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AND THE COMMITTEE OF THE REGIONS

**A European Initiative in Electronic Commerce**

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## PREFACE

This Communication and related initiatives as well as coming legislation can be accessed electronically on <http://www.ispo.cec.be/Ecommerce>.

## EXECUTIVE SUMMARY

The aim of this European Initiative is to encourage the vigorous growth of electronic commerce in Europe. A fast moving sector, electronic commerce will have a considerable impact on Europe's competitiveness in global markets. Building upon Commission's work to date, it provides a coherent policy framework for future Community action, and aims at establishing a common European position to achieve global consensus through international negotiations.

### I. THE ELECTRONIC COMMERCE REVOLUTION: CHALLENGES AND OPPORTUNITIES

"Born global", electronic commerce encompasses a wide spectrum of activities, some well established, most of them very new. Driven by the Internet revolution, electronic commerce is dramatically expanding and undergoing radical changes. It includes indirect electronic commerce (electronic ordering of tangible goods), as well as direct electronic commerce (online delivery of intangibles). A fast moving environment, electronic commerce is engendering a wide array of innovative businesses, markets and trading communities – creating new functions and new revenue streams.

Electronic commerce presents enormous potential opportunities for consumers and for businesses in Europe, particularly for SMEs. Its rapid implementation is an urgent challenge for commerce, industry and governments in Europe. Electronic commerce makes it possible to trade at low cost across regions and national frontiers. To reap its full benefits, the development of efficient distribution channels and trans-European network is necessary for the physical delivery of goods ordered electronically, including efficient, modern postal services.

Stimulating competition in the Single Market, electronic commerce is already bringing profound structural changes. New skills will be needed to create and maintain new jobs in Europe. Europe's main competitors have already resolutely seized opportunities offered by electronic commerce – with the US building a substantial lead. However, Internet commerce is catching up in a number of Member States. In this respect, Europe can marshal a number of specific strengths in the fields of technologies, content creation and linguistic and cultural diversity. Similarly, the use of a single currency in the world's largest Single Market will represent a strong incentive for the take up of electronic commerce in Europe whereas, conversely, electronic commerce can contribute to the acceptability of the Euro.

Thus there is an urgent need to engage in an early political debate with the aim to provide a stimulus to electronic commerce and to avoid a fragmentation of this promising market.

## II. ACCESS TO THE GLOBAL MARKETPLACE: INFRASTRUCTURES, TECHNOLOGIES & SERVICES

High telecommunication tariffs have long been a major stumbling block for electronic commerce in Europe. However, the implementation of the package of telecommunication liberalisation measures is already leading to lower prices and to more flexible pricing schemes. The take up of electronic commerce is significantly higher in the most competitive markets. The WTO Agreement on Basic Telecommunication will contribute directly to the emergence of a global marketplace in electronic commerce. Similarly, recent international agreements to eliminate tariff (ITA) and non tariff barriers (MRA) should rapidly bring down the cost of key Information Technology products, encourage the take up of electronic commerce and reinforce European competitiveness. Removing capacity bottlenecks, and providing high bandwidth infrastructure is another challenge for Europe – a challenge actively addressed both by the private sector and by the Community.

Ensuring interoperability in a competitive environment is another powerful incentive. The Commission is actively promoting global interoperability in such key areas as secure technologies and payment systems and giving special importance in a number of R&D programmes to electronic commerce to ensure wide availability and ease of use of key technologies and systems.

## III. CREATING A FAVOURABLE REGULATORY FRAMEWORK

The Single Market framework has proved its worth for traditional forms of businesses. It must be now made to work for electronic commerce. Building trust and confidence among businesses and consumers implies the deployment of secure technologies (such as digital signatures, digital certificates and secure electronic payment mechanisms) and of a predictable legal and institutional framework to support these technologies. In order to allow for electronic commerce operators to reap the full benefits of the Single Market, it is essential to avoid regulatory inconsistencies and to ensure a coherent legal and regulatory framework for electronic commerce at EU level. This should be based on the application of key Internal Market principles.

Regulatory responses, where appropriate, need to be addressed at every step of the business activity, from the establishment of business, to the promotion and provision of electronic commerce activities, through conclusion of contracts, to the making of electronic payments. In parallel, a number of key “horizontal” issues affecting the entire electronic commerce activity, need to be addressed. These include data security, protection of intellectual property rights and conditional access services, privacy, as well as a clear and neutral tax environment.

Considering the essentially transnational nature of electronic commerce, global consensus needs to be achieved. The Commission will actively pursue international dialogue, involving government and industry, in the appropriate multilateral fora, as well as bilaterally with its main trading partners. This includes international cooperation to fight against organised transnational crime on new communication networks (e.g. P8).

#### IV. PROMOTING A FAVOURABLE BUSINESS ENVIRONMENT

Promoting a favourable business environment will involve reinforcing awareness and confidence in electronic commerce for customers, as well as encouraging best practice among European businesses (particularly through SME programmes, support actions, and R&D and G7 pilot schemes). In parallel, public administrations will have a key role to play through their procurement power and their early implementation of key electronic commerce technologies. In the future, strong synergies between “electronic commerce” and “electronic administration” should be actively encouraged to develop, for the benefit of all involved.

In summary, the present Initiative proposes a comprehensive set of actions in the specific field of electronic commerce – a field crucial for Europe’s competitiveness on world’s markets. These specific actions must be considered in the wider framework of Information Society initiatives– and, in particular, will be integrated into the Rolling Action Plan for the Information Society.

The political objective of the Commission is to implement this coherent framework of technological, regulatory and support actions, as a matter of urgency, by the year 2000.

## INTRODUCTION

1. The aim of this Initiative is to encourage the vigorous growth of electronic commerce in Europe. In the Communication "Putting Services to Work"<sup>1</sup> the fundamental importance of electronic commerce was emphasised, as was the Commission's commitment to make Europe the heartland of electronic commerce.

2. This Communication builds on the Commission's work on the Information Society to date<sup>2</sup> and in particular upon the Rolling Action Plan<sup>3</sup>. It provides a coherent policy framework for future Commission actions in the field of electronic commerce, and seeks to raise awareness and stimulate dialogue between all parties at all levels.

3. The expansion of electronic commerce will be market-driven. Europe is well placed to capitalise on the global business opportunities now opening up. The completion of the Single Market, the development of Europe's know-how and skills, and the introduction of the Euro create the strengths for the European economy and European businesses to be at the forefront of the emerging global electronic marketplace. The challenge is to promote widespread adoption of electronic commerce as an integral part of the European way of doing business.

4. This Initiative builds on the particular characteristics of European business and the diversity of its social and cultural fabric to present a distinctive and coherent European approach to the development of electronic commerce in the global market place. The key elements of the Initiative are the following:

- Promote the technology and infrastructure needed to ensure the competitiveness of the European electronic commerce industry, and put in place structures that will provide efficient access systems for existing and potential users. This will be pursued by ensuring the effective implementation of a fully competitive telecommunications market and by harnessing and refocusing R&D efforts so that Europe's high level of scientific and technological capability can be translated more successfully into marketable products and services. It will also be ensured by encouraging a broad consensus on standards and on the interoperability of electronic market systems;
- Capitalise on the Single Market by ensuring a coherent regulatory framework for electronic commerce in Europe and in wider global markets. This framework needs to boost the trust and confidence of businesses for investments and consumers to make use of electronic commerce by dismantling remaining legal and regulatory barriers and preventing the creation of new obstacles.

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<sup>1</sup> CSE(96)6final of 27 Nov 96

<sup>2</sup> In particular: the Communications "Standardisation and the Global Information Society"(COM(96)359final of 24 July 96); "Learning in the Information Society - Action Plan for a European education initiative (COM(96)471 of 2 October 1996); "Illegal and Harmful Content on the Internet" (COM(96)487 of 16 Oct 96); "Cohesion and the Information Society" (COM(97)7 of 22 Jan 97; and the Green Papers "Living and Working in the Information Society" (COM(96)389 of 24 July 96); "The Protection of Minors and Human Dignity in Audiovisual and Information Services"(COM(96)483 of 16 Oct 96).

<sup>3</sup>"Europe at the Forefront of the Global Information Society: Rolling Action Plan" (COM(96)607of 27 Nov 96);

- Foster a favourable business environment for electronic commerce by promoting adequate skills, and by making consumers and industry aware of the opportunities offered by electronic commerce. This will be realised through training, information and demonstration projects; by exploiting synergies between government and industries; and by leveraging specific European strengths, in terms of technologies, markets, linguistic and cultural diversity.
- Work towards global consensus from a common European position to ensure effective participation in current international cooperation and negotiation. Europe should identify its own strengths and interests and argue accordingly in the international forums and groups best suited for this purpose.

