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Dismantling the Barriers
to Global Electronic
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19-21 November 1997 -
Conference Report

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DIRECTORATE FOR SCIENCE, TECHNOLOGY AND INDUSTRY
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"DISMANTLING THE BARRIERS TO GLOBAL ELECTRONIC COMMERCE"

**AN INTERNATIONAL CONFERENCE ORGANISED BY THE OECD
AND THE GOVERNMENT OF FINLAND IN COOPERATION WITH
THE EUROPEAN COMMISSION, THE GOVERNMENT OF JAPAN AND
THE BUSINESS AND INDUSTRY ADVISORY COMMITTEE TO THE OECD**

Turku, Finland, 19-21 November 1997

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INTRODUCTION

Electronic commerce and the policy issues it raises have been the topic of a number of international meetings, most notably the G7 Ministerial Conference on the Information Society held in Brussels in February 1995 and the Ministerial Conference on Global Information networks held in Bonn in July 1997. The OECD seeks to build on this momentum both through this conference in Turku, Finland, and through the Ministerial-level conference scheduled for October 1998 in Ottawa, Canada, entitled "A Borderless World -- Realising the Potential of Global Electronic Commerce." These conferences have the following objectives:

- to identify major policy problems, their potential solutions, and organisations able to develop and implement them;
- to take stock of the initiatives currently under way and contribute to ensuring consistency and effective co-ordination among them;
- to develop a consensus between business and government as to some of the guiding principles that will constitute a framework for electronic commerce policies.

The conference was organised in two parts:

The Business-Government Forum, organised by the Business and Industry Advisory Committee on 19 November where the aim of the discussion was to :

- improve understanding of what the barriers are;
- what they prevent business from doing;
- what solutions business recommends, and;
- what business sees as the priorities for reducing the barriers through both regulatory reform and new business-led initiatives.

An International Conference organised by the OECD and the Government of Finland in co-operation with the European Commission, Japan and BIAC on 20-21 November:

The introductory session outlined the potential of electronic commerce, identified broad areas where government or international organisation involvement may be required in order to reduce some of the barriers and uncertainties that plague the development of electronic commerce, and provided an overview of current initiatives.

The Conference then addressed these broad areas through a format that permitted business representatives to identify the problem, governments to discuss how they hope to deal with the problem and international organisations to suggest how they can help to implement the solution internationally.

Some sessions included the views of representatives from academia and Non-Governmental Organisations.

At the end of the conference a follow-up plan for work to be presented at the Symposium in Canada in 1998 was outlined.

Acknowledgments

The OECD and the Government of Finland acknowledge the material and practical assistance in ensuring the success of this conference of their main partners: BIAC, the European Commission, and the Government of Japan; the enormous contributions from EUnet and the City of Turku; and sponsorship, advice and co-operation from a host of firms, individuals, governments and organisations including Nokia, the Global Information Infrastructure Commission, the G7 pilot project "A Global Marketplace for SMEs" and others too numerous to mention.

SUMMARY REPORT

Approximately 400 people, among them government officials from 26 OECD Member countries, 2 non-member countries, 14 international organisations and over 130 members of the private sector, attended a three day international forum, “Dismantling the Barriers to Global Electronic Commerce”, on 19-21 November in Turku, Finland. The first day consisted of a business-government forum where an agenda, set by business, identified business priority areas. The second and third days focused on potential solutions by government and private sector representatives. While the size, variety of participants, and format of the conference precluded reaching consensus on any one issue, it did provide an opportunity for dialogue, increased awareness of the various players, and identification of the near-term electronic commerce policy agenda.

The Conference had set, and succeeding in meeting, three objectives:

- *Defining general principles necessary for global electronic commerce to prosper* (developed and presented by BIAC). Over the course of the three days, there was general discussion of the principles that should govern the development of policies for electronic commerce: the need for e-commerce to be market-driven, led by business, and with minimal government intervention, as and where needed. Although there was not any formal agreement on the specific BIAC principles, these can now serve as a starting point for discussion.
- *Discussion of approaches to devising various solutions*. The conference helped to identify areas where government action was needed (e.g. taxation), cases where business self-regulation might be sufficient (e.g. e-payment systems), and areas where some combination would probably be preferable (e.g. privacy).
- *Identification of organisations able to develop and implement these solutions*. In the course of the conference, it became clear that some organisations could play an important role in developing and implementing solutions to specific problems confronting electronic commerce: UNCITRAL for the revision of commercial law and for digital signature, the World Intellectual Property Organisation (WIPO) for intellectual property rights, the World Wide Web Consortium (W³C) for Internet standards and technological protocols for self-regulatory mechanisms, the World Trade Organisation (WTO) for telecommunications access agreements, and the World Customs Organisation (WCO) for simplifying customs clearance procedures.

Some participants expressed frustration because the Conference did not result in a detailed point-by-point plan specifying exactly what business, governments, and international organisations should do to promote electronic commerce while protecting the public interest. While such an outcome would have been welcome, the fast-paced development of e-commerce technologies, the high variance in knowledge on certain topics, and the decentralised and heterogeneous nature of participants in the process made

forging such a blueprint unlikely, especially at as large a meeting as the one in Turku. In some cases, it is premature to suggest a solution; in others, no single body can resolve a specific problem.

Rather, as discussions were summarised and explicit goals were set for the Ottawa Ministerial Conference in October 1998, a more amorphous and fluid collection of activities emerged which together constitute a near-term agenda of work. The Ottawa meeting will provide an opportunity for presenting work that has been undertaken to resolve issues involving electronic commerce, its status, and its relative strengths and weaknesses. At Ottawa, this work will be presented and discussed in the hopes of organising it into an action plan that Ministers can endorse.

To achieve this end, a number of participants identified four broad categories of preparatory work for Ottawa: industry self-regulation, work by the OECD, work by other international organisations, and a co-ordinating action plan.

1. *Industry self-regulation.* An appeal was made to the various industry groups to come forward and commit themselves to developing credible, industry-led solutions to problems such as privacy, objectionable content, and marketing and advertising codes, with the goal of reporting on their progress at the Ottawa conference.
2. *The OECD.* The OECD was identified as having expertise in a number of areas, including taxation, privacy, consumer-related issues, and economic analysis of the social impact of electronic commerce. Work will be undertaken in a number of these areas with the intent of providing some specifics at Ottawa or a status report on work in progress (see action points outlined below).
3. *Other international organisations.* A request was made to the various international organisations to co-ordinate their electronic commerce work and use the Ottawa meeting as an opportunity to present “deliverables”, such as new agreements, or as a venue for reporting on the status of work under way. In particular, the WTO, UNCITRAL, WCO and WIPO were encouraged to participate.
4. *An action plan.* Work aimed at dismantling the barriers to electronic commerce by public and private organisations needs to be co-ordinated so as to provide clarity as to *who* is doing *what*, to maintain some consistency, and to avoid duplication. This co-ordinated work programme could be assembled as an action plan for electronic commerce that could be adopted at Ottawa, with the intention of providing an international organising mechanism.

As one of a series of conferences held at international level, the Turku conference may very well represent a transition point in the dialogue on electronic commerce issues, from one that focuses on the problems associated with, and barriers to, electronic commerce to a concentration on the solutions and organisations capable of developing and implementing these solutions. A sense of urgency to shift from talk to action was frequently reiterated, and many participants identified 1998 as a key year, and the Ottawa Ministerial as a unique opportunity to organise this work into a coherent action plan.

OECD work pledged for the Ottawa meeting

Taxation

The OECD has been singled out as the international organisation to undertake the following work over the next few months:

- to create an Internet forum, as a sort of virtual discussion group open to all interested parties;
- to engage the business sector in a series of working dialogues, particularly on consumption taxes, compliance issues and tax treaties;
- to give a mandate to the OECD's Committee on Fiscal Affairs to prepare principles for the taxation of electronic commerce that could be endorsed by Ministers in Ottawa;
- to have that committee look at how tax administrations need to adapt to this new environment.

Privacy

This is an area where governments may need to play a role in order to establish user and consumer trust in the online environment.

- The OECD will work to identify pragmatic, meaningful and workable (technology-neutral) solutions to ensure the application of the existing 1980 OECD Privacy Guidelines in the online environment. A February workshop on this topic is to examine the various solutions discussed in Turku, which range from technology-based solutions to industry self-regulation to government rules, as well as public education.
- In the light of discussions at this workshop, the Information, Computer and Communications Policy (ICCP) Group of Experts on Information Security and Privacy will consider at its 18-19 May 1998 meeting whether a guiding framework for privacy protection in the global information society, with special regard to electronic commerce, could be designed. Such a framework would be based on a common understanding regarding the implementation of the 1980 OECD Privacy Guidelines. The key step would then be a discussion of a guiding framework by the ICCP Committee at its 17-18 September 1998 session, with a view to its endorsement by Ministers at the Ottawa conference.

Consumer-related issues

The OECD is in the process of developing guidelines that address specific consumer-related issues, in addition to the work on privacy mentioned above. The guidelines, scheduled for completion by the fall of next year, will address three broad areas of concern:

- fraudulent and misleading commercial conduct;
- consumer redress and dispute resolution;

- security for electronic commerce.

The issue of authentication is related to both privacy and consumer protection. The OECD can extend its work on the use of cryptographic methods especially for secure digital signatures for authentication. Two stock-taking initiatives will be launched in 1998:

- an inventory of Member country rules and regulations concerning the use of cryptography;
- a policy-focused review of public and private sector initiatives in the area of authentication and certification, which will be closely co-ordinated with the more technical work under way at UNCITRAL on digital signatures and certifying authorities.

Economic issues pertaining to the information society and economy:

- The OECD will continue its analysis of the economic and regulatory impacts of the convergence under way in information and communication technologies as well as the appropriate governance frameworks in areas such as domain name systems, IP (Internet Protocol) traffic exchange, and interoperability.
- Another aspect of electronic commerce mentioned in Turku is the impact it will have on OECD economies and societies. While any attempt at assessing such impacts will face significant conceptual and statistical problems, it is envisaged to prepare an exploratory report, which would draw upon a number of current activities of the ICCP Committee Working Party on the Information Economy, and possibly on work by other directorates such as the Directorate for Education, Employment, Labour and Social Affairs (DEELSA) and the Economics Department (ECO).

PROGRAMME

Day 1 -- PART I

OECD-BIAC -- BUSINESS-GOVERNMENT FORUM

19 November 1997

9:00 Welcome, Introduction and Keynote Addresses

- **Introduction** by the Chair, Dr. Etienne Gorog, Vice-President, IBM Consulting Group (and Chair BIAC Committee on Information, Computer and Communications Policy)
- **Keynote speaker** : Donald Johnston, Secretary General, OECD
- **Keynote speaker** : Ira Magaziner, Special Advisor to the President, United States
- **Keynote speaker** : Takuma Yamamoto, Chairman of the Board, Fujitsu, and Member of GIIC
- **Keynote speaker**: Jorma Ollila, CEO Nokia, and member of GIIC

10:15 SESSION ONE: WHAT ARE THE NEW NEEDS AND NEW OPPORTUNITIES -- *Session memo*

- **Chair**: Dr. Etienne Gorog, Vice-President, IBM Consulting Group (and Chair BIAC Committee on Information, Computer and Communications Policy)
- **The perspective of users and consumers**
John Sacher, Executive Director, Marks & Spencer
- **Advancing the public policy agenda**
David Johnston, Chair of the Information Highway Advisory Council, Canada
- **The need for a higher-level vision in electronic business**
John B. Landry, Strategic Technology Consultant, Lotus

11:30 SESSION 2: THE SECTORAL PERSPECTIVE (*concurrent sessions*)

Session 2a: Finance and insurance

- Thomas Glück, CEO, Guide Datakonsult
- Guy Knight, Vice-President Charles Schwab, Inc.
- Jay Simmons, Senior Vice President, CertCo
- Alexander von Stülpnagel, Chairman of the Board, Informatikzentrum der Sparkassenorganisationen

Session 2b: Online and retail distribution

- Alain Ducray, Vice-President, Strategy and Development (Groupe Lagardère)
- Carter Eltzroth, Advisor, MIH Holdings Limited
- Eero Vesterinen, Managing Director, Kesko-Linkki Ltd. (Kesko Group)

15:00 THE SECTORAL PERSPECTIVE continued (*concurrent sessions*)

Session 3a: Health care -- *session memo*

- Claude Boulle, Director, European Affairs, Bull
- Helena Brus, Associate Director, Economic and Health Care Policy, Merck & Co. Inc; Co-chair of the BIAC Working Group on Health Care
- Roy Jordan, Vice President, Issues Management and Information, Pfizer, Inc.
- Alain Sommer, Directeur administratif et financier, Groupe Clininvest; Co-chair of the BIAC Working Group on Health Care

Session 3b: Travel and air transportation -- *session memo*

- Pascal Bordat, Director of Content Services, New Distribution Technologies, Amadeus Global Travel Distribution
- Bruce Charendoff, Assistant General Counsel, Sabre
- Lawrence Nell, Country Manager Germany, Microsoft Travel Technologies
- Tom Källström, Head of Commercial Automation, Finnair

Session 3c: Manufacturing -- *session memo*

- Sanjaya Addanki, General Manager, Network Computing, IBM Eurocoordination
- Hajime Kimura, General Manager, Integrated Information Technology Business Unit, Mitsubishi Corporation
- Heikki Laaksamo, Information Systems Specialist, Rautaruuki Oy
- Raza Zahidi, Software Relations Director, Electronic Commerce, Intel EMEA

16:50 Address by Antti Kalliomäki, Minister of Trade and Industry, Finland

17:10 SESSION 4: SYNTHESIS: BUSINESS PRINCIPLES FOR POLICY AND PRIORITIES FOR POLICY AND ACTION AT THE GLOBAL LEVEL (Plenary) -- *Session memo*

- **Chair:** Etienne Gorog, Vice President, IBM Consulting (and Chair BIAC Committee on Information, Computer and Communications Policy)

Reports from the concurrent sectoral sessions

- *Health care*
- *Travel and air transportation*
- *Manufacturing*
- *Finance and insurance*
- *Online and retail distribution*

Panel discussion on Principles for policy and priorities for action

- Vincenzo Damiani, Chief Executive Officer, Italy and Switzerland, European business development and strategic marketing director, Electronic Data Systems (EDS)
- Maria Livanos Cattai, Secretary-General of the International Chamber of Commerce
- Heinz Zourek, Deputy Director General, DG XV, European Commission

The Chair introduced the BIAC's "Declaration of Principles for Global Electronic Commerce". On the basis of the discussion in preceding panels, which identified barriers to electronic business in the context of various industry sectors and solutions recommended by business, the closing session developed a sense of how such principles might indicate areas where action is required in international public or private sector fora or, alternatively, whether governments might more appropriately refrain from action.

Day 2 -- PART II

**AN INTERNATIONAL CONFERENCE ORGANISED BY THE OECD AND THE
GOVERNMENT OF FINLAND IN CO-OPERATION WITH THE EUROPEAN COMMISSION,
JAPAN AND BIAC**

20 November 1997

**9:00: SESSION 5: INTRODUCTION: THE POTENTIAL OF ELECTRONIC COMMERCE --
session memo**

The promise of widespread electronic commerce is fast becoming a reality. The exponential growth and diffusion of the Internet and other high-speed, interconnected global networks are providing new ways to conduct commercial transactions, generate new markets and revenue streams, lower transaction costs, and forge new relationships between businesses and consumers. Even the most pessimistic of analysts predict that the embryonic electronic commerce market of today will have grown by a factor of 10 by the year 2000.

