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Team of Specialists on Internet Enterprise Development

**Seminar on Fostering Internet Enterprise Development by
Governments and by Large Companies through Subcontracting**

Brussels, Belgium, 5 October 2004

REPORT

Introduction

1. The on-going market-driven economic and industrial structural changes in the UNECE region have been among the overreaching forces driving the global economy and the economies of the UNECE region. In this process, investments in information technology are seen as the key for achieving increased productivity in the global economy and reducing costs in particular in the manufacturing and service sectors. Internet has received a major portion of these information technology investments with key productivity improvements, cost reductions and enhancements in market access still to be materialized for all parties involved in this vital information and business tool and media. In this framework, sustainable Internet enterprise development has proved to be the precondition for the continuation of the strong economic growth and job creation in the whole UNECE region. UNECE member countries therefore requested the UNECE to strengthen the impact of the information and communication technology on economic growth in the region and promote Internet enterprise development.

2. The Seminar was organized within the framework of the new programme of work of the Team of Specialists on Internet Enterprise Development (TSIED) and the underlying information and communication technology trends in the UNECE region. The event was attended by 48 participants from 20 countries from the UNECE region.

3. The main purpose of the Seminar was to identify and review the most important issues related to the role of governments and large international information and communication technology (ICT) companies in promoting Internet enterprise development in the UNECE region. The identification and assessment of these issues, which was successfully achieved during the event, will serve as the focal point for the further development, refinement and implementation of the TSIED programme of work with a tangible impact on the ICT trends in the UNECE region. Its results will also serve as the basis for the governments involved to improve the policy and regulatory settings in this key industry. At the same time, the event was structured in such a way that an effective interface could emerge among the present policy makers in the UNECE governments and large international ICT companies.

4. The Seminar was organized in three sessions – Opening Session, Session I: The Role of Governments in Fostering Internet Enterprise Development; and Session II: The Growth of Subcontracting in the Information and Communication Technology Industry and its Potential for Internet Enterprise Development. A brief session on The Business Repository Project of the UNECE/ TSIED was also organized.

Opening Session

5. Mr. George Kowalski, Director of the UNECE Industrial Restructuring, Energy and Enterprise Development Division made the opening statement. After 15 years of reforms in Eastern Europe and the Commonwealth of Independent States (CIS), the issues of economic transition have receded somewhat and those of innovation, growth and development are now on the agenda of these economies. Within this new agenda, the restructuring of economies towards knowledge-based economies has become one of the key concerns of policy makers. More emphasis is needed on matters related to innovation and growth stemming from the development of knowledge-based industries. It is particularly important for those countries that aspire to enhance their international competitiveness and to compete in the global marketplace.

6. Mr. Patrick Gannon, President and CEO of the Organization for the Advancement of Structured Information Standards (OASIS), Boston, USA; and Chairman of the UNECE Team of Specialists on Internet Enterprise Development (TSIED), introduced the work of the TSIED. The mission of the TSIED is to promote efficient Internet enterprise development in the UNECE region, which comprises Western and Eastern Europe, the CIS and North America, and particularly in the former transition economy countries. This is done inter alia by facilitating the understanding and adoption of e-business standards, including open standards. Open standards are standards that are developed under a published, consistent process, in a fair environment, through transparent and open operations and having a transparent output. They are publicly available in stable and persistent versions and are developed and approved under a published process that is open to public inputs.

7. The report hereafter summarizes briefly the presentations made during the seminar and the discussions held. The presentations slides are available through the links posted on the web page of the TSIED (<http://www.unece.org/ie/wp8/tsied.htm>).

The Role of Government in Fostering Internet Enterprise Development

8. The first substantive session of the Seminar was chaired by Mr. John Borrás, Director of the Technology Policy, e-Government Unit, Cabinet Office, London, United Kingdom. The second substantive session was chaired by Mr. István Erényi, Head, Department of EU Integration of the Ministry of Information and Telecommunication, Budapest, Hungary; and Vice-Chairman of the TSIED.