This Initiative provides a coherent framework for these mutually re-enforcing technological, regulatory and support actions to facilitate the development of the electronic commerce market whilst adequately safeguarding public interest objectives. The political objective of the Commission is to implement this coherent framework, as a matter of urgency, by the year 2000.

## **CHAPTER 1: THE ELECTRONIC COMMERCE REVOLUTION**

5. Electronic commerce is about doing business electronically. It is based on the electronic processing and transmission of data, including text, sound and video. It encompasses many diverse activities including electronic trading of goods and services, on-line delivery of digital content, electronic fund transfers, electronic share trading, electronic bills of lading, commercial auctions, collaborative design and engineering, on-line sourcing, public procurement, direct consumer marketing and after-sales service. It involves both products (e.g. consumer goods, specialised medical equipment) and services (e.g. information services, financial and legal services); traditional activities (e.g. healthcare, education) and new activities (e.g. virtual malls).

### **ELECTRONIC COMMERCE: THE INTERNET REVOLUTION**

6. Electronic commerce is not a new phenomenon. For many years companies have exchanged business data over a variety of communication networks. But there is now accelerated expansion and radical changes, driven by the exponential growth of the Internet. Until recently no more than a business-to-business activity on closed proprietary networks, electronic commerce is now rapidly expanding into a complex web of commercial activities transacted on a global scale between an ever increasing number of participants, corporate and individual, known and unknown, on global open networks such as the Internet.

*Table 1: For traditional electronic commerce the network is a means to move data: for Internet electronic commerce, the network is the market.*

<b>TRADITIONAL E-COMMERCE</b>	<b>INTERNET E-COMMERCE</b>
<i>business-to-business only</i>	<i>business-to-consumers business-to-business business-to-public administration user-to-user</i>
<i>closed "clubs", often industry specific</i>	<i>open marketplace, global scale</i>
<i>limited number of corporate partners</i>	<i>unlimited number of partners</i>
<i>closed proprietary networks</i>	<i>open, unprotected networks</i>
<i>known and trusted partners</i>	<i>known and unknown partners</i>
<i>security part of network design</i>	<i>security and authentication needed</i>
<b>THE MARKET IS A CLUB</b>	<b>THE NETWORK IS THE MARKET</b>

7. Electronic commerce covers mainly two types of activities: indirect electronic commerce – the electronic ordering of tangible goods, which still must be physically delivered using traditional channels such as postal services or commercial couriers; and direct electronic commerce – the on-line ordering, payment and delivery of intangible goods and services such as computer software, entertainment content, or information services on a global scale. Both direct and indirect electronic commerce offer specific opportunities. Both are often undertaken by the same companies –who, for example, sell software on-line as well as off the shelf. Indirect electronic commerce is, however, dependent on a number of external factors, such as the efficiency of the transportation system. Direct electronic commerce – which enables seamless, end-to-end electronic transactions across geographical boundaries – exploits the full potential of global electronic markets<sup>4</sup>.

#### **THE NEXT GENERATION MARKETS**

8. Electronic commerce, of course, is not limited to the Internet. It includes a wide number of applications in the narrowband (videotex), broadcast (teleshopping), and off-line environment (catalogue sales on CD-ROM), as well as proprietary corporate networks (banking). However the Internet, with its robust and network-independent protocols, is rapidly federating different forms of electronic commerce. Corporate networks are becoming Intranets. At the same time, the Internet is generating many innovative hybrid forms of electronic commerce – combining, for example, digital television infomercials with Internet response mechanisms (for immediate ordering), CD-ROM catalogues with Internet connections (for content or price updates), and commercial Web sites with local CD-ROM extensions (for memory-intensive multimedia demonstrations).

9. Electronic commerce is an emerging market. In this fast moving and highly fluid environment, we are seeing the development of a wide array of innovative virtual businesses, markets and trading communities. Companies are now routinely outsourcing over the Internet functions such as order fulfilment and shipping to distributors which specialise in such services. Distributors themselves are “going virtual”, outsourcing the physical warehousing and movement of goods to logistics

<sup>4</sup> The Minitel experience in France shows that “intangible” goods and services companies initially stand as the main beneficiaries of online commerce development.

specialists such as commercial courier companies<sup>5</sup>. Buyers, sellers and intermediaries are forming industry-specific Internet markets in such diverse fields as real estate, automobile parts and construction equipment. Similarly, global manufacturing industries, such as automobile, computers and aerospace, are actively integrating their supply chains through the Internet.

10. New functions are now being created. Innovative virtual middlemen are providing value-added services – such as brokering, search and referral – to businesses and consumers. Catalogue aggregators offer buyers “one-stop shops” to select products at the best price from many niche merchants. Classified advertising supersites present single points of access to scores of other sites carrying advertisements. Government-sponsored gateways, such as the United Kingdom’s Department of Trade and Industry’s *Trade UK* website<sup>6</sup>, provide a single path to large numbers of selected companies trading on the Internet. Network operators, banks and computer companies are generating new revenues in their “hosting business” – offering turnkey virtual store-fronts and virtual malls.

11. The era of the Web as a gift economy is ending. New forms of individual to individual commerce are appearing, as users themselves can charge small sums for content they publish on the Web. Similarly, commercial publishers can now sell information on the Web “by the sip, rather than by the gulp”, page by page, article by article, photograph by photograph. The very small payments for such services generate new revenue streams, maximise the use of archives, and encourage widespread content development.

#### THE OPPORTUNITIES FOR EUROPE

12. Electronic commerce offers enormous opportunities for Europe. It is estimated that electronic commerce revenues on the Internet may increase to 200 billion ECU world-wide by the year 2000<sup>7</sup>. This revolutionary growth will lead to profound structural changes. Sectors such as retail and distribution with 20 million employed and tourism with 6 million employed, will need to adapt to exploit these opportunities, expand existing businesses and launch new ones. Some existing services will be substituted by new ones. Significant efficiency gains will be realised.

13. As a result, electronic commerce will have considerable impact on the structure and operations of the labour market. Further analysis is needed to fully assess these changes. Already at this stage it is apparent that new employment potential will principally be in information-based, high-value services. Training and education for these new skills will be needed. Faced with intense, global competition in a borderless digital environment, we must ensure that these new jobs are created and maintained in the European Single Market.

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<sup>5</sup> The most successful Internet bookstores and music stores in Europe and in the US are thus truly “virtual companies”: orders and shipments are made directly from publishers’ warehouses, and providers’ databases are fully integrated with transportation companies’.

<sup>6</sup> See <http://www.tradeuk.com>.

<sup>7</sup> Source ActivMedia, Romtec, in European Information Technology Observatory 97.

14. In Europe electronic commerce already offers considerable incentives for both established and new players. SMEs are capitalising on the unprecedented opportunities to access global markets which the World Wide Web offers. Similarly, large economic sectors, such as the distance selling industry in Europe, are actively integrating the Internet into their marketing and order-fulfilment strategies. Electronic commerce offers improved transaction management and enhances business efficiency. It brings increased responsiveness and accountability – as well as cost reductions. It lowers barriers to entry, enlarges existing markets and creates whole new business areas for knowledge-based intangible products – potentially one of Europe’s greatest strengths.

15. Consumers also stand to gain significantly. Electronic commerce revolutionises the relationship between consumer and provider. The consumer benefits from increased choice by being able to compare and choose instantly from a wide range of offers. Specialised products are increasingly available. Lower prices are possible as overheads and “bricks and mortar” costs fall and efficiency improves. A personalised, one-to-one relationship is replacing traditional mass-marketing and mass-distribution techniques, bringing more responsive service.

16. By its very nature, electronic commerce is transnational and encourages cross-border ordering and delivery of goods and services. It directly stimulates competition in the Single Market. The Single Market, in turn, offers electronic commerce the prospect of a critical mass of businesses and customers across national borders. In addition, electronic commerce gives peripheral regions new opportunities for accessing main markets. Electronic commerce represents, therefore, a potentially vital factor for cohesion and integration in Europe.

#### **ELECTRONIC COMMERCE: INTERNATIONAL COMPARISONS**

17. The opportunities electronic commerce offers have all too frequently been seized most energetically by Europe’s main competitors. In the US, the Internet is fostering a thriving Internet core economy, creating new businesses, new revenue streams, and, more importantly, new jobs. Traditional economic sectors, such as the travel industry or catalogue business are migrating substantial parts of their commercial activities on-line.