As global networks are developed, it is becoming apparent that an evaluation of the policy frameworks for electronic transactions is required. In many cases, existing policies for traditional commerce remain appropriate in the electronic world, but they may need to be updated. At a minimum, policy issues which are in need of attention may be grouped into four areas: **ensuring access** to the information infrastructure, **building trust** for service providers, users and consumers in electronic systems and transactions, **establishing simple, predictable regulatory environments** notably for taxes and tariffs, and **easing logistical problems** for payment and delivery both for intangibles and physical goods.

Following the President's welcome and the Secretary-General's response, two keynote speakers set the stage for the issue-oriented panel meetings. The chair reported on the findings of the Business-Government Forum of the preceding day in his opening remarks.

Conference Chair: Matti Vuoria, Secretary-General of the Ministry of Trade and Industry, Finland.

Speakers

- **Welcome:** Martti Ahtisaari, President of the Republic of Finland
- **Response:** Donald Johnston, Secretary-General of the OECD
- **Report on the Business-Government Forum:** Etienne Gorog, Chair of the Business-Government Forum
- **Keynote address:** Hirofumi Kawano, Director General, MITI, Japan
- **Keynote address:** Thorvild Aakvaag, Chairman of BIAC, Chairman of the Board of Directors, Norsk Hydro A.S.

11:00: SESSION 6: ACCESS TO AND USE OF INFRASTRUCTURE

Ensuring unfettered access to electronic-commerce markets and services, both for buyers and sellers, is an essential element of realising the full potential of electronic commerce. This is especially important for small and medium-sized firms and developing countries where the use of electronic commerce might reduce some of the disadvantages they currently experience. Barriers include regulatory restrictions that prevent non-discriminatory access to telecommunications markets and services, prohibitively high access prices that limit use, and restrictions on the type of services and content that legally can be provided. *session memo*

Session Chair: Richard C. Beard, Head, Bureau of International Communications and Information Policy, Department of State, United States; Chair of the OECD/ICCP Committee

Speakers:

- Johan Helsingius, Director of Product Development and Marketing, EUnet International
- Esa Norhomaa, Chief Executive Officer, Aldata
- Masae Tamura, Director-General, Ministry of Posts and Telecommunications, Japan
- Jim Tobin, President, Chief Executive Officer, Bell Emergis

14:30: SESSION 7: BUILDING USER AND CONSUMER TRUST

Electronic commerce provides users with considerable benefits, in the form of increased choice, access to goods and services, and a new medium for interaction with users and suppliers. However, businesses and consumers will not embrace electronic commerce until they have confidence that their use of services on open networks are secure and reliable; that their transactions will be safe and private; that they will be able to prove the origin, receipt and integrity of the information they receive; that they can identify those they are dealing with; and that there are appropriate mechanisms available to them if something goes wrong. Among the issues to be treated: security of the electronic environment and the use of cryptography; certification mechanisms; fraudulent and misleading conduct; user and consumer privacy and the use of personal data; consumer redress; and international co-operation. *session memo*

Session Chair: Eivind Jahren, Deputy Director General, Ministry of National Planning and Coordination, Norway

Speakers:

- Josef Dietl, W3C-Electronic Commerce Specialist, W3C
- Julian Edwards, Director General, Consumers International
- William Fagan, Director, Office of Consumer Affairs, Ireland
- Prof. Thomas Falk, Vice-President, Industriesförbundet (Federation of Swedish Industries)

- Prof. Masao Horibe, Chuo University, Japan
- Renaud Sorieul, Administrator, UNCITRAL

16:20: SESSION 8: ESTABLISHING A SIMPLE, PREDICTABLE REGULATORY ENVIRONMENT -- *session memo*

A primary focus should be to develop an acceptable legal and regulatory environment by addressing the problem of disparate national regulations in the global electronic environment; by updating or eliminating existing laws so that they are consistent with and conducive to the realities of electronic commerce; and by forging new mechanisms that clarify or eliminate laws that have been challenged by the new possibilities which electronic commerce presents. Although regulatory issues were a common feature of Sessions 6-9, this session dealt with: income and consumption taxes, tariffs, liability, jurisdiction, and settlement of disputes.

Session Chair: Jan Francke, Chair of the OECD Committee on Fiscal Affairs

Speakers:

- Stewart Baker, Partner, Steptoe & Johnson
- J. Beckwith Burr, Senior Internet Policy Advisor, National Telecommunications and Information Administration, United States
- Michael Carmody, Tax Commissioner, Australia
- Renah Persofsky, President, Chief Executive Officer, Cebra Corp.
- Judith Scarabello, Assistant Director, External Tax, AT&T
- Paul Vandoren, Head of Division, DG I, European Commission

18:00: Closing remarks: Conference Chair

Welcome: Martti Mäenpää, Director General of TEKES

Dinner speaker: Pasi Rutanen, Ambassador of Finland to the People's Republic of China

Day 2 -- PART II

**AN INTERNATIONAL CONFERENCE AND BUSINESS-GOVERNMENT FORUM
ORGANISED BY THE OECD AND THE GOVERNMENT OF FINLAND IN CO-OPERATION
WITH THE EUROPEAN COMMISSION, JAPAN AND BIAC**

21 November 1997

9:00: SESSION 9: ESTABLISHING PAYMENT SYSTEMS AND EASING LOGISTICAL PROBLEMS -- *session memo*

The growth of electronic commerce, the efficiency of the markets it creates and its potential economic impact could be limited by a number of problems relating to two necessary elements of any commercial transaction: payment and delivery.

Secure and simple electronic payment systems which function globally must be in place in order for electronic commerce to thrive.

A different set of issues are posed by the need for efficient distribution channels, both for physical delivery of goods ordered electronically, when needed, and when digital goods and services must be delivered in a timely way over crowded information networks. Among the subjects to be treated are: parcel delivery and customs procedures.

Obstacles associated with standards, testing and certification should be identified and removed.

Session Chair: Magnus Lemmel, Deputy Director General, DG III, European Commission

Speakers:

- Franco Arzano, Senior Vice-President, International Affairs, Ericsson SpA
- Gregor Heinrich, Head of Legal Research and International Cooperation, Legal Services, Bank for International Settlements
- Masanobu Higashida, Executive Manager, R&D, Planning Dept., NTT Labs
- Andrew Konstantaras, Vice-President, Counsel, VISA Intl.
- Ken Lyon, Director, Information Services, United Parcel Service World-wide Logistics
- Douglas Tweddle, Director, Customs Technique, World Customs Organisation

11:00: SESSION 10: CLOSING SESSION -- CONCLUSIONS AND FOLLOW-UP ACTION

The closing session built on the work of the Business-Government Forum and the individual conference sessions by exploring consensus on the development of a draft outline of business "best practice principles" for electronic commerce. These principles would form the basis of the business sector input to the meeting to be held in Ottawa, Canada, in October 1998. In addition, the desirability of a plan to ensure co-operation and consistency across the various organisations involved in facilitating global electronic commerce was discussed.

Session Chair: Matti Vuoria, Secretary-General of the Ministry of Trade and Industry, Finland

Panellists:

- Etienne Gorog, Chair, Vice-President, IBM Consulting Group (and Chair BIAC Committee on Information, Computer and Communications Policy)
- Paul Waterschoot, Director, DG XV, European Commission
- Kaj J. Linden, Senior Vice-President, Nokia; Chairman, High Level Strategy Group (HLSG) for European ICT standards
- Anwarul Hoda, Deputy Director General, World Trade Organisation
- Michael Binder, Assistant Deputy Minister, Industry Canada
- Joanna Shelton, Deputy Secretary-General, OECD

13:00: Conclusion: Chair -- *final comments*

**ADDRESS BY THE HONOURABLE DONALD J. JOHNSTON, SECRETARY-GENERAL OF
THE OECD**

In the introduction to his book "The Discoverers", Daniel Boorstin writes "...The most promising words ever written on the maps of human knowledge are *terra incognita* -- unknown territory."

Boorstin adapts the language of the early cartographers of the seas and the continents and extends it to the full spectrum of human enquiry -- the heavens, the natural sciences, the social sciences.

Today we stand on the threshold of the electronic world. Just as the great explorers, Columbus, Magellan, Cook, the Viking adventurers and countless others stood on European shores speculating about the riches that lay beyond the receding horizon, so do we contemplate the riches that this extraordinary technology could bring to the global community.

There is much *terra incognita* of the electronic world to be explored by our and future generations. But speculating today about what lies ahead, while interesting and stimulating, is not especially useful in practical terms if history serves as a guide.

In 1893, a World Fair took place in Chicago. Seventy four of America's supposed best minds were asked to contribute their views on what the world might look like in 1993. Author and journalist John Hanson Beadle wrote "... All history goes to show that the progress of society has invariably been on lines quite different from those laid down in advance, and generally by reasons of inventions and discoveries which few or none had expected".

The proof of this wisdom was found in a number of the predictions. Air travel, yes, by aerial balloons guided by a wire from city to city 100 feet above the ground. Because Paris enjoyed at the time extensive mail deliveries through pneumatic tubes, that was forecast as the delivery route of the future, even over vast distances. Nearly all the predictions were based, understandably, on a linear extrapolation of the existing technologies. At the time, the eminent thinkers were probably sensitive to the famously wrong assessment made by Western Union in 1876 that "... the telephone has too many shortcomings to be seriously considered as a means of communication". There was another 1893 prediction by the then postmaster general of the United States, John Wanamaker, which I will return to in a moment.

Of course we are not without predictions today on what lies in the *terra incognita* of the electronic world. Many see great promise for profound yet beneficial changes in the evolution of the global society. Will this ubiquitous technology invade and influence nearly all aspects of our existence: where we live, where and how we work, our leisure time, the delivery of health and educational services, how we govern ourselves, and of course how we market and deliver goods and services across the planet? Will the functioning of markets and of democratic institutions themselves be improved, leading to greater and greater equality of opportunity?

How can we not be optimistic about the potential of the electronic world when we already see areas of activity which were unknown only a few years ago and witness transactions over the Internet growing exponentially?

Setting aside the vast areas to be explored in the terra incognita to which I have alluded, it certainly appears that electronic commerce itself, the subject of this conference, has great potential for furthering the magic of the market place. If electronic commerce can benefit from the global free trade and investment agenda, the benefits will accrue not only to the producers of goods and services, the distributors and consumers, but there will also be substantially more economic growth and job creation.

With all this exciting potential as we approach the new millennium, why are we gathered here at Turku to discuss this issue "Dismantling the barriers to global electronic commerce"?

The answer is clear. While we do not know what lies ahead in the terra incognita, we will never find out unless we provide ourselves with the necessary means of exploration. The Discoverers of whom Daniel Boorstin wrote are today the innovative men and women of the private sector who will take the electronic world forward. Governments must play a supporting role but the private sector must take the lead just as it has to date in pursuing global free trade and investment. International co-operation is nevertheless essential, for the electronic world is a global issue, without borders. Business will develop new markets, new products and new trading relationships, but for electronic commerce to thrive, industry must seek with governments to establish a stable framework for transactions that will inspire confidence. It is important that the respective roles of governments acting domestically or through international organisations must be well understood.

You are invited to reflect on the evolution of electronic commerce in two ways. On the one hand, what are the regulatory barriers that must be removed to allow such commerce to develop and prosper? And on the other, what regulatory frameworks are necessary to ensure a fair and competitive market place in the electronic world of tomorrow?

We see a need to ensure broader access to the Internet, to establish trust for consumers through appropriate redress mechanisms and verifiable identities and a predictable context for taxation, electronic payments and international delivery. Barriers to the accomplishment of such objectives must be addressed and those issues are central to your discussions here in Turku.

In a broader context, work is underway at the OECD to develop necessary policy agendas for making the best use of the Net in the fields of education, public administration, environmental sustainability, health care, labour markets, social programmes and more. Because of the broad-ranging nature of our work and our contacts across nearly every Ministerial portfolio, as well as its underlying market philosophy, the OECD is well placed to pull together these various strands to ensure a coherent approach to these developments. I hope that we can be a catalyst to an even fuller exploitation of the human ingenuity and entrepreneurial spirit that drives this new electronic world.

Yet, like so many organisations, we are struggling to grasp the full meaning and potential of this new frontier we call cyberspace as more and more of the terra incognita comes into focus. But again, a priority must be to ensure that the evolution of the electronic world does not become ensnared and slowed down in the regulatory jungles which we are working to eliminate, or burdened with something like a "bit" tax. No new taxes is a well-known refrain, but the reality is that Government treasuries should anyway be amply rewarded by the increase in profitable commercial activity which electronic commerce promises.

On this latter point, let me return to the Chicago World Fair of 1893 and quote from an article in the New Scientist (15 October 1994) by Alan Anderson: "But in one case the worries of 1893 are still relevant. At the time there was a great debate over whether the mail should be delivered free because of the impact it would have on the development and unity of a growing nation. "Free delivery will be universal" predicted John Wanamaker, Postmaster General....Today we're in the middle of a similar debate about the Internet. Take note, the US mail ended up cheaper but not free. Just occasionally, the past can be today in disguise." Anderson, writing in 1994 was right. We are in a similar debate and we must measure the important contribution that minimizing the costs of Internet transactions would have on the development, and yes, the unity of a globalizing world.

In concluding, I cannot overemphasize the importance of the challenge that faces us. The accelerating pace of technological innovation in communications is breathtaking. Nothing of the sort has ever been seen before. Public policy must accommodate that reality if its full potential for improving the quality of life on this planet in a sustainable way is to be realized as quickly as possible. We must look further than the vested interests of the private and public sectors. The wrong regulatory and tax environment must be avoided. We must get it right for the benefit of future generations and provide them with the tools to fully explore the promising terra incognita that lies out there beyond the horizon.

BIAC DECLARATION OF POLICY PRINCIPLES FOR GLOBAL ELECTRONIC COMMERCE

The emergence of global networks has already begun to profoundly influence the way individuals interact with each other, businesses conduct their affairs, and governments provide services to their constituents.

Business believes that a number of fundamental principles should shape the policies which are ultimately adopted by governments, if the promises of electronic commerce are to be fulfilled. International discussions on a framework for global electronic commerce have already begun and have recently been gaining impetus by a series of high-level initiatives and declarations.

In this context, BIAC, the Business and Industry Advisory Committee to the Organisation for Economic Co-operation and Development (OECD) provides the following Declaration of Policy Principles for Global Electronic Commerce. We expect that these Principles may be extended as additional knowledge and insights are gained relative to electronic commerce.