9. Ms. Signe Ratso, Deputy State Secretary of the Ministry of Economic Affairs and Communications of Estonia, made the keynote address on “Estonia on its way to the information society”. She explained that at the time of independence in 1991, Estonia had an outdated infrastructure, no regulatory framework and no competition, while at the same time benefiting from proximity with developed Scandinavian neighbours and open-minded and innovative people. Today, by contrast, the country has a consistently liberal economic environment, simple taxation system including low rates, free movement of capital flows, conservative public and international borrowing policy and a well-developed ICT infrastructure. These factors result in a high level of competitiveness and sustained strong economic growth. The major export sector is the electronic and apparatus industry (contributing one-fourth of total exports) and the EU accounts for 80% of the foreign sales.

10. The role of government in Estonia’s ICT development has been to build a legal and fiscal framework, implement and promote Internet-based communications and applications, support the adoption of IT by education and local institutions and ensuring a competitive environment in the telecom market. The country’s first IT policy document was approved in 1998. At present its IT policy is implemented through annual action plans and follows closely the patterns of eEurope 2005. It has three main objectives: (a) to introduce IT services in all state agencies; (b) to keep ICT use in Estonia at least at the same level as the EU average; (c) to increase the export capacity of the country’s IT sector. Estonia has developed its e-government very strongly by putting in place user-friendly portals for citizens and businesses. The aims of the e-government programme are to increase the number of services offered online in an efficient and transparent way, while allowing individuals to influence the whole process. This programme strives to have citizens and businesses dealing with just one government interface, which in turn channels information and requests to different government agencies. An example of services is electronic tax statements, which have been greatly simplified. Estonia has adopted a smart ID card that serves as authentication tool for both public and private services. Access has been broadened by providing ICT equipment to educational institutions, local governments and by establishing public Internet access points (PIAPs) throughout the national territory. Since government has the role of leader, since 1999 it holds paperless online meetings.

11. E-business in Estonia is fostered by improving legislation (i.e. removing legal barriers) and developing IT support structures, promoting the use of authentication methods, elaborating e-business standards and organizing awareness-raising activities. Public-private partnerships (PPPs) have been established in order to train citizens in the use of ICTs, adopt common authentication tools and establish PIAPs.

12. Mr. Hugo Lueders, Director of Public Policy for EMEA of the Computing Technology Industry Association (CompTIA), Brussels, Belgium, made a presentation on “Enabling Internet enterprise development: Technological neutrality in IT public procurement”. He underlined that the fundamental elements of the policy framework enabling Internet enterprise development are: (a) general investment policies, comprising liberal trade regime, open market access for goods and investment, open and competitive procurement processes; (b) targeted software and services policies, including strong protection of intellectual property rights (IPRs), high quality human capital, e-skills, and universal availability of public research and development (R&D); (c) online infrastructures, encompassing basic online legal frameworks, telecom and Internet infrastructures, strong network and information security and e-consumer confidence. The government digital infrastructure is a key enabler of Internet enterprise development and therefore these general policy principles must apply to government procurement of software.

13. The Initiative for Software Choice was established in order to defend the application of these principles and to combat a number of software preference or discriminatory laws and regulations in the public procurement of software that have been adopted or proposed worldwide recently. All software licensing and development models (propriety, hybrid and open source) should remain viable, particularly in view of the fact that the arguments for each type of model are finely balanced. In order to attain its goals, the Initiative is based on four core principles: (a) procurement of software according to its merits and value; (b) promotion of the universal availability of government-funded research and avoidance of R&D default preference; (c) promotion of interoperability through platform-neutral and open standards; (d) maintaining strong IPRs to promote pro-competitive software development solutions. Preference legislation (e.g. for open source software) for public procurement will deter investors, have negative consequences on local resellers and developers. Instead, governments can best promote the local software industry by the following means: university or other ICT training options; enforcing the protection of IPRs; and promoting investment in commercial software, which reinforces the fast development of the country’s ICT infrastructure. In sum, neutrality and open competitive public procurement policies will serve the public and citizens best. These principles are reconfirmed by the EU Public Procurement Directive of 2004 and by the WSIS 2003 Declaration and Plan of Action.

