electronic Commerce

A Discussion paper.on Taxation Issues [DAFFE/CFA(98)50].

Progress report on the work of the Technical Advisory Groups, including work to develop implementation options [forthcoming]. [http:/www.oecd.org/daf/fa/e_com/ottawa.htm]

Electronic forum [http:/www.oecd.org/daf/fa/e_com/e_rego.htm]

Trade Policy and Market Access

Electronic Commerce: Existing GATS Commitments for Online Supply of Services [TD/TC/WP(99)37].

Electronic Commerce: Initial Survey of Unilateral Liberalisation and Facilitation Measures [TD/TC/WP(99)38].

C.   Enhancing the Information Infrastructure for Electronic Commerce

45.   In Ottawa, Ministers stressed that the growth of electronic commerce relies on universal and affordable access to the information infrastructures. They recognised that effective competition in telecommunication markets was important which in turn depend on appropriate telecommunication policies and regulatory frameworks.

Access to and use of the information infrastructure

46.   In response to the mandate by Ministers to examine issues aimed at enhancing the information infrastructure, the ICCP Committee's Working Party on Telecommunications and Information Services Policies followed-up on the background document, *The role of telecommunications and information infrastructures in advancing electronic commerce*, that had been prepared for the Ottawa Ministerial. Two reports have been prepared.

47.   The first report, *A Review of Market Openness and Trade in Telecommunication* is aimed at beginning a policy and regulatory evaluation of developments in telecommunication market openness following the liberalisation in 1998 in the context of the WTO agreement and the liberalisation in the European Union. The report highlights the issues that need to be examined to enhance market liberalisation and market openness. While a full assessment of recent telecommunication market opening is premature, there are nevertheless indications of areas where further consideration and action may be required. Market developments are raising a number of issues that need to be resolved to enhance market liberalisation in telecommunication and market openness. These issues will also likely need further consideration in the context of any future WTO service negotiations. These issues centre on the interpretation and application of regulatory principles and how they may impact on market access, and how to deal with technological and service convergence in the context of further liberalisation. The paper discusses the types of problems which may be inhibiting market openness and therefore market access. A major requirement is to eliminate or reduce any existing restrictions on infrastructure operators and service providers, and streamline regulations including licensing. An important issue in the context of market openness is whether the implementation of detailed regulations by countries, many of which are mentioned in the WTO Reference Paper, need to be consistent and whether important divergence in implementation of essentials safeguards can lead as well to unequal market entry opportunities. A further question is whether the Reference Paper needs to be deepened to elaborate on existing safeguards and/or expanded to include other issues. There is still important work to be undertaken in areas such as interconnection, rights of way, telecommunication pricing and convergence to stimulate effective competition and ensure access to infrastructure and services. A number of countries still need to develop and refine their institutional structures and methods to facilitate the transition from a monopoly market structure to a competitive market. Further, as competition develops, countries need to begin reflecting on the streamlining of regulation in order to allow the full play of market forces to become effective.

48.   A second report, *Building Infrastructure Capacity for Electronic Commerce: Leased Line Developments and Pricing* focuses on the capacity requirements and price development for telecommunication infrastructure for business-to-business electronic commerce. The emphasis in the report is on leased circuit capacity, which provide the building blocks for business-to-business electronic commerce. In the background report for the Ottawa Ministerial it was stressed that those countries with a communication regulatory environment, which facilitate abundant capacity at reasonable rates, will be able to launch electronic economies much faster than countries that constrain such developments. The Ottawa background report also stressed that business will not be competitive if it cannot get a connection with a high quality of service, in the quantities it needs, and at prices comparable to its competitors.

49.	The conclusion from the analysis in this paper is that such competition is beginning to emerge and will likely increase over the next several years, especially for long distance and transborder infrastructures. The evidence shows that the market is developing not only new ways for users to buy and sell telecommunication capacity but also rapidly increasing the amount of capacity to meet expected demand based on current market signals. There is, however, still important scope for improvement, and a particular requirement for more competition and lower prices in the provision of short distance leased circuit capacity.