BIAC, THE BUSINESS AND INDUSTRY ADVISORY COMMITTEE TO THE ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD):

CONGRATULATES the OECD on its past accomplishments in the information, computer and communications policies area, which have created a framework for the private sector to develop an underlying telecommunications infrastructure for electronic commerce;

APPLAUDS all Member countries of the OECD for their foresight and flexibility in developing and implementing general policy recommendations for the Global Information Infrastructure-Global Information Society (GII-GIS) which provide a conducive environment for electronic commerce;

SUPPORTS the OECD's efforts to engage in forthright and constructive discussions regarding electronic commerce;

INVITES the governments to lead by example by using commercially available electronic commerce systems in the conduct of governmental functions, and,

URGES government and business in all countries to co-operate and consider policies consistent with the Principles expressed below in order to encourage the development of electronic commerce:

1. The development of electronic commerce should be led primarily by the private sector in response to market forces.

2. Government intervention, when required, should promote a stable, international legal environment, allow a rational allocation of scarce resources and protect general interest. Such intervention should be no more than is essential and should be clear, transparent, objective, non-discriminatory, proportional, flexible, and technologically neutral.
3. Mechanisms for private sector input and involvement in policy making should be promoted and widely used in all countries and international fora.
4. In recognition of the global nature of electronic commerce, government policies which affect it should be internationally co-ordinated and compatible and those policies should facilitate interoperability within an international, voluntary and consensus-based environment for standards setting.
5. Transactions conducted using electronic commerce should receive neutral tax treatment in comparison to transactions using non-electronic means. Taxation of electronic commerce should be consistent with established, internationally-accepted practices, and administered in the least burdensome manner.
6. Regulation of the underlying telecommunications infrastructure, when necessary, should reduce impediments to competition, enabling new services and new entrants to compete, globally, in an open and fair market.
7. Participation in electronic commerce should be pursued through an open and competitive market.
8. The protection of users, in particular with regard to privacy, confidentiality, anonymity and content control should be pursued through policies driven by choice, individual empowerment and industry-led solutions, and/or be in accordance with applicable law.
9. Business should make available to users the means to exercise choice with respect to privacy, confidentiality, content control and, under appropriate circumstances anonymity.
10. A high level of trust in the Global Information Infrastructure-Global Information Society (GII-GIS) should be pursued by mutual agreement, education, further technological innovations to enhance security and reliability, adoption of adequate dispute resolution mechanisms, and private sector self-regulation.

RAPPORTEUR'S REPORT

Introduction

For electronic commerce, the main issues are: ensuring access, building user and consumer trust, minimising regulatory uncertainty, and easing logistical problems.

These issues were addressed at the Turku Conference...

... which brought together a broad representation from business, government, and academia.

Electronic commerce is high on the policy agenda of many OECD Member countries.¹ With its open, non-proprietary standards, which exploit the existing communications infrastructure, the Internet plays an important role in fuelling the growth of electronic commerce. Although the issues tend to overlap, four areas require urgent attention: ensuring access to the information infrastructure, building user and consumer trust in information systems and electronic transactions, minimising regulatory uncertainty in the new electronic environment, and easing logistical problems for payment and delivery.

Recently, electronic commerce and the policy issues it raises have been the topic of a number of international meetings, most notably the G7 Ministerial Conference on the information society, held in Brussels in February 1995, and the Ministerial Conference on global information networks, held in Bonn in July 1997. The OECD has sought to build on this momentum through the Turku Conference and through the Ministerial Conference to take place in October 1998 in Ottawa, Canada, entitled "A Borderless World: Realising the Potential of Global Electronic Commerce". These conferences have the following objectives:

- to identify major policy problems and their potential solutions, as well as organisations able to develop and implement them;
- to take stock of initiatives currently under way and contribute to ensuring consistency and effective co-ordination among them;
- to develop consensus between business and government as to some of the guiding principles that will constitute a framework for electronic commerce policies.

The Turku Conference brought together some 400 people from 30 countries and 14 international organisations for three days to discuss urgent issues relating to global electronic commerce. The conference provided a forum for discussion of electronic commerce issues by representatives of the public and private sector, as well as academia. It is hoped that these discussions will contribute to further co-ordination and coherence of global electronic commerce policy in the October 1998 Ministerial Conference in Ottawa.

The Turku conference had two parts:

The Business-Government Forum first addressed business priorities.

First, the Business-Government Forum, organised by the OECD Business and Industry Advisory Committee (BIAC) on 19 November 1997. The aim of the discussion was to improve understanding of the barriers, to understand what they prevent business from doing and what solutions business recommends, and to learn what business sees as the priorities for reducing the barriers through regulatory reform and new business-led initiatives.

The discussion then turned to problem areas and considered where intervention by government and international organisations might be needed.

Second, an International Conference organised by the OECD and the Government of Finland in co-operation with the European Commission, the government of Japan and BIAC on 20-21 November 1997. The introductory session outlined the potential of electronic commerce and identified four broad areas where government or international organisation involvement may be required in order to reduce some of the barriers and uncertainties that plague the development of electronic commerce. These broad areas were then addressed, with business representatives identifying a problem, governments discussing how they hope to deal with that problem, and international organisations suggesting how they can help implement solutions internationally. Some sessions included the views of representatives from academia and non-governmental organisations. EUnet, Europe's leading Internet service provider, along with its partners, provided a webcasting team in Turku and broadcast in real time the opening ceremonies, keynote presentations and concluding sessions in audio and video over the Internet using RealAudio and RealVideo technology. At the end of the conference a follow-up plan was outlined for work to be presented at the Ministerial Conference in Canada in 1998.²

A follow-up conference will be held in Ottawa in October 1998.

This summary of the Turku Conference follows the structure of the OECD discussion paper, "Dismantling the Barriers to Global Electronic Commerce"³ which, as most participants confirmed, identified the main barriers to the realisation of electronic commerce, and catalogued current efforts to address these issues.

The promise of electronic commerce

Electronic commerce is of intense interest but so far more prevalent in the United States, which has the largest number of Web users.

Intense interest in the economic impact of electronic commerce is linked to the fundamental fact that it shrinks the economic distance between producers and consumers. In theory, consumers can go directly to producers without the need for traditional retailers, wholesalers and, in the case of intangibles, distributors. In practice, the available evidence indicates that electronic commerce now thrives mostly in the United States, although the relative growth figures continue to climb in Asia and Europe.

Asia/Pacific is predicted to "leapfrog" Western Europe in numbers of Web users by 2001.

According to the IDC Internet Commerce Market Model (7/97), a world-wide population explosion on the Web is under way, with the number of Web users growing from 50.2 million in 1997 to 174.5 million in 2001. The United States currently dominates (58 per cent), but its percentage of the Web population is dropping (54 per cent in 2001). IDC forecasts Asia/Pacific to "leapfrog" Western Europe in Web population by 2001, replacing Europe as number two behind the United States. The greatest, albeit not the only, payoff for corporations that invest in the Internet will come from conducting business on the Internet.⁴

The United States dominates use of the Internet today but will lose share in the future

In 1997, IDC estimates that there will be more than \$10 billion in Internet transactions, less than 0.05 per cent of the global economy. In 2001, IDC forecasts that Internet commerce volume will surge to over \$220 billion, or just under 1 per cent of the global economy. While the United States is expected to dominate Internet commerce through 2001, its market power is likely to slip from about 80 per cent of volume in 1997 to less than 70 per cent in 2001.

In the short run, e-commerce will remain a relatively minor part of economic activity.

In the long run, electronic commerce should succeed in moving economic activity closer to some of the ideals of perfect competition: low transaction costs, low barriers to entry, and improved access to information for the consumer. In the short run, the available evidence indicates that electronic commerce will remain a relatively minor part of most economies -- about the size of mail order catalogue sales in the United States. Moreover, it has penetrated sectors unevenly. In the business-to-business markets, transactions of just a few firms exceed all estimates of the business-to-consumer market, where sales today are dominated by services and intangibles: travel and ticketing services, software, entertainment and financial services.

For intangible products such as audio, video, information services, real estate services, and some business services, the economic impact of e-commerce may be great and relatively swift. Further out, any easily digitised economic activity -- including health, finance, education, and many government services -- will be affected.

Now is the time to work on international co-ordination, to avoid unco-ordinated and inconsistent national policies for electronic commerce.

The current embryonic electronic commerce market is relatively small in comparison to other types of commerce, but most analysts predict that it will grow by a factor of ten by the year 2000. This growth was alluded to by many of the presentations in the Turku Conference, where both public and private sector representatives acknowledged the need for an internationally co-ordinated approach for electronic commerce.

I. THE BUSINESS-GOVERNMENT FORUM

The goal of the conference was to meet the needs and interests of business, government, and consumers.

The Conference began with an introduction by the Chair, **Etienne Gorog**, Vice-President, IBM Consulting Group (and Chair, BIAC Committee on Information, Computer and Communications Policy). The objective of the Conference, noted Mr. Gorog, was to reach a consensus between business and government on how to develop electronic commerce without forgetting consumers' interests.

Donald Johnston: "If electronic commerce can benefit from the global free trade and investment agenda, the benefits will accrue not only to the producers of goods and services, the distributors and consumers, but there will also be substantially more economic growth and job creation."

Donald Johnston, Secretary General, OECD, considered electronic commerce an exciting terra incognita and felt that, in itself, it had great potential for improving market operations. Inviting the participants to reflect on the evolution of electronic commerce, Mr. Johnston asked two questions: "What regulatory barriers must be removed to allow such commerce to develop and prosper?" and "What regulatory frameworks are necessary to ensure a fair and competitive marketplace in the electronic world of tomorrow?"

Ira Magaziner, Special Advisor to the President of the United States, thought it natural that the OECD and Finland should host the conference, because of the OECD's activities in this area since the 1980 privacy guidelines and because Finland had among the highest number of Internet users per capita. Referring to the US electronic commerce initiative, "A Framework for Global Electronic

Ira Magaziner: "The private sector should lead the process. Not because of a negative view of government, but because it is decentralised and dynamic. Governments run the risk of slowing it down. Even where collective action is needed it should be private in most instances...."

... Millions of jobs will be lost, but millions more will be created. Training and education will be needed for the transition- this is crucially important."

According to Takuma Yamamoto, the Internet could create a seamless world and be the key to a fairer distribution of information and resources in the next century.

Jorma Ollila noted three global trends that are likely to be important. "First, the Internet will provide access to vast amounts of information and services; second, electronic commerce will thrive and provide major market opportunities;

Commerce", Mr. Magaziner cited five principles for successful electronic commerce:

1. *The private sector must lead.* Government is important, but if government seeks too much control or leadership, development will slow.
2. *The market must drive events, not regulation.* The Internet, unlike old government-managed telecommunications regimes, is based on tough competition. A whole range of different company sectors must build the infrastructure.
3. When governments need to act on issues like taxation and intellectual property rights, *action taken by government must be specific*, precise, and transparent. Government must give the market a chance to work out problems first.
4. Most importantly, *any action taken by government needs to conform to the nature of this new technology.* By its nature, the Internet is a decentralised medium. Businesses can establish codes of conduct and award seals of approval; government's role is to provide a basic framework with enforcement on a decentralised basis, as outlined in the OECD privacy guidelines.
5. *The Internet was born global.* The trend toward globalisation has been developing for almost 50 years and will be taken to a new level by the Internet.

Mr. Magaziner insisted that governments need to allow markets to break down barriers to Internet commerce, even though employment may be thrown into turmoil as the information society causes the same kind of upheaval as the industrial revolution. He welcomed the OECD's interest in the economic aspects of e-commerce and thought no body better suited to examine the longer-term implications of e-commerce for income distribution and economic growth.

Takuma Yamamoto, Chairman of the Board, Fujitsu, and Member of GIIC, noted that the Internet will bring many benefits. Electronic commerce will change the way we do business globally. Private and public partnership will be essential to develop pilot projects and test the new standards needed for electronic commerce. He listed a number of issues and barriers in need of attention: security, reliability, telecommunications deregulation, intellectual property rights protection, effective cryptography policy, privacy protection, fewer barriers such as custom duties and overly complex taxation, and unified standards so that electronic settlement and paperless commercial transactions are possible.

Representing the host country, Finland, and its emerging industrial cluster, the telecommunications industries, **Jorma Ollila**, Chief Executive Officer, Nokia, and member of GIIC, paid specific attention to the importance of wireless technologies to electronic commerce and the Internet. He sees electronic commerce as a broad and powerful collaborative tool that can bring broad benefits in improved productivity and cost efficiencies, but to do so, open access to encryption technology is necessary.

and third, wireless communications will provide people with tremendous mobility.”

The first session focused on new needs and new opportunities.

John Sacher: “Much needs to be done, and bad regulation needs to be avoided as much as insufficient liberalisation” but “the OECD and the EU have broadly gone in the right direction towards strong protection for the individual and corporate user”.

David Johnston: “Gutenberg went bankrupt twice - it took two decades before printing took off with Luther’s vernacular. The hierarchy had to break down before the printing press became the basis for spreading knowledge, leading to the reformation and enlightenment.”

John Landry: “There is a tendency to underestimate the impact of electronic commerce and to only think of it as business as usual in electronic form. This is wrong, It will be much different, and the impact will be fast and hard, with widespread disintermediation of many sectors. Get ready for brutal price wars!”

Mr. Ollila expected mobile electronic commerce to grow in phases, with volume takeoff around the year 2000.

The first session of the conference focused on the **new needs** and the **new opportunities**. It was chaired by Etienne Gorog, Vice-president, IBM Consulting Group (and Chair, BIAC Committee on Information, Computer and Communications Policy).

John Sacher, Executive Director, Marks & Spencer, recalled that, earlier in 1997, the OECD report by the Ad Hoc Group of High-level Private Sector Experts on Electronic Commerce (“the Sacher Group”) had outlined many of the opportunities and challenges facing governments.⁵ While much discussion of the electronic marketplace focuses on its business-to-consumer potential, it is in fact today largely a business-to-business environment. To increase consumer participation, users must first be able quickly and easily to access and navigate the Internet, the environment must be intuitive and not require particular technological expertise. He pointed out that legal and regulatory issues concerning liability and consumer redress, contractual obligations, taxation and jurisdiction will need to be addressed. Data protection laws should offer good and internationally consistent protection, but should not be overly restrictive. In Mr. Sacher’s view, building consumer trust is essential to promoting consumer access to the environment.

David Johnston, Chair of the Information Highway Advisory Council, Canada, considered e-commerce an integral part of the broader strategy to promote and improve the GII/GIS. According to Mr. Johnston, all three aspects of the information society paradigm -- economic growth, political liberty, civic cohesion -- had to work together. Noting the need to establish a policy and legal framework in order to develop trust in the electronic marketplace, he saw the BIAC principles as an excellent starting point as business seeks to build consumer trust. Rules are beginning to emerge from several international fora, such as the OECD model tax convention, the World Intellectual Property Organisation (WIPO) copyright agreement, and the model commercial code work under way in UNCITRAL (United Nations Commission on International Trade Law). In Mr. Johnston’s view, electronic commerce will be the basis of the new global marketplace.

John Landry, Strategic Technology Consultant, Lotus, underlined the ubiquitous role of network access: the Internet as the coming business-customer interface and information technology as the core asset of the business. He proposed the following scenario: 1) with new and less expensive access devices (from low-cost PCs to enhanced Web TV), the electronic marketplace will have a wide variety of consumers, led by those with high incomes; 2) the new marketplace will cause disintermediation of the value chain and force traditional companies to compete with electronic start-ups or “e-brands”, thereby reinforcing competition for electronic market share (e.g. online trading, online book retailing); 3) markets will be restructured through value networks driven by demand for trust, convenience, and ease of market entry (e.g. Microsoft’s entry into the business of car sales, travel and television by providing an aggregated, branded service area).