*Table 2: New business in the Internet: initiatives and innovations.*

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| <ul style="list-style-type: none"><li>• <i>Internet commerce in the US is building on a specific structural strength: innovative micro-enterprises. The US is already boasting more than 250.000 “cyber companies” using the Internet commercially in a variety of ways.</i></li><li>• <i>In the US, travel services and flower distribution are particular success stories. Travel services currently amount to more than half of electronic commerce. The current market leader, launched in October 1996, is already claiming 250.000 users. There are nearly a thousand Internet flower distributors on the Web, with the market leader boasting \$ 30 millions in sales in 1996.</i></li><li>• <i>In Europe, the direct marketing industry, which represented revenues of ECU 37 billion in 1995, is vigorously embracing the Internet. For example, one of the largest mail order companies in Europe, claimed electronic commerce sales of DM 400 million in 1996. Similarly the largest supermarket chain in the Netherlands offers an innovative “Internet teleshopper” service.</i></li><li>• <i>Similarly, new businesses are emerging in Europe in such strategic areas as electronic commerce tools and technologies. Success stories include, for example, the world leader in smart card technology, a secure electronic payment pioneer, and a market leader in the Internet secure “virtual storefront” business.</i></li></ul> |
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18. This is a crucial area for future growth and competitiveness. Driven by corporate players, Internet commerce in the US is also drawing strength from a dense network of micro-companies. Ideally suited to the Internet environment, and enjoying essentially the same access to world markets as multinational corporations, some of these start-ups claim impressive growth rates and profitability<sup>8</sup>. At this stage, the US has built a substantial lead over Europe. A similar lead is opening up in the strategic sector of electronic commerce tools– products and technologies which underpin the future development of electronic commerce. Similarly, Japan and the Asia/Pacific region also are rapidly catching up. Spurred by industry and government, these countries are enjoying huge growth in Internet connectivity and electronic commerce. Based on today's growth rate and investments, they could rival Europe in terms of electronic commerce revenues by the year 2000<sup>9</sup>.

### MARSHALLING EUROPE'S STRENGTHS

19. Recent figures indicate that in some Member States Internet commerce usage has caught up with, and sometimes overtaken, the US. Finland and the Netherlands are now among the most dynamic on-line markets in the world<sup>10</sup>. In this highly competitive environment, Europe can and must marshal its specific strengths.

Europe has a strong base in technology and infrastructure. It has powerful telecommunication operators (incumbents as well as new players), highly reliable basic infrastructure, and early deployment of advanced digital networks. Commitment to standardization, exemplified by the success of industry-driven standards such as the GSM and the DVB, is another crucial asset. So is Europe's commercial advances in key electronic commerce technologies such as smart cards and intelligent agents. Content development is another of Europe's greatest strengths. Content – computer software, business information, video entertainment – is the very essence of immaterial electronic commerce. European companies, in particular publishing and multimedia industries, are harnessing their considerable resources and know-how in the global electronic information markets. Similarly, highly innovative SMEs are positioning themselves successfully in specialised markets such as multimedia production and multilingual content localisation. Europe also has a competitive retail sector, with adapted product ranges and an in-depth knowledge of the various consumer tastes around the continent, a strength which can be leveraged too.

Furthermore, the ability to trade electronically in a single currency – the Euro – across the world's largest single market will give European businesses considerable competitive advantages. Cross-border price transparency resulting from the Euro will

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<sup>8</sup> A recent market survey of 1,100 Web based firms suggested that over 30% were profitable after a year, and that 30% more expected to be profitable within two years. Reported profit margins of twenty per cent and above are common (Figures from ActivMedia, reported in *Business Week*, 23/9/1996).

<sup>9</sup> Source: Gartner Group

<sup>10</sup> The Netherlands is now one of the most developed electronic commerce markets in the world, with high PC penetration (38% of households), high use of Internet (22% of PC users have access to Internet, against 16% in the US, and 12% in Germany), and high use of electronic commerce (33% of Internet users use it to buy online, against 22% in the US). Source: International Data Corporation/Link

stimulate the use of electronic commerce; conversely, electronic commerce will facilitate the transition to the euro.

20. Europe must tap the tremendous power of the entrepreneurial process and the force of the market. The ability of the Community and its Member States to steer developments is particularly important: if our companies are to succeed in today's competitive global electronic commerce market, they need an optimal environment to operate in.

This means competitive telecommunications, the availability of standards and interoperable solutions, and focused R&D. A sound and flexible regulatory framework which generates confidence for both business and consumers and ensures full and unlimited access to the Single Market is an essential key to Europe's success. Such a regulatory framework will be a major competitive advantage in itself. Steps must also be taken to improve the business environment: to exchange best-practice, facilitate access to venture capital and stimulate training. Ultimately, global solutions must be found. The Community should be in the lead in exploring and offering solutions at international level. The changes described and the actions to be taken are developed in the next chapter. They are ambitious. And they will take effort and political will to carry through. But if they succeed, Europe will be well placed to become the heartland of electronic commerce.

#### **THE NEED FOR GLOBAL CONSENSUS**

21. Electronic commerce is inherently a global activity. Improved access to global markets is accompanied by the challenge from other parts of the world. Multilateral dialogue, involving governments and industry, is currently being pursued in many forums. The private sector has been playing a pioneering role, for example, in the process leading to landmark global agreements such as the Information Technology Agreement (ITA) and the Mutual Recognition Agreements on conformity assessment (MRAs). With the successful conclusion of the World Trade Organisation (WTO) negotiations on services (1993) and telecommunications (1997), the Community has committed itself, together with Member States, to the opening of most electronic commerce activities. Any European action on electronic commerce therefore has to be compatible with those WTO commitments.

At the same time, the Community will continue to fight trade barriers, in order to secure access to infrastructure and services in other countries. This will be achieved by enforcing multilateral commitments made by the European Union's partners in WTO. Many trade issues specific to electronic commerce will also need to be pursued at a bilateral level, in particular with the US. In this perspective, the New Trans-Atlantic Agenda, the Information Society Dialogue and the Trans-Atlantic Business Dialogue will continue to play a major role.

22. An issue of growing concern is the challenge posed by the emergence of cyber-crime, such as electronic money laundering, illegal money gambling, malicious hacking, or copyright infringement. International co-operation is already well

advanced in a number of key areas, such as the fight against organised transnational crime on new communication networks. Faced with new forms of high technology and computer crime on global networks<sup>11</sup> (reported criminal hacking cases are doubling every year), governments have responded vigorously.

In Europe (Europol), as well as in the wider international environment (P8), specialised task forces have been set up, and transborder operational co-operation reinforced in such key areas as the real-time “trap and trace” of on-line criminals and “search and seize” of digital evidence. Efforts are similarly being made to harmonise the criminalisation of computer offences and avoid digital havens. A high level Group, set up following the Dublin Council, is finalising an Action Plan to fight cybercrime. These efforts are crucial to reinforce trust and confidence in transnational electronic commerce.

## **CHAPTER 2: ENSURING ACCESS TO THE GLOBAL MARKETPLACE: INFRASTRUCTURE, TECHNOLOGY AND SERVICES**

The widespread adoption of electronic commerce requires efficient, affordable and widely available telecommunications infrastructures, technologies and services. Europe must match the cost, capacity, access, choice, security and user-friendliness of such facilities throughout the world.

### **MAXIMISING THE EFFECTS OF TELECOMMUNICATIONS LIBERALISATION**

23. A fully competitive European telecommunications market, implemented through effective telecommunications liberalisation will lower telecommunications tariffs and act as a major incentive to the development of electronic commerce in Europe. Comprehensive legislation is now being implemented by Member States to ensure full competition in all business sectors from 1 January 1998. By fostering greater competition between established operators and new players alike, telecommunication liberalisation is already leading to lower telecommunication prices and to the introduction of more flexible tariff schemes for businesses and private on-line users. As a result, Internet use is already significantly higher in the most competitive markets, and so is the take-up of electronic commerce.

24. In the wider international context, the recently concluded WTO Agreement on Basic Telecommunications represents a major landmark. This Agreement contributes significantly to the emergence of a global marketplace, since it contains commitments from 69 countries on market access and national treatment. It covers all telecommunications services, regardless of the technological means used for delivery of those services. Most countries have also underpinned such commitments by regulatory measures. The Commission will work with the EU Member States, as well as with its trading partners, towards the full and timely implementation of this Agreement which will enter into force by 1 January 1998.

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<sup>11</sup> The US Federal Trade Commission and the Gendarmerie Royale du Canada each maintain Web sites to inform users of various types of illegal schemes and abuses on the Internet. See <http://www.ftc.gov> and <http://www.rcnnp-grc.gc.ca/html/scams-f.htm>

25. Regional disparities in the cost, quality and accessibility of electronic commerce infrastructure and services must be reduced to allow full access for remote areas to global markets and to overcome regional isolation. Electronic commerce provides an important impulse to revitalising regions and to renewing and sustaining local services. The widespread availability of electronic commerce infrastructure at an attractive price is required if SMEs are to fully exploit the opportunities. However, significant regional disparities may remain across Europe. Market forces alone may not close these gaps. This situation will have to be monitored closely in the evolving context of the Information Society. The Commission has addressed this issue in its Communication on "Cohesion and the Information Society"<sup>12</sup> and will continue to seek to ensure that the enterprise sector is consulted to find effective solutions.