14. Mr. Georgi Stoev, Executive Director of the Chamber of Commerce and Industry, Sofia, Bulgaria; and Vice-Chairman of the TSIED, spoke on “E government in Bulgaria”. Bulgaria has adopted an E-government Strategy for 2003-2005 that has as objectives: (a) electronic delivery of high-quality, economically effective and easily accessible services and public sector information to citizens; (b) expansion of the technological capabilities of citizens and businesses to participate in the governance process; (c) establishment of an organizational, communication and information environment for effective and transparent functioning of the public administration in accordance with the principles, rules and best practices of the European Union; (d) involving citizens and businesses in an interactive way; and (e) establishment of e-markets for public procurement. This is to be achieved in four successive stages defined as information, interaction, two-way interaction, and transaction. The country’s e-government programme has several dimensions, including government-to-citizen, government-to-business and government-to-government. In each there is a range of government services to be eventually offered and transactions to be carried out and in each the government has reached some achievements (e.g. in tax issues), but challenges remain.

15. The expected benefits of the implementation of the E-government Strategy are considerable including increased transparency, delivery of new and better services, greater convenience and revenue growth and/or cost reductions. The main difficulties encountered by the Bulgarian government in implementing its E-government Strategy are scarcity of adequately qualified human resources in the public administration, absence of an integrated information system for all the public administration and lack of coordination in regard to the terminology, registers and classifiers used.

16. Ms. Diana Stângu, Counsellor for European Integration at the Ministry of Communications and Information Technology, Romania, made a presentation on “The role of government policies and actions in fostering Internet enterprise development: the Romanian experience”. Her main points were that the Romanian government started actively promoting ICTs in 2001 and adopted a National Strategy for the Information Society as a national priority in 2002. It has already enacted legislation to adopt the *acquis* on electronic communications, comprising *inter alia* regulation of e-signature, e-public procurement, e-commerce, cyber-crime, access to communication networks and infrastructure. The main measures of the Strategy include, among other elements, extending the Public Procurement Acquisition System, ICT antifraud and promotion of intelligent cards, building the architecture for providing electronic public procurement services, stimulating the intensive use of ICT and infrastructure modernization and development;

17. The Romanian telecom market was completely liberalized in 2003, aiming at achieving lower prices through stronger competition, wherein telecom policy is guided by the principle of technological neutrality. This policy has resulted in the increase in the number of service suppliers, higher investment in telecom infrastructure and broadening the supply of services. The uptake of ICTs in recent years has grown strongly. The total number of PCs rose from 700,000 in 2001 to 2.1 million in 2003, though this is concentrated mainly in companies. Household adoption of PCs is still low and the government therefore offers a subsidy. The number of fixed telephony subscribers grew from 3.9 million to 4.3 million over the same period, while Internet usage by the population doubled. One of the means of spreading the use of ICTs has been a programme to equip universities and high schools with PCs connected to the Internet, accompanied by technical support, training and backing for the incorporation of the new technologies in curricula.

18. The Romanian government has established Info-Kiosks as a form of G2C, which gives electronic access to official social, cultural and economic information to the public and thereby acquaints citizens with the use of ICTs. Government is aggressively adopting electronic means of achieving: (a) better public administration; (b) higher internal efficiency and effectiveness; (c) greater proximity between the government and citizens; and (d) higher use of ICTs by citizens and businesses.

19. Mr. Attila Petheő, from the Small Business Development Center of the Corvinus University of Budapest, Hungary, presented “Digital activity of small and medium-sized enterprises in Hungary and the role of government policies and programmes”. Hungarian SMEs are e-ready, given the presence of three major factors: (a) adoption of e-infrastructure (computers, Internet connection, LAN) (b) e-skills of their employees, including through training; and (c) understanding of e-business. They are also engaged in e-activity, although in an

asymmetrical way. There is considerably more electronic information towards suppliers than towards consumers, i.e. online procurement is more widespread than online sales, as large companies tend to offer platforms for smaller companies to go online. There is also a strong correlation between firm size and the complexity of the adopted e-business solution. Among all SMEs only one-third have websites providing secure connections and just 12% offer the possibility of online payment. The sectors using the Internet most intensely are tourism and ICT. Those SMEs that have incorporated new technologies more intensively in their business processes have felt as benefits better customer relations and more flexible collaboration. Finally, the country's SMEs are going the right way towards achieving e-impact in terms of achieving the desired impacts on the firms itself and on the industry value-chain.