50.	The TISP Working party will continue to work in 2000, together with industry, on:

−	Examining the public policy implications of the changing information and network technologies, including the convergence of networks, and changing market demands.

−	Examining developments in pricing for access to broadband infrastructures.

−	Monitoring Internet developments and governance issues.

−	Developing Internet indicators, and new indicators in the area of Domain Names System and Internet traffic exchange, to assist Internet self-governance and access issues.

−	Examining the policy requirements for open international telecommunication markets.

Other Work of the OECD

Internet Governance/Domain Names System

51.	The OECD has previously undertaken analytical work on the economic and regulatory implications of the Domain Names System. *Internet Domain Names: Allocation Policies* dealt with issues arising from Top Level Domain and generic Top Level Domain administration, and recommended the introduction of competition, higher standards of openness and public accountability, and wide participation by the private sector. *Internet Traffic Exchange: Developments and Policy* notes the preference for traffic exchange to take place in an open competitive environment based on a framework where all firms have equal opportunities. The Working Party also prepared a report on *Internet Infrastructure Indicators*.

52.	The ICCP Committee will continue to develop Internet indicators, and new indicators in the area of Domain Names System and Internet traffic exchange, to assist Internet self-governance and access issues.

The Year 2000 Problem

53.	The manual *The Year 2000 Problem, Risks and Solutions -- A Manual for SMEs* was prepared by the Working Party on SMEs of the Industry Committee with the sponsorship of the French Ministry of Economics, Finance and Industry. The manual draws together a wide variety of international sources that address issues relevant to SMEs. Its aim is to help these firms as well as policy makers and the intermediaries, who deal with SMEs, to understand, diagnose and address the Year 2000 problem. The report is freely available on the OECD Web site and has been widely distributed through SME contact networks. The Working Party continues to maintain up-to-date information on this issue on its Web site.

References to documents

Access to and use of the information infrastructure

Internet Traffic Exchange: Developments and Policy [DSTI/ICCP/TISP(98)1/FINAL].

Building Infrastructure Capacity for Electronic Commerce -- Leased Line Developments and Pricing [DSTI/ICCP/TISP(99)4/FINAL].

A Review of Market Openness and Trade in Telecommunications [DSTI/ICCP/TISP(99)5/FINAL].

The Year 2000 Problem

The Year 2000 Problem, Risks and Solutions – A Manual for SMEs
[http://www.oecd.org/dsti/sti.industry/smes/prod/y2ksme-e.htm]

D.   *Maximising the Benefits of Electronic Commerce*

54.   The full economic potential of electronic commerce will only be realised through its widespread use by businesses, consumers, and institutions. The information infrastructure and electronic commerce also have the potential to link citizens to each other and the world and to foster social cohesion. A clear understanding of the needs of enterprises and citizens in both developing and developed countries is needed to ensure that a facilitating environment is in place as the impacts of electronic commerce begin to be felt throughout the economy and society.

Economic and Social Impact

55.   The OECD is appropriately placed to deal with the analysis of the policy implications of the economic and social impacts of global electronic commerce. Past OECD work has included *Electronic Commerce: Opportunities and Challenges for Governments* (1997) (the "Sacher Report") and the report *The Economic and Social Impacts of Electronic Commerce: Preliminary Findings and Research Agenda*, presented at the Ottawa Ministerial. The report recommended that the OECD continue work to:

-    Improve the ability to measure the structure and volume of electronic commerce.

-    Deepen understanding of the impact of electronic commerce within and between businesses.

-    Determine how electronic commerce changes the level of employment and skill requirements.

56.   In light of the first recommendation, the OECD Workshop on *Defining and Measuring E-commerce* was held in early 1999. This was a first effort to bring together the business sector, researchers, policy makers and statistical agencies to provide a better understanding of existing electronic commerce data and definitions, identify needs for indicators and initiate work towards a common methodology for measuring e-commerce. Following the Workshop, the ICCP Committee's Working Party on Indicators for the Information Society (WPIIS) created an Expert Group on "Defining and Measuring E-commerce". The Expert group will "compile definitions of electronic commerce which are policy relevant and statistically feasible." In developing definitions and measures of electronic commerce the Expert Group should be "fully aware of the policy needs for indicators and data in the domain of electronic commerce". Initial building blocks of this multifaceted work are: the development of a set of e-commerce definitions for the purpose of statistical measurement across countries, the translation of policy needs into a set of comparable e-commerce metrics and the development of concrete proposals to use and adapt existing statistical instruments to collect data and develop such metrics. *Defining and Measuring Electronic commerce -- A Status Report* gives an overview of this ongoing activity and its future steps.