This session focused on issues such as infrastructure constraints, security and confidentiality, differing regulations and policies, authentication of information, and monopolistic structures of competition.

Health care

According to **Alain Sommer**, Directeur administratif et financier, Groupe Clininvest; Co-chair of the BIAC Working Group on Health Care, there were three specific concerns related to electronic data collection in the health care environment: 1) privacy and patient confidentiality; 2) variations in health policies in different countries; 3) the highly competitive nature of health care. Like other panellists, Mr. Sommer expected commercial interests increasingly to influence the growth of Web sites offering clinical advice; hence, the urgency to authenticate professional information in contrast to commercial marketing. He suggested the use of a supranational accreditation authority or an international medical association to label sites as acceptable and accurate.

Instead of regulating information, **Roy Jordan**, Vice President, Issues Management and Information, Pfizer, Inc., suggested using branding when providing information to consumers and other health care professionals over the Web.

Claude Boule, Director, European Affairs, Bull, suggested using a business model to determine the system constraints relative to the electronic transfer of medical information. In addition to security issues (policy variations, individual privacy concerns, authentication, reliability), he identified infrastructure constraints as critical to global electronic use and transfer of medical data.

The health care session suggested the following needs:

- Mechanisms for accreditation of information on the Internet by trusted third parties, such as national medical associations, and ways to provide consumers with guides on appropriate use of this information.
- As for other sectors, encryption is important to the privacy and security of the medical information conveyed in the electronic marketplace.
- As medical care is often mentioned as an exception to otherwise free flows of information, BIAC or another similarly situated international body could review and recommend the types of exceptions required for medical care services provided on the Web.
- Competition needs to be ensured in a sector where monopolistic structures are prevalent, whereas in a consumer market environment, enforcement should be undertaken in the jurisdiction of the destination of products and services.

In practice, the most urgent issues for online health care, as for many other sectors, are intertwined with issues of use of/access to the infrastructure.

Travel and air transportation

The travel industry, which some estimate generates the most electronic

The travel and air transportation session represented industries that were among the first to seize IT opportunities and to exploit the new potential of electronic commerce.

commerce revenue, is particularly concerned with possibilities for fraud.

Access, secure systems and transactions, and appropriate codes of conduct for both business and consumers are areas requiring attention.

As more information is on the Web (from package tours to diagrams of planes), consumers will reap the long-run benefits. E-commerce stimulates shifts in bargaining power.

Lawrence Nell: "There is a need to establish a free trade zone for encryption. Government and business must reconcile their concerns and needs regarding the use of 128-bit encryption for commercial transactions."

According to **Tom Källström**, Head of Commercial Automation, Finnair, the Web provided major opportunities for the airlines, which had several concerns. First, consumers tend to "play around" when making travel arrangements, fuelling airlines' concerns for online consumer fraud (e.g. credit card fraud). Second, the misuse of airline inventory systems, as well as the absence of the means to ensure the proper identification of all parties using those systems can have severe implications for airlines. In order to address these challenges to e-commerce, the travel sector should focus primarily on establishing security guidelines and securing access control.

Pascal Bordat, Director of Content Services, New Distribution Technologies, noted that their Amadeus Global Travel Distribution is a booking engine, which relies on the computer reservation system (CRS) infrastructure to serve travel agencies arranging air and rail travel, ferry tours and other events. Mr. Bordat identified several areas to be addressed for both business and consumer online travel markets:

- providing access to travel products and information (e.g. evolving physical access to open networks, improving travel Web sites);
- ensuring security of systems, e.g. CRS infrastructure is already in place, the secure electronic transaction (SET) payment protocol is promising;
- establishing codes of conduct (also at the consumer level);
- easing logistics (e.g. electronic ticketing).

Bruce Charendoff, Assistant General Counsel, Sabre Group, stressed the need to keep the field open to fair competition and to allow for free and efficient flows of information. Businesses and consumers must have unimpeded access to each other. He noted that Travelocity, which provides 24-hour access to services for consumers, has seen growth of more than 20 per cent a month. Still, there were more lookers than bookers as consumers do not trust the security of open networks. For the market to continue flourishing at the present rate, it is crucial to ensure the free flow of unbiased information and to establish open non-proprietary standards.

Lawrence Nell, Country Manager Germany, Microsoft Travel Technologies, identified different data protection policies in different countries as a challenge for the travel industry. In addition, he urged that strong copyright laws be developed to protect the creative content found on most Web sites and particularly to support the WIPO copyright agreement.

Mr. Källström summarised the highlights of the session:

- airlines and CRSs need to work closely to gain consumer confidence in using open networks to arrange travel plans;
- governments and business must develop ways to facilitate unbiased information flows and to develop tools to prevent copyright infringement;
- the travel industry should remember that other players and traditional CRSs also have an important role.

Manufacturing

The manufacturing session discussed the opportunities offered by IT and the Internet in a multitude of industries.

Sanjaya Addanki: "The implementation of electronic commerce is complex, requires high investment, and should be left to commercial companies. It would also be greatly accelerated by the resolution of the fundamental infrastructure issues."

Exploring the effect of electronic commerce on manufacturing, **Sanjaya Addanki**, General Manager, Network Computing, IBM Eurocoordination, stressed that e-commerce was not a future channel of business but an existing and rapidly growing one, but required resolution of fundamental structural issues.

In order to achieve the benefits of the Internet, noted **Hajime Kimura**, General Manager, Integrated Information Technology Business Unit, Mitsubishi Corporation, businesses will have to overcome a multitude of hurdles, including business process reengineering, telecommunication costs, and rationalisation of business practices.

Raza Zahidi: "The rapid privatisation of the Internet first affected the internal reorganisation of companies (intranets) and thereafter the value chains between collaborating companies (extranets). Intranets will have to be extended to encompass suppliers and customers in order to increase revenue."

Raza Zahidi, Software Relations Director, Electronic Commerce, Intel EMEA, noted the importance of ensuring that electronic commerce solutions involve the entire firm. Historically, personal productivity increased with the launch of the PC and then of working group systems; e-commerce is the most recent stage. The ability to establish a low-cost supply chain is a key feature of electronic commerce, encourages network economies, and allows a range of businesses, particularly small and medium-sized ones, to benefit from new opportunities.

While manufacturers see a number of barriers slowing e-commerce, all participants, including **Heikki Laaksamo**, Information Systems Specialist, Rautaruukki Oy, underscored the need for urgent attention to infrastructure nodal points. Such achievements would have to be coupled with new business models. Participation in e-commerce is not a technological, but a commercial and business issue.

The session concluded with three key messages for enterprises wishing to succeed in electronic commerce:

- firms must re-engineer their business processes throughout and not simply at the "front end" via a Web site;
- the private sector must establish clear and practical standards for commerce payments, transactions, non-repudiation and insurance of risk;
- the public sector has a key role to play in creating the online commercial marketplace (provision of infrastructure, education and skills, cultural shifts).

Finance and insurance

Major issues are authentication, standards for payment, and data encryption.

The finance and insurance sessions represented industries widely perceived as drivers of electronic commerce. The panellists included: **Guy Knight**, Vice-President Charles Schwab, Inc.; **Jay Simmons**, Senior Vice President, CertCo; **Alexander von Stülpnagel**, Chairman of the Board, Informatikzentrum der

Sparkassenorganisationen, as well as **Thomas Glück**, CEO, Guide Dataconsult, who stressed that the electronic community has been driving the banking industry for some 15 years. He also noted that competition in the sector may now be provided from non-financial players. He thought that the success of e-commerce for the financial services industry depended upon three issues that ought to be addressed by the 1998 Ottawa Conference:

- Authentication to permit cross-jurisdictional recognition of traffic, for both businesses and consumers. A trusted third party could assume the task of authentication.
- The need for a standard set of infrastructure standards for payments, including the applications required. A representative industry grouping could look at producing guidelines.

Data encryption, including removal of certain recovery restrictions and confidentiality rules pertaining to stored data.

Online and retail distribution

Inconsistent regulatory approaches, cultural and psychological differences, the lack of online business models, as well as assurances about services provided and security of payments are issues that must be addressed.

This session represented industries that are eager to realise the promise of e-commerce but are struggling with logistical problems.

Alain Ducray, Vice-President, Strategy and Development (Groupe Lagardère), noted that the online business-to-business market was opening up rapidly and resulting in new distribution channels. He suggested that retail distributors will have to consider what can be distributed effectively online for all product lines. They will have to become mail-order salespeople and develop new business models. In consumer markets, new and simpler information tools are needed (Web TVs, NetPCs, etc.).

As a representative of a leading provider of Europe's pay TV industry, **Carter Eltzroth**, Advisor, MIH Holdings Limited, identified several barriers to electronic commerce, including the absence of consistent regulations, the presence of some telecommunications monopolies, and the need for uniformity in rules spanning across different countries.

Eero Vesterinen, Managing Director, Kesko-Linkki Ltd. (Kesko Group), confirmed that online retailing depended on efficient response to customers' wishes, which requires redesigning business processes throughout the value chain. In business-to-business markets, the Web has improved and greatly expanded the traditional EDI system. Mr. Vesterinen noted that the Internet represents a new dimension in consumer markets by "virtualising" the value chain (in information gathering, organisation, selection, synthesis, and distribution) and thus offers a new way of doing business.

The following conclusions were drawn:

- the absence of consistent regulatory approaches across transactional jurisdictions creates barriers to electronic commerce;
- anti-competitive practices of former monopoly suppliers of basic telecom services have not disappeared with the liberalisation of telecom structures in some OECD and developing countries;

- OECD countries should respond to the need to build up Internet/e-commerce capacities in developing countries, to the advantage of all;
- uniformity or close equivalence of rules across frontiers is needed;
- cultural and psychological differences in attitudes to the Internet and e-commerce among businesses and consumers can pose a barrier to the growth of the online marketplace;
- in online business new intermediary roles represent an opportunity for unknown brand companies;
- the lack of online business models and of an explanation of acceptable return on investment in online business inhibits growth;
- online trading requires improving performance in cataloguing and sales teams;
- there is a particular role for governments in setting EDI standards when weak domestic distribution systems may be eclipsed by foreign proprietary EDI.

There is a need to guarantee the provision of the goods/services and the legality of tools for online transactions, such as use of credit cards online.

Antti Kalliomäki: “I believe that wide use of these new technologies at work will help spread their use in homes. Equal access to information networks should be guaranteed for all citizens around the globe.”

Following the sectoral sessions, **Antti Kalliomäki**, Minister of Trade and Industry, Finland, recalled that Finland has the world’s highest Internet penetration rate and one of the world’s highest diffusion rates in mobile telephones, and that the country believes in competition and globalisation. He encouraged the OECD countries to make the best use of the tools of the information society in the interests of productivity and job creation.

Panel discussion on principles for policy and priorities for action

Hubert Joly: “I would like to convey a sense of urgency. The stakes are very high if we look at where jobs have been created: retailing and IT. Electronic commerce is at the intersection of the two.... Government plays an important role in creating a level playing field for business and customers alike.”

Hubert Joly, President, EDS France, spoke about the role of governments and public policy in partnership with business to achieve e-commerce goals, emphasising the need for urgency, speed and effectiveness. The UNCITRAL Model Law on E-commerce should be adopted and trade barriers should be eliminated (e.g. taxes, charges on cryptography products). It is necessary to create legal certainty on issues such as the right to set up company databases in new markets. Different national systems on privacy should be dealt with by Mutual Recognition Agreements (MRAs). Transparent and constructive partnerships between business and government [e.g. Trans-Atlantic Business Dialogue (TABD) and BIAC] should continue. A timetable ought to be set for practical resolution of the issues, in order to improve customers’ perceptions of doing business on the Internet.

Maria Livanos Cattai: “We estimate that business has no more than one and

Maria Livanos Cattai, Secretary-General of the International Chamber of Commerce, commended the OECD and BIAC for their efforts to develop the Ten Principles (see below), to catalyse e-commerce, which she described as the

a half years to demonstrate that it can control commercial misuse of the Internet before governments step in to over-regulate, over-tax and over-censor...”

“transactional level of the GII/GIS”. She also strongly endorsed Mr. Joly’s call for urgent and speedy action, saying that in the two years since the 1995 G7 summit focused on the GII/GIS, most of the barriers had been identified, a consensus was emerging on solutions, and it was time to focus on developing and implementing them. Business self-regulation would be a far more effective model for such action than legislation.

II. AN INTERNATIONAL CONFERENCE AND BUSINESS-GOVERNMENT FORUM

The potential of electronic commerce

The problem is to achieve a proper balance between self-regulation and a legal framework, in order to avoid the absence of compatible standards and overly restrictive regulations which could stifle innovation and retard growth.

Most speakers agreed that what makes electronic commerce unique and attractive also fits uneasily with many of the policies and much of the behaviour that traditionally govern commercial transactions. While the attributes of the Internet enable e-commerce, they also hinder its growth for reasons as varied as lack of trust, uncertainty about the regulatory environment, gaining access, and logistical problems.

Reliance on self-regulation, entrepreneurial ingenuity, and the power of technology have fostered the development of the Internet, and it has defied predictions about its ability to scale up to serve user demand. However, it may be necessary to place self-regulatory approaches within a legal framework to ensure enforcement and implementation. Indeed, most speakers agreed that some rules/principles would have to be established while e-commerce is still limited and few vested interests have established themselves.

As **Matti Vuoria**, Secretary-General of the Ministry of Trade and Industry, Finland, opened the discussion, he reminded participants that “the value of the conference will be measured by the solutions that are found, not just the barriers identified”.

Martti Ahtisaari stressed that the WIPO treaties of December 1996 should enter into force as soon and as fully as possible. The next step could be to include the WIPO provisions in the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

Martti Ahtisaari, President of the Republic of Finland, described five key needs for the development of e-commerce.

- Recent agreements removing barriers to trade in information technology and telecommunication products will promote provision of the infrastructure that is needed to facilitate electronic commerce. These agreements should be implemented without delay.
- The nature of products that can be delivered electronically makes protection of intellectual property rights a matter of the highest importance.
- Recognising commercial partners and authenticating messages requires the use of encryption techniques. Access to encryption products should be as easy as possible for all engaged in legitimate commerce.
- To prevent different national privacy rules becoming an obstacle, it would be advisable to reach international agreement on privacy protection.

Securing the trust of consumers is a central prerequisite for getting commerce flowing through information networks. The creation of international ground rules that will give consumers the requisite confidence must be considered.

Etienne Gorog noted that the BIAC Principles for Global Electronic Commerce should both guide the debate and shape the policies which are ultimately adopted by governments, if the promises are to be fulfilled and the risks avoided. A careful balancing of pro-growth initiatives with appropriate safeguards and protections is needed.

After **Donald Johnston**, Secretary-General of the OECD, had thanked the President of Finland for his speech, **Etienne Gorog**, Vice-President, IBM Consulting and Chair of BIAC's Committee on Information, Computing and Communications Policy, introduced the BIAC Declaration of Ten Principles for Global Electronic Commerce. As these issues are still being discussed by business and industry, BIAC expects these views to continue to evolve as additional knowledge and insights are gained.