#### **MAXIMISING THE BENEFITS OF THE LIBERALISATION OF INFORMATION TECHNOLOGY MARKETS**

26. Recent international agreements to eliminate tariff and non-tariff barriers on products in the area of information and communication technologies should rapidly bring down costs in particular of the basic tools (computers, software, networking, CD Roms) and directly stimulate the take up of electronic commerce.

The Ministerial Declaration on Trade in Information Technology Products agreed in December 1996 provides for the expansion of world trade in information technology. As a result, the recently adopted Information Technology Agreement (ITA), which covers more than 90% of world trade in IT products, provides for the gradual elimination of tariffs on these key products for electronic commerce by the year 2000.

Similarly, the Mutual Recognition Agreements of conformity assessment (MRA) will contribute significantly to the elimination of non-tariff barriers on IT products. Extending the Single Market principle of mutual recognition into the global environment, the MRA guarantees the recognition of certification procedures carried out in the exporting country – which, in turn, should substantially reduce costs. Welcomed by European IT and ITC industries, both agreements will strengthen the entire electronic commerce sector, directly benefiting European businesses and consumers. The Commission will work towards the full implementation of these agreements, and ensure that respective commitments, concerning in particular tariff schedules, will be met.

#### **REMOVING CAPACITY BOTTLENECKS**

27. Europe must take steps to ensure that a high bandwidth infrastructure is put in place in order to ensure that consumers and businesses take full benefit of the ongoing technological developments which, inevitably, lead to ever increasing needs for more transmission capacity. The private sector is already working at removing capacity

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<sup>12</sup> COM(97)7 of 22 Jan 97.

bottlenecks in some Member States<sup>13</sup>. Telecommunication operators are heavily investing in Internet infrastructure and services.

The Commission will pursue a co-ordinated European approach to tackling capacity bottlenecks through the European Union R&D programmes in information and communication technologies, including actions in the Fifth Framework Programme and in the Trans-European Networks. This will involve setting-up an operational high-speed network for researchers, complemented by facilities to test technologies and applications. The Commission will also facilitate the active involvement of Europe's industry and public bodies in global decision-making on the evolution of the Internet. In parallel, to promote the rapid use of the new broadband services, education and training initiatives will be developed for SMEs, schools and local authorities.

28. The future competitiveness of European industry depends on the sustained development of high-performance information and telecommunications infrastructures. Immediate action for the early development and implementation of an advanced, high capacity Internet infrastructure based on terrestrial and satellite networks<sup>14</sup> is essential<sup>15</sup>.

#### ENSURING INTEROPERABILITY IN A COMPETITIVE ENVIRONMENT

29. Should the present trend of developing incompatible standards<sup>16</sup> continue, both businesses and consumers will be severely disadvantaged<sup>17</sup>. There is a risk that users become "locked in" specific solutions. Similarly, it may be difficult to carry transactions between mutually incompatible systems. Without interoperability, critical mass may be difficult to achieve. Furthermore secure technologies are also necessary to create trust in information security. These technologies are for the most part available, but important issues of commercial or technical interoperability remain to be solved, while ensuring full competition. To facilitate interoperability between various electronic commerce services, the Commission will launch a specific actions on standardization projects for electronic commerce in June 1997.

30. New forms of industry collaboration in standardization in electronic commerce have emerged. Efforts are already underway at industry level (e.g. Financial Services Technology Consortium; World Wide Web Consortium<sup>18</sup>) to secure *de facto* interoperability in the global environment for a wide range of key electronic commerce technologies such as electronic payment systems<sup>19</sup>. Similarly, the

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<sup>13</sup> An example is Finland, where massive investments in Internet infrastructure by telecom operators (in particular a dense network of ATM networks) have virtually eliminated bottlenecks.

<sup>14</sup> COM(97)...., EU Action Plan on Satellite Communications in the Information Society.

<sup>15</sup> The US government has allocated \$100 million to the "Next Generation Internet Initiative" designed for high-bandwidth applications.

<sup>16</sup> The term 'standard' is used as meaning any formally or informally accepted technical specification and not necessarily only documents adopted by a recognised standards body.

<sup>17</sup> For example, in Europe there are more than 20 mutually incompatible standards for 'stored value' cards (cards storing money similar in concept to telephone cards)

<sup>18</sup> The World Wide Web (WWW) was invented at CERN, the European Laboratory for Particle Physics.

<sup>19</sup> A consortium of 160 computer, telecommunications and content companies, half of them European, the WWW Consortium is currently working on a series of initiatives to ensure *de facto* interoperability between existing technologies in the field of electronic payment systems (Joint Electronic Payment Initiative), digital signatures (Digital Signature Project). It is also working on innovative solutions in the field of content filtering (Platform for Internet Content Selection, or PICS), and of personal data protection (Privacy and Demographics Project). See <http://www.w3.org>.

Commission has been encouraging consensus through the Memorandum of Understanding on Open Access to Electronic Commerce for European SMEs.<sup>20</sup> The involvement of European industry and users in standardization and specification work will be facilitated through a system of flexible, ad hoc, open workshops at European level, preferably within or in collaboration with the European standards bodies CEN, CENELEC and ETSI. This will enable participants to anticipate and react quickly to fast-moving global developments. Furthermore steps will be taken to better address user needs, in particular of SMEs, in standardization.

31. The Commission will present a Communication on a European standardization initiative for electronic commerce. This Communication will identify technical barriers for the take-up of electronic commerce and propose concrete steps to remove these with the active involvement of European companies. Furthermore, the Commission is examining regulatory proposals in order to establish a procedure to identify and select publicly available specifications for the support of Community policies.

32. The benefits of electronic commerce will only be achieved if interoperability is ensured at global level. The European Community and its Member States have consistently been committed to international standards, and expect its major trading partners to act likewise.

In order to further promote international standardization, the Commission will host the global standardization conference "Building the Global Information Society for the 21st Century", to be held in October 1997 which will focus on interoperability and standardization for the Information Society. Particular emphasis will be put on electronic commerce.

#### **MAKING USER-FRIENDLY ELECTRONIC COMMERCE SERVICES AVAILABLE: EUROPEAN R&D**

33. To improve user-friendliness and create opportunities for business innovation, further work is required based on strong user involvement. The aim is to offer simple, user-friendly solutions to handling each stage in the transaction chain electronically. This will facilitate the widespread take-up of electronic commerce, especially by SMEs and allow them to get started, using and staying up-to-date with electronic commerce technologies. The Commission contributes to overcoming technological barriers by giving special importance in its relevant R&D programmes to electronic commerce and bringing related work together<sup>21</sup>. The first steps have already been taken through the launch of an electronic commerce call for proposals in the Esprit (Information Technologies) programme. The approach is to pursue a complementary mix of research, technology development and take-up measures so that the business innovation process is comprehensively supported. The opportunities offered by R&D in socio-economic issues need to be exploited too.

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<sup>20</sup> See <http://www.eto.org.uk/trade/mou/> on the World-Wide Web.

<sup>21</sup> An inventory of electronic commerce related work in the Esprit (information technologies) and ACTS (communications technologies) programmes can be found on the World-Wide Web at <http://www.cordis.lu/esprit/src/ecomproj.htm>.

Electronic commerce appears as a key action in the “Creating a User-Friendly Information Society” programme, proposed as part of the forthcoming Fifth Framework Programme<sup>22</sup>. Technological developments and take-up promotion projects in European Union R&D programmes should concentrate on providing a wide range of interoperable, compatible electronic commerce building-blocks. These could be for services such as payments, IPR management etc., to support the steps in the transaction chain. They could equally address integrated solutions — for example, to integrate better smart-card technology, mobile communications and information appliances. They should favour technologies which minimise the need for personal data and thus enhance the protection of the right to privacy of consumers (privacy enhancing technologies). User-friendly access to information must also be ensured (in particular to deal with information overload). Multilingualism, including on-line translation, must be supported. Full use must also be made of multimedia and knowledge-based systems to simplify the interface to the user and better support users with different characteristics. As indicated in the Innovation Action Plan<sup>23</sup>, other factors besides R&D will also have to be addressed to create an environment which fully favours the exploitation of innovation.