57.   In addition, work related to e-commerce indicators will be part of the *Information Technology Outlook 2000* (to be published in February 2000). The "readiness" of OECD countries to adopt e-commerce will be examined based on relevant measures of their communications infrastructure, ICT diffusion and skills.

58.   Work on definition and measurement will continue to be pursued in the WPIIS. It is planned that a draft report on defining and measuring electronic commerce will be prepared by the Expert Group and presented to the WPIIS at its next meeting in April 2000. This work will complement other work of the WPIIS on definition of the electronic content sector, and that on continuing definition of commodities that

make up the Information and Communications Technology (ICT) sector and collecting improved official data on this sector.

59.   The report *Business-to-Business Electronic Commerce: Status, Economic Impact and Policy Implications* will be completed early in 2000. A *Digest* of the main findings has been produced for the OECD Forum on Electronic Commerce. In June 1999 a Workshop on business-to-business (B2B) e-commerce was held in Oslo, Norway, under the aegis of the ICCP Committee's Working Party on the Information Economy (WPIE). The Oslo Workshop brought together a wide range of participants including government officials, private sector consultants and academics to discuss the development and impact of B2B e-commerce.

60.   Because of the continuing policy and analytical interest in the development of all aspects of electronic commerce, it is envisaged that work of the WPIE will continue in 2000 on business-to-business electronic commerce to develop and use a common methodology for case studies, surveys and analysis. To the extent possible, these studies will be co-ordinated across countries, focusing on a core set of sectors or on sectors with similar characteristics, to explore the impacts of sector and country characteristics in the development of business-to-business electronic commerce. This work will be complemented by other work of the WPIE on various aspects of the information economy. This includes analysis and policy issues related to the IT sector, analysis of the content industry and content-intensive services, work in conjunction with the Working Party on Indicators for the Information Society on defining and measuring electronic commerce (see above), and further work on the economic and social impacts of electronic commerce.

Government service delivery

61.   Responding to the Action Plan's call for the OECD to "analyse implications of electronic commerce on government service delivery," the Public Management Service (PUMA) is addressing these issues as part of a broader activity called "Strengthening Government-Citizen Connections." A survey of OECD Member countries will be undertaken later in 1999, aimed at developing indicators of government progress in using information technologies, including the Internet, to provide information, deliver services and consult with citizens on-line. The survey includes a component related to on-line sales of government information and services. A report on the results of the survey and related findings will be completed early in 2000.

62.   In addition, PUMA issued a report at the end of 1998 *Information Technology as an Instrument of Public Management Reform: A Study of Five OECD Countries*, which includes a section on the impact of electronic commerce on governments.

Other OECD Work

Small and Medium Enterprises (SMEs)

63.   The OECD, in co-operation with the G-8 Initiatives, has been carrying out work on "A Global Marketplace for SMEs", including work on the Global Information Network for SMEs**.** The Industry Committee's Working Party on SMEs has carried out a survey of Member country Internet home pages devoted to SMEs and is pursuing work with the aim of contributing to providing evaluation and user feedback on SME sites in Member countries.

64.   In contributing to the work on electronic commerce, the Industry Committee's Working Party on SMEs prepared a report on *SMEs and Electronic Commerce* for the Ottawa Ministerial in 1998. The report

was prepared on the basis of a survey conducted in mid-1998. It stressed the major challenges and specific issues that the use of electronic commerce raises for SMEs: opportunities, but also obstacles and problems relating to the size and very nature of these firms. The report also noted areas that require priority government attention.