1. The development of electronic commerce should be led primarily by the private sector in response to market forces.
2. Government intervention, when necessary, should promote a stable, international legal environment and protect public sector interests. Such intervention should be no more than is essential and should be flexible, transparent and technologically neutral.
3. Mechanisms for private sector input and involvement in policy making should be promoted and widely used in all countries.
4. In recognition of the global nature of e-commerce, government policies that affect it should be internationally co-ordinated and compatible and those policies should facilitate interoperability.
5. Taxation should be revenue-neutral, consistent with established, internationally accepted practices, and administered in a non-intrusive manner.
6. Regulation of the underlying telecommunications infrastructure should be market-oriented to reduce impediments to competition, enabling new services and new entrants to compete globally, in an open and fair market.
7. Access to electronic commerce systems should be pursued through an open and competitive market.
8. Choice and individual empowerment should be the primary driver of policies relating to electronic commerce, particularly with regard to privacy, confidentiality, anonymity, and content control.
9. Business should make available to users the means to exercise choice with respect to privacy, confidentiality, content control and anonymity, under appropriate circumstances.

A high level of trust in the Global Information Infrastructure-Global Information Society (GII-GIS) should be pursued by meaningful private sector self-regulation, education, further technological innovations to enhance security and reliability, and adoption of adequate dispute resolution mechanisms.

MITI sees the introduction of electronic commerce as having a profound impact on all economic activity. In Japan, electronic commerce is expected to be a factor in realising structural reform and economic expansion through investment in electronic commerce, as well as the creation of new industries and employment.

Hirofumi Kawano, Director General, Ministry of International Trade and Industry (MITI), Japan, noted that attempts to expedite the development of electronic commerce are currently taking place throughout the world, particularly in the United States and Europe. In Japan, MITI had released a document⁶ which sets out basic ways of thinking about government policy for the digital economy, with constructive efforts and swift response to change, resolution of problems through technology and the marketplace, security and trust, universal access, and international co-ordination. In practice, such principles required the resolution of key policy issues:

- building an international framework;
- formulating rules for commercial transactions;
- establishing a new system of intellectual property rights;
- ensuring security;
- protecting personal data and privacy;
- dealing with illegal and harmful contents;
- addressing consumer problems;
- providing support for small and medium-sized enterprises (SMEs);
- human resources and education;
- assuring interoperability;
- dealing with other institutional issues.

Thorvild Aakvaag: “We in business believe that the emerging networked business and the networked society cannot progress without a minimum amount of global governance. We cannot afford more than 200 governments on the digital networks if they act in an uncoordinated way, but we also need to have all of them on board in order to govern the networks.”

In his keynote address, **Thorvild Aakvaag**, Chairman of BIAC, Chairman of the Board of Directors, Norsk Hydro A.S., thought it impossible to develop electronic business if policies are incompatible. In order to progress towards business-government principles for policy on global electronic commerce, Mr. Aakvaag considered that the OECD was an appropriate body to host such discussions.

Access to and use of infrastructure

The administration and operation of the DNS must

Competition can nurture or constrain the evolution of e-commerce. The need for competition is apparent not only as the traditional communications

be stable and competition must be fair and open.

networks are adapted to new conditions but also as new infrastructures are developed to serve a growing information society. With growth, the domain name system (DNS) has become strained and the subject of extensive criticism.

The panellists included, in addition to those mentioned below, **Richard C. Beaird**, Head, Bureau of International Communications and Information Policy, Department of State, United States (and Chair of the OECD ICCP Committee); and **Esa Norhoma**, Chief Executive Officer, Aldata.

Masae Tamura, Director-General, Ministry of Posts and Telecommunications, Japan, emphasised the crucial role of governments in encouraging access to and use of infrastructure by:

- encouraging private sector investment through direct support, and promoting research and development for next-generation Internet;
- ensuring the safety and reliability of information infrastructures, especially in terms of reducing transaction costs for users and suppliers (e.g. integration of an electronic authentication system in information infrastructures);
- promoting R&D to expand interoperability and stimulating international and interconnected electronic commerce test-beds;
- promoting equal opportunity for access to all countries, regions, and citizens, including raising the level of computer literacy;
- experimenting with policies to ensure global uniformity.

Jim Tobin: "The private sector should undertake more demonstrations of electronic commerce capabilities since, even with present regulatory frameworks, many electronic commerce services can already be offered."

By 1998, noted **Jim Tobin**, President, Chief Executive Officer, Bell Emergis, there must be real private/public partnerships.

Many speakers stressed competition policy issues and the importance of ensuring that Internet service providers' capacity to grow is not constrained by new regulations or by obstacles imposed by incumbent telecommunications operators.

Advocating a step-by-step approach, other speakers considered solutions premature in many areas. Inappropriate actions were considered particularly troublesome for issues involving infrastructure access (e.g. market access, network capacity, local loop costs), since these are deeply intertwined with many other e-commerce issues, and new developments are changing how such issues are perceived. Moreover, they underlined the need to avoid software, backbone and content "locks" and to implement intelligent networking to ensure seamless interoperability.

Tom Dabney: "The critical mass is 5 million members to attract ad revenue; 10 million is the threshold for competing with other

Tom Dabney, AOL, noted the need to recognise the scale of the task involved in building up a framework across different jurisdictions. AOL, for example, was handicapped by the clarity of the US position and the ambiguity of the EU position, hence, perhaps, its "technology agnosticism" and its hope that cheap terminals, Web TV, etc., will become popular. Mr. Dabney applauded the EU

media for ad dollars... We see TV viewers moving to the Web..."

Johan Helsingius: "There is a great potential for e-commerce using existing communications infrastructure, but much of this potential remains unavailable because of the control of networks by monopolies or dominant firms (e.g. access to right of way)."

approach to content and saw an industry-government consensus emerging through the use of filtering by consumers. such consensus enables service providers to build critical mass, in order to attract advertising revenue.

Johan Helsingius, Director of Product Development and Marketing, Chief Executive Officer, EUnet International, stressed the fact that much of the existing electronic commerce infrastructure has been funded directly by public money, by money from protected monopolies, or indirectly by public money. As capacity bottlenecks doubled every four months, he advocated market-driven solutions, instead of "subsidised operations competing in non-subsidised areas of business".

Mr. Helsingius also questioned the use of the notion of "universal service" to reduce the speed at which liberalisation was taking place. On the basis of available empirical evidence, as well as the Finnish experience as the "most wired nation", he argued that universal service would thrive better in a competitive environment which allowed more rapid extension of networks. In Europe, he added, companies that deal in multinational markets have added difficulties in that they have to overcome diverse national regulatory barriers.

Since access to and use of infrastructure reflects the architecture of the infrastructural nodal points, Mr. Helsingius' views paralleled those of many representatives of the private sector, who stressed urgency, momentum, and concrete resolutions by the Ottawa Conference.

Previously, **Ira Magaziner** had noted that efforts to retain old monopolies or write new regulations were possible but might be irrelevant. All of these issues and concerns illustrate how regulation affects the innovative process, while innovation and technical change have significant impacts on regulation. As a recent OECD publication indicated, the problem is to ensure positive regulatory effects on innovation, while taking care not to jeopardise the original regulatory objectives⁷.

Building user and consumer trust⁸

Trust is central to any commercial transaction. Typically, it is generated through relationships between transacting parties, familiarity with procedures, or redress mechanisms. For e-commerce, specific international mechanisms will be needed.

There are three fundamental uncertainties in e-commerce transactions: little is known about consumer behaviour in this environment; there are cultural differences in the use of different forms of money (e.g. credit cards in North America and debit cards in Europe); new technologies could radically change the landscape (i.e. biometrics for identification).

Consumer confidence in electronic commerce will require consumer protection mechanisms that address four key issues: 1) fairness and truthfulness in advertising; 2) labelling and other disclosure requirements such as warranties, guarantees, product standards and specifications; 3) refund mechanism in case of cancelled orders, defective products, returned purchases and lost deliveries, etc.; and 4) a means of qualifying merchants in terms of the above.⁹ While many governments have the legal tools to control such conduct effectively in their own markets, e-commerce requires international mechanisms.

Security of transactions remains a main issue.

Eivind Jahren, Deputy Director General, Ministry of National Planning and Coordination, Norway, noted that, despite pressures from Internet users, electronic commerce did not yet offer the possibility to conduct secure transactions.

W³C is concerned with promoting interoperability, vendor neutrality and maintaining a policy-neutral stance.

New ways of engaging in business will have to be found.

OECD and UNCITRAL are complementary: the OECD is a good forum for reaching a consensus on the basis of which UNCITRAL can determine the proper legal code.

Julian Edwards: "Consumers do not want to move away from established consumer rights and protection that have been gained over the last 50 years."

William Fagan. "The lack of trust arises from several factors, such as the absence of personal contact with the vendor, payment difficulties, and limited redress possibilities."

Industry is called upon to develop technological solutions to meet the needs of businesses and consumers for different

Josef Dietl, W³C-Electronic Commerce Specialist, the World Wide Web Consortium (W³C), pointed out that W³C is concerned with promoting interoperability, vendor neutrality and maintaining a policy-neutral stance. It is also working on a digital signature initiative to provide authentication based on interoperability and policy- and vendor- neutrality. Informed consent, personal choice, and publisher commitment to standards are the guiding principles of the Platform for Privacy Preferences (P3P), which allows Web sites to provide an up-front declaration of the extent to which it will collect personal data.

Thomas Falk, Vice-President, Industriesförbundet (Federation of Swedish Industries), noted that some of the major obstacles to electronic commerce involved traditional business and user behaviour, which will require changes and the development of new ways of engaging in business.

Renaud Sorieul, Administrator, UNCITRAL, explained that UNCITRAL provides guidance on regulation related to electronic commerce; its discussions are open to governments and non-governmental organisations; it promotes uniform rules for international transactions and mainly limits its activities to legal issues. He presented the work undertaken by UNCITRAL, particularly the 1996 Model Law on Electronic Commerce and, building up on it, the draft Model Law on Digital Signature.

Julian Edwards, Consumers International, reviewed some consumer concerns and insisted on the need to respect three basic principles: maintaining consumer protection standards, enabling prior and informed consent, and allowing consumers to opt out. He was concerned about five fundamental issues: access to redress mechanism; protection of privacy in browsing; protection of children; consumer education; and opportunity and equity in accessing and using networks. He stressed that solutions to these concerns would not be provided by business alone but required government action.

William Fagan, Director, Office of Consumer Affairs, Ireland, noted that global electronic commerce is still out of reach for most consumers, and that lack of access and lack of information are still bigger issues than lack of trust. In his view, building user and consumer trust involves changes in consumer culture, requiring education and information of potential users.

Masao Horibe, Professor, Chuo University, Japan, stated that businesses should do more to ensure security, certification, and protection of privacy, while governments should support these efforts with regulation, where necessary. He referred to OECD guidelines that are relevant to electronic commerce: the 1980 Privacy Guidelines, the 1992 Security Guidelines, and the 1997 Guidelines for Cryptography Policy. Like most other speakers, he stressed the importance of building user and consumer trust in electronic commerce.

The main conclusions from the session were the following:

- In order to improve trust in electronic commerce, users and consumers must have access to mechanisms allowing authentication and certification; to this end, discussions on cryptography should seek to separate issues of

levels of security, certification, privacy and consumer redress.

confidentiality from those related to certification or authentication. Digital signatures should be legally recognised.

- Industry should further develop trustworthy and interoperable tools to improve security and privacy protection on global networks. Governments should, while remaining technology-neutral, encourage such developments; in parallel, regulatory frameworks and adequate redress and dispute resolution mechanisms should be developed to support and complement those technologies where necessary.
- Governments should promote initiatives to educate users and consumers so that they can benefit from the available technologies and mechanisms, make informed choices, and fully exploit the potential of electronic commerce.

In general, it was felt that there was an urgent need to find rapid solutions to ensuring security on open networks. In order to achieve progress between now and the October 1998 Ottawa Conference, international organisations should co-operate closely, involving businesses, users and consumers. To this end, the following action was suggested: to support UNCITRAL work on digital signature; to support work aiming at ensuring the protection of privacy, in particular in the framework of the OECD Workshop on Privacy and Open Networks, in February 1998. It was also suggested that OECD pursue its work on authentication/certification.

Minimising regulatory uncertainty

International harmonisation of national commercial codes will require drafting a model law for commercial practices at international level which can serve as a common framework. The private sector has made significant progress in agreeing to common standards for the protection of IPRs in new multimedia goods and services. Through recent WIPO agreements on intellectual property rights, governments have also made progress in agreeing to common international standards of protection.

Some of the key problems in this regard are customs and taxation, intellectual property issues, and the updating of commercial codes, in particular those dealing with issues of liability and jurisdiction.

Solutions to these issues are elusive and, while most revenue authorities feel that there is no room for complacency, governments have been cautious about taking steps that would slow the development of e-commerce, given the relatively small amount of revenue currently at risk. Whatever the solution adopted, the taxation of e-commerce should be relatively simple, should facilitate voluntary compliance, should not artificially advantage or disadvantage e-commerce over comparable traditional commerce, and should not unnecessarily hinder the development of e-commerce.

On 18 November 1997 in Turku (a day prior to the Conference), an informal roundtable discussion was conducted between business and government. The Committee on Fiscal Affairs (CFA), the main tax policy body of the OECD had prepared a discussion paper, "Electronic Commerce: The Challenges to Tax Authorities and Taxpayers."¹⁰ It identified the features of the Internet which were relevant for tax policy and tax administration, examined how these features affected consumption taxes, income taxes and international taxation arrangements, and set out the options open to governments to deal with these issues. The paper provided the context for discussions on taxation throughout the Conference.

This session dealt with income and consumption taxes, tariffs, liability, jurisdiction, and settlement of disputes. It was chaired by **Jan Francke**, Chair of the OECD Committee on Fiscal Affairs. In addition to the speakers

Michael Carmody:

“There are many horror stories about the Net, with revenue escaping from the tax system, off-shore, hidden or a ‘bit-tax’. Most have not come to pass, but that doesn’t mean we should wait to develop taxation policies appropriate to global electronic commerce. Contrary to these stories, the full range of value-added taxes will not escape taxation.”

J. Beckwith Burr:

“International issues arise and entry barriers will not fall if there is a web of taxes that snare small businesses with high compliance costs. “

The growth of electronic commerce and its potential economic impact could be limited by a number of logistical problems relating to two necessary elements of any commercial transaction: payment and delivery.

Masanobu Higashida:

“for e-money to be accepted as currency, standardisation of e-money schemes and government authorisation, at both domestic and international levels, is imperative.”

mentioned below, **Stewart Baker**, Partner, Steptoe & Johnson; **Renah Persofsky**, President, Chief Executive Officer, Cebra Corp.; and **Paul Vandoren**, Head of Division, DG I, European Commission, participated in the discussion.

Michael Carmody, Tax Commissioner, Australia, noted that by making possible new ways to avoid taxation, e-commerce raised questions about the ability to collect and enforce taxes. He considered the joint government-business meeting an important step towards finding ways of modifying the present tax system to apply it to electronic commerce. He urged the development of guidelines for the Ottawa Conference.