#### **INTERNATIONAL INDUSTRIAL COOPERATION IN INFRASTRUCTURE, TECHNOLOGIES AND SERVICES**

34. The global infrastructure needs to be harnessed by international industrial and technological co-operation, in particular in areas such as secure electronic commerce, international electronic payments, multilingual support, etc. The European Commission has already undertaken several international industrial cooperation actions. Projects will be launched during 1997 as part of the Prague Action Plan involving Central and Eastern European countries, and in cooperation with non-Union Mediterranean countries. Particularly, such projects help Central and Eastern European countries in their preparation for accession to the EU. International industrial cooperation in electronic commerce with major trading partners such as the USA, Canada, Australia, the European Economic Area, Israel and Japan is part of bilateral dialogue and Science and Technology Agreements. The Commission will also strengthen its ongoing international cooperation in the field of electronic commerce by promoting global pilot projects in the G7 Global Marketplace for SMEs collaboration.

### **CHAPTER 3: CREATING A FAVOURABLE REGULATORY FRAMEWORK**

The pace and the extent to which Europe will benefit from electronic commerce greatly depends on having up-to-date legislation that fully meets the needs of business and consumers. The objective of the Commission is to implement the appropriate regulatory framework by the year 2000. The existing Single Market regulatory framework has proved its worth for traditional forms of business. It must now be made to work for electronic commerce by achieving two complementary objectives: building trust and confidence and ensuring full access to the Single Market.

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<sup>22</sup> COM(97)142

<sup>23</sup> Innovation Action Plan COM(96)589 of 20 November 1996.

## **BUILDING TRUST AND CONFIDENCE**

35. The first objective is to build trust and confidence. For electronic commerce to develop, both consumers and businesses must be confident that their transaction will not be intercepted or modified, that the seller and the buyer are who they say they are, and that transaction mechanisms are available, legal and secure. Building such trust and confidence is the prerequisite to win over businesses and consumers to electronic commerce. Yet many remain concerned about the identity and solvency of suppliers, their actual physical location, the integrity of information, the protection of privacy and personal data<sup>24</sup>, the enforcement of contracts at a distance, the reliability of payments, the recourse for errors or fraud, the possible abuses of dominant position<sup>25</sup>—considerations which are heightened in cross-border trading.

36. Secure technologies – such as digital signatures and digital certificates – go some way to meeting these challenges. Digital signatures enable the unambiguous confirmation of the identity of the sender and the authenticity and integrity of electronic documents. Unique to the sender and unique to the message sent, digital signatures are verifiable and non-repudiable. Similarly, the exchange of digital certificates (“Internet ID cards”) through an automatic “digital handshake” between computers provides assurance that the parties are who they say they are, and helps to assess whether the service provided and the goods or services delivered are genuine.

Copyright protection mechanisms, also based on secure technologies such as encryption and smart cards, ensure the protection of digital material and are a crucial factor in the emergence of a mass-market in electronic content. Also based on cryptographic methods, secure electronic payment mechanisms provide the final element of trust: the ability to pay and to be paid. Such secure technologies are for the most part fully operational and commercially available. However, the necessary regulatory and institutional framework supporting such technologies is not yet complete, particularly in areas such as interoperability and mutual recognition across borders.

## **ENSURING FULL ACCESS TO THE SINGLE MARKET**

37. The second objective is to ensure full access for electronic commerce to the Single Market. Given its size, the Single Market potentially offers businesses a “critical mass” of customers before addressing further global markets. However, faced with the new challenges posed by electronic commerce, Member States are responding in different ways. The development of divergent legislative approaches is not only ineffectual given the transfrontier nature of electronic commerce but also risks fragmenting the Single Market and thus inhibiting the development of electronic

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<sup>24</sup> Privacy is a particular concern of consumers. According to the survey “Information Technology and Data Protection”, *Eurobarometer* 46.1, January 1997, two thirds of respondents are worried about trails of personal data that are left behind when using digital information networks.

<sup>25</sup> Additionally, virtual shopping malls which operate across borders could become very dominant once they achieve a substantial size. Some adaptation of retail legislation may be required.

commerce in Europe. The proposed Transparency Mechanism Directive<sup>26</sup> is precisely targeted at reducing the risk that new measures, by being different from one Member State to another, could restrict the free movement of Information Society services.

38. However important it is to avoid regulatory inconsistency by discouraging divergent actions at national level, the Union must also ensure that a coherent regulatory framework for electronic commerce is created at European level. Such a regulatory framework will inevitably be built on existing Single Market legislation which already largely creates the right conditions for on-line businesses. As part of that framework, specific measures have already been taken to respond to new developments. They include the recently adopted directives on data protection<sup>27</sup>, on the legal protection of data bases<sup>28</sup> and on contracts negotiated at a distance<sup>29</sup>; and the proposed revision of the "Television without Frontiers" Directive<sup>30</sup>. In addition, a number of consultation or policy documents have been issued to stimulate debate on various policy areas including the legal protection of encrypted services<sup>31</sup>, copyright and related rights<sup>32</sup>, industrial property<sup>33</sup>, commercial communications<sup>34</sup>, public procurement<sup>35</sup> and the protection of minors and human dignity in audiovisual and information services<sup>36</sup>.

#### THE PRINCIPLES OF AN ELECTRONIC COMMERCE REGULATORY FRAMEWORK

39. The application of four principles will provide the Union with an adaptable and appropriate framework of legislation.

*No regulation for regulation's sake:* in many cases, the free movement of electronic commerce services can be effectively achieved by mutual recognition of national rules and of appropriate self-regulatory codes. This means that companies engaged in cross-border business operate under the law of the country of origin ("home country control"). Only where mutual recognition does not suffice to remove obstacles in the market or to protect general interest objectives, will there be a need for Community action. Any legislative action should impose the fewest possible burdens on the market and keep pace with market developments.

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<sup>26</sup> Proposal for an European Parliament and Council Directive amending for the third time Directive 83/189/EEC laying down a procedure for the provision of information in the field of technical standards and regulations, COM (96) 392 final, 30.08.1996.

<sup>27</sup> Directive 95/46/EC of the European Parliament and the Council on the protection of individuals with regards to the processing of personal data and the free movement of such data. OJ L281 23.11.1995 p.31.

<sup>28</sup> Directive 96/9/EC of the European Parliament and of the Council on the legal protection of databases OJ L77 27.03.1996 p20.

<sup>29</sup> Directive 97/7 of the European Parliament and the Council of 17 February 1997 on the protection of consumers in respect of distance contracts (to be published in the Official Journal).

<sup>30</sup> Proposal for a European Parliament and Council Directive amending Council Directive 89/552/EEC on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities.

COM(95) 86 Final of 31.05.1995, O.J. C 185 of 19.07.95, p. 4.

<sup>31</sup> Commission Green Paper "Legal Protection of Encrypted Services in the Internal Market", COM (96) 76 final. 06.03.96.

<sup>32</sup> Communication from the Commission "Follow-Up to the Green Paper on Copyright and Related Rights in the Information Society", COM(96)568 final, 20.11 1996.

<sup>33</sup> Questionnaire on "Industrial Property Rights in the Information Society". Version 5.0. September 1996. DG XVI/3.

<sup>34</sup> Green Paper on "Commercial Communications in the Internal Market", COM (96) 192 final. 08.05.1996.

<sup>35</sup> Green Paper on "Public Procurement in the EU: exploring the way forward", COM(96) 583 final - 27/11/96

<sup>36</sup> Green Paper on the "Protection of Minors and Human Dignity in Audiovisual and Information Services". COM (96) 483 final 16.10 1996.

*Any regulation must be based on all Single Market freedoms:* electronic commerce cuts across a wide range of cross-border activities. Whether companies engaged in electronic commerce are providing one or several goods and/or services, freedom to do so -easily and effectively- must be at the heart of future policies. Equal weight must be given to all the freedoms offered by the Single Market: the realisation of the free movement of goods, persons, services and capital together with the freedom of establishment. Only in this way can the crucial objectives of coherence, predictability and operational simplicity be achieved.

*Any regulation must take account of business realities:* in any electronic commerce operation, a trader needs to set up business, to promote its products or services and to sell, deliver and finance them. This is part of the normal process of trading - a commercial chain. In many cases, legislation will not be necessary to tackle actual or potential problems. Where it does, it must seek to facilitate operations throughout the commercial chain, for it makes no sense to remove barriers in only one part of that chain whilst leaving others untouched.

*Any regulation must meet general interest objectives effectively and efficiently:* a Single Market for electronic commerce will not develop without the effective safeguarding of recognised general interest objectives such as privacy or consumer protection and other public interests such as wide accessibility to the networks. Without such protection there is a real risk that national regulatory borders will remain in place as individual Member States seek to safeguard the legitimate concerns of their citizens.

#### **THE ESSENTIAL FEATURES OF A REGULATORY APPROACH**

Based on these four principles, an appropriate regulatory response must be developed where necessary. In some cases, responses have already been identified; in other cases, responses need to be found urgently. To ensure that electronic commerce freely flows across national frontiers, different legal issues need to be addressed at each step of business activity.