20. SMEs in Hungary are very sensitive to government action and programmes. The Hungarian government could therefore strengthen the e-development of SMEs by devising policies targeted towards this group of companies; promoting benchmarking, best practice and cooperation within Central Europe; facilitating projects in e-governance, e-business, e-health and e-education; and setting up a supportive environment to promote entrepreneurship. Future action in the field of SMEs requires the use of well-defined performance measures and indicators in order to evaluate their effectiveness.

21. The first substantive session of the Seminar concluded with a Panel on "Identifying and implementing the best policies for Internet enterprise development promotion". The major questions discussed by participants are summarized hereafter. The central motivation for the uptake of new ICTs by economic agents (governments, businesses, citizens and consumers) is the economic value of the expected benefits from the related changes in processes and procedures. These should lead to increased efficiency, cost reductions, time saving and increase in the number of potential users (whether consumers or citizens). These benefits should be shown to society, so as to engage citizens at large in the adoption of new technologies. However, it is difficult to estimate this economic value in advance and it may be a long time before it can be measured precisely. Yet the fact that an increasing number of agents are consistently adopting the new technologies (e.g. going online) is an indication of the economic benefits that accrue. The benefits of timeliness, efficiency and time saving are essential motivations for consumers and citizens to start and continue operating online. The possibility of adopting online cooperation between governments and businesses is another motivation for the adoption of ICTs by these agents. An example is e-banking and e-government, which can reinforce each other. Other crucial factors of successful e-government initiatives are the legal framework, authentication procedures, sustainability of e-government programmes, neutrality of standards, access by all citizens and ICT skills of users.

22. When evaluating the costs and benefits of ICT uptake, it important to adopt a service-based perspective. This means that the focus must be on what governments and businesses expect to achieve through changes in business processes and procedures. ICTs are just a tool in this wider picture and it is important to introduce the organizational change that must accompany their adoption, e.g. upgrading the skills of persons that are involved in these processes and who will use the new technical means. If the focus of organizational change is excessively biased towards technology, rather than being focused on processes, organization and services, the expected efficiency gains are unlikely to materialize.

23. Governments and businesses should not force citizens and consumers to use an electronic form of service delivery. They should rather encourage users, while giving them the choice. The main reason for this is that many citizens and consumers are conservative and want to be able to have face-to-face (F2F) contacts. In this connection, post offices are becoming physical portals for financial transactions, given their widespread presence throughout national territories, in contrast with many banks that are closing offices in favour of online transactions. Another form of ensuring the continued existence of F2F contacts between citizens and government is through information kiosks spread throughout the national territory. They allow citizens who are averse to new technologies to interact with people and obtain the services and information they need.

24. The supply of ICT infrastructure and services by market agents in most countries is largely concentrated on large cities and/or densely populated areas. This leaves rural areas, villages, smaller cities and peripheral regions under-served or not supplied at all. Government action is needed in order to avoid this situation and to ensure access to ICTs by all the population. This can be done by direct intervention, PPPs and other instruments. It is unlikely that market agents alone will cover all national territories in the foreseeable future.

The Growth of Subcontracting in the Information and Communication Technology Industry and its Potential for Internet Enterprise Development

25. Mr. Georg Erber, Department of Information Society and Competition of the German Institute for Economic Research (DIW), Berlin, Germany, presented a paper entitled "Offshore outsourcing: a global shift in the present IT industry". He explained that offshore outsourcing is the combination of two processes: (a) offshoring, defined as the relocation of business processes (including production, distribution, and business services, as well as core activities like research and development) to lower-cost locations outside national borders; and (b) outsourcing, meaning that a firm buys a particular task or service on the market instead of performing internally, because the external cost is lower than the internal cost. Offshore outsourcing of IT (OOIT) services has become a key driver for large companies (or government institutions) to effectively utilize cost advantages of suppliers around the world to become more efficient. Globalization is a key incentive for global companies and governments to improve the efficiency of their value chains. Outsourcing is a means of achieving this by focusing on key competencies where their company has a comparative advantage compared to other suppliers. Thereby, companies tend to reduce their exposure to inefficiencies in areas where they do not have such an advantage.