There are too many jurisdictions setting taxes and too much regulation, noted **Judith Scarabello**, Assistant Director, External Tax, AT&T. Considering the slow and tedious progress in the United States, she advocated caution and widespread involvement. There would have to be co-operation between the private and public sectors in this area, as well as for the development of software and technical standards of payments.

J. Beckwith Burr, Senior Internet Policy Advisor, National Telecommunications and Information Administration, United States, emphasised the fact that the United States wants to maintain its tax base. Government policy does not oppose any existing taxes, only those that might change the location or discriminate against specific online transactions. She stressed the need to maintain the principle of tax neutrality.

Easing logistical problems

Paying electronically. Wrapped up with issues of information infrastructure, user trust and confidence, and a predictable regulatory environment is the fundamental logistical problem of paying for electronic commerce transactions. The current electronic payment systems differ across a number of dimensions: size of payment; whether the system is closed (e.g. a pre-paid phone card), or open (e.g. a stored value card); degree of anonymity; level of security; and time of payment (credit, debit and cash).

Creating a globally harmonised technology-neutral infrastructure, contended **Franco Arzano**, Senior Vice-President, International Affairs, Ericsson SpA, will prevent the creation of unnecessary logistical barriers to electronic commerce. He recommended that standardisation organisations increase their bilateral or multilateral co-ordination activities to use, as much as possible, standards already set by another body; that they co-ordinate and exchange work plans in order to eliminate overlaps; that they draft common reference models and common terminology; and that they provide a visible overall work plan.

Masanobu Higashida, Executive Manager, R&D, Planning Dept., NTT Labs, identified three barriers to electronic cash: technical barriers (security, interoperability); regulatory barriers (preventive measures against e-money crimes, shared processing costs for e-money transactions); and social barriers (consumer acceptance of e-money, attractive digital offerings for consumers).

Noting that electronic commerce will require the involvement of banking systems, **Gregor Heinrich**, Head of Legal Research and International Co-operation, Legal Service, Bank for International Settlements (BIS), explained

that a number of BIS committees have produced publications on electronic commerce, in order to raise awareness of security concerns for both consumers and service providers.

Andrew Konstantaras: "It is best to abide by the laws applicable to the physical location of the merchant."

Andrew Konstantaras, Vice-President, Counsel, VISA Intl., emphasised that payment security on the Internet depended on privacy, party authentication, and data integrity. Currently, over 30 electronic payment systems and technologies are being proposed and tested. He spoke for the Secure Electronic Transaction (SET) system, as an industry solution developed with the leading technology vendors and which was "born and raised on the Internet"¹¹ As for dispute resolution vehicles such as chargebacks, a successful infrastructure is already in place and should be applied to the online world.

Regulatory frameworks, tax collection and other difficulties stand in the way of convenient and inexpensive international parcel delivery.

The delivery of physical goods. One barrier to electronic commerce is the fact that while on line transactions are convenient, the immediate off-line international delivery of goods is often costly and inefficient. The question of collecting any relevant duties becomes more problematic when the product is intangible and is delivered directly to the user over the network.

Two major barriers stand in the way of the inexpensive, convenient, and timely delivery of parcel packages: parcel delivery and customs clearance.¹² Successive rounds of international trade negotiations have led to large reductions in duties, but some remain. The administrative procedures typically followed for collecting duties and taxes may need to be reformed.¹³

Ken Lyon: "Unless something concrete comes out of these conferences, they will become largely irrelevant. Companies will find a way around the problems."

Mr. Ken Lyon, Director, Information Services, United Parcel Service Worldwide Logistics, pointed out logistical concerns pertaining to two types of e-commerce.

"I wonder if people comprehend the speed and evolving nature of electronic commerce. It is almost like organic life that will either move around or completely overwhelm anything that prevents its growth and development... Governments should urgently find ways to expedite solutions."

For first generation e-commerce, high tariffs, duties, and other fees, as well as cumbersome customs clearance procedures, including cumbersome return and refund procedures, are obstacles to the development of electronic commerce. The cost of processing parcels within a country and internationally is largely a reflection of the regulatory structure in effect and the economies of scale enjoyed by operators. Moreover, regulatory structures can work against achieving economies of scale. Further, owing to customs clearance procedures, significant additional costs per package are incurred (see table). *Second generation e-commerce* includes all areas of product purchases, such as cars. Packages are only a part of the online market place; there is also heavy freight. Fundamental to the growth of e-commerce is the development of a framework for a hybrid logistical support system. Establishing global, end-to-end, electronically visible supply chains will be the most critical component of these systems.

Issues to consider include: raising the minimum value declaration; allowing carriers/third parties to collect duties and taxes; creating a fluid debit-credit programme; handling documentation electronically; allowing third parties to act as brokers. Integrated third parties can: educate consumers about procedures; act as customs brokers; collect duties and taxes; provide shipment visibility; facilitate returns; minimise consumer inquiries to government.

Mr. Douglas Tweddle: "To address the

Douglas Tweddle, Director, Customs Technique, World Customs Organisation (WCO), pointed out that customs controls can be more challenging in the

challenges, the private and public sector must work together to establish better procedures for parcel traffic and to increase the transparency of customs regulations for consumers.”

“borderless” open network environment. The need for control must not interfere with e-commerce, but it is crucial to ensure maximum compliance with import and export regulations and surveillance of prohibited and restricted goods. Mr. Tweddle agreed that de minimis levels should be standardised and that the use of intermediaries to collect duties should be explored. Presently, the WCO is moving forward on these and other issues as it works to revise the Kyoto Convention on the Simplification and Harmonisation of Customs Procedures.

In conclusion, **Magnus Lemmel**, Deputy Director General, DG III, European Commission, urged the private and public sectors to continue:

- to develop standardised interfaces and to work with standards organisation;
- to establish trust (a key issue for all users);
- to establish secure payment systems;
- to maintain flexible and efficient distribution channels;
- to consider a reduction in de minimis levels;
- to secure a solid partnership between the public and private sectors.

CONCLUSIONS

Throughout 1998, discussions must continue among businesses, governments, and citizens in the hope of achieving a consensus on principles for electronic commerce in Ottawa in October 1998.

While many difficult issues remain, there is, essentially, a broad consensus on the proper role of the public and private sectors. Only where the market cannot work out the problems should government take action, and that action should be specific, precise, and transparent. Moreover, it should conform to the nature of the decentralised and global Internet. It should be informed about the work of world-wide industry groups on establishing rules and agreements on various urgent issues, from taxation and filtering systems to intellectual property rights and privacy protection.

If solutions to the problems of barriers that limit the development of e-commerce are to succeed, they must be discussed in the context of larger societal issues. Principles such as those being developed by the OECD's BIAC represent an important early contribution towards this end.

The economic properties of e-commerce will propel it forward with or without international consensus on policies and principles. For this reason alone, solutions are urgently needed to problems that stand in the way of effective implementation of electronic commerce; electronic commerce could prove a crucial element in international co-operation, or in international conflict.

A consensus already exists on many e-commerce issues, notably the importance of the private sector and the need for governments to play a

The Turku conference reached agreement on many objectives. More importantly, perhaps, most participants agreed on the urgency of and momentum toward embracing the changes associated with electronic commerce. Both leading representatives of the public sector and major representatives of global business also found the OECD an appropriate arena for exploring the implications of global electronic commerce.

minimalist regulatory role. The development of draft business “best practice principles” as input to the Ottawa Conference was strongly encouraged.

Matti Vuoria: “We have had the possibility to hear over 50 speakers from all over the world.

Surprisingly, we haven’t heard 50 different views of electronic commerce.... we have clearly agreed that businesses are the leading force of electronic commerce ... that the market and industry can solve a lot of the problems.... we have identified certain issues (encryption, taxation, privacy and consumer protection) where further work and further dialogue between the public and private sectors and between different national view is required...”

Michael Binder: “We want concrete deliverables by 1998. We must get on with the process. It is urgent.”

The closing session sought to build on the work of the Business-Government Forum and the individual conference sessions by exploring areas of consensus for developing a draft outline of business “best practice principles” for electronic commerce, which could form the basis of the business sector input to the Ottawa Conference of October 1998. In addition, the desirability of a plan to ensure co-operation and consistency across the various organisations involved in facilitating global electronic commerce was discussed.

The session was chaired by **Matti Vuoria**, Secretary-General of the Ministry of Trade and Industry, Finland. In addition to those mentioned below, the panellists included **Etienne Gorog**, Chair, Vice-President, IBM Consulting Group (and Chair of the BIAC Committee on Information, Computer and Communications Policy); **Kaj J. Linden**, Senior Vice-President, Nokia, and Chairman, High Level Strategy Group (HLSG) for European ICT standards; and **Anwarul Hoda**, Deputy Director General, World Trade Organisation.

Paul Waterschoot, Director, DG XV, European Commission, emphasised the EU’s considerable interest in electronic commerce, competitiveness, and employment. The new rules would have to be implemented on a global basis, but this would require a prior consensus as to how new particular problems should be solved on a national or regional basis.

Michael Binder, Assistant Deputy Minister, Industry Canada, concluded that there was sufficient agreement to begin work on specifics. In particular, he noted that:

- in taxation, it may be possible to implement international protocols;
- guidelines are needed for the protection of privacy;
- protocols must be developed for mutual recognition of signatures for the purposes of authentication;
- guidelines must be developed for consumer protection in the digital marketplace;
- the private sector would have to find methods for dealing with offensive content;

- if the Internet is to remain the platform for electronic commerce, the domain name issue would have to be resolved.

Although Mr. Binder appreciated the dynamism of the Conference, he added that it would have to be channelled into a global framework.

Joanna Shelton: Failure to dismantle the barriers to e-commerce "could mean foregoing significant economic gains in terms of jobs, growth, productivity, as well as standard of living".

"Given the links of the OECD with the business community, the OECD would be willing to serve as a facilitator for industry's self-regulation activity."

The three days of the Turku Conference had been very productive, but a lot of work remained to be done prior to the Ottawa Conference. To shape the coming work, **Joanna Shelton**, Deputy Secretary-General, OECD, underlined the role of the BIAC guiding principles, which "should serve as a starting point for a dialogue to reach a consensus that can be endorsed by the Ministers at Ottawa". OECD countries would have to move beyond these principles to action that will assist in dismantling the barriers confronting e-commerce. Ms. Shelton saw tasks for business, government, and the OECD.

Business. E-commerce is a business-driven phenomenon. Therefore, solutions to the problems confronting electronic commerce should come from business through self-regulation. Various industry groups should come forward and commit themselves to developing industry-led solutions to the problems that have been identified, in order to report on progress at the Ottawa conference. For self-regulation to be credible, the broader interests of the public must be taken into account and there must be transparent mechanisms for auditing for compliance and enforcement.¹⁴

Government. Although the Internet has blossomed thanks to the dynamism and the entrepreneurial creativity of business, government has played a fundamental role in its development. There are three areas of particular importance:

1. the education and training of citizens so that they are prepared to contribute actively to the knowledge-based economy;
2. the role of instigator and demonstrator of these new technologies through government operations such as procurement;
3. a key source of framework conditions for business activity.

OECD. The OECD is well placed to work on only a few of the issues, but given its membership and its links with both business and organised labour, it might play a useful role in co-ordinating the work so that there can be a transparent accounting of who is doing what.

"There was a wide consensus that no one country acting alone can resolve the taxation issues, and many speakers have singled out the OECD as the organisation to tackle these problems."

However, as this conference has shown, there are areas where government has a clear role to play in dismantling the barriers, in particular in terms of **taxation**. The OECD accepts this challenge and, over the next few months, will undertake:

- to create an Internet forum, as a sort of virtual discussion group open to all interested parties;
- to engage the business sector in a series of working dialogues, particularly on consumption taxes, compliance issues and tax treaties;

“As Mr. Magaziner and Mr. Landry both suggested, electronic commerce could cause wrenching changes in our economies and labour forces. Working with the Trade Union Advisory Committee (TUAC) and BIAC, the OECD is well positioned to contribute some analytical insight into the nature of these changes.”

- to give a mandate to OECD’s Committee on Fiscal Affairs to prepare guidelines for the taxation of electronic commerce that could be endorsed by Ministers in Ottawa;
- to have that committee look at how tax administrations need to adapt to this new environment.

During the conference, many references were made to the 1980 OECD Privacy Guidelines, which can serve as an input for work on **privacy**, an area where pragmatic, meaningful and workable solutions are needed for the network. To this end, the OECD will convene a workshop in February to examine the various solutions discussed at Turku, from technology-based solutions to industry self-regulation to government rules.

It is the intention of the OECD to develop Consumer Protection Guidelines over the next few months that would address, in addition to privacy, the issues of fraudulent and misleading commercial conduct, as well as consumer redress and dispute resolution. Related to both privacy and consumer protection is the issue of authentication. Here, the OECD can follow up on its work on cryptography, especially in the use of digital signatures in authentication procedures. The OECD can also play a supporting role in a number of other areas: continuing analysis of the economic and regulatory impacts of the convergence in information and communication technologies; review of the trade-related aspects of this work; the impact of electronic commerce on economies and societies.

“These elements provide a loose framework for dismantling the barriers to electronic commerce, as well as a blueprint for creating a virtual international organisation that draws on the strengths of existing organisations. This organisation was conceived in Turku, let us celebrate its birth in Ottawa!”

In conclusion, Ms. Shelton declared the Conference a success and expressed her appreciation to the organisers: the Government of Japan, the European Commission, BIAC, the Finnish conference services, Konfer Oy, the hospitality of the City of Turku, the link to the Internet, EUnet, and the generous hosts, President Ahtisaari and the Republic of Finland.

While consensus or agreement on the BIAC principles was not reached, many, if not most, of these principles were supported by participants. Also, the definition of principles made it easier to identify current sources of dissension and disagreement and seek for ways to transcend them. Most speakers recognised that many solutions to the problems/barriers should be business-led. This presents a strong challenge to business to come forth with plans for self-regulation at the Ottawa meeting. As several speakers, especially those most outspoken in their endorsement of business-led developments, suggested, the window of opportunity will not last long.

A momentum is building for business-led self-regulation, with plans to be presented in Ottawa.

If the Turku Conference identified the items of a framework for global electronic commerce, the Ottawa meeting should seek to define how this framework should be implemented.