#### **From the establishment of the business ....**

40. A wide range of regulations at national level could inhibit the establishment of service providers across frontiers. These include differing professional requirements, differing prudential and supervisory systems, and notification or licensing requirements (for example for regulated professions or financial services). The Commission is therefore examining how best such obstacles can be tackled while respecting general interest objectives and will come forward with policy proposals.

41. The new virtual environment also makes it more difficult to determine who are the contracting parties, where an electronic commerce operator is established and whether that operator is complying with all relevant legal conditions. This can create legal uncertainty about which Member State will be competent and about the applicable law in disputed cases. It also complicates the application of Single Market principles, in

particular the principle of country of origin control. The Commission will examine these and related issues to clarify any areas of doubt or inconsistency - including the application of the Rome Convention<sup>37</sup> and the Brussels Convention<sup>38</sup> in the new electronic context -and will work to improve consumers access to justice, in particular the possibilities for redress.

#### **To the promotion and provision of electronic commerce activities ...**

42. Any on line service provider or company establishing a Web site is subject to divergent national regulations including those on commercial communications (covering advertising, direct marketing, self-promotions, sponsorship and public relations). This hampers the use of efficient and creative cross border commercial communications strategies and creates legal uncertainty. As a follow-up to the Green Paper on Commercial Communications, the Commission will come forward with detailed proposals to remedy actual or potential difficulties.

43. At present Member States apply certain restrictions to the marketing of particular financial services to protect the public interest. The effect of such restrictions is that the Single Market for financial services, including financial services provided electronically, is fragmented. Before the end of the year, the Commission will put forward a proposal for a directive on financial services contracts negotiated at a distance which will seek to remove obstacles to cross-border provision whilst safeguarding consumer protection.

#### **Through negotiation and conclusion of contracts ...**

44. A Directive on contracts negotiated at a distance which covers electronic transactions and a certain number of horizontal directives (on unfair contract terms in consumer contracts, on misleading advertising) and sectorial directives (on consumer credit, travel packages, timeshare) have been adopted. Furthermore a proposal on the sale of consumer goods and associated guarantees is in the pipeline. These directives are establishing a minimum level of protection for consumers which is also applicable to electronic commerce transactions within the EU.

45. A number of Member States' rules governing the formation and the performance of contracts are not appropriate for an electronic commerce environment and are generating uncertainties relating to the validity and enforceability of electronic contracts (for example the requirements for written documents, for hand written signatures, or the rules of evidence that do not take into account electronic documents). The Commission will take concrete steps to address the problem of how to eliminate barriers for the legal recognition of electronic contracts within the Single Market. Furthermore, as regards consumer protection in the field of electronic commerce, this point shall be dealt with in the Communication on the Consumer Dimension of the Information Society.

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<sup>37</sup> Convention on the law applicable to contractual obligations. Rome 1980. OJ L266, 9.10.80 p.1.

<sup>38</sup> Convention on jurisdiction and enforcement of judgements in civil and commercial matters. Brussels 1968. OJ C97, of 11 April 1983.

46. Bookkeeping, accounting and audit rules will also have to be adapted to electronic commerce and will have to allow, for example, for electronic verifications without any paper copies or for electronic invoices. National rules could develop in a divergent way and threaten the Single market. The Commission will initiate discussions with the Member States in order to prepare appropriate action.

**... To the making and receipt of electronic payments.**

47. Electronic commerce will not develop without sound, user-friendly, efficient and secure electronic payment systems. The Commission, the EMI and the Member States are currently considering the appropriate supervisory framework for the issuance of electronic money. In the light of this discussion the Commission intends to present by the end of 1997 (i.e. the target date for completion of the work) a proposal for a Directive on the issuance of electronic money, so as to ensure the stability and soundness of issuers of such payment products. This will contribute to boosting consumer confidence. Meanwhile, the Commission envisages modernising and updating the Recommendation of 1988 concerning payment systems<sup>39</sup> before the middle of 1997 in order to provide guidance for the relationship between issuers and users of all new means of payment (e.g. on liability, transparency and redress procedures).

48. Compatibility between electronic payment systems, which is in the interest of both consumers and business, will mainly rely on agreements among operators. Such agreements must be in conformity with the Community's competition rules. To provide guidance, the Commission will in the course of 1998 issue a competition notice which will clarify the application of competition rules to new means of payments .

49. Fraudulent use and counterfeiting, which is a serious concern for means of electronic payments, is only punishable in a minority of Member States. The financial industry and users have requested the Commission to take initiatives covering all non-cash means of payment to improve the security of new payment systems.

**A REGULATORY APPROACH THAT DEVELOPS APPROPRIATE HORIZONTAL POLICIES**

**Ensuring Data Security and Privacy**

50. The use of strong encryption which ensures the confidentiality of both sensitive commercial and of personal data is one of the foundation stones of electronic commerce. Widely divergent national laws restricting the use, exportation importation and offering of encryption technologies and products are adding substantial barriers to the development of electronic commerce in Europe. The removal of such cross border barriers is crucial for the implementation of the Single Market in electronic commerce. The Commission will seek to develop a policy which will aim to guarantee the free movement of encryption technologies and products while safeguarding public security concerns. The Community shall work at international level towards the

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<sup>39</sup> Commission Recommendation of 17 November 1998 concerning payment systems, and in particular the relationship between card-holder and card issuer. OJ L317 of 24 November 1988, p 55.

removal of trade barriers for encryption products. The recently adopted OECD Cryptography Guidelines constitute a first attempt to achieve international consensus on this matter.

51. A more specific issue is that of digital signatures which will be the subject of a Commission initiative. This initiative will aim at ensuring a common legal framework encompassing the legal recognition of digital signatures in the Single Market and the setting up of minimum criteria for certification authorities. World wide agreements on digital signatures will also be needed.

52. Key amongst confidence-building measures is the need to safeguard the individual's and a company's right to privacy while avoiding obstacles to the cross-border provision of electronic commerce services. The EU Framework Directive on the protection of personal data meets these two objectives. It remains to be seen whether further regulatory measures may be needed to address specific issues emerging from the developments of electronic commerce. In particular, privacy principles need to be safeguarded in the area of electronic payment systems, taxation and copyright management systems. The Commission will pursue a WTO initiative aiming at a multilateral agreement on trade related aspects of global information flows whilst protecting the right to privacy and personal data.

#### **Establishing Appropriate Protection for Intellectual Property Rights and Conditional Access Services**

53. The protection of copyright and related rights is essential for the development of electronic trade. The Commission will take a legislative initiative to deal with certain aspects of copyright and related rights<sup>40</sup>. It will focus on on-line communications, reproduction and distribution of protected material. This will be flanked by adequate legal protection against the circumvention of anti-copy devices and electronic management systems. The two international Treaties adopted in December 1996<sup>41</sup> under the auspices of the World Intellectual Property Organisation (WIPO) are essential to stimulate and facilitate electronic commerce internationally. The Community shall aim for their early entry into force. Moreover, a successful outcome of the present WIPO negotiations on the legal protection of the substantial investment made in databases will constitute a further milestone in facilitating electronic commerce world-wide. The work on this issue will continue in the framework of WIPO, during the second half of 1997 and the Commission considers it of importance to adopt an international convention in the near future on this topic.

54. Trademarks are major commercial instruments that will play an important role in the electronic market place. However in an open network environment the trademark owner is faced by severe difficulties in controlling the legitimate use of his trademark. The Commission is now consulting interested circles about this and related issues and will take appropriate steps to resolve conflicts between the allocation of Internet domain names and trademarks. The Commission will seek to ensure that European

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<sup>40</sup> For further details see Communication from the Commission "Follow-Up to the Green Paper on Copyright and Related Rights in the Information Society", COM(96)568 final, 20.11.1996.

<sup>41</sup> The "WIPO Copyright Treaty" and the "WIPO Performances and Phonograms Treaty".

interests are duly taken into account in the reorganization of the Internet Domain Name System (DNS). In the context of the WIPO Consultative Group on trademarks and Internet domain names, the Commission is actively contributing to the definition of internationally acceptable solutions, such as on-line arbitration, mediation and challenge panels.

55. A secure distribution of services will require adequate legal protection of conditional access services across the Single Market. Many services will use some form of encryption or other conditional access system to ensure proper remuneration. Service providers will need to be protected against the piracy of their services by illicit decoders, smart cards or other piracy devices. The Commission will propose a directive to establish an equivalent level of protection for service providers across Europe.