26. In non-essential business areas, in particular, OOIT can lead to mutual gains for outsourcing companies and their subcontractors who do this outsourced activity as their core business. It offers SMEs that link globally via Internet the possibility of participating in the globalization process effectively via subcontracting with global players and of having access to a global customer base. Internet-based trade in services brings into effect the calculation of comparative advantage of IT services production to an ever-increasing number of locations. Typical offshore activities are: (a) technology-based services like software programming; (b) business services like accounting and all kinds of paper work done now electronically (billing, after sales maintenance services, etc.); (c) communication with local customers via call centres; (d) financial and insurance services, in particular back office activities that are ICT-based. OOIT leads to a dramatic disintegration of traditional value chains.

27. The key drivers of OOIT are, among others, expected cost savings, higher flexibility for firms to adjust their capacities according to a volatile demand, shorter development time and lower maintenance costs. However, the process also faces numerous risks such as location-specific risks, country risks, vendor risks, and security risks and possibly weak IPR protection in the insourcing country. One should also mention the hidden costs of OOIT. Hidden costs are those associated with vendor selection, transition of the work, layoffs and retention at the firm itself, lost productivity, contract management. These hidden costs may negate between 15% and 57% of the expected cost saving achieved through OOIT.

28. The OOIT market is small compared with the size of the economy of the United States or Western Europe. Yet it is gaining momentum, giving rise to fears of large job losses in outsourcing countries. A recent study estimated that some 3.5 million IT jobs could move offshore from the United States in the coming 10 years while Western Europe could lose a million IT jobs over the same period. Nevertheless, from the macroeconomic perspective the IT job losses over the next decade in the United States and European Union countries appear less dramatic. Since the labour force of these economies is large and the job turnover rate is significantly larger than the expected annual job losses due to OOIT, it is forecast that the overall labour market impacts of OOIT will not be strong enough to dramatically changing the labour market situation in these countries. ICT is a high-growth industry and is therefore expected to continue creating jobs (even in offshoring countries) at a strong pace. Overall, it can be expected that OOIT will be global welfare enhancing. Low-wage countries that have sufficient human resources in the domestic labour pool for IT service production benefit through job creation and rising incomes. High-wage countries benefit through trade in IT services, which they buy cheaper abroad than they could produce at home. Still, well-paid IT workers replaced in high-wage countries bear the costs, as they are mostly not capable of finding another job with equivalent pay.

29. Mr. Andrew Parker, Vice President and Research Director of Forrester Research, Amsterdam, Netherlands, gave a lecture on "Trends in global offshore outsourcing: Growing adoption offers opportunity for some". His main points were that west European companies are spreading their offshore activities to relatively nearby vendors in low-cost Western Europe, Eastern Europe, North Africa, but also to more far away locations such as South and East Asia, South Africa and South America. Still, survey data indicate that just 15% of major companies actively use this business practice, which is approximately half of the level of large United States businesses. The main driver of their offshore uptake is low cost. Companies from diverse European countries differ in their attitude towards offshore outsourcing. While United Kingdom businesses have a more positive attitude towards offshore outsourcing (due to their more extensive experience with this business practice), continental companies tend to be more concerned by factors such as geopolitical risk, European trade union reactions, cultural/ language differences and communication problems. Offshoring firms prefer to have direct relationships with their vendors, rather than indirect relationships. West European offshore demand is directed mainly towards software, namely custom applications development and maintenance and packages application implementation. United Kingdom companies dominate offshore outsourcing in Western Europe, where they account for over two-thirds of total spending. This pattern is expected to continue until 2009. The most important offshore location for European outsourcing activities by far is India, as is true for the world offshoring market. The outlook for offshoring is that spending is projected to increase four-fold or five-fold until 2009. The United

States and United Kingdom will continue dominating offshore services buying for years to come – but Japan and the Republic of Korea will also raise offshore demand.