FINAL LIST OF PARTICIPANTS

*PUBLIC SECTOR***AUSTRALIA**

Mr. Michael Carmody	Australian Taxation Office
Mr. Murray Edwards	Australian Customs Services, Australian Embassy
Mr. Martin Gallagher	Permanent Delegation of Australia to the OECD
Ms Christine Marsden-Smedley	Australian Customs Services, Australian Embassy
Mr. Frank Merrick	Australian Taxation Office
Mr. Stephen Moran	Permament Delegation of Australia to the OECD
Mr. Steve Orłowski	Department of the Attorney General
Ms Ariane Pickering	Australian Taxation Office
Mr. Brian Stewart	Department of communications and the Arts

AUSTRIA

Mr. Josef Ladstätter	Chancellerie Fédérale
Mrs. Annemarie Mille	Austrian Economic Chamber
Mr. Johann Wolfgang Zehetner	Ministère des Affaires économiques

BELGIUM

Mr. Stéphane Buydens	Ministère des Finances, Administration des Affaires fiscales
Mr. Joseph Royen	Ministère des Affaires économiques
Mr. Piet Steeland	Institut Belge des Services postaux et télécommunications
Mr. Pierre Strumelle	Ministère des Affaires économiques, Administration de l'information économique
Mr. Eric Van den Abeele	Cabinet du Vice-Premier Ministre et Ministre de l'économie et des télécommunications
Mr. Ferdinand T.G. van Gansbeke	Ministère des affaires économiques
Mrs. Van Nieuwenbeurg	Ministère des Finances

CANADA

Mr. Michael Binder	Industry Canada
Ms Michelle d'Auray	Industry Canada
Mr. David Fransen	Office of Consumer Affairs, Industry Canada
Mr. Fred Gault	Statistics Canada
Ms Mary Herbert-Copley	Electronic Commerce Task Force, SITT, Industry Canada
Mr. David Johnston	McGill University
Ms Maureen Kidd	Custom Excise and Taxation, Canadian Mission to the European Union
Mr. Andrew Marsland	Department of Finance
Mr. Tom Oomen	Department of Foreign Affairs & International Trade
Mr. Michael Power	Department of Justice
Mr. Richard Simpson	Industry Canada
Mr. Eli Turk	Industry Canada
Mr. Rob Weil	International Tax Directorate, Revenue Canada

CZECH REPUBLIC

Mr. Bohumil Dolejsi	Permanent Delegation of the Czech Republic to the OECD
Mrs. Marcela Gurlichova	Ministry of Transport
Mr. Miloslav Marcan	Ministry of Industry and Trade
Mr. Emanuel Ondracek	Ministry of Education, Youth and Sport
Mr. Pavel Pospish	Ministry of Industry and Trade
Mr. Marketa Smatlonova	Ministry of Foreign Affairs
Mrs. Jitka Urbanov	Department of International Cooperation, Office of the State Information System

DENMARK

Mr. Rasmus Juul-Nyholm	Ministry of research
Mr. René Mikkelsen	Ministry of Taxation, Department of Inland Revenue
Mr. Eytan Mizrahi	Ministry of Business and Industry
Mr. Karsten Vagn Nielsen	Ministry of Foreign Affairs
Mr. Morton Samuelsen	Ministry of Taxation
Mr. Kim Sparlund	National Consumer Agency of Denmark
Mr. Michael Wright	Ministry of Research

FINLAND

Mr. Martti Ahtisaari	President of Finland
Mr. Pekka Aalto	Ministry of Foreign Affairs
Mr. Martti af Heurlin	Technology Development Centre, Tekes
Mr. Tapio Anttila	Ministry of Justice
Ms Jaana Aronen-Beversdorf	Ministry of Trade and Industry
Mr. Bo Göran Eriksson	Ministry of Trade and Industry
Ms Marja Erola	Technology Development Centre, Tekes
Mr. Leif Fagernäs	Ministry of Foreign Affairs
Mr. Jari Gustafsson	Permanent Delegation of Finland to the OECD
Mr. Pauli Keikkilä	Technology Development Centre, Tekes
Ms Merja Heinonen	Technology Development Centre, Tekes
Ms Hannele Ihonen	Ministry of Trade and Industry
Mr. Karlo Kauko	Bank of Finland
Mr. Antti Kalliomäki	Minister, Ministry of Trade and Industry
Ms Minna Keinonen	Technology Development Centre, Tekes
Ms Eila Kilpiö	National Consumer Research Centre
Mr. Mikko Könkkölä	Ministry of Justice
Mr. Kaarlo Korvola	Ministry of Finance
Mr. Alpo Kuparinen	Ministry of Trade and Industry
Mr. Taneli Lahti	Ministry of Foreign Affairs
Ms Anu Lamberg	Ministry of Transport and Communications
Ms Päivi Lehtonen	Ministry of Trade and Industry
Mr. Pekka Lindroos	Ministry of Trade and Industry
Mr. Martti Mäenpää	Technology Development Centre, Tekes
Mr. Erik Mickwitz	Office of the consumer Ombudsman
Mr. Ilmari Pietarinen	Ministry of Finance
Ms Kristiina Pietikainen	Ministry of Transportation and Communications
Ms Pirjo Rötönen	Technology Development Centre, Tekes

Mr. Ilkka Ristimäki	Ministry of Foreign Affairs
Mr. Pasi Rutanen	Ministry of Foreign Affairs
Mr. Hillel Skurnik	Ministry of Finance
Mr. Dan Steinbock	Helsinki School of Economics
Mr. Reima Suomi	Turku School of Economics and Business Administration
Mr. Jouko Torasvirta	Ministry of Trade and Industry
Mr. Jarmo Viinanen	Ministry of Foreign Affairs
Mr. Matti Vuoria	Ministry of Trade and Industry
Ms Tuijo Ypyä	Technology Development Centre, Tekes

FRANCE

Mr. Stéphane Carrere	Service de la législation fiscale, sous-direction E, bureau E1, Ministère de l'économie, des finances et de l'industrie
Mr. Jacques Delorme	Délégation permanente de la France auprès de l'OCDE
Mr. Jean-Luc Delplans	Direction générale des impôts, bureau CF1, Ministère de l'économie, des finances et de l'industrie
Mr. Etienne Didier	Service juridique et technique de l'information, Ministère de l'économie, des finances et de l'industrie
Mr. Lemée	Service de la législation fiscale, Ministère de l'économie, des finances et de l'industrie
Mr. Jean-Pierre Lieb	Direction générale des impôts, bureau CF1, Ministère de l'économie, des finances et de l'industrie
Mr. Francis Lorentz	Ministère de l'économie, des finances et de l'industrie
Mrs. Annie Mari	Direction des affaires économiques et financières, Ministère des affaires étrangères
Mrs. Elisabeth Massonet	Département des affaires européennes, Politique internationale de la poste avec les pays de l'OCDE, Direction des affaires européennes et internationales
Mr. Philippe Raillon	Agence de régulation des télécommunications
Mr. Christophe Ravier	Bureau des questions sectorielles, Direction des relations économiques extérieures, Ministère de l'économie, des finances et de l'industrie
Mr. Claude Sapin	Ministère de l'économie, des finances et de l'industrie, Commission centrale des marchés

Mr. Claude Sornat	Ministère de la défense
Mr. Didier Zmiro	Ministère de l'économie, des finances et de l'industrie, Secrétariat d'état à l'industrie

GERMANY

Mr. Wolfram Berger	Bundesministerium für Wirtschaft
Mr. Martin Kreienbaum	Ministry of Finance
Mr. Bodo Schaft	Federal Ministry of Foreign Affairs
Mr. Patrick Stiepel	Ministry of Finance
Mr. Bernd Weismann	Bundesministerium für Wirtschaft
Mr. Michael Wichmann	Ministry of Finance

GREECE

Mr. Athina Kaliva	Ministry of Finance, VAT Directorate
Mrs. Anna Roussaki	Ministry of Finance, VAT Directorate

HUNGARY

Mr. Gyorgy Fehér	Ministry of Industry, Trade & Tourism
Mr. Gyula Halasz	Ministry of Transport, Communication and Water Management
Mr. Lajos Szucs	Ministry of Transport, Communication and Water Management

IRELAND

Mr. William Fagan	Office of Consumer Affairs Ireland
Mr. Terry Landers	The Policy and Advisory Board for Industrial Development in Ireland
Mr. Eamann Molloy	Irish Department of Public Enterprise

ITALY

Mr. Antonello Busetto	Ministry of Industry
Ms Livia Regis	Ministry of Industry

JAPAN

Mr. Masao Horibe	Chuo University
Mr. Tomoya Ichimura	Office of International Cooperation for Information Infrastructure, Machinery and Information Industries Bureau, Ministry of International Trade and Industry
Mr. Toshitake Inoue	Office of International Operations, National Tax Administration
Mr. Yasushi Kawai	Computer Communications Division, Telecommunications Bureau, Ministry of Posts and Telecommunications
Mr. Keiichi Kawakami	Permanent Delegation of Japan to the OECD
Mr. Hirobumi Kawamo	Machinery and Information Industries Bureau, MITI
Mr. Hajime Saito	Ministry of Posts and Telecommunications
Mr. Haruka Saito	Ministry of Posts and Telecommunications
Mr. Mitsunobu Tachibana	National Tax Administration
Mr. Masae Tamura	Ministry of Posts and Telecommunications
Mr. Mabito Yoshida	Permanent Delegation of Japan to the OECD

KOREA

Mr. Chinyong Chong	MIC
Mr. Ji Taik Chung	Ministry of Finance and Economy
Mr. Young-Heon Jung	Korean Institute of Public Finance
Dr. Hongyol Kang	KISDI
Mr. Jae Kwon Kang	Ministry of Foreign Affairs
Mr. Eun Kim	NCA
Mr. Kwang Dong Kim	Permanent Delegation of Korea to the OECD
Mr. Dong Geun Lee	Ministry of Trade and Industry
Mr. Young Sick Lee	Ministry of Trade and Industry
Mr. Bong Ha Rha	Permanent Delegation of Korea to the OECD
Mr. Jun Hyong Rho	Ministry of Information and Communication
Mr. Kwang Jo Song	National Tax Administration

MALAYSIA

Mr. Moggie	Ministry of Energy, Telecommunications & Posts
------------	--

MEXICO

Mr. Manuel Luna	Ministry of Commerce and Industry(SECOFI)
Ms Carmen Quintanilla Madero	Ministry of Commerce and Industry(SECOFI)
Mr. Oswaldo Tello Rodriguez	Ministry of Commerce and Industry(SECOFI)

NETHERLANDS

Mr. Johan Barnard	Ministry of Finance
Mr. J. R. Borst	Ministry of Finance
Mr. Henk de Ruyter	Ministry of Economic Affairs
Mr. Jan C. de Waard	Ministry of Finance, Directorate General for Fiscal Affairs
Mr. David Rutgers	Ministry of Economic Affairs
Mr. Bram van Overbeeke	Ministry of Economic Affairs
Mr. Dirk Witteveen	Ministry of Finance
Ms Claudia Cremers	Ministry of Transport and Communication
Mr. Edgar de Lange	Ministry of Transport and Communication
Mr. Johan van Tilburg	Ministry of Transport and Communication

NEW ZEALAND

Mr. Allan Foubister	Inland Revenue
Mr. Brian Hutton	Inland Revenue

NORWAY

Mr. Paul Boucher	Ministry of Finance
Mr. Jostein Haoy	Ministry of National Planning and Coordination
Mr. Eivind Jahren	Ministry of National Planning and Coordination
Ms Ann Kristin Jorgensen	Ministry of Trade and Industry
Ms Marianne Scheel	Ministry of Finance
Mr. Erik Solberg	Ministry of Foreign Affairs
Ms Siv Songedal	Ministry of Finance
Ms Marianne Storrosten	Norwegian Computing Centre
Mr. Gard Titlestad	Statskonsult
Mr. Olav Torvund	University of Oslo

POLAND

Mr. Micha Zalewski	Ministry of Finance
--------------------	---------------------

PORTUGAL

Mr. Mário Alberto Alexandre	Ministério das Finanças Direcção Geral dos Impostos
Ms Maria Isabel Alves	Ministério das Finanças
Ms Carla Amoroso	Institut de Communications du Portugal
Ms Maria Joao Santos	Ministério da Ciencia e Tecnologia
Ms Maria Angelina Silva	Ministério das Finanças
Mr. A. Simoes Montero	Ministério da Ciencia e Tecnologia

SINGAPORE

Mr. Ng Keat Seng	Inland Revenue Authority of Singapore
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SWEDEN

Mr. Karl-Erik Andersson	Swedish Association of Local Authorities
Mr. Stefan Cairen	Ministry of Industry and Commerce
Mrs. Eva Dryselius	National Tax Board
Mr. Jan Francke	Kammarätten i Jönköping
Ms Cecilia Hellner	Permanent Delegation of Sweden to the OECD
Mr. Karl-Marten Karlsson	Ministry of Finance
Mr. Tomas Lindman	Ministry of the Interior
Mr. Arne Rodin	Ministry of Foreign Affairs
Mr. Alf Stenqvist	Ministry of Transport and Communications
Ms Kerstin Wiss Holmdahl	Swedish Association of Local Authorities

SWITZERLAND

Mrs. Michèle de Roulet	Office fédéral de l'informatique, Département fédéral des finances
Mr. Henri Gétaz	Office fédéral des affaires économiques extérieures, Département fédéral de l'économie publique

Mrs. Susanne Grossman	Département fédéral de l'économie publique
Ms Marie-Armelle Libbrecht	Département fédéral des finances
Mr. Josef Moser	Service de l'économie, Bureau de la consommation, Département fédéral de l'économie publique
Mr. Matthiaus Ramsauer	Office fédéral de la communication, Département fédéral des transports, des communications et de l'énergie
Mr. Christian Schonenberger	Division politique V, Service économique et financier, Département Fédéral des Affaires Etrangères

TURKEY

Mr. Melih Sadik Aras	Economic Research and Assessment, Undersecretariat of Foreign Trade
Mr. Yavuz Arinsoy	Undersecretariat of State Planning Organisation
Mr. Murat Askar	Tubitak-Bilten
Mr. Esin Ayanoglu	Export Promotion Research Center, Undersecretariat of Foreign Trade
Mr. Ömer Gebizlioglu	State Institute of Statistics
Mr. Avni Ozcan	Undersecretariat of Foreign Trade

UNITED KINGDOM

Mr. Neil Feinson	DTI
Mr. Ron Haigh	International Division Inland Revenue
Mr. Nigel Hickson	DTI
Mr. Mark King	CESG
Mr. John Middleton	International Division Inland Revenue
Mr. John Moscrop	HM Customs and Excise
Mr. David Richardson	International Division Inland Revenue
Mr. Graham Zebedee	DTI

UNITED STATES

Mr. Robert E. Barr	Electronic Tax Administration-Internal Revenue Service
Mr. Richard Beard	US Department of State

Ms J. Beckwith Burr	National Telecommunications and Information Administration
Ms Jennifer Conovitz	Office of the Secretary, Department of Commerce
Ms Lauren Daly	International Trade Administration, Department of Commerce
Mr. Joseph Guttentag	International Tax Matters, Department of the Treasury
Mr. Elvin Hedgpath	Internal Revenue Service
Ms Heidi Hijikata	Office of computers and Business Equipment, International Trade Administration, Department of Commerce
Mr. Brian Kahin	Executive Office of the President
Mr. Ira Magaziner	The White House
Mr. Paul Mines	Multistate Tax Commission and Utah State Tax Commission
Ms Judi Moline	National Institute of Standards and Technology
Ms Michelle O'Neill	US Mission to the OECD
Ms Jennifer Tallarico	International Trade Administration, Department of Commerce
Mr. W. Val Oveson	Multistate Tax Commission and Utah State Tax Commission
Mr. Andrew Weinschenk	Communications and Information Policy, Department of State
Ms Barbara Wellbery	International Trade Administration, Department of Commerce