### **Ensuring a clear and neutral tax environment**

56. To allow electronic commerce to develop, it is vital for tax systems to provide legal certainty (so that tax obligations are clear, transparent and predictable), and tax neutrality (so there is no extra burden on these new activities as compared to more traditional commerce). The potential speed, untraceability and anonymity of electronic transactions may also create new possibilities for tax avoidance and evasion. These need to be addressed in order to safeguard the revenue interests of governments and to prevent market distortions.

57. Indirect taxation, and particularly VAT, is the area in which the Community rules are most harmonised. Electronic trade in goods and services clearly falls within the scope of VAT, in the same way as more traditional forms of trade do. However, thorough analysis is needed to evaluate the possible impact of electronic commerce on present VAT legislation (on issues such as definition, control and enforceability) and to judge if, and to what extent, present legislation needs to be adapted, while ensuring tax neutrality. Adaptations should avoid putting excessive burdens on small companies. While some commentators have suggested that there might be a need to look at alternative taxes such as "bit tax"<sup>42</sup>, the Commission is of the opinion that this is not appropriate since VAT already applies to these transactions.

58. The territorial concepts which underlie direct taxation systems ("residence" and the "source" of income) also need to be examined in the light of commercial and technological developments. As with indirect taxation, the goal is threefold: to provide legal certainty, to avoid undue revenue losses, and to ensure neutrality.

59. The Commission and the Member States have recently decided to start an analysis of the impact and consequences of electronic commerce on Customs and Indirect Taxation. The Commission will use the Taxation Policy Group to explore these issues at EU level with Member States. Further work at an international level will be done in the OECD Committee on Fiscal Affairs.

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<sup>42</sup> "Interim Report of the High Level Group of Experts on the Social Aspects of the Information Society", <http://www.ispo.cec.be/hleg/hleg.html>.

## **WORKING TOWARDS A CONSISTENT GLOBAL REGULATORY FRAMEWORK**

60. At present, the pioneers of electronic commerce are operating in a fragmented regulatory environment despite the fact that a number of aspects of electronic commerce are already covered by international agreements such as WTO/GATS (General Agreement on Trade in Services) and WIPO. As in the case of the Single Market existing and new national legislation in diverse areas (for example encryption, digital signatures, data protection and privacy, contract law, new electronic means of payments) can create trade barriers which will hamper the development of electronic commerce at a global level. Solutions need to be found to provide for a consistent international regulatory framework for electronic commerce.

Important steps have already been taken in a variety of different international fora such as WIPO, WTO, OECD (Organisation for Economic Cooperation and Development), the World Customs Organisation, UNCTAD (United Nations Conference on Trade and Development), UNCITRAL (United Nations Commission on International Trade Law) the Exports Credits Arrangement and the Council of Europe.

Building on this, the Community should further work through appropriate international fora and bilaterally with its major trading partners to establish a coherent global regulatory framework.

61. An International Ministerial Conference on "Global Information Networks: Realising the Potential" will be organized by the Commission and German Government in Bonn on 6-8 July 1997 which will address international policy-making amongst others for electronic commerce with a view to adopting a Ministerial Declaration.

## **CHAPTER 4: PROMOTING A FAVOURABLE BUSINESS ENVIRONMENT**

A further challenge facing the European Union lies in achieving the widespread adoption of electronic commerce by consumers, businesses, and public administrations. The awareness and confidence of consumers and businesses needs to be enhanced, and support is needed for the development of relevant skills and widespread network literacy. SMEs, in particular, need to be encouraged to adopt new business methods, techniques and innovations. Public administrations have an important role to play by adopting a favourable attitude to electronic commerce.

### **CONSUMERS: CREATING AWARENESS AND CONFIDENCE**

62. Consumers have much to gain from electronic commerce when they buy goods and services from their own homes: a wider choice, easier and more comprehensive pre-purchase information, and potentially lower prices. The Commission has already indicated in its three year action plan on priorities for consumer policy (1996-1998) the potential benefits which the development of the Information Society will bring to consumers.

The Commission will prepare a Communication on the consumer dimension of the Information Society which will aim to promote consumer access to the Information Society, including new consumer skills which will require special education and training.

63. Consumers need to have confidence in the electronic commerce process itself. "Hard trust" in electronic commerce, through the use of secure technologies, needs to be complemented by "psychological trust". Industry, trade and consumer organizations need to work together to boost this by the use, for example, of quality labels; by issuing comparative reports<sup>43</sup>; or by the endorsement of new services by trusted commercial brand names such as banks, credit card companies, or network operators<sup>44</sup>.

Trust can also be encouraged by increasing the transparency of transactions (for example, concerning the identity, origin and liability of the supplier), keeping to a minimum the personal data required from the consumer, and by making clear the legal status of any information provided. Industry can also increase the level of trust by adopting and abiding by codes of conduct. Ideally, labelling and codes of conduct would need to be applied at a European or global level to win mass acceptance amongst consumers and businesses and avoid the creation of new barriers. The Commission encourages the creation of widely accepted quality labels and codes of conduct to increase trust and confidence in electronic commerce.

64. For consumers, the use of the Euro and electronic commerce should simplify and lower the cost of transactions. The Commission will therefore encourage pilot work on quality labels for electronic payments in the future. This could guarantee that the electronic payment service meets a set of minimum quality criteria (e.g. dual display of prices plus automatic conversion between Euro and national currencies without surcharge). The financial industry, consumer representatives and public authorities would together define these criteria. Quality labels could also be applied to electronic purses and other existing payment instruments, such as debit and credit cards.

#### **BUSINESS: CREATING AWARENESS AND ENCOURAGING BEST PRACTICE**

65. Small businesses need to understand the potential benefits of electronic commerce in terms of cost savings, opening up of new markets and opportunities for new products and services. Awareness actions will build on the insights gained through the Commission's Commerce 2000 pilot programme, the consultation process on the Green Paper on Commerce and in the G7 context, and will take into account the limited resources available to SMEs for staff training. They will aim to encourage industrial organizations and associations to publicise case studies, disseminate training materials and use electronic commerce themselves. This could involve Chambers of

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<sup>43</sup> The European ConsumerNet project, launched recently, is an example of such a service. See <http://www.ispo.ccc.be/ispo/call/quacit.htm> on the World-Wide Web.

<sup>44</sup> Trade associations and Better Business Bureaus already grant "labels" and "accreditations", which can be certified electronically, to new cyber-firms.

Commerce, industry groupings at local, national and European level, technology promotion associations, and groups of SMEs, as well as partnership programmes (such as Europartneriat and Interprise).

The Euro-Info Centres network will undertake, in the context of the Multi-annual Programme for SMEs<sup>45</sup> specific initiatives to increase the exposure of companies, in particular SMEs, to electronic commerce techniques. Following the completion of the consultation on the Green Paper on Commerce and Distribution,<sup>46</sup> a work programme will be launched by the end of 1997, including electronic commerce actions for the retail and distribution sector to respond to user requirements. Awareness promotion will furthermore be pursued through the G7 project Global Marketplace for SMEs building amongst others upon the first annual conference of this project in April 1997 which addressed many of the issues that directly concern SMEs and policy-makers in global electronic commerce. The use and development of standards to facilitate international product sourcing will also be promoted.

66. Best practice pilot projects play an important role in raising awareness. Pilot projects can be designed, for example, to test business innovations and examine their compatibility with existing legal and fiscal environments. They can also contribute to the analysis of structural changes in and across sectors and of the impact on employment. SMEs often lack the resources to try out new applications individually. Pilot projects typically develop business models that take full account of Europe's multilingual and multicultural character and the particular preferences of European consumers and businesses.

The Commission will increase support for best practice pilots and will extend large-scale awareness and take-up actions to promote business innovation across a wide range of market sectors, such as retail, food and agribusiness, electro-mechanical engineering, shoes, textiles, publishing, and tourism. Relevant programmes for these actions such as R&D programmes in information technologies and structural funds will be exploited to the full. Where appropriate, European coordination structures will be set up. The Commission encourages private sector initiatives to stimulate just-in-time business-to-business markets for accounting, invoicing, and settlement flows, to facilitate the adoption of integrated financial management software and to reduce cross-border payment periods in commercial transactions<sup>47</sup>.

#### **PUBLIC ADMINISTRATIONS: PROMOTING A MORE PRO-ACTIVE PUBLIC SECTOR**

67. The public sector has an important role to play in the promotion of electronic commerce. Administrative formalities and requirements, as well as the services provided by the public sector, form part of day-to-day business. 70% of the data handled by administrations originates in industry. Areas where electronic support could be applied include customs and taxes, social security, employment services, public registries and public procurement. Organizational (and possibly regulatory

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<sup>45</sup> COM(96)98 final

<sup>46</sup> COM(96)5 final

<sup>47</sup> The estimated cost savings achievable by introducing integrated 'just in time' financial management is estimated to be 2-3% of a company's turnover. It should also be possible to reduce cross-border payment periods significantly from the current average of two weeks.

changes) may be required for the effective introduction of electronic commerce in business-public administration relationships. The Commission will launch benchmarking initiatives (studies, pilot projects) to learn from practical experience of public administrations and to identify specific European needs, including requirements for interoperability at European level.