30. For central and east European service providers the most natural markets are Germany, Austria, Switzerland and the Nordic countries – in terms of geography, culture and established business links. In the Russian inshoring industry most firms specialize in types of outsourcing companies they work with, in technologies they focus on, in types of projects they handle and some of them also in the markets (offshoring countries) they target. They are mostly small or medium-sized enterprises. The country's experience is relevant for other suppliers in Eastern Europe and the CIS that aim to enter the international outsourcing market. Prospective suppliers of offshore services have to consider a number of factors when building their market strategy such as target group, target industry, meeting clients' expectations, addressing concerns, government action, promotion and education. The public sector should support the domestic inshoring industry through the required legislation and messages as well as facilitate foreign direct investment in the inshoring industry.

31. Mr. Jörg Bartelt, Global Business Development Manager of SAP Consulting, Walldorf, Germany, delivered a presentation on "Integrated offshore consulting services help companies to focus on their core business". The main issues he mentioned are that there is a strong trend towards offshoring in software services and in Europe it is spreading from North-West to the South-East. While in the 1990s the dominant wave was that of information systems outsourcing, in the 2000s the dominant wave is with applications management and business process outsourcing. In this process, there is at present an evolution from IT outsourcing to offshore services, leading eventually to global delivery. The driver behind this trend is the development of companies from efficient firms focusing on price and productivity towards innovative firms that focus on uniqueness, innovation and learning. In order to achieve this change, they need to reduce their overall costs and reduce the share therein of operations / administration and increase that of innovation. In order to achieve this, companies restructure themselves internally and adopt sourcing strategies, which include outsourcing (BPO, out-tasking, co-sourcing) and offshoring (onshore, onsite, nearshore).

32. Mr. Vincent Tilman, Advisor on ICT policies of the Association of European Chambers of Commerce and Industry (Eurochambres), Brussels, Belgium, made a presentation entitled "The experience of SMEs with subcontracting in the ICT industry" in which he stated that the strong spread of e-business poses challenges and offers opportunities to SMEs. Among the former are the adoption of electronic data interchange (EDI) and the adaptation to the requirements of larger companies so as to integrate the production chains. As the latter evolve in the direction of networks of interdependent competence-based companies, the challenge for SMEs is to find and to recombine skills in virtual "value networks" or "networks of competence" among them in a sufficiently dynamic manner to meet the needs of the new economy. SMEs must be able to take part in active networks, and to combine skills with other SMEs in order to cooperate in flexible, value-oriented alliances. This also requires subcontractors to strengthen their position in the supply chain by upgrading their skills in areas such as ICTs, logistics and value engineering. While SMEs have the advantage of greater flexibility, entering the supply chain can pose them a challenge to develop the minimum basis of skills and know-how required to absorb new and innovative technologies and management practices. Here lies a vast potential for the development of specialized services by SMEs, such as management consultancy, ICT services,

engineering and quality control, advertising and marketing, legal and accounting services but also research and development services and know-how in production processes. Long-cemented and dependable subcontracting relationships will create the mutual trust and confidence, and interpersonal networks, needed for assistance and survival. Non-price attributes of competitiveness such as design and quality, reliability, health and safety, and aftersales service have become very important at a deeper or more complex stage of subcontracting, even if the subcontracting relationship itself was initially founded on cost advantage.

33. In order to support SMEs' development and facilitate their integration into global production chains, governments should take a series of measures, the most important of which are: to create a digitally literate population that benefits from the support of an entrepreneurial culture, ready to develop new ideas; to foster an efficient communications network; to create the right framework conditions for innovative small businesses; to improve the entrepreneurship environment with a transparent and predictable legal framework; and to develop networking facilities (alliances or partnerships with other companies) in order to pool resources and skills of SMEs, given that large companies prefer to deal with single entities capable of providing a range of services.