65.   As a follow-up to this work, and in response to the OECD Action Plan, in May 1999 the Working Party on SMEs examined proposals for future work on SMEs and electronic commerce. This work is primarily linked to the OECD Conference on "Enhancing the Competitiveness of SMEs in the Global Economy: Strategy and Policies" to be held in Bologna, Italy, in June 2000. The conference will include a workshop on *"Realising the Potential of Electronic Commerce for SMEs in the Global Economy"*. An analytical background paper will be prepared.

66.   In view of the rapid developments in electronic commerce, the survey conducted by the Working Party on SMEs in the summer 1998 for the preparation of the Ottawa Ministerial Conference paper on SMEs and Electronic Commerce is being repeated to provide input to the preparation of the Bologna workshop. The questionnaire includes additional questions on the use of electronic commerce by SMEs (purpose and geographical scope), and government policies specially addressed to SMEs.

67.   The aim of the Bologna workshop will be to analyse the benefits for SMEs when they adopt e-commerce, both as a new business tool and a new mode of supply. Attention will be paid to the extent to which e-commerce applications can and are used by SMEs to increase their competitiveness in domestic and global markets. The questions of whether and why SMEs fail to capture the full benefits associated with e-commerce will be addressed. Crucial issues that the use of e-commerce might raise for SMEs (e.g access to electronic markets, adoption of technologies and acquisition of certain skills and knowledge, financing-related issues, problems of asymmetries in firms' abilities to control the terms of entry into, and exit from, the electronic market place, etc.) will be identified. A review of tools (e.g. collective use of the Internet by SMEs through Web sites targeted specifically to SMEs, on-line export services, virtual trade missions, formation of SME virtual communities, etc.) will be carried out with the objective of identifying best practices for SMEs to meet the challenges of e-commerce and issuing policy recommendations.

Educational multimedia software market and partnerships

68.   There is an enormous potential for the growth of electronic commerce in education and training, both in the software itself, as yet only in its infancy, and because of the sector's key role in developing the knowledge, skills and intellectual basis for electronic commerce. However, one of the conclusions of an informal meeting of OECD Education Ministers in Helsinki, in September 1997, was that the relations between the educational multimedia content providers, the technology enablers, and the end-users (students and teachers) are complicated and not well established. As a consequence there is a lack of good quality educational software for the K-12 system and a lack of soundly functioning public-private partnerships, often with no clear strategy for the use of educational software from schools and governments. In contrast, it seems that more progress has been achieved in the growing markets of distance education, of livelong learning, and not at least in the corporate market both on-line and off-line.

69.   A high-level meeting was held in June 1999 in London in co-operation with Oxford University Press with the participation of educational multimedia content providers, the technology enablers, and policymakers from the education sector. The meeting discussed what can be done to overcome market difficulties and how best public/private partnerships can be formed to promote the development of high quality educational software. A second such meeting will be held in December 1999 in New York in co-operation with the American K-12 publisher Scholastic.

70.   A chapter of the publication *Education Policy Analysis* (forthcoming October 1999) will be devoted to trends, investments, access, and use of ICT in education and highlights some of the key policy issues that governments have to deal with when they are promoting the use of ICT in teaching and learning.

71.   An important aim of this work, and especially the high-level meetings, is to raise general awareness, both in the education sector as well as in the private business community, of the huge potential of the educational software market. Another will be to collect, analyse and make public information on successful public/private partnerships for developing high quality educational software.

72.   These issues are discussed in the CERI Governing Board and the Education Committee as part of a major project on ICT and the Quality of Learning over the next two to three years.

Development Co-operation

73.   The report of the Development Assistance Committee expert meeting on Capacity Development for Trade and its annex on Building poor countries' trade capacity point out, *inter alia*, the additional constraints to the development of electronic commerce faced by developing countries, including regulatory, legal, policy, infrastructure and capacity constraints. The DAC will consider electronic commerce in developing countries as one aspect of its work towards developing good practices for donors in the area of capacity development for trade.

Ensuring Global Participation

74.   The OECD will continue to ensure dissemination of its work on electronic commerce outside OECD Member countries in co-ordination with other international organisations such as the World Bank, the World Trade Organization (WTO), UN agencies and regional bodies such as APEC. Events in the context of the OECD Emerging Market Economy Forum may be organised as required.

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