68. Under the present IDA programme, trans-European networks for administrations are being introduced. They will involve commercially available technical solutions whilst interoperability issues will need to be considered by both public administrations and the private sector. The Commission will issue guidelines to identify projects of common interest and implement measures to ensure the interoperability of networks.

69. The Member States themselves should confirm their confidence in electronic commerce by using it at the various levels of public administration. This would act as a catalyst on the market as a whole. The most exemplary action will be for public administrations to use electronic commerce for their own purchases. Public procurement represents a large part of the economy (some 12% of EU GDP). Administrations could not only realise considerable potential savings for their tax payers but their actions would also speak louder than words<sup>48</sup>.

Bringing together the experiences of the SIMAP public procurement project, the results of related projects funded under research and development programmes, and responses to the Green Paper on Public Procurement, the Commission will present a strategy paper later this year, together with an action plan to stimulate the development of electronic procurement. The paper will identify any measures that need to be taken to ensure that electronic commerce improves transparency, ensures non-discrimination and does not create new barriers to openness in public procurement markets. The Commission will examine to what extent existing public procurement directives need review in order to facilitate the use of electronic commerce and simplify or reduce any administrative requirement or procedure that is unnecessary in the new electronic environment.

70. The Commission will step up its own efforts to be a major user of electronic commerce. The Commission has already piloted the electronic submission of proposals in the ACTS and Esprit R&D programmes, and has made use of an Internet forum to encourage interactive response and comment to the Public Procurement Green Paper. The Commission will make more extensive use of "virtual" discussions to stimulate public debate on Community policy<sup>49</sup>. Links with its agencies and Member State administrations and the general public will also be developed further. The Commission will present an Action Plan for its use of electronic commerce by the end of 1997.

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<sup>48</sup> The Swedish Association of Local Authorities has estimated that savings of 3% of the procurement budget could be achieved through the use of electronic commerce.

<sup>49</sup> Recently a successful public debate was held with Commissioner Oreja via the Internet on the Intergovernmental Conference

## **PUTTING ELECTRONIC COMMERCE AT THE SERVICE OF THE CITIZEN**

71. Electronic commerce is the Information Society in practice. However, as the Information Society Forum has pointed out in their first annual report<sup>50</sup> “neither our people nor our institutions nor most of our companies are really prepared for the new technologies”. The Forum emphasised the need for better education in the use of the new technologies, next to other key issues such as awareness creation and readiness by governments and public authorities to assume their responsibilities. Electronic commerce requires new skills for network literacy. Consumers will need to become familiar with information technology for communicating and ordering goods and services electronically. The basis for such skills should already be laid in primary and secondary schools. Employees and managers, especially in SMEs, may have to get used to doing business internationally instead of in a national or regional market place and will require retraining to this end. As the Forum expressed clearly, the Information Society will be a Lifelong Learning Society.

The Commission will supplement policies at regional and national levels to improve skills. Regarding consumers, the above mentioned Communication on the consumer dimension of the Information Society will address this. Regarding employee skills vocational (re-)training to help adapt to industrial change is foreseen, e.g. in the context of the Socrates and Leonardo programmes, and the Action Plan “Learning in the Information Society” with a view to training for the knowledge society, as well as pursued by the ADAPT-BIS programme and the activities of the European Social Fund’s “Objective 4”. Furthermore a Euromanagement Programme will be initiated to promote greater understanding of electronic commerce amongst management in SMEs.

72. Finally, the Information Society Forum as well as the High Level Expert Group on the Social Aspects in the Information Society have stressed the need for public and widespread participation in the evolving Information Society, to avoid the risk of creating classes of information ‘have-nots’ and ‘want-nots’. While the Commission expects that electronic commerce will have a profound impact on businesses, institutions and upon our lives as consumers and employees, it is not self-evident how exactly electronic commerce will and should develop in Europe. A broad and continued societal dialogue about these questions is essential to overcome the hurdles and reap the benefits. In this context, the Commission particularly welcomes collaboration at European level between industry and consumer groupings and their members to stimulate the necessary private-public dialogue and to support the implementation of the actions of this Initiative. As part of this Initiative, the Commission will actively stimulate the public debate on electronic commerce in Europe.

## **CONCLUSIONS**

I. This Communication presents the European Initiative in Electronic Commerce as a set of action-oriented proposals for advancing electronic commerce in Europe. These

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<sup>50</sup> First Annual Report to the European Commission from the Information Society Forum, ‘Networks for People and their Communities’, June 1996

proposals address access to the global marketplace, legal and regulatory issues, and promoting a favourable business environment. Some of them are already included in the Rolling Action Plan for the Information Society, others are new and require an update. Their implementation will involve close consultation with the relevant industry sectors and involve all relevant policy domains. Coherence between technological, regulatory and support actions is an essential element of the approach advocated by this Initiative. With this Initiative the Commission also issues an invitation to all parties involved to engage in a public dialogue about the development and take-up of electronic commerce in Europe.

II. To implement this European Initiative in Electronic Commerce the Commission plans to undertake the following key actions which should be completed by the year 2000 with a mid-term review (new actions which are not yet included in the current Information Society Action Plan are marked with an asterisk):

ENSURING ACCESS TO THE GLOBAL MARKETPLACE: INFRASTRUCTURE, TECHNOLOGY AND SERVICES

. Ensure full implementation of the telecommunications liberalisation package by Member States	by 1.1.98
. Pursue full implementation of WTO basic telecommunications agreement by its signatories	by 1.1.98
. Implement the ITA and MRA Agreements for the removal of tariff and non-tariff barriers on IT products	ongoing*
. Promote active involvement of Europe's industry and public bodies in the evolution of the Internet and the provision of high bandwidth infrastructure through the R&D and TEN-TELECOM programme.	97*
. Implement thematic call on electronic commerce in the ESPRIT R&D programme; further focus appropriate R&D programmes	15 March 97- end 98*
. Launch Fifth Framework Programme with electronic commerce as a priority for technology development and take-up	ongoing
. Adopt Communication on a European standardization initiative for electronic commerce (with action plan)	July 97
. Launch of a specific action on standardization projects for electronic commerce	June 97*
. Organize global standardization conference, Brussels, 1-3 October 97	October 97
. Launch of specific actions for international cooperation in CEEC, MED, G7 Global Marketplace for SMEs within the EU R&D programmes	97*

CREATING A FAVOURABLE REGULATORY FRAMEWORK

. Identify Single Market barriers and legal uncertainties affecting electronic commerce	ongoing
. Launch regulatory initiatives in the area of electronic payments*, contracts negotiated at a distance for financial services*, copyright and neighbouring rights, legal protection of conditional access services and digital signatures	end 1997*
. Assess the need for further initiatives covering Single Market horizontal questions, regulated professions, commercial communications, contract law, accountancy, fraudulent use of electronic payments, data security, data protection, industrial property, direct and indirect taxation and public procurement	ongoing*
. Reinforce international dialogue in the appropriate multilateral and bilateral fora to achieve an adequate global regulatory framework for electronic commerce, in particular in data security, data protection, intellectual property rights, and taxation	ongoing
. Organize with the German Government the Ministerial Conference on Global Information Networks, Bonn, 6-8 July 97	July 97*

PROMOTING A FAVOURABLE BUSINESS ENVIRONMENT

. Adopt Communication on consumer dimension of Information Society, including promotion of consumer access to electronic commerce	June 97
. Promote electronic commerce awareness and best practice actions, by implementing a specific Euro-Info-Centres initiative, launching a Euromanagement programme and setting up a European co-ordination structure for electronic commerce use in the tourism sector, as well as through promotion of the Euro for SMEs.	End 97*
. Intensify support for and launch new best-practice pilots, large-scale awareness activities, take-up actions using ICT R&D, innovation and standardization programmes and Structural Funds	Sept 97*
. Present an action plan on stimulating the development of electronic procurement	end 97*
. Present Guidelines and measures addressing interoperability issues related to public administrations in IDA	Sept 97*
. Present Action Plan for Commission to become leading user of electronic commerce	end 97*
. Learning and training initiatives for electronic commerce in programmes such as Leonardo and Socrates	1997
. Stimulate the public dialogue on electronic commerce in Europe, including establishment of dedicated Website	April 1997*

**III. The Commission invites the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions to discuss the issues involved and to give their political support to this European Initiative in Electronic Commerce.**

**This document is accessible at the following Internet address:**

**<http://www.ispo.cec.be/Ecommerce>**