34. Output in the world software industry is growing at a stronger pace than in other industries and it is becoming increasingly segmented, giving access to new actors, including those in developing countries that have appropriate potential in terms of well qualified ICT experts. A possible hindrance to the further intensification of this process could be the low share of services in emerging market economies. This could prevent the development of clusters, which are useful because services bind together a substantial part of accompanying activities such as consulting, maintenance, multimedia production and content creation, which comprise the actual application of existing hardware and software solutions. International outsourcing in emerging market countries has a dual effect on the latter. On the one hand, it facilitates the uptake of novel technology and provides companies with sustainable income through subcontracting; on the other, it reinforces the lock-in effect as the emerging ICT industry is captured in low value-added activities with little promotion of incentives for innovation.

35. The Seminar concluded with a Panel on "Maximizing the benefits of outsourcing and subcontracting". The main points discussed were as follows. In the context of globalization, the reorganization of the value chain through the adoption of new business practices (e.g. offshore outsourcing) is expected to yield more efficiency throughout the economy. This requires flexible and adaptive provision of services. While the effort to produce at the lowest possible cost at the best possible location is inherent to firms' entrepreneurship, what is new is the possibility of spreading this process globally. This geographic expansion is allowed by modern information and communication technologies and falling transport costs.

36. The jobs and functions most likely to be relocated away from high-wage countries are IT jobs, data entry clerks, application management, transaction claims of the financial sector, accounting, human resource processing, standardized tasks. However, the limits of the process are not clear. Some languages may seem to face a barrier to international outsourcing, but they may not be insurmountable. Thus, call centres operating in languages like Italian or German can draw on existing language pools located in Eastern Europe and the CIS. Moreover, even highly

paid professional jobs are being relocated offshore from developed market economy countries (e.g. consultants, markets analysts, architects).

37. The trend towards offshore and nearshore outsourcing of ICT services is strong and rising. Industrialized countries trying to take policy measures to stop it are therefore likely to fail. As they lose these jobs to lower-wages locations, high-wage countries are likely to specialize in the higher end of the services industry (e.g. premium services), in an analogous process to what took place in manufacturing. General use technology is no longer tied to specific locations; thus, higher-income countries cannot rely on them for comparative advantage. They must therefore invest heavily in education, technology and innovation in a variety of sectors. Having wide-ranging innovative activities will enable them to reap the benefits of the next technological waves, which are likely to take place in yet unknown sectors and industries.

Conclusions and Recommendations

38. The following conclusions and recommendations emerged from the Seminar.

Conclusions

(a) Governments have an important role to play in Internet enterprise development (IED) in all countries. Their major functions in this field include establishing the general framework conditions for enterprise development by setting framework conditions, putting in place the overall regulatory framework, ensuring a competitive environment, guaranteeing the rule of law, etc. In the case of Internet enterprise development, their role also include establishing e-government, ensuring the presence of a well-functioning ICT infrastructure in the country (possibly a technologically updated one), maintaining competition in the provision of ICT goods and services, acting with technological neutrality in its procurement and implementing well-targeted national e-strategies. However, the precise content and form of their actions vary considerably among countries.

(b) In the lower-income countries of Eastern Europe and the CIS the state plays an even more important role in IED than in developed market economy countries. The implementation of e-government programmes and strategies provides a major incentive for the uptake of ICT by citizens and businesses and therefore gives a strong impulse to the spread of the use of these technologies throughout the population and companies. In order for government incentives to Internet adoption to be successful, it is necessary to ensure access to all or most of the population and businesses to the services that are being offered online. This may require (particularly in the case of citizens) that government intervenes in order to ensure the presence of Internet access points in places where market agents do not provide them, e.g. in smaller cities, rural areas and in peripheral or disadvantaged areas and communities.

(c) Over the medium term, the early adoption of ICT in the educational system is a powerful tool to foster the adoption of ICT by the population, at the same time providing children and students with training in their use (i.e. computer and Internet literacy).

(d) The main expected benefits that governments have in mind when embarking on e-government programmes are:

- reduction in the cost of producing / offering services to the population and to businesses; this is partly due to the reduction of transaction costs;
- time savings for the population and for businesses in the process of requesting, processing and receiving (delivery of) government services;
- increased transparency in government actions and procedures; enhanced transparency, in turn, narrows the scope for corruption;
- time savings for government itself, the population and businesses;
- increase in the efficiency of the production and delivery of services.