INTERNATIONAL ORGANISATIONS

Ms Valgerdur Bjarnadottir	EFTA Secretariat
Mr. Josef Dietl	W3C, INRIA Sophia-Antipolis, Research Unit
Mr. Julien Edwards	Consumers International
Mr. Jan Furstenborg	International Federation of Commercial, Clerical, Professional and Technical Employees (FIET)
Mr. L. Goelzer	International Telecommunication Union
Mr. Gregor Heinrich	Bank for International Settlements
Mr. Anwarul Hoda	World Trade Organization
Ms Christine Hublin	World Intellectual Property Organization (WIPO)
Mr. Peter Kerstens	European Commission, DG XXIV

Mr. Bruno Lanvin	UNCTAD Special Programme for Trade Efficiency
Mr. Vassilios Laopodis	European Commission, DG III
Mr. Magnus Lemmel	European Commission, DG III
Mr. Costas Paleologos	European Commission, DG XIII
Mr. Jorma Partinen	EITO
Mr. Renaud Sorieul	UNCITRAL
Mr. Albert Tramposch	World Intellectual Property Organization (WIPO)
Ms Anne Troye-Walker	European Commission, DG III
Mr. Douglas Twedde	WCO
Mr. Paul Vandoren	European Commission, DG I
Mr. Patrick Vittet-Philippe	European Commission, DG XIII
Mr. Paul Waterschoot	Direction générale XV, Marché intérieur et services financiers

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Ms Joanna Shelton	Deputy Secretary-General, General Secretariat
Mr. Thomas Afton	Linguistic and Conference Service
Ms Anne Carblanc	Directorate for Science, Technology and Industry
Ms Megan Dissly	Public Affairs and Communications Directorate
Mr. John Dryden	Directorate for Science, Technology and Industry
Mr. Andrew Gentry	Information Management and Publications Service
Mr. Michael Hardy	Directorate for Financial, Fiscal and Enterprise Affairs
Ms Laurie Labuda	Directorate for Financial, Fiscal and Enterprise Affairs
Ms Elizabeth Lynch	Directorate for Financial, Fiscal and Enterprise Affairs
Mr. Riel Miller	Secretary General/Advisory Unit
Ms Marta Montesinos	Directorate for Science, Technology and Industry
Mr. Rizaburo Nezu	Directorate for Science, Technology and Industry
Mr. Jeffrey Owens	Directorate for Financial, Fiscal and Enterprise Affairs

Ms Cristina Tebar Less	Secretary General/Legal Directorate
Ms Rachel Thompson	Trade Directorate
Mr. Andrew Wyckoff	Directorate for Science, Technology and Industry
Mr. Dimitri Ypsilanti	Directorate for Science, Technology and Industry

PRIVATE SECTOR

Mr. Heikki Äyväri	Telecom Finland
Mr. Thorvild Aakvaag	Norsk Hydro A.S.
Mr. Sanjaya Addanki	Network Computing, IBM Eurocoordination
Mr. Franco Arzano	Ericsson SpA
Mr. Seppo Auvinen	EDI Management Finland Ltd
Mr. Stewart Baker	Steptoe & Johnston Attorneys at Law
Mr. Steven L. Bate	BIAC
Mr. Michael S. Baum	VeriSign, Inc.
Mr. Hans Bierschenk	Fachverband Informationstechnik im VDMA und ZVEI (FVIT)
Mr. Pascal Bordat	New Distribution Technologies
Mr. Claude Boulle	Bull
Ms Helena R. Brus	Merck & Co. Inc., Human Health Division
Mr. Jean-Marc Cambien	Belgacom S.A.
Mr. Brian Cassidy	Canadian Imperial Bank of Commerce
Mr. Bruce Charendoff	Sabre
Mr. Michael Conlin	EDS Corporation
Mr. Desmond Conway	European Computer Industry Tax Association
Mr. Kurt Cramon	Danish IT Associatio
Mr. Thomas C. Dabney	America Online
Mr. Vincenzo Damiani	EDS Italy
Mr. Shinosuke Date	Fijitsu
Mr. Alain Ducray	Groupe Lagardère
Mr. W. Duinker	ING Nederland
Mrs. Carol Dunahoo	Price Waterhouse LLP
Mr. Henry Ehrstedt	ICL
Mr. Jarl Eklund	Nokia
Mr. Carter Eltzroth	MIH Holdings Limited
Mr. Jon Englund	ITAA
Mr. Deniz Eröcal	Business and Industry Advisory Committee to the OECD
Mr. Tarmo Eskola	UPM-Kymmene Group
Mr. Thomas Falk	Federation of Swedish Industries

Mr. Walter Follner	Austrian Bankers' Association
Mr. Matthias Fonger	Chamber of Commerce of Bremen, Bremen Regional Information Society Endeavour
Mr. Thomas Glück	Guide DataKonsult AB
Mr. Etienne Gorog	IBM Consulting Group, IBM Eurocoordination
Mr. Martti Granberg	Nokia
Mr. Mark Gyorog	Hewlett-Packard Europe
Mr. Heikki Hänninen	Helsinki Media Company
Mr. George Hall	ICL
Ms Lauren Hall	Software Publishers Association
Mr. Kalevi Hanttu	Arsenal
Mr. Bo Harald	Merita Bank
Mr. Tauno Heikkilä	Helsinki Telephone Corporation
Mr. Jens Heurlin	National Consumer Agency, Denmark
Mr. Masanobu Higashida	NTT Information and Communication Systems Laboratories
Mr. Pekka Hirvi	ICL
Mr. Abdallah Hitti	Kleline
Ms Marie-Thérèse Huppertz	European Affairs Manager
Mr. Takaya Ishida	Mitsubishi Electric Corporation
Mr. Heikki Jaakkola	Turku Telephone Corporation
Mr. Pekka Jaakola	Helsinki Media Company
Mr. Gareth P. Jacobs	AT&T Canada Long Distance Services Company
Mr. Malthe Jakobsen	Danish IT Association
Mr. Ilhyung Jang	Samsung Electronics Co. Ltd.
Ms Lone Saaby Johansen	DTI Industrial Analyses
Mr. James Johnson	GIIC
Mr. Ray Jordan	Pfizer, Inc
Mr. Tom Källström	Finnair
Mr. Kenji Kameya	Fujitsu
Mr. Jari Karpakka	Helsinki Telephone Corporation
Ms Joanne Kennedy	Teleglobe Inc.
Mr. Hajime Kimura	Mitsubishi Corporation
Mr. Detlev Kirchner	Commerzbank AG
Mr. Guy Knight	Charles Schwab Inc.
Mr. Hong Seung Ko	Samsung Electronics Co., Ltd.
Mr. Juhani Koivunen	Finland Post Ltd
Mr. Andrew Konstantaras	VISA International
Mr. Heikki Laaksamo	Rautaruuki Oy
Mr. John Landry	Lotus
Mr. Choong Hwa Lee	Daewoo Information Systems Co., Ltd.
Mr. Ocjoo Lee	Federation of Korean Industries

Mr. Michael E. Liddick	America Online Inc.
Mr. Kaj G. Linden	Nokia
Ms Sirpa Liukkonen	FD Finanssidata
Ms Maria Livanos Cattau	International Chamber of Commerce
Mr. Martyn Lowry	EDS
Mr. Ken Lyon	United Parcel Service World-wide Logistics Europe
Mr. John Makaryshyn	Telus Corporation
Mr. John Martin	The Chartered Institute of Taxation
Mr. Robert N. Mattson	I.B.M Corporation
Ms Monique Meche	Intel Corporation
Mr. Stefan Mette	Deutsche Telekom AG
Mr. Jorma Miettinen	MTV3 Finland
Ms Karen Myers	EDS Office of Government Affairs
Mr. Mishio Naruto	Fujitsu
Mr. Lawrence Nell	Microsoft Travel Technologies
Mr. Jyrki Nikula	Confederation of Finnish Industry and Employers
Mr. Kurt Nordman	Helsinki Telephone Corporation
Mr. Esa Norhomaa	Aldata
Ms Lynne Nostrant	VISA
Ms Rafaela Noyer	Helsinki Media Company
Mr. Jorma Ollila	Nokia
Mr. Renah Persofsky	Cebra Inc.
Mr. François Petit	Alcatel-Alsthom
Mr. Gary Pizante	Canadian Cable Television Association
Ms Hannele Pohjola	Confederation of Finnish Industry and Employers
Mrs. Rosemary Portner	Oppenhoff & Radler
Ms Maria Ratzinger	Austriapro
Mr. Seppo Rautakivi	Finnet Group
Mr. Aatto J. Repo	Finland Post Ltd
Mr. In Yeol Rhyu	Korea International Trade Association
Mr. Gustaf Richert	Federation of Swedish Industries
Mr. Alain Rioult	Hewlett Packard
Ms Helena Roine-Taylor	The Finnish Data Communication Association
Mr. Graeme Ross	KPMG
Mr. Reijo Rummukainen	Telecom Finland
Mr. John Sacher	Marks & Spencer Plc
Mr. William Sample	Microsoft Corporation
Mr. Marc Samson	Intelligent Switched Systems
Mr. Mike Sangster	Shared Network Services
Mr. Phil Saunders	Northern Telecom Limited
Ms Judith Scarabello	AT&T

Mr. Jay Simmons	CertCo, LLC
Mr. Simosuke Date	Fujitsu
Mr. Bernard Siouffi	Syndicat des Entreprises de Vente par Correspondance et à Distance
Mr. Alain Sommer	Groupe Clininvest
Mr. Roger Tasse	Gowling Strathy & Henderson Barristers & Solicitors
Mr. Mark Tellier	Bell Emergis
Mrs. Patricia Testa	NCR
Mr. Jay Thompson	Canadian Cable Television Association
Mr. Esa Tihilä	ICL
Mr. Ad. J.M. Timmermans	Confederation of Netherlands Industry and Employers VNO-NCW
Mr. James Tobin	Bell Emergis
Mr. Jari Torvelainen	EUnet Finland
Mr. Richard Trigle	Amerada Hess
Mr. Harold Ullman	Deloitte & Touche LLP
Mr. Mauri Vakkilainen	Finnish Broadcasting Company
Mr. Paul Van Oorschot	Entrust Technologies
Ms Tytti Varmavuo	Nokia
Mr. Matti Vasara	The Finnish Data Communication Association
Mr. Eero Vesterinen	Kesko Group
Mr. Alexander von Stülpnagel	Information Centre of Savings Banks
Ms Valerie Willems	INTUG Europe
Mr. Takuma Yamamoto	Fujitsu
Mrs. Allyn Yamanouchi	Global Technology Tax Counsel, Citibank
Mr. Keita Yashima	Fujitsu
Mr. Tatu Ylönen	SSH Communications Security
Mr. Raza Zahidi	Intel GmbH (IMU)

NOTES

1. “Electronic Commerce: Opportunities and Challenges for Government” Report of the OECD Ad hoc Group of High-level Private Sector Experts on Electronic Commerce (the “Sacher Group”) OECD, Paris, 1997, <http://www.oecd.org/dsti/sti/it/ec/act/sacher.htm>. “The Communications Revolution and Global Commerce: Implications for Tax Policy and Administration”; “Consumer Protection for Electronic Commerce”; European Commission, “A European Initiative in Electronic Commerce”, <http://www.ispo.cec.be/Ecommerce/initiat.html>; MITI, Japan, “Towards the Age of the Digital Economy”, May 1997, <http://www.miti.go.jp/intro-e/a228100e.html>; and “Vision 21 for Info-communication”, Telecommunication Council, June 1997; United States, “A Framework for Global Electronic Commerce”; “Electronic Commerce, <http://www.whitehouse.gov/WH/New/Commerce/>; The Challenges to Tax Authorities and Taxpayers”, 18 November 1997, <http://www.oecd.org/daf/fa/wwwtax.htm>.
2. As *The Wall Street Journal* noted, the Turku Conference illustrated the wide range of technology- and commerce-related issues, disagreements among major OECD countries, as well as vital efforts and determination to resolve these issues. See Jennifer L. Schenker, “OECD Leader Targets Internet Security Accords”, Special Report Convergence Europe, *Wall Street Journal Interactive Edition*, 17 November 1997, <http://www.wsj.com/>.
3. <http://www.oecd.org/dsti/sti/it/ec/act/turkurpt.pdf>.
4. “Internet Leapfrog: The Impact of the Internet on Global Economic Competition,” International Data Corporation, *Executive Insights*, November 1997, <http://www.idc.com/>.
5. *Electronic Commerce: Opportunities and Challenges for Government*, Report of the OECD Ad hoc Group of High-level Private Sector Experts on Electronic Commerce (the “Sacher Group”) OECD, Paris, 1997, <http://www.oecd.org/dsti/sti/it/ec/act/sacher.htm>.
6. “Towards the Age of the Digital Economy- For Rapid Progress in the Japanese Economy and World Economic Growth in the 21st Century”, MITI, Tokyo, <http://www.miti.go.jp/intro-e/a228100e.html>.
7. “Regulatory Reform and Innovation”, http://www.oecd.org/dsti/sti/s_t/inte/prod/regref.htm.
8. In 1996, for example, both America Online and AT&T guaranteed users protection from losses for purchases made from an approved merchant (AOL) or using their payment system (AT&T). Some “e-commerce malls” have recently made similar guarantees. It is worth recalling that it was only when the credit card industry assured users that their exposure to criminal misuse of their card was limited that confidence in that form of payment developed.
9. This ability to “charge back” a transaction also gives merchants a strong incentive to ensure high levels of consumer satisfaction at the outset: payment card associations can and do drop merchants with too frequent chargebacks. On chargebacks and the OECD Committee on Consumer Policy, see “Consumer Redress in the Global Marketplace: Chargebacks”, http://www.oecd.org/dsti/sti/it/consumer/prod/e_96-142.htm.

10. "Electronic Commerce: The Challenges to Tax Authorities and Taxpayers", An Informal Round Table Discussion between Business and Government, 18 November, 1997, Turku, Finland, Organisation for Economic Co-operation and Development, <http://www.oecd.org/daf/fa/wwwtax.htm>.
11. While SET does reflect a payment industry solution by perhaps a dozen financial and software firms, which have invested tens of millions of dollars in its development, there has been some backlash among bankers and companies doing business on the Internet. See e.g., Saul Hansell, "Security System for Internet Purchases Raises Doubts," *New York Times on the Web*, November 24, 1997, <http://www.nytimes.com/>.
12. "International Parcel Delivery," OECD, GD(97)151, http://www.oecd.org/dsti/sti/it/consumer/prod/e_97-151.htm.
13. A "one-stop shopping", system, combined with pre-clearance of shipments and the replacement of all paperwork by electronic data interchange (EDI), can greatly reduce the costs, delays and frustration currently associated with international parcel delivery. Compare "A Global Marketplace for consumers: Simplifying Customs Clearance Procedures", OECD, http://www.oecd.org/dsti/sti/it/consumer/prod/e_97-151.htm.
14. In November 1997, the International Chamber of Commerce (ICC) also launched the GUIDEC, its common framework of basic rules and definitions for all players in electronic commerce. In the pipeline are eight projects, many of which reflect the basic issues, concerns and agendas of the business - from Internet privacy guidelines and an Internet marketing and advertising code catering for the raised sensitivities of a global audience, to a self-regulatory framework for electronic documentation, governing import and export transactions, transport and trade finance.