(e) International outsourcing of ICT services is the major force reshaping the world ICT industry in the post-bubble era. It is changing the geography of the world ICT industry, similar to what happened with manufacturing decades ago. This process dates back only few years, but it is growing very quickly and surveys indicate that it will accelerate in the near future. The trend towards outsourcing started in North America and it is spreading in Western Europe and East Asia.

(f) This raises fears in industrialized countries that they will experience the loss of a large number of highly skilled jobs without qualified job creation elsewhere to compensate. Estimates of job losses in the United States and Western Europe due to international outsourcing of ICT services vary considerably, as they range from 1 million to 3 million jobs between 2004 and 2010 in each of these economies. However, they seem to be small if compared to respective total employment. Moreover, these losses should be measured against the welfare gains originating from increase efficiency of outsourcing companies, as well as job creation in other sectors.

(g) Outsourcing companies are diversifying the geographical location of their suppliers (vendors), as a way of reducing the risks inherent to international outsourcing. One of the results is the growth of nearshoring, as opposed to offshoring. The international outsourcing market has so far been led by India, which is by far the largest vendor of these services. However, the diversification on the part of outsourcing companies is gradually allowing new countries and companies to enter the market. A major example in the UNECE region is the Russian Federation, whose foreign sales of insourced ICT services are growing very quickly, though from a very small base. The Russian Federation still has scope for significantly expanding its inshore ICT services industry.

(h) Other countries of Eastern Europe and the CIS also have the potential to enter the market of international outsourcing of ICT services. Their potential to do so is determined first of all by the dimension and qualification of these countries' domestic labour pool. Moreover, in order to succeed in this endeavour, the companies and the governments of that region must take into account several considerations and act accordingly. These include: the need for a well-targeted strategy based on the identification of niche markets and competitive advantages, building international reputation, and creating business in an incremental way.

(i) Participants agreed that the Seminar themes were well chosen and the event well structured, with representatives of all relevant parties involved in international outsourcing in ICT participating and having the opportunity to state and discuss their views. In particular the wealth of information, analyses and data provided by corporations and international corporate leaders in the ICT industry provided great value added to the event. Participants appreciated the

effort of the UNECE secretariat to include government and business representatives from Eastern Europe and the CIS in various stages of economic and ICT development, which resulted in sometimes contrasting pictures.

(j) Given the quality of the Seminar and the richness of information and analyses made available, participants asked the UNECE secretariat to make the proceedings, presentations and summary of discussions available to the public via Internet or through a publication.

Recommendations

(k) Seminar participants asked the UNECE to pursue its activities in the field of Internet enterprise development and in particular its work on international outsourcing (including nearshoring and offshoring) in the UNECE region. This activity should be structured with a view to contributing to more favourable outcomes and to orderly conditions for the implementation of these processes in an efficient way. Such contributions could create considerably higher benefits for both international ICT companies and potential insourcing country candidates such as those of Eastern Europe and the CIS.

(l) Given the current preoccupations of the public in developed market economy countries with the impact of international offshoring on domestic job creation and availability, the UNECE is invited to explore ways of contributing to the collection and dissemination of reliable data, information and analyses on these issues, in cooperation with international ICT and consultancy companies, governments and research centres.

(m) Seminar participants requested the UNECE to organize in the near future other more focused seminars on outsourcing, nearshoring and offshoring in the UNECE region. It would be most appropriate to organize such an event in a country of Eastern Europe of the CIS with considerable inshoring experience relevant to other lower-income UNECE countries. Participants asked the UNECE secretariat to explore the possibility of holding such an event in the Russian Federation, for example, given the strong uptake of inshoring in that country.

(n) The UNECE secretariat was also requested to investigate the possibility of initiating and implementing concrete “model” or “test” ICT projects in collaboration with governments and international ICT companies. One of these projects might be to implement pilot national cases of the e-Business Repository Project, ideally to be conducted in three South-East European countries with the support of different ICT companies for each country concerned.
